

S4 - Operation

S 274
S 294
S 324
S 354
S 374



Foreword

We would like to welcome you to the ever-growing number of people who own a Valtra tractor; people who appreciate quality. We are proud of every tractor that leaves our factories, each being technically advanced and of a high quality.

This Operator's Manual contains the specifications for your new tractor. Please ensure that all operators read the instructions and follow them carefully. The pages that follow contain vital information on your tractor; please read them carefully.

Your Valtra dealer will guarantee you quality servicing and will provide you with all the assistance you need. When it comes to servicing, remember that your dealer knows your tractor best and that he wants you to be completely satisfied.

Please leave this Operator's Manual in the tractor if resold. The subsequent owner will need the information it contains.

All information and specifications in this manual are up to date at the time of publication. However, our on-going policy to improve our products obliges us to reserve the right to make alterations at any time without notice.

Please note that this manual relates to all models and refers to both standard and optional equipment. You may therefore find details relating to equipment that is not fitted on your tractor.

This Operator's Manual complies with Directive 2010/52 EC.

Valtra

S4 - Operation

1	Tractor identification	11
1.1	Locating serial numbers	13
1.1.1	Locating serial numbers	13
1.2	Your tractor identification details	14
1.2.1	Your tractor identification details	14
2	Safety instructions and safety points - Warranty	15
2.1	Introduction	17
2.1.1	Introduction - Safety instructions	17
2.2	Safety – Symbols and terms	18
2.2.1	Safety – Symbols and terms	18
2.3	Safety decals and instructions	19
2.3.1	Checking and replacing the safety decals and instructions	19
2.3.2	Presentation and location of the safety decals and instructions	20
2.4	General safety instructions	24
2.4.1	Awareness of the safety instructions and symbols	24
2.4.2	Operator familiarity in the use of the tractor	24
2.4.3	Filling the fuel tank	25
2.4.4	Mounting and dismounting the operator's seat	25
2.4.5	Mandatory procedure before dismounting the tractor	26
2.5	Special instructions	27
2.5.1	Specific recommendations for agricultural and forestry tractors	27
2.6	Special safety instructions for preparing the tractor for use	28
2.6.1	Protective clothing	28
2.6.2	Activated carbon filter information	28
2.6.3	Safety devices and items	30
2.6.4	Checking the tractor	31
2.7	Specific safety instructions for starting the tractor	33
2.7.1	Protection of persons other than the operator	33
2.7.2	Start up safely	33
2.7.3	Checks to be carried out after start-up	34
2.8	Specific safety instructions for using the tractor	35
2.8.1	General instructions	35
2.8.2	Protection of persons other than the operator	36
2.8.3	Overturning	36
2.8.4	Tractor towing	39
2.8.5	Regulatory data on maximum permitted trailed weights	39
2.8.6	Road use	40
2.8.7	Power take-off	42
2.8.8	Implements	43
2.8.9	Front-end loader	45
2.9	Specific safety instructions for servicing the tractor	46
2.9.1	Pollution warning to observe when servicing the tractor	46
2.9.2	General instructions	46
2.9.3	Handling instructions	47
2.9.4	Special instructions for cleaning the tractor	48
2.10	Protective structures	50
2.10.1	Protective structures: use and accreditation	50
2.10.2	ROPS (Roll Over Protective Structure)	50
2.10.3	Cab	50
2.10.4	Seat belt	51
2.10.5	Instructor seat	51

2.11	Warranty	52
2.11.1	General	52
2.11.2	Pre-delivery inspection and commissioning on the user's premises	52
2.11.3	Warranty procedure	52
2.11.4	Procedure to follow if changing region	52
2.11.5	Servicing during and after the warranty period	53
3	Operation	55
3.1	Cab	59
3.1.1	Steering console	59
3.1.2	Instrument panel	60
3.1.3	Control unit	66
3.1.4	Pedals	67
3.1.5	Steering wheel	67
3.1.6	Operator presence detector	68
3.1.7	Maximo Evolution pneumatic seat	70
3.1.8	Instructor seat	78
3.1.9	Right-hand console	79
3.1.10	Right-hand pillar	80
3.1.11	Left-hand console	81
3.1.12	Upper console	81
3.1.13	Manual air conditioning	83
3.1.14	Automatic air conditioning	88
3.1.15	Additional heater	94
3.1.16	Accessories sockets	95
3.1.17	Emergency exits	96
3.1.18	Sun visor	97
3.2	Reverse station (optional)	98
3.2.1	Positioning the reverse station	98
3.2.2	Reverse station adjustments	99
3.2.3	Valtra Shuttle controller	99
3.2.4	Reverse station driving	100
3.2.5	Leaving the reverse station	101
3.3	Setup and Information Screen control screens on the instrument panel	102
3.3.1	Using the Setup and Information Screen	102
3.3.2	Setup and Information screens	103
3.4	Tractor terminal	105
3.4.1	Using the terminal	105
3.4.2	Accessing the menus	106
3.4.3	Accessing the large driving view	107
3.4.4	Accessing the hydraulic system settings view	111
3.4.5	Accessing the transmission settings view	112
3.4.6	Accessing the display settings view	117
3.4.7	Accessing the split driving view	119
3.4.8	Split driving view	119
3.4.9	Modifying the lower field displays	120
3.4.10	Lower field displays: Overview	120
3.4.11	Lower field displays: PTO speed	122
3.4.12	Lower field displays: Engine speed	123
3.4.13	Lower field displays: Rear hydraulic spool valve settings	123
3.4.14	Lower field displays: Hydraulic spool valve settings	124
3.4.15	Lower field displays: Gearbox temperature	124
3.4.16	Lower field displays: Hydrostatic temperature	125
3.4.17	Lower field displays: Working hydraulic oil temperature	125
3.4.18	Lower field displays: linkage	126
3.4.19	Lower field displays: Wheel slip	126
3.4.20	Lower field displays: Hours worked	127
3.4.21	Lower field displays: Distance covered	127
3.4.22	Lower field displays: Surface area	128
3.4.23	Lower field displays: Fuel consumption	128
3.4.24	Lower field displays: Speed regulator	130
3.4.25	Accessing the counter parameter settings view	131

3.5	Automatic U-Pilot	134
3.5.1	Presentation	134
3.5.2	Operating conditions	134
3.5.3	U-Pilot controls	135
3.5.4	U-Pilot display	135
3.5.5	U-Pilot display symbols	136
3.5.6	Selecting a U-pilot program	137
3.5.7	Recording a U-pilot program	138
3.5.8	U-Pilot programming examples	139
3.5.9	Previewing the U-Pilot program	140
3.5.10	Running a program	140
3.5.11	Managing U-Pilot programs	141
3.5.11.1	Adding a new program	141
3.5.11.2	Changing the name of a program	141
3.5.11.3	Deleting a program	142
3.5.11.4	Recovering a program	142
3.5.12	Modifying U-Pilot programs	142
3.5.12.1	Changing the program modification view	142
3.5.12.2	Changing a program function	143
3.5.12.3	Deleting a program function	143
3.5.12.4	Distance modification program	144
3.5.12.5	Adding a new program function	144
3.5.12.6	Moving a program function	145
3.5.13	Error codes	145
3.6	Body	147
3.6.1	Opening the bonnet	147
3.6.2	Adjusting the external rear-view mirrors	147
3.6.3	Adjusting the left-hand step	149
3.7	Engine	151
3.7.1	Running-in	151
3.7.2	Filling with fuel	151
3.7.3	Start switch	153
3.7.4	Start-up	153
3.7.5	Start-up sheet	154
3.7.6	Starting the T4F SCR Technology engine in cold weather	155
3.7.7	Information about the various operating modes of the T4F SCR Technology engine	156
3.7.8	Stopping the engine	160
3.7.9	Engine speed	161
3.7.10	Storing engine speeds	162
3.8	Transmission	163
3.8.1	Clutch function	163
3.8.2	Power Shuttle	164
3.8.3	Storage of forward speeds	166
3.8.4	Manual mode	167
3.8.5	Automatic mode	168
3.8.6	road mode (hare)/field mode (tortoise)	168
3.8.7	Changing forward speed	169
3.8.8	Tractor towing	170
3.8.9	Tractor limp home mode	172
3.8.10	Forward speed calibration	175
3.9	Brakes	177
3.9.1	Brake pedals	177
3.9.2	Hydraulic trailer brake	177
3.9.3	Pneumatic trailer brake	178
3.9.4	Electromechanically controlled brake on the steering column	180
3.9.5	Emergency hand brake (on models fitted with the ParkLock option)	182
3.10	Steering	183
3.10.1	Steering	183
3.11	Front axle	186
3.11.1	Four-wheel drive front axle	186
3.11.2	Suspended front axle	187

3.11.3	Permissible load on the front axle	188
3.11.4	Using a scraper	192
3.12	Differential lock	193
3.12.1	Differential lock	193
3.13	Power take-off	194
3.13.1	Front power take-off	194
3.13.2	Rear power take-off (PTO)	195
3.13.3	Economy PTO	197
3.13.4	Changing the flanged shaft	197
3.13.5	PTO external control	199
3.13.6	Power take-off electronic controls	199
3.13.7	Power take-off protection	199
3.14	Linkage	201
3.14.1	General	201
3.14.2	Rear linkage electronic controls	201
3.14.3	Rear linkage operation	203
3.14.4	Rear linkage external controls	207
3.14.5	Front linkage	208
3.14.6	Top link	212
3.14.7	Bottom links	215
3.14.8	Lift rods	216
3.14.9	Stabilisers	217
3.14.10	Ball joint support	220
3.15	Towing equipment	221
3.15.1	General	221
3.15.2	Multi-hole drawbar	223
3.15.3	Swinging drawbar	223
3.15.4	Ball coupling	225
3.15.5	Drawbar with stud	227
3.15.6	4-wheel trailer clevis hitch	228
3.15.7	Pick-up hitch	229
3.16	Auxiliary hydraulics	233
3.16.1	General	233
3.16.2	Description of the hydraulic couplers (Load Sensing)	233
3.16.3	Use of hydraulic couplers on Closed Centre system (Load Sensing)	235
3.16.4	Auxiliary hydraulics locking/unlocking	240
3.16.5	Description and use of the cab controls	241
3.16.6	Description and use of the external controls	243
3.16.7	Setting flow rates and time delay	244
3.17	Front-end loader function	247
3.17.1	Front-end loader	247
3.17.2	Layout of components	247
3.17.3	Using the electric joystick of the front-end loader	248
3.18	Lighting	251
3.18.1	Main lighting control module	251
3.18.2	Work lights module	252
3.18.3	Direction indicators	253
3.19	Suspended cab	256
3.19.1	Suspended cab	256
3.20	Front tyres and track widths	257
3.20.1	Wheel studs	257
3.20.2	Installation points of the axle stands	257
3.20.3	Adjusting the front wheel track width	257
3.20.4	Adjusting the 4WD front axle stops	260
3.20.5	Tyres	262
3.20.6	Tyre pressures	262
3.21	Rear tyres and track widths	263
3.21.1	Wheel studs	263
3.21.2	Wheel chock(s) (optional)	263
3.21.3	Installation points of the axle stands	264
3.21.4	Rear track width with short straight shafts	265
3.21.5	Rear track width with long straight shafts	268

3.21.6	Assembly configuration for an external width of 2550 mm	270
3.21.7	Adjusting the rear wheel track width	272
3.22	Dual wheels	274
3.22.1	Dual wheels.	274
3.22.2	Installation points of the axle stands	275
3.22.3	Dual rear wheel track width with short straight shafts	276
3.22.4	Dual rear wheel track width with long straight shafts.	281
3.23	Ballast	289
3.23.1	Liquid ballasting	289
3.23.2	Front-end weight	289

1. Tractor identification

1.1	Locating serial numbers	13
1.1.1	Locating serial numbers	13
1.2	Your tractor identification details	14
1.2.1	Your tractor identification details	14

1.1 Locating serial numbers

1.1.1 Locating serial numbers

T021357

IMPORTANT: Please quote the serial number of your tractor in all correspondence with your dealer or agent.

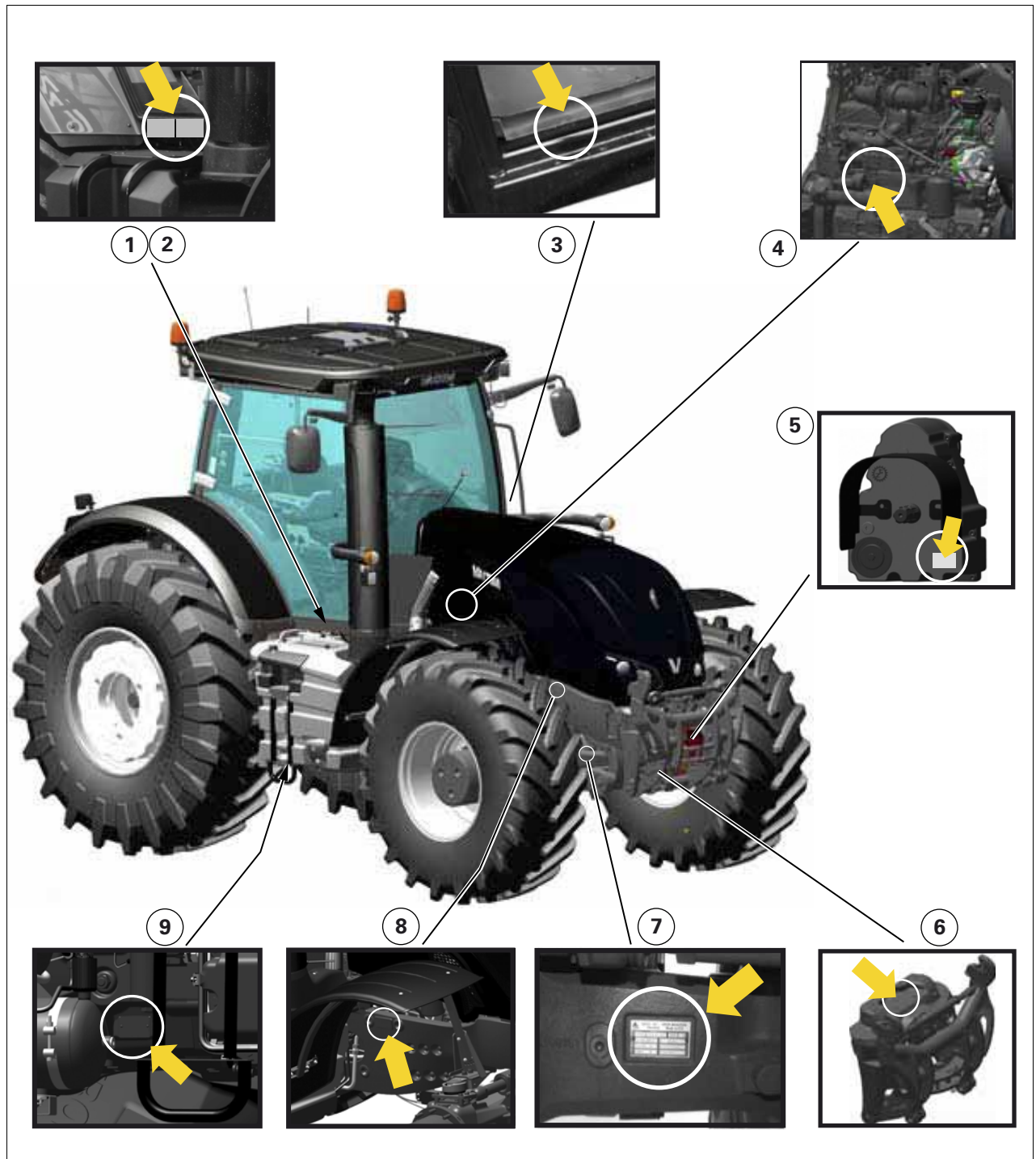


Fig. 1.

I048713

- | | | | |
|---|---|---|--------------------------------|
| 1 | Name plate with serial number | 6 | Front linkage serial number |
| 2 | Homologation plate (according to country) | 7 | Front axle serial number |
| 3 | Cab serial number | 8 | Chassis number |
| 4 | Engine serial number AGCO Power | 9 | AVT transmission serial number |
| 5 | Front PTO serial number | | |

1

1.2 Your tractor identification details

1.2.1 Your tractor identification details

T000866

Model: _____

Serial number: _____

Engine serial number: _____

Owner's name: _____

Street: _____

Postcode: _____

Town: _____

County: _____

Country: _____

Dealer code: _____

Tractor received from (tick one of the following):

- Factory Other dealer (transfer)

Notes: _____

2. Safety instructions and safety points - Warranty

2

2.1	Introduction	17
2.1.1	Introduction - Safety instructions	17
2.2	Safety – Symbols and terms	18
2.2.1	Safety – Symbols and terms	18
2.3	Safety decals and instructions	19
2.3.1	Checking and replacing the safety decals and instructions	19
2.3.2	Presentation and location of the safety decals and instructions	20
2.4	General safety instructions	24
2.4.1	Awareness of the safety instructions and symbols	24
2.4.2	Operator familiarity in the use of the tractor	24
2.4.3	Filling the fuel tank	25
2.4.4	Mounting and dismounting the operator's seat	25
2.4.5	Mandatory procedure before dismounting the tractor	26
2.5	Special instructions	27
2.5.1	Specific recommendations for agricultural and forestry tractors	27
2.6	Special safety instructions for preparing the tractor for use	28
2.6.1	Protective clothing	28
2.6.2	Activated carbon filter information	28
2.6.3	Safety devices and items	30
2.6.4	Checking the tractor	31
2.7	Specific safety instructions for starting the tractor	33
2.7.1	Protection of persons other than the operator	33
2.7.2	Start up safely	33
2.7.3	Checks to be carried out after start-up	34
2.8	Specific safety instructions for using the tractor	35
2.8.1	General instructions	35
2.8.2	Protection of persons other than the operator	36
2.8.3	Overturning	36
2.8.4	Tractor towing	39
2.8.5	Regulatory data on maximum permitted trailed weights	39
2.8.6	Road use	40
2.8.7	Power take-off	42
2.8.8	Implements	43
2.8.9	Front-end loader	45
2.9	Specific safety instructions for servicing the tractor	46
2.9.1	Pollution warning to observe when servicing the tractor	46
2.9.2	General instructions	46
2.9.3	Handling instructions	47
2.9.4	Special instructions for cleaning the tractor	48
2.10	Protective structures	50
2.10.1	Protective structures: use and accreditation	50
2.10.2	ROPS (Roll Over Protective Structure)	50
2.10.3	Cab	50
2.10.4	Seat belt	51
2.10.5	Instructor seat	51
2.11	Warranty	52
2.11.1	General	52
2.11.2	Pre-delivery inspection and commissioning on the user's premises	52
2.11.3	Warranty procedure	52
2.11.4	Procedure to follow if changing region	52
2.11.5	Servicing during and after the warranty period	53

2.1 Introduction

2.1.1 Introduction - Safety instructions

T000867

2

Operator's Manual

NOTE: This Operator's Manual is widely published and distributed and the availability of the attachments indicated, whether fitted to the basic tractor or as an accessory, may vary depending on the country or region in which the tractor is used. To find out which attachments are available in a given region, contact a Valtra dealer.

The purpose of this manual is to enable the owner and the operator to operate the tractor appropriately under normal conditions of use. Providing they follow the instructions carefully, the tractor will give many years of service in the Valtra tradition.

Use for any other activity (particularly forestry work) is considered to be contrary to the intended use.

The commissioning of equipment by the Valtra dealer on the user's premises enables the dealer to ensure that these operating and service instructions are properly understood. Always consult the Valtra dealer if there is any part of this manual that you do not understand. It is important that these instructions are understood and followed.

This manual does not cover all operation and safety instructions relevant to the implements and accessories that may be fitted at the time of tractor delivery or later. It is essential that operators use and understand the Operator's Manuals relating to these implements and accessories.

IMPORTANT: This manual must always be kept with the tractor. For extra copies, contact your Valtra dealer.

This chapter in the Operator's Manual highlights certain basic safety-related situations that may be encountered during normal operation and servicing of the tractor and provides the information needed to handle these situations.

This chapter supplements any safety instructions given in other chapters of this manual.

It may be necessary to take additional precautions, depending on the implements and accessories used and the working conditions on-site or in the service area. Valtra can under no circumstances exercise direct control over the commissioning, operation, inspection, lubrication or servicing of the tractor. It is therefore YOUR responsibility to take suitable safety precautions in such areas.



WARNING:

It is your responsibility to read and understand the instructions that appear in this chapter before using the tractor. They must then be strictly adhered to throughout the working day.

Servicing, spare parts, accessories and conditions of use

Daily servicing should become a routine, and a logbook of operating hours should be kept.

When spare parts are required, it is important to use only genuine Valtra parts. Valtra dealers supply genuine parts and can offer advice concerning their fitting and use. The use of lower quality parts may cause serious damage. Customers are advised only to purchase their spare parts from an approved Valtra dealer. In the same way, you must only use accessories specifically adapted to your tractor.

Owing to the considerable variation in operating conditions, it is not possible for the manufacturer to formulate complete or absolute assertions in its publications concerning the performance or operating methods of its machines or to accept liability for any loss or damage which may result from such assertions or possible errors or omissions.

If the tractor is to be used in abnormal conditions which could cause damage (use in deep water or in paddy fields for instance), you should consult your Valtra dealer to obtain special instructions to prevent the warranty from becoming void.

These tractors are designed only for usual farming activities (intended use). Use for any other activity (particularly forestry work) is considered to be contrary to the intended use.

Strict compliance with the repairs, service and operating conditions as specified by Valtra is also an essential component of the intended use.

IMPORTANT: Valtra accepts no responsibility in the event of damage to equipment or personal injury resulting from improper use.

The tractor must only be used, serviced and repaired by personnel who have full knowledge of its specific features and who are aware of the applicable safety measures (prevention of accidents).

Customers are strongly advised to contact a Valtra dealer in the event of after-sales problems and for any adjustments which may be necessary.

2.2 Safety – Symbols and terms

2.2.1 Safety – Symbols and terms

T000869

Signal



This safety alert symbol means CAUTION! BE ALERT! YOUR SAFETY DEPENDS ON IT!

The safety alert symbol identifies important safety notices on machines, safety signs, in instruction books or elsewhere. When you see this symbol, be alert to the risk of injury or death. Follow the instructions in the safety notice.

SAFETY is paramount! Why?

- ACCIDENTS DISABLE AND KILL
- ACCIDENTS ARE COSTLY
- ACCIDENTS CAN BE AVOIDED

Terms

The terms DANGER, WARNING and CAUTION are used with the safety alert symbol. It is essential to learn how to recognise these safety messages and to follow the recommended safety measures and instructions.



DANGER:

indicates an imminently hazardous situation which, if not avoided, will result in DEATH or VERY SERIOUS INJURY.



WARNING:

indicates a potentially hazardous situation which, if not avoided, could result in DEATH or SERIOUS INJURY.



CAUTION:

indicates a potentially hazardous situation which, if not avoided, may result in MINOR or MODERATE INJURY.

The terms IMPORTANT and NOTE are not directly related to personal safety, but are used to provide additional information and advice on the operation or maintenance of equipment.

IMPORTANT: *identifies specific instructions or procedures which, if not strictly applied, could damage or destroy the tractor, its equipment or the surrounding area.*

NOTE: *identifies points of particular interest for the most effective and suitable operation or repair.*

2.3 Safety decals and instructions

2.3.1 Checking and replacing the safety decals and instructions

T000871

**WARNING:*****Never remove or obscure the safety decals and instructions.***

Replace any safety decals and instructions that are illegible or missing. Replacement decals are available from the dealer in the event of loss or damage. If a second-hand tractor has been purchased, check that all of the safety decals and instructions are correct, legible and in the correct position. To do this, refer to the section on the presentation and location of these decals.

2.3.2 Presentation and location of the safety decals and instructions

T021353

2

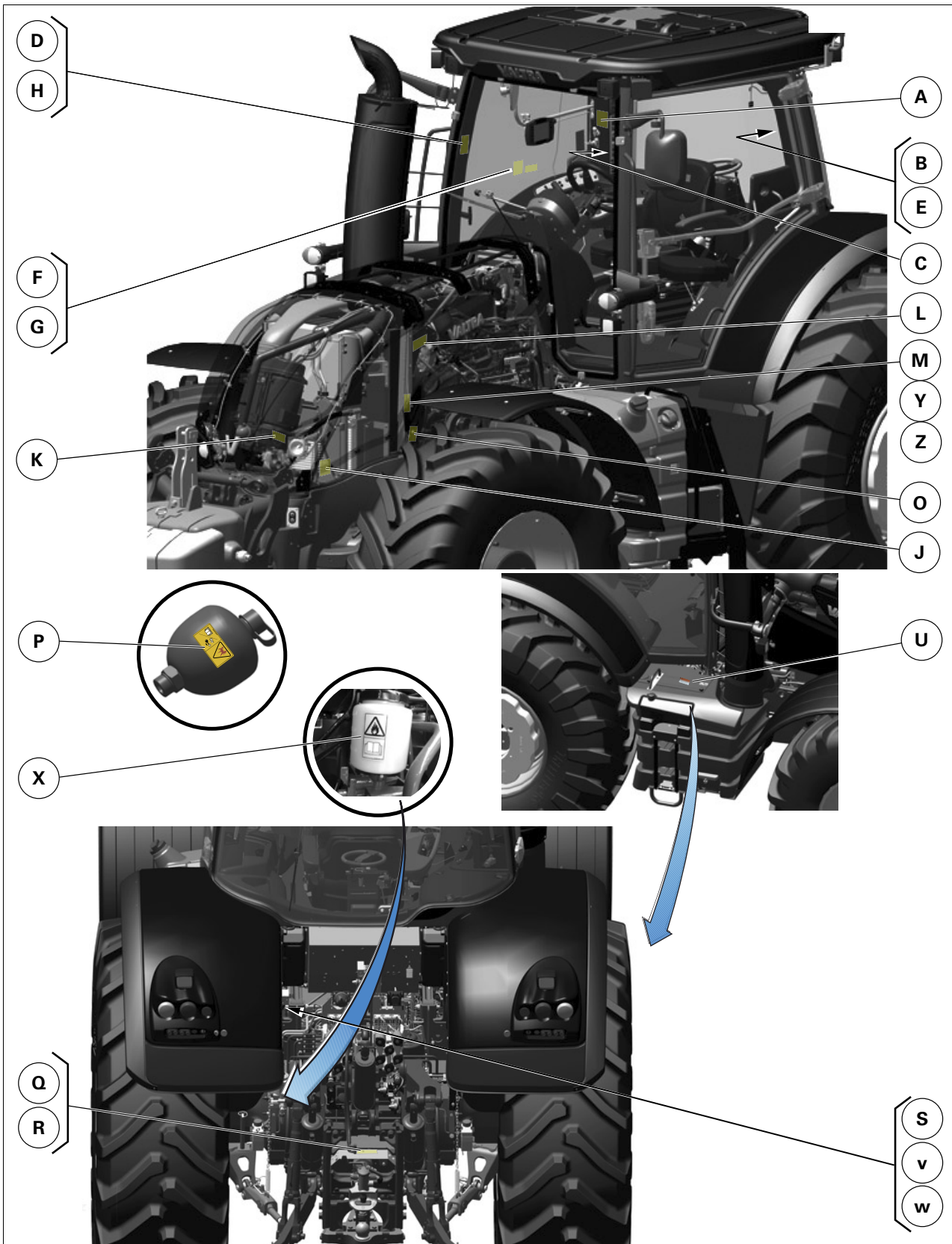
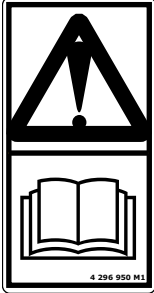

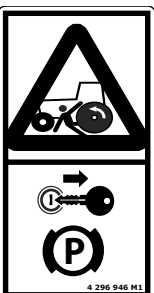
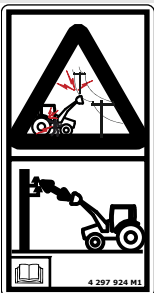
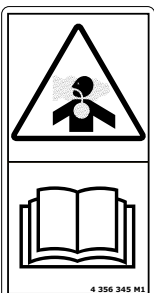
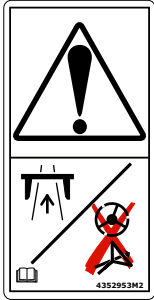
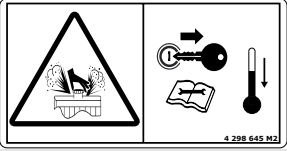


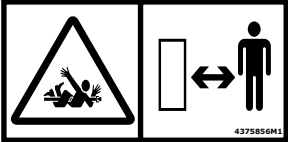


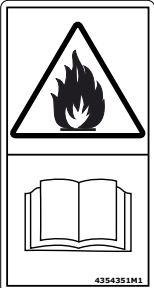
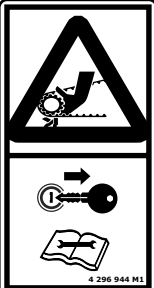
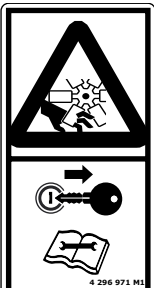


Fig. 1.

1048950

	<ul style="list-style-type: none"> - 4296950M1 ((A) <i>fig. 1</i>) - DANGER: General safety Read the servicing manual and the safety advice before start-up and observe their contents during operation.
	<ul style="list-style-type: none"> - 4296958M1 ((B) <i>fig. 1</i>) - WARNING: Overturning of the tractor - Roll Over Protective Structure (ROPS) Fasten your seat belt once you are in the seat (operator and instructor) and before the tractor moves.
	<ul style="list-style-type: none"> - 4296946M1 ((C) <i>fig. 1</i>) - WARNING: Risk of being crushed or run over by the tractor. Stop the engine and remove the key before you commence any maintenance or repair operation.
	<ul style="list-style-type: none"> - 4297924M1 ((D) <i>fig. 1</i>) - DANGER: Risk of the front loader coming into contact with overhead power lines. Risk of extremely serious or fatal injuries. Tractors fitted with a front loader: Exercise extreme caution to avoid coming into contact with power lines. - Keep a safe distance from the overhead power lines whenever you use the front loader. Refer to any national regulations in force that concern the safety distances from power lines.
	<ul style="list-style-type: none"> - 4356345M1 ((E) <i>fig. 1</i>) - WARNING: Possible inhalation of dangerous substances. - Read the instructions in the Operator's Manual and refer to the safety instructions provided by the product manufacturer. Wear personal protective equipment where necessary.

	<ul style="list-style-type: none"> - 4349217M1 ((F) <i>fig. 1</i>) - WARNING: Towing - Carefully read the specific instructions from the Operator's Manual before towing the tractor.
	<ul style="list-style-type: none"> - 4352953M2 ((H) <i>fig. 1</i>) - DANGER: Road safety. - Road traffic: Deactivate the automatic guidance system and the SpeedSteer system.
	<ul style="list-style-type: none"> - 4375776M1 ((J) <i>fig. 1</i>) - DANGER: Moving parts and hot parts behind the bonnet. - Stop the engine and remove the key before you commence any maintenance or repair operation.
	<ul style="list-style-type: none"> - 523251D1 ((K) <i>fig. 1</i>) - DANGER: Risk of engine explosion. - Never spray ether towards the engine air intake.
	<ul style="list-style-type: none"> - 4298645M2 ((L) <i>fig. 1</i>) - WARNING: High-temperature liquid in the reserve. Risk of skin burns. - Stop the engine, remove the key and wait for the assembly to cool before commencing any maintenance or repair operation.
	<ul style="list-style-type: none"> - 4375879M1 ((M) <i>fig. 1</i>) - WARNING: Burn hazard – hot surfaces. - Keep away from hot engine components when engine has been running. - Shut off engine, remove key and wait for system to cool before performing maintenance or repair work.
	<ul style="list-style-type: none"> - 4375891M1 ((O) <i>fig. 1</i>) - DANGER: Crushing of fingers or hands. - Never work in an area where there is a risk of crushing while parts could move.

	<ul style="list-style-type: none"> - acw0018280 ((P) <i>fig. 1</i>) - DANGER: Explosion hazard. The hydraulic accumulator contains pressurised gas and oil. - The hydraulic accumulator contains pressurised gas and oil. Refer to the instructions in the technical manual when removing and reconditioning.
	<ul style="list-style-type: none"> - 4375856M1 ((Q) <i>fig. 1</i>) - DANGER: Entanglement hazard in a PTO shaft connected to an instrument. - Do not mount the moving part of the PTO.
	<ul style="list-style-type: none"> - 4297148M1 ((R) <i>fig. 1</i>) - WARNING: Falling hazard - Maintain a safe distance in relation to the tractor.
	<ul style="list-style-type: none"> - 4392020M1 ((V) <i>fig. 1</i>) - WARNING: Danger of torso being crushed: force directed sideways. - Remain out of the vertical movement area while the swivel arm is moving.
	<ul style="list-style-type: none"> - 4354351M1 ((X) <i>fig. 1</i>) - WARNING: Risk of fire - Read the safety instructions in the Operator's Manual.
	<ul style="list-style-type: none"> - 4296944M1 ((Y) <i>fig. 1</i>) - WARNING: Entanglement hazard in belt drives. Keep hands clear of rotating parts and belts while engine is running. Switch off the ignition and remove the key before working on the tractor.
	<ul style="list-style-type: none"> - 4296971M1 ((Z) <i>fig. 1</i>) - WARNING: Shearing hazard – engine fan. Keep your hands away from the fan and the belts when the engine is running. Shut off engine and remove key before performing maintenance or repair work.

2.4 General safety instructions

2.4.1 Awareness of the safety instructions and symbols

T000880

Remember that you alone are responsible for safety. Good safety practices protect not only you, but also bystanders. Before using the tractor, study the instructions given in this book with care, as well as all of the safety decals and instructions fixed to the tractor: Make them an integral part of your safety procedure. Also note all the usual protective measures which should be taken when working and above all, don't forget:

Safety depends on you. You can prevent accidents which could cause serious injury or death.

! WARNING:

In some of the illustrations in this book, the safety panels and guards have been removed for reasons of clarity. Never use the tractor if these parts are not in place. If some of these parts have been removed for repair purposes, they must be refitted before use.

2.4.2 Operator familiarity in the use of the tractor

T000881

- **! WARNING:**
The operator must not drink alcohol or take any medication that may affect his concentration or co-ordination. If taking medication, whether prescribed or not, the operator must seek medical advice with regard to his ability to operate machinery safely.

To be able to use your tractor, it is first necessary:

- to be familiar with operating an agricultural tractor
- to have been trained in the operation of the tractor that you have just purchased
- to have read and understood this entire book — always consult the dealer as soon as there is any doubt or lack of understanding [fig. 1](#)
- find out about the rules and safety regulations applicable to the work you are doing. Some regulations specify that no one under the age of 16 may operate power machinery, for example. This includes tractors. It is your responsibility to know what these regulations are and to observe them in the operating area or situation. These rules include, but are not limited, to the safety instructions relating to correct operation of the tractor as described in this book.
- Do not allow children or unqualified persons to operate the tractor.
- Do not allow children to use the instructor seat.
- The instructor seat is only intended for short periods of use.

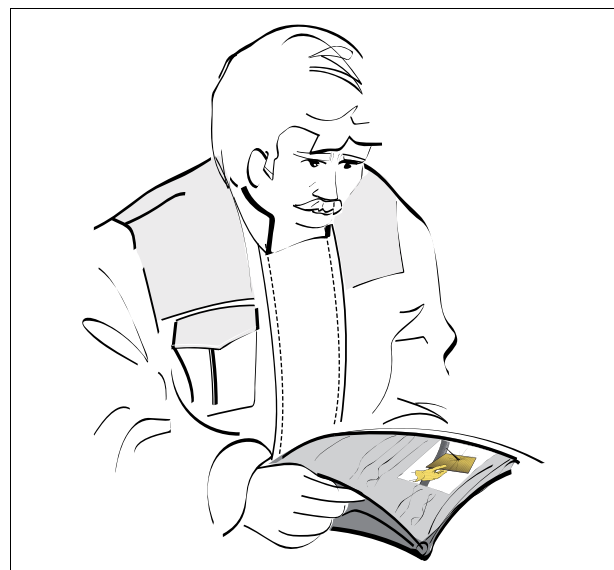


Fig. 1.

I002903

- **WARNING:**
In poor conditions, slow down and be extra careful, and engage 4-wheel drive if fitted.

It is important to have good knowledge of the operation of the tractor as well as all of its accessories and attached implements.

Remember that rain, snow, ice, loose gravel or soft ground can change the performance of the tractor.

2.4.3 Filling the fuel tank

T001555

- Always switch off the engine before filling up.
- Do not smoke while refuelling the tractor. Keep away from naked flames *fig. 2*.
- Proceed with care to prevent any splashes.



Fig. 2.

I050353

Filling AdBlue™ or DEF

Avoid all contact with the eyes, skin and clothing.

- Proceed with care to prevent any splashes.
- If swallowed. If large quantities of this product are swallowed, seek medical advice immediately. Do NOT induce vomiting unless indicated to do so by medical staff. Do not administer liquid to a person who is unconscious.
- In case of contact with skin, rinse with plenty of water and remove contaminated clothing.
- In case of contact with the eyes, rinse immediately under running water. In the event of irritation, seek medical advice.
- If fumes are inhaled, breathe in fresh air and seek medical advice, if necessary.
- Avoid AdBlue™ or DEF coming into contact with other chemical products
- Urea spillages must not be discharged into the drains.



Fig. 3.

I050357

2.4.4 Mounting and dismounting the operator's seat

T000883

- Always use three-point contact with the tractor and face the tractor when mounting and dismounting. (Three-point contact means that both hands and one foot or one hand and both feet are in contact with the tractor at all times when getting on and off).
- Clean your shoes and wipe your hands before getting on the tractor.
- Use handrails, grab handles, ladders or steps (if fitted) when getting on and off.

Do not use the control levers as a handhold.

- Do not step on pedals when getting in and out.
- Never attempt to mount or dismount a moving tractor.
- Never jump off a tractor when it is running except in an emergency.


2

2.4.5 Mandatory procedure before dismounting the tractor

T000902

Before getting out of the cab, whether during the course of or at the end of the working day, always:

Before getting out of the operator's seat, whether during the course of or at the end of the working day, always:

1.  **DANGER:**
Place the reverse shuttle lever in the neutral position.
2. Disengage the front and rear PTO.
3. Lower the implements to the ground.
4. Stop the engine (see the chapter in the Operation section of the Operator's Manual). Ensure that the engine is not idling and has stopped.
5. Remove the ignition key.

2.5 Special instructions

2.5.1 Specific recommendations for agricultural and forestry tractors

T006914

2

Hot surfaces

Be careful of surfaces which may be hot, in particular engine and hydraulics components, during operation and services.

FOPS (Falling Object Protection Structure)

- Alternative 1 (no FOPS available): Protection against falling objects is not provided, unless clearly specified otherwise.
- Alternative 2 (optional FOPS fitted): Protection against falling objects is provided under OECD-code 10 (Energy level 1365 J). If a higher protection level is necessary, additional safety equipment should be installed on the tractor (no original equipment available).

OPS (Operator Protection Structure)

- Alternative 1 (no OPS available): Protection against penetrating objects is not provided, unless clearly specified otherwise.
- Alternative 2 (optional OPS fitted): Protection against penetrating objects is provided under ISO 8084 (Machinery for forestry). Before operating, check if protection is adapted to your work conditions.

Hazardous substances

NOTE: A mark indicating the ROPS' level of protection against hazardous substances is located on the ROPS.

IMPORTANT: Always wear personal protective equipment when handling the filters.

- Tractor without cab: Protection against hazardous substances (agricultural chemicals etc.) in the form of dust, aerosols and fumes is not provided. In particular, tractors fitted with these cabs are not to be used for spraying pesticides without any additional protection. Personal protective equipment must be used according to the chemical manufacturer's recommendations.

Instructor (passenger) seat

- If an instructor (passenger) seat is provided, protection for the occupant of the seat is provided by the same roll-over protective structure (ROPS) that protects the operator.
- This seat may only be used to transport a passenger when driving on public roads.
- Always use the seat belt correctly adjusted.

2.6 Special safety instructions for preparing the tractor for use

2

2.6.1 Protective clothing

T000873

Wear all the protective clothing and equipment with which you are provided or which is appropriate for certain working conditions *fig. 1*.

For example, you may need:

- A safety helmet
- Goggles or a face shield
- Ear protection
- A respirator or filter mask
- Inclement weather clothing
- Reflective clothing
- Gloves suitable for the work to be carried out
- Safety footwear

⚠ DANGER:
Do not wear loose clothing, jewellery or other items and tie up long hair which could catch on controls or other parts of the tractor.



Fig. 1.

I002858

2.6.2 Activated carbon filter information

T011579

⚠ WARNING:
Due to the risk of contaminants entering the cab when the door is opened to enter or exit, use of a carbon filter is intended to supplement but not necessarily replace the use of personal protective equipment when operating in an environment containing aerosols and/or vapours, such as pesticides.
The specific chemical manufacturer's instructions regarding personal protective equipment (PPE) must be followed. If the cab being fitted with this filter does not already have a safety sign like the one included with this filter, install the safety sign in a prominent place inside the cab in view of the operator.

This filter is designed to reduce the concentration of aerosols and vapours entering the cab. To be effective, it must have an effective seal to prevent leakage around the filter and must be used in a cab air system that does not have leaks, especially in the zone between the filter and the fan. In addition, the cab and its ventilation system must be capable of maintaining a positive pressure inside the cab and an air flow of at least 30 cubic meters per hour (18 cubic feet per minute).

The cab with carbon filter is intended to be used as only one part of a managed system of occupational health and safety, as noted below:

Operator Enclosures as Part of an Occupational Health and Safety Management System (OHSMS)

Many self-propelled agriculture vehicles have operator enclosures (cabs) for comfort and protection of the operator and riders. The cab can provide an effective physical barrier between the occupants and the environment, but that barrier must, by necessity of occupant respiration, allow air to enter and exhaust the cab. This requirement is met by the cab's heating, ventilation and air-conditioning (HVAC) system.

The HVAC system should employ a filter through which air entering the cab is first passed for contaminant reduction. Filters should also be provided in the recirculation air-stream to reduce airborne contaminants already in the cab air space. In either application, these filters must be designed specifically for the HVAC system within which they are operating. The filters must also incorporate the correct media required to remove the specific air-borne contaminant for which it is being employed.

For such applications, the HVAC system must be of robust design, manufacture and maintenance. In such a system, fresh air and cab pressurization requirements are provided by an air supply drawn through a filter with negligible filter bypass.

Even with an appropriate cab and HVAC system, there are other opportunities for contaminants to enter the cab. While outside the cab, a person can become contaminated on his/her body or clothing. Contaminated objects can be brought into the cab. Another potential for cab contamination exists when doors or windows are open in a contaminated environment.

In any case, whenever the cab interior has been contaminated, the effectiveness of the cab to provide contamination protection will be diminished. Health and safety for agricultural machine operators as well as others working in, on or around these machines can only be addressed through a comprehensive program.

Such a program is defined as an Occupational Health and Safety Management System (OHSMS). While cabs may be used as an effective engineering control within an OHSMS, this is not intended to imply that the cab alone is appropriate for any specific application.

That determination can only be made by those responsible for the OHSMS in a specific application. It is the responsibility of those charged with managing the use of the vehicle on which the cab is attached to define and manage an appropriate OHSMS, and ensure that all federal, state and local regulatory requirements are followed.

Cabs should not be used as a replacement for any other engineering control or PPE that has been specifically required by federal, state or local regulatory authorities.

Hierarchy of Controls

The Hierarchy of Controls, in their preferred order of action:

1. Elimination
2. Substitution of less hazardous materials, processes, operations or equipment
3. Engineering controls
4. Warnings
5. Administrative controls
6. Personal protective equipment (PPE)

Continuous Improvement Cycle

Cabs should only be used to control operator air contaminant exposures within an OHSMS. This management system must consider occupational safety and health as a continuous improvement cycle that includes these on-going processes:

1. Management, Leadership and Employee Participation: This step in the cycle involves the formulation of the management system, the establishment of policy, statements of responsibility and the integration of the employees into the management system.
2. Planning: This step is based upon initial and going reviews of the management system and numerous factors affecting occupational safety and health within an organization. Included in these reviews is a review of the hazard, risks and controls and data collected to evaluate the hazards and the efficacy of the control measures. In explanatory comments, exposure measurements are included as part of the assessment processes. The results of audits and measurements are also to be reviewed.
3. Implementation and Operation: This section describes the organization components of a occupational safety and health program. It describes the hierarchy of controls mentioned above and several broad classes of management function. Among these requirements are employee training and evaluation of employee training. Furthermore, this section requires a written, clearly documented occupational safety and health program.
4. Evaluation and Corrective Actions: The section specifically requires management processes to monitor and evaluate hazards, risks and their controls. Explanatory comments note that this includes quantitative measures of worker exposure. Practically, this involves physically testing the efficiency of the cab being used as an engineering control within an OHSMS.
5. Management System Review: Management is required to review the management system to ensure its suitability, adequacy and effectiveness. This cycle includes provisions for exposure monitoring and the monitoring of control measure performance. It is the responsibility of the manager of the safety and health program to determine how worker exposure to air contaminants and other hazards are to be controlled. It is also the responsibility of this manager to take whatever actions are needed to control workplace hazards. This includes but is not limited to exposure assessment, audits of various programs such as respiratory protection, ventilation system maintenance, etc.

Limitations of Cabs Used in Hazardous Environments:

While it may seem that respiration (breathing) exposure would present the greatest risk for personal exposure to contaminants, this is not the case when working with pesticides. The most prevalent method of exposure for applicators and those working around agricultural pesticides is through dermal (skin) contact.

Dermal contact with contaminants may occur directly from air-borne contaminants. It may also happen when contaminants are transferred from one object to another or when air-borne contaminants settle on objects that are subsequently contacted. Any surfaces in or out of the cab that have been contaminated are potential hazards for dermal exposure.

Within the cab, seats, upholstery, controls and other surfaces that become contaminated will pose such a hazard. In addition to dermal exposure, a contaminated cab interior will also pose a respiration hazard as the contaminant may, after settling on a surface, become air-borne once again whereby it may be inhaled.

Recirculation filters can be used to help reduce these contaminants from the cab interior air space. When a vehicle is operated in an environment where air-borne contaminants exist, the cab can be an effective engineering control for reduction of exposure risk to persons within it.

In order for a cab to be used for this purpose, it must be of appropriate design. It must also be manufactured, maintained, tested and operated according to the specific requirements defined by evaluation of the hazards.

No cab should ever be considered an effective engineering control unless it has been qualified as such within a comprehensive OHSMS. While the cab manufacturer can design and manufacture a cab to physical specifications, the cab manufacturer can not qualify the cab as an appropriate engineering control for any specific application.

Site-specific information is needed to evaluate the appropriateness of control measures. To use the cab to control hazards, the managers of the OHSMS must carefully consider and evaluate the effectiveness of all engineering controls in their specific application.

The Cab as an Engineering Control

The engineering control requirements of the respiratory protection regulation may be fulfilled by the application of a cab, but this can only be done properly within an OHSMS. Elements of such a program are:

1. Assessment of the hazard with identification of the risk involved.
2. A survey of the machine and the cab involved in the hazardous operation.
3. Reviewing the cab ventilation system and the filter to ensure the filter provides the reduction in contaminants required.
4. Defining how long the filter can be used in this application.
5. Testing the cab ventilation system to ensure it provides the protection required for the operation to be performed. This also includes a review of any monitoring equipment to ensure it is working properly.
6. Repair and/or replacement of any defects or defective equipment found.
7. Retesting of the cab air system as required.
8. Recording in the appropriate log book all information regarding the test results, and repairs and replacement of parts and/or components.
9. Assessment of the effectiveness of the program at a specified time in the cycle of the activity.

2.6.3 Safety devices and items

T000874

Ensure that all safety devices and items are fitted as required and are in good condition.



WARNING:

The location of all these safety devices and items must be known and their use mastered. Never take off, remove or disconnect any of them.

Standard safety devices and items according to country regulations

- ROPS (Roll Over Protective Structure)
- Seat belt
- Power take-off guard
- SMV warning triangle
- Signalling lights
- Safety signs
- Fire extinguisher
- First aid kit



WARNING:

Also make sure you know the emergency numbers.



Fig. 2.

1002859

Additional devices and items

Depending on the work to be carried out, other safety devices and items may be required; for example, guards or additional lights and signs.

2.6.4 Checking the tractor

T000872

Check the tractor and ensure that all systems are in good operational condition before beginning the working day. Pay particular attention to the points mentioned below.

- Check for loose, broken, missing or damaged parts. Ensure that everything has been properly repaired.
- Check that the seat belt is in good condition. If it is not, replace it.
- Check that implements are correctly installed.
- Check that the PTO output speed is in keeping with the implement PTO input speed.



WARNING:

An unbalanced tractor could overturn and cause serious injury or death. Ensure that front frame counterweights, wheel weights and wheel ballasts are used as recommended by the manufacturer. Do not add extra counterweights to compensate for an overloaded tractor; the load must be reduced instead.

Check to ensure that the tractor is correctly balanced.

- Check the condition and pressure of tyres (absence of cuts and bulges). Replace worn or damaged tyres.
- Check the correct operation of the brake pedals and the parking brake. Adjust if necessary.
- Ensure that all PTO shaft locking devices are engaged.
- Ensure that the tractor PTO guard and the shaft guards are in place and operating correctly.

- **WARNING:**
Fuel or hydraulic fluid under pressure can penetrate the skin or eyes and cause serious physical injury, blindness or death.
Leaks of pressurised fluid may not be visible. Use a piece of cardboard or wood to detect leaks. DO NOT USE YOUR BARE HANDS. Wear safety goggles for eye protection. If any fluid penetrates the skin, seek medical advice within a few hours from a doctor familiar with this type of injury fig. 3.

- **WARNING:**
Release the pressure of the hydraulic or fuel systems before disconnecting them.

Check the hydraulic system for the tractor and the implement as well as the tractor fuel system: Correct tightening of all the unions; no damage to the lines, pipes and hoses; hydraulic systems do not cross one another.

Have any leakages or damaged parts repaired or replaced. Do this before each working day

- **WARNING:**
The liquid cooling system builds up pressure as the temperature increases. Stop the engine and let the system cool before removing the radiator filler plug.

Check the engine cooling system and add coolant if required.

- All maintenance procedures must have been complied with.
- Check that the weight of the tractor/implement assembly is less than the tractor total permissible load.

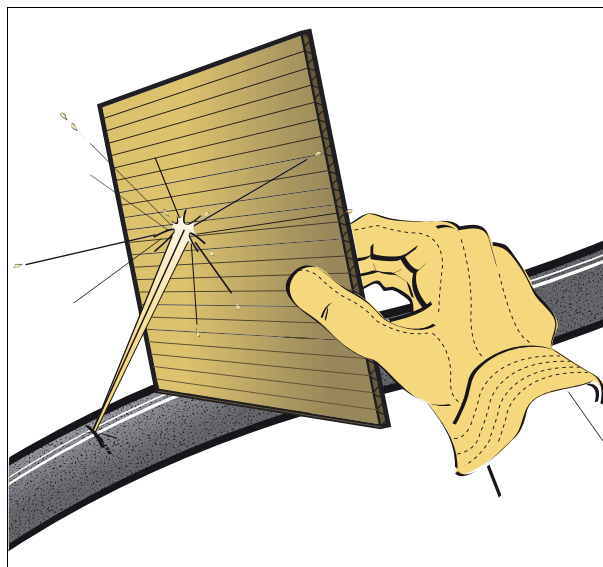


Fig. 3.

1002860

2.7 Specific safety instructions for starting the tractor

2.7.1 Protection of persons other than the operator


T000884

1. Before starting up, walk all the way round the tractor and any attached equipment. Ensure that no one is under it, on it or close to it.
2. Warn in advance any persons nearby that the tractor is about to start.
3. Only start up if there is nobody in the vicinity of the tractor/implement assembly. Pay particular attention to looking out for children.

2.7.2 Start up safely

T000885


General instructions

-  **WARNING:**
Before starting the engine, ensure there is plenty of ventilation in the area. Do not operate the engine in an enclosed space. The exhaust fumes may cause asphyxiation.

IMPORTANT: Electromechanically controlled brake on the steering column (ParkLock): For safety reasons, when the engine is stopped, the ParkLock engages automatically regardless of the position of the control.

After the engine is started, it is necessary to initialise the ParkLock control in order to deactivate it. If this is not carried out, when a gear is shifted, a beep will sound and the padlock symbol on the instrument panel indicates that the ParkLock remains engaged.

- Always start the engine from the operator's seat.
- Adjust the seat before using the tractor to ensure it is correctly positioned in relation to the controls and to minimise vibrations (see description of seat).
- For road use, ensure that the tractor brake pedals are locked together.
- Fasten the seat belt.
- Place the reverse shuttle lever in the neutral position and deactivate the PTO controls.
- Follow the start-up procedures described in the chapter Operation of this book.

-  **DANGER:**
Start the engine with the ignition key and from the operator's seat only. Do not attempt to start the engine by short-circuiting the starter terminals: the tractor may start in gear and this could cause serious injury or death to anyone in the vicinity [fig. 1](#).

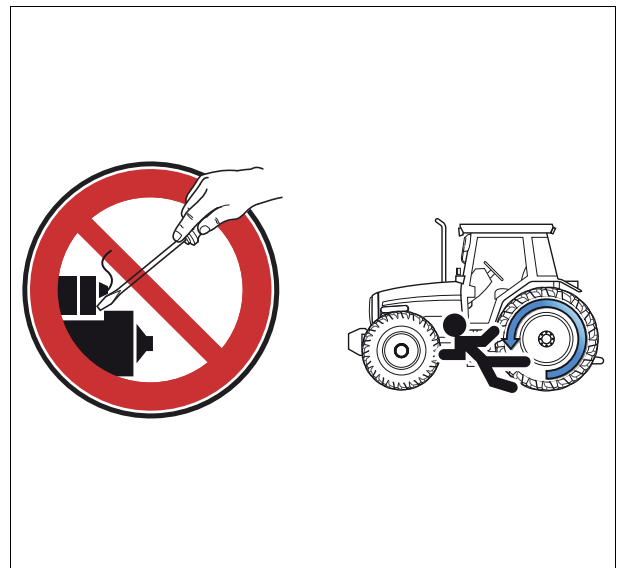


Fig. 1.

1002863

Starting assistance**WARNING:**

Never use any starter fluid or aerosol sprays. This could cause an explosion and the risk of very serious injury.

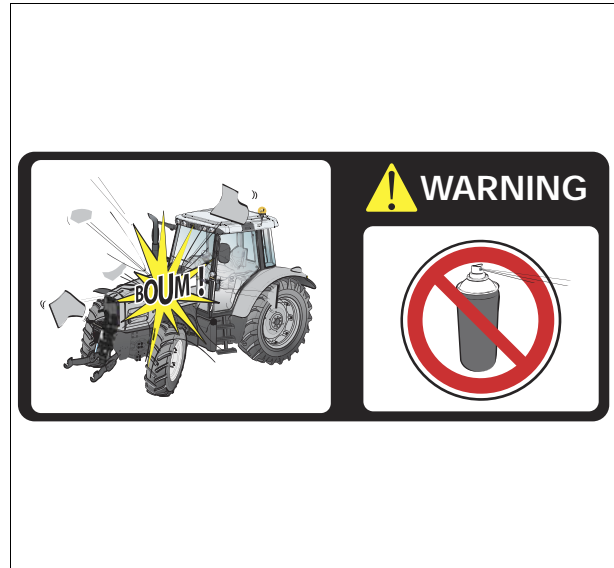


Fig. 2.

I002864

2.7.3 Checks to be carried out after start-up

T000886

Controls and indicator lights

After having started the engine, check all the controls and all the indicator lights again. Ensure everything is functioning correctly.

**WARNING:**

In case of malfunction of a control or an indicator light, resolve the problem before using the tractor.

Mastering of the tractor

Move slowly until you are sure that everything is operating correctly. Be certain that you have full control of the steering and brakes. If the differential is locked, unlock it before continuing your route.

2.8 Specific safety instructions for using the tractor

2.8.1 General instructions

T000875

2

- Tractors and implements are not toys. Always comply with the conditions of use defined by the manufacturers.
- Never bring a heat source close to the tractor.
- Never exceed the tractor total permissible weight.
- Always consider the way in which the tractor is to be used and the fact that the centre of gravity of the tractor/implement assembly changes according to the load being transported or towed.
- Check that the emergency exits open correctly.



WARNING:

An unbalanced tractor could overturn and cause serious injury or death. Ensure that front frame counterweights, wheel weights and wheel ballasts are used as recommended by the manufacturer. Do not add extra counterweights to compensate for an overloaded tractor; the load must be reduced instead.

Check to ensure that the tractor is correctly balanced.

- Check that the PTO output speed is in keeping with the implement PTO input speed.
- Keep all parts of your body inside the safety zone defined by the ROPS for platform tractors.
- Operate the controls smoothly — do not jerk the steering wheel or other controls.
- Always operate the controls from the operator's seat.
- Keep a firm grip on the steering wheel at all times, with your thumbs clear of the spokes when driving the tractor.
- Operate the tractor smoothly: avoid jerky turns, starts or stops.
- Do not turn at high speed.
- Avoid driving close to ditches and banks.
- Avoid taking slopes that are too steep.
- Reduce speed when negotiating turns and slopes and on rough, slippery or muddy surfaces.
- Carefully observe the areas surrounding the route.
- Never remain, or allow anyone else to remain, between the tractor and the towed or trailed vehicle when the tractor is in use.
- Ensure you have adequate clearance in all directions for the tractor and the implement.
- When using chemicals, follow the chemical manufacturer's instructions for use and storage carefully.
- Adapt the tractor speed according to visibility, weather conditions and the type of terrain.



WARNING:

If a part breaks, loosens or does not operate correctly:

- **stop work**
- **switch off the engine**
- **check the machine and make the necessary adjustments and repairs before resuming work.**



DANGER:

Do not attempt to unplug the hydraulic connections or adjust an implement with the engine running or the PTO in operation. To do so may result in serious injury or death.

2.8.2 Protection of persons other than the operator

T000876

2

- **WARNING:**
A tractor is a machine with a single operator.
Do not permit anyone [fig. 1](#) to ride on the tractor or implements, including trailers, unless the implements are specially designed to carry passengers during field work. In the latter case, transport is permitted only for field work, but not for travelling on the road.
In all cases, never allow a child to ride on the tractor or implements.



Fig. 1.

I002865

- When operating, attention to the environment of the tractor/implement assembly.
- Never lift loads above someone.
- Do not allow anyone to stand or pass in front of, under or behind an implement [fig. 2](#).



Fig. 2.

I034928

- Do not allow anyone to stand between the tractor and the implement.
- Keep others away from the working area.
- Beware of the load and implement falling in the event of unexpected lowering of the loader.

2.8.3 Overturning

T000877

Overturning angle

- **DANGER:**
For your safety, never exceed the maximum angle limits listed in the table below.

NOTE: These angle limits assume a maximum oil level in the rear axle.
 It is recommended to top up the oil by 15 l when working on slopes of maximum gradient.

Models	Speed	Maximum angle: roll/pitch/combined
AVT	-	25°/25°/17°

**WARNING:**

The following list is not exhaustive.

Do not use the tractor beyond its ground gradient and stability limits, as indicated later in this manual. Exceeding these limits may cause overturning or tipping of the tractor. Follow the recommendations provided in this Manual when driving down slopes with the tractor loaded.

- *Do not use the tractor near or on the edges of channels or streams or on banks and borders dug by rodents. The tractor may overturn and tip*
- *Do not use the tractor on unstable footbridges and fragile platforms. These constructions may collapse and cause the tractor to overturn. Systematically examine the condition and load-bearing capacity of bridges and ramps before crossing*
- *Do not use the tractor without wearing a seat restraint system (safety belt) during activities involving a risk of overturning or tipping*
- *Do not use the tractor beyond its dynamic stability limits. High speed, abrupt manoeuvres and quick, tight turns increase the risk of overturning*
- *Do not use the tractor for towing if you do not know whether the load will yield, for example for towing stumps. The tractor is at risk of tipping backwards if the stump does not yield*
- *Exercise extreme caution when working with the tractor on forage silos without concrete side walls*
- *Do not forget that the tractor's centre of gravity may increase when loads on the front-end loader or the three-point hitch are lifted. In these conditions, the tractor may overturn earlier than expected*

Procedure to follow if the tractor overturns

If the tractor should overturn, keep the seat belt fastened, hold the steering wheel firmly and do not attempt to leave the seat until the tractor has come to a complete stop [fig. 3](#).

For tractors fitted with a cab, if the doors are obstructed, leave through the rear window or roof hatch.

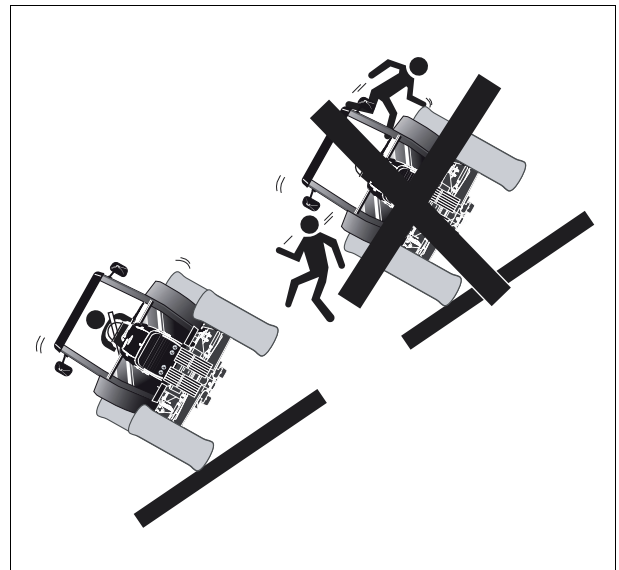


Fig. 3.

1002867

Preventing a lateral overturn

- Set the track width to the most appropriate width for the work being carried out.
- Lock the brake pedals together before driving at transport speed.
- Adapt the tractor speed according to visibility, weather conditions and the type of terrain for the implement in use.
- If the tractor is fitted with a front-end loader, carry the bucket and load as low as possible.
- Make wide turns at reduced speed.
- Do not allow the tractor to bounce as this may cause you to lose control.
- Never exceed the tractor total permissible weight.
- Do not brake suddenly. Apply brakes smoothly and gradually.

**WARNING:**

Do not disengage the clutch or attempt to shift gear after you have started downhill.

When driving down a slope, use the engine brake to slow the tractor down and choose the same gear ratio as used when climbing a slope.

- Engage four-wheel drive (if fitted) to enable four-wheel braking.
- Do not work near the edge of ditches and banks as there is a risk of them collapsing. The tractor must always be kept a distance from the edge that is equal to or greater than the height of the bank or ditch *fig. 4*.

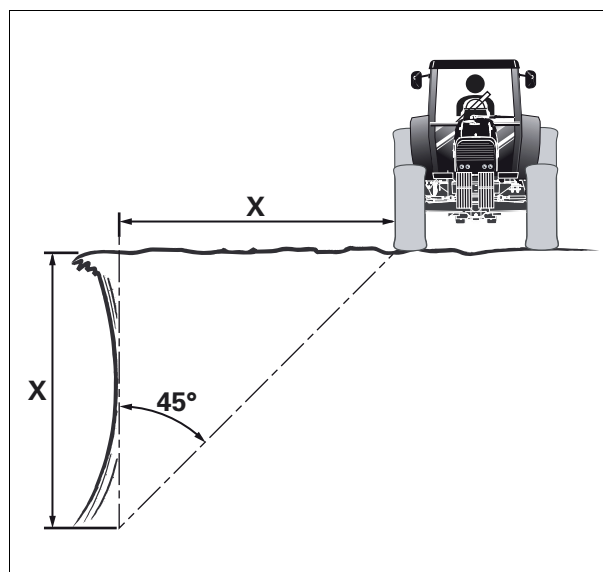


Fig. 4.

I002868

- Preferably, climb or descend a slope in a straight line, but do not cross it. When this is not possible, adhere to the following precautions:
 - Avoid holes and dips when driving downhill
 - Avoid stumps, stones and raised areas when driving uphill
 - when turning, avoid turning towards the top of the slope; always slow down and take a wide turn
 - keep the heavier end of the tractor facing towards the top of the slope when driving up and down it.
- When driving across a slope with a tractor fitted with implements on one side, these implements must:
 - always be facing towards the top of the slope
 - never be raised,
 - be left as close as possible to the ground
- When towing a load at transport speed, lock the drawbar in the centre position and use a safety chain.
- Do not use the tractor to round up livestock.

Preventing a rear overturn**WARNING:**

Hitching a load to the rear axle or on any other part located above the rear axle may cause a rear overturn.

- Do not pull anything using the top link connection or from any point above the centre line of the rear axle. Always use an Valtra-approved drawbar and only use a lockable drawbar pin.
- When using a drawbar for a three point hitch, use the stabilisers and keep the drawbar in the bottom position.
- Use front weights to increase tractor stability when towing heavy loads or to counterbalance the weight of a heavy rear-mounted implement.
- Start off slowly and then gradually increase speed.
- Do not release the clutch suddenly.
- If a heavy load or immovable object is attached to the tractor, incorrect use of the clutch may cause the tractor to overturn.
- If the front end of the tractor starts to lift, disengage the clutch.
- If the tractor is bogged down in mud or frozen to the ground:

- do not attempt to drive forward as the tractor could then rotate around its rear wheels and overturn
- lift any attached implements and attempt to reverse. If this is not possible, tow the tractor out with another vehicle.
- If the tractor is stuck in a ditch, if possible, attempt to reverse out. If you must go forward, do so slowly and carefully.
- A bare tractor or a tractor fitted with a rear implement must climb a slope in reverse gear and descend the slope in forward gear.
- A tractor fitted with a full loader at the front must climb a slope in forward gear and descend the slope in reverse gear. The loader must be kept as close to the ground as possible.
- Always engage a gear when driving downhill. Do not allow the tractor to coast down the slope with the clutch disengaged or the transmission in neutral.
- When parking on a slope, turn the wheels in the opposite direction to the slope.

2.8.4 Tractor towing

T000878

Comply with the instructions described in the "Operation" chapter of this book.

2.8.5 Regulatory data on maximum permitted trailed weights

T021013

Drawbars and towing equipment

IMPORTANT: Before attaching a trailed implement, read the following carefully.

Maximum permitted towed weight

The equipment identification number plate provides important information on tractor and towed equipment weight combinations.

The figures represent the maximum weights authorised for the vehicle and towed equipment which should not be exceeded so as not to affect tractor safety.



Fig. 5.

I047849

Before transporting towed equipment, read the equipment's Operator's Manual. Check that the equipment is properly installed, find out how to safely transport it, and determine the maximum permitted transport speed. Check that the tractor/towed equipment combination is in compliance with local and national legislation.

Never transport at speeds higher than the equipment's maximum transport speed. By exceeding the maximum transport speed of the equipment, there is a risk of reducing the braking performance and/or losing control of the tractor and its towed equipment.

Unless otherwise specified by the equipment manufacturer or the legislation, observe the following rules when towing.

For towed equipment:

Do not tow equipment:

- Without brakes and which, when fully loaded weighs over 3000 kg

- With independent brake and which, when fully loaded weighs over 6000 kg
- With overrun brake and which, when fully loaded weighs over 16000 kg
- With assisted brake (hydraulic or air) which, when fully loaded weighs over 24000 kg

2

Total permitted weight of tractor-implement combination

	Permitted weight for 2-wheel drive tractor	Permitted weight for 4-wheel drive tractor
With trailer without brakes	8400 kg	9200 kg
With trailer equipped with independent brake	11400 kg	12200 kg
With trailer equipped with overrun brake	21400 kg	22200 kg
With trailer equipped with air brake	29400 kg	30200 kg

Load and ballast distribution per axle

Axle load distribution

		2-wheel drive		4-wheel drive	
Weights of unladen vehicle based on optional equipment		min.	max.	min.	max.
		2900 kg	3700 kg	3100 kg	4000 kg
Total weight distribution	Front axle	1045 kg	1045 kg	1295 kg	2000 kg
	Rear axle	1855 kg	2655 kg	1805 kg	2600 kg

Ballast distribution per axle

		2-wheel drive	4-wheel drive
Maximum technically permissible loaded weights of the vehicle		5400 kg	6200 kg
Distribution of weight between axles	Front axle	1100 kg	3000 kg
	Rear axle	4300 kg	5000 kg
Minimum percentage of maximum permissible distribution of weight between axles	Front axle	20%	20%
	Rear axle	80%	52%



When ballasting the tractor, observe the following conditions:

- The minimum load on the front axle must be more than 20% of the tractor weight at no load.
- The load capacity of the rear tyres must be taken into account. Do not overload the rear axle. (Refer to the load capacity table).

2.8.6 Road use

T000879

-  **WARNING:**
Never allow any passengers to ride on the tractor and implements.

-  **WARNING:**
Do not use the work lights when travelling on a road because rear white lights are illegal except when reversing and may confuse following drivers.
-  **WARNING:**
When using a towed vehicle ensure you are always outside of the area lying between the tractor and the towed vehicle.
- Ensure that all clearance flags and rotary beacons that indicate an abnormal load are in position and are in working order.
- Clean all the reflectors and the front and rear lights. Ensure that they are visible and in working order.
- Ensure that the tractor and implements are fitted with SMV warning triangles and other markings recommended to improve visibility when driving on roads (unless the regulations state otherwise) [fig. 6](#).

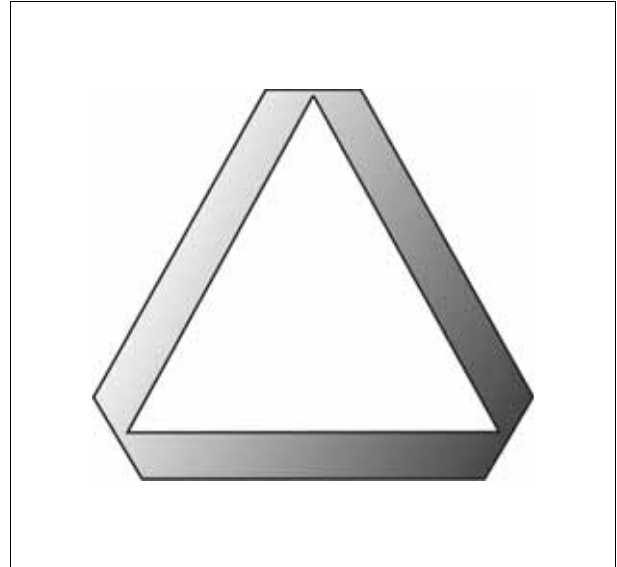


Fig. 6.

1002869

- Place all implements in the transport position (as specified in the national road traffic regulations) so that they take up minimum space and lock them in position.
- Lock the brake pedals together.
- Disengage the power take-off and the differential lock.
- Observe all current local and national regulations regarding the use of a tractor on the road.
- Depending on the equipment fitted to the tractor and unless regulations state otherwise, use the rotary beacons or the hazard warning lights day and night.
- Familiarise yourself with the road you will be travelling on.
- Exercise the utmost caution when driving on snow-covered or slippery roads.
- Wait for traffic to clear before entering a public road.
- Beware of blind intersections: Slow down until you have a clear view.
- Do not attempt to push your way through at any intersection.
- Slow down for turns and curves.
- Make wide turns at a moderate speed.
- Signal your intention to slow down, stop or turn.
- Shift to a lower gear before going up or down hills.
- Always drive the tractor in gear. Do not coast with the clutch disengaged or transmission in neutral.
- Do not overlap the lane of traffic for vehicles travelling the other way. Stay in your lane, as close as possible to the roadside.
- If a traffic jam forms behind the tractor, pull off the road and allow the vehicles behind to pass.
- Drive carefully. Anticipate what other drivers might do.

If towing a load

- Always anticipate obstacles, especially if the trailed implement is not fitted with brakes.

- Start braking much earlier than usual and slow down gradually.
- Ensure that the load is not concealing the lights or the rotary beacons.
- Take account of your load, especially for high obstacles.

2.8.7 Power take-off

T000893



DANGER:

Do not attempt to unplug the hydraulic connections or adjust an implement with the engine running or the PTO in operation. To do so may result in serious injury or death.

To avoid any accidents, do not stand on the implement or between the implement and the tractor when external linkage or PTO controls are being used.

- Ensure that all the PTO shaft guards are in place and check the presence of all safety decals [fig. 7](#).

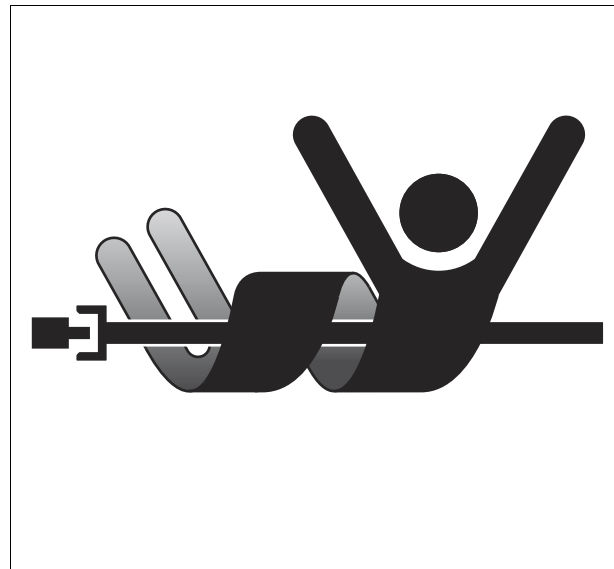


Fig. 7.

1002874

- Ensure that the PTO cap (1) is fitted when the PTO shaft is not in use [fig. 8](#).
- Before hitching, unhitching, cleaning or adjusting the implements driven by the PTO, follow the "mandatory procedure before dismounting the tractor" [see §2.4.5, page 26](#).
- Ensure that there is nobody in the vicinity of the implement before engaging the PTO.
- For stationary PTO operation, place the transmission lever and/or the shuttle lever (both if the tractor is fitted with them) in neutral, apply the hand brake or engage ParkLock (depending on option) and chock the wheels of the tractor and the implement.
- Do not use PTO adapters, reducers or extensions as they extend the PTO coupler beyond the protection offered by the guard.

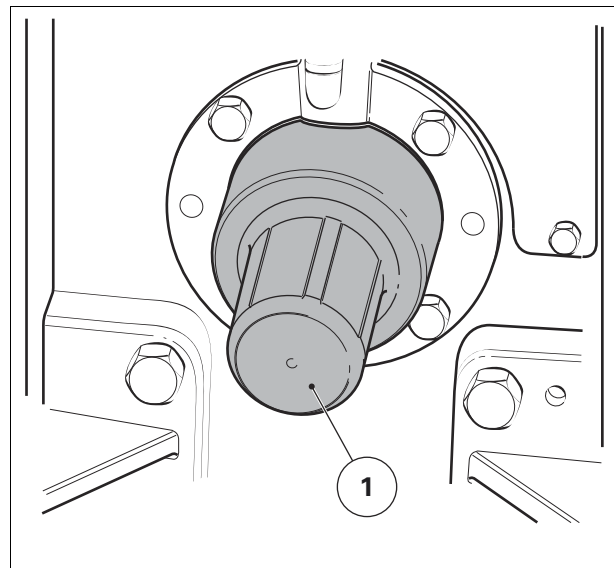


Fig. 8.

1002871

- **IMPORTANT:** To prevent any rotation problems or damage to the PTO guard, observe the correct fitting position of the transmission shaft. Ensure that the shaft does not collide with the surrounding area when the implement hitched to the tractor moves (this is a particular risk for short type 3 PTO shafts with a shield measuring 290 mm wide, as this limits the space available for the assembly).

- (1) Correct assembly
- (2) Incorrect assembly

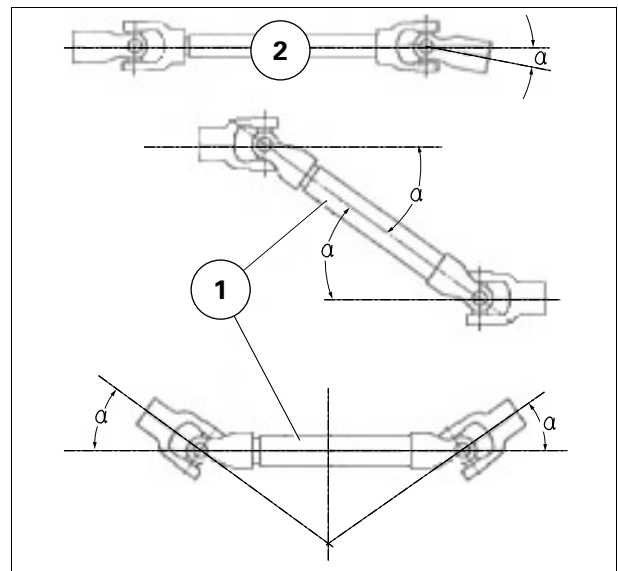


Fig. 9. Transmission shaft

i033876

2.8.8 Implements

T000894



WARNING:

The special implements are not supplied with the tractor.

- Tractors and implements are not toys. Always comply with the conditions of use defined by the manufacturers.



DANGER:

To avoid serious injury or death due to falling loads resulting from inadvertent raising or roll-back of the loader, do not connect loader hydraulics to any tractor auxiliary valve that has detents which cannot be locked out or removed, except for the float function in the loader lower circuit. If the tractor is equipped with such a valve, a dedicated, properly configured loader valve must be installed.



DANGER:

A front-end loader with a bucket or forks must be fitted with a holding device. This device must prevent the load (bales, fence posts, rolls of fence, wire etc.) from rolling down the length of the loader arms when the loader is raised, as it could crush the operator. Objects that are incorrectly secured may also fall and injure people in the vicinity of the tractor.

When using a loader, avoid sudden stops, starts, turns or changes in direction. Keep loads close to the ground when transporting.

- Never lift loads above someone.
- Implements fitted to the three-point hitch or to the side of the tractor make a much larger arc when turning than trailed implements. Ensure there is enough room to manoeuvre in complete safety.
- Always use implements suitably adapted to the desired conditions of use (load to transport, speed, slope etc.) to ensure that work is carried out in complete safety.
- Always read the implement instruction books fully for implements to be used with the tractor and comply with the safety instructions they contain. If these instructions cannot be observed in full, do not use the tractor fitted with the machine or trailer.
- Do not modify nor remove any parts of an implement.
- Do not touch the mechanism of an implement nor lean over it or attempt to reach it. Do not allow anyone else to do this either.
- Do not allow anyone (including yourself) to stand or pass in front of, under or behind an implement.
- If the tractor is not immobilised according to the "mandatory procedure before dismantling the tractor" [see §2.4.5, page 26](#), never stand or allow any person to stand between the tractor and the implement.
- Always use implements that are capable of safely carrying the load that you wish to place in it. (See information given on the name plate) and the chapter on the hitch.
- Do not overload a trailed implement. Use appropriate weights to maintain tractor stability.

- The top link and the lift rods must never be taken beyond the point where the thread starts to appear.
- When using chemicals, follow the chemical manufacturer's instructions for use and storage carefully.
- All trailed implements and trailers should be connected to the tractor by a safety chain (1) *fig. 10*.

Should a trailed implement accidentally become separated from the drawbar during transport, this safety chain will help to retain the trailed implement. Using the appropriate adapter parts, attach the chain to the tractor's drawbar anchor or any other specified anchor point. Leave only enough slack in the chain to allow for manoeuvring.

The safety chain must have a strength equal or greater than the weight of the trailed implement: Contact your Valtra dealer to obtain a suitable chain.

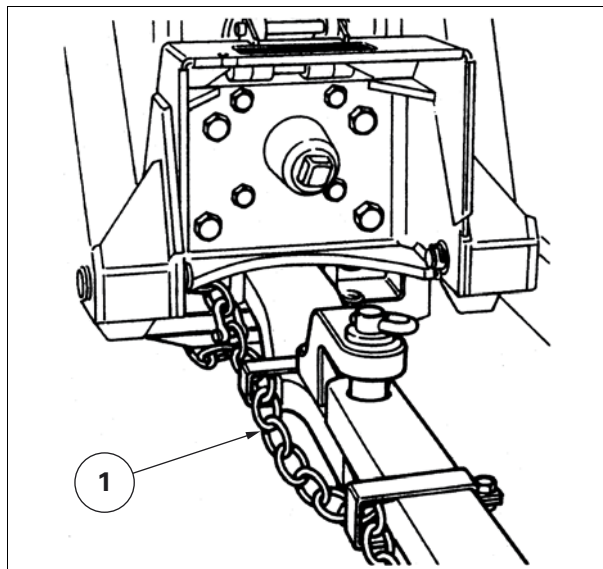


Fig. 10.

I002872

- Only tow using the drawbar. Attaching the trailed implement to another location could cause the tractor to overturn.

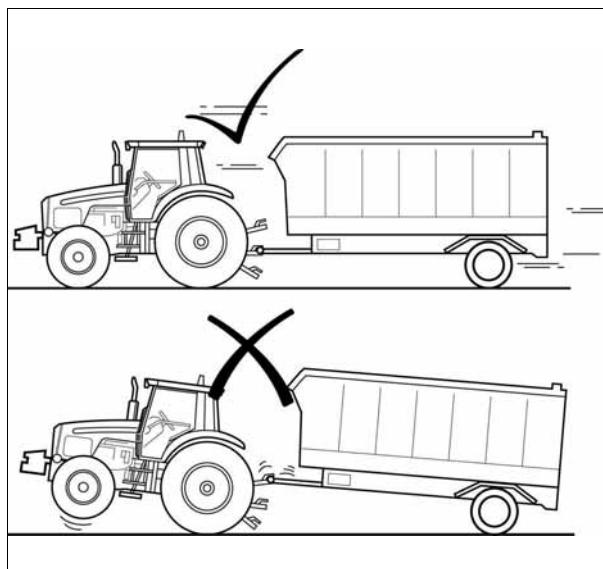


Fig. 11.

I002873

Towing: permissible load and speed



WARNING:

The stopping distance increases with the speed and weight of the trailed implements, and also on a slope. Whether they are fitted with a brake system or not, trailed implements that are too heavy for the tractor or that are towed at too high a speed may lead to a loss of control. Take account of the total weight of the trailed implement (including the load).

The maximum permitted trailed weights are indicated on the name plate. In particular, comply with the following loads:

- Trailed weight without brakes: 3000 kg
- Trailed weight with independent brake system: 6000 kg
- Inertia braked trailed weight: 16000 kg

Never tow an implement:

- at a speed exceeding the speed limit in force in the relevant country and
- if the true weight of the tractor/implement assembly is greater than the tractor total permissible loaded weight indicated on the name plate.

Towed equipment without brakes:

Do not tow equipment that does not have brakes:

- at speeds of more than 32 km/h; or
- at speeds above those recommended by the manufacturer; or
- with a mass (weight) that is over 1,5 t when fully loaded and is more than 1.5 times the mass (weight) of the tractor.

Towed equipment with brakes:

Do not tow equipment that has brakes:

- at speeds of more than 50 km/h; or
- at speeds above those recommended by the manufacturer; or
- with a mass (weight) more than 4.5 times the mass (weight) of the tractor when fully loaded;
- at speeds of more than 40 km/h if, when fully loaded, it has a mass (weight) more than 3.0 times the mass (weight) of the towing unit.

2.8.9 Front-end loader

T006905



WARNING:

The tractor must be fitted with a FOPS (Falling Object Protection Structure) roof if using a loader.

The programmable features of the joystick or other control MUST NOT be used to operate a loader. In order to prevent involuntary loader motion, the loader joystick controller must be a self neutralising type. When the operator releases his grip on the joystick, the joystick must return to a non-operational neutral position - except for float detent position in the loader lower direction.

Always read the implement instruction books fully for implements to be used with the tractor and comply with the safety instructions they contain.

For the attachment points, refer to the specifications chapter.



DANGER:

The use of front-end loaders involves the risk of falling objects; if used for forestry work there is a risk of objects penetrating into the passenger compartment.

This tractor is not designed for haulage applications; its use is prohibited unless you install a FORESTRY KIT; contact the dealer to find out if a forestry kit is available for this tractor model. Only a specific forestry kit can provide the necessary protection against falling trees and the penetration of objects.

Protection offered by the FOPS roof of the tractor



WARNING:

The use of sprayers fitted on the tractor or towed involves the risk of exposure to hazardous substances. The FOPS roof does not guarantee protection against dust, aerosols and fumes. In the event of application of crop protection products (e.g. pesticides, fungicides, herbicides etc.), see the chemical manufacturer's instructions as well as those supplied by the sprayer manufacturer. Personal protective equipment should be used if it is recommended by these instructions for tractors without a cab.

2.9 Specific safety instructions for servicing the tractor

2.9.1 Pollution warning to observe when servicing the tractor

T000889

IMPORTANT: It is illegal to pollute drains, water courses or soil.

Use authorised waste disposal facilities for the collection and treatment of waste; public refuse tips or garages providing facilities for the disposal of used oil.

If in doubt, ask local authorities for advice.

2.9.2 General instructions

T000887

- Never bring a heat source close to the tractor
- Never service the tractor while the engine is running or hot or if the tractor is in motion *fig. 1*. The operator must ensure that potentially hot parts have cooled down before carrying out any work



Fig. 1.

I002862

- Before making adjustments to or servicing the electrical system, disconnect the battery cables, negative (-) terminal first.
- To prevent risks of fire or explosion, keep batteries and cold weather starting aids away from naked flames.
- To prevent sparks which could cause explosions, use jump leads according to instructions.
- Consult your Valtra dealer when making repairs or adjustments and have the work carried out by trained personnel.
- The implement and/or tractor must be supported on suitable blocks or stands and not on a hydraulic jack, see the relevant chapter (installation points of the axle stands).
The blocks and supports must be adapted to the load carried and must be sufficiently stable to prevent tilting.
The blocks and supports must be approved and regularly checked by the appropriate authorities.
Place the blocks and supports on solid ground that can support the load.
- Check all nuts and bolts periodically for tightness, especially wheel hub and rim nuts. Tighten to the torque values stipulated.
- Regularly check the brakes.
Ensure that the brakes are uniformly adjusted, especially if a trailer is used.
In case of malfunction, consult your dealer.
- Accumulators.
The accumulators contain nitrogen and are pressurised.
They may become hot and cause burns.
Modifications must not be made to the accumulators (by welding, drilling, attempting to open, cutting etc.).
The repair, maintenance and commissioning of the accumulators must only be carried out by trained personnel.
Consult your Valtra dealer regarding any maintenance.

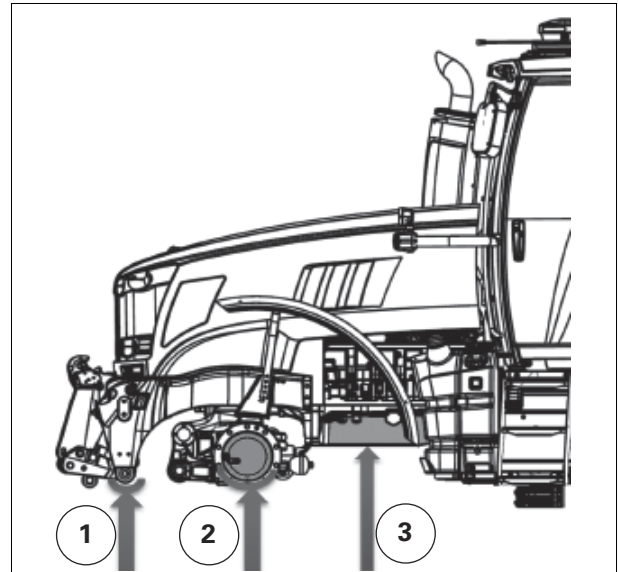
2.9.3 Handling instructions

T022132

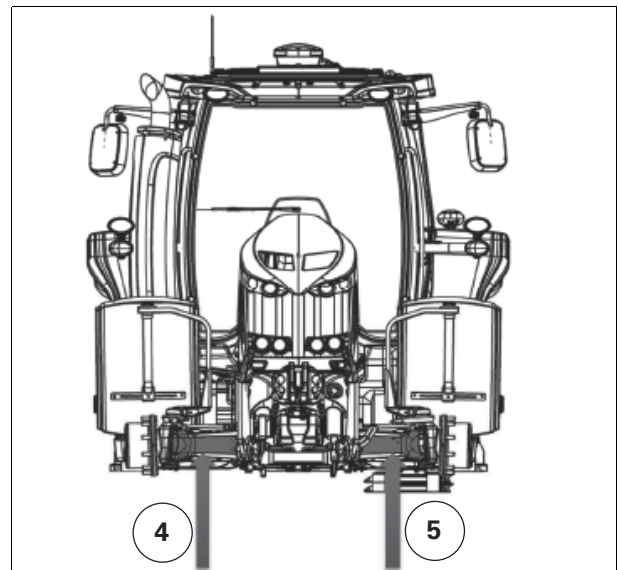
The implement and/or tractor must be supported on suitable blocks or stands and not on a hydraulic jack. The blocks and supports must be adapted to the load carried and must be sufficiently stable to prevent tilting. Place the blocks and supports on solid ground that can support the load.

The blocks and supports must be approved and regularly checked by the appropriate authorities.

- Positioning axle stands at the front of the tractor:
Depending on the requirements of the removal procedure, the axle stands must be placed under one of the following locations:
 - (1) Under the low point of the front linkage
 - (2) Under the front axle final drives
 - (3) Under the engine oil sump (if the front axle is to be removed)
 - (4) and (5) Under the front axle beam



I035279



I035283

Fig. 2.

- Positioning axle stands at the rear of the tractor:
 - (6) and (7) Under the rear axle beams

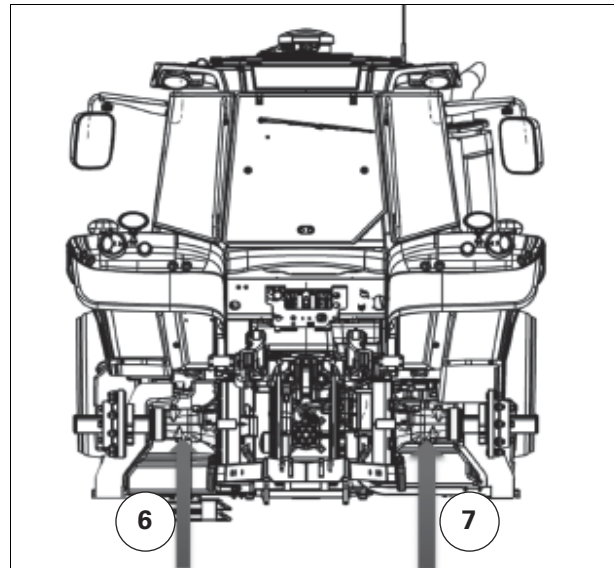
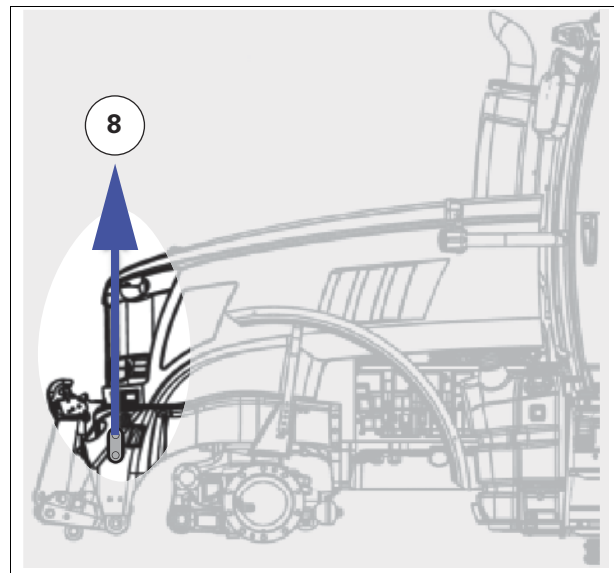


Fig. 3.

I035285

- Front sling points:
 - (8) On the side fixing holes of the front linkage
 - (9) On the weight support hole



I035287

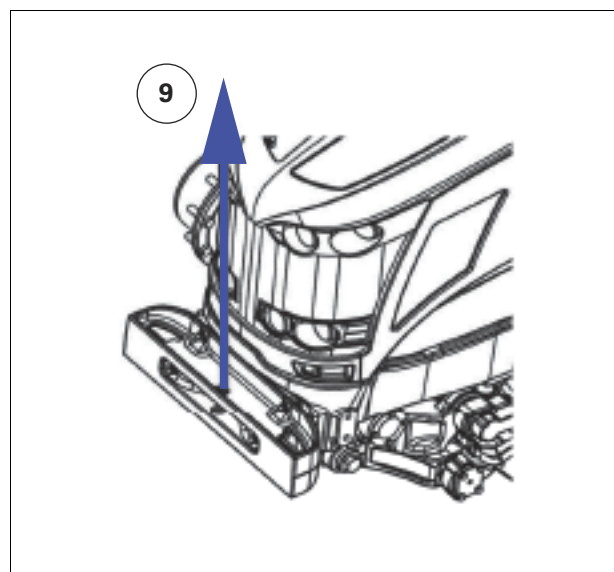


Fig. 4.

I035288

2.9.4 Special instructions for cleaning the tractor

T000888

- Before cleaning the tractor, always:

- follow the "mandatory procedure before dismounting the tractor" [see §2.4.5, page 26](#), and
- remove or put away implements, buckets, chains and hooks.
- Clean steps, pedals and floor. Remove grease or oil. Brush away dust and mud. In winter, scrape away snow and ice. Remember — slippery surfaces are hazardous.
- When washing the tractor with a jet of water, do not direct the jet straight onto electrical components.
- If using a high-pressure cleaning device, maintain a sufficient distance so as not to damage the paintwork and the sealed sections.
- Keep work surfaces and engine compartments clean.
- After washing, grease the lubrication points, the hinged sections and the bearings.

2.10 Protective structures

2.10.1 Protective structures: use and accreditation


T000935

The protective structures (ROPS, seat belts) limit injuries as far as possible in case of an accident or if the tractor overturns.

They comply with all the regulations in force for agricultural tractors.


2.10.2 ROPS (Roll Over Protective Structure)

T000936

- The ROPS has been designed to be suitable for this tractor series
- Never weld parts onto the ROPS
- Never bend or straighten the ROPS
- Never drill or modify the ROPS to fit accessories or implements.
If other controls or displays have to be fitted in the operator's area, contact your Valtra dealer to find out what to do
- Do not attach chains or ropes to the ROPS in order to pull or tow anything
- If the ROPS has been removed, refit it and tighten the fixings to the specified torque before using the tractor again
-  **WARNING:**
A ROPS damaged as a result of an accident, overturning or other incident must be replaced before using the tractor again.

2.10.3 Cab

T021017

- The cab has been designed to be suitable for this tractor series and meet all the legal requirements in terms of safety
- Never weld parts onto the cab
- Never bend or straighten the cab
- Never drill or modify the cab to fit accessories or implements.
If other controls or displays have to be fitted in the operator's area of manoeuvre, contact your dealer to find out what to do
- Do not attach chains or ropes to the cab in order to pull or tow anything
- If the cab has been removed, refit it and tighten the fixings to the specified torque before using the tractor again
-  **WARNING:**
A cab damaged as a result of an accident, overturning or other incident must be replaced before using the tractor again.

2.10.4 Seat belt

T000934

- Wearing the seat belt is an important part of this protection.
- Always wear the seat belt adjusted correctly.



WARNING:

A damaged seat belt must be replaced before using the tractor again. The seat belt approval number is visible after the seat belt has been completely unravelled.

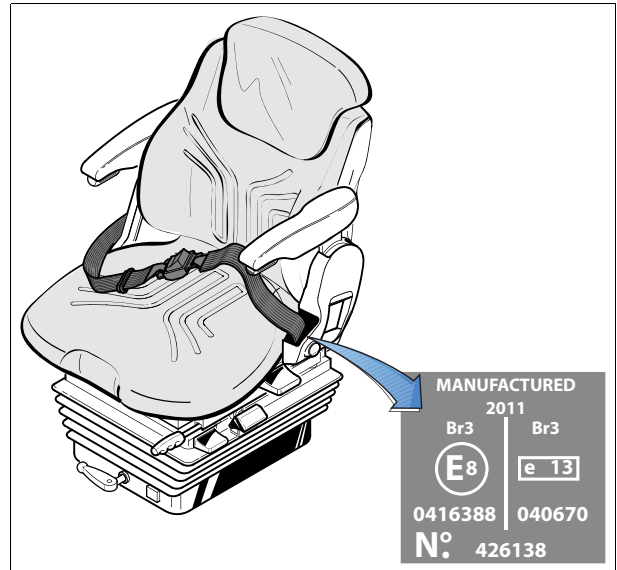


Fig. 1.

I002857

2.10.5 Instructor seat

T003334

- Use of the instructor seat is exclusively reserved for an instructor or technician. The seat is NOT suitable for children.
- The seat belt must always be worn and correctly adjusted when using the instructor seat.



Fig. 2.

I009902

2.11 Warranty

2.11.1 General

T000853

When selling new products to its dealers, the manufacturer provides a warranty which, subject to certain conditions, guarantees that the goods are free from defects in material and workmanship. Since this book is published worldwide, it is impossible to detail the exact terms and conditions of warranty that apply to all retail customers in all countries. Purchasers of new Valtra equipment should therefore request full details from their supplying dealer.

In accordance with the manufacturer's policy of continuous improvement of its products, the manufacturer reserves the right to make alterations to the specifications of machines at any time without notice. The manufacturer disclaims all liability for discrepancies which may occur between the specifications of its products and the descriptions thereof contained in its publications.

2.11.2 Pre-delivery inspection and commissioning on the user's premises

T000854

The dealer is required to carry out certain activities when supplying a new tractor. These consist of carrying out a full pre-delivery inspection to ensure that the tractor supplied is ready for immediate use, and providing full instructions to the user on the basic principles of operation and servicing of the tractor. These instructions will cover instruments and controls, and routine servicing and safety precautions. All persons who will be involved in the operation and servicing of the tractor should be present when these instructions are given.

IMPORTANT: Valtra disclaims all liability in the event of any claim resulting from the fitting of non-approved parts, accessories, implements or attachments or unauthorised modifications or alterations.

2.11.3 Warranty procedure

T000855

Correct commissioning on the user's premises and routine servicing help to prevent breakdowns. However, if operating problems do occur during the warranty period, follow this procedure:

- Immediately inform the dealer you purchased the tractor from, stating the model and serial number. It is very important not to delay, as even if the defect is covered by the original warranty, the coverage may no longer apply if the repair is not carried out immediately.
- Provide the dealer with as much information as possible. The dealer will need to know how many hours the tractor has been in service, what type of work it is used for and the symptoms of the problem.

Routine servicing operations not covered by the warranty

It should be noted that routine servicing operations such as tuning, brake and clutch adjustment, and the supplies used for the tractor servicing (oil, filters, seals, fuel, antifreeze etc.), are not covered by the warranty.

Warning concerning spare parts

Parts other than Valtra parts are likely to be of lower quality. Valtra disclaims all liability in the event of loss or damage arising as a result of such parts being fitted. The manufacturer's warranty may also become void if such parts are fitted during the normal warranty period.

2.11.4 Procedure to follow if changing region

T000856

Only the dealer from whom the tractor was purchased is liable for the protection provided by the warranty. Any repairs should, wherever possible, always be carried out by this dealer. If, however, the owner moves to another region or if the tractor is to be used temporarily at a location a long way from the dealer from whom it was bought, it is advisable to ask this dealer for the name and address of the dealer closest to the new address and arrange to have the obligations remaining to be fulfilled under the warranty transferred to this dealer.

If the customer leaves the region covered by the original dealer without having taken these steps, the new dealer will offer its services if needed, but may invoice them at the normal rate unless:

- the customer has clearly stated that the warranty period has not expired, and
- the repair dealer has been given the possibility of taking the necessary steps with the selling dealer.

2.11.5 Servicing during and after the warranty period

T000857

During the warranty period, all servicing and repair work must be carried out by the dealer, who will carefully carry out detailed checks of the progress and performance of the new tractor.

To obtain best results from a Valtra tractor, it is important to continue regular servicing and periodic inspections after the warranty has expired. All major service work on the tractor must be carried out by a local dealer; an experienced technician will detect any problems which may arise between one service and the next. Technicians regularly follow training courses to update their knowledge of the product and servicing and repair techniques, and the use of special tools and modern diagnostic equipment. They receive regular Service Bulletins and have access to all the workshop manuals and technical publications required to carry out repairs or servicing in accordance with the quality standards required by Valtra.

3. Operation

3.1	Cab	59
3.1.1	Steering console	59
3.1.2	Instrument panel	60
3.1.3	Control unit	66
3.1.4	Pedals	67
3.1.5	Steering wheel	67
3.1.6	Operator presence detector	68
3.1.7	Maximo Evolution pneumatic seat	70
3.1.8	Instructor seat	78
3.1.9	Right-hand console	79
3.1.10	Right-hand pillar	80
3.1.11	Left-hand console	81
3.1.12	Upper console	81
3.1.13	Manual air conditioning	83
3.1.14	Automatic air conditioning	88
3.1.15	Additional heater	94
3.1.16	Accessories sockets	95
3.1.17	Emergency exits	96
3.1.18	Sun visor	97
3.2	Reverse station (optional)	98
3.2.1	Positioning the reverse station	98
3.2.2	Reverse station adjustments	99
3.2.3	Valtra Shuttle controller	99
3.2.4	Reverse station driving	100
3.2.5	Leaving the reverse station	101
3.3	Setup and Information Screen control screens on the instrument panel	102
3.3.1	Using the Setup and Information Screen	102
3.3.2	Setup and Information screens	103
3.4	Tractor terminal	105
3.4.1	Using the terminal	105
3.4.2	Accessing the menus	106
3.4.3	Accessing the large driving view	107
3.4.4	Accessing the hydraulic system settings view	111
3.4.5	Accessing the transmission settings view	112
3.4.6	Accessing the display settings view	117
3.4.7	Accessing the split driving view	119
3.4.8	Split driving view	119
3.4.9	Modifying the lower field displays	120
3.4.10	Lower field displays: Overview	120
3.4.11	Lower field displays: PTO speed	122
3.4.12	Lower field displays: Engine speed	123
3.4.13	Lower field displays: Rear hydraulic spool valve settings	123
3.4.14	Lower field displays: Hydraulic spool valve settings	124
3.4.15	Lower field displays: Gearbox temperature	124
3.4.16	Lower field displays: Hydrostatic temperature	125
3.4.17	Lower field displays: Working hydraulic oil temperature	125
3.4.18	Lower field displays: linkage	126
3.4.19	Lower field displays: Wheel slip	126
3.4.20	Lower field displays: Hours worked	127
3.4.21	Lower field displays: Distance covered	127
3.4.22	Lower field displays: Surface area	128
3.4.23	Lower field displays: Fuel consumption	128
3.4.24	Lower field displays: Speed regulator	130

3.4.25	Accessing the counter parameter settings view	131
3.5	Automatic U-Pilot	134
3.5.1	Presentation	134
3.5.2	Operating conditions	134
3.5.3	U-Pilot controls	135
3.5.4	U-Pilot display	135
3.5.5	U-Pilot display symbols	136
3.5.6	Selecting a U-pilot program	137
3.5.7	Recording a U-pilot program	138
3.5.8	U-Pilot programming examples	139
3.5.9	Previewing the U-Pilot program	140
3.5.10	Running a program	140
3.5.11	Managing U-Pilot programs	141
3.5.11.1	Adding a new program	141
3.5.11.2	Changing the name of a program	141
3.5.11.3	Deleting a program	142
3.5.11.4	Recovering a program	142
3.5.12	Modifying U-Pilot programs	142
3.5.12.1	Changing the program modification view	142
3.5.12.2	Changing a program function	143
3.5.12.3	Deleting a program function	143
3.5.12.4	Distance modification program	144
3.5.12.5	Adding a new program function	144
3.5.12.6	Moving a program function	145
3.5.13	Error codes	145
3.6	Body	147
3.6.1	Opening the bonnet	147
3.6.2	Adjusting the external rear-view mirrors	147
3.6.3	Adjusting the left-hand step	149
3.7	Engine	151
3.7.1	Running-in	151
3.7.2	Filling with fuel	151
3.7.3	Start switch	153
3.7.4	Start-up	153
3.7.5	Start-up sheet	154
3.7.6	Starting the T4F SCR Technology engine in cold weather	155
3.7.7	Information about the various operating modes of the T4F SCR Technology engine	156
3.7.8	Stopping the engine	160
3.7.9	Engine speed	161
3.7.10	Storing engine speeds	162
3.8	Transmission	163
3.8.1	Clutch function	163
3.8.2	Power Shuttle	164
3.8.3	Storage of forward speeds	166
3.8.4	Manual mode	167
3.8.5	Automatic mode	168
3.8.6	road mode (hare)/field mode (tortoise)	168
3.8.7	Changing forward speed	169
3.8.8	Tractor towing	170
3.8.9	Tractor limp home mode	172
3.8.10	Forward speed calibration	175
3.9	Brakes	177
3.9.1	Brake pedals	177
3.9.2	Hydraulic trailer brake	177
3.9.3	Pneumatic trailer brake	178
3.9.4	Electromechanically controlled brake on the steering column	180
3.9.5	Emergency hand brake (on models fitted with the ParkLock option)	182
3.10	Steering	183
3.10.1	Steering	183
3.11	Front axle	186
3.11.1	Four-wheel drive front axle	186

3.11.2	Suspended front axle	187
3.11.3	Permissible load on the front axle	188
3.11.4	Using a scraper	192
3.12	Differential lock	193
3.12.1	Differential lock	193
3.13	Power take-off	194
3.13.1	Front power take-off	194
3.13.2	Rear power take-off (PTO)	195
3.13.3	Economy PTO	197
3.13.4	Changing the flanged shaft	197
3.13.5	PTO external control	199
3.13.6	Power take-off electronic controls	199
3.13.7	Power take-off protection	199
3.14	Linkage	201
3.14.1	General	201
3.14.2	Rear linkage electronic controls	201
3.14.3	Rear linkage operation	203
3.14.4	Rear linkage external controls	207
3.14.5	Front linkage	208
3.14.6	Top link	212
3.14.7	Bottom links	215
3.14.8	Lift rods	216
3.14.9	Stabilisers	217
3.14.10	Ball joint support	220
3.15	Towing equipment	221
3.15.1	General	221
3.15.2	Multi-hole drawbar	223
3.15.3	Swinging drawbar	223
3.15.4	Ball coupling	225
3.15.5	Drawbar with stud	227
3.15.6	4-wheel trailer clevis hitch	228
3.15.7	Pick-up hitch	229
3.16	Auxiliary hydraulics	233
3.16.1	General	233
3.16.2	Description of the hydraulic couplers (Load Sensing)	233
3.16.3	Use of hydraulic couplers on Closed Centre system (Load Sensing)	235
3.16.4	Auxiliary hydraulics locking/unlocking	240
3.16.5	Description and use of the cab controls	241
3.16.6	Description and use of the external controls	243
3.16.7	Setting flow rates and time delay	244
3.17	Front-end loader function	247
3.17.1	Front-end loader	247
3.17.2	Layout of components	247
3.17.3	Using the electric joystick of the front-end loader	248
3.18	Lighting	251
3.18.1	Main lighting control module	251
3.18.2	Work lights module	252
3.18.3	Direction indicators	253
3.19	Suspended cab	256
3.19.1	Suspended cab	256
3.20	Front tyres and track widths	257
3.20.1	Wheel studs	257
3.20.2	Installation points of the axle stands	257
3.20.3	Adjusting the front wheel track width	257
3.20.4	Adjusting the 4WD front axle stops	260
3.20.5	Tyres	262
3.20.6	Tyre pressures	262
3.21	Rear tyres and track widths	263
3.21.1	Wheel studs	263
3.21.2	Wheel chock(s) (optional)	263
3.21.3	Installation points of the axle stands	264
3.21.4	Rear track width with short straight shafts	265

3.21.5	Rear track width with long straight shafts	268
3.21.6	Assembly configuration for an external width of 2550 mm	270
3.21.7	Adjusting the rear wheel track width	272
3.22	Dual wheels	274
3.22.1	Dual wheels	274
3.22.2	Installation points of the axle stands	275
3.22.3	Dual rear wheel track width with short straight shafts	276
3.22.4	Dual rear wheel track width with long straight shafts	281
3.23	Ballast	289
3.23.1	Liquid ballasting	289
3.23.2	Front-end weight	289

3.1 Cab

3.1.1 Steering console

T020766

- (1) Instrument panel *Tableau de bord*
- (2) Control unit *Commodo*
This assembly controls the direction indicators, main beam/dipped lights, windscreen wipers, front windscreen washer and horn.
- (3) Steering wheel adjustment [see §3.1.5, page 67](#)
- (4) Access controls for the Setup and Information Screen menus
- (5) PowerShuttle control and ParkLock electrohydraulic brake

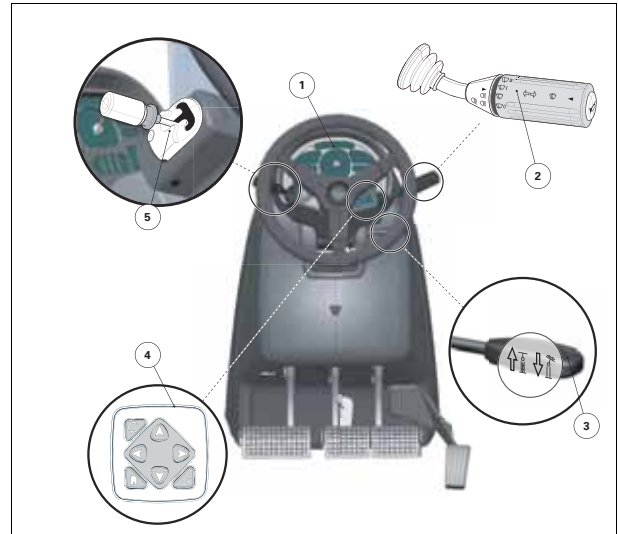


Fig. 1.

I007059

3.1.2 Instrument panel



Fig. 2.

1051665

- | | |
|--|--|
| <p>(1) Tachometer
The tachometer shows the engine speed in hundreds of revolutions per minute.</p> <p>(2) Left-hand indicator light and function light panel</p> <p>(3) Right-hand indicator light and function light panel</p> <p>(4) Left-hand direction indicator light and 1st trailer direction indicator light</p> <p>(5) Right-hand direction indicator light and 2nd trailer direction indicator light</p> <p>(6) Engine coolant temperature</p> | <p>(7) Display for monitoring engine oil pressure or checking the pressure in the pneumatic braking system</p> <p>(8) AdBlue™ or DEF gauge (SCR Technology engines only) or auxiliary hydraulic tank gauge</p> <p>(9) Fuel gauge for the fuel tank (with or without secondary tank)</p> <p>(10) Digital display for monitoring primary functions</p> <p>(11) Digital display for monitoring the Setup and Information Screen functions</p> <p>(12) Main beam lights indicator light.</p> |
|--|--|









Left-hand indicator light panel





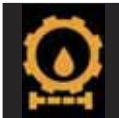




Fig. 3.

I047178

3

Indicator light	Description
	Left-hand direction indicator light
	Direction indicator light for the first trailer
	Engine air filter blockage indicator light
	Blockage indicator light for auxiliary hydraulic oil filter
	General failure warning light This lights up at the same time as the other alert lights.
	Tractor forward travel indicator light
	Tractor reverse travel indicator light
	Engine preheater (Grid Heater) activation indicator light

3

Indicator light	Description
	Front PTO engaged indicator light
	4WD front axle engaged indicator light
	High-pressure transmission oil filter blockage indicator light
	Low level of AdBlue™ or DEF in tank indicator light
	SCR Technology system malfunction indicator light
	Differential lock indicator light
	Rear PTO engaged indicator light









Right-hand indicator light panel









Fig. 4.

I047205

3

Indicator light	Description
	Right-hand direction indicator light
	Direction indicator light for the second trailer
	Indicator light for an engine fault that causes the engine to stop
	Pressure light for brake (ParkLock, depending on model) and pneumatic brake
	Engine oil pressure indicator light This indicator light comes on when the ignition key is in the ON position (3) (see start switch), but should switch off when the engine is started and is running. If the indicator light stays on when the engine is running, stop the engine and determine the cause of the low pressure or consult your dealer.
	Steering supply pressure
	Transmission oil pressure indicator light If the indicator light comes on during operation, stop the tractor and consult your dealer.
	Transmission operating temperature indicator light

3

Indicator light	Description
	Temperature indicator light for auxiliary hydraulic oil
	Engine coolant temperature indicator light
	Parking brake indicator light
	Alternator charge light If the indicator light comes on or flashes at an engine speed above 1000 rpm, determine the cause of the failure (see the Maintenance section of the Operator's Manual) or consult your dealer.
	Service indicator light This lights up when a service is due.
	Presence detector in the seat indicator light

Monitoring display panel

- (1) Engine temperature monitoring display (range from 60 °C to 110 °C): Segment display
If it reaches the red zone, stop the hydraulics and the PTO, place the transmission in neutral and check whether the cooler is blocked. If necessary, unblock it after stopping the engine, accelerate fully until it returns to the normal operating zone (green).
If the problem still persists, contact your dealer.
- (2) Diesel fuel level monitoring display: Segment display

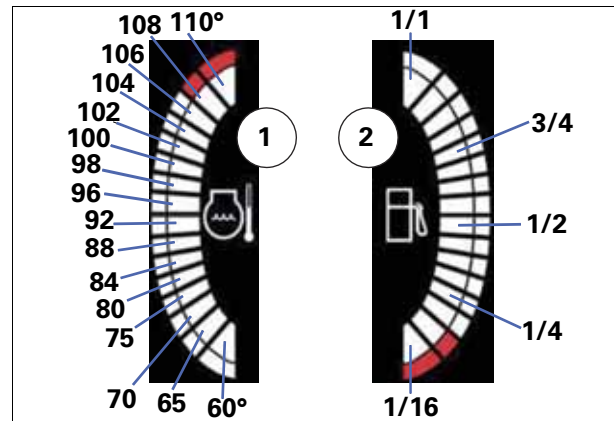




Fig. 5.

1047234

- (3) (4) Dual-purpose display
 - Monitors pneumatic braking pressure (3) (from 0 bar to 10 bar (145 psi))
 - Monitors the level of urea (Ad-Blue™ or DEF) (4) (from 0% to 100%)

To switch from displays (3) and (4) to displays (5) and (6), use the navigation key  on the control keypad for the Setup and Information Screen functions when the main screen is displayed.

- (5) (6) Dual-purpose display
 - Monitors engine oil pressure (5) (from 0 bar to 8 bar)
 - Monitors the level of auxiliary hydraulic oil (6) (from 0% to 100%)

To switch from displays (5) and (6) to displays (3) and (4), use the navigation key  on the control keypad for the Setup and Information Screen functions when the main screen is displayed.

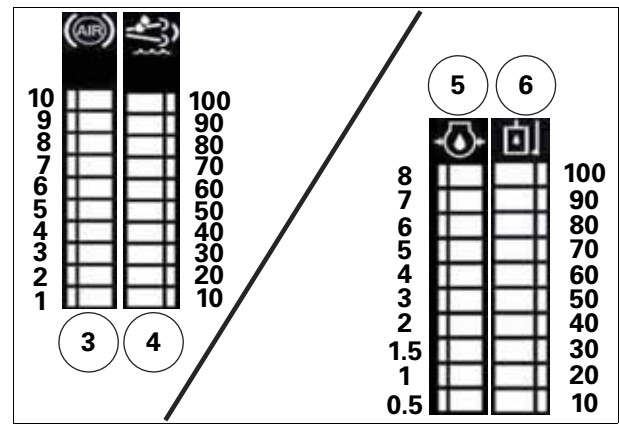


Fig. 6.

1047386

Main monitoring display

- (1) Forward/neutral/reverse display
- (2) Forward speed display
- (3) Digital display (linked to the symbols (6) or (7)):
 - Rear PTO speed
 - Engine speed
 - Hours worked
 - Total engine time.

Alternating display of number of hours and hundredths.

These parameters can be selected by pressing button (17) on the right-hand side of the steering wheel [fig. 9](#)

NOTE: Resetting the working time: Display the parameter in question, then press and hold the button (17) for approx. 5 seconds to reset the display to 0.

- (4) (Hare) road mode engaged display
- (5) (Tortoise) field mode engaged display
- (6) Display of symbols according to display (3):
 - Hours worked
 - Total engine time
- (7) Display of symbols according to display (3):
 - Rear power take-off (PTO)
 - Engine speed
- (8) Display of rear PTO speed selected:
 - "540E": 540 rpm economy
 - "1000": 1000 rpm
 - "1000E": 1000 rpm economy

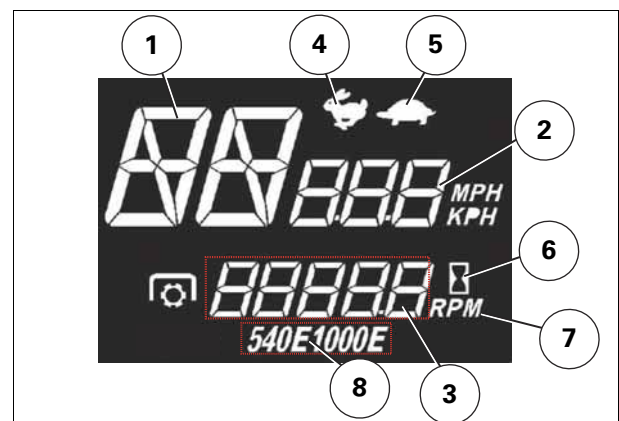


Fig. 7.

1051678

Setup and Information Screen monitoring display

- (1) Display of the 4-wheel drive front axle in automatic mode
- (2) Display of the setting value for the Quick Steering function
- (3) Display of the suspended front axle
- (4) Display of the suspended cab
- (5) Display of the rear power take-off speed
- (6) Display of the maximum forward speed in manual or automatic mode
- (7) Distance travelled display.



Fig. 8.

1051686

Setup and Information Screen menu access controls

- (11) Up scrolling key
- (12) Down scrolling key
- (13) Left scrolling key.
- (14) Right scrolling key.
- (15) Confirmation key
- (16) Cancel key.
- (17) Parameter display selector for the Setup and Information Screen screen

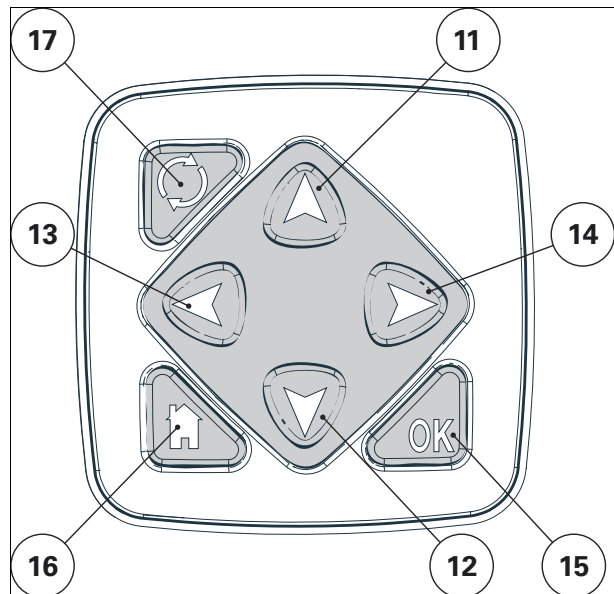


Fig. 9.

1004852

3.1.3 Control unit

T021199

- (1) Front windscreen wiper
 - 0. Off
 - J. Intermittent
 - I. First speed
 - II. Second speed
- (2) Left-hand indicator:
 - (A): momentary. Cancels once it is released.
 - (B): locked. Cancels when the steering wheel returns to the centre (straight line).
- (3) Right-hand indicator:
 - (A): momentary. Cancels once it is released.
 - (B): locked. Cancels when the steering wheel returns to the centre (straight line).
- (4) Horn
- (5) Main beam lights flash.
- (6) Main beam lights position (after engaging the main lighting) (see main lighting control module).

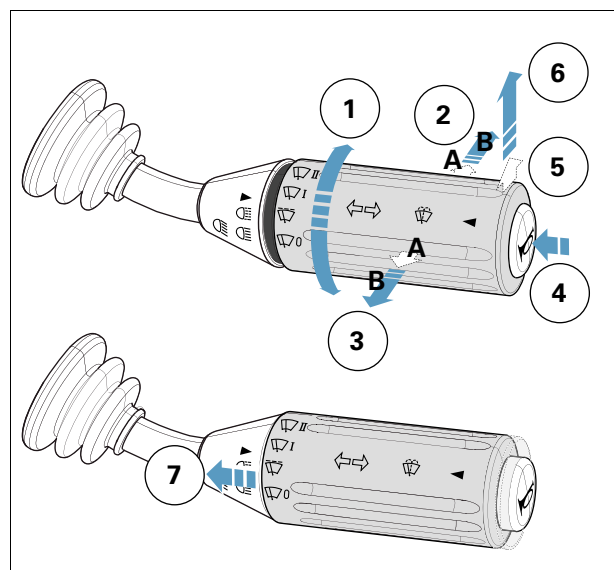


Fig. 10.

1004676

NOTE: If only the side lights are illuminated, the main beam lights cannot be operated.

(7) Front and rear windscreen washer.

3.1.4 Pedals

T021176

- (1) Clutch pedal.
- (2) Brake pedals
- (3) Brake pedal locking latch.
- (4) Throttle pedal.

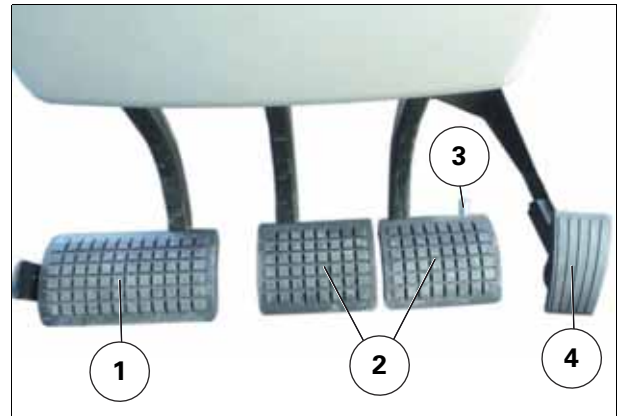


Fig. 11.

I048212

Clutch pedal

The clutch pedal has a safety start switch. The clutch pedal must be depressed fully before operating the starter switch.

IMPORTANT: Never keep your foot on the clutch pedal or keep it halfway engaged.

Brake pedals

The two brake pedals can be used either separately or locked together using the latch (3).

IMPORTANT: The two brake pedals must be locked together when being used on the open road.

Throttle pedal.

Use of the throttle pedal enables a momentary increase of the engine speed set by the hand throttle.

With the Datatronic CCD option installed, the engine speed setting and the maximum tractor speed setting in pedal mode can be set (refer to the "Transmission application" chapter of the Datatronic CCD Operator's Manual).



WARNING:

When travelling on the road, only the throttle pedal should be used; the throttle lever should be moved to the idle position so that engine braking can be operational.

3.1.5 Steering wheel

T001277

The steering wheel tilt and height can be adjusted. Both adjustments are made using a single lever [fig. 12](#):

- height adjustment: pull the lever upwards to adjust the height (1)
- tilt angle adjustment: press the lever downwards to adjust the tilt angle (2).

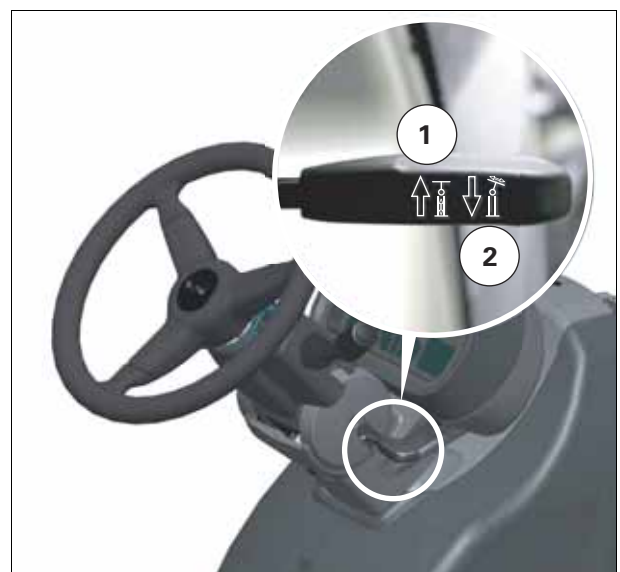


Fig. 12.

I007058

3.1.6 Operator presence detector

Operator presence detector

A presence detection system is built into the operator's seat. When the tractor is moving, if the operator leaves the seat, a specific icon appears on the instrument panel.

The tables below summarise the operating conditions for the detector.

Operator seat detection sensor status:

- OFF = No operator detected on seat
- ON = Operator detected on seat

Logic of operation:



Fig. 13.

I046684

Rear PTO status	Status of presence detector in the seat	Position of the parking brake or Park-Lock	Result
OFF	OFF	OFF	Power take-off cannot be engaged
OFF	OFF	ON	<ul style="list-style-type: none"> - Power take-off cannot be engaged using the cab control - Can be engaged using the power take-off switch on the fender
OFF	ON	ON or OFF	<ul style="list-style-type: none"> - Power take-off can be engaged using the cab control - Cannot be engaged using the power take-off switch on the fender
ON	ON	ON or OFF	The power take-off is in operation
ON	OFF > 2 seconds and < 5 seconds	ON or OFF	The power take-off (PTO) continues to operate but an audible signal sounds (ten seconds) and a symbol is displayed on the instrument panel
ON	OFF > 5 seconds	ON	The power take-off continues to operate
ON	OFF > 5 seconds	OFF	<p>The PTO stops</p> <p>If there is a presence detector fault, depressing and keeping the clutch pedal pressed will re-engage the PTO in the cab, using the ON/OFF switch to unblock/clean an implement (for example: a round baler). The power take-off stops for five seconds after the clutch pedal is released.</p>

Front power take-off status	Status of presence detector in the seat		Result
OFF	OFF	ON or OFF	Power take-off cannot be engaged
OFF	ON	ON or OFF	Front power take-off can be engaged using the cab control
ON	ON	ON or OFF	The power take-off is in operation
ON	OFF > 2 seconds and < 5 seconds	ON or OFF	The power take-off (PTO) continues to operate but an audible signal sounds (ten seconds) and a symbol is displayed on the instrument panel
ON	OFF > 5 seconds	ON	The power take-off continues to operate
ON	OFF > 5 seconds	OFF	The PTO stops If there is a presence detector fault, depressing and keeping the clutch pedal pressed will re-engage the PTO in the cab, using the ON/OFF switch to unblock/clean an implement (for example: mower). The power take-off stops for five seconds after the clutch pedal is released.

Headland mode status	Status of presence detector in the seat		Result
OFF	OFF		Headland mode cannot be engaged
OFF	ON		Headland mode can be engaged
ON	OFF < 2 seconds		Headland mode remains ON
ON	OFF > 2 seconds		An audible signal sounds (ten seconds) and a symbol is displayed on the instrument panel and headland mode OFF

Shuttle control	Status of presence detector in the seat	Position of the parking brake or Park-Lock	Result
Neutral	OFF	OFF	An audible signal sounds (10 seconds) and the symbol is displayed on the instrument panel
Neutral	OFF	ON	Normal safety condition
Neutral to forward or reverse travel	ON	OFF	Forward or reverse travel can be engaged
Neutral to forward or reverse travel	OFF	OFF	Forward or reverse travel cannot be engaged Pressing the clutch pedal allows the tractor to be driven if a presence sensor fault occurs
Forward or reverse travel	ON	OFF	Normal operation
Forward or reverse travel	OFF < 2 seconds	OFF	Normal operation
Forward or reverse travel	OFF > 2 seconds	OFF	The tractor continues to move but an audible signal sounds (10 seconds) and a symbol is displayed on the instrument panel

Initial status of the Auto-Guide™ function	Status of presence detector in the seat	Position of the parking brake or Park-Lock	Result
OFF	OFF		Auto-Guide™ cannot be engaged
OFF	ON		Auto-Guide™ can be engaged
ON	OFF < 2 seconds		Auto-Guide™ continues to operate
ON	OFF > 2 seconds		An audible signal sounds (ten seconds) and the symbol is displayed on the instrument panel and Auto-Guide™ OFF

3.1.7 Maximo Evolution pneumatic seat

T020855

Availability of adjustments varies according to the seat option fitted



WARNING:

Never adjust the seat when the tractor is in motion.

Page left blank intentionally

3



Fig. 14.

1048394

- (1) Longitudinal adjustment control
- (2) Seat depth adjustment control
- (3) Seat tilt adjustment control
- (4) Seat swivel control
- (5) Vertical shock absorber adjustment control
- (6) Weight and height adjustment control
- (7) Lateral fore/aft shock absorber adjustment control
- (8) Armrest tilt adjustment control
- (9) Backrest tilt adjustment control
- (10) Lower lumbar support adjustment electrical control
- (11) Upper lumbar support adjustment electrical control
- (12) Seat heating or air conditioning control
- (13) Backrest extension
- (14) Storage space for books and user instructions
- (15) Seat belt
- (16) Fore/aft shock absorber adjustment control

Legroom adjustment

Move the locking lever (1) upwards to enable legroom adjustment. After the adjustment has been carried out, the locking lever should be engaged in the required position. It should not be possible to move the operator's seat into another position when it is locked.

IMPORTANT: Do not lift the locking lever with your leg or calf.



Fig. 15.

I048362

Seat depth adjustment (depending on model)

To adjust the depth of the seat, pull the handle (1) upwards while moving the seat backwards or forwards to find the required position.



Fig. 16.

I048364

Seat tilt adjustment

To adjust the tilt angle of the seat, pull the handle (2) upwards while pressing on the seat or releasing pressure on the seat to find a comfortable position [fig. 17](#).



Fig. 17.

I048364

Seat swivel

Pull the locking lever (1) to enable the rotation mechanism and swivel the seat to the right or left stop (the seat can be locked in position every 10°). After the adjustment has been carried out, the locking lever should be engaged in the required position. It should not be possible to move the operator's seat into another position when it is locked *fig. 18*.

IMPORTANT: *There will be a click when the lever locks into place. The swivel should be in the central position for driving.*



Fig. 18.

I048365

Seat weight and height adjustment

The weight adjustment is carried out automatically when the operator sits on the seat. It is not necessary to operate the handle.

The height adjustment is continuously adaptable due to the pneumatic system: Raise or lower the seat by pulling or pressing on the weight adjustment handle (1). When the upper or lower height limit is reached, the height adjusts automatically, providing minimum shock absorption travel *fig. 19*. Release the handle at the required height or at the upper stop.

IMPORTANT: *To avoid causing any damage, do not activate the compressor for more than one minute when adjusting the seat height.*

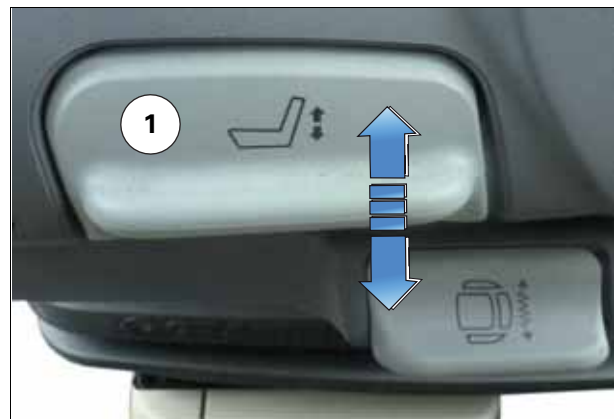


Fig. 19.

I048366

Lateral fore/aft shock absorber

Under certain conditions of use, it is advisable to use the fore/aft shock absorber; the operator's seat is then better protected against side-to-side jerks. The lateral shock absorber can be activated and deactivated using the locking lever (1):

- Position A: Lateral fore/aft shock absorber ON
- Position B: Lateral fore/aft shock absorber OFF

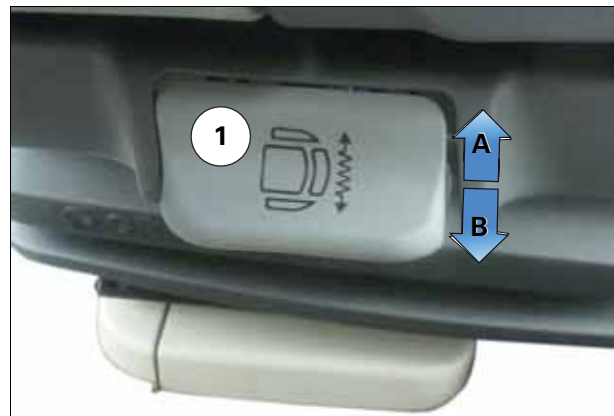


Fig. 20.

I048367

Fore/aft shock absorber

Under certain conditions of use (driving with a trailer), it is advisable to use the fore/aft shock absorber; the operator's seat is then better protected against jerks in the direction of travel. The fore/aft shock absorber can be activated and deactivated using the locking lever (1) *fig. 21*:

- Position A: Fore/aft shock absorber ON
- Position B: Fore/aft shock absorber OFF

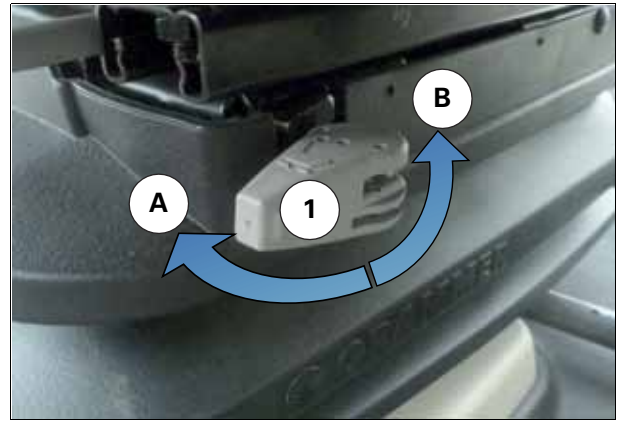


Fig. 21.

1048368

Vertical shock absorber

The vertical shock absorber can be adapted to the structure of the land or road. Seat comfort is individually adjustable using the rotary switch (1):

- Position A: Low shock absorption
- Position B: Medium shock absorption
- Position C: High shock absorption

NOTE: Position B is the basic setting recommended for a driver of average weight

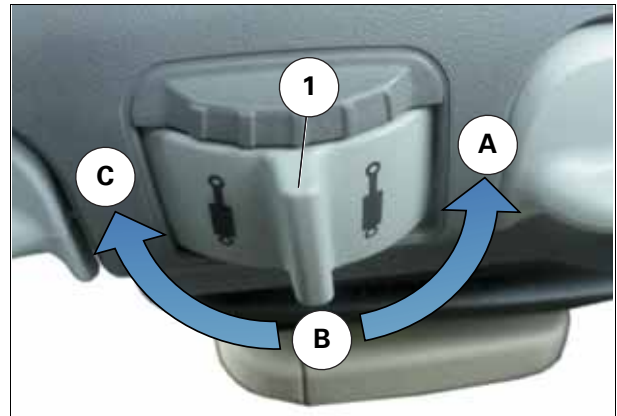


Fig. 22.

1048369

Backrest tilt adjustment

The seat backrest adjustment mechanism can be enabled by moving the locking lever (1) upwards. Adjust the desired position by increasing or reducing the pressure on the backrest and then release the locking lever (1). When the latter is locked, you can no longer move the backrest position.



Fig. 23.

1048370

Armrest tilt

The tilt angle of the armrests (1) can be adjusted by turning the thumb wheel by hand. Turning the thumb wheel towards the outside of the seat (+) raises the front of the armrest. Turning the thumb wheel towards the inside of the seat (-) lowers the front of the armrest *fig. 24*.

The armrests can be tilted backwards and their height can be adjusted as necessary. Remove the protective cover on the left-hand side of the seat (2) by unscrewing the hexagonal nut located behind. Adjust the armrests to the desired height and re-tighten the nut. Then, refit the protective cover (2).



Fig. 24.

1048393

Backrest extension

The height of the backrest extension can be adjusted by pulling it up to the upper stop. To remove the backrest extension, pull firmly upwards past the end stop.

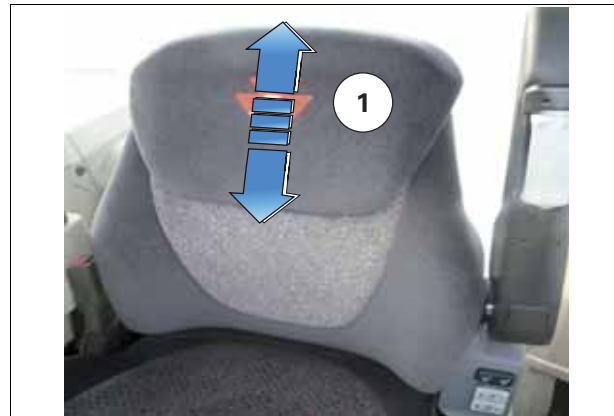


Fig. 25.

1048392

Lumbar support adjustment

By operating the upper switch (1) or the lower switch (2), the lumbar support can be individually adjusted in the upper or lower section of the backrest. This adjustment increases seat comfort and operator freedom of movement.

The curvature of the lumbar adjustment is adjusted by pressing "+" or "-" on the relevant switch. Stop pressing "+" and release the switch when maximum backrest curvature is reached.

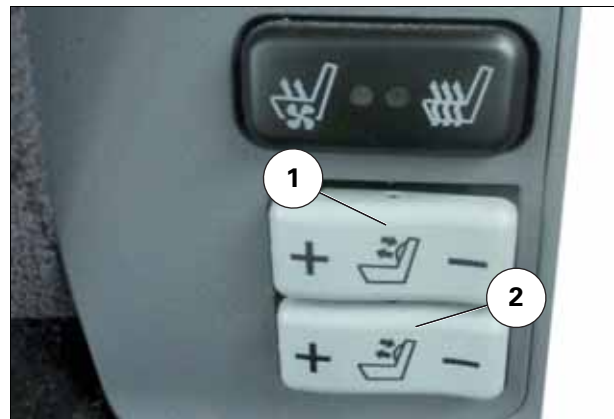


Fig. 26.

1048371

Heating or air conditioning

The seat active air conditioning ensures the seat remains dry. Moisture from the body is removed when it comes into contact with the seat. This air conditioning system ensures a comfortable seat.

Press the switch (1) to activate/deactivate the seat heater or air conditioning:

- Position A: Heater and air conditioning OFF
- Position B: Heater ON (air conditioning OFF)
- Position C: Air conditioning ON (heater OFF)

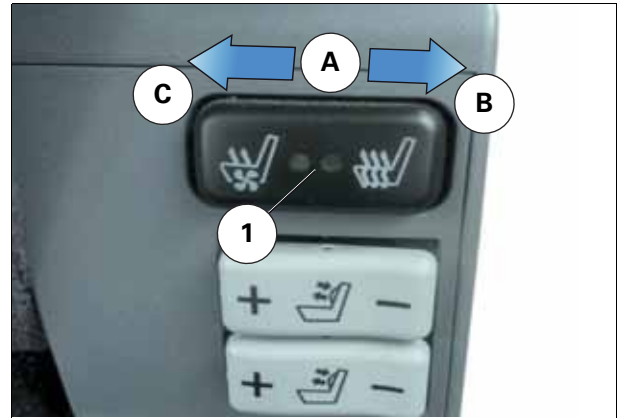


Fig. 27.

I048372

Storage space for books and user instructions

The storage compartment or storage pocket (depending on model) is located on the back of the seat. To open the compartment, first pull the tab (A) upwards and then pull the cover backwards (B) [fig. 28](#).



Fig. 28.

I038379

Seat belt

Wearing the seat belt plays an essential role in protecting the operator.



WARNING:

Always wear the seat belt adjusted correctly.

3.1.8 Instructor seat

T003334

- Use of the instructor seat is exclusively reserved for an instructor or technician. The seat is NOT suitable for children.
- The seat belt must always be worn and correctly adjusted when using the instructor seat.



Fig. 29.

I009902

3.1.9 Right-hand console

T022554

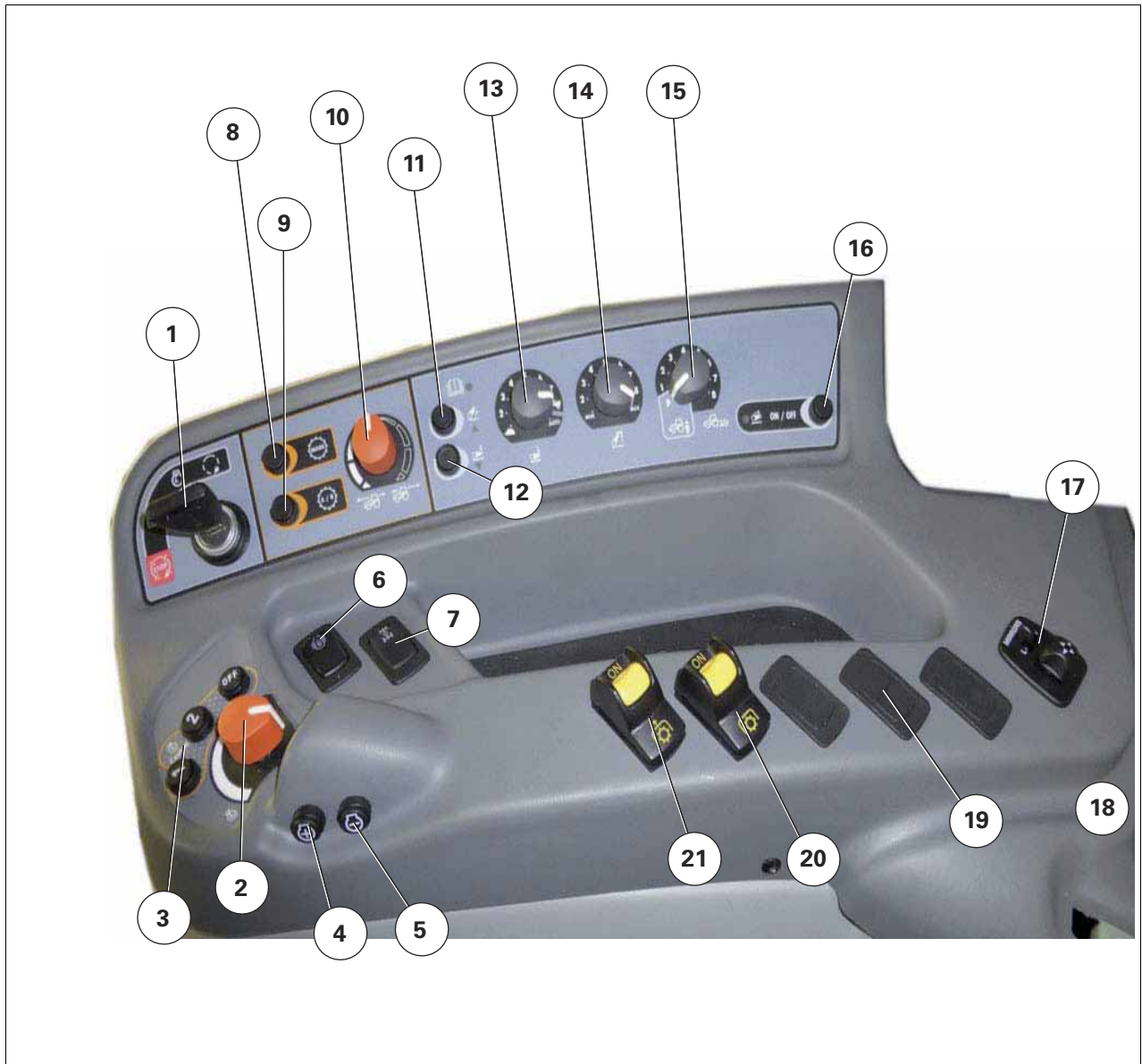


Fig. 30.

1051192

- | | |
|---|--|
| (1) Start switch | (13) Linkage lowering speed control knob |
| (2) Hand throttle (engine speed) | (14) Linkage height control knob |
| (3) Switches for stored engine speeds 1 and 2 | (15) Draft control knob |
| (4) Switch to increase the stored engine speed (+) | (16) Rear linkage active transport control system control switch |
| (5) Switch to decrease the stored engine speed (-) | (17) Right and left-hand rear-view mirror electrical adjustment control |
| (6) Differential lock switch | (18) Fuse box location (see fuse box description in the Maintenance section of the Operator's Manual). |
| (7) 4WD front axle switch. | (19) Auto-hitch extension and retraction switch |
| (8) Not used | (20) Rear power take-off switch |
| (9) road mode (hare)/field mode (tortoise) switch | (21) Front power take-off switch |
| (10) Forward and reverse speed control potentiometer (speed balance) | |
| (11) Linkage lifting switch (in parallel with the switch on the fenders) | |
| (12) Linkage lowering switch (in parallel with the switch on the fenders) | |

3.1.10 Right-hand pillar

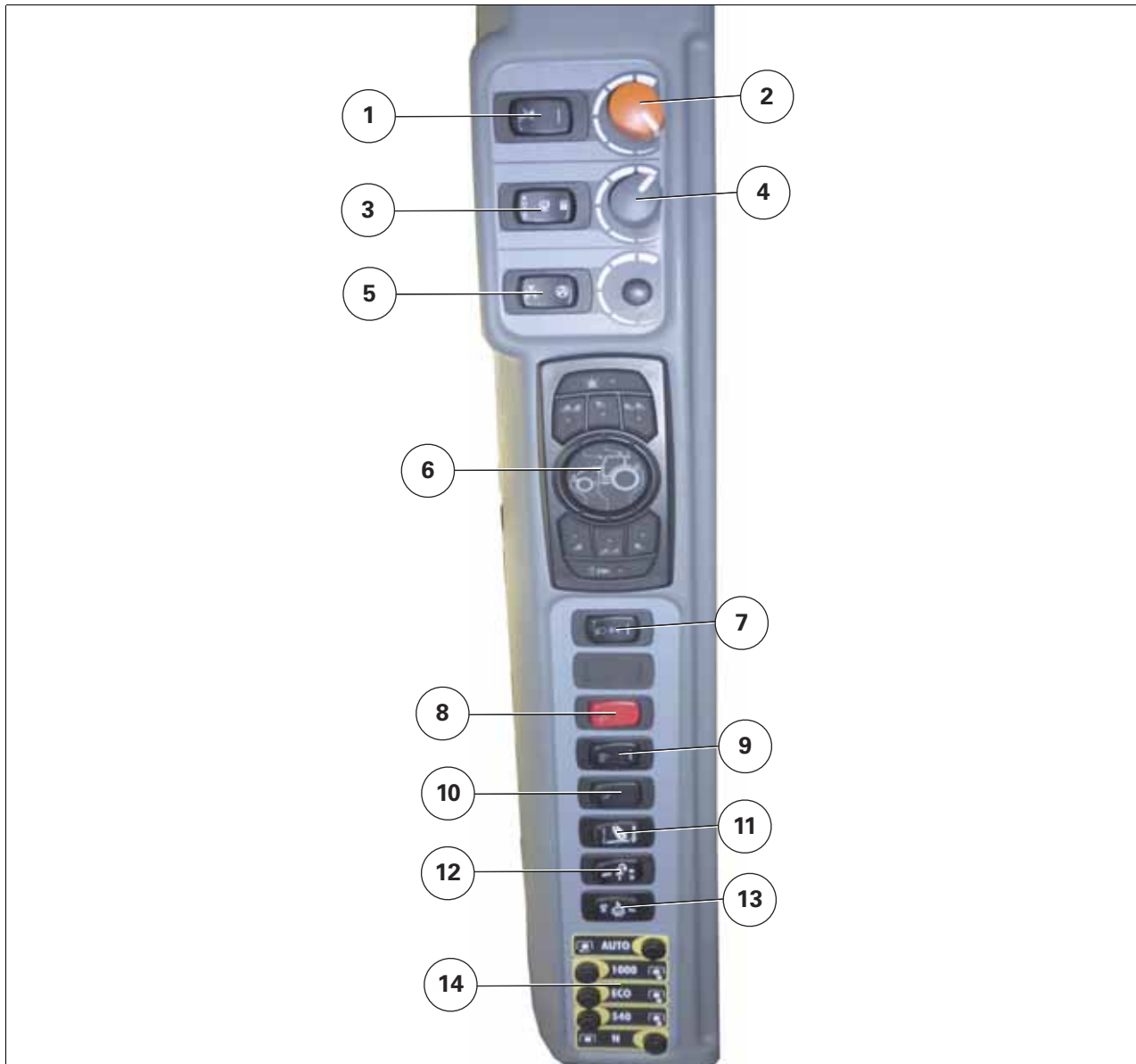


Fig. 31.

1051200

- | | |
|---|---|
| (1) Quick Steering accelerated steering switch | (8) Hazard warning light switch |
| (2) Quick Steering accelerated steering setting potentiometer | (9) External rear-view mirror defroster switch |
| (3) AutoComfort suspended cab switch | (10) Power socket switch on right-hand pillar |
| (4) AutoComfort suspended cab setting potentiometer | (11) Front power lift single acting/double acting function switch |
| (5) Suspended front axle switch | (12) U-Pilot function activation and recording switch |
| (6) Work lights module | (13) Auto-Guide™ steering switch |
| (7) Main lighting switch (side lights/dipped beam lights) | (14) Rear PTO speed selection |

3.1.11 Left-hand console

T021096

- (1) Main storage tray
- (2) Instructor seat
- (3) Can/bottle stand



Fig. 32.

1007936

3

3.1.12 Upper console

T021599

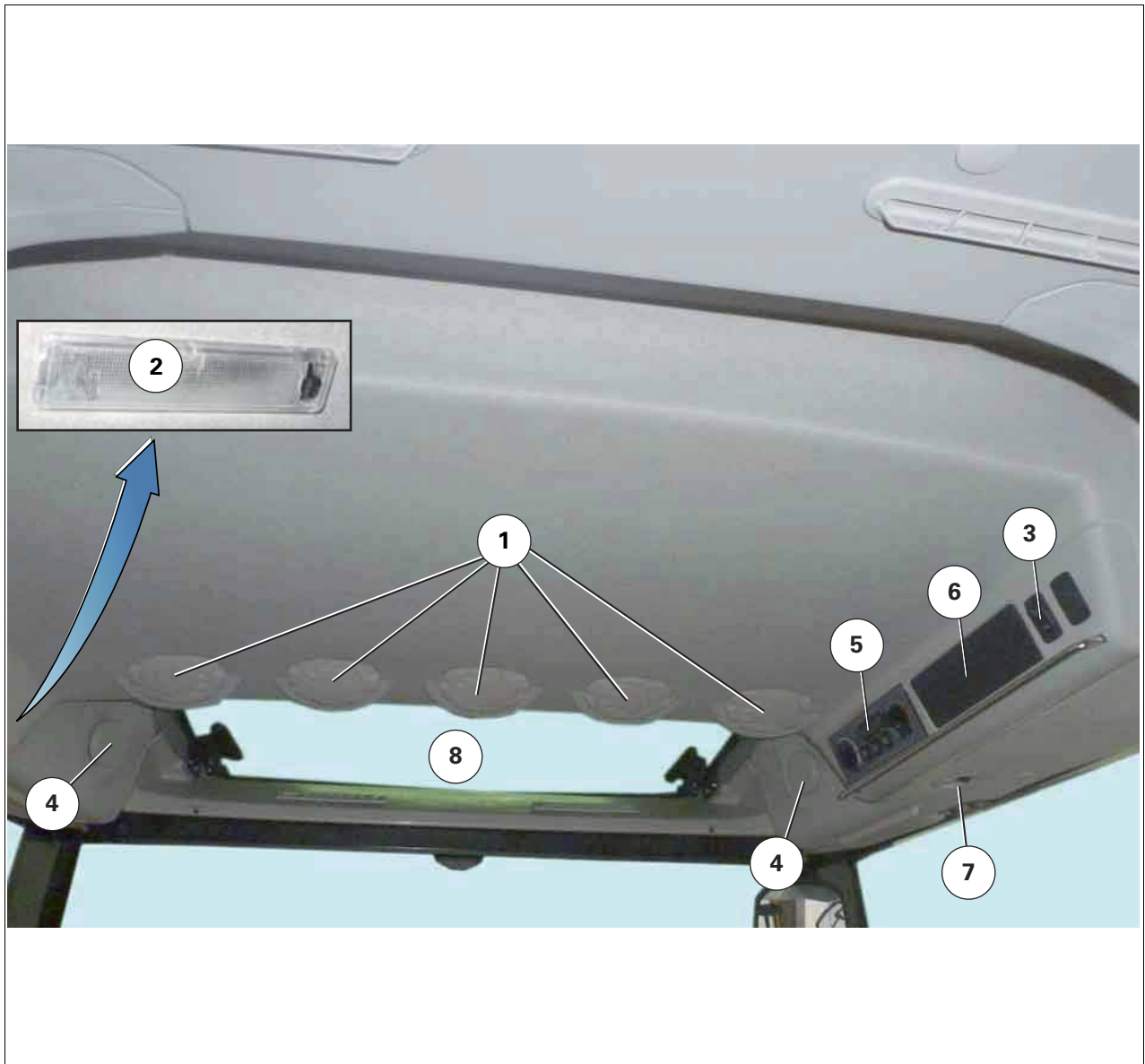


Fig. 33.

1048996

- (1) Adjustable air circulation vents.
- (2) Interior light
- (3) Rear windscreen wiper control switch
- (4) Loudspeakers for radio
- (5) Air conditioning control module
- (6) Radio slot.
- (7) Console lighting bulb
- (8) Opening roof hatch (depending on model)

Rear windscreen wiper

It is necessary to place the switch in position (1) to activate the rear windscreen wipers and in position (0) to deactivate them

NOTE: The rear screen washer is controlled by the control unit (see §3.1.3, page 66)



Fig. 34.

I049487

Interior light

- (0): Off
- (1) Light comes on when opening the left-hand door
- (2) Permanently on



Fig. 35.

I049494

Console lighting bulb

- (0): Off
- (1) Permanently on

NOTE: The side lights must be activated in order to activate the console light



Fig. 36.

I049243

Rear right-hand and left-hand air recycling grilles

With manual air conditioning:

- (A) Outside air enters via the cab filters
- (B) Recirculation
- (10) Rear right-hand and left-hand air recycling grilles

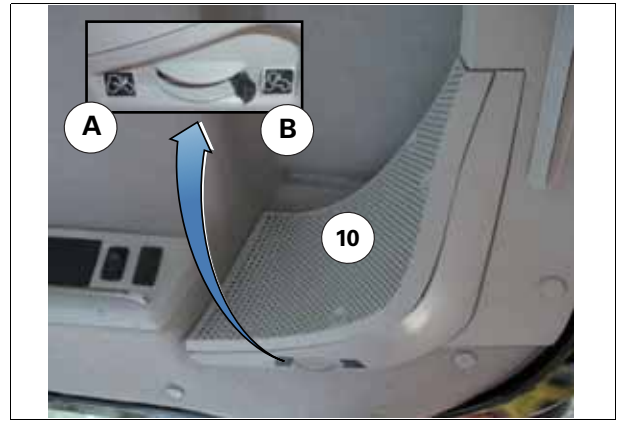


Fig. 37.

1049001

With automatic air conditioning:

- (10) Rear right-hand and left-hand air recycling grilles



Fig. 38.

1049240

3.1.13 Manual air conditioning

T021672

IMPORTANT: When the air conditioning system is in use, the cab doors and windows must be closed to ensure optimum efficiency. Switch off the system before starting up the engine. Ensure that the cab air filter is clean.

NOTE: If the air conditioning system has not been used for some time, unlock the compressor before starting the engine by rotating the pulley nut with a wrench.

IMPORTANT: To prevent seizure of the compressor and keep the cooling system in good condition, the air conditioning must be operated for a few minutes at least once a week, even in winter.

NOTE: Have the refrigerant level checked by your dealer once a year.

WARNING: Do not attempt to disassemble any part of the air conditioning system.

Description

- (1) Manual ventilation control knob and side fan control
- (2) Air conditioning control knob (min./max.)
- (3) Heating (minimum/maximum) control knob

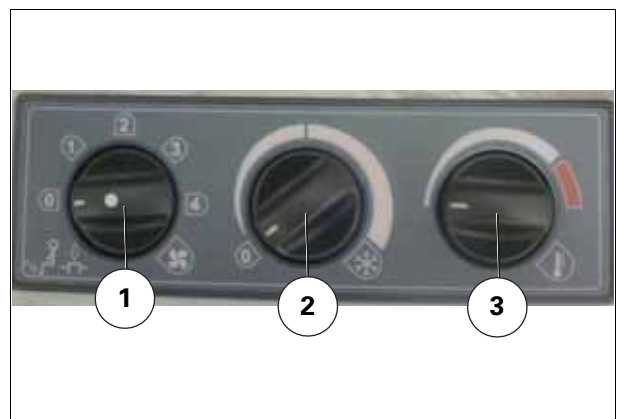


Fig. 39.

1049160

Changing the air flow

Turn knob (1) clockwise to increase ventilation and anti-clockwise to decrease ventilation, the flow of air changes instantaneously.

This can be stopped by moving fan knob (1) to the "0" position.

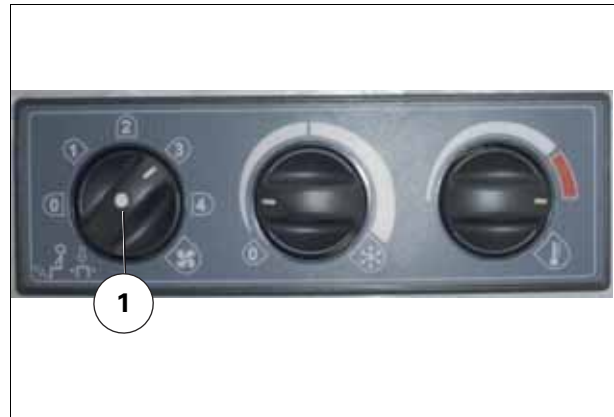


Fig. 40.

I049419

Stopping operation

The fan control knob is set to position "0" (the fan is deactivated)

The air conditioning control knob is in position "0".

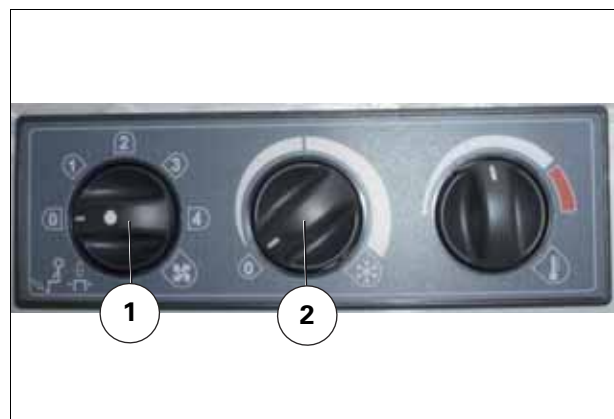


Fig. 41.

I049393

Pre-selecting the cab temperature

Pre-select the required temperature value using knob (3).



Fig. 42.

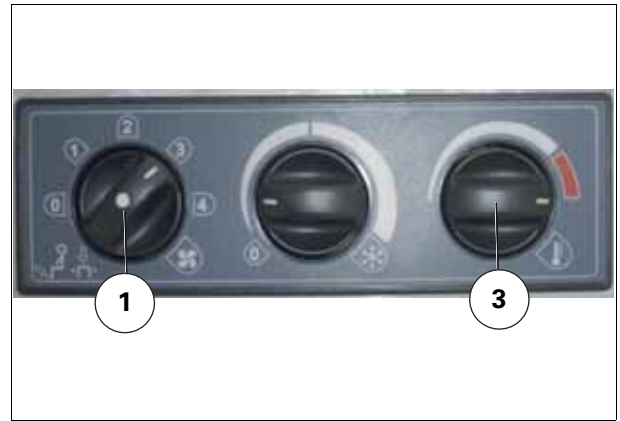
I049395

Maximum temperature

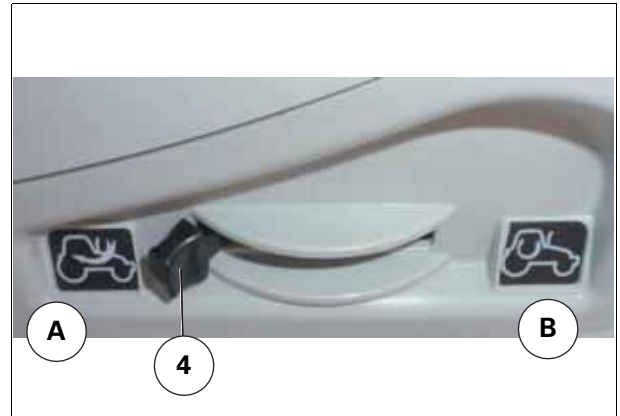
For maximum heating, turn knob (3) clockwise as far as possible.

Fan knob (1) is in position "3" (the fan speed is 75% of maximum)

Recirculation control (4) is in position "A", the recirculation function is disabled (the air is taken from outside the cab)



1049398



1049399

Fig. 43.

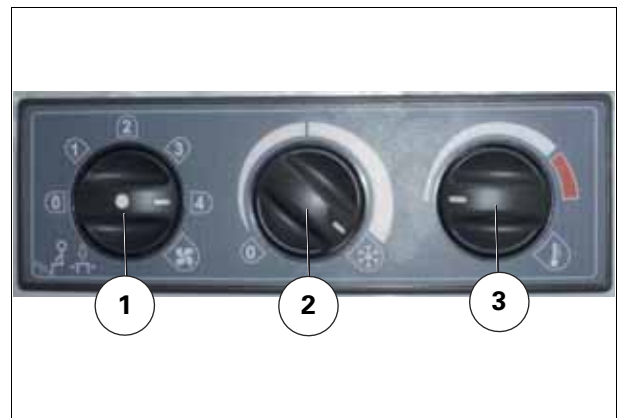
Minimum temperature

For maximum cooling, turn knob (3) anti-clockwise as far as possible.

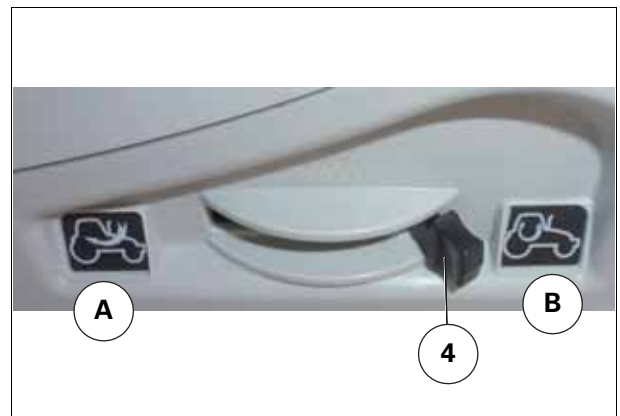
Fan knob (1) is in position "4" (the fan speed is at its maximum)

Air conditioning knob (2) is turned as far as it will go in a clockwise direction, the air-conditioning compressor is activated.

Recirculation control (4) is in position "B", the recirculation function is active (the air inside the cab is recirculated in a closed circuit)



1049402



1049404

Fig. 44.

Defroster button

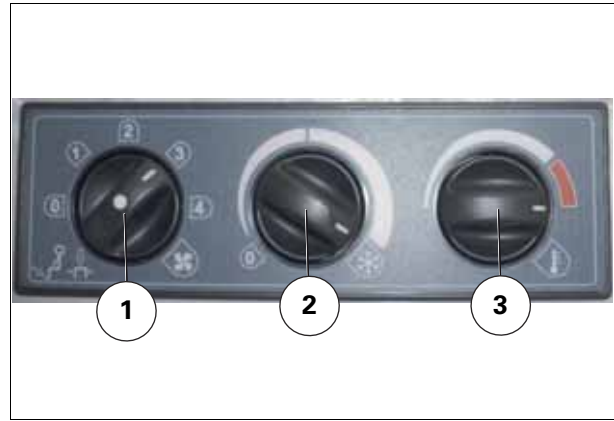
For maximum heating, turn knob (3) clockwise as far as possible.

Fan knob (1) is in position "3" (the fan speed is 75% of maximum)

Air conditioning knob (2) is turned as far as it will go in a clockwise direction, the air-conditioning compressor is activated.

Recirculation control (4) is in position "A", the recirculation function is disabled (the air is taken from outside the cab)

3



1049411

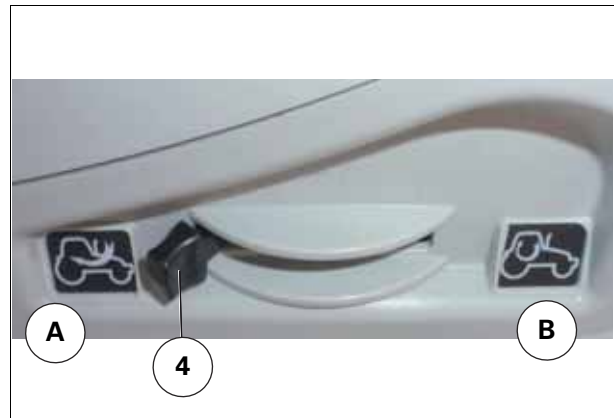


Fig. 45.

1049399

To increase the effectiveness of the defrost function, it is recommended that you close all vents (A) when the function is active.

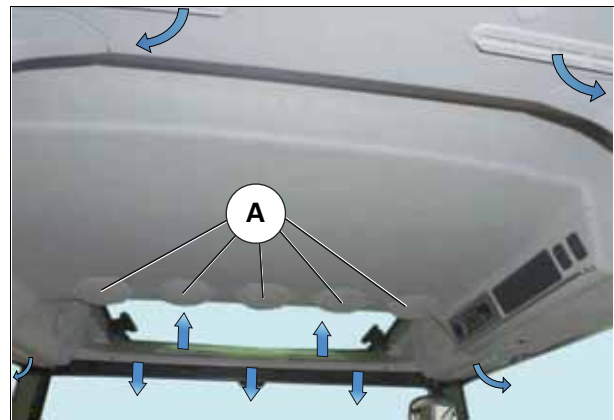


Fig. 46.

1049218

Activating/deactivating the air conditioning

Cab air conditioning is activated by adjusting control knob (2) in a clockwise direction according to the desired degree of cooling.

The air-conditioning compressor can be activated to maintain the required temperature level.

The air conditioning can be deactivated by turning knob (2) anti-clockwise as far as possible.

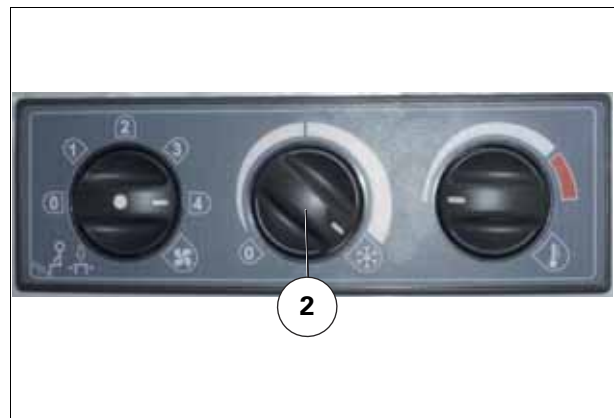


Fig. 47.

1049420

Recirculation button



CAUTION:

Each time the unit is activated, if the external temperature is higher than a pre-determined level, wait 2 minutes for the air to change before starting recirculation.

NOTE: If external temperatures are high, it is advisable to work with the system in recirculation mode.

Active recirculation

It is mainly used during operation in an environment with an unpleasant odour

- Set recirculation control (4) in position "B", the recirculation function is activated (the air inside the cab is recirculated in a closed circuit)

NOTE: If recirculation is active for more than 25 minutes, the recirculation mode must be disabled for 1 minute in order to take in new air from outside.



Fig. 48.

1049404

Recirculation disabled

- Set recirculation control (4) to position "A", the recirculation function is disabled (the air is taken from outside the cab)

NOTE: When using aerosols and sprayers, or in dusty conditions, it is advisable to work with recirculation off to create a feeling of pressurisation in the cab (provided that the cab filters are maintained) The air filter element does not provide protection from chemical products. Please ask your dealer for information concerning the availability of the specific particle filter.

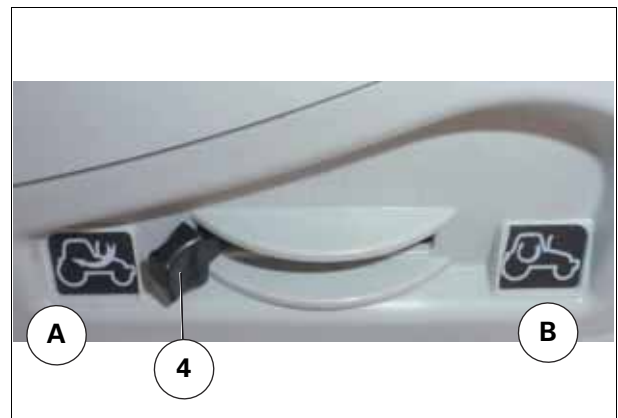


Fig. 49.

1049399

Activating/deactivating the side fan

It is possible to activate the left-hand side fan by pressing button (1)

Light (A) will illuminate on the button to indicate activation

Only one fan speed is available.

The procedure to adjust the temperature is the same as the method used to adjust the temperature of the main fan.

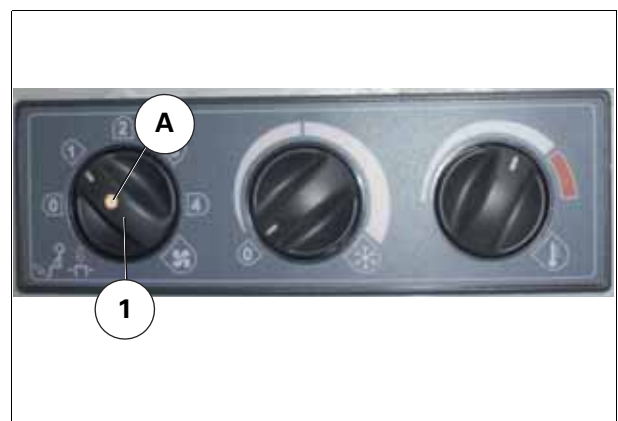


Fig. 50.

1049418

- (A) Main fan air flow
- (B) Left-hand side fan air flow

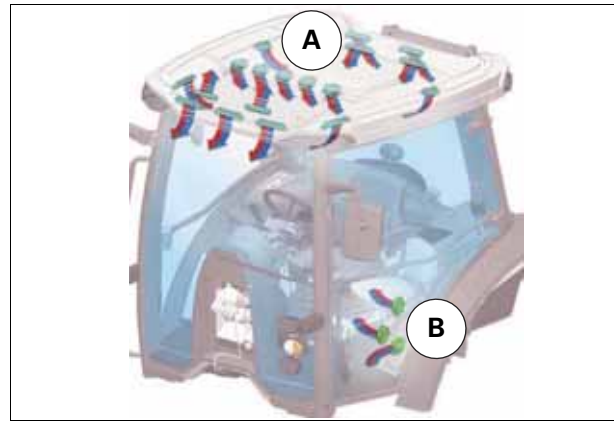


Fig. 51.

I049237

3.1.14 Automatic air conditioning

T021671

IMPORTANT: When the air conditioning system is in use, the cab doors and windows must be closed to ensure optimum efficiency. Switch off the system before starting up the engine. Ensure that the cab air filter is clean.

NOTE: If the air conditioning system has not been used for some time, unlock the compressor before starting the engine by rotating the pulley nut with a wrench.

IMPORTANT: To prevent seizure of the compressor and keep the cooling system in good condition, the air conditioning must be operated for a few minutes at least once a week, even in winter.

NOTE: Have the refrigerant level checked by your dealer once a year.



WARNING:

Do not attempt to disassemble any part of the air conditioning system.

Description

- (1) Manual/automatic fan control
- (2) Digital display (LCD)
- (3) Air conditioning ON/OFF switch
- (4) Defroster button
- (5) Recirculation button
- (6) Temperature adjustment control

The temperature inside the cab is controlled automatically by the air conditioning system, which controls the air temperature at the air vents, fan speed, recirculation and compressor operation.

The required temperature varies according to increments of 0,5 °C within the range 20 °C to 24 °C and by increments of 1 °C outside of this range.

Temperature scale in Celsius and Fahrenheit:

°C	°F
LO	LO
18	64
19	66
20	68
20.5	69
21	70
21.5	71
22	72
22.5	73
23	74
23.5	75
24	76
25	78
26	80
27	82
28	84
HI	HI

The HI and LO displays and tractor icon indicate the upper and lower temperature limits and the recirculation function.

Changing the display from Celsius to Fahrenheit

1. Switch off the tractor ignition.
2. Set fan knob (1) to OFF.
3. Move temperature knob (6) to maximum heat position (red)
4. Switch on ignition and, within 5 seconds, press defroster button (4) and recirculation button (5) simultaneously.
5. The temperature symbol (°C or °F) appears on LCD screen (2). Resume steps (1) to (4) to move from one symbol to another.

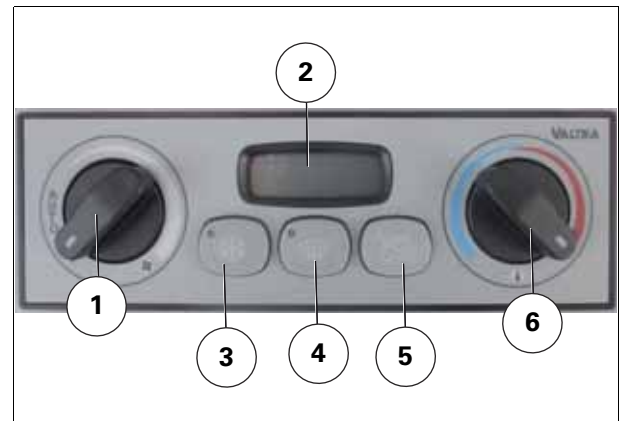


Fig. 52.

1052084

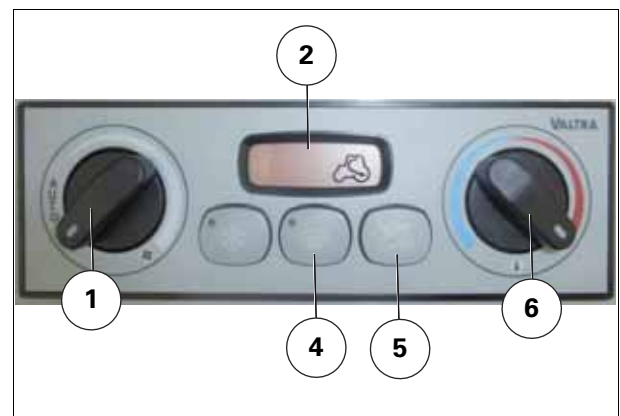


Fig. 53.

1052033

6. Turn the fan control knob (1) to the AUTO position.
7. Turn the knob (6) to adjust the temperature and confirm the unit of measurement.

NOTE: When there is a problem or error, a "E" symbol is displayed to warn the user (contact your dealer to determine the cause of the problem).

Storing the function

All manual actions carried out before the tractor is switched off are stored.

When the tractor is started, these actions are suggested in successive order (with the exception of the defrosting function).

Changing the air flow

Automatic fan

When the fan control knob (1) is in auto position (A), air flow is selected automatically. Air flow changes are gradual.

Depending on the level of solar radiation, the air flow adjusts automatically

Air flow can be adjusted to maintain the temperature inside the cab at pre-selected levels.

To turn off automatic mode, move fan control knob (1) to the "OFF" position.

It is possible to set the system to economy mode by pressing switch (3) (the compressor cannot be activated and the indicator light on the air conditioning switch is off)

If the desired temperature is lower than the outside temperature, the temperature indicator on the LCD screen flashes

The ventilation is then increased.

Manual ventilation

It is possible to manually select an air flow that is different to the air flow selected automatically. When the knob is moved to a different position, air flow change is instantaneous.

Air flow can be adjusted to maintain the temperature inside the cab at pre-selected levels.

To turn it off, move fan control knob (1) to the "OFF" position.

It is possible to set the system to economy mode by pressing switch (3) (the compressor cannot be activated and the indicator light on the switch is off)

If the desired temperature is lower than the outside temperature, the temperature indicator on the LCD screen flashes

The ventilation is then increased.

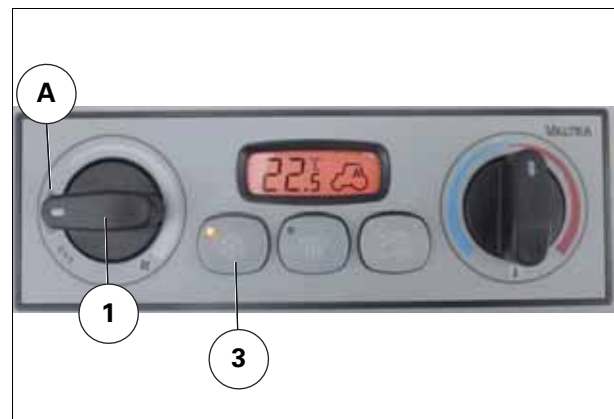


Fig. 54.

1052034

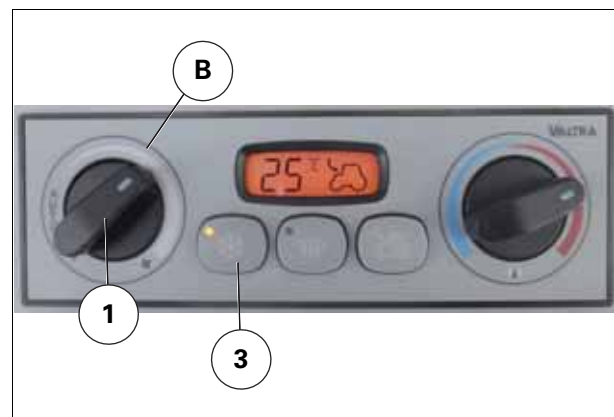


Fig. 55.

1052035

Stopping operation

The fan speed is deactivated (1)

The air-conditioning compressor is deactivated (the switch indicator light (3) is off).

The recirculation function is activated (the internal air in the cab is recirculated in a closed system) and the symbol appears on LCD screen (2)

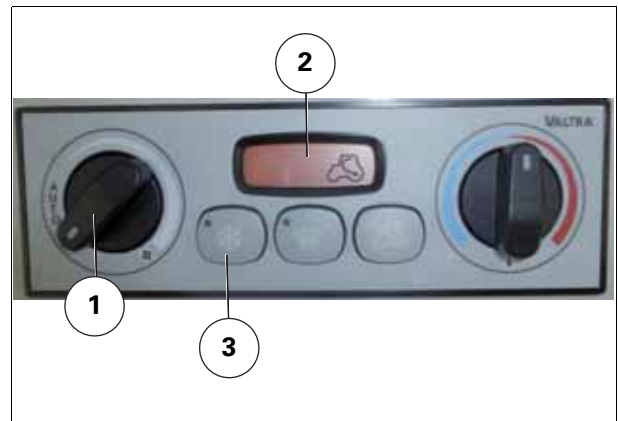


Fig. 56.

1052037

Pre-selecting the cab temperature

Preselect the required temperature value using knob (6). The preselected value is shown on LCD screen (2).

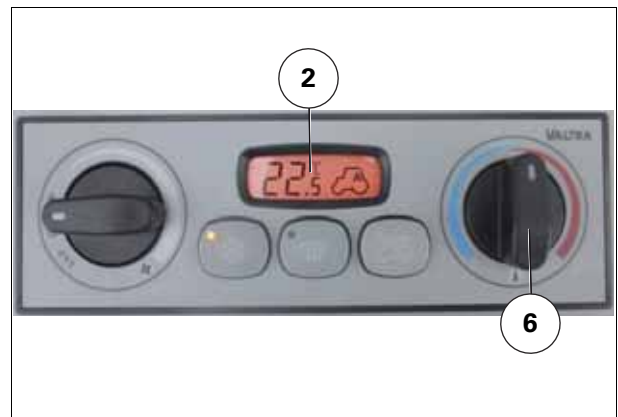


Fig. 57.

1052038

Maximum temperature

To reach maximum temperature, use knob (6) to adjust the cab temperature to over 28 °C.

"HI" is displayed on LCD screen (2).

The fan speed is 75% of the maximum if automatic mode is activated (1)

The air-conditioning compressor is not active but can be activated (the switch indicator light (3) is on).

The recirculation function is deactivated (the air is taken from outside the cab) and the symbol appears on LCD screen (2)

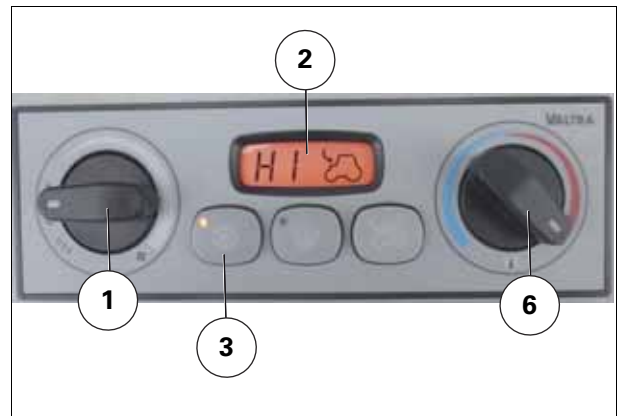


Fig. 58.

1052039

Minimum temperature

To reach maximum cooling, use knob (6) to adjust the cab temperature to below 18 °C.

"LO" is displayed on LCD screen (2).

The fan speed is then at its maximum if automatic mode is activated (1)

The air-conditioning compressor is activated (the switch indicator light (3) is on).

The recirculation function is activated (the internal air in the cab is recirculated in a closed system) and the symbol appears on LCD screen (2)

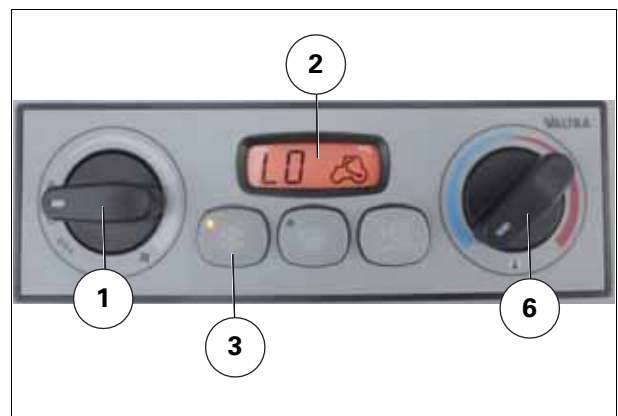


Fig. 59.

1052040

Defroster button

The defrost function is activated by pressing switch (4) (the switch indicator light is illuminated).

"HI" is displayed on LCD screen (2).

The air-conditioning compressor is activated (the switch indicator light (3) is on).

The recirculation function is deactivated (the air is taken from outside the cab) and the symbol appears on LCD screen (2)

To deactivate this function and return to the previous state, press switch (4) again (the switch indicator light goes out); otherwise, it will switch off automatically after approximately 3 minutes.

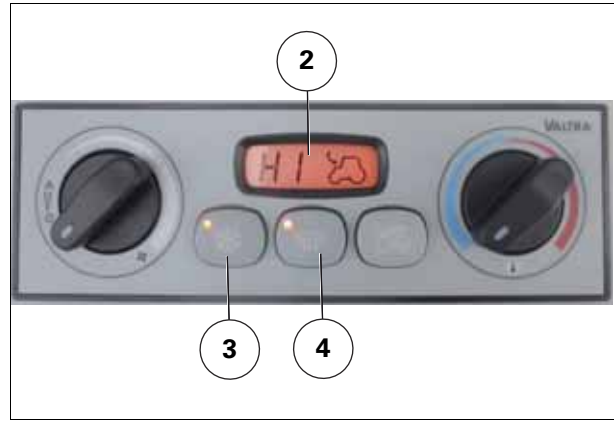


Fig. 60.

1052041

To increase the effectiveness of the defrost function, you are advised to close all air vents (A) when the function is active.

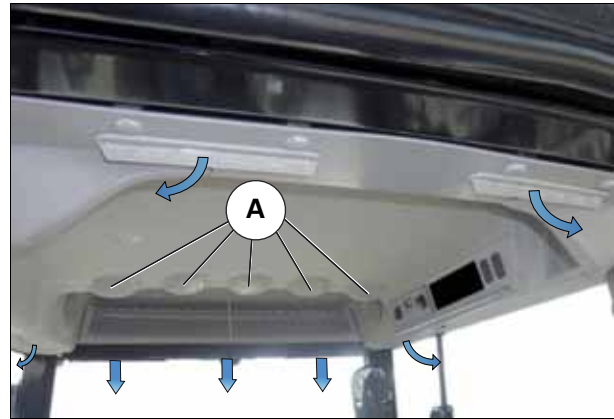


Fig. 61.

1052087

Activating/deactivating air conditioning

The cab air conditioning is activated by pressing switch (3) (the switch indicator light illuminates).

The air-conditioning compressor can be activated to maintain the desired temperature level.

The air conditioning can be deactivated by pressing switch (3)

NOTE: If the indicator light is illuminated, this indicates that the air conditioning is activated and the compressor can operate (regardless of the effective status of the compressor)



Fig. 62.

1052043

Recirculation button



CAUTION:

Each time the unit is activated, if the external temperature is higher than a pre-determined level, wait 2 minutes for the air to change before starting recirculation.

NOTE: If outside temperatures are high, it is advisable to work with the system in active recirculation mode, this is selected automatically if automatic recirculation is active.

Active recirculation

The tractor icon indicates the recirculation status on the LCD screen.

It is used primarily during operation in an environment with an unpleasant odour

- If the recirculation button (5) is pressed once, an arrow is displayed inside the tractor icon on LCD screen (2).

The recirculation function is activated and the air inside the cab is recirculated in a closed system.

NOTE: If recirculation is active for more than 25 minutes, recirculation is automatically deactivated for 1 minute in order to take in external air once again.

Recirculation deactivated

The tractor icon indicates the recirculation status on the LCD screen.

- If the recirculation button (5) is pressed a second time, an arrow is displayed outside the tractor icon on the LCD screen.

Air is taken from outside the cab.

NOTE: When using aerosols and sprayers or in dusty conditions, it is advisable to work with recirculation deactivated in order to create a sense of pressurisation in the cab (provided that the cab filters are maintained)

The air filter element does not provide protection from chemical products. Please ask your dealer for information concerning the availability of the specific particle filter.

Recirculation in automatic mode

The tractor icon indicates the recirculation status on the LCD screen.

NOTE: The regulation in automatic mode varies according to the outside temperature.

- If the recirculation button (5) is pressed a third time, the letter "A" (Automatic) is displayed inside the tractor icon on the LCD screen. Automatic recirculation control is restored

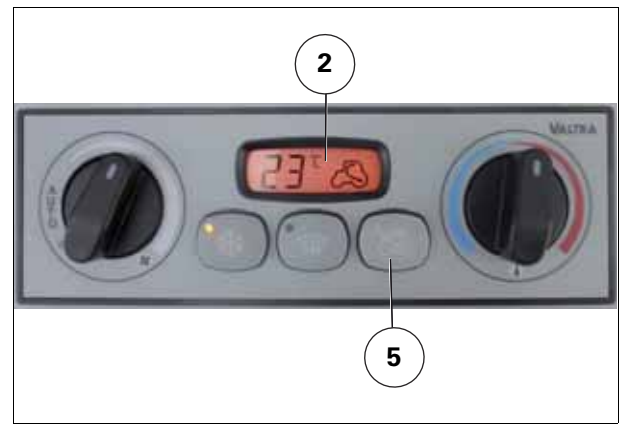


Fig. 63.

1052044

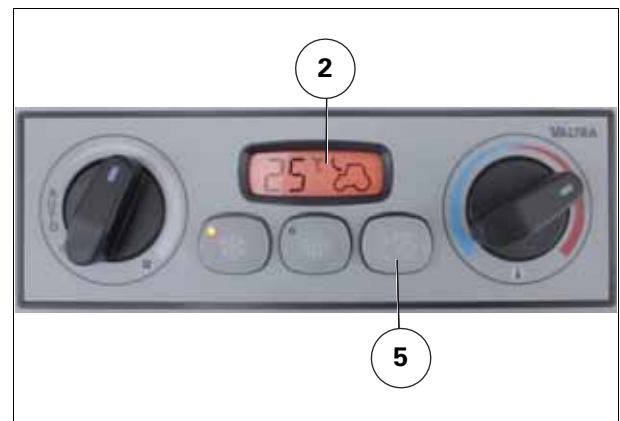


Fig. 64.

1052046



Fig. 65.

1052047

3.1.15 Additional heater

Additional heating device (optional)
This device rapidly heats the cab interior at floor level.

Operation

Press the electrical switch (A) to start the heater: in position (1) to activate the fan or (2) for heat without the fan.

To set the temperature (blue zone, cold/red zone, hot), turn the control knob (B) [fig. 66](#).

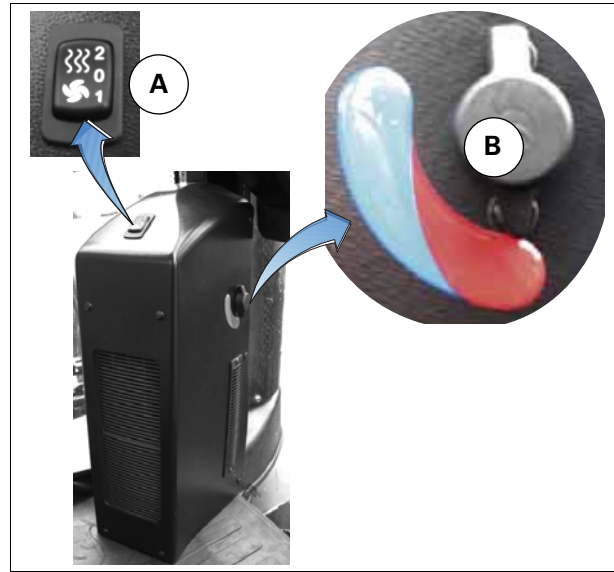


Fig. 66.

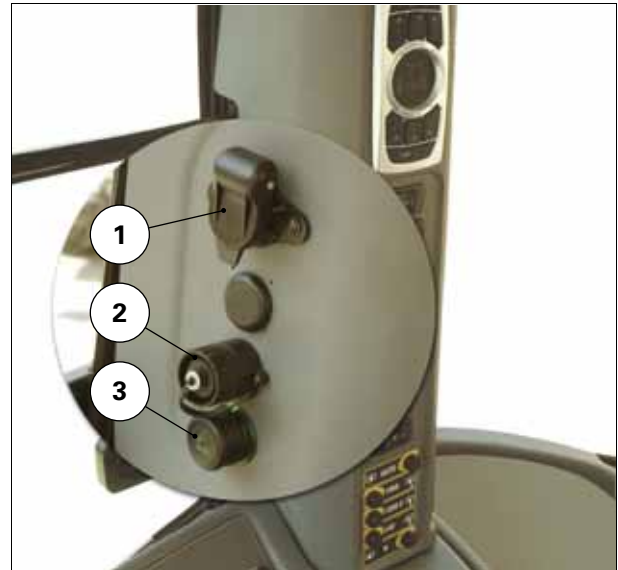
I030841

3.1.16 Accessories sockets

T001739

Rear right-hand pillar sockets

- (1) 12-volt electrical connector for connecting monitoring screens, control units and other accessories.
- (2) Tractor signal transmittal socket as per ISO 11786 standard.
Used to transmit signals such as: engine speed, theoretical and actual forward speed and PTO speed.
- (3) Cigarette lighter socket.
- (4) Power socket in accordance with DIN 4165 standard.
- (5) 12-volt electrical connector for connecting monitoring screens, control units and other accessories. The connector is controlled by the switch (14).



I007075



Fig. 67.

I007079

Identifying the connectors

Pillar socket, terminal no.:

- (1) (15/30) +12 V permanent or controlled by switch (3) *fig. 67* protected by fuse F52 (40 A)
- (2) (82) +12 V ignition on protected by fuse F60 (10 A)
- (3) (31) - Earth

Socket on rear of pillar, terminal no.:

- (1) (15/30) +12 V permanent or controlled by switch (3) *fig. 67* protected by fuse F52 (15 A) and F8 (30 A)
- (2) (82) +12 V ignition on protected by fuse F14 (10 A)
- (3) (31) - Earth

NOTE: A male plug (G 205900900020) that connects to the power socket (1) is available from your dealer.



Fig. 68.

I006196

3.1.17 Emergency exits

T015102

The emergency exits may differ depending on the tractor models and options available.

- For standard cabs: Right-hand door, rear window.
- For panoramic cabs: Rear window and hammer to break the glass *Sécurité cabine*.

Rear window: Emergency exit function

To open, turn the handle to 90° and push the window outwards.

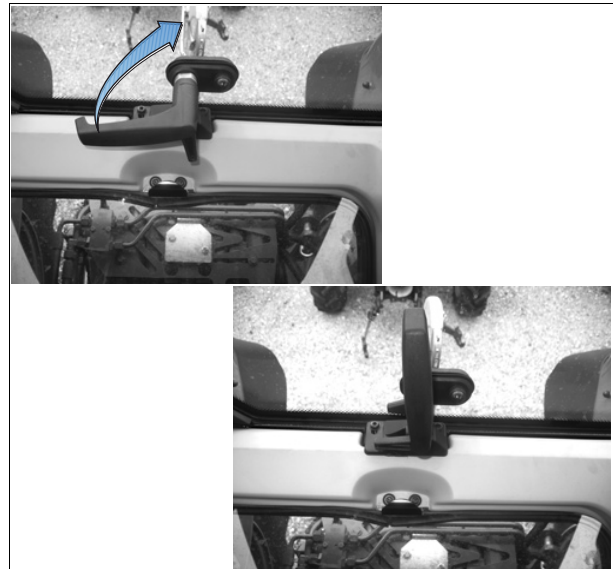


Fig. 69.

I033868

3.1.18 Sun visor

T001283

Sun visor for front windscreen

The front sun visor is adjustable by notches.

To change its position, pull the visor (1) downwards until the required position is reached [fig. 70](#).

To raise the sun visor, pull the cord (2).

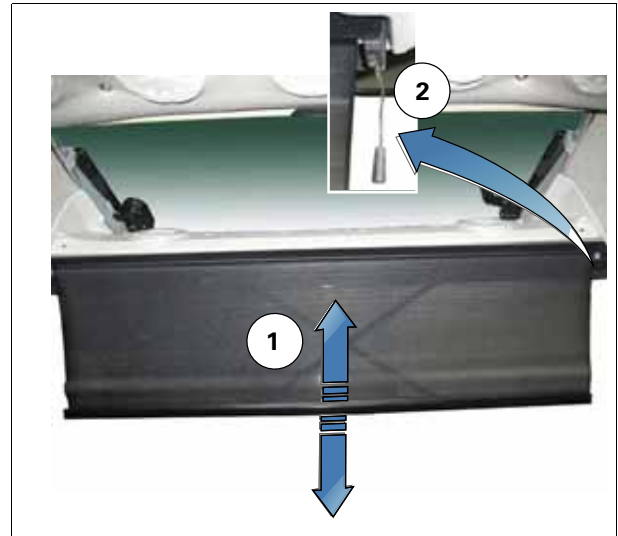


Fig. 70.

I004525

3.2 Reverse station (optional)

3.2.1 Positioning the reverse station

T008541

IMPORTANT: The engine must be started before positioning the reverse station

DANGER:
 Before starting the engine, check that the Valtra Shuttle lever is in ParkLock position.

Steering wheel position

1. Lift up the main steering wheel to the maximum to allow the seat to swivel fully

NOTE: Position the reverse station steering column to the right or left to facilitate seat swivel.

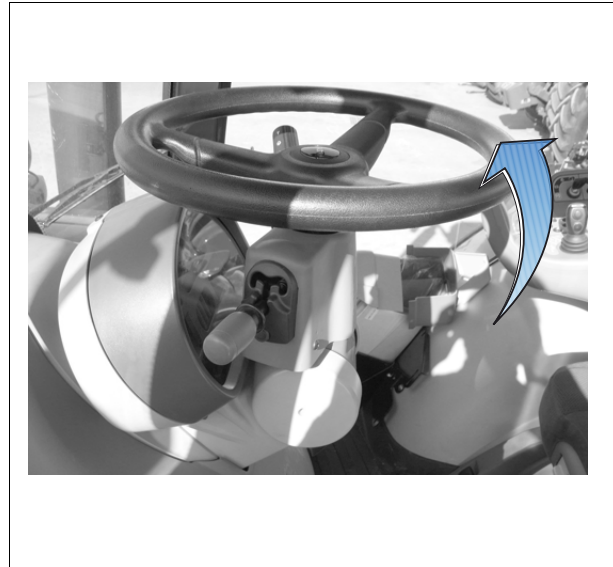


Fig. 1.

I021318

Armrest

2. With the operator in the normal operator's seat: Move the handle (1) located on the right-hand side of the armrest to release the lock, then move the armrest towards you as far as possible (2).

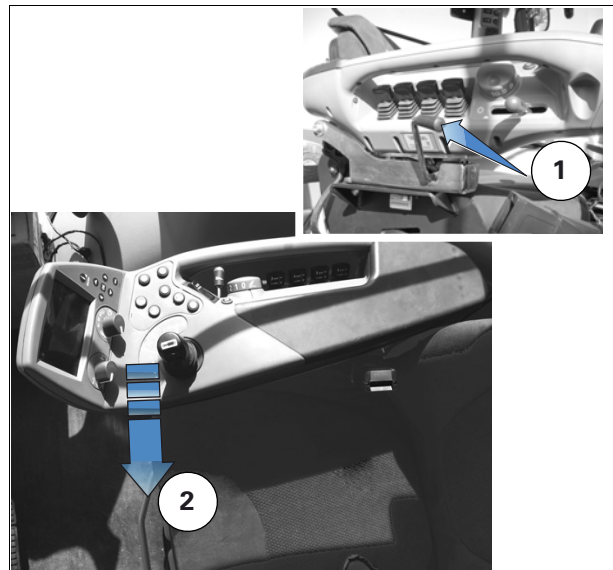


Fig. 2.

I025727

Seat

3. Move the seat back as far as possible.
4. Lift the handle (1) and turn the seat 180° as shown by ref. (2) so it is positioned facing the reverse station.

IMPORTANT: When the operator's seat is turned, a safety switch is engaged, which allows the reverse station controls to be connected. It must be carried out with the engine running.

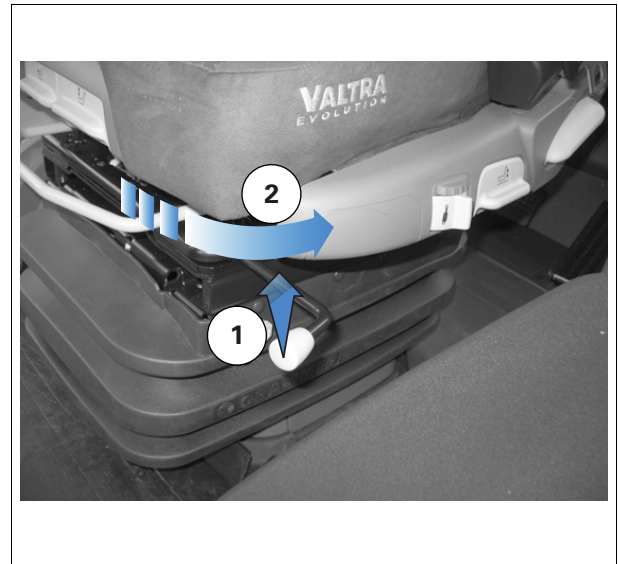


Fig. 3.

I021320

3

3.2.2 Reverse station adjustments

T008586

Adjusting the steering column

The reverse station steering column can be tilted towards the operator and also moved left or right.

1. Lift up the handle as shown by ref. (1) to unlock the steering column and tilt it to the desired position.
2. Lower the handle as shown by ref. (2) to lock the steering column into place.
3. Moving the steering column: Loosen the thumb wheel under the steering column and move the assembly to the left or right as desired.

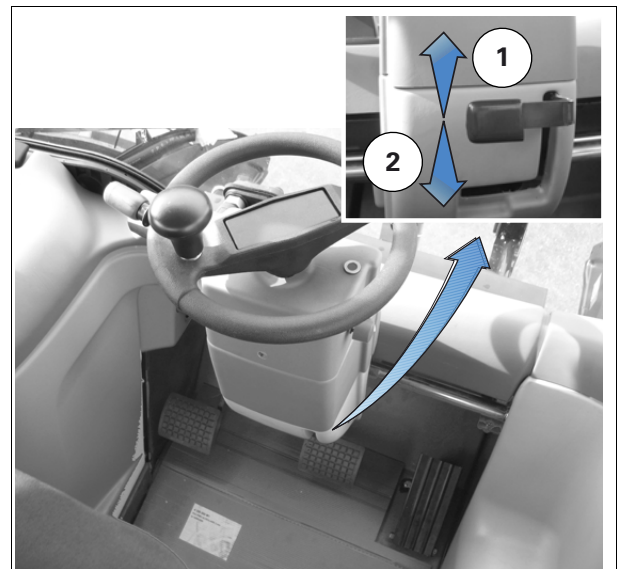


Fig. 4.

I021336

3.2.3 Valtra Shuttle controller

T008584

Valtra Shuttle and ParkLock

These functions are used in the same way as those used under normal driving conditions.

1. When sitting in the seat, disengage the Park-Lock (1) to activate the Valtra Shuttle (2), *Inverseur sous couple*.
2. Shifting to manual — mode 2 mode, switch (3): This mode is used exactly as described in the relevant chapter *Mode levier*.

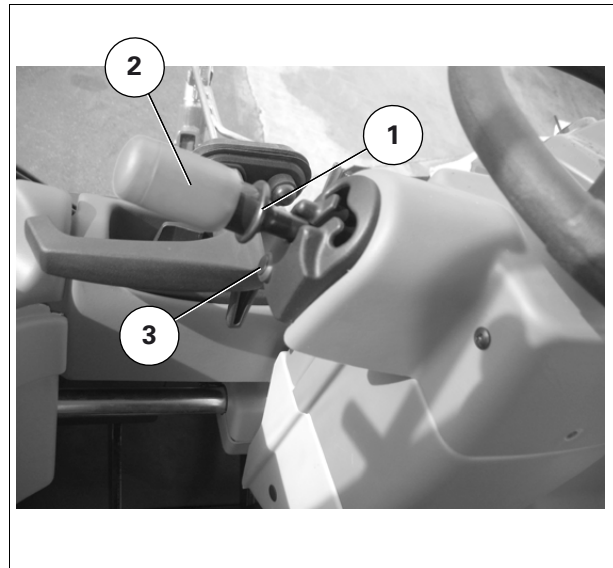


Fig. 5.

I022095

3

3.2.4 Reverse station driving

T008562

- ! DANGER:**
It is forbidden to drive in reverse station position on roads open to normal traffic. When driving in reverse station position, travel speed is limited to 25 km/h in both directions.
- ! CAUTION:**
The operator must remain seated on the seat to be able to use the reverse station functions. Operation of the pedals and Valtra Shuttle lever is the same as in the normal driving position without reverse station.
- ! WARNING:**
The seat belt must be worn and correctly adjusted at all times and the rear window must remain closed.
Check that the steering and brakes are working properly whenever the operator's seat position is changed.

Operation

NOTE: The normal operator's seat is no longer operational when the operator switches to reverse station and vice versa.

1. Engage the Valtra Shuttle lever in the desired direction of travel and the displays (1) and (2) appear on the Dash Control Center.
2. The indicator light (1) [fig. 7](#) is lit.

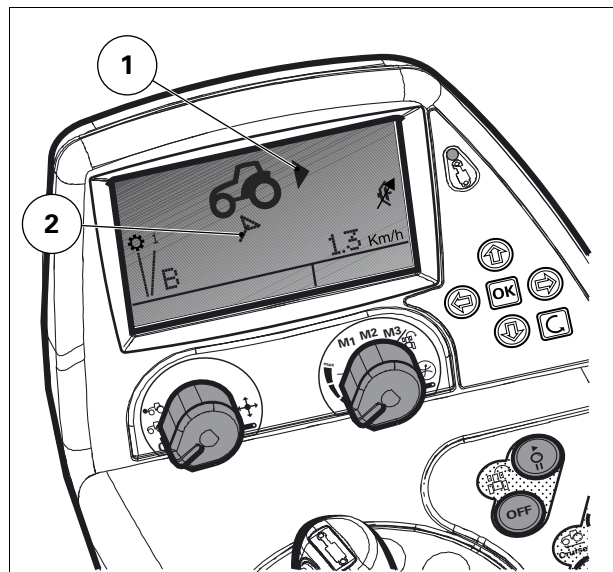


Fig. 6.

I021546

Adjusting the steering

1. Steering progressivity can be adjusted using the button (2).
2. Turn it towards (+) to obtain faster steering (about two turns of the steering wheel).
3. Turn it towards (-) to obtain slower steering (about five turns of the steering wheel).

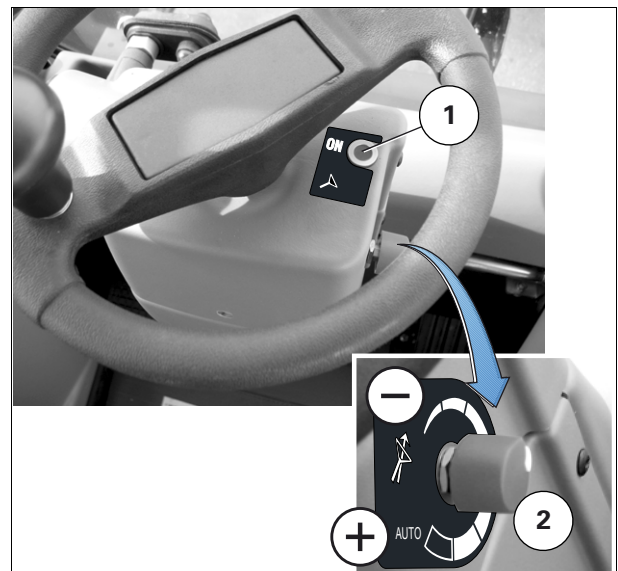


Fig. 7.

I021353

3

3.2.5 Leaving the reverse station

T008565

Procedure**CAUTION:**

Before leaving the reverse station, ensure that the Valtra Shuttle lever (1) is in ParkLock position.

1. Put the steering column (2) back in the vertical position
2. Move the steering column to the right or left to facilitate seat swivel
3. Lift up the armrest and turn the seat so it is back in its normal driving position
4. Lower the armrest by engaging the lock and put the main steering wheel back in its normal driving position.

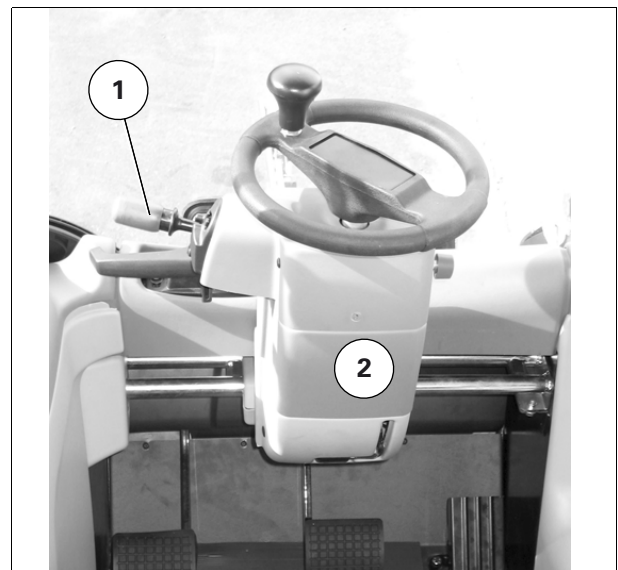


Fig. 8.

I021601

3.3 Setup and Information Screen control screens on the instrument panel

3.3.1 Using the Setup and Information Screen

T022663

3


For details of the controls and the control screen of the Setup and Information Screen, refer to the chapters on the instrument panel.

- (1) Setup and Information Screen monitoring display
- (2) Setup and Information Screen controls



Fig. 1.

I051612

- When the engine is started, the start screen appears [fig. 2](#).
- This screen displays the model and serial number of the tractor, the tractor hours, the number of hours before the next service period and the external temperature.
- It automatically disappears after 10 seconds or after a press on the  button

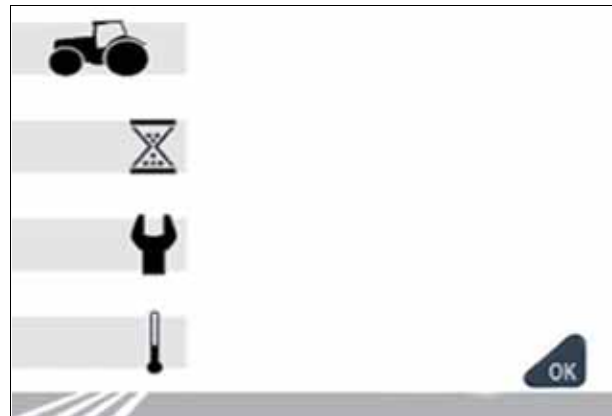


Fig. 2.

I049882






- When the engine is first started, the main screen, the contrast adjustment and the error codes screen are available.
- To access all the screens, press keys  and  for approximately 5 seconds; all the screens then become available and are stored
- It is possible to return to the start screen by pressing  [fig. 2](#)
- Press the left or right keys  to access the list of setting screens (A).
- The main screen [fig. 3](#) reappears after approximately 5 seconds or after pressing the  key.

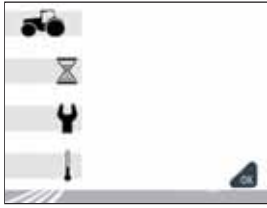


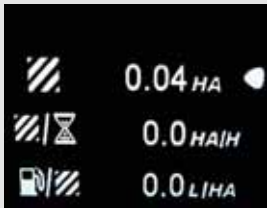





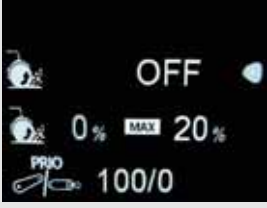












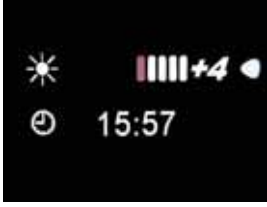




















Fig. 3.

I051646

3.3.2 Setup and Information screens

T022519

Screen	Function
	<p>Start-up screen</p> <p>This screen displays the model and serial number of the tractor, the tractor hours, the number of hours before the next service period and the external temperature.</p> <p>The default value of 500 hours for the number of hours before the next service period can be reset by pressing the OK key for 5 seconds.</p>
	<p>Main screen</p> <p>Displays the rear PTO rotational speed, the maximum forward speed, the distance travelled, the automatic 4-wheel drive front axle (only displayed if the function is active), the Quick Steering accelerated steering (only displayed if the function is active), the suspended front axle (only displayed if the function is active) and the suspended cab (only displayed if the function is active).</p>
	<p>Area worked setting screen</p> <p>This screen allows you to view the distance travelled (ability to reset to 0), adjust the working width of the implement and set a trigger to start the counting (rear power lift in working position, rear PTO activated, all the time, hydraulic spool valve no. 1 in floating position or kickout activated in ram rod retracted position, hydraulic spool valve no. 1 with kickout active in ram rod extended position, tractor in the forward travel position and additional relay energised)</p> <p>Press the Up or Down arrows to choose which function to adjust (the index moves), then press OK (the function is greyed out when it can be adjusted)</p> <ul style="list-style-type: none"> – Press the Down arrow to reset the distance travelled to 0 and then press OK to confirm – Press the Up or Down arrows to increase/decrease the working width of the implement (from 0 m to 50 m) and then press OK to confirm – Press the Up or Down arrows to adjust a trigger element for the count and then press OK to confirm
	<p>Area worked screen</p> <p>This screen allows you to view the area worked (ability to reset to 0), the hourly surface and the consumption in relation to the worked area</p> <p>Press the Up or Down arrows to choose which function to adjust (the index moves), then press OK (the function is greyed out when it can be adjusted)</p> <ul style="list-style-type: none"> – Press the Down arrow to reset the worked area to 0 and then press OK to confirm
	<p>Fuel counter screen</p> <p>This screen allows you to view the trip meter (quantity of fuel consumed since the last reset), the total counter (total quantity of fuel consumed) and the AdBlue™ or DEF total counter (total quantity of AdBlue™ or DEF consumed)</p> <p>Press the Up or Down arrows to choose which function to adjust (the index moves), then press OK (the function is greyed out when it can be adjusted)</p> <ul style="list-style-type: none"> – Press the Down arrow to reset the trip meter to 0 and then press OK to confirm

Screen	Function
	<p>Information screen 1</p> <p>This screen allows you to view the battery voltage, the transmission temperature, the engine temperature and the engine load status.</p>
	<p>Information screen 2</p> <p>This screen allows you to view the fuel tank level, the AdBlue™ or DEF tank level, the oil level in the auxiliary hydraulic reservoir and the pneumatic braking pressure.</p>
	<p>Rear power lift setting screen</p> <p>This screen allows you to enable/disable the wheel slip control, to set the maximum permissible wheel slip, to view the current slip and to prioritise the hydraulic flow to the rear power lift. Press the  or  arrows to choose which function to adjust (the index moves), then press  (the function is greyed out when it can be adjusted)</p> <ul style="list-style-type: none"> – Press the  or  arrows to enable/disable the wheel slip control ("ON" on, "OFF" off) and then press  to confirm – Press the  or  arrows to increase/decrease the maximum permissible slip (from 0% to 60 %) then press  to confirm – Press the  or  arrows to increase/decrease the distribution of the hydraulic flow to the rear power lift (0% to 100 %) then press  to confirm
	<p>Instrument panel setting screen</p> <p>This screen allows you to adjust the brightness and the time. Press the  or  arrows to choose which function to adjust (the index moves), then press  (the function is greyed out when it can be adjusted)</p> <ul style="list-style-type: none"> – Press the  or  arrows to increase/decrease the brightness of the instrument panel (1 to 4) and then press to  confirm. – Press the  or  arrows to increase/decrease the time on the instrument panel and then press  to confirm
	<p>Front-end loader screen</p> <p>This screen allows you to activate the front loader suspension and to lock/unlock the front loader implement. Press the  or  arrows to choose which function to adjust (the index moves), then press  (the function is greyed out when it can be adjusted)</p> <ul style="list-style-type: none"> – Press the  or  arrows to activate/deactivate the front loader suspension then press  to validate – Press the  or  arrows to lock/unlock the front loader implement then press  to validate
	<p>Error code screen</p> <p>This screen is displayed as soon as a tractor-related error is active.</p>

3.4 Tractor terminal

3.4.1 Using the terminal

T022662

Description

The tractor terminal screen (1) and its keypad are located on the right-hand armrest.

The tractor terminal screen can be used to:

- Select the functions required for a variety of working conditions.
- Monitor fuel consumption, hours worked, the distance travelled and the area covered.
- Access one of the three factory settings for the auxiliary hydraulic system, or save user settings (maximum 3 settings).
- Provide service information, mainly for the requirements of the approved service agents.

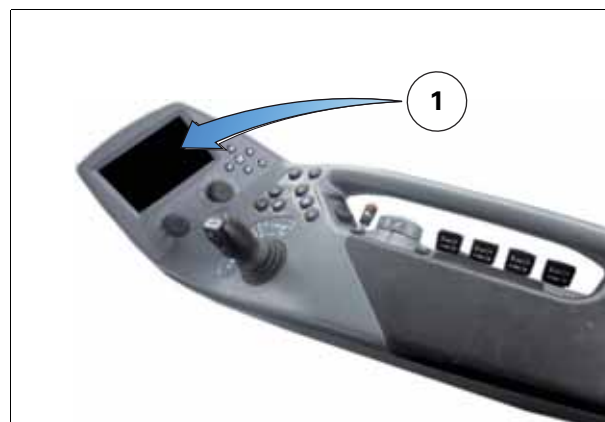






Fig. 1.

I051603

Functions of the terminal control keys

- (1) Tractor terminal screen
- (2) OK key
- (3) Navigation keys
- (4) ESC key

The keys on the tractor terminal keypad allow the operator to navigate through different fields on the screen, modify values and activate the auxiliary hydraulic system controls.

Key	Function
	<ul style="list-style-type: none"> • When pressed once, navigates away from the present field in the required direction. • When held down, rapidly navigates in the required direction.
	<ul style="list-style-type: none"> • When pressed once, activates the required field in order to modify the data. When the OK key is pressed again, the value is saved in the field and the field is deactivated. • When held down, the next screen is opened.
	<ul style="list-style-type: none"> • When pressed once, the activated value increases by one unit. • When held down, the value is increased, for example in increments of 10 (depending on the field selected). • When held down continuously, the value increases up to the maximum limit.
	<ul style="list-style-type: none"> • When pressed once, the activated value decreases by one unit. • When held down, the value is decreased, for example in increments of 10 (depending on the field selected). • When held down continuously, the value decreases down to the minimum limit.
ESC	<ul style="list-style-type: none"> • When a field is activated, the ESC key can be pressed once to reset the original value and deactivate the field. • When pressed once, the previous screen is displayed. • When held down, the most recently selected driving view is displayed.

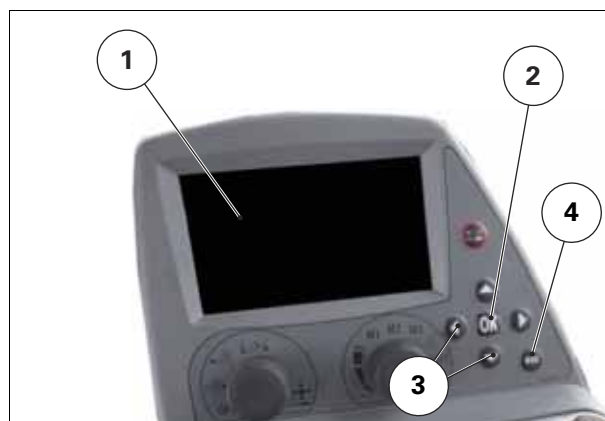


Fig. 2.

1051602

3.4.2 Accessing the menus

T003600

The ignition must be switched on in order to access the menus [fig. 3](#).

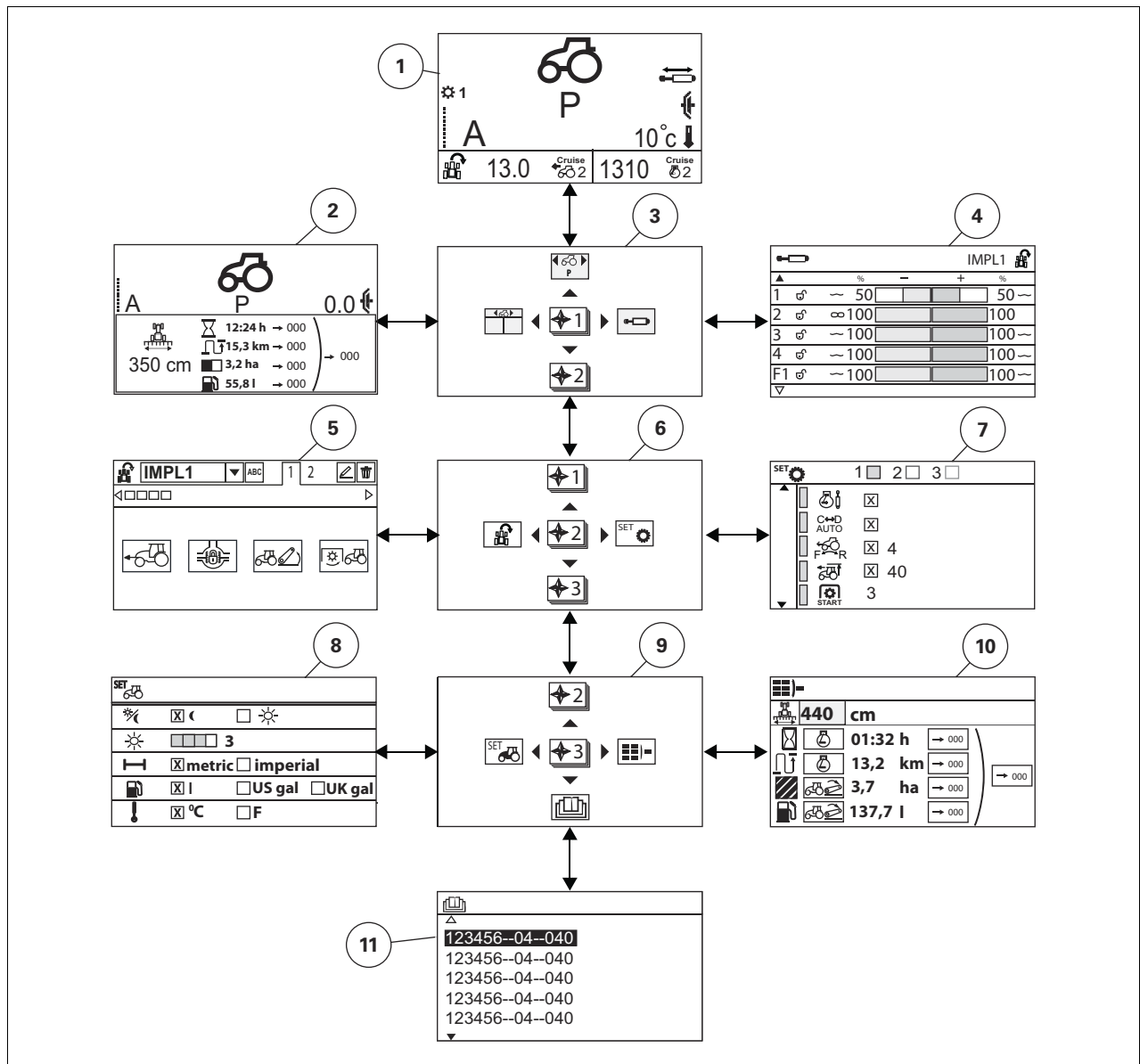


Fig. 3.

1037892

- | | |
|------------------------------------|---|
| (1) Large driving view | (7) Transmission settings view |
| (2) Split driving view | (8) View for modifying the units of measurement and adjusting screen brightness |
| (3) Main menu | (9) Settings menu |
| (4) Hydraulic system settings view | (10) Implement width and counters resetting view |
| (5) U-Pilot display | (11) Maintenance function codes view |
| (6) Work menu | |

1. If the main menu is not displayed, press ESC as many times as necessary until it appears.
2. If the main menu is displayed, press the appropriate arrow key to move through the menu in the required direction.
3. Press an arrow key again to access the various views.

3.4.3 Accessing the large driving view

T022661

The large driving view can be accessed from the main menu -.

1. If the main menu is not displayed, press ESC as many times as necessary to make it appear.
2. If main menu 1 is displayed, press the navigation key upwards.

3

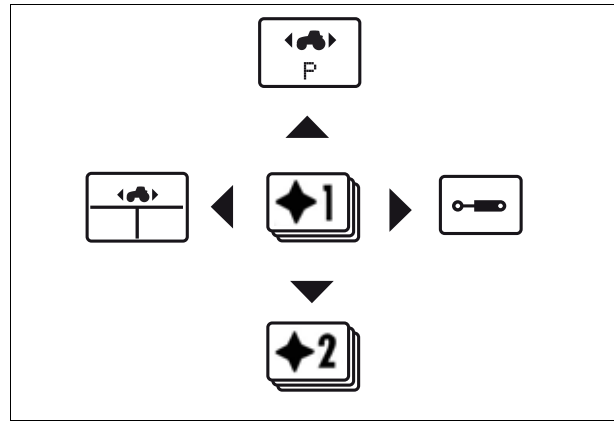


Fig. 4.

1051581

Description of the large driving view

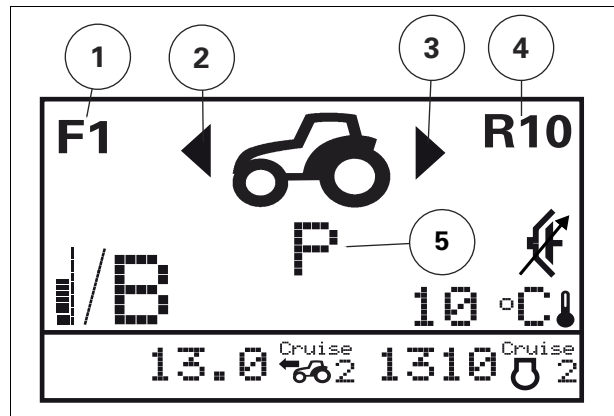


Fig. 5.

1051718

Key	Function
1	F1
2	The arrow pointing forwards is displayed when forward travel is engaged. The arrow flashes 10 km/h
3	The arrow pointing backwards is displayed when reverse travel is engaged. The arrow flashes if the reverse shuttle has been used at a speed greater than 10 km/h.
4	R10
5	P

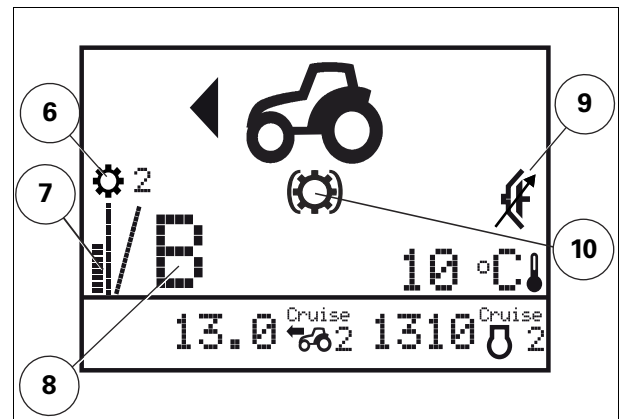


Fig. 6.

1051720

	Symbol	Function
6		This part of the screen is blank when automatic driving mode is active (by default).
		The gearbox symbol 2 lights up when manual driving mode is selected.
7		The bar graph displays the current transmission ratio as determined by the transmission adjustment lever and the pedal.
8	B	This part of the screen shows the selected speed range (A, B, C, or D).
9		The tractive power control symbol lights up when this function is used. The symbol flashes when it is activated while driving. The symbol is also displayed if the speed is greater than 5 km/h and the brakes are engaged (forward travel is disengaged).
10	P	When the parking brake is activated, the symbol (P) is displayed. If the parking brake is engaged while driving, the symbol (P) flashes until the forward speed drops below the maximum activation speed (factory set to 3 km/h).
	N	The symbol is displayed when the reverse shuttle lever is in neutral position.
		The Active Stop symbol lights up when the function is activated.
		The maximum forward speed symbol flashes when the maximum forward speed is reached.
		The maximum engine speed symbol flashes when the maximum engine speed is reached.

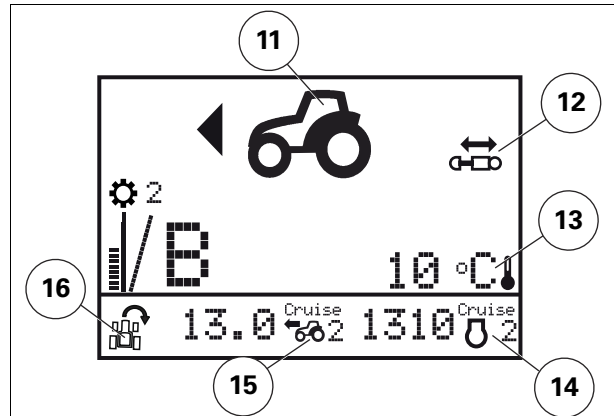














Fig. 7.

1051722

11		When the ignition is switched on, the tractor symbol is permanently lit up.
		When the system detects a fault in its own operation, the book symbol flashes over the tractor symbol. If the STOP indicator light on the instrument panel is not flashing, you can continue driving.
		The safety time delay symbol for the auxiliary hydraulic system control flashes on the screen approximately 30 seconds before the auxiliary hydraulic system is deactivated by the time delay function.
12		The hydraulic ram flashes on the screen when at least one spool valve has reached the required pressure.
		The floating position symbol flashes on the screen when at least one spool valve is in the floating position.
		The symbols will flash alternately if at least one spool valve is in the floating position and at least one spool valve has reached the required pressure.
13		Under normal conditions, with the ignition switched on and the tractor stationary, the thermometer and outside temperature are displayed. The temperature display is accurate to within approximately 1 °C. The outside temperature sensor is located at the front of the tractor. Heat from the tractor engine can increase the temperature reading.
	kph or mph	The accuracy of the forward speed display is:

14		The engine speed regulator symbol for the memory 1 location and the engine speed programmed are displayed on the screen. The inverted icon indicates that the regulator mode is active.
		The engine speed regulator symbol for the memory 2 location and the engine speed programmed are displayed on the screen. The inverted icon indicates that the regulator mode is active.
15		The forward speed regulator symbol for the memory 1 location and the forward speed programmed are displayed on the screen. The inverted icon indicates that the speed regulator mode is active.
		The forward speed regulator symbol for the memory 2 location and the forward speed programmed are displayed on the screen. The inverted icon indicates that the speed regulator mode is active.
16		The U-Pilot (headland) symbol illuminates when this function is active.

3.4.4 Accessing the hydraulic system settings view

T022651

The hydraulic system settings view can be accessed from the main menu.

1. If the main menu is not displayed, press ESC as many times as necessary to make it appear.
2. If the main menu is displayed, press the navigation key to the right.

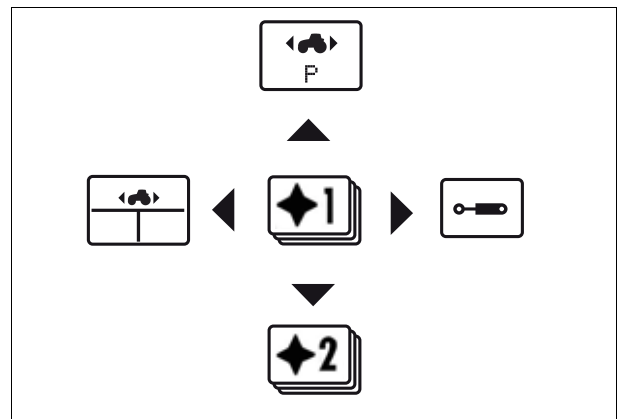


Fig. 8.

1051581

Description of hydraulic system settings

- (1) Number of the selected memory (M1/M2/M3) or chosen flow rate (10%/50%/100%)
- (2) Number of the spool valve (1R to 6R for the rear spool valves, 1F and 2F for the front spool valves and LF for the front linkage)
- (3) Spool valve status (locked or unlocked)
- (4) Activation time of the hydraulic flow rate of the spool valve during the ram lifting phase (time setting of 0 to 60 seconds or permanent flow rate)
- (5) Adjustment of the hydraulic flow rate of the spool valve during the ram lifting phase (from 0% to 100%)
- (6) Adjustment of the hydraulic flow rate of the spool valve during the ram lowering phase (from 0% to 100%)
- (7) Activation time of the hydraulic flow rate of the spool valve during the ram lowering phase (time setting of 0 to 60 seconds or permanent flow rate or floating position)

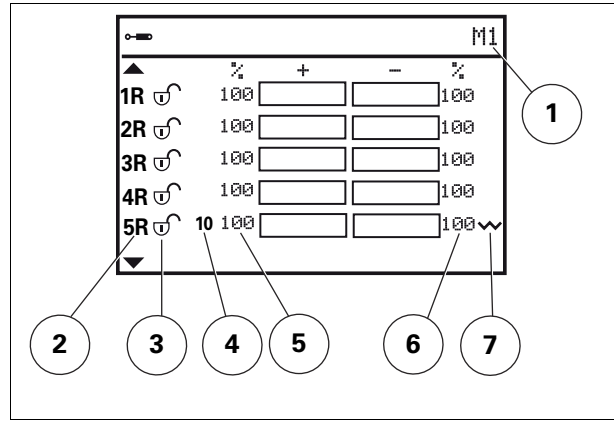


Fig. 9.

1051583

3.4.5 Accessing the transmission settings view

T022654

The hydraulic system settings view can be accessed from the main menu.

1. If the main menu is not displayed, press ESC as many times as necessary to make it appear.
2. If main menu 1 is displayed, press the navigation key downwards.

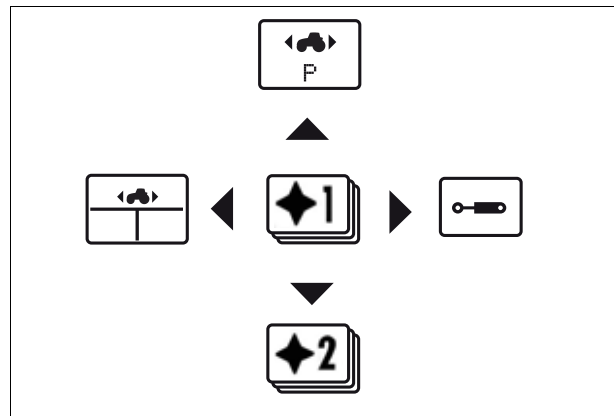


Fig. 10.

1051581

3. If main menu 2 is displayed, press the navigation key to the right.

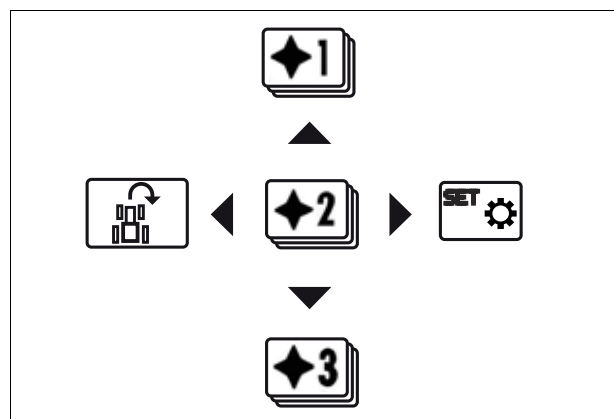


Fig. 11.

1051586

- Pressing the switch (1) located under the shuttle lever allows you to access the transmission settings screen directly

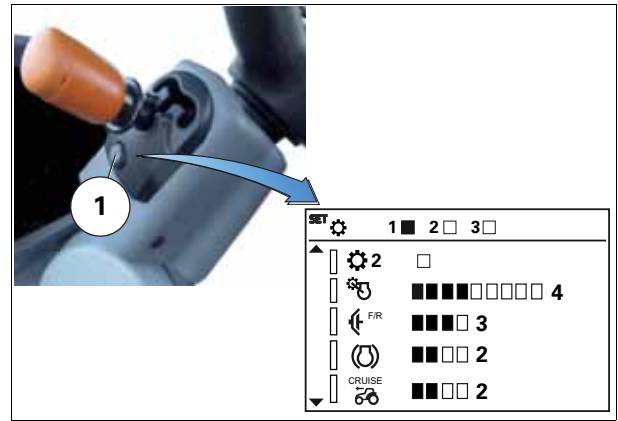


Fig. 12.

I051605

Description of transmission settings

3

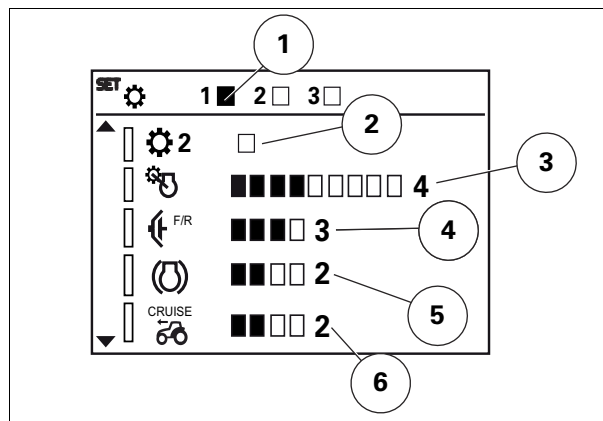


Fig. 13.

1051587

	Description of function
(1)	<p>Selected memory</p> <p>It is possible to adjust the functions below for a single memory</p> <p>There are three memories available (M1/M2/M3)</p>
(2)	<p>Manual mode</p> <p>Manual mode is available on the armrest terminal</p> <p>This function is active if the box is ticked</p> <p>NOTE: This mode is not stored when the tractor is stopped</p>
(3)	<p>Authorised drop in forward speed</p> <p>This function allows you to adjust the drop in engine speed that is to be tolerated before a drop in transmission speed occurs</p> <p>It is possible to increase or decrease the tolerated drop (from 1 (forward speed maintained) to 10 (drop in engine speed)) from a 0 to 30% drop in engine speed.</p>
(4)	<p>Reverse shuttle sensitivity</p> <p>This function allows you to adjust sensitivity during changes of direction</p> <p>It is possible to increase or decrease the reverse shuttle sensitivity (from 1 (slow shifting) to 4 (quick shifting))</p>
(5)	<p>Deceleration sensitivity</p> <p>This function allows you to adjust deceleration sensitivity when driving</p> <p>It is possible to increase or decrease the sensitivity (from 1 (slow deceleration) to 4 (rapid deceleration))</p>
(6)	<p>Progressivity of activation of stored forward speeds (Cruise)</p> <p>This function allows you to adjust the progressivity for reaching the Cruise 1 and Cruise 2 stored forward speeds</p> <p>It is possible to increase or decrease the progressivity (from 1 (slow progressivity) to 4 (fast progressivity))</p>

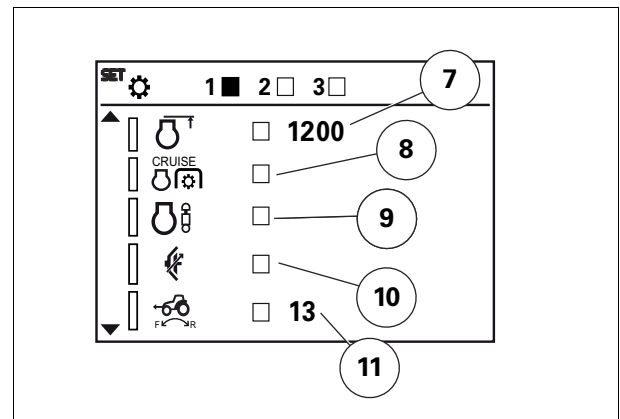


Fig. 14.

1051593

	Description of function
(7)	<p>Maximum engine speed</p> <p>This function allows you to activate/deactivate the maximum engine speed. If the box is ticked, it is active</p> <p>It is possible to increase or decrease the maximum engine speed</p> <p>It is also limited when the hand throttle or the Cruise 1 and Cruise 2 stored engine speeds are used</p>
(8)	<p>Rear PTO/stored engine speed automation (Cruise)</p> <p>This function allows you to activate a stored engine speed (Cruise) when the rear PTO is engaged using the switch located on the fenders</p>
(9)	<p>Auxiliary hydraulics assistance</p> <p>This function allows you to increase the engine speed when multiple valves are used at the same time or when the tractor has to provide a high hydraulic flow.</p>
(10)	<p>Coupler function</p> <p>This function allows you to activate/deactivate the coupler function. If the box is ticked, it is active.</p>
(11)	<p>Engagement of 4-wheel drive front axle during reverse shuttle</p> <p>This function allows you to activate/deactivate the 4-wheel drive front axle during a change of direction. It is possible to increase or decrease the engagement time (from 1 to 10 seconds)</p>

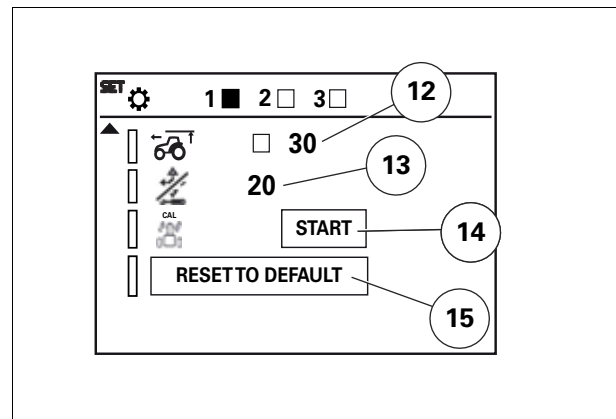


Fig. 15.

1051595

	Description of function
(12)	<p>Maximum forward speed</p> <p>This function allows you to activate/deactivate the maximum forward speed. If the box is ticked, it is active</p> <p>It is possible to increase or decrease the maximum forward speed (from 5 km/h to 50 km/h)</p> <p>This setting can be used when driving on slippery roads or to prevent unintentional excess speed</p>
(13)	<p>Auxiliary hydraulics control safety function</p> <p>This function prevents any involuntary movement of the tools connected to the hydraulic system from a selected speed onwards.</p> <p>The speed can be set between 5 km/h and 55 km/h. The default setting is 20 km/h.</p>
(14)	<p>Reverse station calibration</p> <p>This function allows you to adjust the drop in engine speed that is to be tolerated before a drop in transmission speed occurs</p> <p>It is possible to increase or decrease the tolerated drop (from 1 (forward speed maintained) to 10 (drop in engine speed)) from a 0 to 30% drop in engine speed.</p>
(15)	<p>Reset to zero</p> <p>This function allows you to activate/deactivate the coupler function. If the box is ticked, it is active.</p>

3.4.6 Accessing the display settings view

T022660

1. If the main menu is not displayed, press ESC as many times as necessary to make it appear.
2. If main menu 1 is displayed, press the navigation key downwards.

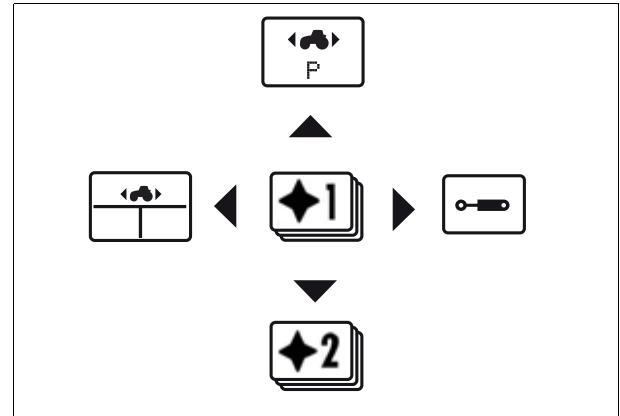


Fig. 16.

I051581

3. If main menu 2 is displayed, press the navigation key downwards.

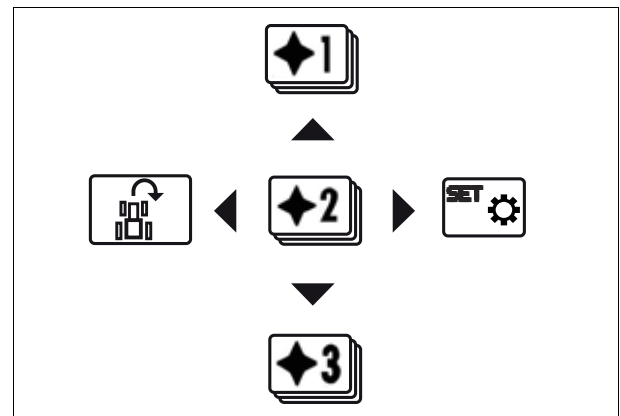


Fig. 17.

I051586

4. If main menu 3 is displayed, press the navigation key to the left.

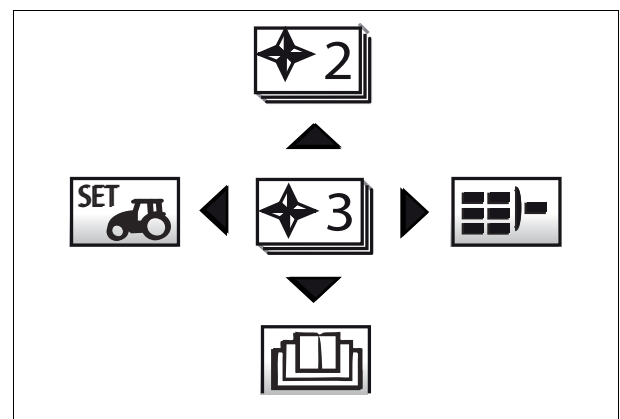


Fig. 18.

I051598

Description of display settings

3

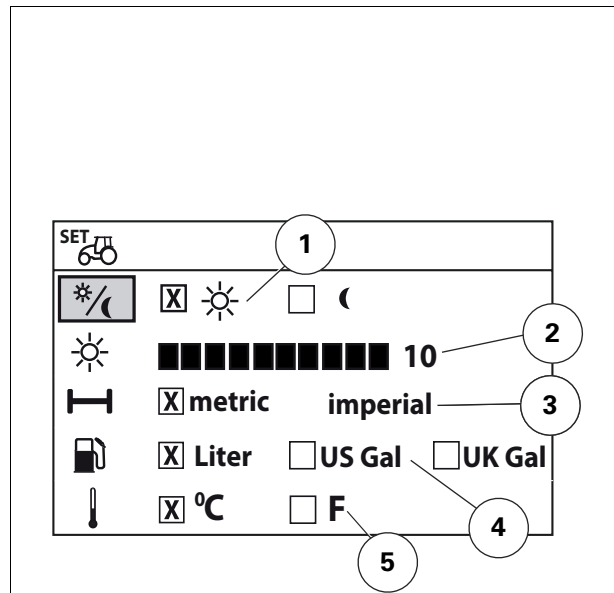


Fig. 19.

1051600

1. Select the screen contrast setting using the Up and Down arrow keys -.
2. Press the Right arrow key. The screen brightness value is activated.
3. Adjust the brightness using the Up and Down arrow keys.
4. Press the Left arrow key to return to the view for modifying the units of measurement and adjusting screen brightness.

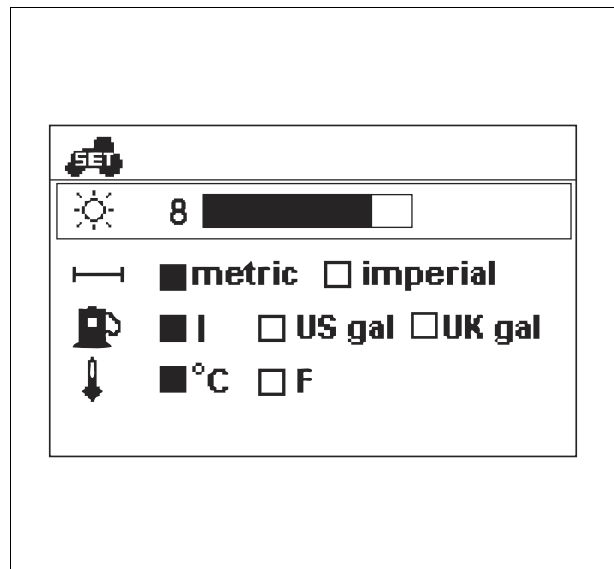


Fig. 20.

1037971

The units used on the screen can be modified.

IMPORTANT: The units for the instrument panel screen must be modified separately.

1. In the Settings Menu, press the Left arrow key to display the view for adjusting the screen brightness setting and modifying the units of measurement.
2. Using the Up and Down arrow keys, move the navigation area onto the position of the unit to be modified.
3. Select the unit using the Left and Right arrow keys.
4. Click OK to activate the unit.

When a metric/imperial unit of length is changed, the following units are also modified:

Unit	Metric	Imperial
Forward speed	kph	mph
Distance	km, m	miles, yards
Surface area	ha	acre
Implement width	cm	inch

3.4.7 Accessing the split driving view

T003653

The split driving view can be accessed from the main menu [fig. 21](#).

1. If the main menu is not displayed on the screen, press ESC.
2. Access the main menu using the up and down arrow keys.

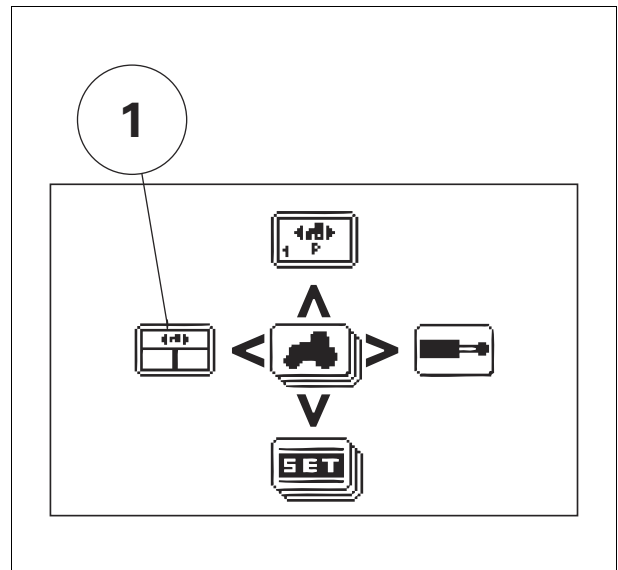


Fig. 21.

I037932

3. If the main menu is displayed, press the left arrow key.
The split driving view is displayed [fig. 22](#).

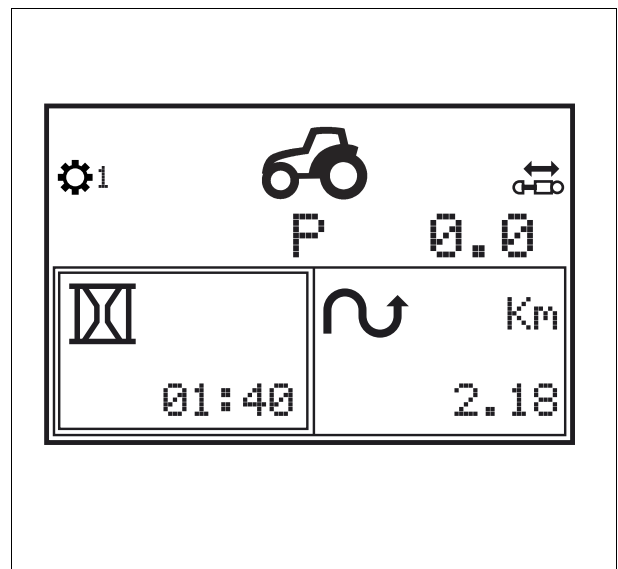


Fig. 22.

I010170

3.4.8 Split driving view

T003627

The split driving view is divided into three fields [fig. 23](#).

The top part of the small driving view shows the same functions as the large driving view, with the exception of the following functions:

- Outside temperature
- Speed regulator

The functions displayed in the two lower fields can be selected.

3

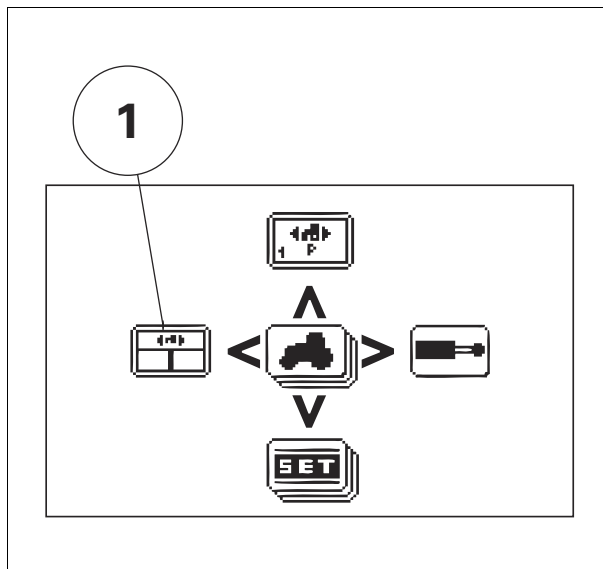


Fig. 23.

I038045

3.4.9 Modifying the lower field displays

T003655

It is possible to select the views shown in the lower fields of the split driving view. It is not possible to show the same view in both fields at the same time.

To change the views in the lower fields, the split driving view must be selected [fig. 24](#).

1. Press OK.
The left-hand lower field is activated, and is surrounded by a rectangle.
2. Activate the left or right-hand field using the left and right arrow keys.
3. Select the required view in the field using the up and down arrow keys.
4. Press OK.
The selected field remains on the screen.

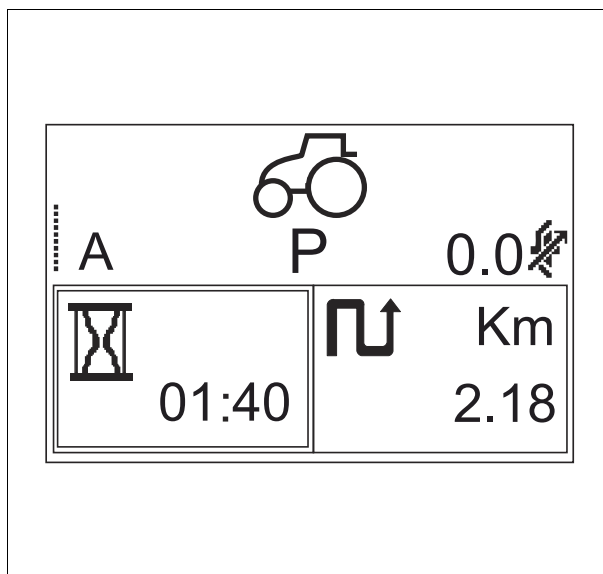


Fig. 24.

I037933
















3.4.10 Lower field displays: Overview

T003658

Several views can be shown in the lower fields of the split driving view.

The functions selected for the lower fields are displayed in the following order:

Symbol	Function
F	Front PTO speed (rpm)
R	Rear PTO speed (rpm)
	Engine speed (rpm)
M1 M2 M3	Memory locations for the auxiliary hydraulic spool valve settings

1 2 3 4	Settings for the rear hydraulic spool valves 1-4 of memory locations M1, M2 and M3
F1 F2 F3	Settings for the front hydraulic spool valves F1, F2 and F3 of memory locations M1, M2 and M3
	Gearbox temperature (°C/°F)
 HST	Hydrostatic temperature (°C/°F)
	Hydraulic oil temperature (°C/°F)
	Outside temperature (°C/°F)
	Engine temperature (°C/°F)
 AC _R	Position of the lower hitch arms (%)
	Wheel slip (%)
	Working time (hh:mm)
	Distance travelled (m/km/miles)
	Surface area (ha/acres)
	Fuel consumption views, displaying the following information: -Total fuel consumption -Average fuel consumption in one hour -Immediate fuel consumption in one hour -Average fuel consumption on the area worked -Immediate fuel consumption on the area worked
 Cruise 1	Constant engine speed 1
 Cruise 2	Constant engine speed 1
 Cruise 1	Constant forward speed 1
 Cruise 2	Constant forward speed 2

3.4.11 Lower field displays: PTO speed

The PTO rotational speed can be shown in the lower fields of the split driving view. The PTO rotational speed displayed is accurate to within 10 rpm.

- Front PTO speed [fig. 25](#)

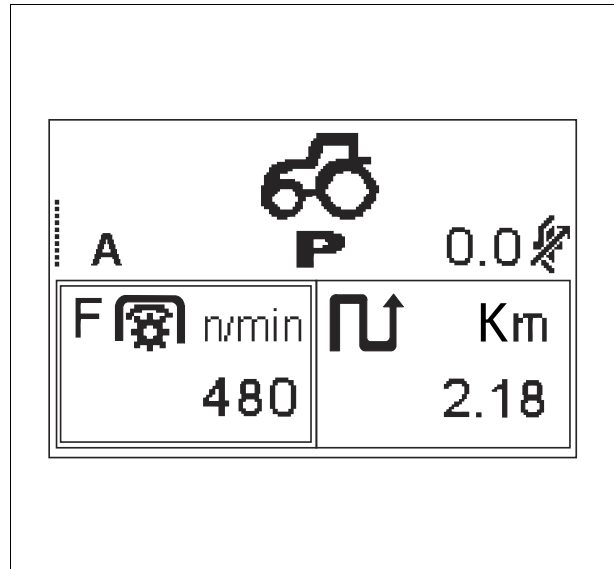


Fig. 25.

1037946

- Rear PTO speed [fig. 26](#)

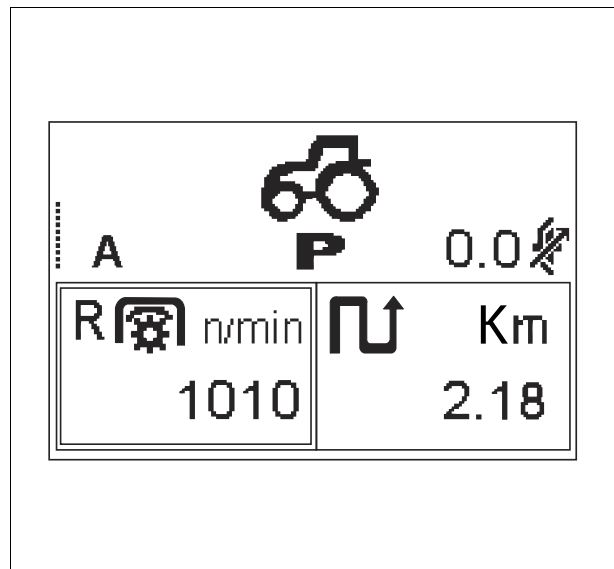


Fig. 26.

1037947

3.4.12 Lower field displays: Engine speed

T003672

The engine speed can be displayed in the lower field of the split driving view [fig. 27](#). The display shows the engine speed and is accurate to within 10 rpm.

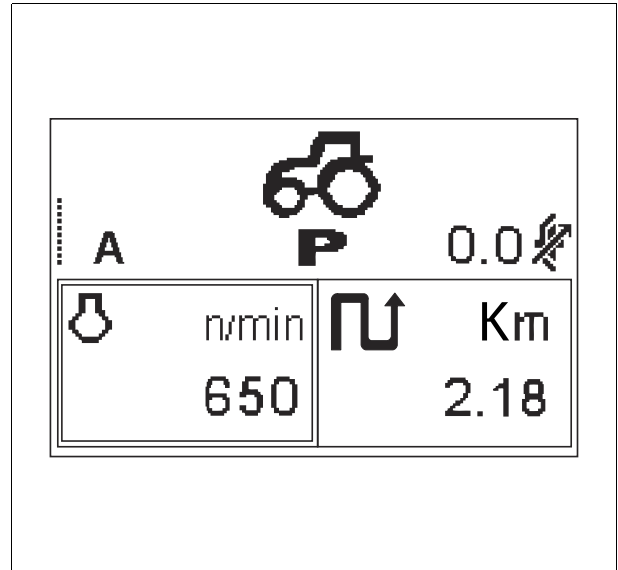


Fig. 27.

I037948

3

3.4.13 Lower field displays: Rear hydraulic spool valve settings

T003673

The settings of the rear hydraulic spool valves can be displayed in the lower field of the split driving view [fig. 28](#).

The hydraulic settings of the memory location (M1, M2 or M3) being used are displayed. If one of the factory settings is being used, the settings of memory location M1 are displayed.

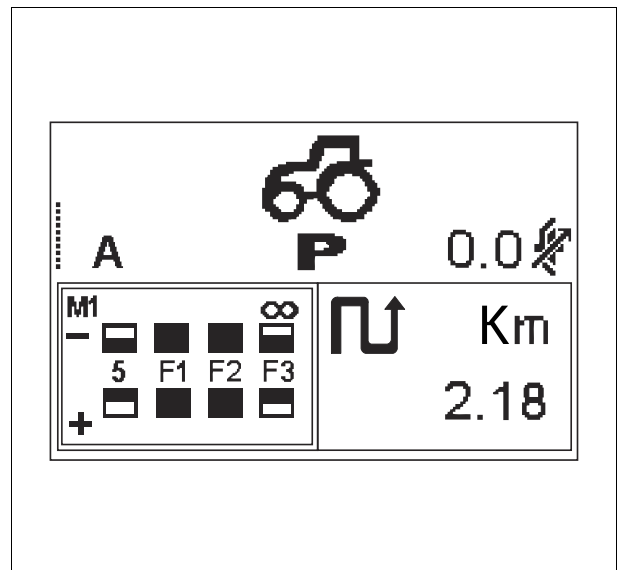


Fig. 28.

I037949

3.4.14 Lower field displays: Hydraulic spool valve settings

T003675

The settings of the front hydraulics can be displayed in the lower field of the split driving view [fig. 29](#).

This display is available on tractors fitted with front hydraulic spool valves. The hydraulic settings of the memory location (M1, M2 or M3) being used are displayed on the screen. If one of the factory settings is being used, the settings of memory location M1 are displayed on the screen. If the tractor is fitted with five rear spool valves, the fifth spool valve is displayed on the left.

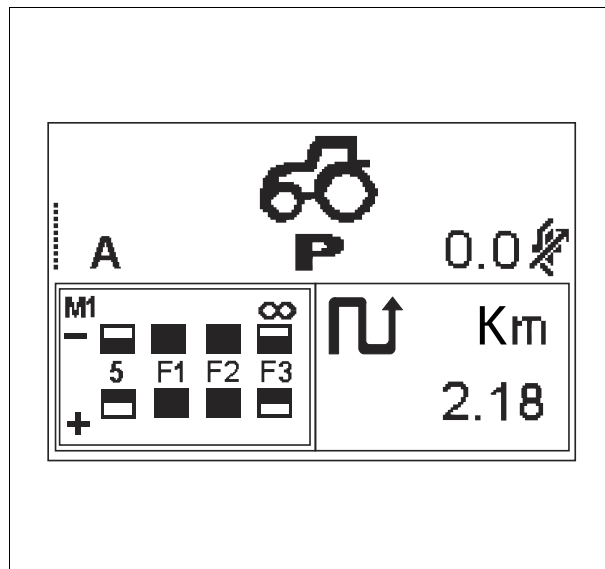


Fig. 29.

I037949

3.4.15 Lower field displays: Gearbox temperature

T003677

The gearbox temperature can be displayed in the lower fields of the split driving view [fig. 30](#)

The gearbox temperature is displayed as follows:

- For temperatures lower than +30 °C, the message "lo" is displayed.
- For temperatures higher than +30 °C, the actual temperature is displayed.
- For temperatures higher than +119 °C, the message "high" is displayed.

IMPORTANT: If the gearbox temperature is permanently higher than +90 °C, clean the radiator and check the oil level.

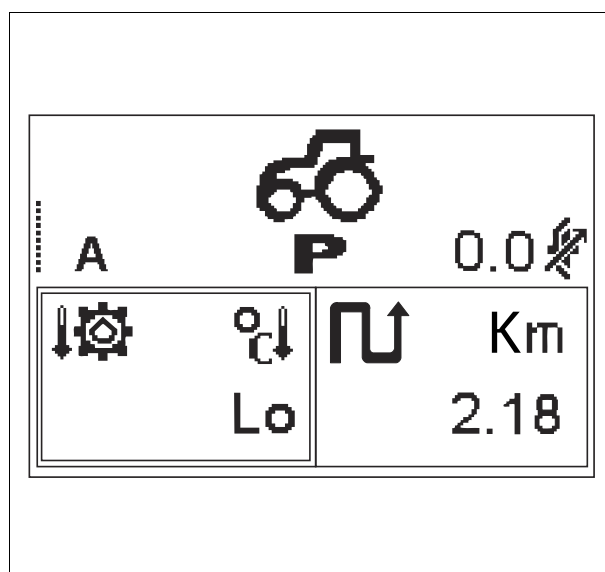


Fig. 30.

I037950

3.4.16 Lower field displays: Hydrostatic temperature

T016619

The gearbox temperature can be displayed in the lower fields of the split driving view [fig. 31](#).

The hydrostatic temperature is displayed as follows:

- For temperatures of less than +30 °C, the message "lo" is displayed.
- For temperatures of more than +30 °C, the actual temperature is displayed.

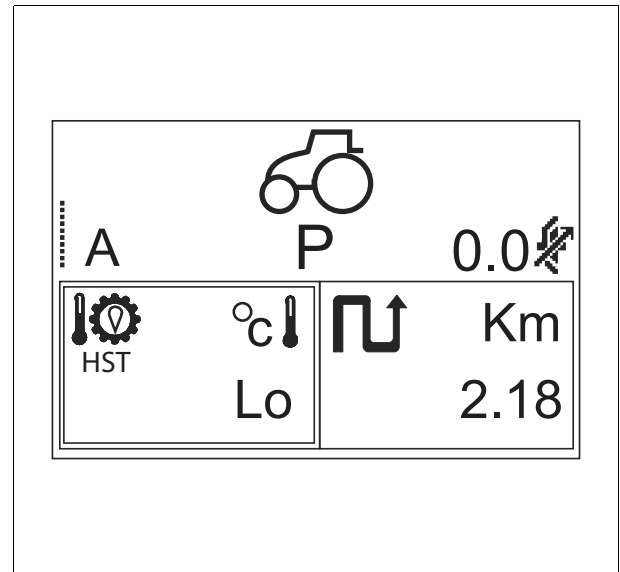


Fig. 31.

I037951

3.4.17 Lower field displays: Working hydraulic oil temperature

T003676

The working hydraulic oil temperature can be displayed in the lower fields of the split driving view [fig. 32](#).

The hydraulic oil temperature is displayed as follows:

- For temperatures lower than +30 °C, the message "lo" is displayed.
- For temperatures higher than +30 °C, the actual temperature is displayed.
- For temperatures higher than +119 °C, the message "high" is displayed.

IMPORTANT: If the hydraulic oil temperature is permanently higher than +90 °C, clean the radiator and check the oil level.

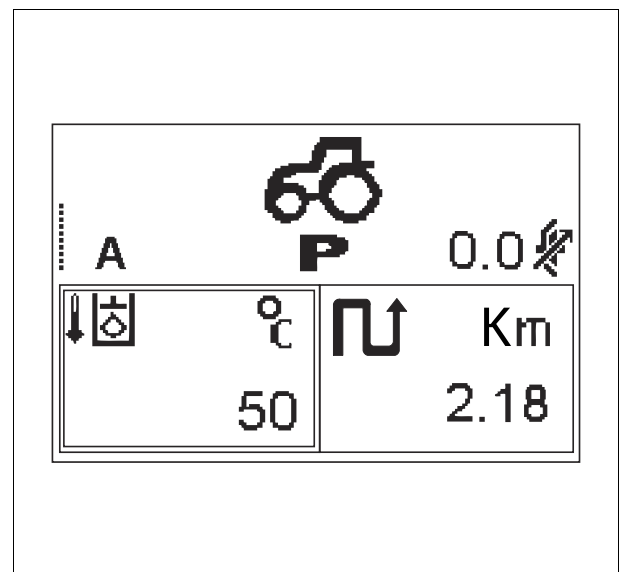


Fig. 32.

I037952

3.4.18 Lower field displays: linkage

The position of the rear bottom links can be displayed in the lower field of the split driving view [fig. 33](#).

The symbol AC_R is displayed on the screen, with the position of the rear bottom links displayed as a percentage between 0 and 100.

- 0 = The bottom links are in low position.
- 50 = The bottom links are in central position.
- 100 = The bottom links are in high position.

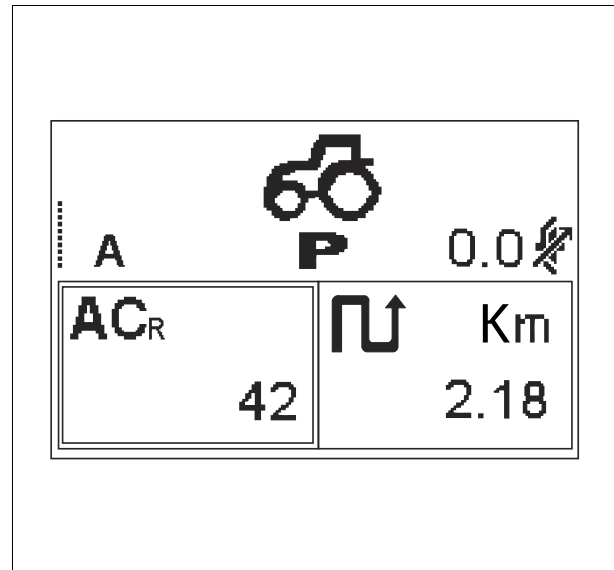


Fig. 33.

I037953

3.4.19 Lower field displays: Wheel slip

The wheel slip percentage can be displayed in the lower fields of the split driving view [fig. 34](#).

The wheel slip percentage is obtained by comparing the actual speed provided by the radar against the theoretical wheel-rotation speed.

The radar starts to operate at a speed of 0,3 km/h. For speeds below 0,3 km/h, the value displayed is zero.

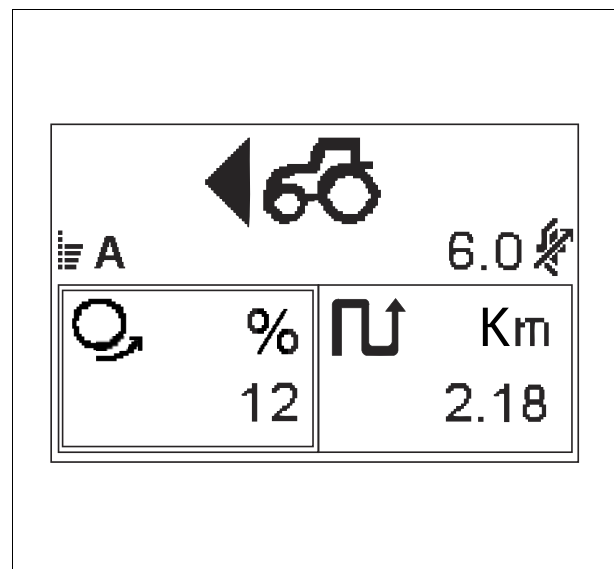


Fig. 34.

I037954

3.4.20 Lower field displays: Hours worked

T003693

The hours worked can be displayed in the lower fields of the split driving view [fig. 35](#). The hours worked can, for example, be the time spent ploughing a certain area.

The hours worked are stored in the memory until the electrical supply is switched off.

The driver can reset the counter to 0.

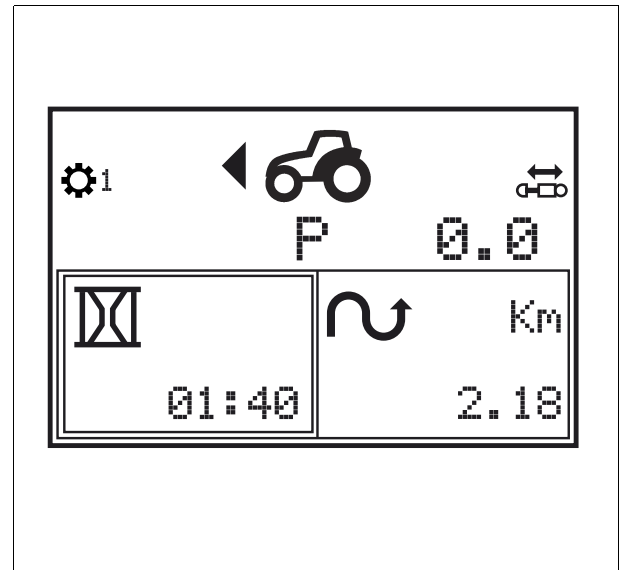


Fig. 35.

I010203

3.4.21 Lower field displays: Distance covered

T003694

The distance travelled can be displayed in the lower fields of the split driving view [fig. 36](#).

The unit of distance covered (km, miles) can be modified by changing the unit of length.

The distance reading can also be reset.

The distance covered is displayed as follows:

- For distances of less than 1 km, the symbol m (yards) is displayed and the distance indicated is accurate to within ± 1 m
- For distances of more than 1 km but less than or equal to 100 km, the symbol on the screen changes to km (miles) and the distance indicated is accurate to within ± 2 decimal places
- Distances of more than 100 km are displayed with an accuracy of ± 1 decimal place
- The maximum distance reading is 999,9 km.

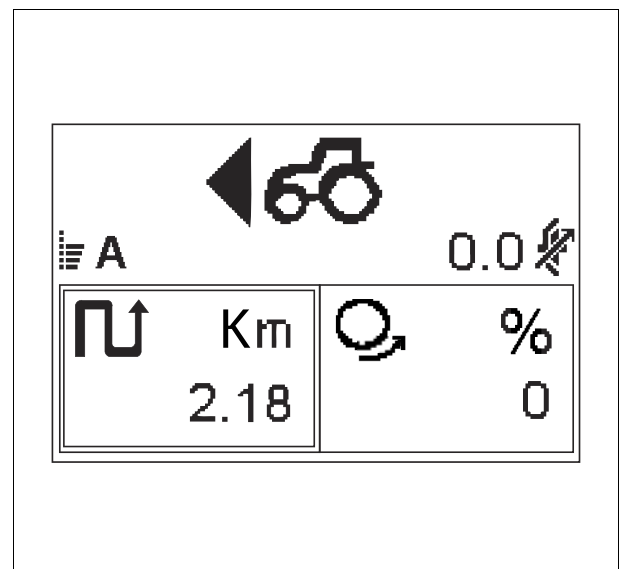


Fig. 36.

I037955

T003695

3.4.22 Lower field displays: Surface area

The surface area can be displayed in the lower fields of the split driving view [fig. 37](#).

The unit of area (ha, acres) can be modified by changing the unit of length.

The surface area reading can also be reset.

The surface area display shows the surface area covered.

The surface area reading only increases when the implement is used to work the soil (the linkage is not in transport position).

The surface area worked is saved when the current is switched off on the tractor.

3

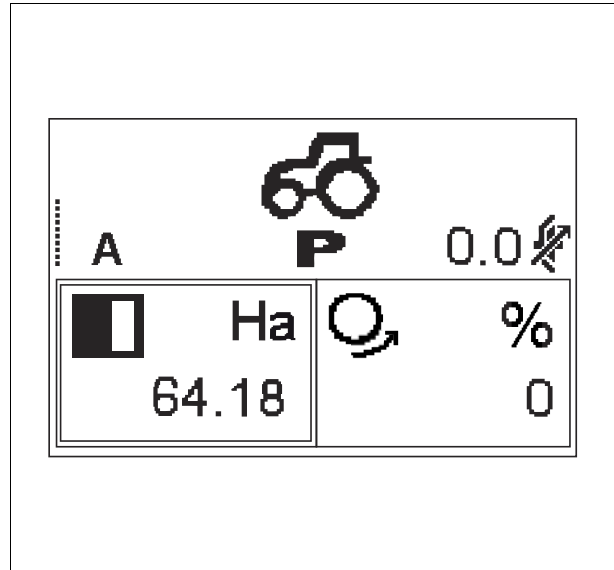


Fig. 37.

1037956

3.4.23 Lower field displays: Fuel consumption

T003696

Five different fuel consumption settings can be shown in the lower fields of the split driving view.

The unit of volume can be selected from litres, UK gallons or US gallons.

The fuel consumption information can be reset.

Total fuel consumption [fig. 38](#)

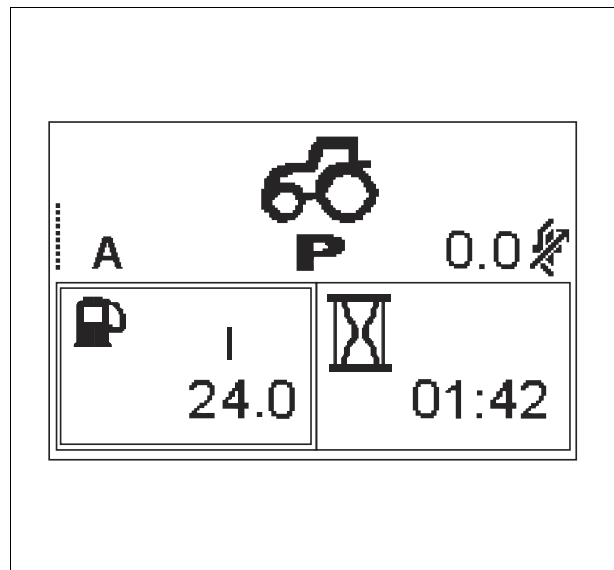


Fig. 38.

1037957

Average fuel consumption per hour [fig. 39](#)

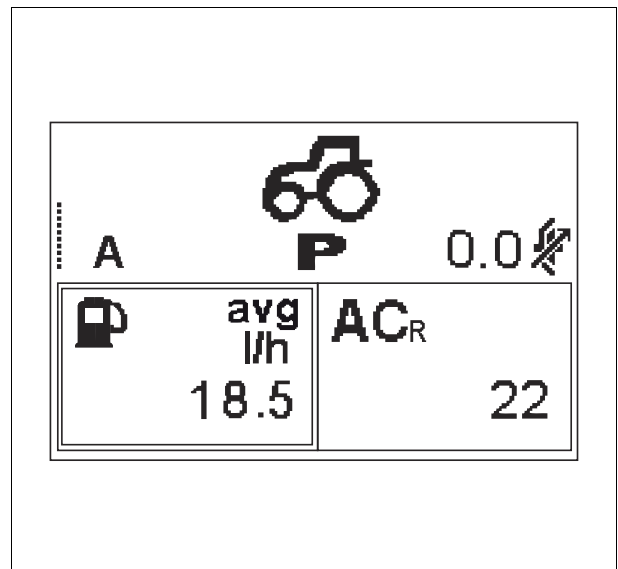


Fig. 39.

I037961

Instant fuel consumption per hour [fig. 40](#)

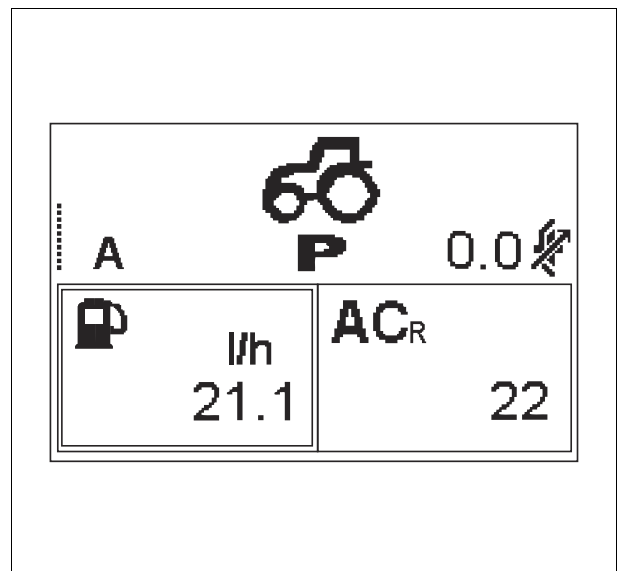


Fig. 40.

I037962

Average fuel consumption on the area worked [fig. 41](#)

The unit of area (ha, acres) can be modified by changing the unit of length.

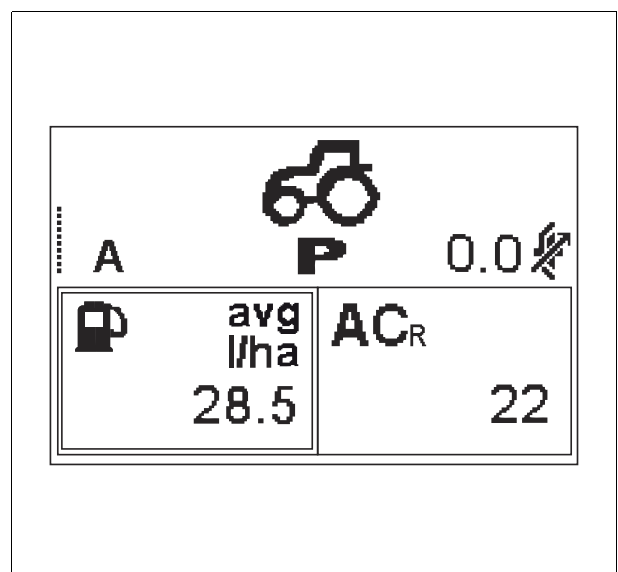


Fig. 41.

I037963

Instant fuel consumption on the area worked
 fig. 42

The unit of area (ha, acres) can be modified by changing the unit of length.

3

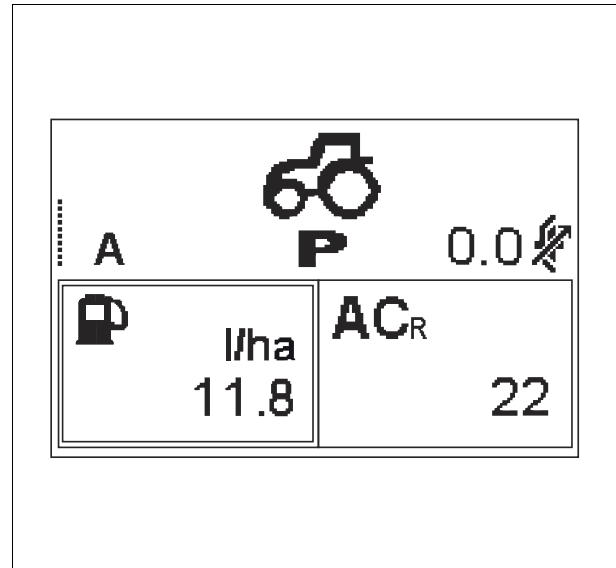


Fig. 42.

1037964

3.4.24 Lower field displays: Speed regulator

T003699

The speed regulator can be shown in the lower field of the split driving view fig. 43.

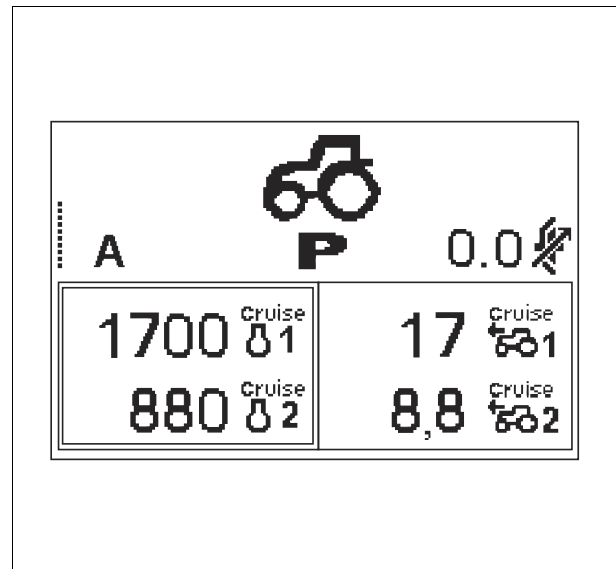


Fig. 43.

1037965

Two memory locations are available for constant engine speed and constant forward speed. The Cruise status indicators are given in the table below:

Cruise ⌚ 1	Constant engine speed 1
Cruise ⌚ 2	Constant engine speed 2
Cruise ⌚ 1	Constant forward speed 1
Cruise ⌚ 2	Constant forward speed 2

1. The numerical value in front of the symbol is the value of the programmed constant engine speed or programmed constant forward speed.

3.4.25 Accessing the counter parameter settings view

T022675

1. If the main menu is not displayed, press ESC as many times as necessary to make it appear.
2. If main menu 1 is displayed, press the navigation key downwards.

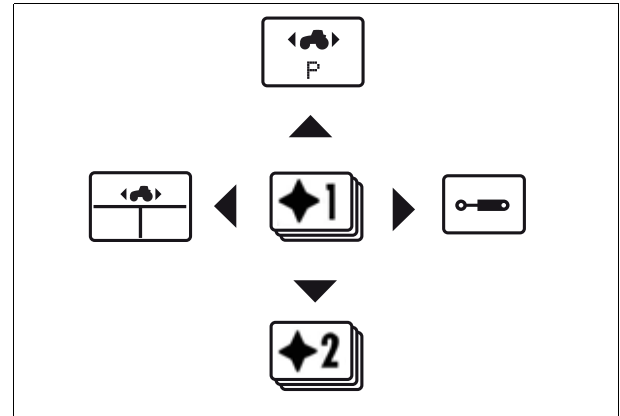


Fig. 44.

I051581

3. If main menu 2 is displayed, press the navigation key downwards.

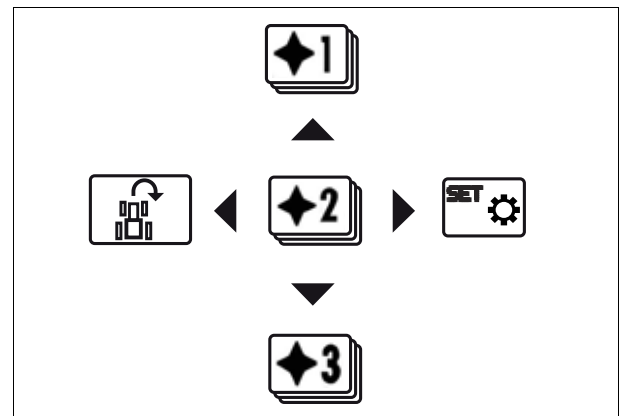


Fig. 45.

I051586

4. If main menu 3 is displayed, press the navigation key to the right.

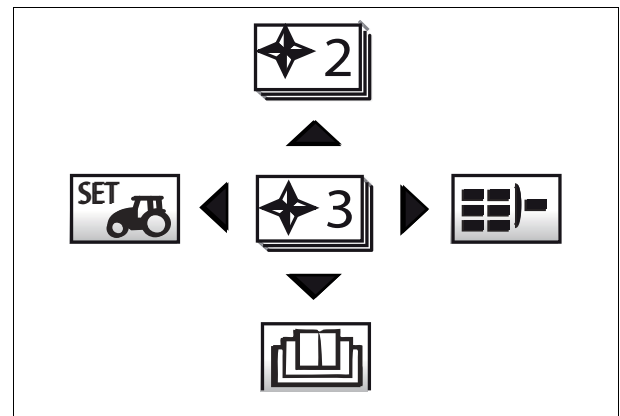


Fig. 46.

I051598

Adjusting the implement width

The implement width can be adjusted on the split driving view or in the Settings menu.

1. Select the split driving view on the screen or the counter modification view -.
2. Press OK or the factory/user settings selector. The number to be changed is underlined.
3. Using the Left and Right arrow keys, select the number to be changed.
4. Change the number using the Up and Down arrow keys or by turning the factory/user settings selector.
5. Press OK.

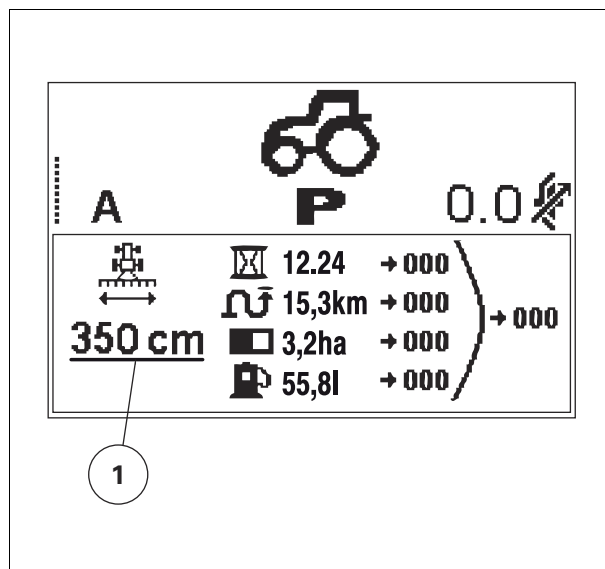


Fig. 47.

1037972

Changing the counters

The counter modification view allows you to change the functions that activate counting.

1. In the Settings Menu, press the Right arrow key.
2. Use the Up and Down arrow keys to select the function to be modified -.
3. Press OK or the factory/user settings selector.
4. Select the new function using the Up and Down arrow keys or by turning the factory/user settings selector.
5. Press OK.

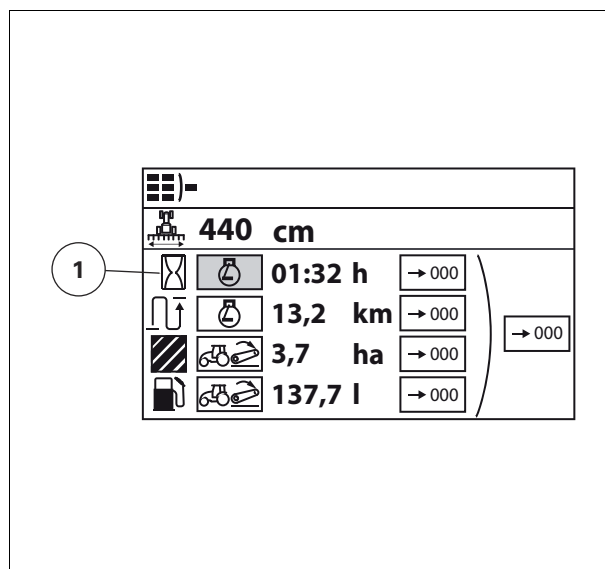


Fig. 48.

1037973

Resetting the counters

The counters can be reset on the split driving view.

1. Bring up the counter modification view -.
2. Use the Up and Down arrow keys to select the counter to be reset.
3. Using the Left and Right arrow keys, move the navigation area onto the counter or counters to be reset
4. Press OK or the factory/user settings selector until "000" is displayed.
5. Press the Left arrow key as many times as necessary to return to the main level of the modification view.

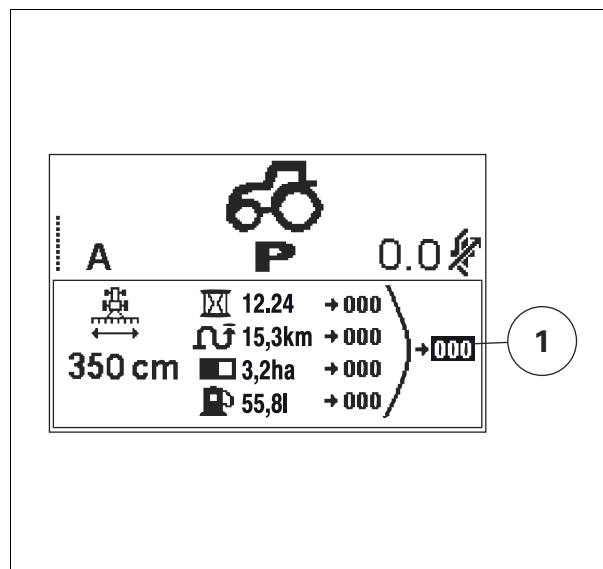


Fig. 49.

I038066

3.5 Automatic U-Pilot

3.5.1 Presentation

T003721

The purpose of the U-Pilot system is to automate a group of functions that are used on a regular basis. Making half-turns at headlands is a typical example.

The idea behind the system is for the user to perform the whole operating cycle while pressing the required switches. The cycle is recorded in the system memory. The operating cycle can then be started by pressing a single switch.

The system also has an online/programmable PAUSE function, which is activated by the activation switch on the armrest. Pressing the activation switch suspends operation; pressing the switch again resumes operation.

The functions carried out by pressing the switches and the distance travelled between the functions are recorded in the memory. Although the programmed and actual forward speeds may differ, the distances remain the same and the time intervals are changed.



DANGER:

By using U-Pilot, the functions of an operating cycle start automatically. Ensure that no one is in the surrounding danger area.



CAUTION:

The switches on the side panel do not indicate the status of equipment when the U-Pilot program is in use.

IMPORTANT: Check that the correct program is selected for the work in question and that all the switches and controls are in the same position they were in when the program was recorded.

3.5.2 Operating conditions

T003722

Certain conditions must be met in order for U-Pilot to operate correctly.

- The forward speed must be between 0,5 km/h and 20 km/h.
- The maximum number of operations for a program is 30.
- The maximum program number is 30.
- The maximum distance for an operational cycle is 100 m without a pause.
- The maximum distance between the starting points of two consecutive functions is 63,5 m.
- The distance is measured with an accuracy of 0,5 m. The minimum distance between different functions is 0,5 m, even if the function switches are activated closer together than this.
- The maximum duration of a pause is 5 minutes.

3.5.3 U-Pilot controls

T016704

Description

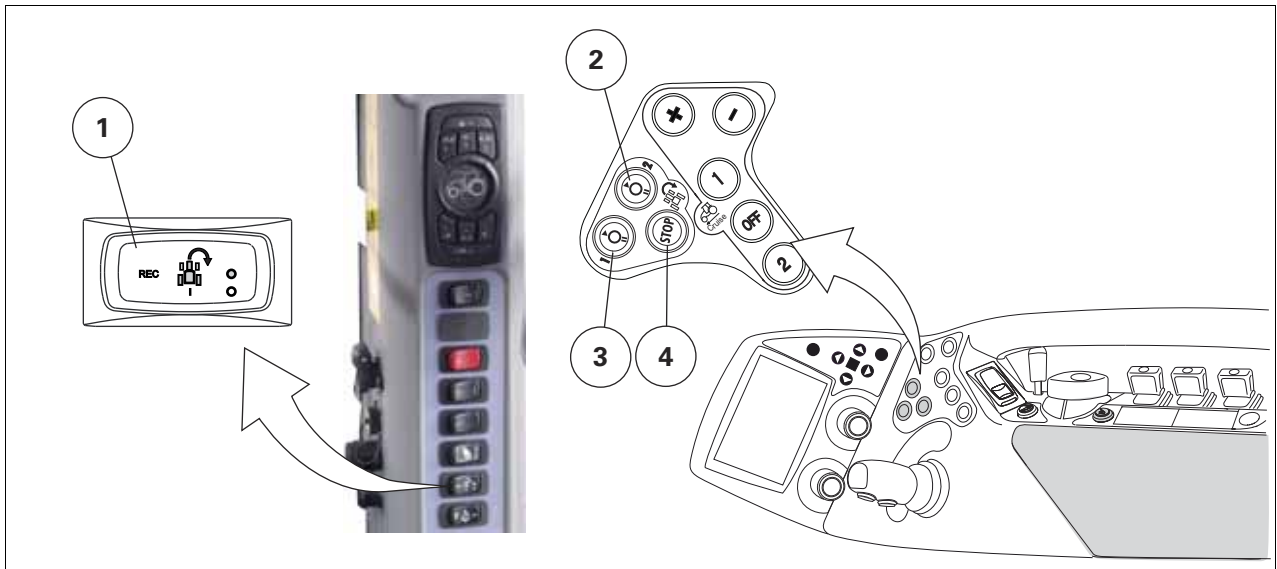


Fig. 1.

I037988

- (1) U-Pilot activate/record switch on pillar
- (2) U-Pilot engage/pause button for memory location 2
- (3) U-Pilot engage/pause button for memory location 1
- (4) U-Pilot system stop button

Programming

The U-Pilot activate/record switch has three positions:

1. OFF position: The U-Pilot system is not in use.
2. ON position: The U-Pilot system is on standby.
3. REC position: The U-Pilot system starts recording or saving.

3.5.4 U-Pilot display

T016702

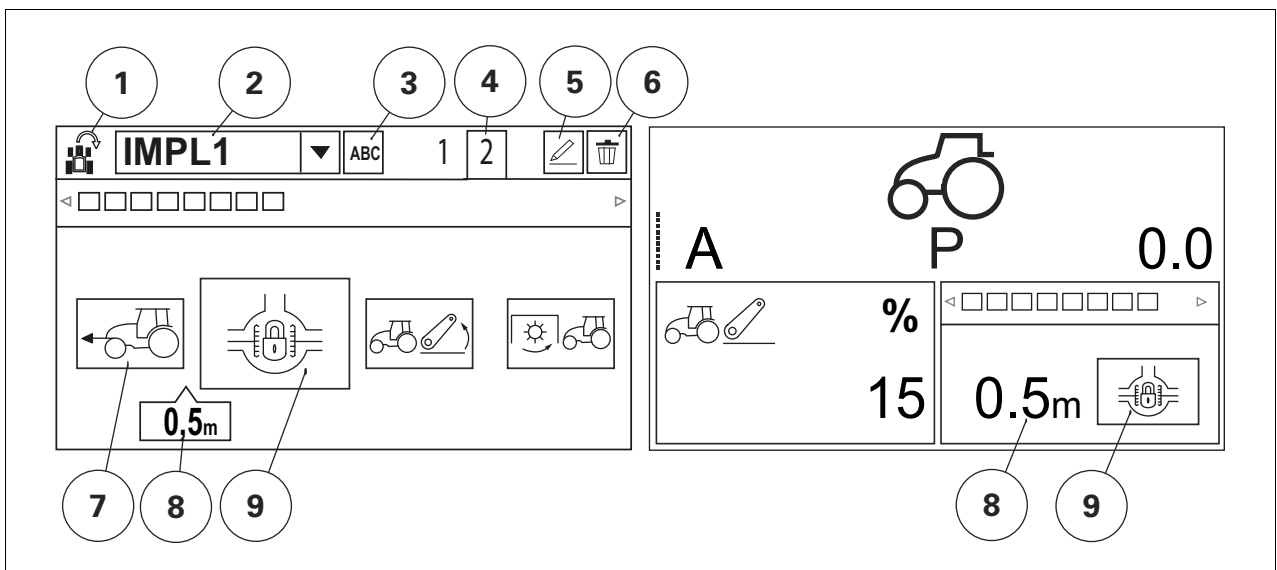


Fig. 2.

I038123

- (1) U-Pilot system status
- (2) Selected implement
- (3) Button for changing the implement name
- (4) Selected memory location
- (5) U-Pilot system modification button
- (6) Button for deleting an implement
- (7) Previous operation
- (8) Distance before the next operation
- (9) Current/next operation





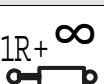
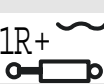
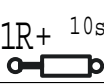

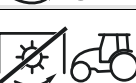









The symbol of the previous operation is greyed out.






The U-Pilot display automatically appears on the tractor terminal screen when the activate/record switch is moved to the ON or REC position.

The  icon on the instrument panel lights up when the U-Pilot appears on the terminal.

3.5.5 U-Pilot display symbols

T003730

Symbol	Operation	Switch positions	Limit
	Rear linkage upwards	Rear hitch, stop or lower	1). 2)
	Rear linkage downwards	Rear hitch, stop or lower	1). 2)
	Rear linkage, floating position activated	Rear hitch, stop or lower	
	Rear linkage, floating position deactivated	Rear hitch, stop or lower	
	Hydraulic spool valve, position locking activated	Hydraulic system activated	1). 2). 3)
	Hydraulic spool valve, floating position activated	Hydraulic system activated	1). 2). 3)
	Hydraulic spool valve, timed position locking activated	Hydraulic system activated	1). 2). 3)
	Front power take-off (PTO) activated	ON position	1)
	Front power take-off (PTO) deactivated	ON position	1)
	Rear power take-off (PTO) activated	ON position	1)
	Rear power take-off (PTO) deactivated	ON position	1)
	Speed regulator 1 (constant forward speed) activated		2)
	Speed regulator 2 (constant forward speed) activated		2)
	Speed regulator (constant forward speed) deactivated		2)
	Engine speed regulator 1 (constant engine speed) activated		2)
	Engine speed regulator 2 (constant engine speed) activated		2)
	Engine speed regulator (constant engine speed) deactivated		2)
	Front axle (4WD) engaged		3)

Symbol	Operation	Switch positions	Limit
	Front axle (4WD) disengaged		3)
	Differential lock on		3)
	Differential lock disengaged		3)
	Power socket connected		1)
	Power socket disconnected		1)
PAUSE	Program pause recorded		
END	End of recorded program		

1. The system checks these switches are correctly positioned before recording and operation. If the positioning is incorrect, the symbol of the operation flashes on the screen.
2. The system does not check the equipment settings, which must be checked and set by the driver.
3. This function is not available if the spool valve controls the front-end loader.
4. If these operations are in AUTO mode when recording, the operation is not recorded. If the operation is recorded and the switch is moved to AUTO position prior to use, the switch position has priority. In this case, the operations recorded for this switch are not carried out.
The power take-off is an exception to this rule: when it is in AUTO mode, a stop is also recorded when the power take-off has been stopped by raising the rear linkage. When used in AUTO mode, the rear power take-off is stopped either by the program or by raising the rear linkage, depending on which happens first.

3.5.6 Selecting a U-pilot program

T016705

1. Press ESC
2. Navigate to the Work menu using the Up and Down arrow keys.
3. Press the Left arrow key to display the U-Pilot system view.
4. Use the Left and Right arrow keys to select the memory location.
5. Press the OK button or the factory/user settings selector.
6. Navigate to the Program Selection menu using the Left and Right arrow keys.
7. Press the OK button.
8. Select the U-Pilot program using the Up and Down arrow keys or by turning the factory/user settings selector.
9. Press the OK button or the factory/user settings selector.

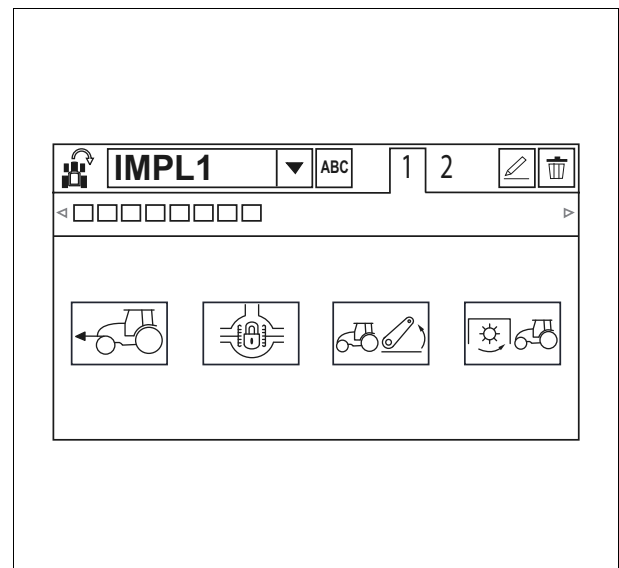


Fig. 3.

I038004

3.5.7 Recording a U-pilot program

Description

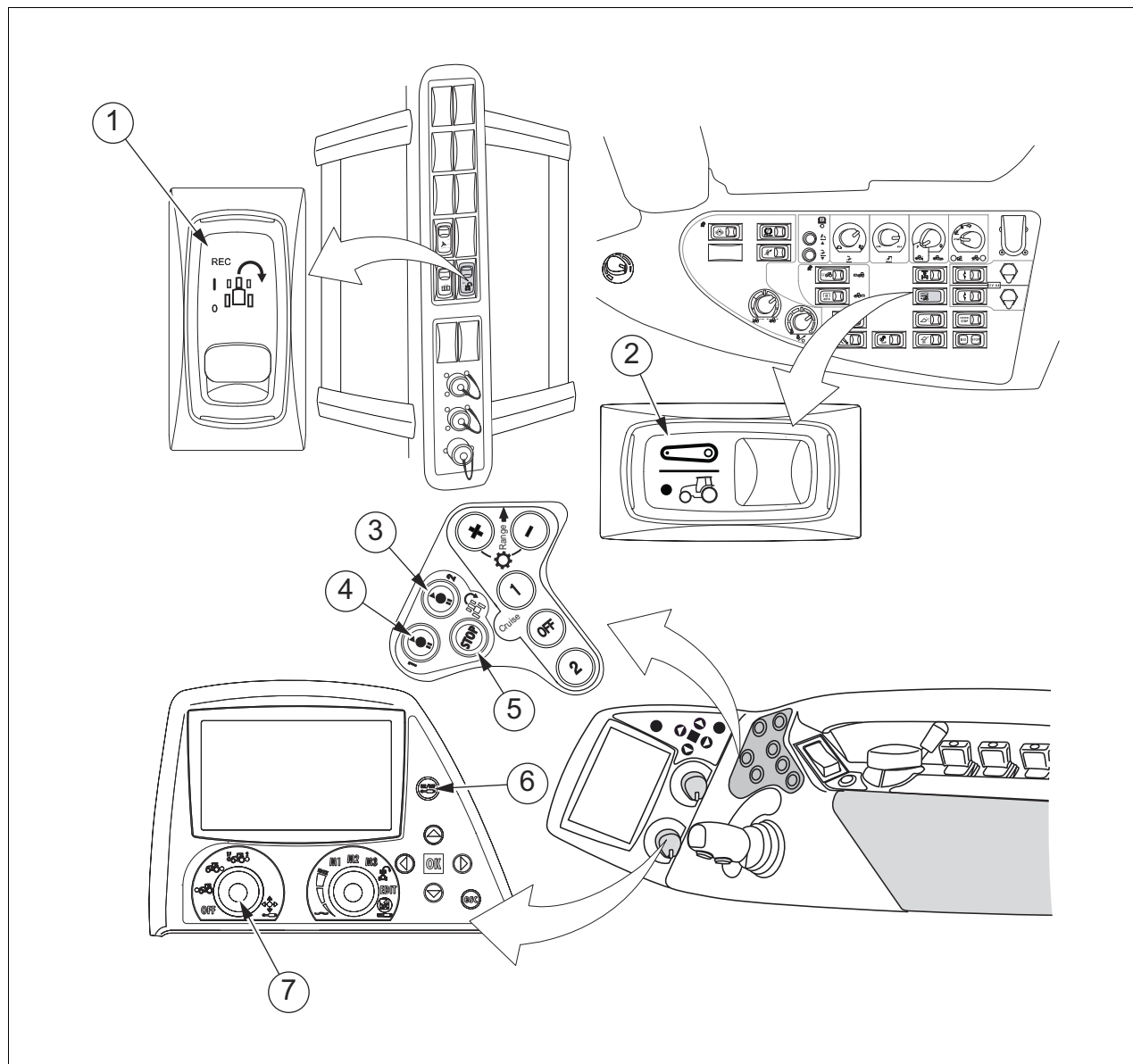








Fig. 4.

I045787

- | | |
|---|---|
| (1) U-Pilot activate/record switch on pillar | (4) U-Pilot program engage/pause button for memory location 1 |
| (2) Front linkage/front-end loader selector switch | (5) U-Pilot stop switch |
| (3) U-Pilot program engage/pause button for memory location 2 | (6) Auxiliary hydraulic system ON/OFF button |
| | (7) Joystick functions selector |

Programming

- During recording of the functions of the auxiliary hydraulic system controls, check that the switches are placed in the correct position.
 - The tractor functions are then limited.
 - When rear spool valves 1 and 2 are used, the joystick function selector is in the  position.
 - When front linkage spool valves 1F and 2F are used, the joystick function selector is in the  position. If the tractor is fitted only with a front-end loader and has no front linkage, the functions of spool valves 1F and 2F cannot be recorded.




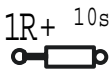





- When front spool valve 1F and rear spool valve 2 are used, the joystick function selector is in the  position.
 - If the tractor is fitted with a front linkage and a front-end loader, the change-over switch for the front hitch/front-end loader must be activated.
2. Put the U-Pilot activate/record switch in the central position.
 3. Select a program for the memory location that you are going to use.
NOTE: If no program is selected, the program name is generated automatically. The recorded program then overwrites the selected program.
 4. Start recording by pressing the U-Pilot activate/record switch.
The  indicator light flashes and the memory location selection view is displayed.
 5. Press the engage/pause button of the memory location for which you are going to record the operations.
A blank U-Pilot screen appears.
 6. Carry out the operations in the required order.
 7. Press the U-Pilot engage/pause button to insert a pause when all the operations before the half-turn have been recorded.
 8. When all the operations have been recorded, press the U-Pilot activate/record switch for more than 2 seconds to save the program.
NOTE: The  indicator light comes on and the  symbol appears.
The current settings of the hydraulic spool valve are recorded in the U-Pilot memory location of the auxiliary hydraulic system.

3.5.8 U-Pilot programming examples



T003744

U-Pilot is mainly used to program a series of operations when a reversible plough is being used, or to move an operation from a switch on the side panel to the armrest.

Example: Using a reversible plough

Arriving at headland	
	Plough raised
	Front axle (4WD) disengaged
	Differential lock disengaged
	Plough reversed
	End of program
Leaving headland	
	Plough lowered
	Front axle (4WD) engaged
	Differential lock on
	End of recorded program

Example: Moving an operation from a switch on the side panel to the armrest

	Power socket activated
	End of recorded program

3.5.9 Previewing the U-Pilot program

The U-Pilot program can be previewed before it is run.

1. Press ESC
2. Navigate to the Work menu using the Up and Down arrow keys.
3. Press the Left arrow key to display the U-Pilot system view.
4. Use the Left and Right arrow keys to select the memory location that you would like to preview.
5. Press the Down arrow key, the OK button or the factory/user settings selector.
6. Preview the U-Pilot program using the Left and Right arrow keys or by turning the factory/user settings selector.
7. To stop the preview, press the Up arrow key, the OK button or the factory/user settings selector.

3.5.10 Running a program

IMPORTANT: Check the switch positions and the function settings before starting the program. Check that it is the correct program for the work in question.

IMPORTANT: When carrying out a high-risk operation included in the recorded program manually (linkage, PTO, hydraulic system), the program running stops immediately and will not restart unless it is reactivated.















When the recorded program is interrupted, the following actions are triggered:

- The hydraulic operations controlled by the recorded program are cancelled
- Any movement of the linkages is stopped
- The power take-offs (PTOs) are disengaged if they are included in the recorded program
- The power socket is disconnected
- The differential lock is disengaged
- The speed regulator is disengaged
- The front axle (4WD) status is not changed
- The word "U-Pilot" is displayed on the screen, along with the error code.

Operation

1. Put the U-Pilot activate/record switch in the ON position.
2. Select the program for the memory location to be used.
3. Press the U-Pilot engage/pause button of the memory location to be used.

NOTE: The U-Pilot system checks the functions used in the program. If the parameter of a function is incorrect, the symbol of this function flashes on the screen. When everything is functioning normally, the symbols disappear and the program starts.

Flashing symbol	Solution
	Activate the auxiliary hydraulic system
	Turn the joystick function selector to the  position
	Turn the joystick function selector to the  position
	Turn the joystick function selector to the  position
	Press the change-over switch for the front hitch/front-end loader
	Put the lift/stop/lower switch for the rear linkage in the stop or lower position
	Put the rear power take-off (PTO) in standby position
	Put the front power take-off (PTO) in standby position
	Activate the socket
	Put the spool valve control lever in the central position
	Activate the auxiliary hydraulic spool valve

- To pause the program, press the U-Pilot engage/pause switch at any point during the program.

- To resume the program after a pause, press the U-Pilot engage/pause button.
- To stop the recorded program immediately, press the system stop button.
The "STOP" symbol is displayed on the screen. After several seconds, the active driving view appears on the screen.
It is not possible to continue the program. The U-Pilot system then needs to be reactivated by pressing the U-Pilot activate/record switch: first switching it OFF and then ON again.

3.5.11 Managing U-Pilot programs

3.5.11.1 Adding a new program

T016719

1. Press ESC
2. Navigate to the Work menu using the Up and Down arrow keys.
3. Press the Left arrow key to display the U-Pilot system view.
4. Select the memory location using the Left and Right arrow keys *fig. 5*.
5. Press the OK button or the factory/user settings selector.
6. Press the OK button or the factory/user settings selector.
A new blank program is created. It has an automatically generated name, which can be changed.

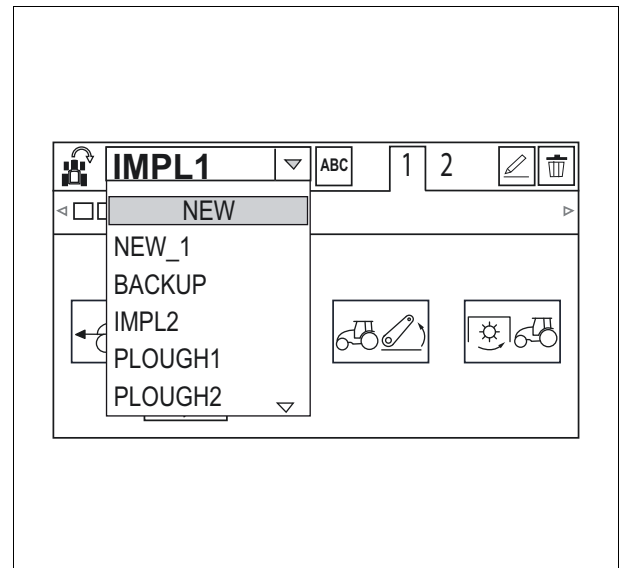



Fig. 5.

I038005

3.5.11.2 Changing the name of a program

T016720

1. Select the program to be renamed
2. Use the Right and Left arrow keys to select the Name Change symbol ABC.
3. Press the OK button or the factory/user settings selector.
4. Rename the program *fig. 6*.
 - Navigate to the character to be changed using the Up and Down arrow keys or by turning the factory/user settings selector.
 - Press the OK button or the factory/user settings selector.
 - Change the character using the Up and Down arrow keys or by turning the factory/user settings selector.
 - Use the Left and Right arrow keys to move to the next character.
5. Select the  symbol using the Right and Left arrow keys or the factory/user settings selector.
6. Press the OK button or the factory/user settings selector.

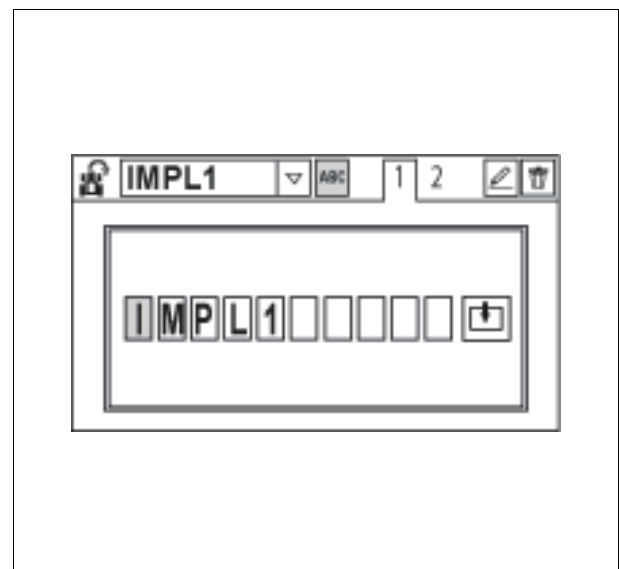



Fig. 6.

I038010

3.5.11.3 Deleting a program

1. Select the program to be deleted
2. Use the Left and Right arrow keys to select the Delete symbol 
3. Press the OK button or the factory/user settings selector.
The program is deleted and the U-Pilot display shows the next available program.


3.5.11.4 Recovering a program

When a U-Pilot program is deleted or overwritten, it is saved as a BACKUP program. Only the last deleted or overwritten program can be recovered.

1. Select the program called BACKUP.
2. Rename the program.

3.5.12 Modifying U-Pilot programs

3.5.12.1 Changing the program modification view

1. Select the memory location and the program to be modified.
2. Use the Right and Left arrow keys to select the Change Mode symbol 
3. Press the OK button or the factory/user settings selector.

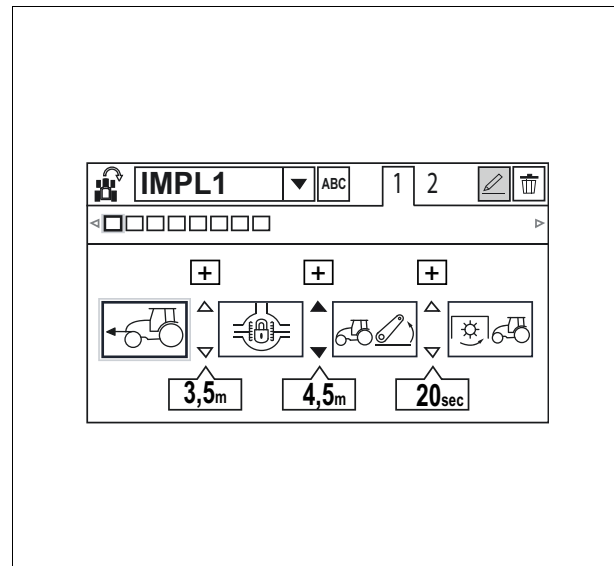


Fig. 7.

3.5.12.2 Changing a program function

T016731

1. Bring up the program modification view *fig. 8*.
2. Navigate to the function to be changed using the Up and Down arrow keys or the factory/user settings selector.
3. Press the OK button or the factory/user settings selector.
4. Select the desired function using the Up and Down arrow keys or the factory/user settings selector.
5. Press the OK button or the factory/user settings selector.

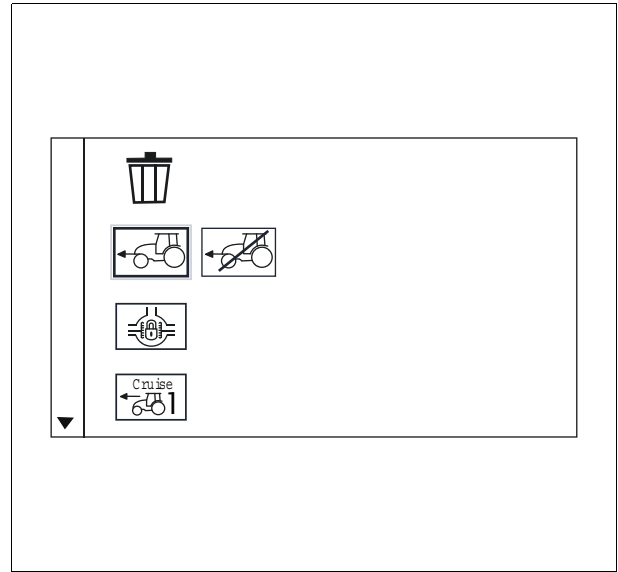



Fig. 8.

I038015

3.5.12.3 Deleting a program function

T016739

1. Bring up the program modification view *fig. 9*.
2. Navigate to the function to be deleted using the Left and Right arrow keys or the factory/user settings selector.
3. Press the OK button or the factory/user settings selector.
4. Select the Delete symbol  using the Up and Down arrow keys or the factory/user settings selector.
5. Press the OK button or the factory/user settings selector.

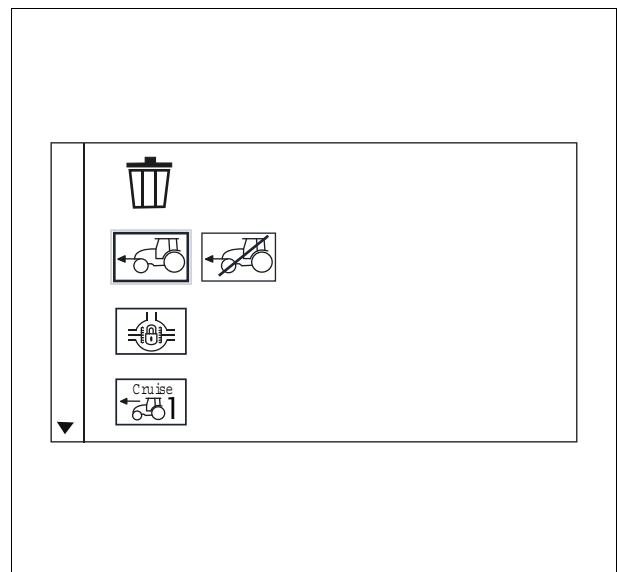



Fig. 9.

I038015

3.5.12.4 Distance modification program

1. Bring up the program modification view *fig. 10*.
2. Navigate to the distance to be changed using the Left and Right arrow keys or the factory/user settings selector.
3. Press the Down arrow key.
4. Change the distance
 - Navigate to the character to be changed using the Left and Right arrow keys or the factory/user settings selector.
 - Press the OK button or the factory/user settings selector.
 - Change the character using the Up and Down arrow keys or the factory/user settings selector.
 - Use the Left and Right arrow keys to move to the next character.
5. Select the Backup symbol  using the Up and Down arrow keys or the factory/user settings selector.
6. Press the OK button or the factory/user settings selector.

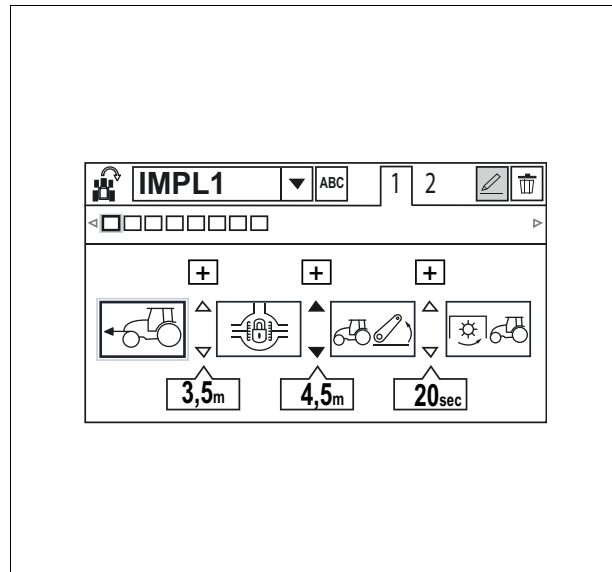


Fig. 10.

I038011

3.5.12.5 Adding a new program function

1. Bring up the program modification view *fig. 11*.
2. Navigate between the functions to add using the Up and Down arrow keys or the factory/user settings selector.
3. Press the Up arrow key.
4. Select the desired function using the Up and Down arrow keys or the factory/user settings selector.
5. Press the OK button or the factory/user settings selector.
The function is then added to the program, with 1 m in relation to the other functions.

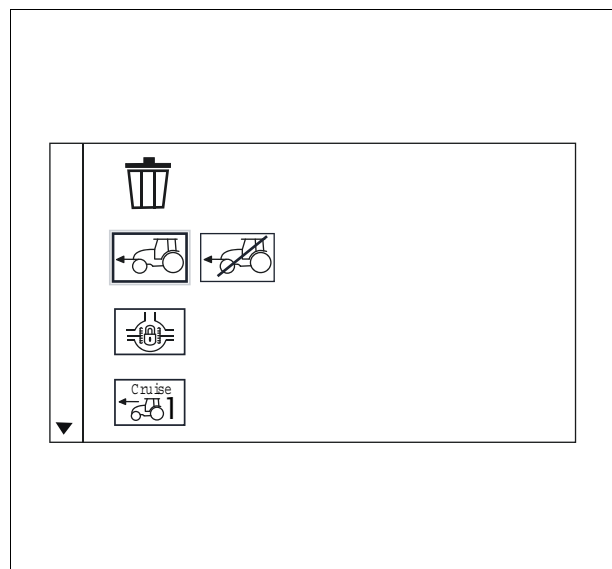


Fig. 11.

I038015

3.5.12.6 Moving a program function

T016742

1. Bring up the program modification view.
2. Navigate to the function to be moved using the Up and Down arrow keys or the factory/user settings selector.
3. Press the Up arrow key.
4. Move the function to the desired place using the Left and Right arrow keys or the factory/user settings selector.
5. Press the Down arrow key.
The function and the distance are moved to the desired position.

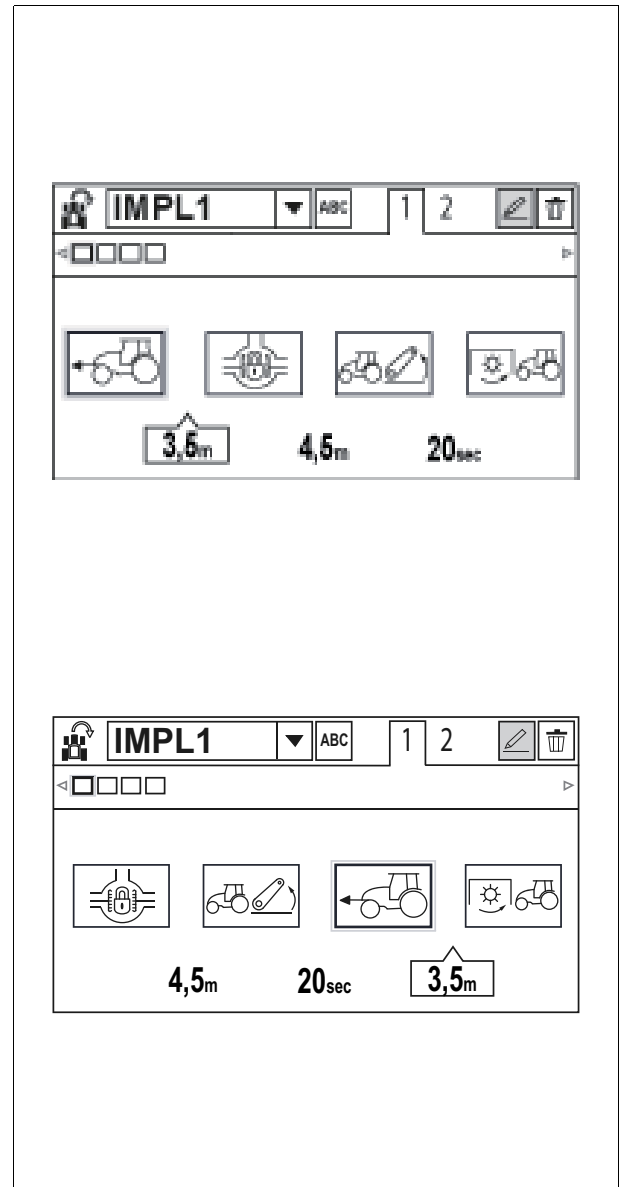


Fig. 12.

I038009

3.5.13 Error codes

T003751

The U-Pilot error codes are displayed on the tractor terminal screen.

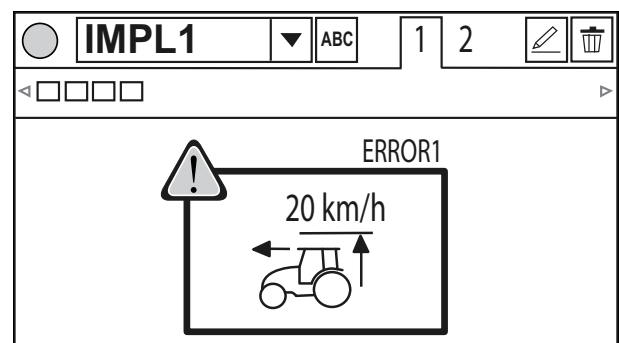
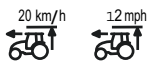
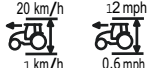















Fig. 13.

I038019

Symbol	Error number	Cause
	1	Recording function or operation cancelled. Forward speed greater than 20 km/h
	2	The recorded program will not start. Forward speed greater than 20 km/h or lower than 0,5 km/h
	3	Recording function temporarily cancelled. Forward speed lower than 0,5 km/h
	4	Not used
	5	Recording function cancelled. 30-second time limit for forward speed lower than 0,5 km/h exceeded
	6	Recording function cancelled. 60-second time limit to complete the first operation exceeded
	7	Recording function cancelled. 60-second time limit to start a new operation exceeded
	8	Recording function cancelled. The driver has left the seat for more than 5 seconds
	9	Recording function cancelled. Distance between consecutive operations greater than 63,5 m
	10	Recording function cancelled. The length of the program journey exceeds 100 m without a pause
	11	Recording function cancelled. The program has more than 30 operations
	12	Recorded program cancelled. The driver has left the seat for more than 5 seconds
	13	Recorded program cancelled. 10-second time limit for forward speed lower than 0,5 km/h exceeded
	14	Recorded program cancelled. 300-second time limit for a pause exceeded
	15	Program save or deletion operation failed
	16	Faulty operation of the auxiliary hydraulic system spool valve

3.6 Body

3.6.1 Opening the bonnet

T021154

NOTE: If the tractor has a front-end loader, before opening the bonnet, see the paragraph on the protective structure for the bonnet.

The bonnet is fitted with two rams for easy opening to provide free access to the engine.

To open it, press the lock button [fig. 1](#) and lift the bonnet. A retaining strap restricts movement.

To lift the bonnet fully, release the strap by removing the retaining screw (A).



I051709

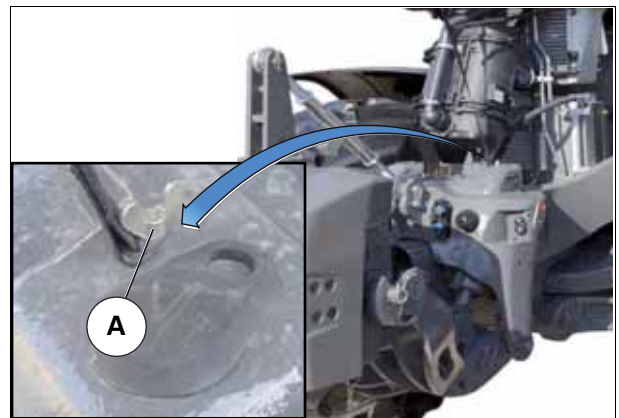


Fig. 1.

I048789

3.6.2 Adjusting the external rear-view mirrors

T021155

Positioning and extending the arms

Positioning the arms

1. The arms supporting the rear-view mirrors are hinged and must be positioned correctly for routine use of the tractor.
2. Move the hinged arm until it lines up with the two marks.



Fig. 2.

I048348

Adjusting the arm extensions (depending on model)

3. The length of the rear-view mirror arms can be adjusted to improve rear visibility according to the size of the implements hitched to the tractor.
4. Loosen the notched thumb wheel (2) and move the extension in the direction required.
5. Retighten the notched thumb wheel to lock the arm extension in place.

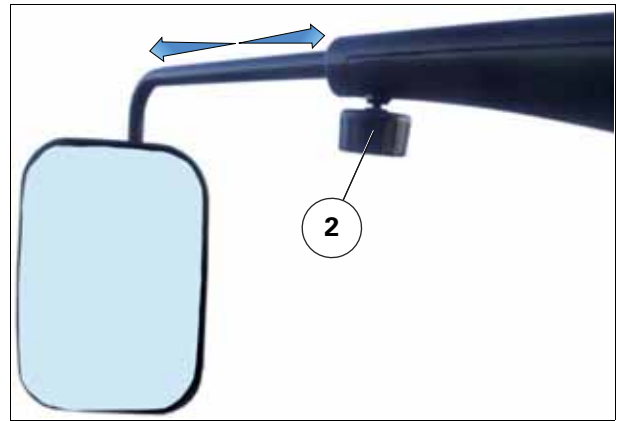


Fig. 3.

1048352

3

Rear-view mirror with manual adjustment

1. Loosen the notched thumb wheel (1) or the screws (3) in order to move the rear-view mirror.
2. Retighten the notched thumb wheel or the screws to lock the rear-view mirror in place.
3. The rear-view mirror can be manually adjusted on mirrors not fitted with an electric control: Use both hands, diagonally opposed, to turn the rear-view mirror in the direction required.

NOTE: Depending on the model, it may be necessary to loosen the notched thumb wheel (1) or the screws (3) to make the adjustment.

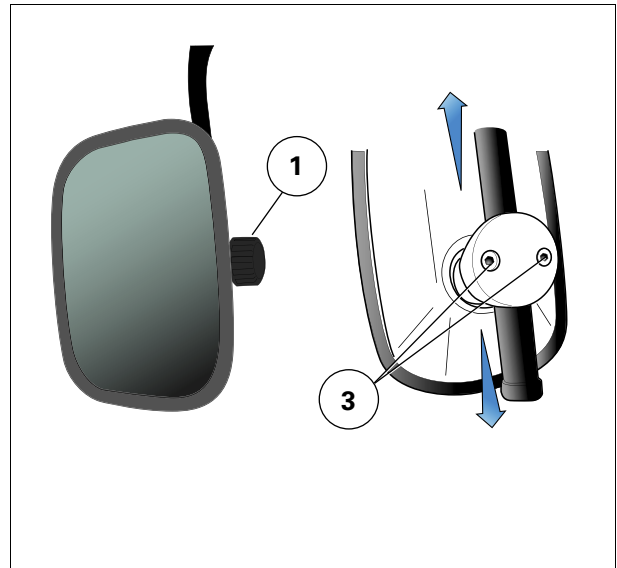


Fig. 4.

1022693

Rear-view mirror with electric adjustment

1. Move the selector (1) to position (L) to adjust the left rear-view mirror or to position (R) to adjust the right rear-view mirror
2. Move the switch (2) into position to adjust the rear-view mirror correctly
3. When you have made the adjustment, return the switch (1) to the neutral position

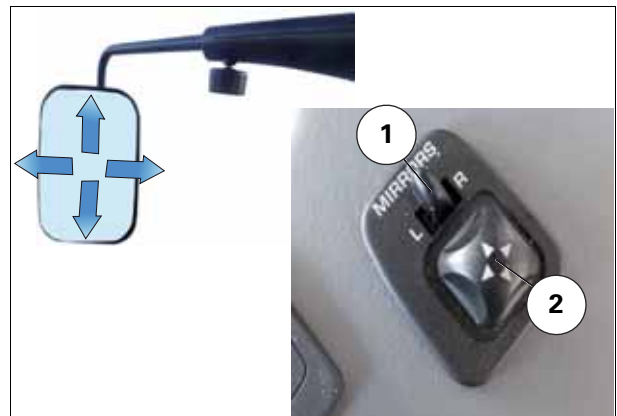


Fig. 5.

1051485

4. If the mirror electrical adjustment is insufficient, it may be necessary to manually adjust the mounting to obtain the required level of adjustment:
Loosen the four screws (1) to remove the rear casing of the rear-view mirror
5. Slightly loosen the screws (2) of the mirror support in order to rotate the mirror
6. Make the required horizontal or vertical adjustment
7. Retighten the four screws (2).
8. Refit the rear-view mirror casing (1).



Fig. 6.

I048925

Electric defroster

9. The external rear-view mirror defrosters can be activated by pressing the switch (3).
This function is activated for 6 minutes.
 - Red LED lit: Defroster activated
 - Red LED not lit: Defroster deactivated

NOTE: The defrost function is deactivated after 6 minutes or when the engine is turned off. The status is not stored in a memory; the function must be reactivated when the tractor is re-started



Fig. 7.

I051488

3.6.3 Adjusting the left-hand step

T021788

Initially, the lowest of the left-hand steps is fitted in a vertical position. It can be adjusted to facilitate access to the cab.

Original fitting (A)

1. The step uprights are fitted vertically using the marking (1) as the mounting.

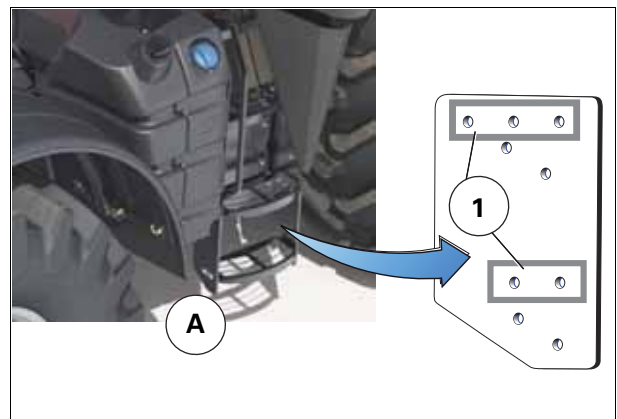


Fig. 8.

I049592

Change of position (B)

2. Remove the lower step
3. Remove the step uprights
4. Use the mark (2) to refit the step uprights in the offset position (X)
5. Refit the step
6. Torque tighten the screws.

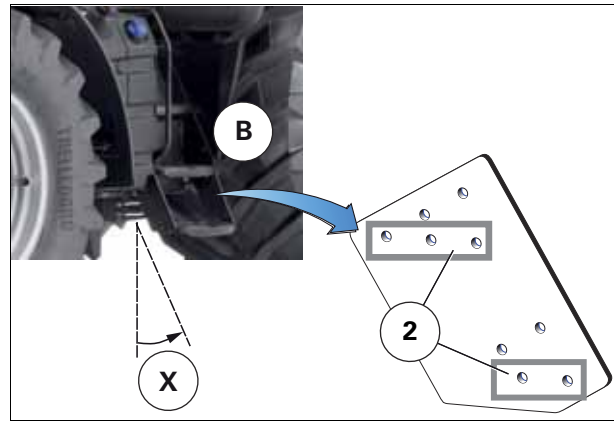


Fig. 9.

1049594

3.7 Engine

3.7.1 Running-in

T000953

- Experience has shown that the first 50 hours of tractor operation have a significant effect on the performance and life of the engine.
- From the first operation, the tractor must run with the engine at full load. The engine should be allowed to reach a temperature of 60 °C before being subjected to full load.
- It is quite normal for oil consumption to be relatively high during the running-in period. Therefore, during running-in, the engine oil level must be checked twice a day during the first 50 hours of operation to avoid the risk of lubrication failure.
- During running-in, check the tightness of all nuts, bolts and screws frequently. The wheel nuts must be retightened daily until their torque has stabilised (see chapter 5).

3.7.2 Filling with fuel

T021189

Before filling, ensure that the fuel and AdBlue™ or DEF to be used are in compliance with applicable regulations (see the Maintenance section of the Operator's Manual).

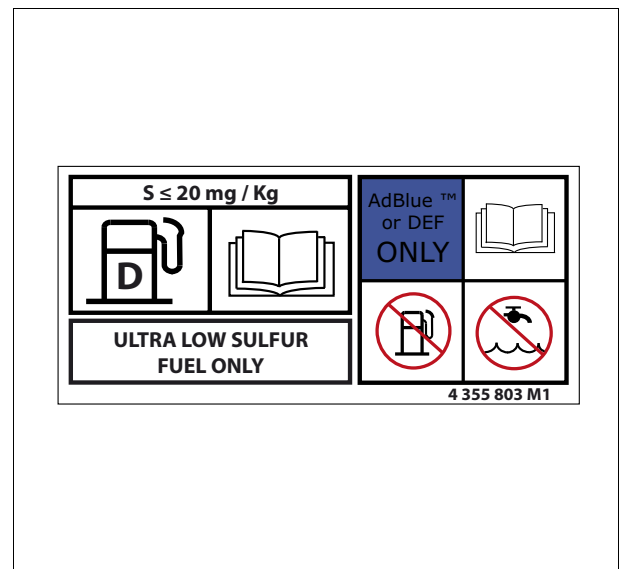


Fig. 1.

1027033



WARNING:

- Always switch off the engine before filling up.**
- Do not smoke while refuelling the tractor.**
- Keep away from naked flames .**
- Wear suitable gloves when filling up.**

Diesel fuel

The filler port is located on the left-hand side of the tractor.

The tank is filled after removing the BLACK plug (1). Fuel quality: See the Maintenance section of the Operator's Manual.



Fig. 2.

1048360

Biodiesel

Compatibility with biodiesel fuels (see the Maintenance section of the Operator's Manual)

AdBlue™ or DEF (only for SCR Technology engines)

The filler port located on the left-hand side of the tractor has a BLUE plug (2).



Fig. 3.

I048361

IMPORTANT: Protective measures to be taken in the event of spillage

- As this fluid is very corrosive, if the tractor is splashed with fluid, wipe off and rinse with water.
- If an electrical connector is splashed with fluid, it must be replaced.
- Crystals of AdBlue™ or DEF may appear on the vehicle in the event of a spillage. Rinse immediately with water to remove these crystals.

IMPORTANT: Never put AdBlue™ or DEF in the fuel tank, as the engine and fuel system may become damaged.

IMPORTANT: If the AdBlue™ or DEF is modified or replaced by another fluid that does not comply with standard DIN 70070 or ISO 22241-1, there is a risk that it will not produce the intended result, and it may damage the SCR Technology system.

Level of AdBlue™ or DEF

The AdBlue™ or DEF level in the tank appears on the instrument panel gauge

When the AdBlue™ or DEF level reaches the minimum mark on the tank (it must remain at a minimum of 5% for the system to operate correctly):

- The gauge level bars flash on the instrument panel
- The final degraded mode is activated progressively (see §3.7.7, page 156).

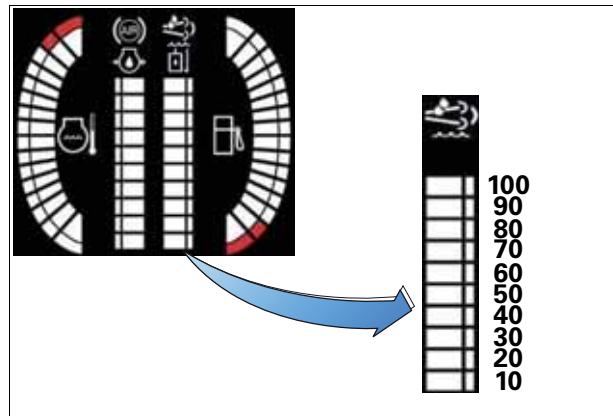


Fig. 4.

I049854

3.7.3 Start switch

T001275

- (1) Off
- (2) Contact position to be used for electrical equipment when the engine is not running.
- (3) Contact position to be used for electrical equipment when the engine is running.
- (4) Start-up

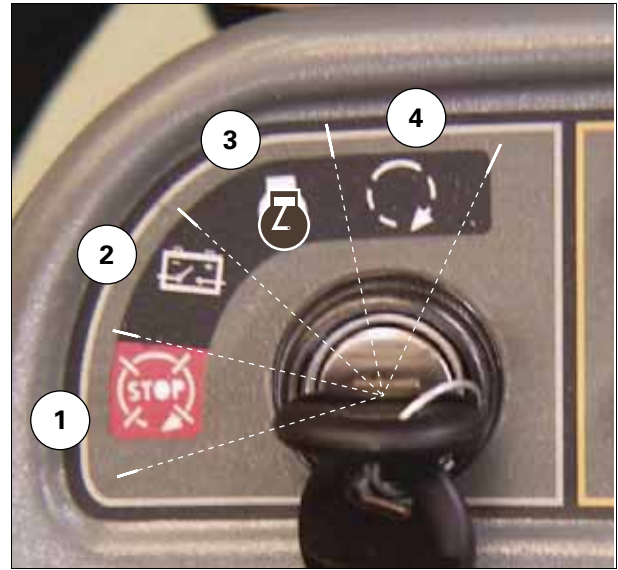


Fig. 5.

I007057

NOTE: The engine runs with the key in position (3). To fully disconnect the electrical equipment, the key must be moved back through position (2) to the stop position (1).

3.7.4 Start-up

T001286



DANGER:

Never run the tractor in an enclosed space unless the exhaust can be ventilated to the outside air. Never run the engine unless you are sitting at the steering wheel of the tractor.



WARNING:

Check that the ParkLock control is engaged on the Power Control lever or that the parking brake is in the engaged position. Deactivate the power take-off (PTO) controls.

NOTE: Also refer to the instructions in the startup sheet.

Procedure

1. Turn the ignition key to the **ON** position. The indicator lights on the instrument panel should light up.
2. Depress and hold down the clutch pedal.
3. Turn the key to the preheating position and hold there for 2 seconds.
4. Start the engine and release the key.
5. Release the clutch pedal.

3.7.5 Start-up sheet

3

> DRIVING THE TRACTOR

serie S4

VALTRA

BEFORE STARTING UP

1 > CHECK that the lever are in ParkLock position

Reverse station driving

Standard driving

2 > CHECK that the ParkLock is engaged

TO START THE ENGINE

3 > AT THE SAME TIME

> De clutch

Wait 2s

Preheating

Start-up

4 > WAIT 2 s before releasing the clutch pedal

> Check the instrument panel display

DRIVING

5 > PRESS and hold the brake pedals

6 > Disengage the ParkLock

7 Engage the reverse shuttle lever in the desired direction of travel

> RELEASE the brake pedals

8 > Move the control towards + to select the maximum speed. The system is in automatique mode.

9 > Press the throttle pedal

Ref. ACW0081310

Fig. 6.

1051554

3.7.6 Starting the T4F SCR Technology engine in cold weather

T020798

Engine block preheating (optional)

A 1000 W preheater and a connector (1) are provided to assist cold weather starting. The preheater operates with a mains power supply of 220 V or 110 V (depending on option) and in general heats the engine coolant in two hours. In extreme cold, it may be required to operate all night.

⚠ WARNING:
DO NOT test the heating element unless it is immersed in coolant. It is dangerous to connect a heating element in the open air, as the heat released can cause injury and the element could explode.

NOTE: An identical system is available as an option for preheating the transmission oil.



Fig. 7.

I048782

3

Information about preheating the AdBlue™ or DEF

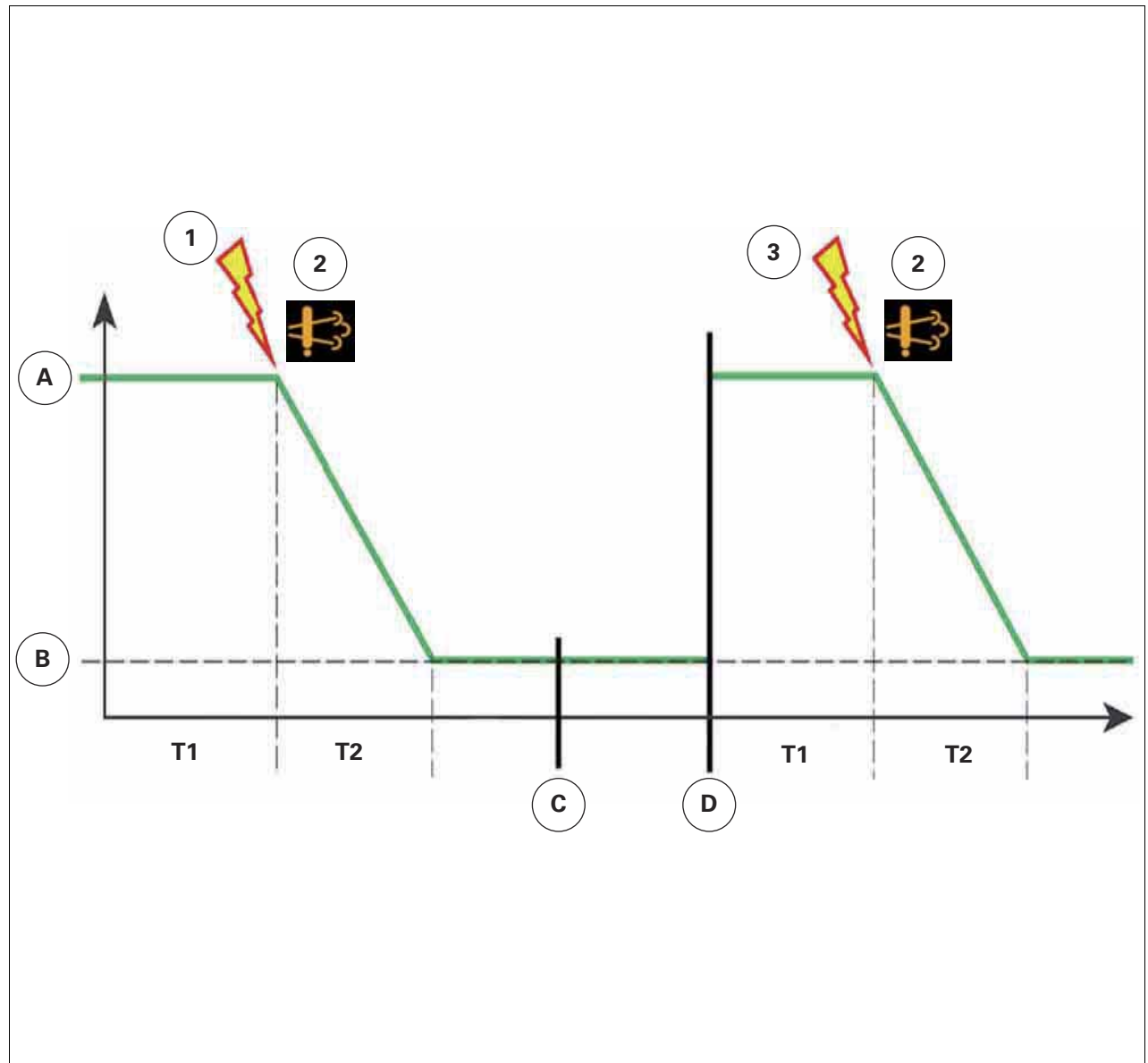


Fig. 8.

I048895

- (A) N_{power} and 100% torque
- (B) N_{idle} speed low and 50% torque (final degraded mode)
- (C) Restarting a warm engine
- (D) Restarting a cold engine
- (1) Emissions fault
- (2) Flashing symbol displayed
- (3) Return of emissions fault


T1	T2
70 min	60 min
– Injecting AdBlue™ or DEF is impossible	

When starting in cold conditions, defrost mode is activated if the AdBlue™ or DEF temperature is below -7 °C.

The AdBlue™ or DEF tank and gauge are preheated by the tractor cooling system. The pump module and supply pipes are preheated electrically.

- If defrosting is not completed within 70 minutes (T1) of engine start-up, final degraded mode is activated. It is activated after detection and confirmation of a fault (1) in the system. Final degraded mode is reached after 60 minutes (T2). It restricts the engine to idle speed (1000 rpm) and the engine torque to 50%.

NOTE: Use of the engine block preheater (optional) is recommended.

- When final degraded mode is activated, the  symbol on the instrument panel flashes accompanied by an error code in the Setup and Information Screen screen list.
- Stopping and restarting the engine when it is hot (C) preserves operation in final degraded mode (B)

When the engine is restarted when it is cold (D), final degraded mode is reactivated if the fault (3) returns

NOTE: AdBlue™ or DEF freezing point: -11 °C

3.7.7 Information about the various operating modes of the T4F SCR Technology engine

T020799

Information about the AdBlue™ or DEF level

Display of the AdBlue™ or DEF level.

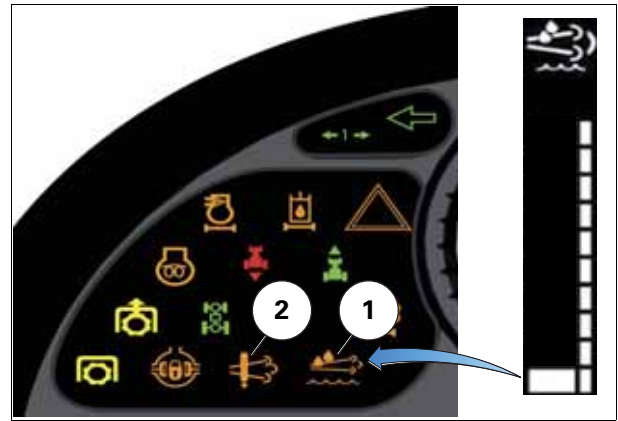


Fig. 9.

I048731

3

Adblue™ or DEF tank level	10% (A)	5% (B)	0% (C)	0%
Hourmeter	No	No	Activation	T = 30 minutes
Audible warning	1 beep	1 beep	1 beep	1 beep
Level display	1 bar	1 bar (flashing)	No bar	No bar
Display of symbol (1) on the instrument panel	Yes, constantly for 10 seconds and then for 10 seconds at each start up if not refilled	Yes	Yes (flashing)	Yes (flashing)
Display of symbol (2) on the instrument panel	No	No	No	Yes (flashing)
Fault code	No	No	Yes, SPN 1761, FMI 18 (moderately serious fault)	Yes, SPN 1761, FMI 1 (serious fault)
Degraded mode	No	No	Start of final degraded mode	100% final degraded mode
Injection of Adblue™ or DEF	Yes	Yes	Yes	No

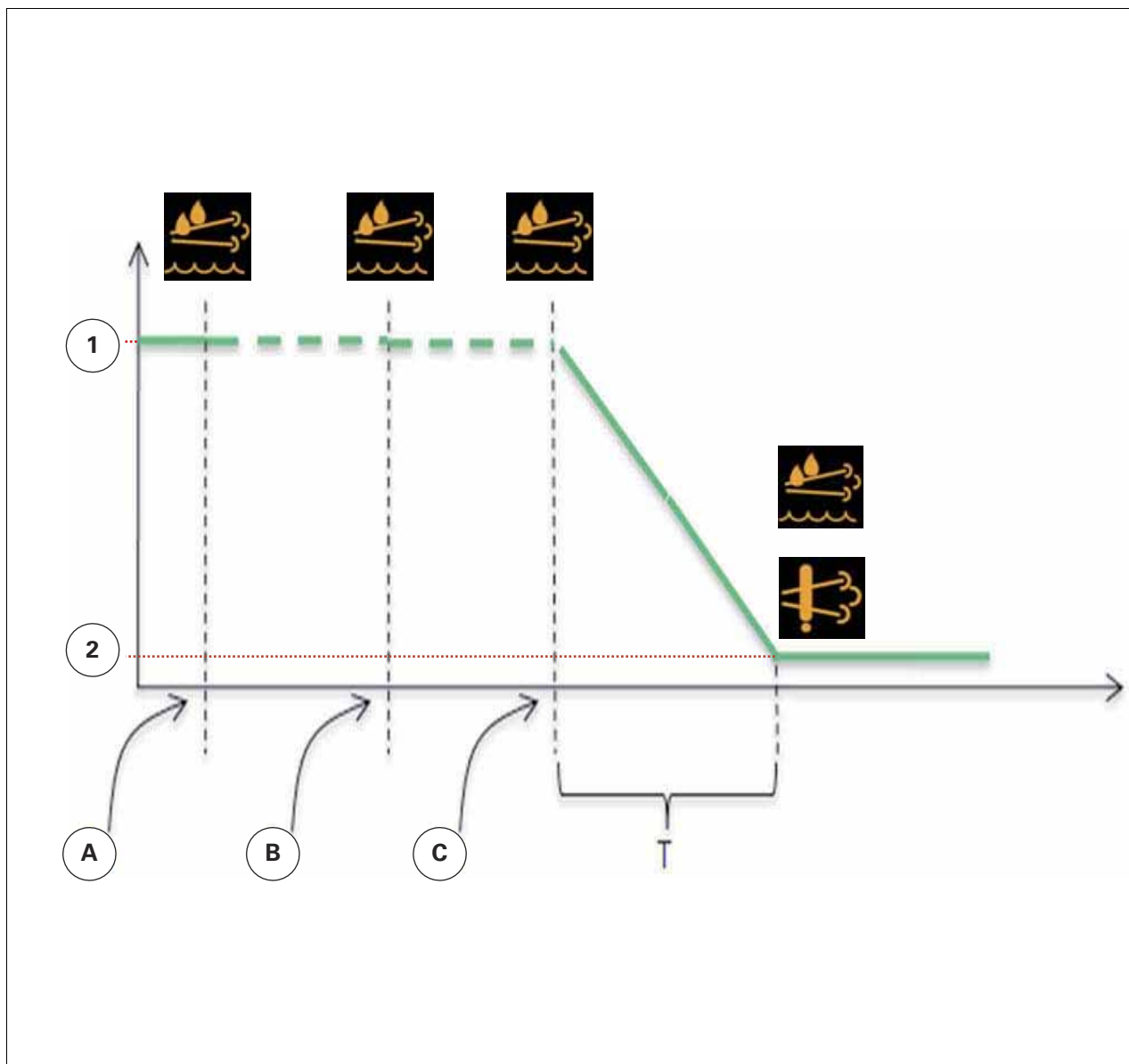




Fig. 10.

1048732

- | | |
|--|---|
| (1) N _{power} and 100% torque | (B) Quantity of AdBlue™ or DEF in the tank: 5% |
| (2) N _{idle} speed low and 50% torque (final degraded mode) | (C) Quantity of AdBlue™ or DEF in the tank: 0% |
| (A) Quantity of AdBlue™ or DEF in the tank: 10% | (T) Activation time for final degraded mode: 30 minutes |

Final degraded mode (2):

- Final degraded mode limits the engine to idle speed (1000 rpm) and the engine torque to 50%.
- This mode is activated when the AdBlue™ or DEF level in the tank is 0% (C).
Final degraded mode is reached after 30 minutes.
- When final degraded mode is activated, the  symbol flashes and the  symbol on the instrument panel flashes accompanied by an error code in the Setup and Information Screen screen list.
- Final degraded mode is deactivated when the AdBlue™ or DEF tank is filled to more than 10%.

Information about detecting a problem related to the SCR Technology system

The operator is informed of the operating condition of the system on the instrument panel.

In the event of a fault:

- An indicator light illuminates on the instrument panel (see instrument panel)
- Availability of error codes in the Setup and Information Screen screen list

NOTE: Fault codes are deleted as the faults are corrected.

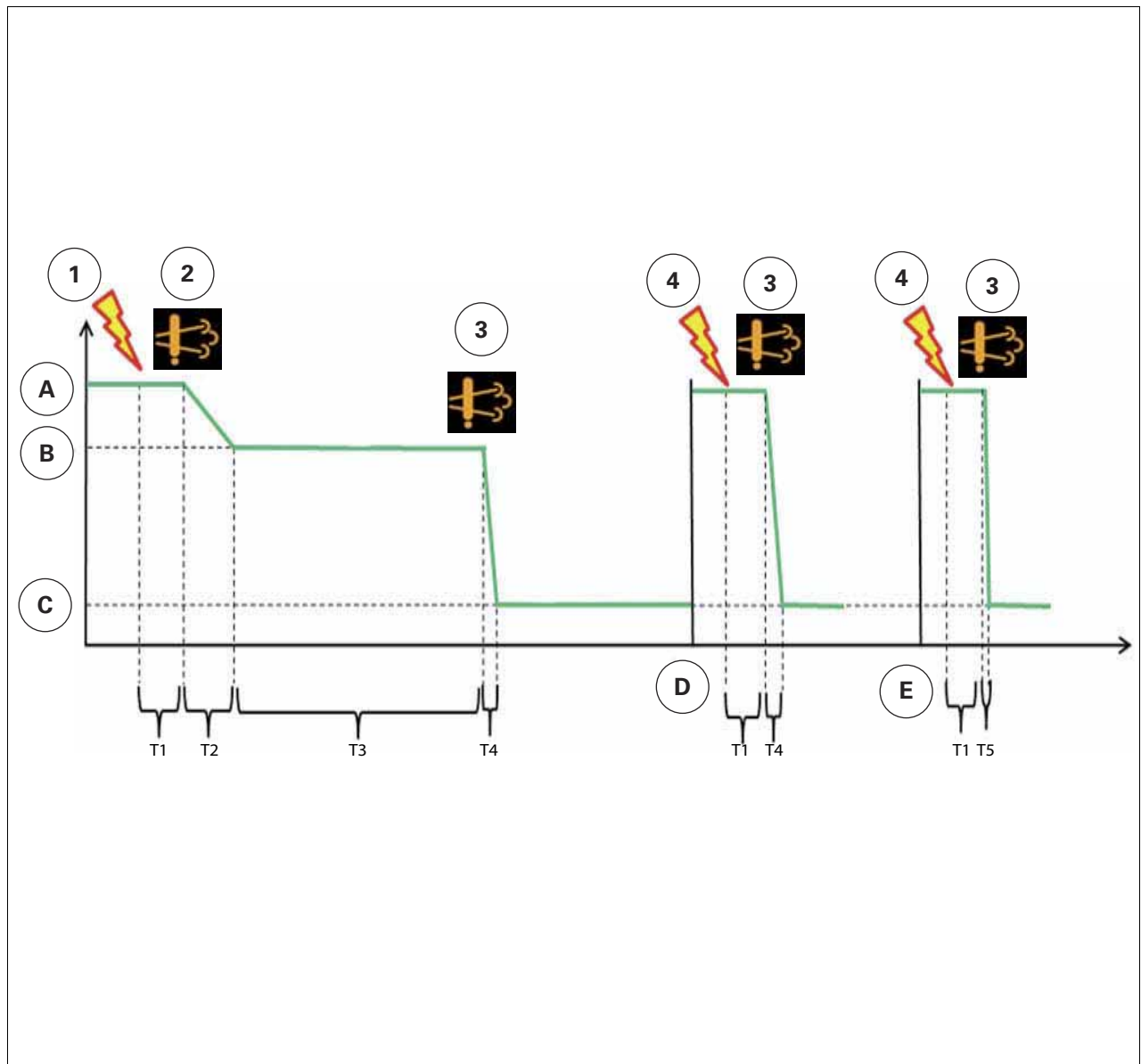



Fig. 11.

I048743


- | | |
|--|---------------------------------|
| (A) N _{power} and 100% torque | (1) Emissions fault |
| (B) N _{power} and 75% torque (degraded mode 1) | (2) Symbol constantly displayed |
| (C) N _{idle} speed low and 50% torque (final degraded mode) | (3) Flashing symbol displayed |
| (D) Restarting the engine | (4) Return of emissions fault |

	T1	T2	T3	T4
	10 min (**) and 30 min (***)	30 mins	3 hours	30 mins
	<ul style="list-style-type: none"> – T10 minutes (**) if no AdBlue™ or DEF injection is required to check the error (electrical or hydraulic problem detected). – T30 minutes (**), if an AdBlue™ or DEF injection is required to check the error. 			

Degraded mode 1 (B):

- Degraded mode 1 is activated after detection and confirmation of a fault on the system. The confirmation time (T1) before activation can vary from 10 to 30 minutes depending on the type of fault.
- The engine torque is limited to 75% during the 30 minutes (T2) following activation of degraded mode.
- Activation of final degraded mode 1 is associated with the continuous display of the  symbol in the instrument panel accompanied by an error code in the Setup and Information Screen screen list.
- If no action is taken to correct this situation within the next three hours (T3), final degraded mode is activated.

Final degraded mode (C):

- Final degraded mode limits the engine to idle speed (1000 rpm) and the engine torque to 50%.
- This mode is activated regardless after degraded mode 1 (B) or directly when the tractor (D) is restarted and a fault is detected and confirmed in the system (return of emissions fault (4)). The detection and confirmation time (T1) varies depending on the fault.
- When final degraded mode is activated, the  symbol on the instrument panel flashes accompanied by an error code in the Setup and Information Screen screen list.


IMPORTANT:

After the fault is corrected:


- If the fault returns within 40 hours of having been corrected (in the case of a return of an emissions fault (4)), final degraded mode (C) is activated directly. (see [fig. 11](#))
- If the fault returns within 40 hours of having been corrected (in the case of detection of an emissions fault (1)), final degraded mode 1 (B) is activated directly. (see [fig. 11](#))

3.7.8 Stopping the engine

T000956

1.  **WARNING:**
Check that the Power Control controller is in neutral.
If there is a ParkLock on your tractor, check that the control is engaged on the Power Control lever. If not, apply the parking brake.
Deactivate the PTO controls and the hydraulic controls.

After stopping the tractor, allow the engine speed to return to idle.

2.  **DANGER:**
Never run the tractor engine in an enclosed space unless the exhaust can be ventilated to the outside air.
Never run the engine unless you are sitting at the steering wheel of the tractor.

Leave the engine running for several seconds at idle speed. It is necessary to allow the turbocharger to reduce speed.

NOTE: If the tractor has been operating under heavy load, allow the engine to run at idle speed for 1 to 2 minutes, depending on the ambient temperature, to allow the turbocharger to cool before stopping the engine.

- IMPORTANT:** Do not stop the engine suddenly when the engine is running at a high speed, because the turbocharger will continue running under its own momentum and will no longer be lubricated. Slow the engine before stopping it.

Return the ignition key to the "Stop" position.

3.7.9 Engine speed

T020789

Hand throttle

IMPORTANT: Protection against engine overspeed:

For example, if the demand for engine speed is lower than 1700 rpm and the engine speed exceeds 1900 rpm, gear shifting is locked.

If the demand for engine speed exceeds 1900 rpm, there is no lock.

Using the hand throttle allows you to vary the engine speed and to maintain a constant speed. To do this, simply turn the button towards (+) or (-) to select a speed. The button remains in this position to maintain the selected speed.

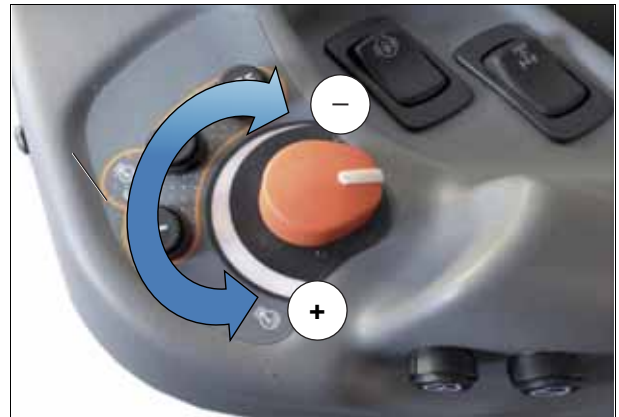


Fig. 12.

I051248

Foot throttle

The foot throttle is used to control the engine speed as well as the forward speed. When the pedal is released, the engine rpm returns to that preset by the hand throttle.



CAUTION:

- **When using the foot throttle, the hand throttle should be placed in the idle position.**
- **Do not keep your foot on the clutch pedal or keep it halfway engaged.**
- **Always descend slopes with the tractor in gear and never with the clutch disengaged.**
- **When turning on headlands with heavy mounted implements, reduce the engine rpm.**
- **Steering is not power assisted when the engine is not running.**





Choosing the correct gear ratio

Select the ratio which gives the optimum fuel consumption without overloading the engine and the transmission. Bear in mind that soil conditions can vary within a matter of a few yards in the same field. In automatic mode, the system selects the ratio.

Maximum engine speed setting

The maximum engine speed can be set on the terminal screen.

Press the arrows to select the function to modify:

- Press the  or  arrows to select/deselect the box (A) (function activated or deactivated)
- Press the  or  arrows to increase/decrease the maximum engine speed (B) (1000 rpm to 2160 rpm)

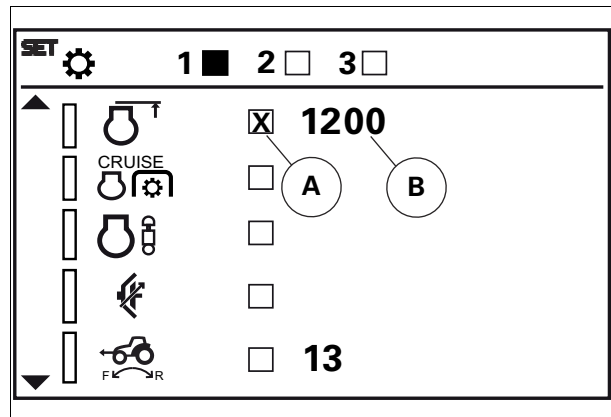


Fig. 13.

1051614

3.7.10 Storing engine speeds

T022565

This function allows the operator to have permanent access to two stabilised engine speeds, displayed on the armrest terminal.

Storing engine speeds with the switches

- It is possible to store the "Cruise 1" engine speed (e.g. 1700 rpm) by selecting the desired engine speed using the foot or hand throttle and then pressing and holding the switch (A) on the right-hand console for 3 seconds.

The "Cruise 1" stored engine speed is activated and highlighted on the armrest terminal screen. It is possible to increase or decrease the active "Cruise 1" engine speed by pressing switch (D) or (E).

- It is also possible to store the "Cruise 2" engine speed by choosing the desired engine speed using the foot or hand throttle and then pressing and holding the switch (B) on the right-hand console for 3 seconds.

The "Cruise 2" stored engine speed is activated and highlighted on the armrest terminal screen. It is possible to increase or decrease the active "Cruise 2" engine speed by pressing switch (D) or (E).

- During operation, the user can now activate the "Cruise 1" or "Cruise 2" stored engine speed simply by pressing the corresponding switch [fig. 14](#)
- To deactivate the active "Cruise 1" or "Cruise 2" engine speed, press the "OFF" switch (C)

NOTE: Stored engine speeds A and B may be different according to field mode (tortoise) or road mode (hare).

Deactivation conditions.

- Press the "OFF" switch



Fig. 14.

1051267

3.8 Transmission

3.8.1 Clutch function

T021015

Clutch function

Although the transmission has no forward clutch or coupler, the tractor does have a clutch pedal. This pedal allows traction effort to be controlled (as with standard clutch slip). When an obstacle appears suddenly, the tractor can be stopped rapidly by pressing the clutch and brake pedals, just like a standard tractor.

Coupler function

Traction power is limited at low engine speed thanks to a proportional solenoid valve located on the transmission hydrostatic loop.

In connection with engine speed, the coupler function is activated by modulating the pressure in the hydrostatic system. The coupler function thus replaces the measured action of a clutch pedal.

To activate the coupler function, select the box (1) in the transmission settings screen on the armrest terminal

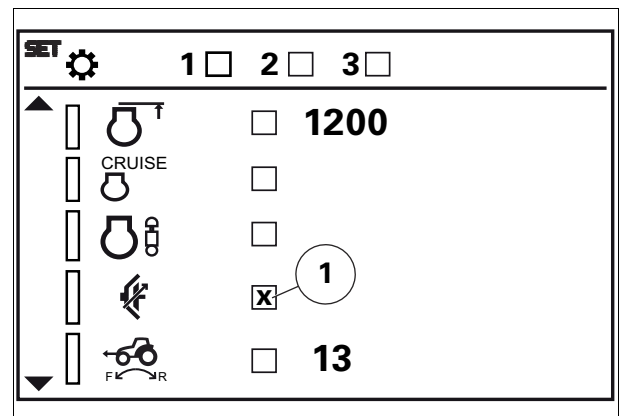


Fig. 1.

I051428

The coupler function is activated when the engine speed drops below 1250 rpm; the pressure in the hydrostatic loop decreases in proportion to the drop in engine speed. Like a coupler, the function limits engine overload and avoids stalling. The coupler function (2) appears on the main screen of the armrest terminal.

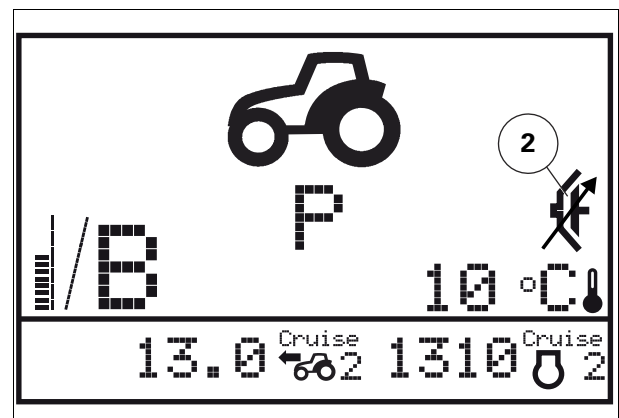


Fig. 2.

I051430

3.8.2 Power Shuttle

T022609

Principle of the Power Control lever

Control located to the left of the steering wheel
The Power Control lever is used to select the direction of travel (forward or reverse) without disengaging the clutch.

**DANGER:**

Use the clutch pedal for all manoeuvring (hitching implements etc.).



Fig. 3.

I051714

Using the Power Control lever

- (1) Electromechanical brake: The parking brake is engaged when the lever is locked in the low position
- (2) Unlocking the electromechanical brake: Move the lever lock to the left and lift the lever into the neutral position
- (3) Neutral: In this position, the transmission is in the neutral position and the parking brake is disengaged
- (4) Lift the lever lock and move it to the position for the required direction of travel.
- (5) Forward travel: Move the lever to the **forwards** position.
Reverse travel: Move the lever to the **reverse** position.

NOTE: When the tractor is in motion, each change to the direction is made using this control without disengaging the clutch.

DANGER: Before leaving the seat, it is essential to engage the parking brake (ParkLock).

Lever position	Corresponding instrument panel screen
Neutral	
Forward	
Reverse	
Parking brake engaged	

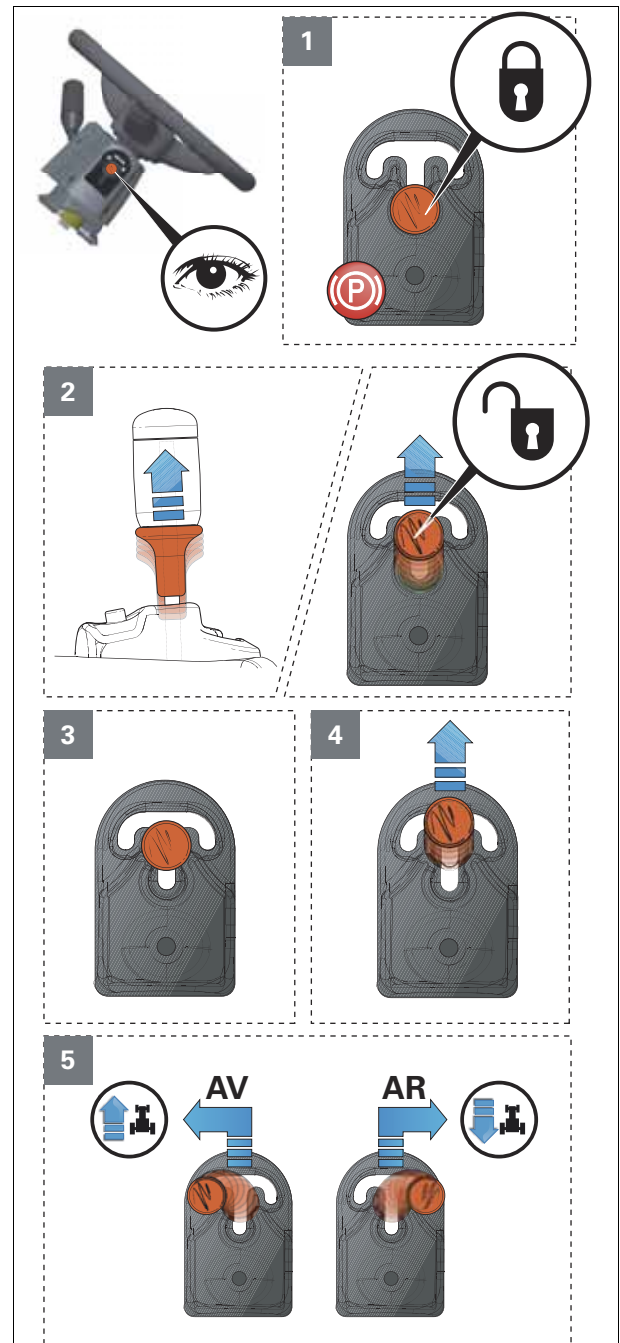




Fig. 4. 1007070

Reverse shuttle sensitivity setting

The sensitivity parameters for changes of direction can be adjusted on the armrest terminal

Press the arrows to select the function to modify:

- Press the  or  arrow to increase/decrease the reverse shuttle sensitivity (A) (from 1 (slow shifting) to 4 (quick shifting))

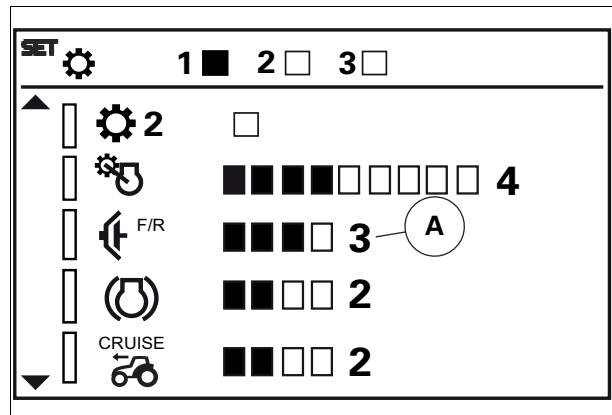


Fig. 5.

1051696

3.8.3 Storage of forward speeds

T022577

It is possible to store two forward speeds ("Cruise 1" and "Cruise 2") in the following three modes for both directions of travel and to recall these speeds with ease.

- Manual mode
- Automatic mode

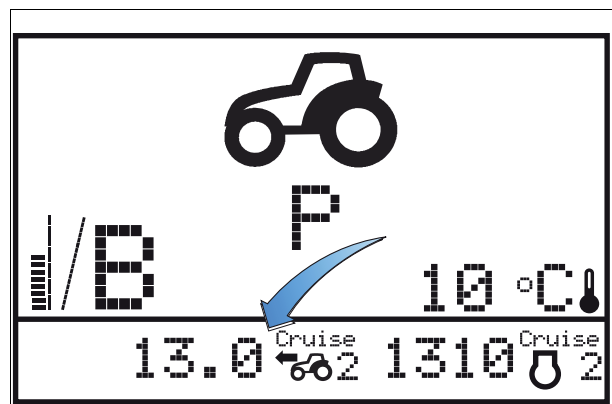


Fig. 6.

1051293

It is also possible to store the forward speeds using the "Cruise 1" (A) and "Cruise 2" (B) switches.

The desired forward speeds must be selected using the armrest lever or the throttle pedal depending on the driving mode.

The switch for stored speed "Cruise 1" (A) or "Cruise 2" (B) located on the armrest must then be pressed and held for 3 seconds.

The forward speed is then stored to the memory and activated. It is highlighted on the armrest terminal screen.

It is possible to increase or reduce the active "Cruise 1" or "Cruise 2" forward speed by pressing switch (D) or (E).

During operation, the user can now activate the "Cruise 1" or "Cruise 2" stored engine speed simply by pressing the corresponding switch

To deactivate the active "Cruise 1" or "Cruise 2" forward speed, press the "OFF" switch (C)



Fig. 7.

1051385

Conditions to be met for activation.

- Clutch pedal not activated
- Forward speed >0,03 km/h .

Deactivation conditions.

- Press the OFF switch
- Press the switch corresponding to the stored and engaged forward speed
- Move the armrest lever or reverse shuttle
- Action on the throttle pedal
- Press the left-hand and/or right-hand brake pedals
- Forward speed < 0,03 km/h.

Adjusting the activation sensitivity of stored forward speeds

The progressivity parameters for reaching the forward speeds stored as "Cruise 1" and "Cruise 2" can be adjusted (the more lines there are, the faster the switch to the stored forward speed).

Press the arrows to select the function to modify:

- Press the or arrow to increase/decrease the activation sensitivity (A) (from 1 (slow progressivity) to 4 (fast progressivity))

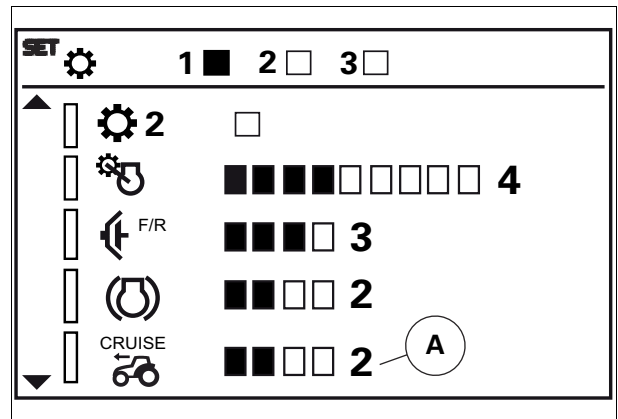


Fig. 8.

1051695

3.8.4 Manual mode

T022595

This mode can be accessed via the screen on the armrest.

- Place the shuttle control in the neutral position with the parking brake engaged
- Place the armrest lever in the minimum position
- Press the switch (1) located under the shuttle control to access the transmission settings screen on the armrest terminal
- Tick the box (2) and then press the switch (1) again to return to the driving screen on the armrest terminal

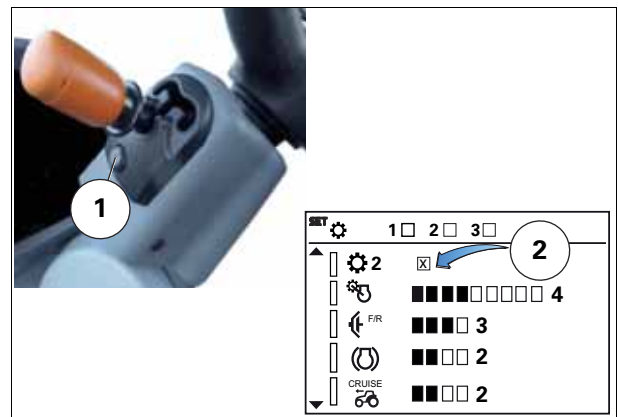


Fig. 9.

1051421

NOTE: Automatic mode is still the default mode at engine start-up.

The manual mode screen appears on the armrest terminal

Graphic (A) corresponds to the maximum forward speed and graphic (B) corresponds to the actual forward speed

NOTE: Automatic mode is the default mode on start-up.

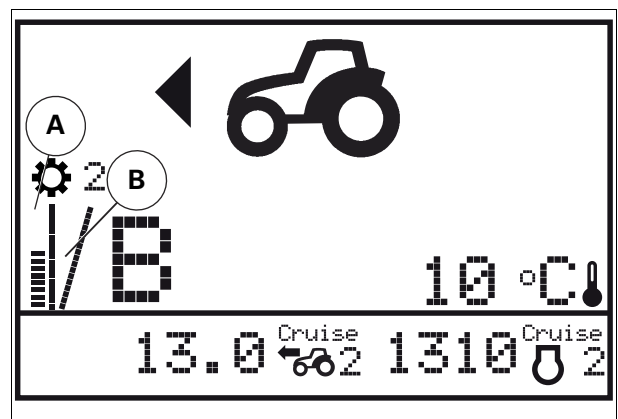


Fig. 10.

1051327

The transmission is controlled exclusively by the armrest lever

The engine speed depends on the position of the throttle pedal/hand throttle or the Cruise 1 or Cruise 2 stored engine speeds.

The maximum forward speed setting (C) is set using the armrest lever:

- 0 km/h to 50 km/h **1** in road mode (hare) (display B on the armrest terminal).
- 0 km/h to 30 km/h in field mode (tortoise) (display A on the armrest terminal).

1. Maximum permissible speed according to the legislation in force in the different countries

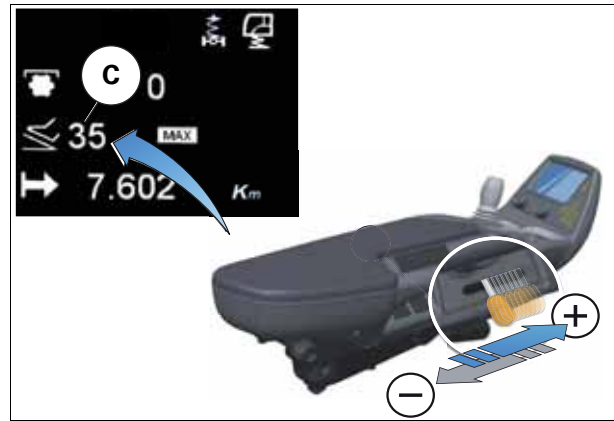


Fig. 11.

I051368

3.8.5 Automatic mode

T022597

The automatic mode screen appears on the armrest terminal

Graphic (A) corresponds to the maximum forward speed and graphic (B) corresponds to the actual forward speed

NOTE: Automatic mode is the default mode on start-up.

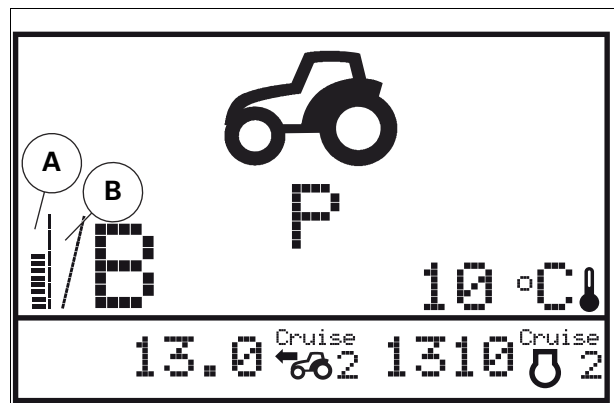


Fig. 12.

I051372

In this mode, the electronic system manages the engine speed automatically to maintain the required forward speed in order to obtain the best level of fuel consumption and improved comfort for the user.

By default, the automatic mode controls the engine speed between 1000 rpm and 2160 rpm, but it is possible to limit the maximum engine speed. However, if the user wishes, he can change the engine speed using the hand throttle or stored speeds Cruise 1 and Cruise 2.

Transmission is controlled exclusively by the throttle pedal

The maximum forward speed setting (C) is set using the armrest lever:

- 5 km/h to 50 km/h **1** in road mode (hare) (display B on the armrest terminal).
- 0 km/h to 30 km/h in field mode (tortoise) (display A on the armrest terminal).

1. Maximum permissible speed according to the legislation in force in the different countries

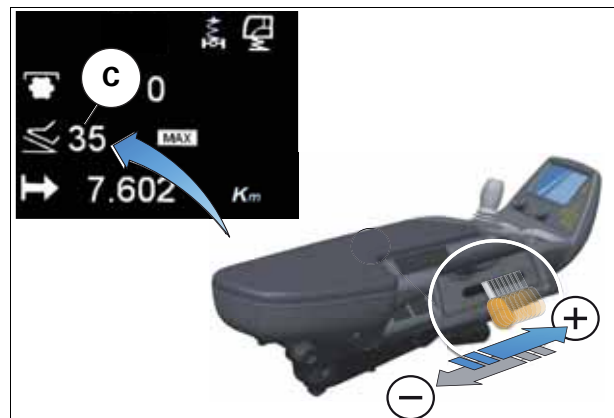


Fig. 13.

I051368

3.8.6 road mode (hare)/field mode (tortoise)

T022580

The road mode (hare) or the field mode (tortoise) can be selected after choosing a driving mode (manual or automatic).

There are two modes available:

- road mode (hare) (B) for road use.
- field mode (tortoise) (A) for field use.

NOTE: (see forward speeds in the Maintenance section of the Operator's Manual)

IMPORTANT: Always change to field mode (tortoise) when working in the field to avoid overheating the transmission

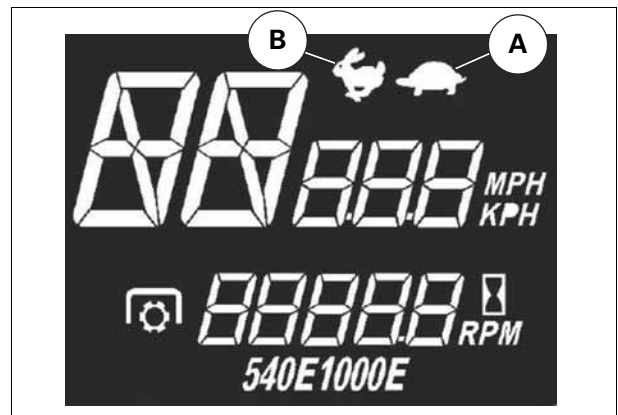


Fig. 14.

1051299

Changing road mode (hare)/field mode (tortoise)

It is possible to modify the road mode (hare)/field mode (tortoise).

These changes can be made when stopped or while in operation.

A or B appears on the armrest terminal to indicate field mode (tortoise) or road mode (hare).

NOTE: To switch from field mode (tortoise) to road mode (hare): No restriction

To switch from road mode (hare) to field mode (tortoise): Forward speed lower than 5 km/h



Fig. 15.

1051298

	<p>Changing field mode (tortoise)/road mode (hare)</p> <p>NOTE: The selection is stored after the engine is switched off.</p>
<ul style="list-style-type: none"> - Forward speed equal to 0 km/h - Forward speed greater than 0 km/h 	<p>Press the switch (1) on the right-hand console</p>

3.8.7 Changing forward speed

T022600

The transmission is managed either by the throttle pedal (B) in automatic mode or by the armrest lever (A) in manual mode. The forward speed can therefore be modified.

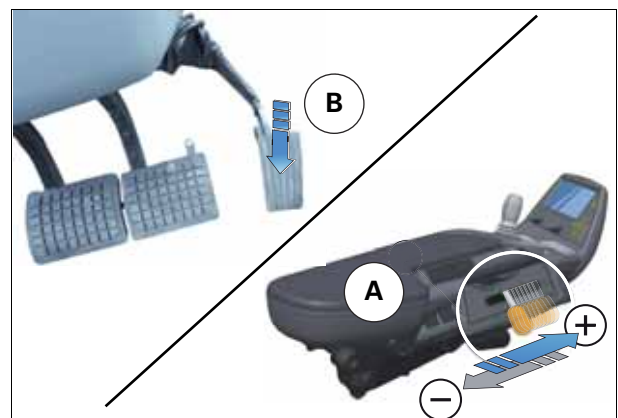


Fig. 16.

1051404

	Type of driving mode	Changing forward speed
Shuttle lever not in neutral	In automatic mode	Press or release the throttle pedal
	In manual mode	Put the armrest lever in forward or reverse position

3.8.8 Tractor towing

T021561

Towing instructions



CAUTION:

- **Activate the hazard warning lights when towing the tractor on the road.**
- **With regard to the load assembly, check the road traffic conditions.**



WARNING:

The following instructions must be adhered to when towing the tractor:

If the engine is running:

- **Position the high/low speed range in neutral**
- **Maximum towing speed 10 km/h**
- **Maximum towing distance 8 km**

If the engine is shut down or out of hydraulic fluid:

- **Position the high/low speed range in neutral**
- **As the gearbox is no longer lubricated when the engine is stopped, transport by trailer is recommended**
- **Tow the tractor no further than 50 m**
- **DO NOT EXCEED A SPEED OF 5 km/h**



CAUTION:

When towing by hitching onto the front linkage, the pulling force must not exceed 18 t.

Towing procedure:

4. Lift attachments (1) and open cover plate (A) located on the cab floor (right-hand side).



Fig. 17.

I049339

- Remove screw (2) and shield plate (B)

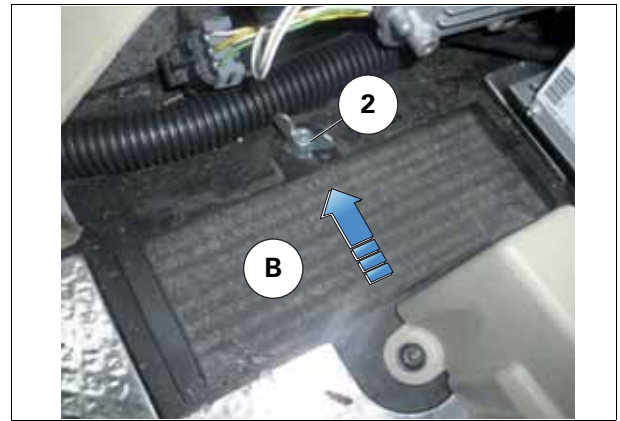


Fig. 18.

I049349

- Recover limp home lever (C) located at the rear of the cab.

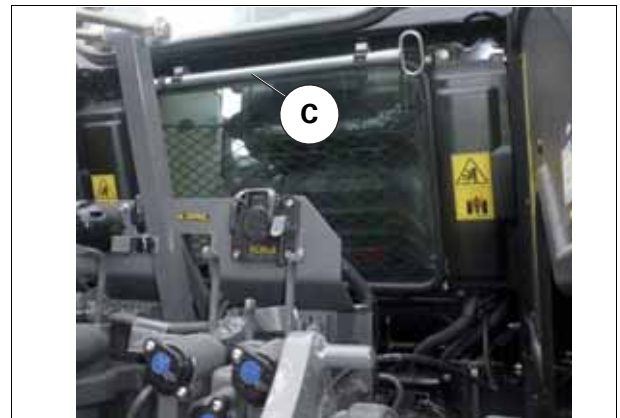


Fig. 19.

I049359

- Place limp home lever (C) on the control unit.

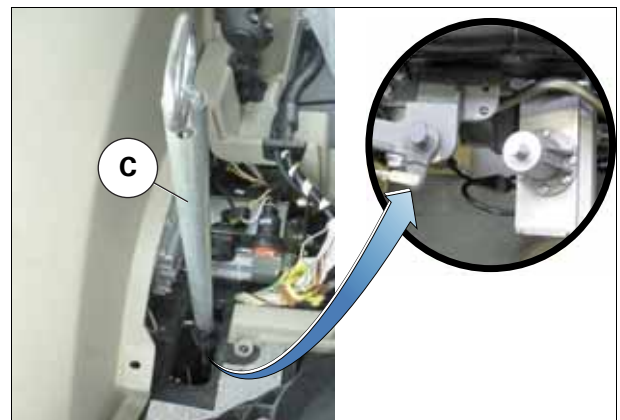


Fig. 20.

I049360

- Place the transmission in neutral (middle position (N))

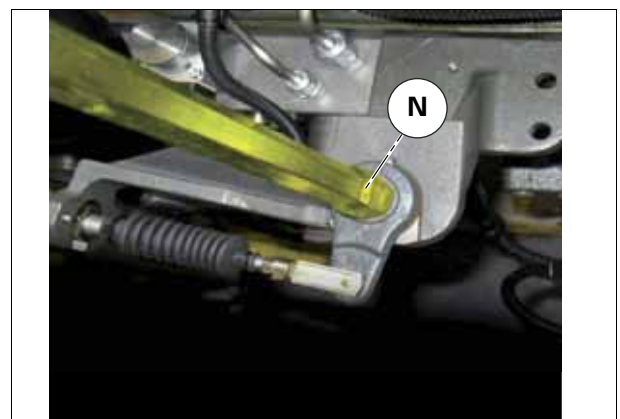


Fig. 21.

I049362

9. **⚠ DANGER:**
The ParkLock parking brake will not operate once its screws have been loosened.
Before loosening, chock the tractor to prevent the wheels from drifting.

Release the ParkLock parking brake by loosening the right and left-hand brake pots (1) located on the top of the rear axle until the hard point is felt (approximately 9 turns).

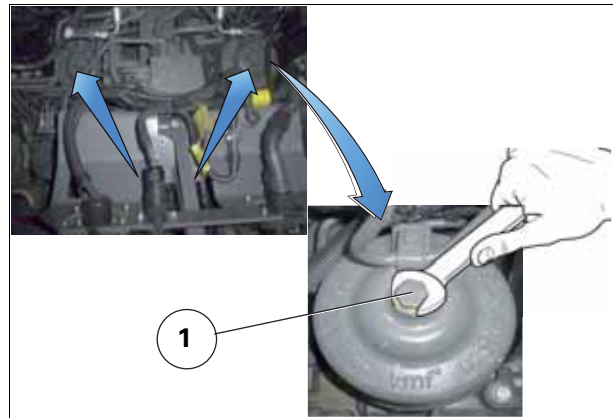


Fig. 22.

1049100

10. Clear the ParkLock indicator light from the instrument panel.
- Engine running
 - Display the main screen of the instrument panel
 - Keep the clutch pedal depressed
 - Press the (OK) key on the control keypad for 5 seconds
 - The indicator light and the (P) display will disappear.



Fig. 23.

1050473

3.8.9 Tractor limp home mode

T021670

Limp home mode

If the transmission ratio control is not possible due to a breakdown, the tractor can be driven mechanically using a limp home lever.

Maximum speed in the high speed range is 34 km/h in forward travel and 25 km/h in reverse travel.

Maximum speed in the low speed range is 15 km/h in forward travel and 11 km/h in reverse travel.

- ⚠ CAUTION:**
Once the engine has been started, the transmission is in full working order once a mode is engaged!
The clutch pedal must be engaged with care because any transmission ratio can be preselected.

1. Stop the engine if it is running.

2. **⚠ DANGER:**
The ParkLock parking brake will not operate once its screws have been loosened.
Before loosening, chock the tractor to prevent the wheels from drifting.

Release the ParkLock parking brake by loosening the right and left-hand brake pots (1) located on the top of the rear axle until the hard point is felt (approximately 9 turns).

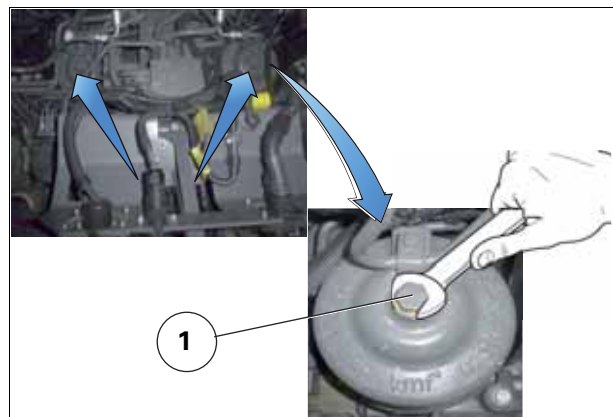


Fig. 24.

1049100

3. Clear the ParkLock indicator light from the instrument panel.
 - Engine running
 - Display the main screen of the instrument panel
 - Keep the clutch pedal depressed
 - Press the (OK) key on the control keypad for 5 seconds
 - The indicator light and the (P) display will disappear.



Fig. 25.

I050473

4. Lift attachments (1) and open cover plate (A) located on the cab floor (right-hand side).

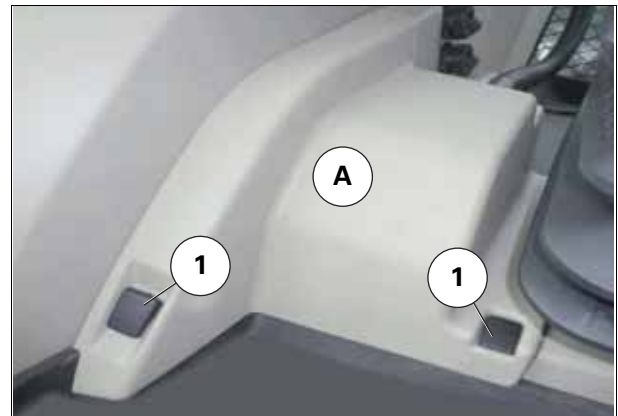


Fig. 26.

I049339

5. Remove screw (2) and shield plate (B)

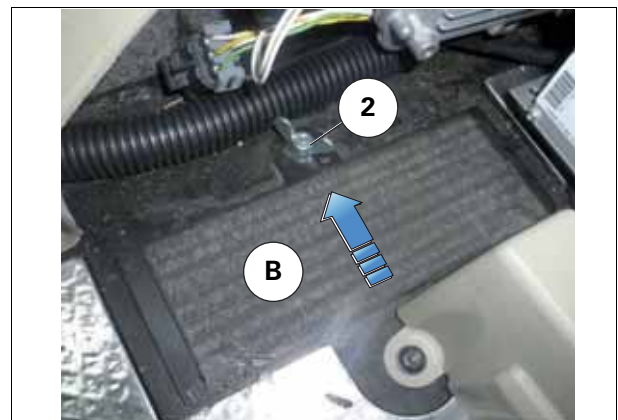


Fig. 27.

I049349

6. Recover limp home lever (C) located at the rear of the cab.



Fig. 28.

I049359

7. Place limp home lever (C) on the control unit.

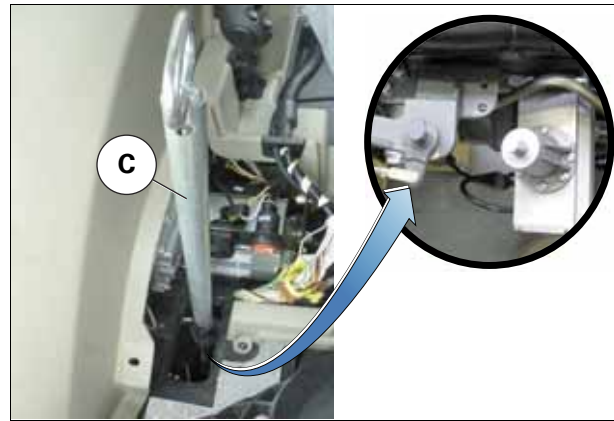


Fig. 29.

I049360

8. **IMPORTANT:** When switching mode, only use the limp home lever supplied with the tractor because the coupling mechanism in the control unit may be damaged (max. permissible torque: 10 Nm).

Place the limp home lever in mode control and select the limp home mode:

- clockwise, field mode (tortoise),
- anti-clockwise, road mode (hare).

NOTE: It is important not to change mode when travelling in limp home mode

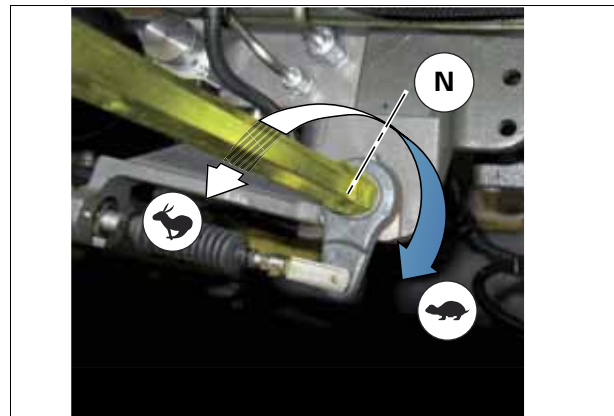


Fig. 30.

I049363

9. Declutch and start the tractor while holding down red button (D) (limp home button).

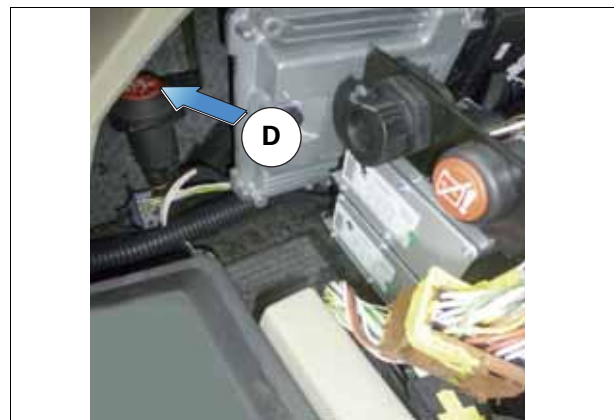


Fig. 31.

I049364

10. **IMPORTANT:** Keep the clutch pedal depressed.
Release the red button.

11. Place the limp home lever on control (E).

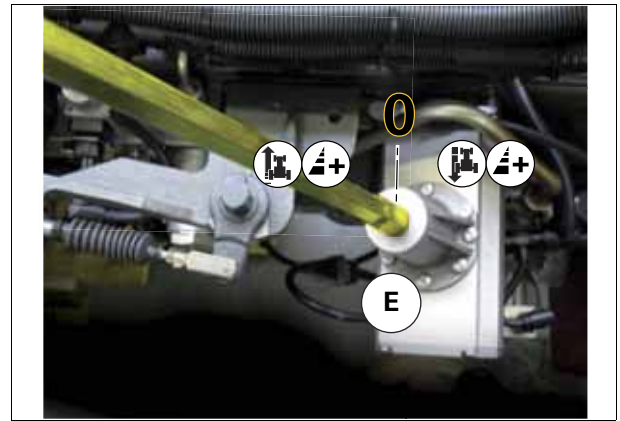


Fig. 32.

I049365

12. Turn the lever in the required direction of travel:

- anti-clockwise direction, forward travel
- clockwise, reverse travel

NOTE: Travel speed depends on the rotational value of the lever.

13. Carefully release the clutch pedal. The tractor moves in the previously set direction of travel and reaches the selected ratio manually.

To deactivate limp home mode, stop the tractor and switch off the ignition.

14. When the tractor is stopped, the speed range must be in neutral position (middle position) and the brake must be engaged.

3.8.10 Forward speed calibration

T002597

General

This calibration allows improved precision of forward speed depending on:

- the different tyre sizes available
- radar (if fitted)

Procedure

1. Mark out a 100 m (328 ft) (depending on the unit of measurement selected) on a firm surface.
2. Start up the tractor, and then press and hold the display selector switch (A) for 15 seconds.

NOTE: The daily hourmeter resets to 0 after 5 seconds.

3. "CAL" should appear on the screen [fig. 33](#).
4. Drive the tractor forwards at normal working speed.

NOTE: The tractor must be moving at a constant speed before starting out on the measured course. Otherwise, the calibration is not correct.
5. Press the display selector switch (A) when the starting line of the 100 m course has been passed.

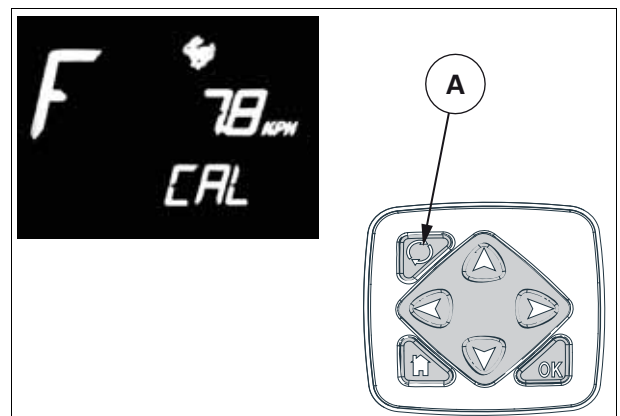


Fig. 33.

I048119

6. "run" should appear on the screen [fig. 34](#).
7. Press the display selector switch (A) when the finish line of the course has been passed.
8. Press the display selector switch (A). The constant forward speed (theoretical) measured during calibration is displayed.
9. Press the display selector switch (A) again. The actual constant forward speed (radar) measured during calibration is displayed on tractors fitted with radar.
10. Press the display selector switch (A) one final time to return the instrument panel to normal operating mode.

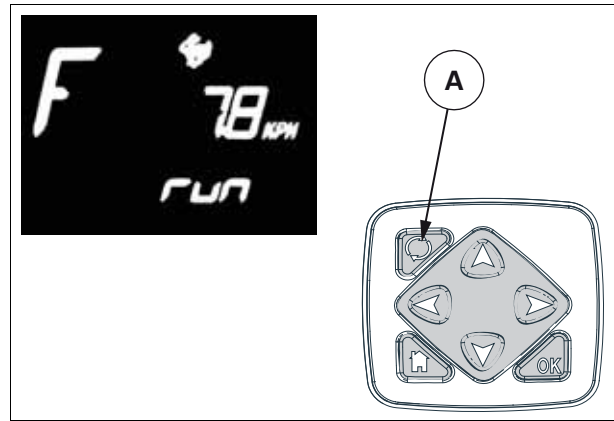


Fig. 34.

1048121

3.9 Brakes

3.9.1 Brake pedals

T020943



WARNING:

When driving on the road:

- **The brake pedals must stay locked together**
- **Only the foot throttle should be used**
- **The hand throttle lever must be in the idle position**
- **Check that the memorised A/B speed is not activated.**

Use the brake pedals separately to apply the brake to just one wheel at a time.

To uncouple the brake pedals:

- Pull the lever (1) outwards
- Push the locking lever (1) downwards
- Use the brake pedal corresponding to the side the brake is to be applied

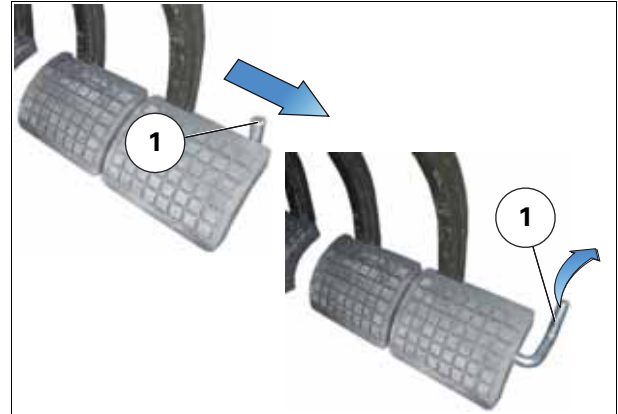


Fig. 1.

I047698

Use the brake pedals locked together when travelling on the road.

To lock the brake pedals together:

- Raise the locking lever (1)
 - Pull the lever (1) inwards
- NOTE:** A spring enables an automatic return.
- The brake acts on the two rear wheels, the front axle (4-wheel drive only) and on the trailer brake.

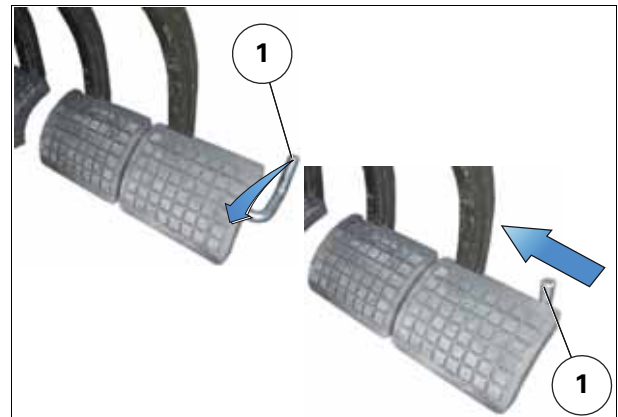


Fig. 2.

I047701

3.9.2 Hydraulic trailer brake

T001296



WARNING:

When using the trailer brake, it is recommended that the brake pedals are locked together see §3.9.1, page 177.

Trailer brake system available as an option.

If a trailer equipped with a hydraulic brake system is hitched to the tractor and connected, the trailer brakes are activated as soon as the operator presses the tractor brake pedals.

Connection:

1. Remove the plastic cover and check for contamination. Clean if necessary
2. Connect the trailer hose to the union located at the rear of the tractor *fig. 3*
3. After disconnecting, refit the cover to prevent any possible clogging and damage to the contact faces.

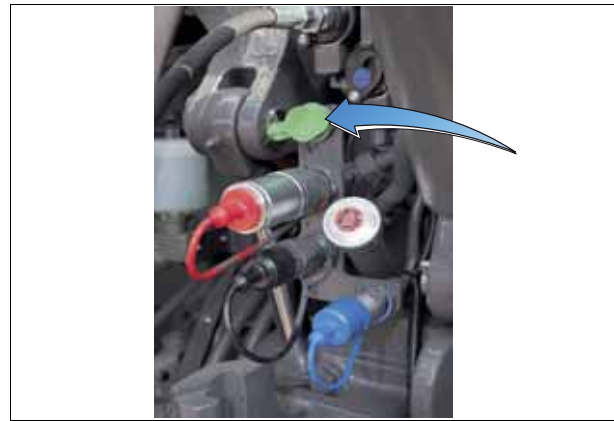


Fig. 3.

I047364

3.9.3 Pneumatic trailer brake

T020762



WARNING:

Before activating the trailer brake, lock the brake pedals together see §3.9.1, page 177.

Identification of coupling heads:

- (A) Brake line (Yellow)
- (B) Emergency brake line (Red)

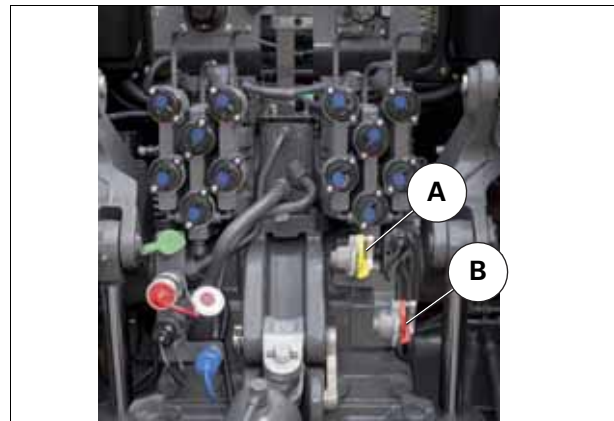


Fig. 4.

I047342

Colours	Description	
Red	7 bar constantly, brake assistance line used for dual braking	
Yellow	0 bar to 7 bar , used in a dual brake line	

Coupling/uncoupling the trailer

Remove the cover ref. (1) and connect the head of the trailer connection hose ref. (2), turning it downwards until it engages correctly.

IMPORTANT: Disconnect the red coupling head before the yellow one in order to avoid an excess of pressure in the system.

Carry out the operation in reverse, turning the coupling head upwards and refitting the cover ref. (1) to prevent any possible clogging and damage to the contact faces.

IMPORTANT: Disconnect the red coupling head before the yellow one in order to avoid an excess of pressure in the system.

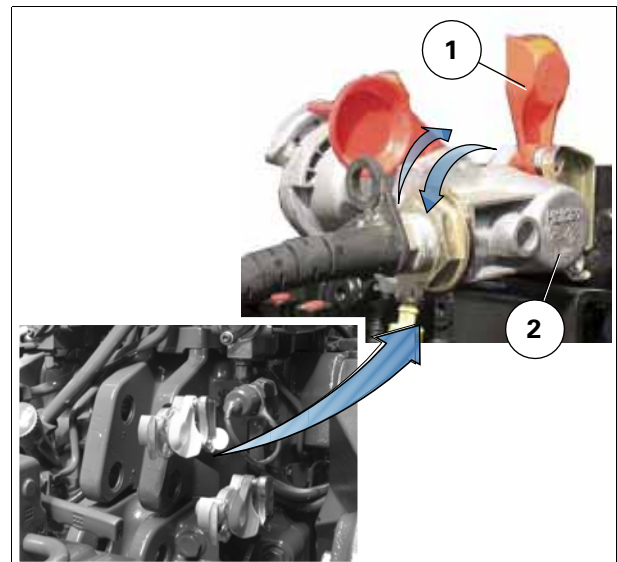


Fig. 5.

1026669

3

Pressure available depending on type of braking

Brake pedals/hand brake not used	Braking with pedal or hand brake lever	Colour of coupling heads
7 bar	7 bar	Red
0	7 bar	Yellow



CAUTION:

When the ParkLock is activated (engine running or stopped), the pneumatic trailer brake is engaged.

NOTE: If the trailer brakes too sharply, it is possible to have the pneumatic brake adjusted. Contact your dealer to have these adjustments made.

Driving the tractor/trailer assembly

When driving, it is advisable to activate the relevant display on the instrument panel screen *fig. 6* to monitor the display of pressure in the system (in bar) (see description on the instrument panel).



WARNING:

When starting, wait for the brake control indicator light (1) to switch off before starting to drive. If the pressure drops below 4 bar, trailer braking is no longer operational; the brake indicator light (1) lights up on the instrument panel *fig. 6*. Stop the tractor carefully and consult your dealer.

IMPORTANT: The system must be protected by antifreeze at the start of each cold season (temperatures below +5 °C).

See the chapter on maintenance.

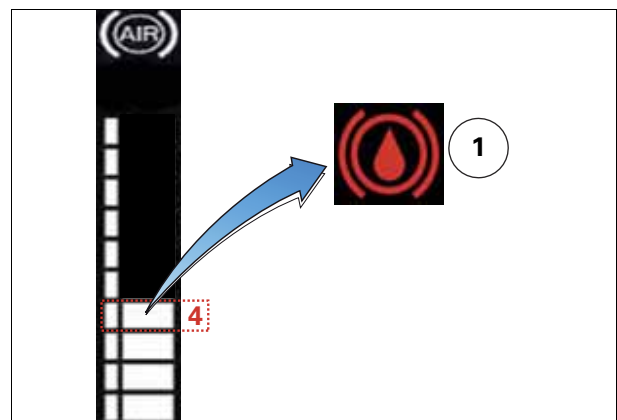


Fig. 6.

1047335

3.9.4 Electromechanically controlled brake on the steering column

General

A control located on the left of the steering column is used to engage and disengage the parking brake. (1) = engaged position; (2) = unlocking; (3) = disengaged position.

WARNING:
 To compensate for gravity and to prevent the tractor from moving when starting on an ascent or descent, the brake pedals must be applied before the parking brake is released.

WARNING:
 Position the parking brake control in the engaged position (closed padlock symbol) before leaving the operator's seat and switching off the engine.

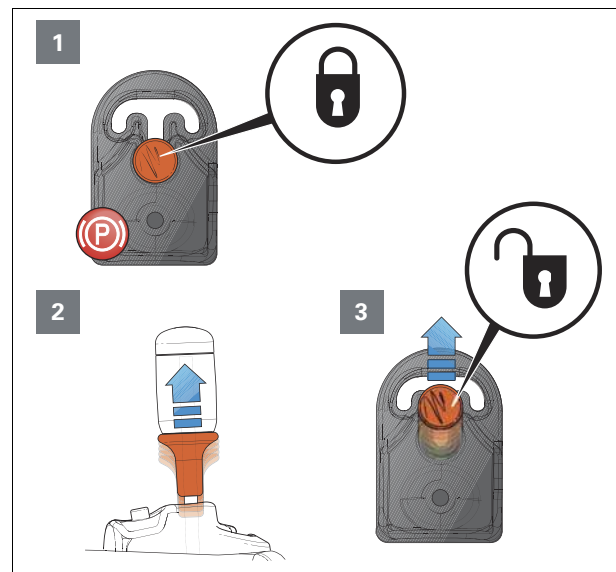


Fig. 7.

I010004

Engaging the parking brake

1. The shuttle lever must be in neutral position. The letter **N** appears on the digital display indicating that the shuttle lever is in neutral position.
2. The forward speed must be less than 2 km/h.



Fig. 8.

I046841

3. Pull the lock and **push** the lever downwards (closed padlock symbol). The brake is then engaged.

NOTE: The indicator light (P) illuminates on the instrument panel and the digital display indicates the symbol (P), representing the parking position.

4. The parking brake engages automatically when the engine is stopped.

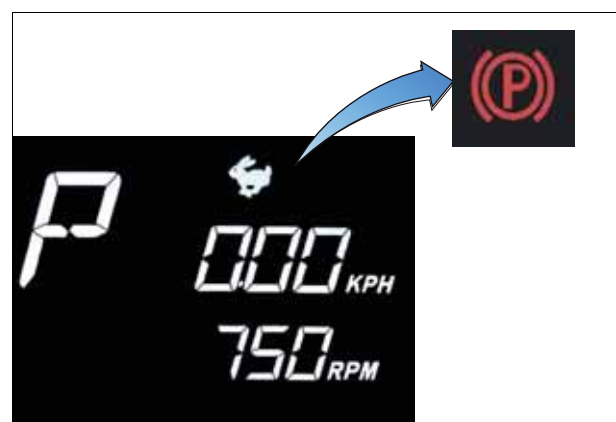


Fig. 9.

I047037

Disengaging the parking brake

IMPORTANT: For the parking brake to disengage after engine start-up, the electronic control must record a switch of the control from the engaged position to the disengaged position (closed padlock to the open padlock position) *fig. 7*.

If this condition is not met, the parking brake will remain engaged, even if the control is in the disengaged position.

1. Pull the lever lock.
2. Lift the lever to shift it to disengaged position.

Manually releasing the parking brake

In the event of an electronic fault with the parking brake, it is possible to manually release it in order to move the tractor.



WARNING:

Please contact your dealer after manually releasing the parking brake.

1.



DANGER:

The parking brake will not operate once its screws have been loosened. Before loosening, chock the tractor to prevent the wheels from drifting.

Release the parking brake by loosening the right- and left-hand brake pots (1) located on the top of the rear axle until the hard point is felt (approximately 9 turns).

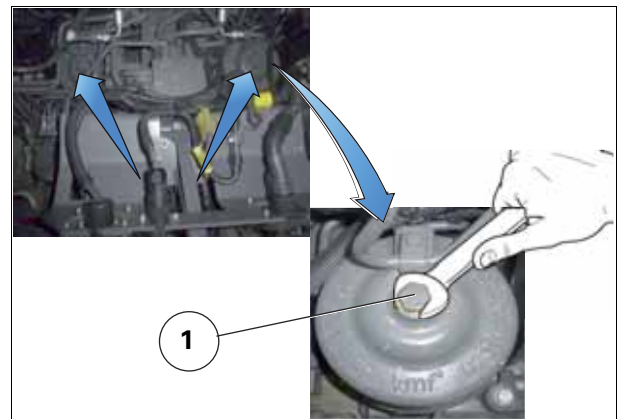


Fig. 10.

I049100

2. Clear the parking brake indicator light from the instrument panel.
 - Engine running
 - Display main instrument panel screen
 - Keep the clutch pedal depressed
 - Press the (OK) key on the control keypad for 5 seconds
 - The indicator light and the (P) display will disappear.



Fig. 11.

I050473

3.9.5 Emergency hand brake (on models fitted with the ParkLock option)

T001297

If required, it is possible to use the emergency hand brake to slow down or immobilise the tractor.

Operation:

1. If forward speed is above 2 km/h and the clutch pedal is not pressed:
Action on the emergency lever will slow the tractor down.
2. If forward speed is above 2 km/h and the clutch pedal is pressed:
Action on the emergency lever will stop the tractor.
3. If forward speed is below 2 km/h :
Action on the emergency lever will stop the tractor and place the transmission in neutral.

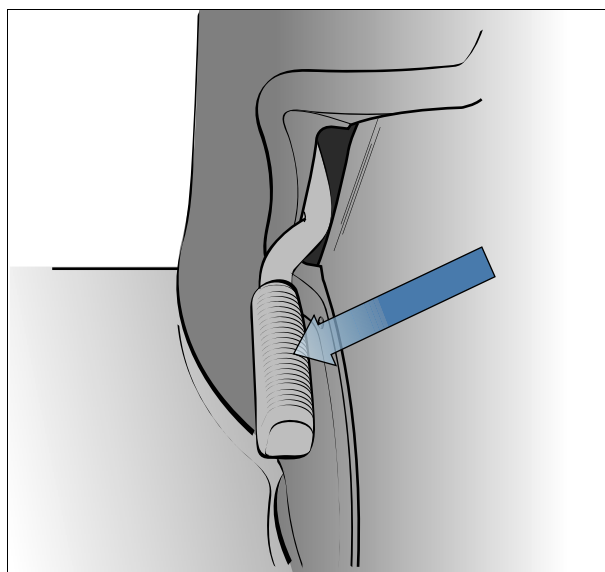


Fig. 12.

I004991

3.10 Steering

3.10.1 Steering

T022531

General

The steering is hydrostatic, which means there is no mechanical connection between the steering wheel and the wheels.

The tractor may be fitted with electronic power-assisted steering as an option.

The electronic power-assisted steering comprises a hydraulic steering pump and an electrohydraulic steering valve.

This type of valve offers two additional options: accelerated steering (Quick Steering) and automatic steering (Auto-Guide™)



CAUTION:

When the engine stops, the booster pump no longer feeds the system. If the tractor is stopped, the hydrostatic steering cannot be manoeuvred.

However, no hydraulic system can operate efficiently unless:

- **it is correctly maintained and recommended fluids are used**
- **the tightness of all unions, and the oil level, are regularly checked**



WARNING:

Do not use accelerated steering (Quick Steering) or Auto-Guide™ under normal driving conditions on the open road.

Quick Steering accelerated steering

This system enables the operator to reduce the number of steering wheel turns to operate the steering quicker. It disengages automatically above 25 km/h.

Switch (A) is used to activate accelerated steering Quick Steering; the indicator light on the switch lights up.

A display on the main screen of the Setup and Information Screen indicates that the function is engaged.



CAUTION:

When the system is engaged, the operator must remain seated in the operator seat at all times. He must remain vigilant and be ready to take back the controls of his tractor at any time as required.

The system disengages automatically above 25 km/h

In the event of a drop in forward speed, the Quick Steering steering must be reactivated.



Fig. 1.

I051092

The number of steering wheel turns can be adjusted by turning the potentiometer (B). The level of adjustment (1 to 4) appears on the main screen of the Setup and Information Screen.

- Turn the potentiometer (B) clockwise (+) to increase the level of adjustment of the Quick Steering accelerated steering (the higher the level, the less the steering wheel needs to be turned for the same steering angle)
- Turn the potentiometer (B) anti-clockwise (-) to reduce the level of adjustment of the Quick Steering accelerated steering

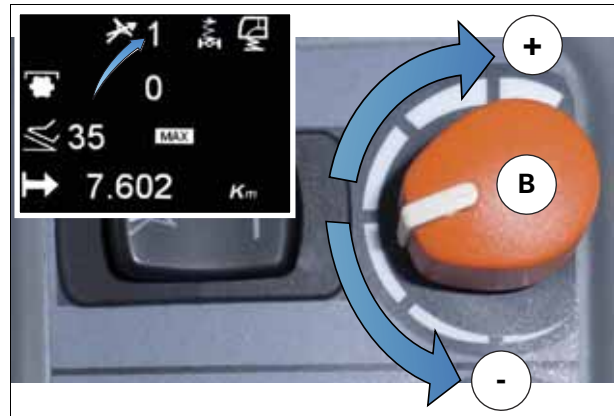


Fig. 2.

1051093

Auto-Guide™

To activate the aerial, place the switch in position (B).
On the roof, some aerial indicator lights illuminate.



Fig. 3.

1051472

The system electronically guides the tractor. The operator no longer has to make corrections to the steering while the system is engaged. For more information, consult the Auto-Guide™ Operator's Manual.

To activate the Auto-Guide™ system, place the switch in position (C).

Place the switch in position (B) and then back in position (C) to deactivate the Auto-Guide™ system.

- Indicator light on: Auto-Guide™ system activated
- Indicator light off: Auto-Guide™ system deactivated

NOTE: The Auto-Guide™ system is automatically activated when the parking brake is engaged.



WARNING:

Under no circumstances should the Auto-Guide™ power-assisted steering system be used to compensate for the operator's lack of concentration.



CAUTION:

When the system is engaged, the operator must remain seated in the operator seat at all times. He must remain vigilant and be ready to take back the controls of his tractor at any time as required.

The system disengages automatically above 25 km/h

In the event of a drop in forward speed, the Auto-Guide™ must be reactivated.

It is possible to engage and disengage the Auto-Guide™:

1. Via the Auto-Guide™ screen; consult the Auto-Guide™ manual
2. Via the Datatronic CCD screen using the U-Pilot sequence; consult the Datatronic CCD manual
3. By pressing the switch (1) located on the arm-rest.

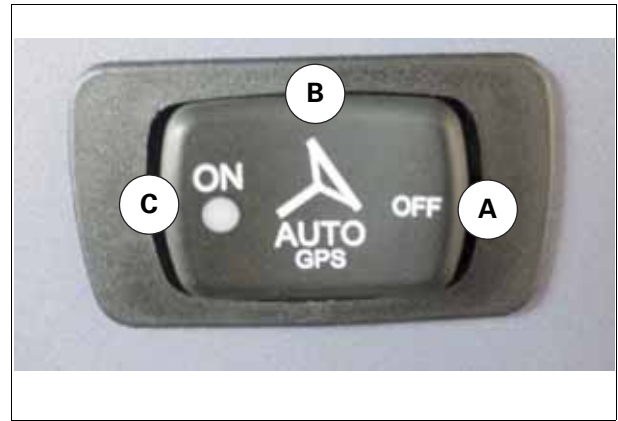


Fig. 4.

1051472



Fig. 5.

1051479

3.11 Front axle

3.11.1 Four-wheel drive front axle

T022535

Engaging the 4-wheel drive front axle activates traction by the front wheels. This function is strongly advised for field work to keep wheel slip to a minimum.

The 4-wheel drive front axle may be used in accordance with the following operating modes:

1. Manual mode
2. Automatic mode

IMPORTANT: So as not to damage the tractor, it is essential to disengage the 4-wheel drive front axle prior to use on the open road.

NOTE: When the tractor is started, the 4-wheel drive front axle will be in the mode stored when the engine was last switched off.

Special conditions

- The front axle is engaged whenever the engine is stopped and the front axle indicator light is off
- If both brake pedals are depressed, the front axle engages to provide 4-wheel braking, regardless of forward speed.
- The front axle will engage whenever the differential lock is engaged
- The front axle engages as soon as the parking brake is applied
- To switch from automatic mode to manual mode, press the switch corresponding to the respective function.

Use of the 4-wheel drive front axle in manual mode

Press the switch (1) for 3 seconds to engage the 4-wheel drive front axle in manual mode.

The 4-wheel drive front axle indicator light on the instrument panel and on the switch (1) illuminates.

NOTE: In manual mode, the 4-wheel drive front axle is permanently engaged, irrespective of the forward speed.



Fig. 1.

I051116

Use of the 4-wheel drive front axle in automatic mode

Press the switch (1) to engage the 4-wheel drive front axle in automatic mode. The 4-wheel drive front axle indicator light on the instrument panel illuminates. The 4-wheel drive front axle in automatic mode symbol (A) appears on the main screen of the Setup and Information Screen.



Fig. 2.

1051431

Actions	Consequences
Forward speed of the tractor is greater than 20 km/h	Temporary disengagement of the 4-wheel drive front axle
Forward speed of the tractor lower than 19 km/h	Re-engagement of the 4-wheel drive front axle

4-wheel drive front axle automatic engagement function

This function allows you to engage the 4-wheel drive front axle automatically during changes of direction for an activation time that can be adjusted by the user.

- Press the arrows to select the function to modify:
- Press the or arrows to select/deselect the box (A) (function activated or deactivated)
 - Press the or arrow to increase/decrease the activation time of the 4-wheel drive front axle (B) (from 1 second to 20 seconds)

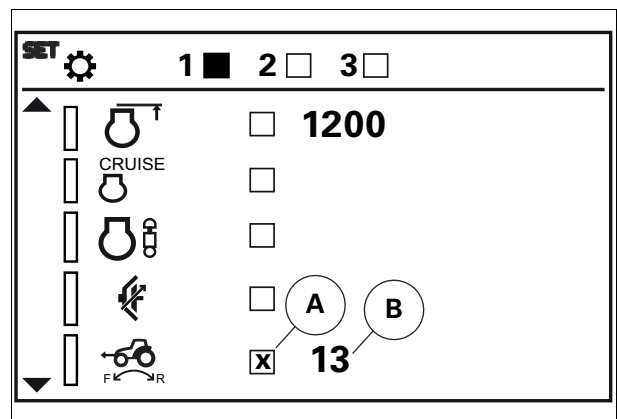


Fig. 3.

1051691

3.11.2 Suspended front axle

T020333

The suspended front axle (optional) is designed to improve the operator's comfort by enabling better shock absorption during road use and also to increase the vehicle's stability at high speeds by improving contact with the road surface.

The axle suspension can be activated and deactivated using the switch located on the right-hand pillar in the cab.

Activation/deactivation

- On starting the engine, the axle suspension remains in the position (activated or deactivated) that it was in when the engine was stopped.
- To activate the suspension, press the switch (A) and a symbol appears on the main Setup and Information Screen.

NOTE: If after 30 seconds the required value is not obtained, the suspension is deactivated for 30 seconds.

After 3 attempts, the system switches to overload mode. The suspended front axle locks in position; the symbol on the main screen flashes (to resolve this issue, see indicator light panel in the maintenance section of the Operator's Manual).

- To deactivate the suspension, press the switch (B), the symbol disappears from the main Setup and Information Screen.
- The front axle suspension is activated automatically when the speed exceeds 30 km/h .

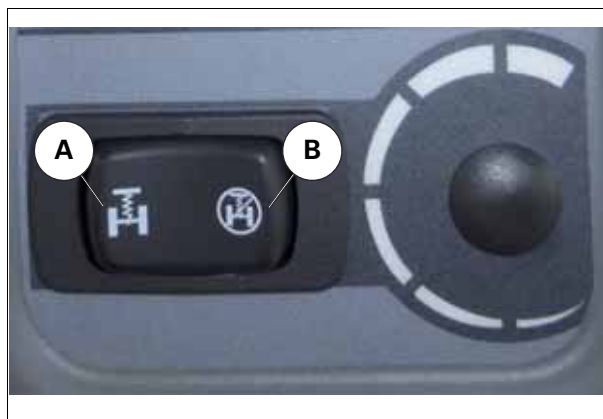


Fig. 4.

I051108

Locking in position

The suspended front axle can be locked in middle or low position.

To switch from one position to the other:

- Deactivate the front axle suspension. Press the switch (A); the indicator light goes out.
- Press the switch (A) -for 30 seconds. The symbol on the main screen appears then disappears to confirm the change to the locked position.
- Press the switch (4) - once to switch back from a locked position to the suspended position.

3.11.3 Permissible load on the front axle

T021147

**CAUTION:**

When the prescribed tyre types are observed, the maximum loaded weight of the tractor during road travel is:

- 15000 kg

The maximum distribution (the total load on the front + rear must not exceed 15000 kg) of this load between the axles may be:

- 8000 kg for the front axle
- 11500 kg for the rear axle

**CAUTION:**

The tyre size for dual front wheels on a 770 standard front axle must never exceed 600/70R28 or have a radius of less than 699 mm under load.

The tractor track width (V) is measured from the centre of one wheel to the centre of the other for single wheels.

For dual wheels, it is measured from the centre of the right wheel assembly to the centre of the left wheel assembly.

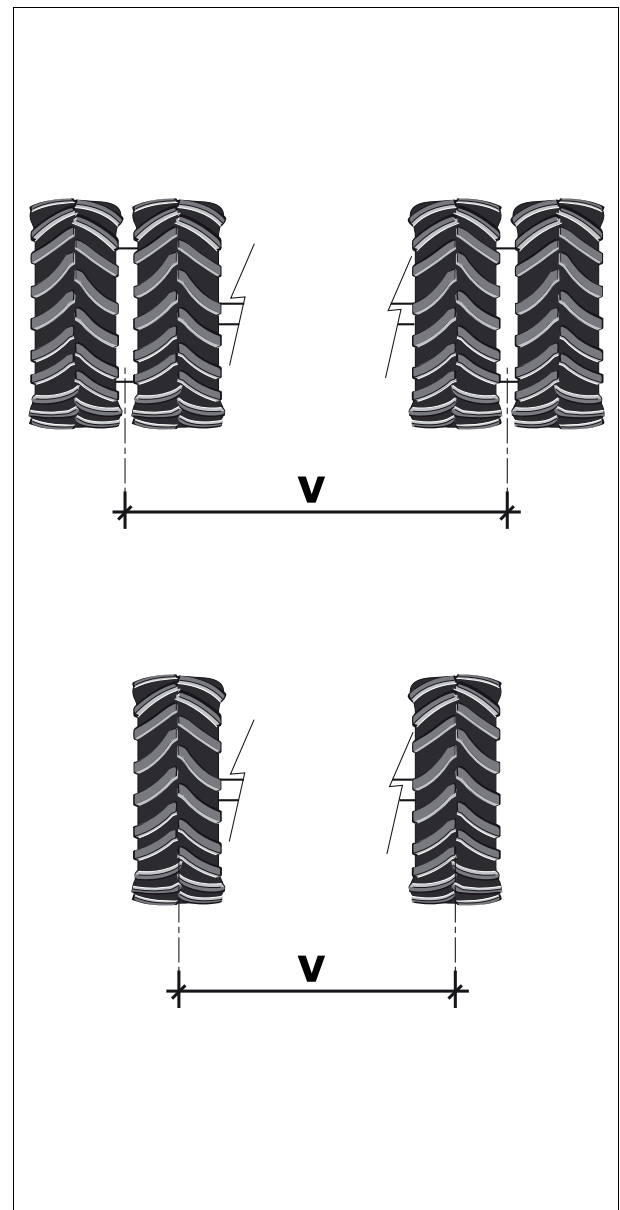


Fig. 5.

1011588

The load allowed on the front axle varies with the forward speed, track width adjustment and depends on whether dual front wheels are used.

The graph below shows the different adjustment options.

3

Front axle type 770 (standard)

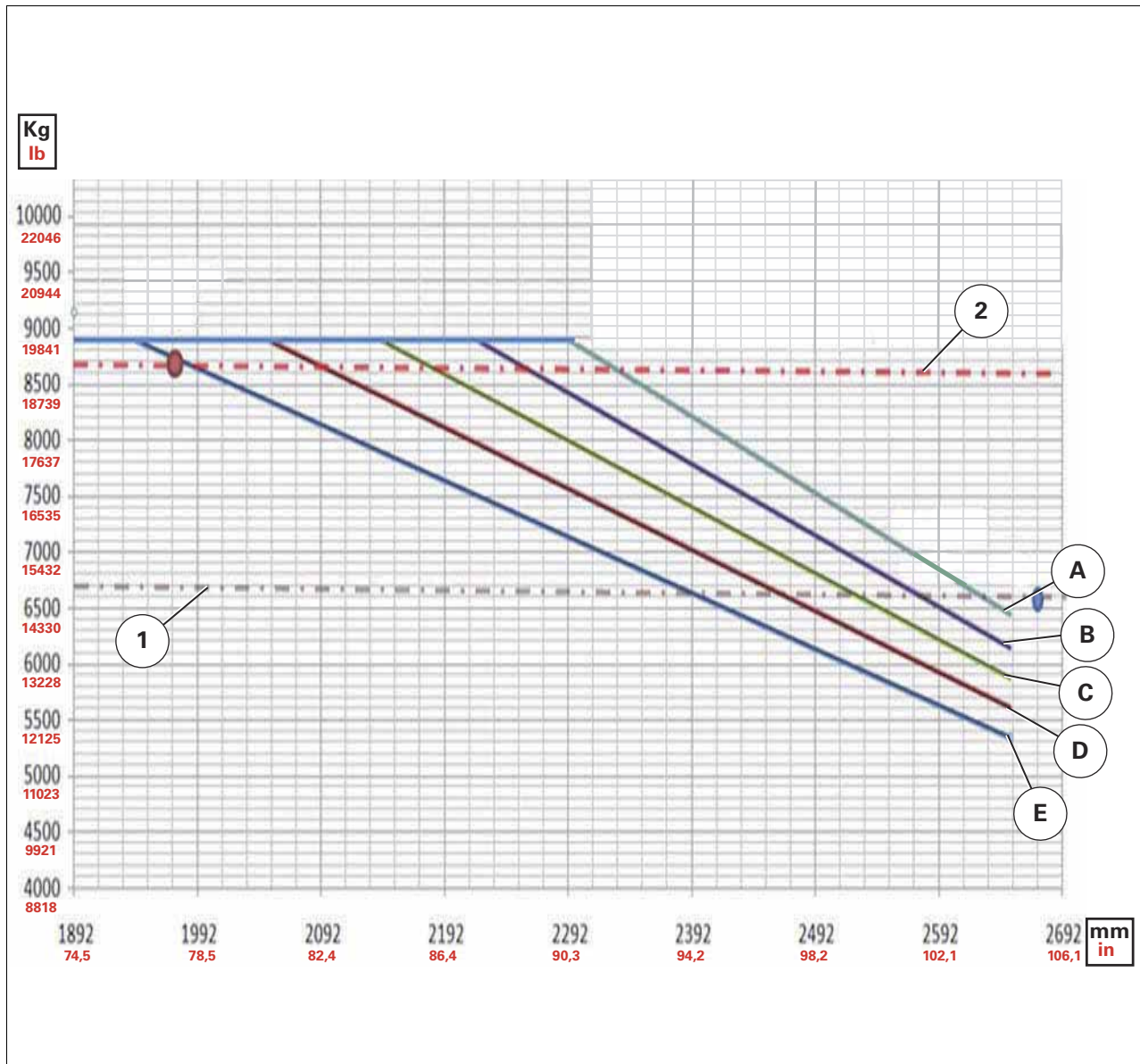


Fig. 6.

1048157

- (1) Front weight on front support (22 x 55 kg)
- (2) Weight on front power lift of 3000 kg
- (A) Forward speed of 9 km/h
- (B) Forward speed of 20 km/h
- (C) Forward speed of 30 km/h
- (D) Forward speed of 40 km/h
- (E) Forward speed of 50 km/h

Models	Description of the 4-wheel drive front axle	Plate-to-plate distance
S274/S294/S324	DANA 770/504 or DANA 770/618 (standard)	1892 mm

The load allowed on the front axle varies with the track adjustment and the forward speed.

Front axle type 770 (reinforced)

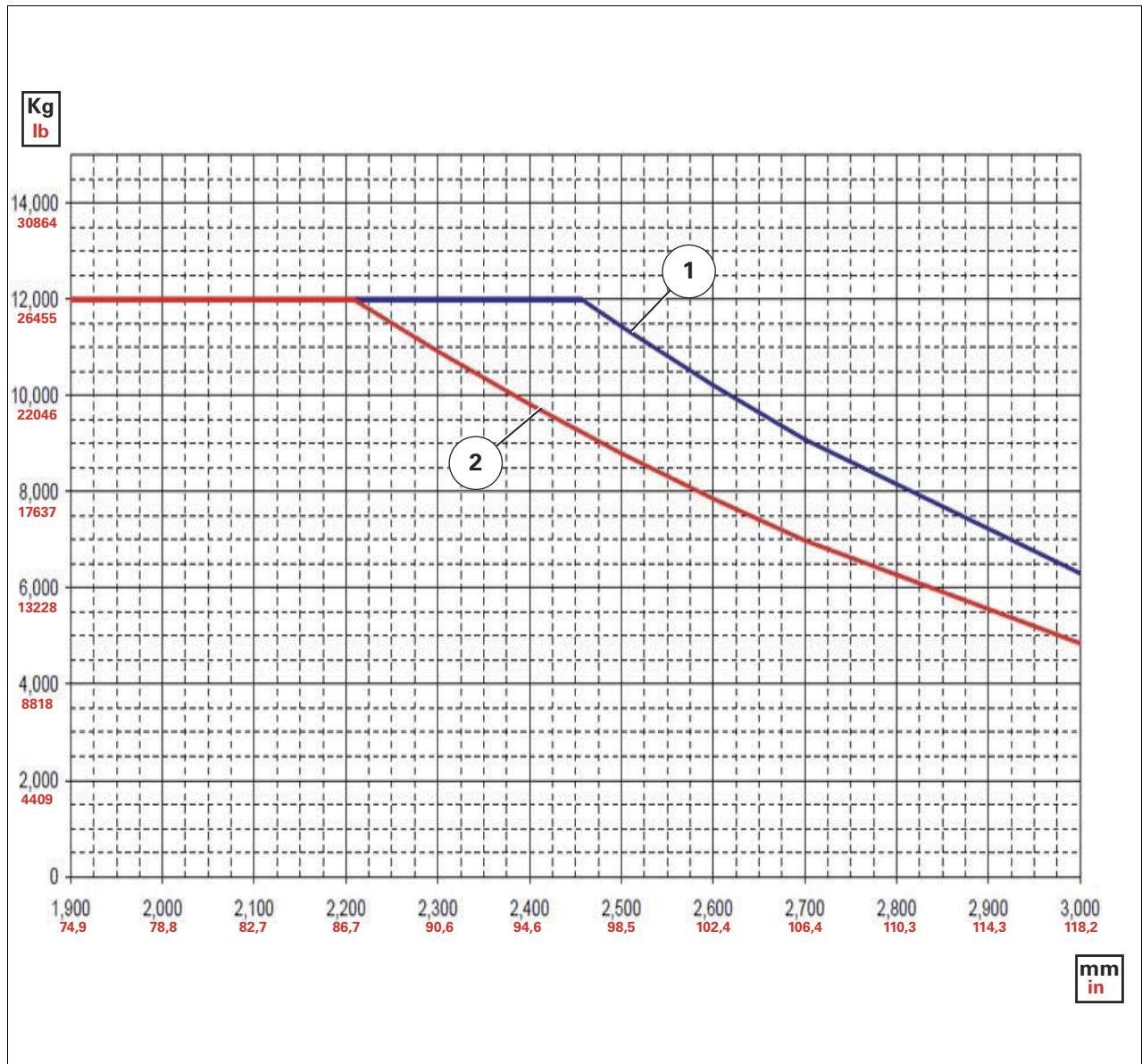


Fig. 7.

1048167

- (1) Forward speed of 9 km/h
- (2) Forward speed of 50 km/h

Models	Description of the 4-wheel drive front axle	Plate-to-plate distance
S274/S294/S324	DANA 770/510 or DANA 770/624 (reinforced) as an option	1904 mm
S354/S374	DANA 770/510 or DANA 770/624 (reinforced)	1904 mm

The load allowed on the front axle varies with the track adjustment and the forward speed.

3.11.4 Using a scraper

T003916

**CAUTION:****Specific precautions to take when using a scraper:**

- **Limit the size of the rear tyres to 650/85R38 or equivalent that are approved for scraper applications.**
- **Do not overload the tyres (liquid ballast is not permitted).**
- **Do not lock the front or rear wheels together.**
- **If possible, the tractor used with the scraper should have a fixed front axle or a suspended front axle fixed in low position.**
- **Scrapers are only authorised for use on S232/S262/S292/S322 models.**

3.12 Differential lock

3.12.1 Differential lock

T022544



DANGER:

Not to be used on the road or when turning.

Maximum forward speed of operation is automatically limited to 20 km/h

IMPORTANT: Do not engage the differential lock if a wheel is already spinning.

If wheel slip is anticipated, the differential lock devices can be activated by pressing the switch (3). The differential lock indicator light (1) illuminates on the instrument panel.

NOTE: Manually engage the 4WD front axle by pressing the corresponding switch (the 4WD front axle indicator light (2) illuminates on the instrument panel).

The front and rear differentials are locked and the wheels therefore rotate in unison.

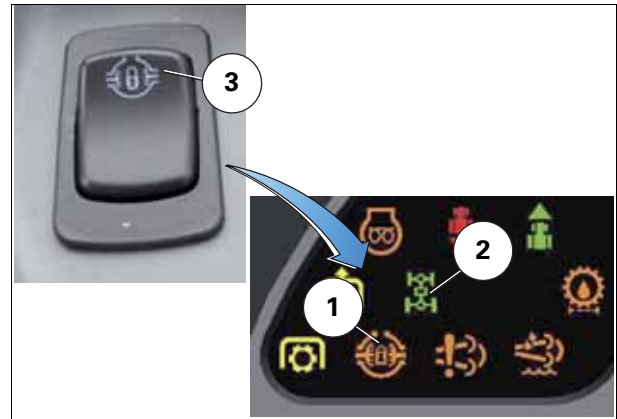


Fig. 1.

I051120

Actions	Consequences
Depress either the left-hand or right-hand brake pedal (uncoupled)	The differential lock is temporarily disengaged
Depress the left-hand and right-hand brake pedals (coupled)	The differential lock is permanently disengaged
Forward speed of the tractor is greater than 20 km/h	The differential lock is permanently disengaged

3.13 Power take-off

3.13.1 Front power take-off

T001301

This PTO is driven by the engine.

WARNING:
Always disengage the PTO before attaching, detaching or adjusting an implement.
Take all necessary safety precautions for any operation involving implements that are driven by the PTO.

DANGER:
Never go beyond the universal joint shaft.
Never use the universal joint shaft as a step.
Never wear loose-fitting clothes.
Remain at a safe distance from the universal joint shaft.

Table of specifications

Front power take-off specifications	
Number of selections possible for front PTO	1000 rpm
Maximum permissible power, hp (kW)	Clockwise: 147 (105)
	Anti-clockwise: 221 (158)
Maximum input torque	Clockwise: 507 Nm
	Anti-clockwise: 762 Nm
Maximum output torque	Clockwise: 1032 Nm Anti-clockwise: 1551 Nm
Rotational direction	Base: 1 clockwise (viewed from the front of the tractor) Option: 1 anti-clockwise: (viewed from the front of the tractor)
Engine speed for 1000 rpm PTO	2040 rpm
Ratio	2.04
Clutch type	Hydraulics
Splined shaft type	Fixed shaft with 6 splines, diameter 35 mm (1" 3/8)
	Fixed shaft with 21 splines, diameter 35 mm (1" 3/8)

Engaging the power take-off

Press the selector switch as shown by (A).
 The PTO engaged indicator light (C) comes on and an engaged symbol appears on the digital display.

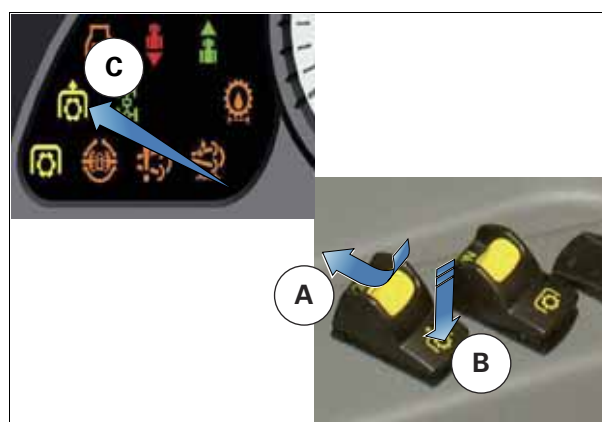


Fig. 1.

I051126

Disengaging the PTO

To stop the PTO, press the selector switch as shown by (B) *fig. 1*.

3.13.2 Rear power take-off (PTO)

T020655

General

The PTO can be engaged and disengaged independently of the transmission. The 540 rpm ECO, 1000 rpm and 1000 rpm ECO speeds can be obtained by selecting the appropriate speed on the control plate located on the right-hand pillar, which illuminates the corresponding indicator light on the instrument panel.

IMPORTANT: Engage the PTO at low engine speed to protect the clutch and transmission.



WARNING:

Always disengage the PTO before attaching, detaching or adjusting an implement. Take all necessary safety precautions for any operation involving implements that are driven by the PTO.



DANGER:

Never go beyond the universal joint shaft. Do not use the tractor or trailer drawbars as a step. Never use the universal joint shaft as a step. Never wear loose-fitting clothes. Remain at a safe distance from the universal joint shaft.

Transmission shaft

IMPORTANT: To prevent rotation problems, observe the correct fitting position of the transmission shaft.

Ensure that the angle of the shaft does not pose a risk of collision with the surrounding area during rotation (this is a particular risk for short PTO shafts).

1. Correct assembly
2. Incorrect assembly

NOTE: In addition, refer to the technical documentation from the transmission shaft manufacturer. If the permissible torque is exceeded due to the nature of use (see manufacturer information), use a transmission shaft fitted with a torque limiting device.

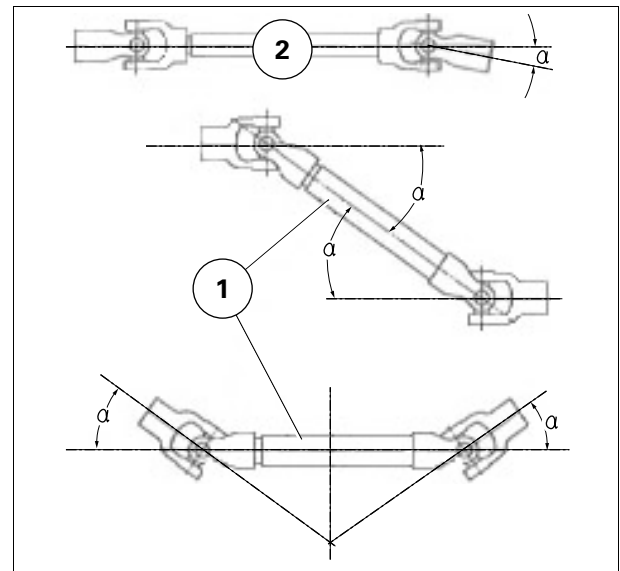


Fig. 2.

1033876

Selecting the power take-off speed

1. To be able to engage the PTO, it is first necessary to select the 1000 rpm speed (1) using the corresponding switch. The indicator light illuminates on the instrument panel and the display appears on the right-hand digital display. The neutral button (N (2)) disengages the PTO if it is activated.

IMPORTANT: To avoid damaging implements driven by the PTO, the engine speeds in the table below must be complied with.

Selected PTO speed	Display	Maximum engine speed
1000 rpm	1000	2030 rpm

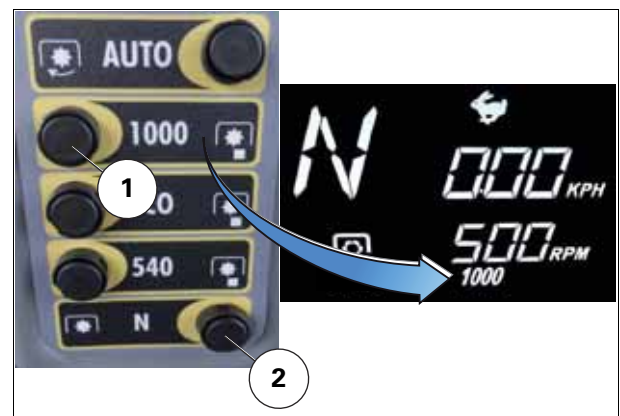


Fig. 3.

1051273

Engaging PTO in manual mode:

1. Press the selector switch (A). The PTO indicator light (C) comes on and an engaged symbol appears on the digital display.
If no speed is pre-selected before pressing the PTO switch, the PTO will not operate.
2. To stop the PTO permanently, press the selector switch (B).
3. Keep the switch in position (B) to activate the rear PTO brake. When the switch is released, the rear PTO brake is deactivated.

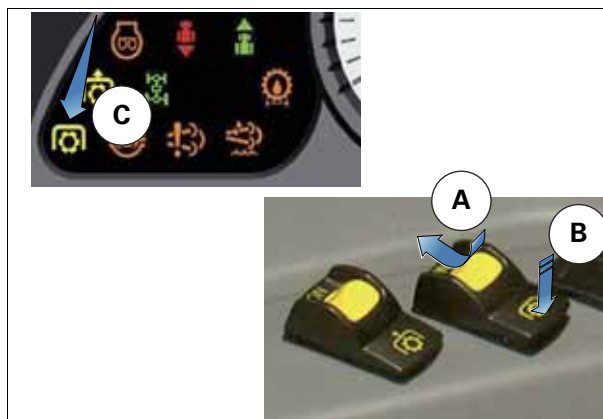


Fig. 4.

1051139

Engaging PTO in automatic mode:

This function stops the PTO temporarily and automatically when the linkage control is in Lift position (e.g. operation at headlands).

1. Press the PTO engagement control button (A) once a PTO speed has been selected. The PTO engaged indicator light (C) is illuminated.
2. Move the linkage Lift/Lower switch to Lower position.
3. Press the automatic mode engagement button (B). The "AUTO" symbol appears on the armrest terminal.

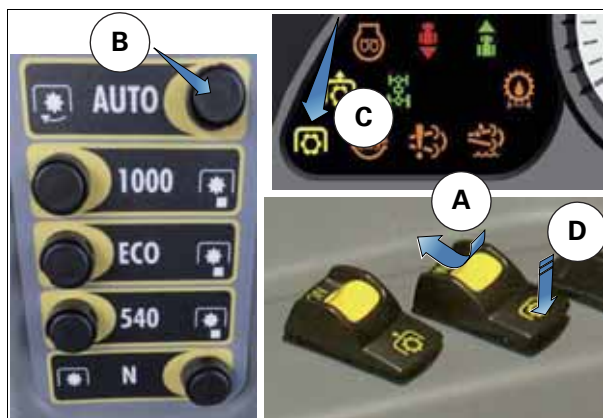


Fig. 5.

1051274

Initial setting	Actions	Consequences
The rear linkage control is in the lowering position and the forward speed is greater than 0,1 km/h	The rear linkage control is in the lifting position	The rear PTO is temporarily disengaged and the indicator light (C) flashes
Rear linkage control is in lifting position and forward speed is greater than 0,1 km/h	If the rear linkage control is in lowering position and is not reactivated within 150 seconds	The rear PTO is permanently disengaged and the indicator light (C) is off
Rear linkage control is in lifting position and forward speed is greater than 0,1 km/h	The rear linkage control is in the lowering position	The rear PTO is re-engaged and the indicator light (C) is permanently lit
The rear linkage control is in the lowering position and the forward speed is greater than 0,1 km/h	Forward speed equal to 0 km/h	The rear PTO remains engaged and the indicator light (C) remains permanently lit
The rear linkage control is in the low position and the forward speed is equal to 0 km/h	The rear linkage control is in the lifting position	The rear PTO is temporarily disengaged and the indicator light (C) flashes

Initial setting	Actions	Consequences
The rear linkage control is in the lifting position and the forward speed is equal to 0 km/h	The rear linkage control is in the lowering position	The rear PTO remains temporarily disengaged and the indicator light (C) flashes
The rear linkage control is in the low position and the forward speed is equal to 0 km/h	Forward speed greater than 0,1 km/h	The rear PTO is re-engaged and the indicator light (C) is permanently lit
Forward speed equal to or greater than 0 km/h	Forward speed greater than 25 km/h	The rear PTO is permanently disengaged and the indicator light (C) is off

- Press the selector switch (D) to disengage the rear PTO permanently and then return the switch to the neutral position.

3.13.3 Economy PTO

T020756

Operating the engine at a lower speed saves fuel. The economy PTO is designed to drive lightweight implements that do not require a large amount of engine power.

Electrical controls

To obtain 540 rpm ECO speed or 1000 rpm ECO speed, press the switch (1). The button (N) (2)) disengages the PTO if it is activated.

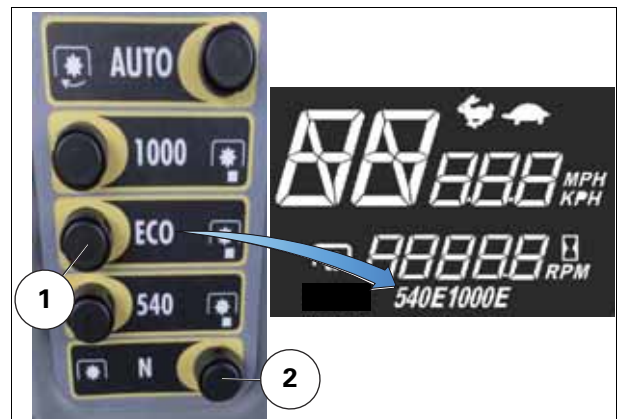


Fig. 6.

I051282

IMPORTANT: To avoid damaging implements driven by the PTO, the engine speeds in the table below must be complied with.

Selected PTO speed	Display	Maximum engine speed
540 E rpm	540E	1577 rpm
1000 E rpm	1000E	1605 rpm

3.13.4 Changing the flanged shaft

T001300

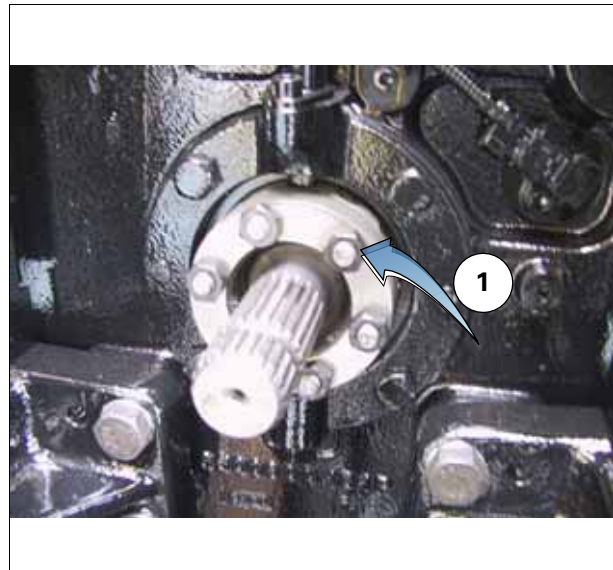
End-fittings that can be fitted:

- Shaft 35 mm (1.4 in) (1" 3/8) with 21 splines (1000 rpm)
- Shaft 35 mm (1.4 in) (1" 3/8) with 6 splines (540 rpm)
- Shaft 45 mm (1.8 in) (1" 3/4) with 20 splines (1000 rpm)

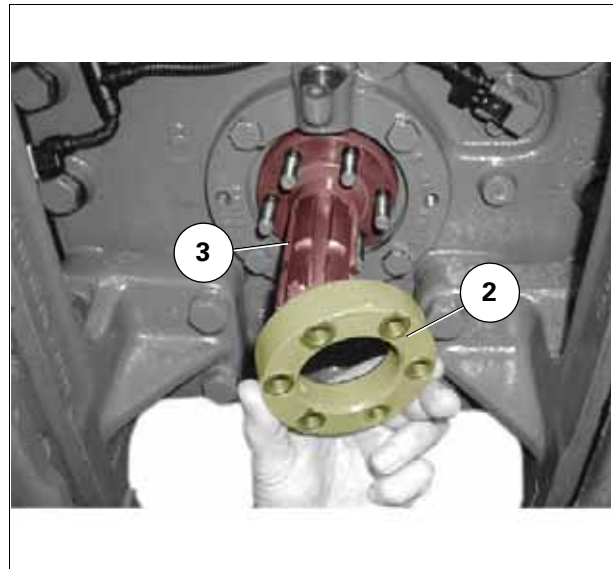
Changing the shaft

IMPORTANT: When changing the spacer (2), the hexagon nuts (1) must be retightened to a torque of 69 Nm (51 lbf ft).

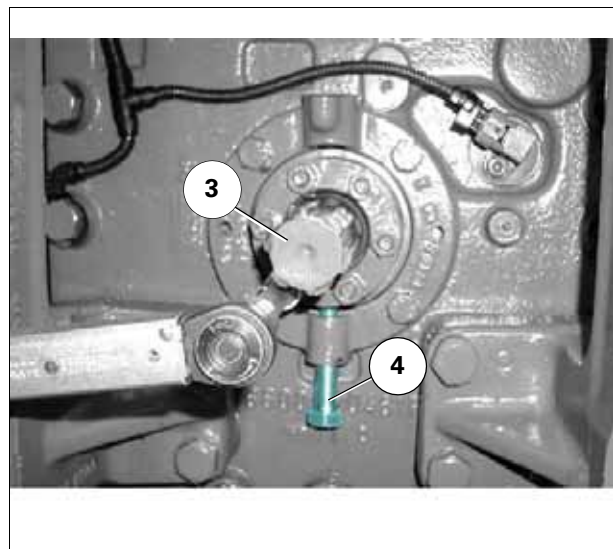
1. Stop the shaft end fitting (3) from rotating using a M16X45 screw (4) fitted in the lower section.
2. Unscrew the nuts (1), remove the spacer (2) and remove the shaft end fitting (3)
3. Fit the new shaft end fitting in place and refit the spacer.
4. Refit the nuts in place.
5. Retighten the nuts to a torque of 69 Nm (51 lbf ft).
6. Remove the screw (4) to allow the shaft to rotate.

3

I004724



I004725



I004726

Fig. 7.

3.13.5 PTO external control

T015798


DANGER:

Keep at a safe distance from the PTO drive shaft when operating the external control.

The PTO external control (1) is located on the left-hand fender.

It is used to engage the PTO, stop rotation and restart the PTO.

- (1) Engaging the power take-off
To engage the PTO, press the switch (1) for a minimum of five seconds (see description of seat)
- (2) Stopping rotation
Pressing the switch (1) temporarily disengages the PTO
The PTO indicator light on the instrument panel comes on.
- (3) Restarting
To re-engage the PTO, press the switch (1) for a minimum of five seconds (restriction on use: (see description of seat).



Fig. 8.

I028386


CAUTION:

To engage the rear PTO from the fenders, you must deactivate the rear PTO brake and engage the parking brake.

3.13.6 Power take-off electronic controls

T001402

NOTE: The PTO electronic controls are designed to protect the tractor and the implement.

- If the main PTO selector switch is in the "engaged" position when starting the engine, the PTO is disengaged and the PTO indicator light on the instrument panel flashes. No error will be transmitted or displayed. To start the PTO, the PTO selector switch must be moved to the OFF position and then to the ON position.
- Protection against engine stalling: If PTO engagement causes the engine speed to drop more than 50% below the initial speed, the transmission control will turn off the PTO solenoid valve and transmit an error message via the CAN bus and cause the PTO indicator light on the instrument panel to flash.

3.13.7 Power take-off protection

T003440

Power take-off cap

When the power take-off is not in use, fit the protective cap [fig. 9](#) to prevent any faults occurring related to the rotation of the power take-off shaft.



Fig. 9.

I047703

Power take-off guard



WARNING:

To avoid risk of injury, always fit the power take-off guard in the correct position. Do not use the power take-off guard as a step.

3.14 Linkage

3.14.1 General

T020594

The tractor is supplied either with drawbars fitted with category 3 or 4 ball joints or with an optional category 3 quick-hitch linkage.

- (1) Lift rod
- (2) Bottom link
- (3) Ball joints
- (4) Rear linkage travel

To increase the height of the linkage, fit the lift rods on the bottom links in position T1
The linkage capacity will therefore be reduced.

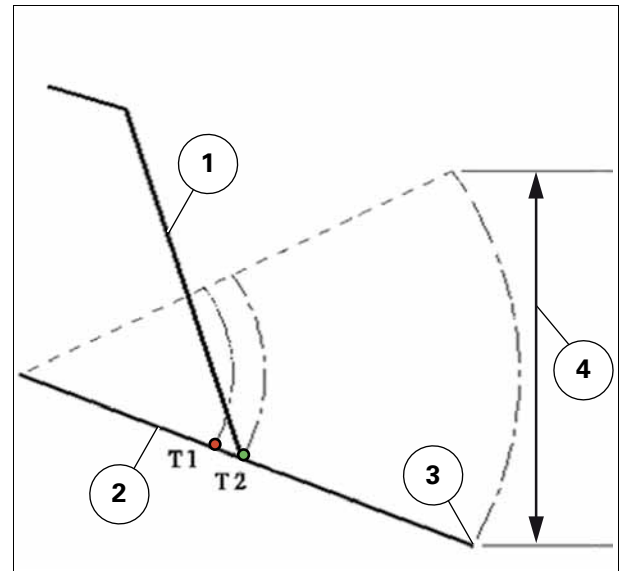


Fig. 1.

I041920

IMPORTANT: To prevent linkage damage when operating trailed attachments, care should be taken when turning to prevent interference between the drawbar and the linkage.

When the external controls are used, ensure you are outside of the area of travel of the three-point linkage.

Models	Rear axle type	Category	Lift rod position	Linkage capacity at the ball joints		Linkage capacity 610 mm from the ball joints	
				Maximum linkage capacity at end of travel	Capacity over the entire length of travel of the linkage	Maximum linkage capacity at end of travel	Capacity over the entire length of travel of the linkage
S274 AVT	HA 260F	Category 3	T2	10100 kg	8500 kg	12000 kg	9800 kg
S294 AVT	HA 260F	Category 3	T2	10100 kg	8500 kg	12000 kg	9800 kg
S324 AVT	HA 260F	Category 3	T2	10100 kg	8500 kg	12000 kg	9800 kg
S354 AVT	HA 260F	Category 3	T2	10100 kg	8500 kg	12000 kg	9800 kg
S374 AVT	HA 260F	Category 3	T2	10100 kg	8500 kg	12000 kg	9800 kg

3.14.2 Rear linkage electronic controls

T022561

- The tractor may be fitted with two linkage systems:
- A rear linkage, which is fully incorporated into the rear axle.
 - A front linkage built into the front of the tractor.

The two linkages are electronically controlled and are equipped with their own hydraulic spool valve.



Fig. 2.

1051209

- (A) (B)
- (C) Console locking and operating failure self-diagnostic indicator light
- (D) Linkage lifting indicator light
- (E) Linkage lowering indicator light
- (F) Potentiometer for manual or automatic adjustment of the lowering speed.
- (G) Maximum linkage height adjustment potentiometer.
- (H) Intermix potentiometer (draft control and position control).
- (I) Active transport control system selection button
- (J) Active transport control system indicator light
- (K) Rear linkage lifting/neutral/lowering switch
- (L) Quick soil engagement switch
- (M) Rear linkage height/depth adjustment thumb wheel

3.14.3 Rear linkage operation

T022532

Lifting/lowering in the cab

- (0): Neutral position
- (1) Lifting position
- (2) Lower position (Autocontrol)

When the tractor engine is started, the rear linkage is locked.

The rear linkage is controlled by the lifting/neutral/lowering switch located on the armrest.

Use of the rear linkage at first start-up requires deactivation of the safety device. This is done by putting the switch in the neutral position (0) and then the lifting position (1) to activate the linkage.



Fig. 3.

I051185

Quick soil engagement

- (A) Normal soil engagement
- (B) Quick soil engagement

This function quickly buries the rear implement in ground.

Press and hold the rear linkage lowering switch to activate quick soil engagement.

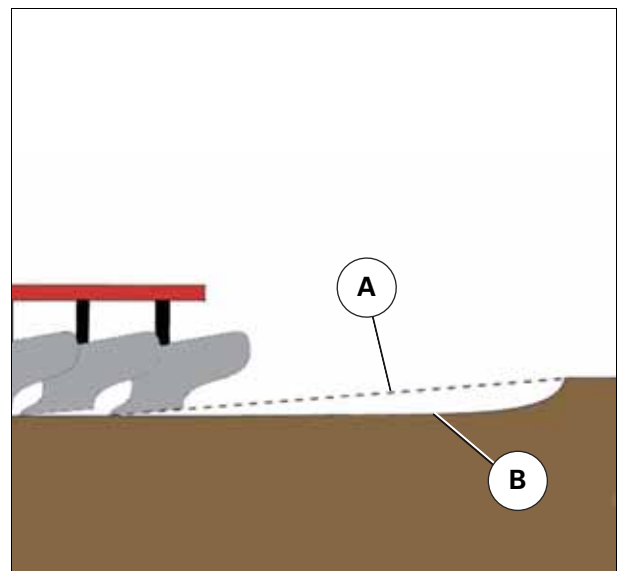


Fig. 4.

I043808

Active suspension

The rear linkage has an active suspension function when the linkage is in the transport position.

To engage this function, simply press the switch (1) located on the right-hand console.

The indicator light (2) indicates the suspension status:

- Indicator light on: suspension activated
- Indicator light off: suspension deactivated



Fig. 5.

I051102

Adjusting the depth

Using the potentiometer (J) located on the right-hand side of the armrest, it is possible to adjust the depth of the rear linkage for particularly accurate work conditions.

Available adjustment range:

- Minimum 0 to maximum 10



Fig. 6.

I051182

Adjusting the upper stop

On the linkage console, the potentiometer (A) is used to adjust the linkage raised position.

It is normally used for mounted implements driven by the PTO where an excessive rear linkage height may damage the implement universal joint.

It can also be used during headlands by avoiding lifting the implement in the maximum position (to save time).

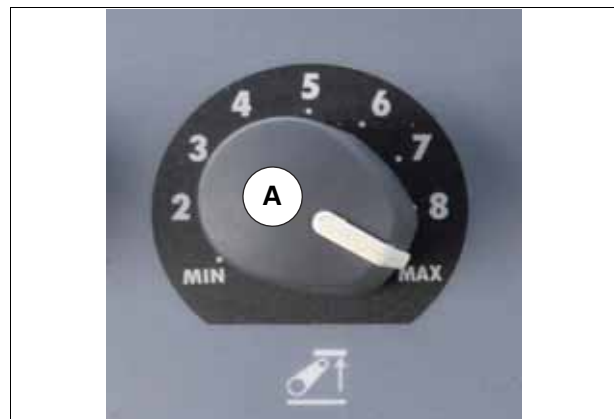


Fig. 7.

I051101

Adjusting the lowering speed

Potentiometer (B) is used to adjust the rear linkage lowering speed.

It is used to select two separate modes:

- Manual mode: Potentiometer travel in (1)
- Automatic mode: Potentiometer travel in (2)

In automatic mode, lowering speed is governed by two parameters: the implement load on the linkage and the tractor forward speed.

It is possible to lock the position of the linkage by placing the potentiometer at the start of its travel, by turning the potentiometer anti-clockwise.

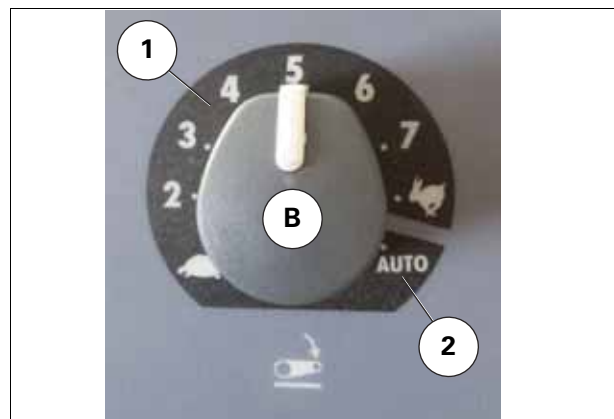


Fig. 8.

I051142

Adjusting the intermix (draft/position control regulation)

On the linkage console, the potentiometer (C) is used to adjust the regulation between the draft control and the linkage position control.

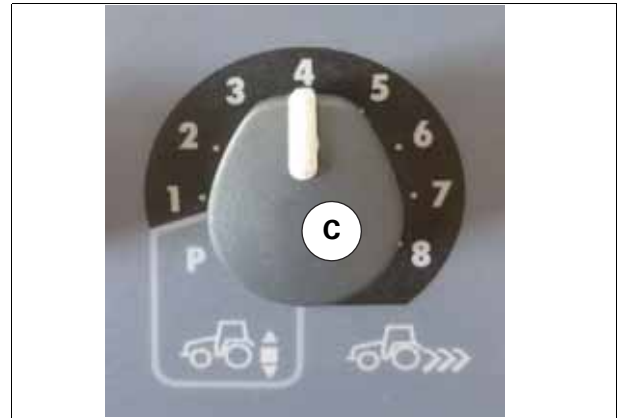


Fig. 9.

I051143

Position control

The potentiometer (C) must be in the minimum position to obtain the position control. When working, the linkage is then held in a fixed position corresponding to the working position set by the potentiometer (J) see ["Adjusting the depth"](#), page 204

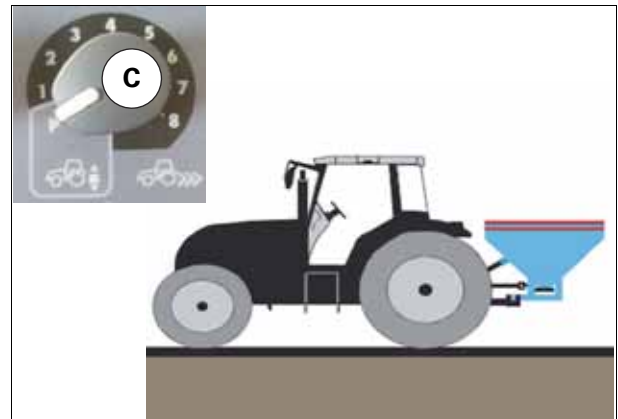


Fig. 10.

I051169

Floating position

Mounted implements fitted with a depth wheel (for example: sowing assembly) may require the use of the floating position to follow the ground profile. The potentiometer (C) must be in the minimum position to obtain the position control. Press the rear linkage lowering control to assume the floating position.

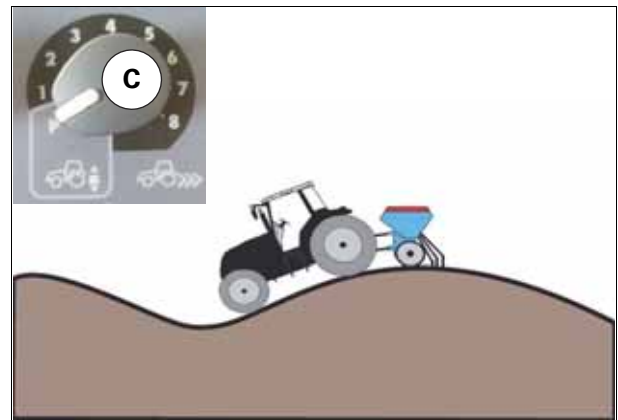


Fig. 11.

I051173

Position for maximum draft control

The potentiometer (C) must be in the maximum position to obtain maximum draft control. In the maximum draft control position, there is more sensitivity when reacting to draft variations.

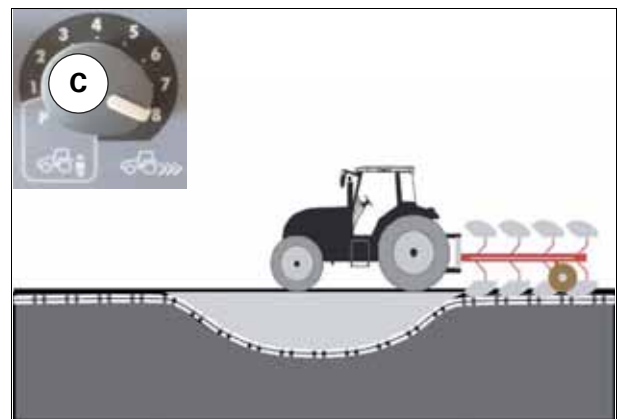


Fig. 12.

I051175

Intermediate position

The potentiometer (C) must be in the middle position to obtain the mixed control. In this position, there is less sensitivity when reacting to draft variations.

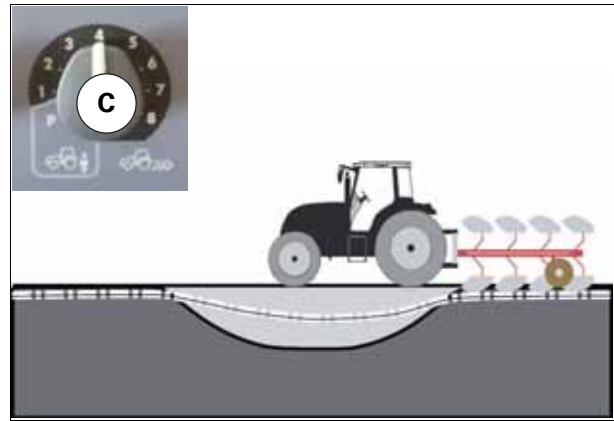


Fig. 13. I051177

Wheel slip control

Significant rear wheel slip is inevitable in order to achieve the best pulling force of the tractor in the field

It becomes a problem if the slip rate exceeds 25-30%.

This slip control function can be accessed from the Setup and Information Screen settings window. It is used to display the current wheel slip and to adjust the maximum permissible wheel slip.

A low setting enables a higher correction rate to maintain traction, which results in a more irregular working depth.

A higher setting reduces corrections, which results in a more regular working depth

The wheel slip control offers the following advantages:

- Saves time and fuel
- Reduces tyre wear
- Causes less damage to the soil

Press the or arrows to choose which function to adjust (the index moves), then press (the function is greyed out when it can be adjusted)

- Press the or arrows to enable/disable the wheel slip control ("ON" on, "OFF" off) and then press to confirm
- Press the or arrows to increase/decrease the maximum permissible slip (from 0% to 60 %) then press to confirm



Fig. 14. I051180

Wheel slip % ((theoretical speed - actual speed)/theoretical speed) x 100%	Consequences for the rear linkage
If wheel slip increases	The rear linkage lifts and reduces the pulling force by decreasing the working depth
If wheel slip decreases	The rear linkage lowers




Hydraulics priority to the rear linkage

This function can be accessed from the Setup and Information Screen settings window.

This screen is used to prioritise the hydraulic flow rate to the rear linkage, it increases or decreases the lifting speed.

The remaining flow displayed is for the hydraulic spool valves (only when the rear linkage is in use).

This function also limits the rear linkage flow rate so as to increase the hydraulic flow rate when the hydraulic motor is in use, for example.

Press the  or  arrows to choose which function to adjust (the index moves), then press  (the function is greyed out when it can be adjusted)




- Press the  or  arrows to increase/decrease the distribution of the hydraulic flow to the rear power lift (0% to 100 %) then press  to confirm



Fig. 15.

I051181

3.14.4 Rear linkage external controls

T001891

The linkage lifting controls (2) and lowering controls (1) located on the rear left-hand and rear right-hand fenders are used to activate the rear linkage.




Fig. 16.

I052171

Initial setting	Actions
Cab controls for the rear linkage are locked	Press the external lowering switch then the lifting switch to activate the rear linkage

The movement of the rear linkage is proportional to the length of time the external switches are held down.

 **WARNING:**
To avoid any risk of crushing between the implement and the tractor tyre, only use the external controls when you are on the outside of the tyres and outside the linkage movement area.

3.14.5 Front linkage

General

The front linkage can carry and/or push an implement.

The design of the front linkage is adapted to the power of the tractor. Do not exceed the capacity for which the linkage was designed.

The capacity of the front linkage is marked in kN on the plate (A) fitted on the top of the linkage casting.

Example: 40 kN = 4000 kg (8818 lb)

S4: Capacity of 5000 kg (11023 lb)

The front linkage should be used exclusively for agricultural purposes, i.e. for hitching mounted and/or pushed agricultural machinery.

IMPORTANT: When using a snow blade or equivalent implements (not fitted with levelling wheels): Fit the blade or implement with a safety device, allowing the part in contact with the ground to overturn and release in the event of an impact. Limit the forward speed to 25 km/h (16 mile/h).



I051531

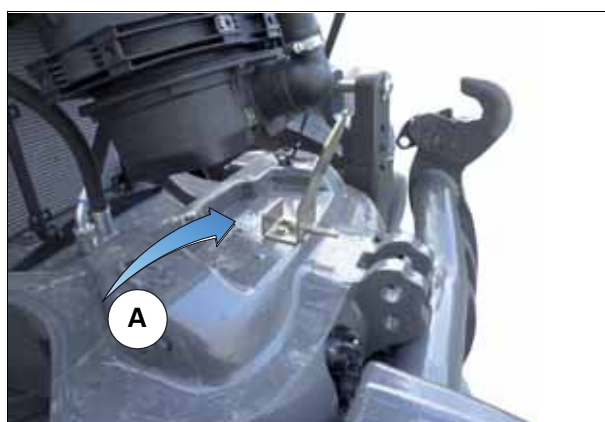


Fig. 17.

I047504

Activation

When the front linkage is used, the auxiliary hydraulics must be activated by pressing the switch (H, indicator light on).



WARNING:

When the front linkage is not in use, it is essential to lock the hydraulic functions to deactivate them by pressing the switch (H). The indicator light goes out.

For driving on roads, raise the tools to the required height and lock the tractor's hydraulic functions.

IMPORTANT: If one of the spool valve controls remains in the locked floating position before the engine is started, the hydraulic valve will not operate until this control is returned to neutral position.



Fig. 18.

I051505

Operation

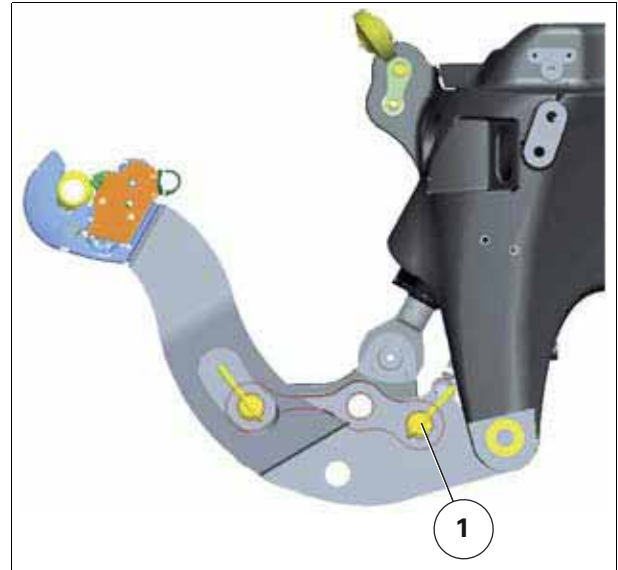
The front linkage arms can be folded into transport position to minimise the space they take up -.

IMPORTANT: The front linkage arms must be free of implements and equipment in order for them to be folded into transport position.

Linkage in transport position

With the front linkage in working position.

1. Raise the linkage to maximum high position using the external controls.
2. Remove the pins/cotter pins from the holes in the arms and spacers (1) on the right- and left-hand side.
3. Using the external controls, raise the linkage to maximum high position once more and fit the pins/cotter pins in the holes (2) of the arms and spacers.



I008736



Fig. 19.

I008737

Linkage in working position

The linkage in transport position.

1. Remove the pins/cotter pins from the holes (2) in the arms and spacers on the right- and left-hand side.
2. Using the external controls, start lowering the linkage.
3. Lock the linkage in the working position by inserting the pins/cotter pins in the holes (1) in the arms and spacers on the right- and left-hand side.

3



1008737

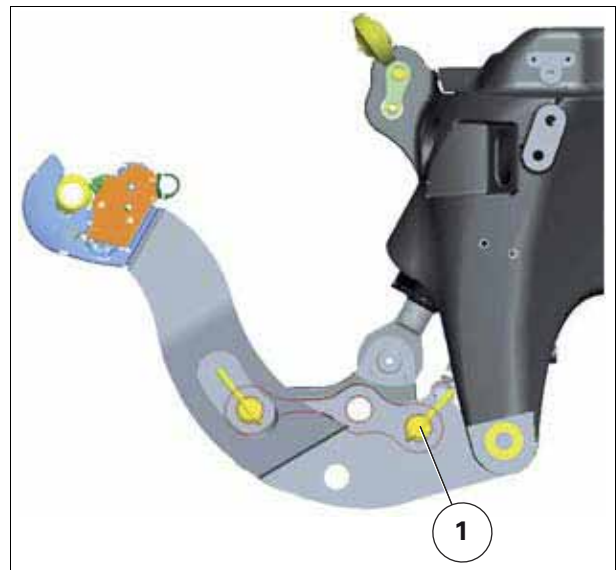


Fig. 20.

1008736

Linkage in single-acting mode or double-acting mode

It is possible to use the front linkage in single-acting mode or double-acting mode.

To use the front linkage in single-acting mode or double-acting mode, press the switch (A) located on the right-hand pillar.

- Red LED lit: linkage in single acting mode.
- Red LED not lit: linkage in double acting mode.

NOTE: The operating condition of the front linkage (single-acting mode or double-acting mode) is stored when the engine is switched off.

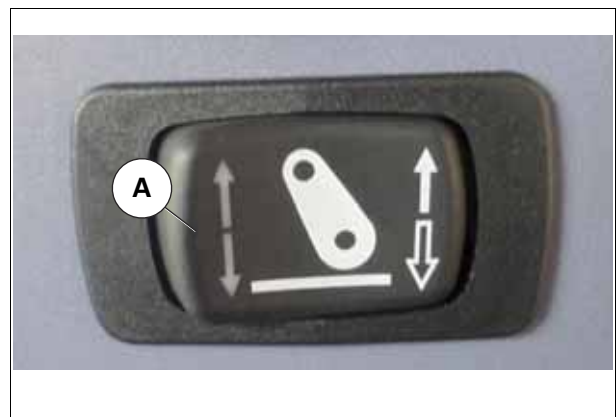


Fig. 21.

1051506

Cab controls

- (A) Lifting
- (B) Lowering
- (C) Floating position

The front linkage is controlled via the joystick (1) located on the armrest.

In order to activate it, the armrest knob (2) must be put in position (3) or (4).

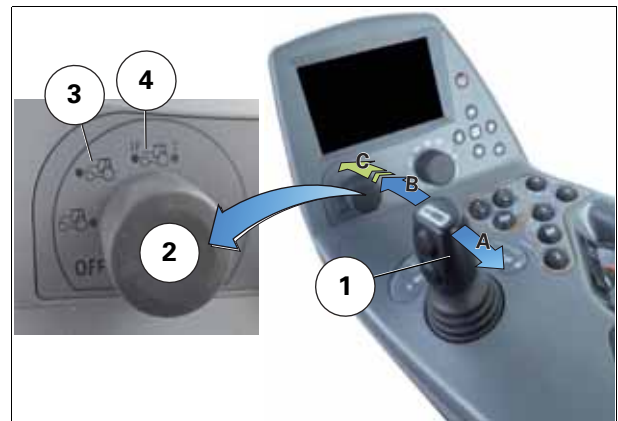


Fig. 22.

1051520

Adjusting the hydraulic flow rates, the activation time function and the floating position

Adjusting the armrest terminal

The front linkage is marked "LF". Press the arrows to choose the function to modify and then press **OK** (the function starts to flash when it can be modified):

- On (A), press the **Up** or **Down** arrow to lock or unlock the front linkage and then press **OK** to validate
- On (B), press the **Up** or **Down** arrow to increase/decrease the activation time of the hydraulic flow rate for the lifting phase (time setting of 0 to 60 seconds or permanent flow rate ∞) and then press **OK** to validate
- On (C), press the **Up** or **Down** arrow to increase/decrease the hydraulic flow rate for the front linkage lifting phase (from 0% to 100%) and then press **OK** to validate
- On (D), press the **Up** or **Down** arrow to increase/decrease the hydraulic flow rate for the front linkage lowering phase (from 0% to 100%) and then press **OK** to validate
- On (E), press the **Up** or **Down** arrow to increase/decrease the activation time of the hydraulic flow rate for the lowering phase (time setting of 0 to 60 seconds or permanent flow rate ∞ or floating position) and then press **OK** to validate

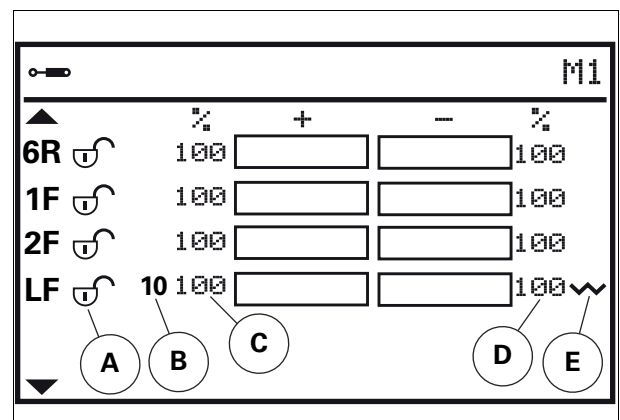


Fig. 23.

1051530

External controls

External controls (3) located on the front linkage allow manoeuvring in order to hitch or unhitch implements



Fig. 24.

I008374

NOTE: They can be unlocked from outside by pressing the lowering control button then the lifting control button.

NOTE: Use of the external controls requires activation of the auxiliary hydraulics using the switch (H, indicator light on) [fig. 18](#).

3.14.6 Top link

T021047

- (1) Link with category 3 hook
- (2) Link with category 4 hook
- (3) Link with category 3 ball joint
- (4) Hydraulic link with category 3 hook

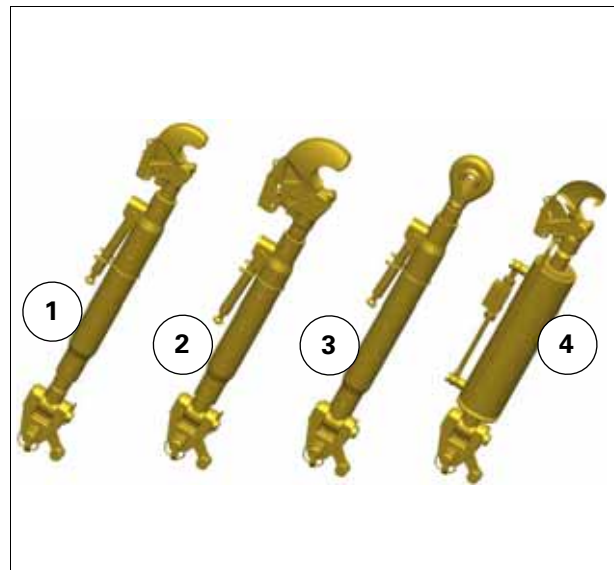


Fig. 25.

I006076

Position of the top link on the rear linkage

There are holes in the rear linkage to fasten the top link.

The position of the top link depends on the use and the implement installed on the rear linkage.

- The top link in the upper hole (A) gives greater lift power and lower lift height; there is wide clearance between the cab and implement.
- The top link in the centre hole (B) gives a better compromise between lift capacity and soil penetration.
Use this position with equipment driven by the rear power take-off or for horizontal operation.
- The top link in the lower hole (C) gives less lift power and greater lift height.
Use this position for better soil penetration (ploughing) or for wide clearance between the soil and implement (transport position).

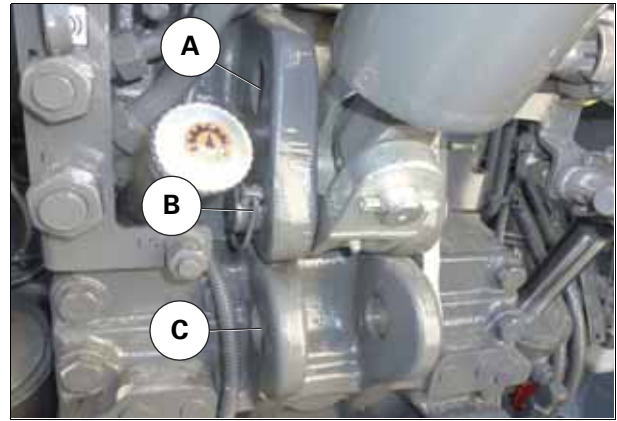


Fig. 26.

I047972

Adjusting the mechanical top link

The mechanical top link is fitted on ball joints. Adjustment must be based on the type of implement hitched to the tractor.

To adjust the length of the top link (1), unfold the anti-rotation safety (2), then use the safety to turn the tube in the corresponding direction to increase or decrease the length.

NOTE: The threading must always be the same length on each side

IMPORTANT: Remove the hitching clevises to prevent contact with the top link.

After making the adjustment, fold down the anti-rotation safety (2) to lock the assembly.

When adjusting the length of the top link (1), do not exceed the extension limit (2) of the threading.

IMPORTANT: Non-compliance with this limit could lead to loss of the implements hitched to the tractor and cause serious accidents.



Fig. 27.

I050159

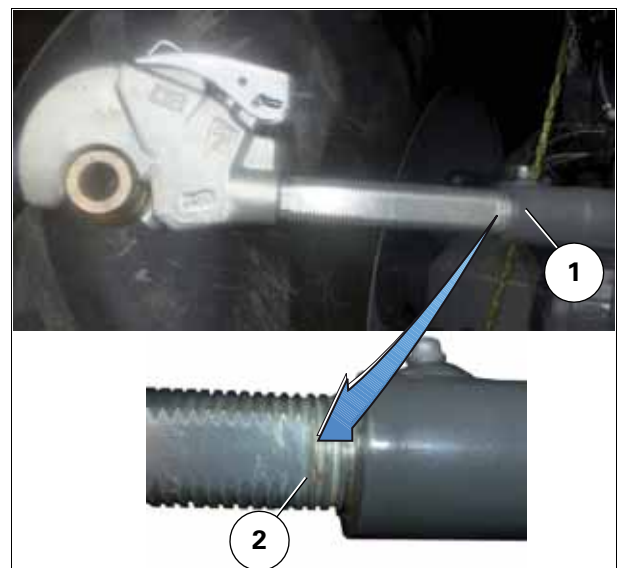


Fig. 28.

I041785

Adjusting the hydraulic top link

The hydraulic top link (optional) simplifies hitching and unhitching and also makes it possible to control the forward/rear tilt of the implement using a hydraulic spool valve control in the cab.

To use the hydraulic top link, connect the two supply hoses (1) to the "+" and "-" couplers of one of the hydraulic spool valves of the tractor.

Operate the hydraulic spool valve control to extend or shorten the travel of the top link.

It is possible to see the adjustment setting of the top link using the sliding scale (2) on the ram.

IMPORTANT: Remove the hitching clevises to prevent contact with the top link.



WARNING:

It is imperative for the auxiliary hydraulics to be locked during transport on the road in order to prevent any unwanted movement of the controls

After using this hydraulic top link and re-fitting it in its original support, it is advisable to disconnect the hoses to avoid damaging the hitching points in the event of incorrect operation of the controls in the cab.

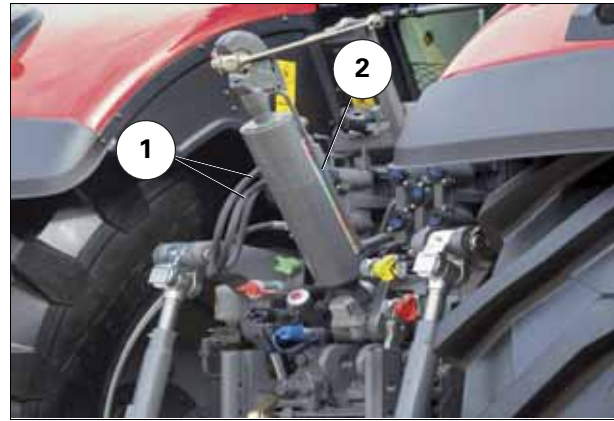


Fig. 29.

1047991

Front top link

When the front top link (1) is not in use, it must be put back in its original position.



WARNING:

Shorten the top link before putting it back in position.

Otherwise, putting the front linkage into maximum position could damage the top link.



Fig. 30.

1050290

3.14.7 Bottom links

T020967

- (5) Links with category 3 hook:
- (6) Links with category 4 hook:
- (7) Link with category 3 ball joint

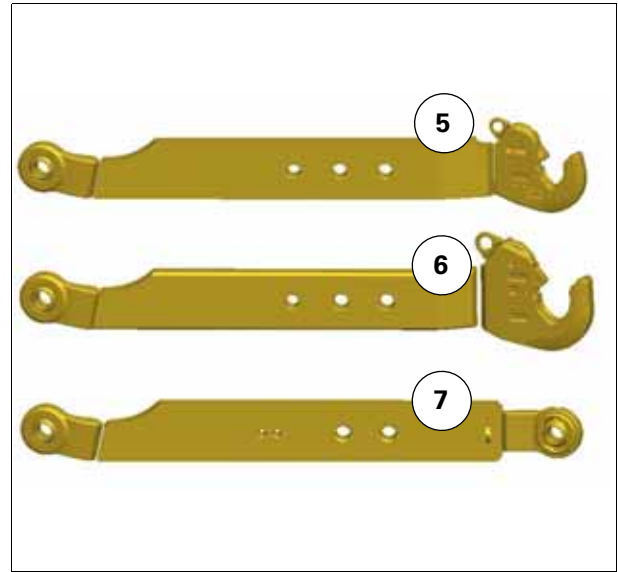


Fig. 31.

I006077

- (2) Link with category 3 ball joint



Fig. 32.

I009488

Link with category 3 hook

The hooks engage automatically in the ball joints which are fitted to the hitch pins.

The normal balls are used for clevis-end hitches.

The balls with guide cones are used for single pin linkages.

The hooks can be unlocked for uncoupling from the cab, using specific cables (supplied as an accessory).

For use under harsh conditions (e.g., forestry work), place a screw (M8 x 55 class 8.8) into the hole (A) for each link with hook, then lock it with a nut (standard flat washer and nylon locknut) to prevent unintentional unlocking.

IMPORTANT: Check the locking of the hooks after hitching an implement

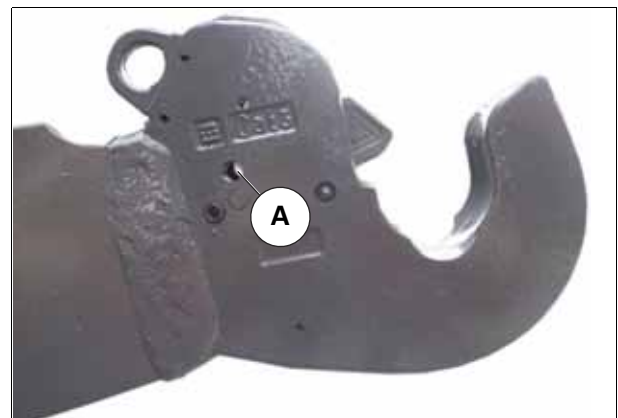


Fig. 33.

I047837

Arm with category 4 hook

The hooks engage automatically in the ball joints which are fitted to the hitch pins.

The normal balls are used for clevis-end hitches.

The balls with guide cones are used for single pin linkages.

The hooks can be unlocked for uncoupling from the cab, using specific cables (supplied as an accessory).

For use under harsh conditions (e.g., forestry work), place a screw (M10 x 70 class 8.8) into the hole (A) for each arm with a hook, then lock it with a nut (standard flat washer and nylon locknut) to prevent unintentional unlocking.

IMPORTANT: Check the locking of the hooks after hitching an implement

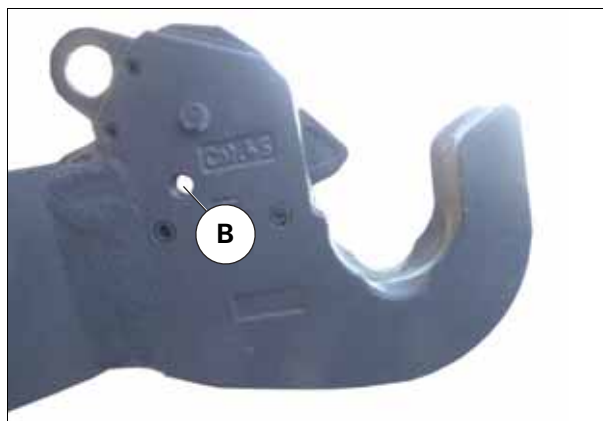


Fig. 34.

1048057

3.14.8 Lift rods

T021001

Adjusting the lift rods



CAUTION:

Before adjusting the lift rods, put the linkage in work position (low position) and activate the parking brake.

Make sure that the equipment is well hitched and that the lift rods are securely attached.

Non-compliance with these instructions can lead to serious accidents.

To adjust the lift rods (B), lift the tensioner (1) using the handles, then turn it in the corresponding direction to increase or decrease the length of the lift rod.

After making the adjustment, allow the tensioner to lower to position (A). Check that the tensioner is all the way down and that it is properly engaged in the locking system to prevent unintentional rotation of the lift rod.

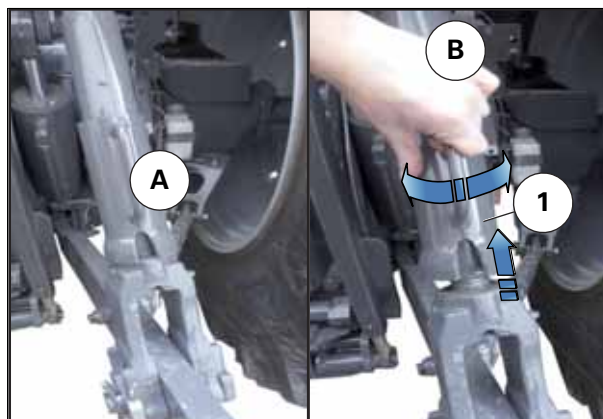


Fig. 35.

1047850

Floating/fixed position of lift rods

The floating position of the lift rods is used with wide implements or those that must be able to move independently.

Floating allows limited movement in the oblong hole.

For a fixed position (A), remove the pin (1) and place the plate in the lower part of the opening in a horizontal position (2). This position stops the vertical movement of the lift rod.

For a floating position (B), remove the pin (1) and put the plate in a vertical position (3) in the oblong hole. This position allows vertical movement of the lift rod.

IMPORTANT: Take care to always refit the pins correctly.

When driving, the lift rods must be in the fixed position to prevent excessive bouncing of the attached rear equipment.

Position of lift rods on the bottom links

The lift rods can be set to different bottom link positions based on use.

Put the lift rods (1) into the hole (2) to achieve the maximum lift capacity; the linkage height is then decreased.

For maximum lift height, put the lift rods (1) into the hole (3) (closest to the tractor); the lift capacity is then decreased.

NOTE: Make sure there is enough clearance between the cab and rear window (in open or closed position) when hitching a mounted or semi-mounted implement to the rear linkage and when there is any change in the position of the lift rods on the bottom links.

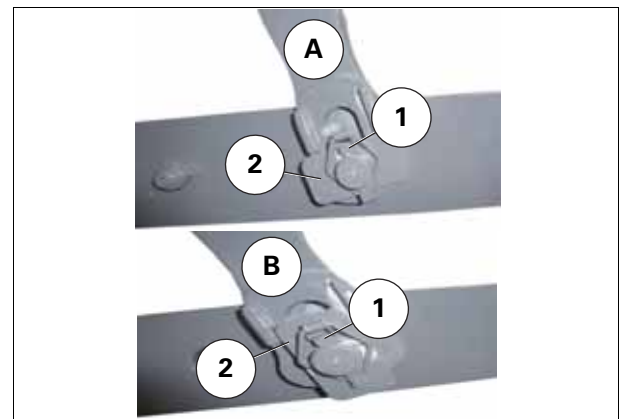


Fig. 36.

I047823

3

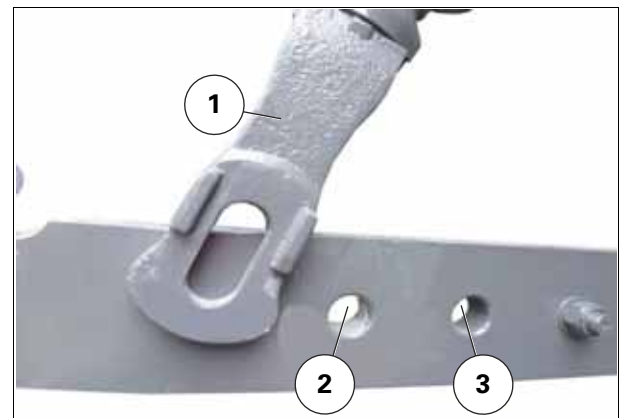


Fig. 37.

I047828

3.14.9 Stabilisers

T021083

Description

Stabilisers are used to restrict the lateral movement of the rear bottom links.

There are three models:

- (1) Automatic stabiliser:
- (2) Stabiliser with manual telescopic adjustment
- (3) Stabiliser with shoes

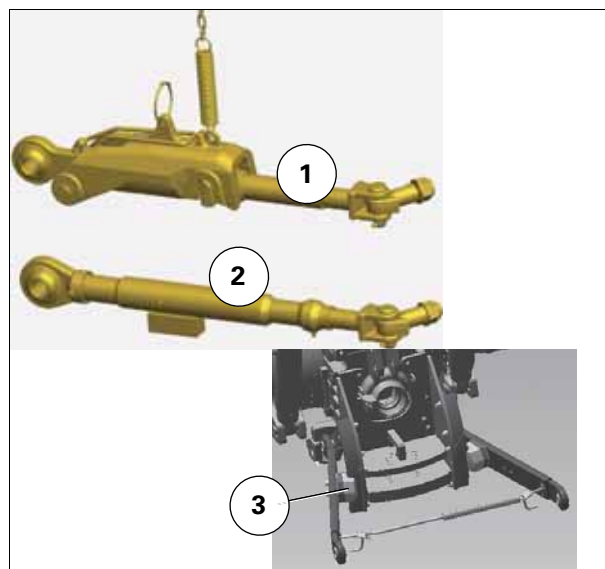


Fig. 38.

1031662

Stabilisers with manual telescopic adjustment



CAUTION:

The rear linkage must be in the work position (low position) in order to adjust the stabilisers. Non-compliance with these instructions can lead to material damage or serious accidents.

Adjusting the stabilisers for transport

1. Unlock the linkage and press the lowering switch for the rear linkage
2. Apply the parking brake
3. Unscrew the tube (1) of the stabiliser in direction (A) to lock and centre the bottom link to prevent lateral movement. Carry out the same operation for the other stabiliser.

NOTE: Check that the two stabilisers have the same length. The rear implement must be centred with respect to the top link.

4. Press the rear linkage lifting switch to assume the transport position.

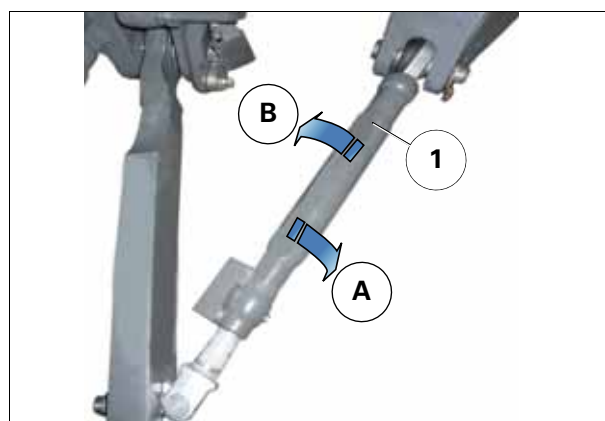


Fig. 39.

1048090

Adjusting the stabilisers for work

5. Unlock the linkage and press the lowering switch for the rear linkage
6. Apply the parking brake
7. For particular conditions of use, such as with a seeder, unscrew the tube (1) of the stabiliser in direction (A) to lock and centre the bottom arm and prevent lateral movement. Carry out the same operation for the other stabiliser.

NOTE: Check that the two stabilisers have the same length. The rear implement must be centred with respect to the top link.

8. For particular conditions of use, such as with a plough, tighten the tube (1) of the stabiliser in direction (B) to unlock the bottom link. Carry out the same operation for the other stabiliser.

NOTE: Make sure the bottom links and stabilisers cannot strike the rear tyres.

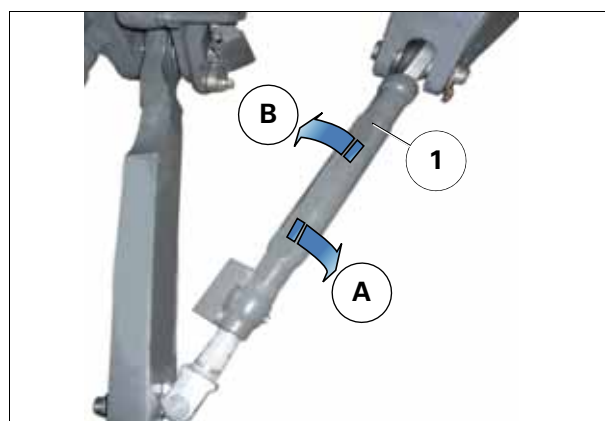


Fig. 40.

1048090

Automatic stabilisers

Position of the stabilisers for transport

When the rear linkage is in the transport (high) position, the clevis lock (1) is lowered onto the threaded section (2) so that the stabilisers (4) cannot move. The chain (3) is then slack when the rear linkage is in the transport (high) position.

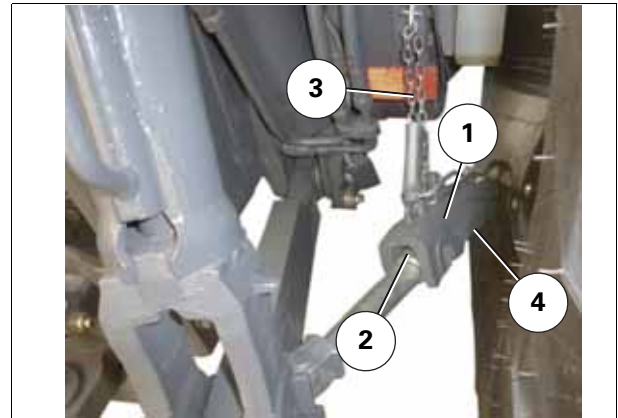


Fig. 41.

1048094

Position of the stabilisers for work

When the rear linkage is in the work (low) position, the clevis lock (1) is raised so that the stabilisers (4) can freely deploy.

It is possible to screw or unscrew the threaded section (2) to increase or decrease the thread length. The chain (3) must be correctly adjusted so that the clevis lock (1) rises when the linkage is in the work (low) position.

IMPORTANT: Make sure the bottom links and stabilisers cannot strike the rear tyres.

NOTE: For particular conditions of use, such as with a seeder, fold the clevis lock (1) onto the threaded section (2) to lock and centre the bottom link and prevent lateral movement.

Check that the two stabilisers have the same length. The rear implement must be centred with respect to the top link.

Adjusting the length of the stabilisers

To adjust the length of the stabiliser, remove the safety ring (1) and raise the locking spring (2) of the clevis.

Next raise the locking clevis (3), then lift the adjustment lever (4); it is then possible to use the lever to turn the threaded section in the corresponding direction to increase or decrease the length.

After making the adjustment, put the adjustment lever (4) back between the tab (initial position), then fold the locking clevis (3) onto the threaded section. It is also necessary to fold down the locking spring (2) and put back the safety ring (1).

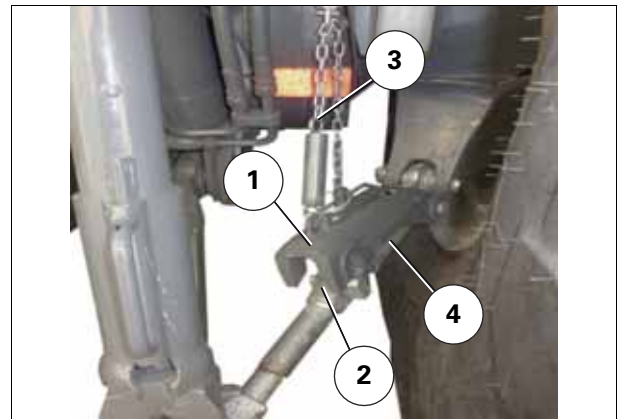


Fig. 42.

1048095

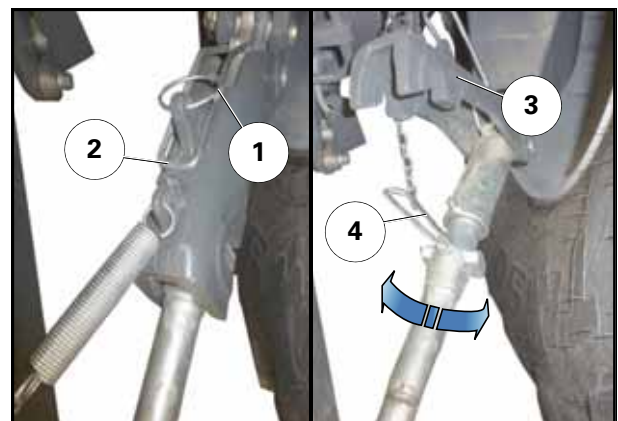


Fig. 43.

1048097

3.14.10 Ball joint support

T017832

Ball joints can be stored in the shaft (1), located near the rear linkage.

NOTE: Remember to put a pin into the shaft to avoid losing the ball joints.

3



Fig. 44.

I047565

3.15 Towing equipment

3.15.1 General

T020985

IMPORTANT: To prevent linkage damage when operating trailed attachments, care should be taken when turning to prevent interference between the drawbar and the linkage.

When the external controls are used, ensure you are outside of the area of travel of the three-point linkage. Comply with the maximum vertical load capacity allowed for the trailer hitch.

Comply with the weight and loads allowed for the vehicle and follow the guidelines given in the highway code.

Follow the instructions provided by the trailer manufacturer.

Only use the correct hitch pin-ring combination.

If there are different values on the identification plate of the trailer coupling and on the trailer hitch, it is the minimum value that must be taken into consideration.

Do not raise the tractor using the front trailer hitch

During coupling and uncoupling, ensure that the trailer is chocked to stop it from rolling.



CAUTION:

We reserve the right to make technical modifications. Details indicated on the identification plate prevail.

Types of linkage authorised (40 km/h)	Trademarks	EC component-type approval mark	Maximum horizontal load	Maximum vertical load	Height of linkage above ground
Swinging drawbar	Rockinger - 899E02	e1 D0386*02	22000 kg	3000 kg	602 mm
Swinging drawbar	Rockinger - 88ZS21	e1 D0387*01	22000 kg	3000 kg	602 mm
Clevis	Sauermann - HS 1400 KUD	e1*2009/144*0170*05	22000 kg	2500 kg	729 mm - 1189 mm
Clevis	Sauermann - HS 1500 KUD	e1*89/173*2006/96*0171*07	22000 kg	2500 kg	729 mm - 1189 mm
Clevis	Scharmüller - 639062	e1*2009/144*0475*00	22000 kg	2000 kg	729 mm - 1189 mm
Swinging drawbar	Rockinger - 801L25	e1*89/173*2006/46*0445*00	22000 kg	3000 kg	1090 mm
Stud	Scharmüller - 961319	e4 D0176*01	22000 kg	3000 kg	1025 mm
Latte	Scharmüller - 960319	e4 D0175*01	22000 kg	3000 kg	1025 mm
Latte	Scharmüller - 960320	e4*2009/144*2009/144*0031*00	22000 kg	3000 kg	1025 mm
Latte	Dromone - HA 260	e1*89/173*2006*26*0398*00	26000 kg	3000 kg	677 mm
Stud	Rockinger - 820L10	e1 D0388	22000 kg	3000 kg	1025 mm
Swinging drawbar	Dromone - 700-02747-00	e1*89/173*2006/96*0392*01	25000 kg	2300 kg	1585 mm
Swinging drawbar	Dromone - AGCO 730 - 00141-01	e1*89/173*2006/96*0392*01	18000 kg	2000 kg	1585 mm

Types of linkage authorised (40 km/h)	Trademarks	EC component-type approval mark	Maximum horizontal load	Maximum vertical load	Height of linkage above ground
Swinging drawbar	Rockinger - 820L10	e1*89/173*200 6/96*0388*00	22000 kg	3000 kg	602 mm
Dromone	Dromone	e1*2009/144*2 013/8*0575*00	22000 kg	3000 kg	677 mm
Swinging drawbar	Dromone	e1*2009/144*2 013/8*0575*00	22000 kg	3000 kg	1403 mm

Types of linkage authorised (50 km/h)	Trademarks	EC component-type approval mark	Maximum horizontal load	Maximum vertical load	Height of linkage above ground
Clevis	AGCO - AT - 911	M9957	22000 kg	4000 kg	729 mm - 1189 mm
Swinging drawbar	Rockinger - 899 E02	M9866*01	21000 kg	3000 kg	628 mm
Swinging drawbar	Rockinger - 88Z S21	M9867*01	22000 kg	3000 kg	628 mm
Clevis	Sauermann - HS 1400 KUD	M4840*10	29000 kg	2500 kg	1025 mm
Clevis	Sauermann - HS 1500 KUD	M4839*13	29000 kg	2500 kg	1025 mm
Clevis	Scharmüller - 639062	M10013	29000 kg	2000 kg	729 mm - 1189 mm
Swinging drawbar	Rockinger - 801L25	M9978	22000 kg	3300 kg	1025 mm
Stud	Rockinger - 820L10	M9868*01	22000 kg	3000 kg	1025 mm
Stud	Scharmüller - 961319	M9871*01	22000 kg	4000 kg	1025 mm
Latte	Scharmüller - 960319	M9870*01	22000 kg	4000 kg	1025 mm
Latte	Scharmüller - 960320	M10006	22000 kg	3000 kg	1025 mm
Dromone	Dromone	M10112	34000 kg	3000 kg	677 mm
Swinging drawbar	Dromone - 730 - 00141 - 01	M9837 ext1	14000 kg	1700 kg	1585 mm
Swinging drawbar	Dromone - 700 - 02747 - 00	M9837 ext1	25000 kg	2300 kg	1585 mm
Latte	Dromone - HA260	M10030	14000 kg	2500 kg	677 mm

3.15.2 Multi-hole drawbar

T001003

This is fitted to the bottom links and is suitable for light loads.

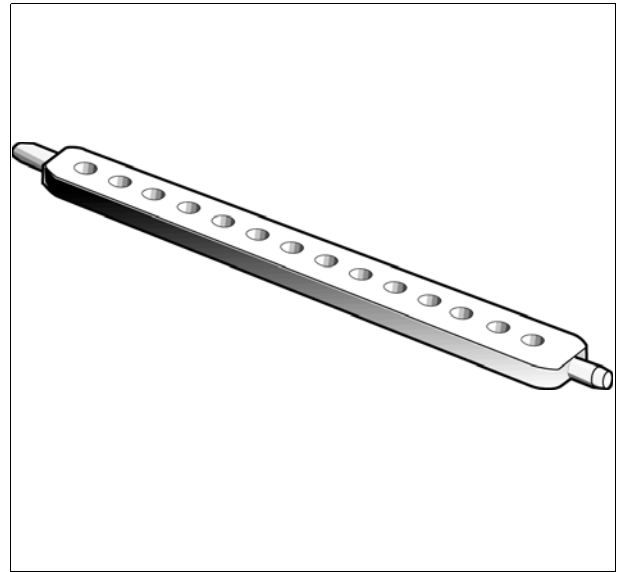


Fig. 1.

I003491

3

3.15.3 Swinging drawbar

T021076

ISO standard

See loads indicated on the hitch plate.

Model available:	Trailed weight:
Category 3 drawbar	22000 kg



Fig. 2.

I048234

Drawbar category 3

3

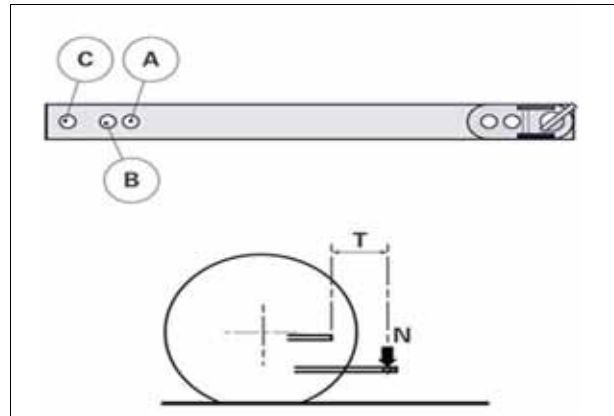


Fig. 3.

1048244

Category 3 (ISO) drawbar	Length T	Position	PTO speed (rpm)	PTO type	Number of splines	Diameter of the PTO (mm)	Vertical static load N (lbf)
Minimum	350 mm	A	540 or 1000	1 or 2	6 or 21	35 mm	3300 kg
Standard	400 mm	B	540 or 1000	1 or 2	6 or 21	35 mm	2200 kg
Maximum	550 mm	C	540 or 1000	1 or 2	6 or 21	35 mm	1600 kg
Ø of pin	30 mm						
Width of drawbar							
Thickness of drawbar							

Fitting the drawbar adjustment

1. Unscrew the 2 screws (1)
2. Extract the pin (2).

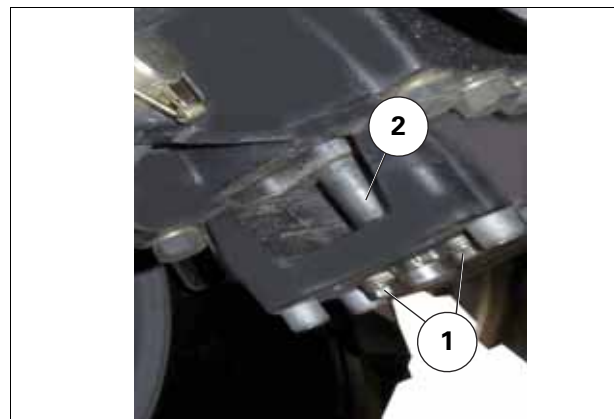


Fig. 4.

1048027

- Insert drawbar adjustment (3) and move it into the desired position.

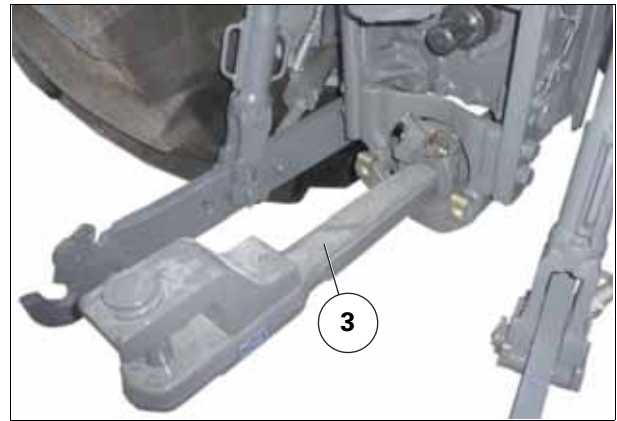


Fig. 5.

I048287

- Check pin (4) and reinsert it into the bore
- Tighten the 2 screws (5) to 60 Nm.
NOTE: Replace the pin and the screws if they are damaged

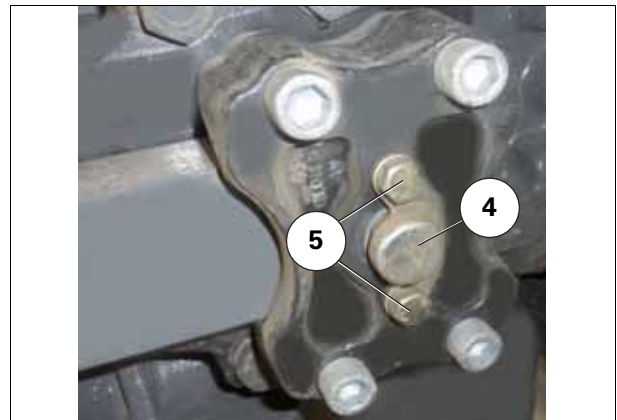


Fig. 6.

I048032

3.15.4 Ball coupling

T021060

Authorised load

It is designed for road towing of trailers that transfer heavy loads to the tractor.
See loads indicated on the hitch plate.



Fig. 7.

I048056

Fitting the K80 ball coupling

1. Remove the drawbar with fixed stud (1).
2. Remove the 2 pins (2) and the pegs on the lower hitch support
3. Remove the hitch support (3).

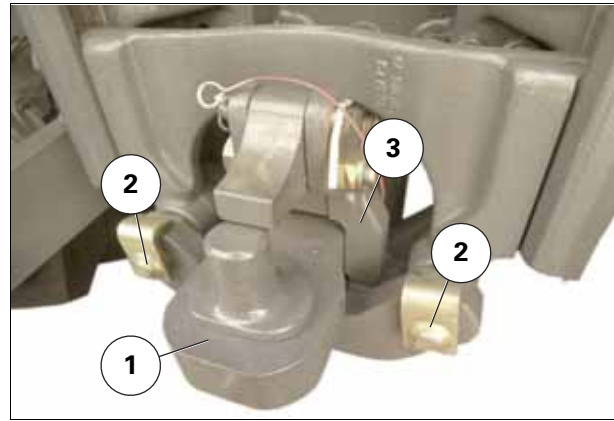


Fig. 8.

I048021

4. Insert the 2 pins (2) and the cotter pins to fit the ball coupling



Fig. 9.

I048041

5. Insert pin (4) and the cotter pin to fit the ball coupling under the tractor

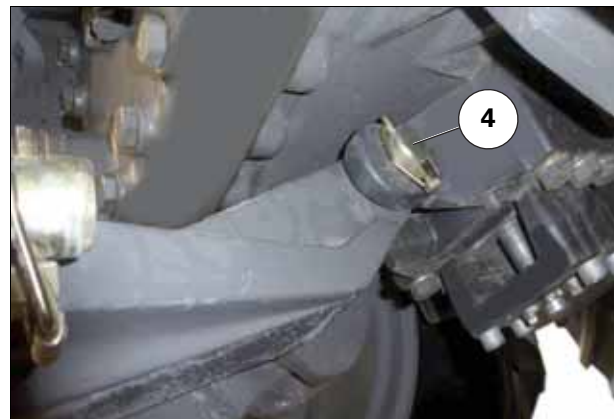


Fig. 10.

I048043

Hitching the trailer

After hitching the trailer, lower locking latch (1) onto the ball.
Insert pin (2) and apply the locking cotter pin



Fig. 11.

I048045

Adjusting the ball coupling

The maximum permitted clearance between the latch and the trailer hitch is between 0,5 mm and 1 mm

It is possible to make adjustments using nut (1).

The wear limit for the ball is 78,5 mm

To minimise wear, lubricate the contact surfaces of the ball coupling regularly.

When the ball coupling is not in use, refit the guard on the ball

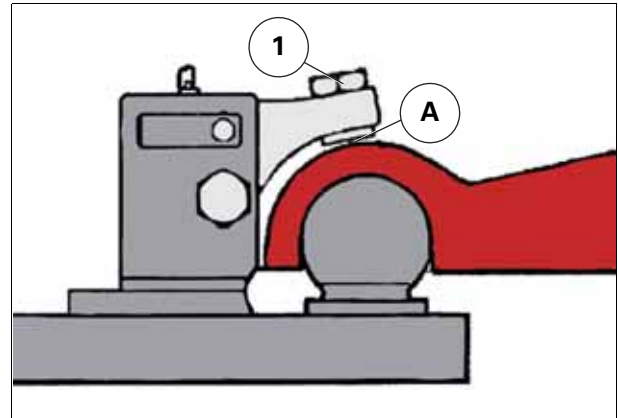


Fig. 12.

I048055

3

3.15.5 Drawbar with stud

T021062

Authorised load

This hitch is suitable for trailers transferring a heavy load to the tractor.

See loads indicated on the hitch plate.

Fitting the drawbar with stud

1. Unscrew the 2 screws (1)
2. Extract the pin (2).

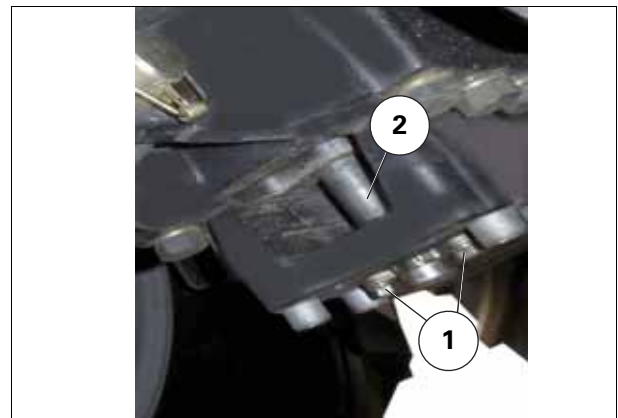


Fig. 13.

I048027

3. Insert drawbar (3).



Fig. 14.

I048029

4. Check pin (4) and reinsert it into the bore
5. Tighten the 2 screws (5) to 60 Nm.
NOTE: Replace the pin and the screws if they are damaged

3

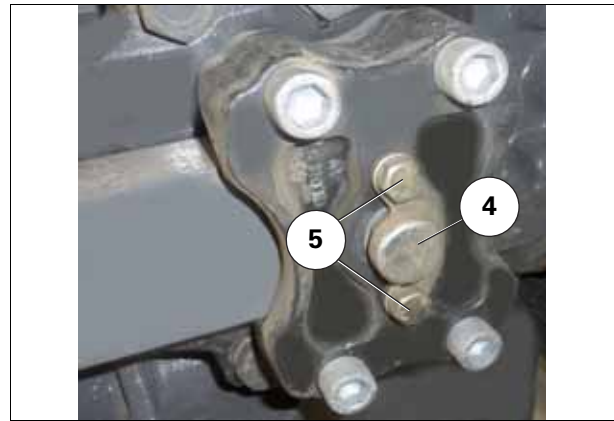


Fig. 15.

I048032

Hitching the trailer

After hitching the trailer, lower locking latch (1) onto the stud.
 Insert pin (2) and apply the locking cotter pin

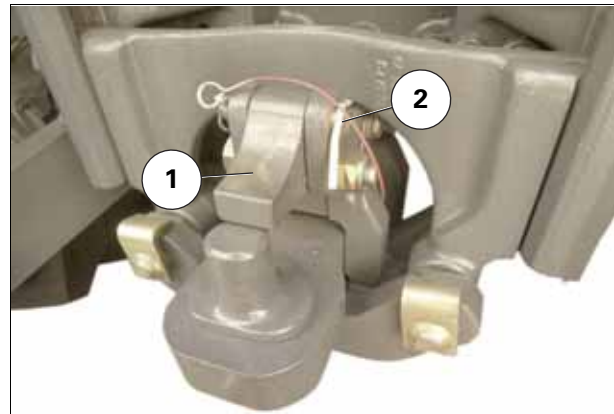


Fig. 16.

I048034

3.15.6 4-wheel trailer clevis hitch

T021056

This clevis is intended to hitch trailers with four wheels, which transfer little or no load onto the hitch.

NOTE: See loads indicated on the clevis hitch.

Manual clevis hitch

The height of the clevis hitch can be adjusted using the sliding frame.

To adjust the towing height, pull the handle (1) upwards to unlock, then pull to the left to slide the clevis up or down.

Press the handle (2) to withdraw the towing pin.

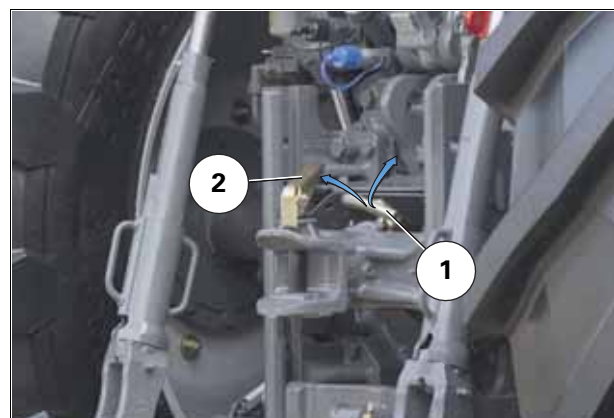


Fig. 17.

I048887

Automatic clevis hitch

The height of the clevis hitch can be adjusted using the sliding frame.

To adjust the towing height, pull the handle (2) upwards to unlock, then pull to the left to slide the clevis up or down.

To hitch a trailer, lift the unlocking lever (1) into a vertical position to refit the pin.

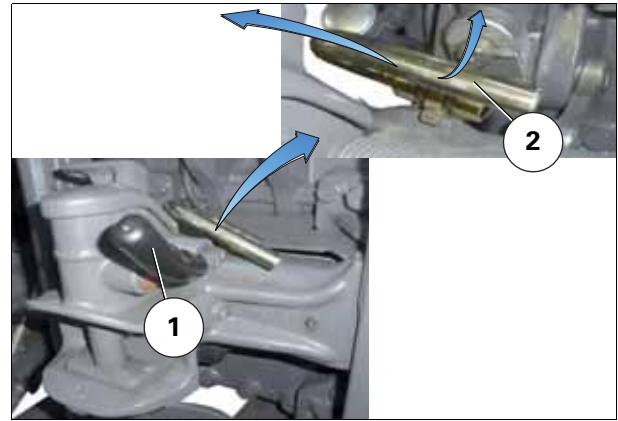


Fig. 18.

I048063

During towing, the pintle eye presses on the component (2) which automatically locks the pin. The unlocking lever (1) will then be in a horizontal position.

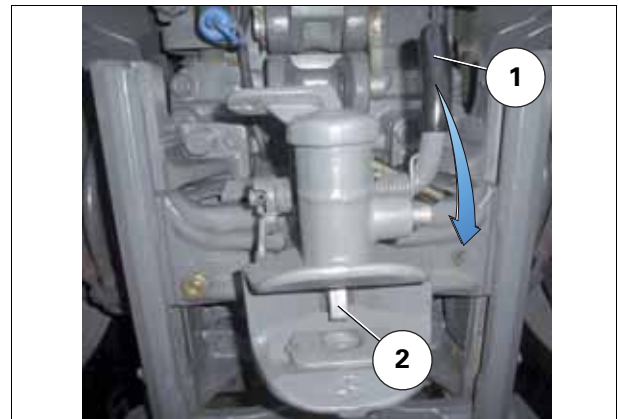


Fig. 19.

I048012

3.15.7 Pick-up hitch

T021000

Authorised load

Designed to tow trailers that transfer heavy loads to the tractor and require frequent hitching and unhitching. See loads indicated on the hitch plate.

Maximum permitted tyre type: 20.8R38



WARNING:

Maximum vertical static load: 3000 kg



WARNING:

Maximum trailed weight: 34000 kg



Fig. 20.

I047961

Lowering the hook

1. Unlock the electronic linkage by pressing on the lifting switch (1) then the lowering switch (2).
2. Raise the hitch to its maximum using the lifting switch (1) to unlock the hook.

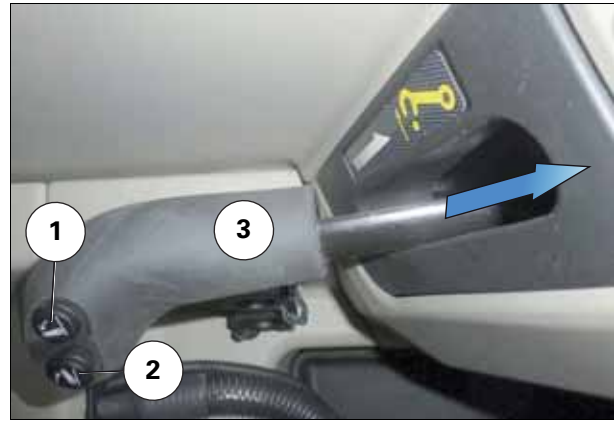


Fig. 21.

I047947

3. Pull the locking lever (3) to release the hook, then press the lowering switch (2) to lower the hook to the ground (A).

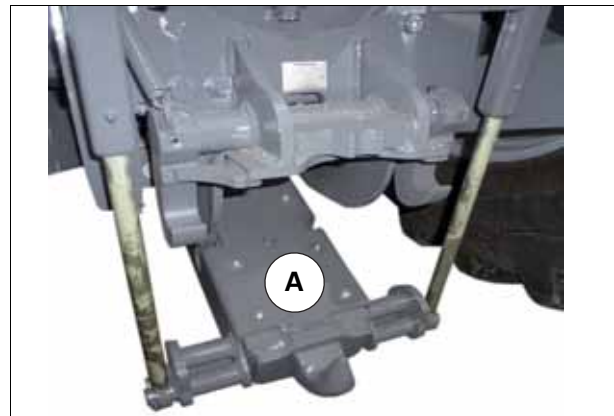
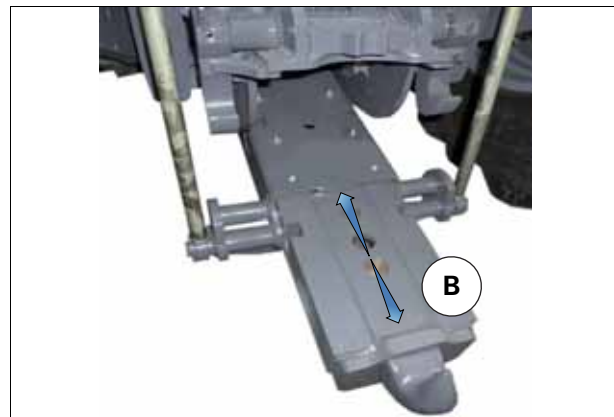


Fig. 22.

I047860

4. To assist trailer hitching, the end of the hook (B) can be moved via a hydraulic ram. Press switch (1) to release the hook or press switch (2) to retract the hook



I047863

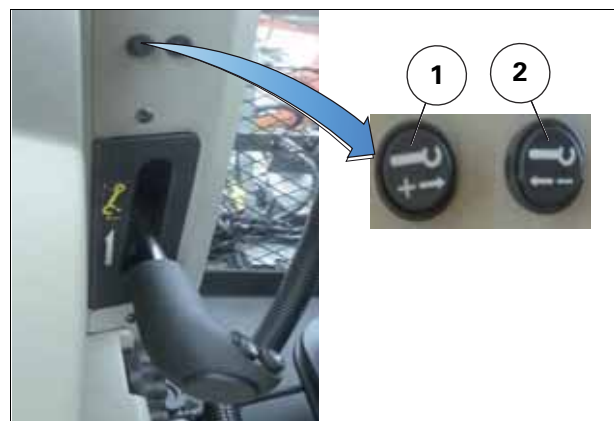


Fig. 23.

I047948

Lifting the hook



CAUTION:

Check that the safety locks are in place after connecting the implement
Move the hook switches in both directions to ensure they are locked.

1. Reverse towards the trailer and align the hook with the trailer drawbar.
2. Press switch (2) to retract the hook ram, keeping the tractor stationary.

NOTE: It is not necessary to engage the parking brake to retract the hook

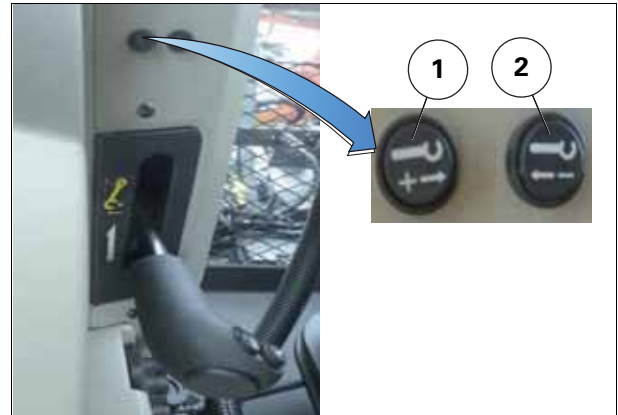


Fig. 24.

I047948

3. Press auto-hitch linkage lifting switch (1) until you hear the safety lock engage.
4. Gently lower the hitch, pressing linkage lowering switch (2) so that the weight of the trailer is supported by the hook.



Fig. 25.

I047947

Fitting the drawbar adjustment

1. Remove the drawbar adjustment from its support at the front of the tractor
2. Lower the hook (see [see "Lowering the hook", page 230](#))



Fig. 26.

I047935

3. Extract pin (2) from the hook
4. Remove hook (3).

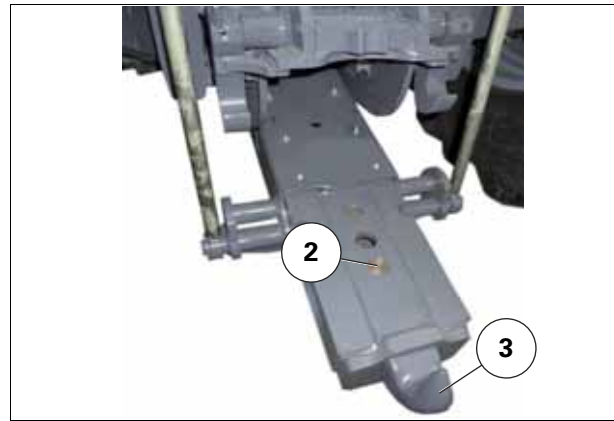
3

Fig. 27.

I047939

5. Insert drawbar adjustment (4)
6. Check the pin and reinsert it into the second bore (5) (the nearest on the tractor) then refit the circlips
7. Refit the hook (see [see "Lifting the hook", page 231](#))

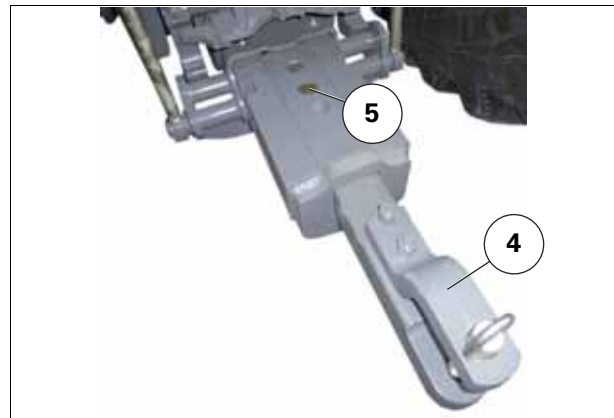


Fig. 28.

I047946

3.16 Auxiliary hydraulics

3.16.1 General

T021188

The S4 are sold with the 205 l/min, 200 bar hydraulic system.

The tractor may be fitted with a maximum of 9 spool valves, each delivering 100 l/min \pm 10 l/min. It may be fitted with up to:

- 6 spool valves at the rear
- 2 spool valves at the front
- 1 spool valve for the front linkage

The hydraulic spool valve controls are grouped together on the armrest.

IMPORTANT: Do not operate the hydraulics unless the oil is warm. If necessary, allow the engine to run for several minutes before use.

In the event of the hydraulics overheating, stop the tractor immediately.

3.16.2 Description of the hydraulic couplers (Load Sensing)

T020780

The tractor is fitted with rear couplers and front couplers.

Description of the rear couplers

Valves

- (1) Spool valve no. 1
- (2) Spool valve no. 2
- (3) Spool valve no. 3
- (4) Spool valve no. 4
- (5) Spool valve no. 5
- (6) Spool valve no. 6

NOTE: Each spool valve controls one pair of couplers

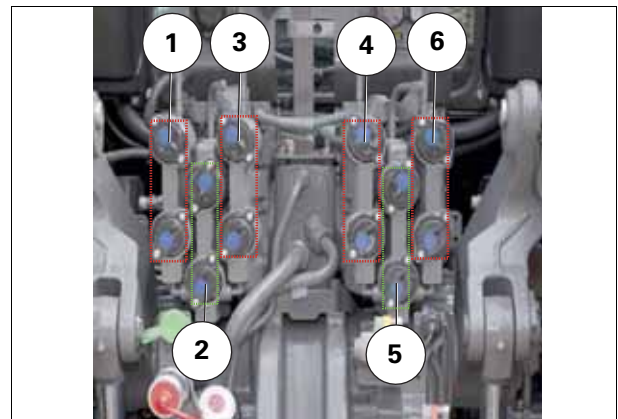


Fig. 1.

I047414

Oil recovery unit

The rear couplers are fitted with an oil recovery unit (1), which are located on the rear right-hand or left-hand trumpet housings.

Drain the recovery unit at regular intervals and under conditions that respect the environment.

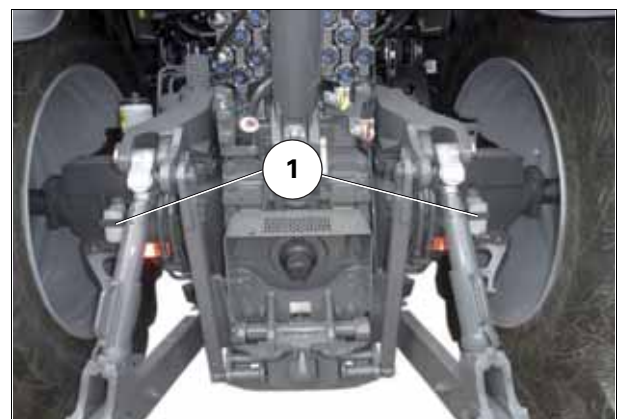


Fig. 2.

I047503

Description of the front couplers

The tractor may be fitted with 2 front spool valves.

NOTE: Each spool valve controls one pair of couplers



Fig. 3.

1047415

Oil recovery unit

The front couplers are fitted with an oil recovery unit (1), which is located behind the tractor front linkage. Drain the recovery unit at regular intervals and under conditions that respect the environment.



Fig. 4.

1051706

Description of the additional hydraulic unions

Tractors are fitted with additional hydraulic unions for connecting accessories hitched to the tractor.

- (1) Direct outlet pressure (P)
- (2) Tank return (T)
- (3) LS line (Load Sensing) (LS)
- (4) Drain (D)

The Load Sensing line allows you to have a load sensor on an external circuit. It is therefore possible to supply this directly via the variable displacement pump without passing through the spool valves.

The Load Sensing line connection (3) means that a potato harvester-loader implement or a self-loading trailer will have a flow rate adapted to demand and that can reach the maximum level supplied by the tractor pump.

NOTE: The drain (4) is connected directly to the auxiliary hydraulic tank.

IMPORTANT: The fluid passing through this union returns directly to the tank and is not filtered. Ensure that there are no impurities in the system.

If the tractor is not equipped with hydraulic couplers, it is possible to connect the hoses directly to the three lines using the hydraulic unions:

- Pressure union (1) M26x1.5
- Tank return union (2) M30x2
- Load Sensing union (3) M18x1.5
- Drain union (4) M22x1.5

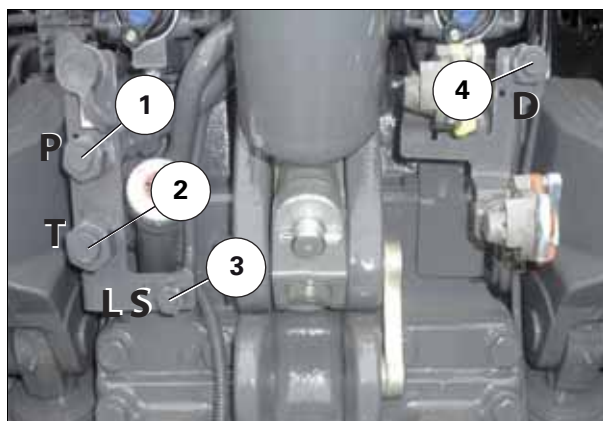


Fig. 5.

1047473

The hydraulic unions (1 to 4) can be fitted with the quick-connect coupler option, which facilitates connection via a hose.

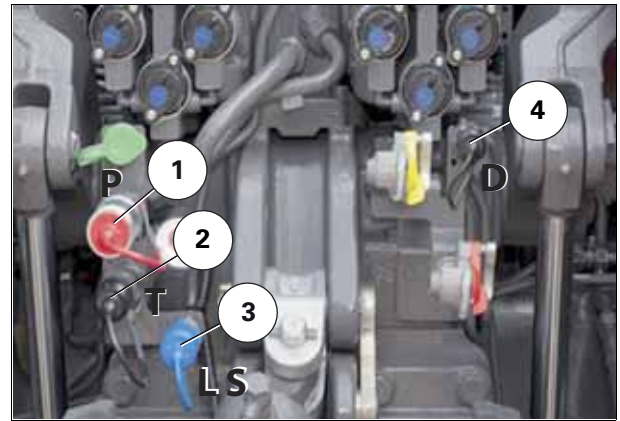


Fig. 6. I047418

Tractors are fitted with additional hydraulic unions for connecting accessories hitched to the front of the tractor.

(2) Tank return (T)

NOTE: The free return (2) is connected directly to the auxiliary hydraulic tank.

IMPORTANT: The oil that passes through this union returns directly to the tank and is not filtered. Ensure that no impurities are drawn into the system.



Fig. 7. I047419

3.16.3 Use of hydraulic couplers on Closed Centre system (Load Sensing)

T020782

These couplers provide a fast and sealed connection of the hoses for the implement being connected.

CAUTION: Before connecting an implement's hydraulic hoses to the tractor, make sure that the implement's hydraulic unions and the tractor's rear couplers are clean. When the rear spool valves are not in use, refit the protectors on the rear spool valves. Once the implement's hydraulic hoses have been disconnected, refit the protectors on the hydraulic unions. The implement's hydraulic unions must be compatible with ISO 7241-1 Standard "A". Also make sure that the oil inside the implement system is not contaminated to ensure that it does not contaminate the tractor's hydraulic functions.

- (A) Setup and Information Screen information screen
- (B) Auxiliary hydraulic tank gauge

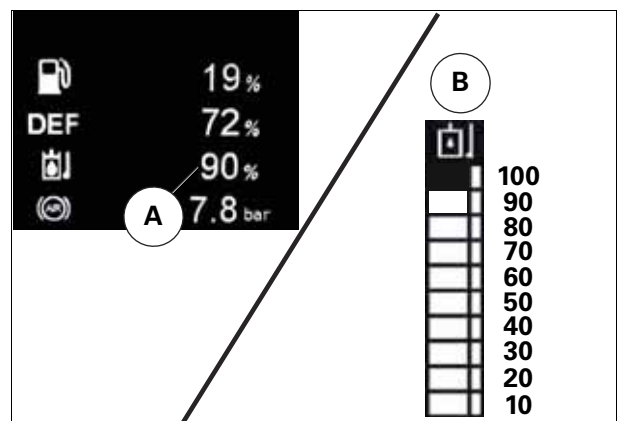


Fig. 8. I051712

If the hydraulic implements are used continuously and take a large quantity of oil out of the drive train (hydraulic motors, large-capacity cylinders), top up to the maximum level on the dipstick (100%).

When the tractor is used on steeply sloping ground, top up to the maximum level on the dipstick (100%).

Using rear hydraulic couplers

A decompression control is fitted to all of the hydraulic spool valves, allowing them to be easily removed from the hoses of the connected couplers. To decompress the couplers, turn lever (1) in the direction shown in the photo.



Fig. 9.

I047422

There are different connecting methods, depending on the implement to be connected to the tractor (see examples below).

Connecting single-acting rams

Connect single-acting ram hose (1) to the upper coupler of the auxiliary hydraulic spool valve. Use the control lever located in the cab to activate the single-acting ram (see Hydraulic control lever).

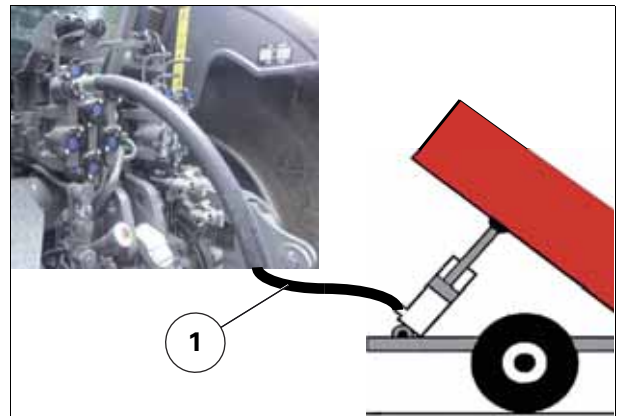


Fig. 10.

I047668

Connecting double-acting rams

Connect double-acting ram supply hose (1) to the upper coupler and connect return hose (2) to the lower coupler of the same spool valve. Use the control lever located in the cab to activate the double-acting ram (see Hydraulic control lever).

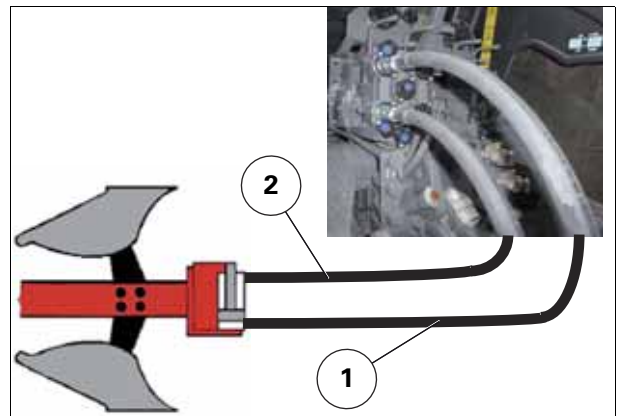


Fig. 11.

I047669

Connecting a uni-directional hydraulic motor

Connect the hydraulic motor supply hose (1) to the lower coupler of the auxiliary hydraulic spool valve and connect the return hose (2) to the upper coupler of the same spool valve.

NOTE: A hydraulic motor can be supplied by two spool valves (combination of the two flows).

For hydraulic motors with little inertia, return hose (2) can be connected to direct return "T" (3).

Put the lever in the ram rod retracted position (see Hydraulic control lever) to supply the hydraulic motor.

Put the lever in the floating position to gradually stop the hydraulic motor and prevent it from getting damaged.

CAUTION:
The hydraulic motor only turns in one direction; do not put the lever in the ram rod extended position as the hydraulic motor may get damaged

NOTE: The hydraulic flow can be adjusted so that the hydraulic system only supplies the quantity of oil required by the hydraulic motor (see Adjusting the flows).

Connecting a bi-directional hydraulic motor with a drain

Connect the hydraulic motor supply hose (1) to the upper coupler of the auxiliary hydraulic spool valve and connect the return hose (2) to the lower coupler of the same spool valve.

The drain (3) must be connected to free return line "D" (without counter-pressure) and must be directly connected to the tank (4).

Use the control lever located in the cab to supply the hydraulic motor (see Hydraulic control lever).

NOTE: A hydraulic motor can be supplied by two spool valves (combination of the two flows).

For hydraulic motors with little inertia or a high flow rate, the return hose (2) can be connected to return "T".

CAUTION:
Do not connect the drain to the return hose as the hydraulic motor can operate in both directions of rotation. There must be no pressure in the drain as it may damage the hydraulic motor.

NOTE: The hydraulic flow can be adjusted so that the hydraulic system only supplies the quantity of oil required by the hydraulic motor (see Adjusting the flows).

Using front hydraulic couplers

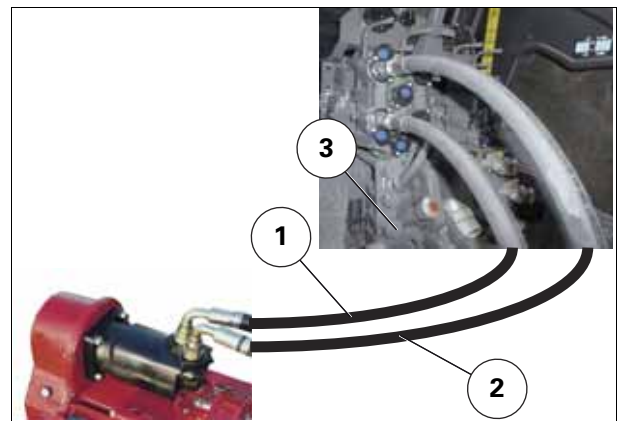


Fig. 12.

1047671

3

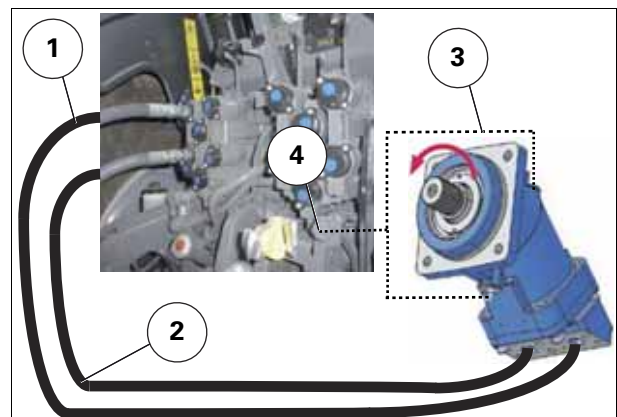


Fig. 13.

1047675

Connecting single-acting rams

Connect single-acting ram hose (1) to the upper coupler of the auxiliary hydraulic spool valve. Use the control lever located in the cab to activate the single-acting ram (see Hydraulic control lever).

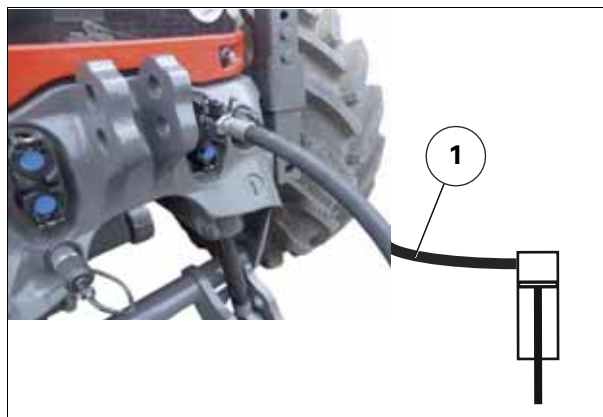


Fig. 14.

I047680

Connecting double-acting rams

Connect double-acting ram supply hose (1) to the upper coupler and connect return hose (2) to the lower coupler.

Use the control lever located in the cab to activate the double-acting ram (see Hydraulic control lever).

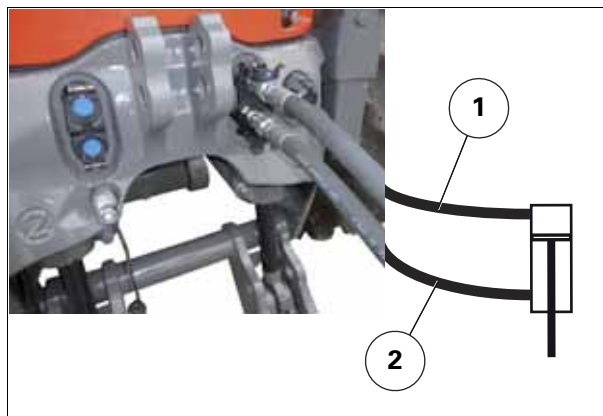


Fig. 15.

I047689

Connecting a uni-directional hydraulic motor

Connect hydraulic motor supply hose (1) to the lower coupler and connect return hose (2) to the upper coupler.

NOTE: A hydraulic motor can be supplied by two spool valves (combination of the two flows).

For hydraulic motors with little inertia or a high flow rate, the return hose (2) can be connected to free return (3).

IMPORTANT: The oil passing through union (3) returns directly to the tank and is not filtered. Ensure that no impurities pollute the system.

Put the lever in the ram rod retracted position (see Hydraulic control lever) to supply the hydraulic motor.

Put the lever in the floating position to gradually stop the hydraulic motor and prevent it from getting damaged.

**CAUTION:**

The hydraulic motor only turns in one direction; do not put the lever in the ram rod extended position as the hydraulic motor may get damaged

NOTE: The hydraulic flow can be adjusted so that the hydraulic system only supplies the quantity of oil required by the hydraulic motor (see Adjusting the flows).

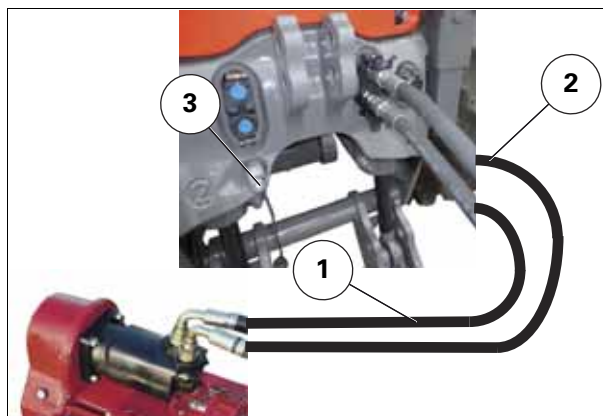


Fig. 16.

I047693

Connecting a bi-directional hydraulic motor with a drain

Connect the hydraulic motor supply hose (1) to the upper coupler of the auxiliary hydraulic spool valve and connect the return hose (2) to the lower coupler of the same spool valve.

The drain (3) must be connected to the free return line (without counter-pressure) and must be directly connected to the tank (4).

Use the control lever located in the cab to supply the hydraulic motor (see Hydraulic control lever).

NOTE: A hydraulic motor can be supplied by two spool valves (combination of the two flows).

For hydraulic motors with little inertia or a high flow rate, the return hose (2) can be connected to free return (4).

IMPORTANT: The oil passing through union (4) returns directly to the tank and is not filtered. Ensure that no impurities pollute the system.



CAUTION:

Do not connect the drain to the return hose as the hydraulic motor can operate in both directions of rotation.

There must be no pressure in the drain as it may damage the hydraulic motor.

NOTE: The hydraulic flow can be adjusted so that the hydraulic system only supplies the quantity of oil required by the hydraulic motor (see Adjusting the flows).

Using additional hydraulic unions

Rear hydraulic unions

- (1) Direct outlet pressure (P)
- (2) Tank direct return (T)
- (3) Connection to the Load Sensing (LS) load signal
- (4) Valve and flow rate control valve
- (5) Drain

The pressure (1) from the hydraulic pump supplies the hydraulic motor. Fit a valve (4) to control the hydraulic motor and a flow regulator (4) to adjust the hydraulic demand.

The oil is returned directly from the hydraulic motor to the tank (2)

The drain (5) must be connected to a free return line (without counter-pressure) and must be directly connected to the tank.

The Load Sensing line (3) allows you to have a load sensor.

IMPORTANT: Any oil that passes through the union (5) returns directly to the tank and is not filtered. Ensure that no impurities pollute the system.

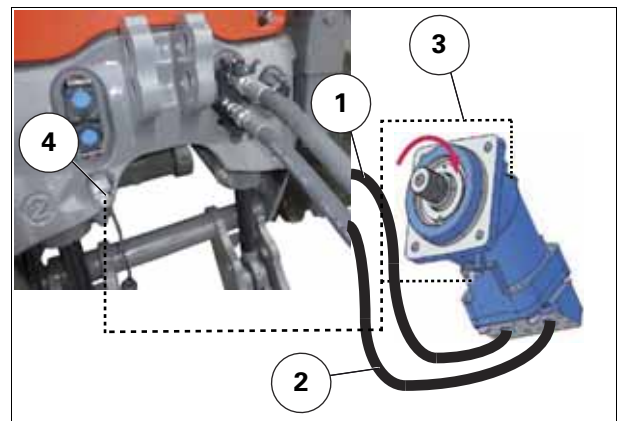


Fig. 17.

1047697

3

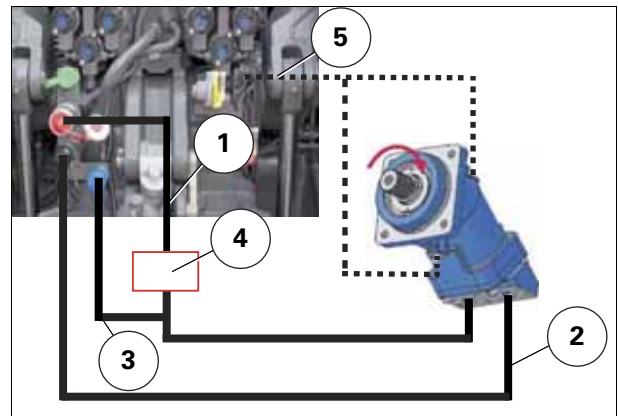


Fig. 18.

1047424

3.16.4 Auxiliary hydraulics locking/unlocking

The auxiliary hydraulic controls can be locked or unlocked using the switch (H) on the armrest terminal. An LED on the locking/unlocking switch displays the operating status of the controls.

LED status

- On: Hydraulic functions unlocked (valves activated)
- Off: Hydraulic functions locked (valves deactivated)



WARNING:

When the hydraulic functions are not in use, they must be locked by pressing the switch. The indicator light goes out.

For driving on roads, raise the implements to the required height and lock the tractor's hydraulic functions by pressing the switch. The indicator light goes out.

IMPORTANT: If, before the engine is started, one of the spool valve controls remains in the locked floating position, the hydraulic valve will not operate until this control is returned to the neutral position.

Auxiliary hydraulics control safety function

This function prevents any involuntary movement of the tools connected to the hydraulic system from a selected speed onwards.

The speed can be set between 5 km/h and 55 km/h. The default setting is 20 km/h.

Press the arrows to select the function to modify:

- Press the or arrow to increase/decrease the maximum forward speed (A)



CAUTION:

Adjust the speed limit to the lowest possible setting while still enabling you to carry out your work. An upper speed limit allows the user to limit the effect of this safety device.

After driving for 1 km above the selected speed limit, the hydraulic joystick is disabled.

The symbol flashes for 30 seconds before the hydraulic system controls are disabled. If the hydraulic system controls are disabled, the symbol remains displayed on the screen.

If the joystick is disabled using the function, you can reactivate the joystick using the function selector.



Fig. 19.

1051505

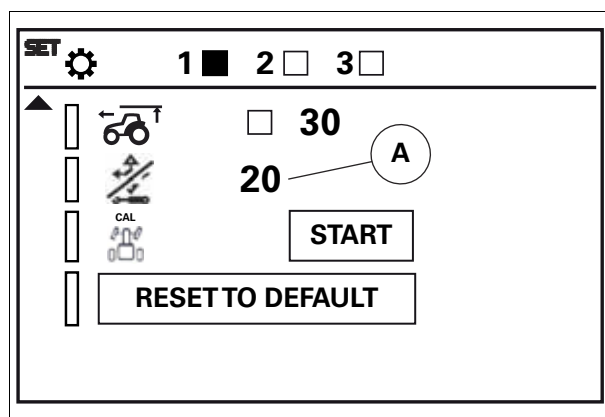


Fig. 20.

1051604

3.16.5 Description and use of the cab controls

T022634

Description

Hydraulic functions controlled by a joystick and FingerTIP controls on the armrest.

- (A) Spool valves 1 and 2 at the rear or at the front, or front linkage
- (B) FingerTIP no. 3: Spool valve 3 at the rear of the tractor
- (C) FingerTIP no. 4: Spool valve 4 at the rear of the tractor
- (D) FingerTIP no. 5: Spool valve 5 at the rear of the tractor
- (E) FingerTIP no. 6: Spool valve 6 at the rear of the tractor
- (F) Auxiliary hydraulics locking/unlocking switch
- (G) Rear or front spool valve or front linkage selection potentiometer for allocation of joystick
- (H) Factory settings/memorised settings selection potentiometer (M1/M2/M3)
- (I) Third hydraulic function switch
- (J) Fourth hydraulic function switch

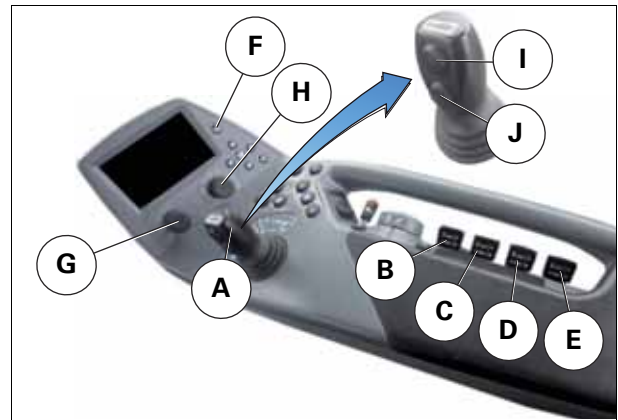


Fig. 21.

I051541

Using the joystick

Depending on the configuration of the tractor, the joystick controls rear hydraulic spool valves 1 and 2 or front hydraulic spool valves 1 and 2.

Locking the joystick

Turn the potentiometer (1) to position (2), the LED symbol must be illuminated. The joystick cannot be used; it is locked.



Fig. 22.

I052078

Use of rear spool valves 1 and 2

- (A) Cylinder rod extension
- (B) Cylinder rod retraction
- (C) Ram floating position

NOTE: To move the joystick to floating position, it must be activated in the hydraulic settings screen on the terminal.

If the tractor is equipped with a front-end loader, this must be detached to make it possible to use the front spool valves

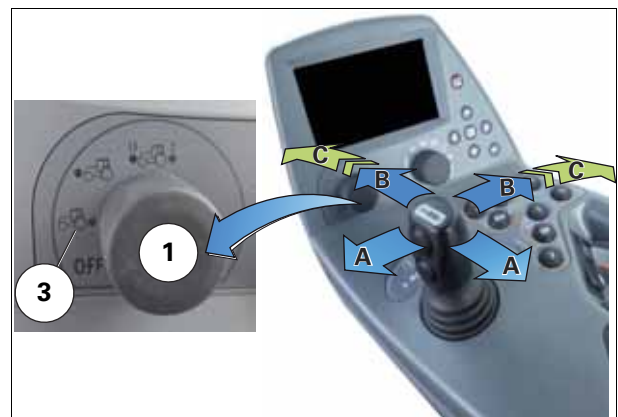


Fig. 23.

I051569

Turn the potentiometer (1) to position (2), the LED symbol must be illuminated.

Using the joystick in the vertical position controls the 1st spool valve.

Using the joystick in the horizontal position controls the 2nd spool valve.

Using front spool valves 1 and 2

- (A) Cylinder rod extension
- (B) Cylinder rod retraction
- (C) Ram floating position

NOTE: To move the joystick to floating position, it must be activated in the hydraulic settings screen on the terminal.

If the tractor is equipped with a front-end loader, this must be detached to make it possible to use the front spool valves

Turn the potentiometer (1) to position (4), the LED symbol must be illuminated.

Using the joystick in the vertical position while pressing the switch (I) controls the 1st front spool valve.

Using the joystick in the horizontal position controls the 2nd front spool valve.

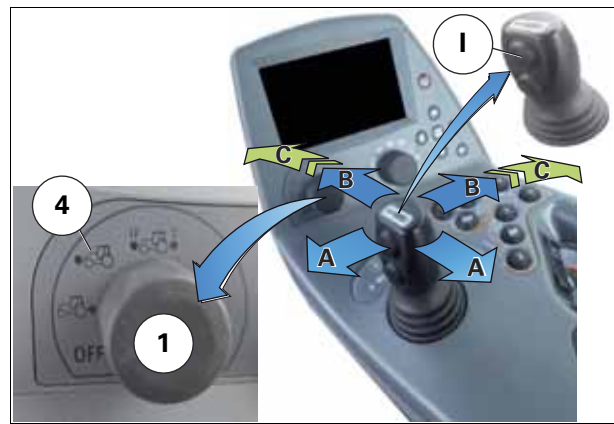


Fig. 24.

1051652

Using the 1st front spool valve and the 2nd rear spool valve

- (A) Cylinder rod extension
- (B) Cylinder rod retraction
- (C) Ram floating position

NOTE: To move the joystick to floating position, it must be activated in the hydraulic settings screen on the terminal.

If the tractor is equipped with a front-end loader, this must be detached to make it possible to use the front spool valves

Turn the potentiometer (1) to position (5), the LED symbol must be illuminated.

Using the joystick in the vertical position while pressing the switch (I) controls the 1st front spool valve.

Using the joystick in the horizontal position controls the 2nd rear spool valve.

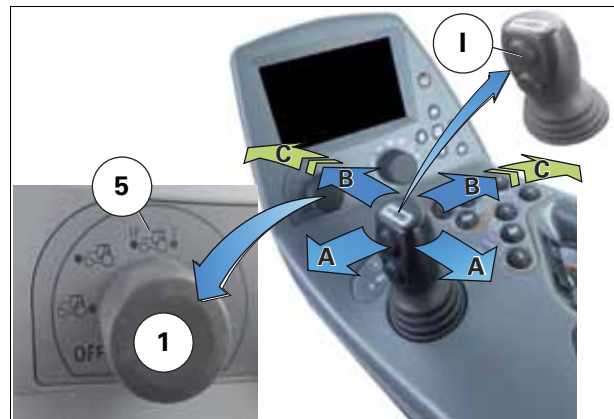


Fig. 25.

1051660

Personalised configuration:

It is also possible to control the external hydraulic valves on the tractor using the two switches (I) and (J) located on the joystick.

If you wish to use this function, please contact your dealer.



Fig. 26.

1051661

Using the FingerTIP controls

FingerTIP controls nos. 3, 4, 5 and 6 only control the rear spool valves.

- (A) Cylinder rod extension
- (B) Cylinder rod retraction
- (C) Ram floating position

NOTE: To move FingerTIP to floating position, it must be activated in the hydraulic settings screen on the terminal.

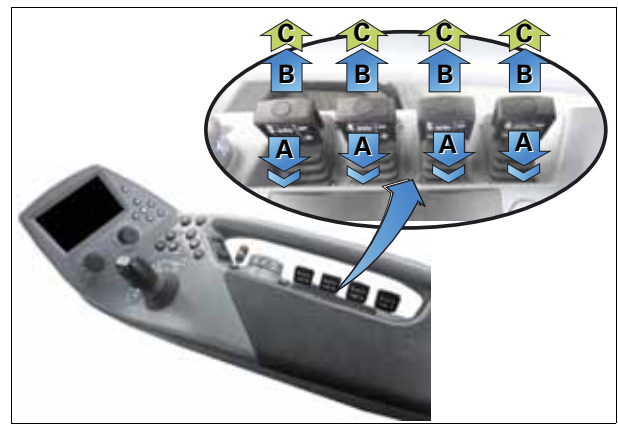


Fig. 27.

1051663

Using the spool valve activation time function (kickout)

- (A) Cylinder rod extension
- (B) Cylinder rod retraction
- (C) Enabling the activation time function in cylinder rod retracted position or floating position
- (D) Enabling the activation time function in cylinder rod extended position

After you have enabled the spool valve activation time function (I), operate the hydraulic control in a maximum position (cylinder rod extended or retracted).

- If the tractor is fitted with a joystick (1), the control must be operated in a maximum position (cylinder rod extended (A) or retracted (B)) to activate the spool valve activation time function (kickout)
- If the tractor is fitted with FingerTIP controls (2), the control must be operated beyond the stop (cylinder rod extended (D) or retracted (C)) to activate the spool valve activation time function (kickout)

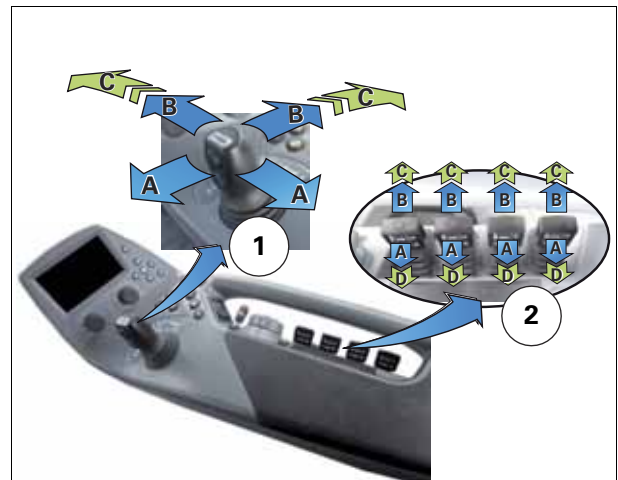


Fig. 28.

1051662

IMPORTANT: If the spool valve control is in floating position or neutral, the activation time function (kickout) is disabled

3.16.6 Description and use of the external controls

T021050

- (1) Ram rod extension switch
" + " coupler on spool valve
- (2) Ram rod retraction switch
" - " coupler on spool valve

By default, the external hydraulic controls operate spool valve no. 6 or the last spool valve.

Before it is possible to use the external controls, unlock the hydraulics.

- Either by pressing the cab control.
- Or by pressing the ram extension external control switch (1) then the ram retraction switch (2).



Fig. 29.

1051664

The spool valve control is active when the button is pressed.

Using the external controls locks the spool valve controls in the cab.

The external controls are inactive as soon as the forward speed exceeds 2 km/h. They are reactivated as soon as the speed drops below 2 km/h.

3.16.7 Setting flow rates and time delay

T022649

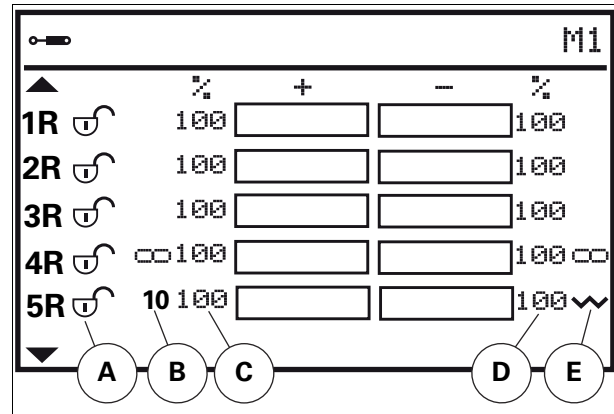
Adjusting the hydraulic flow rates, the activation time function and the floating position

This menu allows you to choose the spool valve to change (rear spool valves 1R to 6R (depending on options), front spool valves 1F and 2F (depending on options) and front linkage spool valve LF)

Press the arrows to choose the function to modify and then press **OK** (the function starts to flash when it can be modified):

- On (A), press the **⬆** or **⬇** arrow to lock or unlock the front linkage and then press **OK** to validate
- On (B), press the **⬆** or **⬇** arrow to increase/decrease the activation time of the hydraulic flow rate for the cylinder rod extension phase (time setting of 0 to 60 seconds or permanent flow rate **∞**) and then press **OK** to validate
- On (C), press the **⬆** or **⬇** arrow to increase/decrease the hydraulic flow rate for the cylinder rod extension phase (from 0% to 100%) and then press **OK** to validate
- On (D), press the **⬆** or **⬇** arrow to increase/decrease the hydraulic flow rate for the cylinder rod retraction phase (from 0% to 100%) and then press **OK** to validate
- On (E), press the **⬆** or **⬇** arrow to increase/decrease the activation time of the hydraulic flow rate for the cylinder rod retraction phase (time setting of 0 to 60 seconds or permanent flow rate **∞**) or activate/deactivate the floating position and then press **OK** to validate

NOTE: It is not possible to adjust the activation time of the front spool valves 1F and 2F, only the floating position



1051673

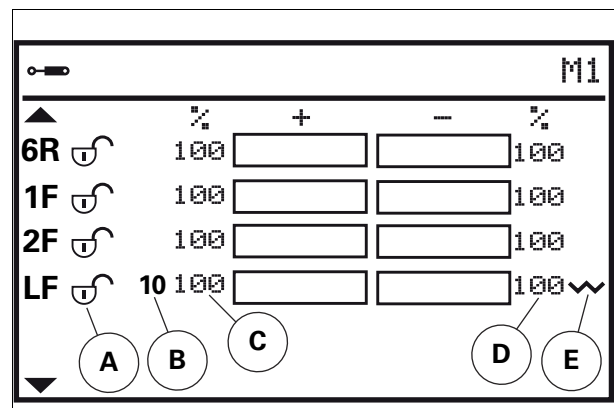


Fig. 30.

1051530

The activation time function (Kick out) is used to adjust the activation time of each spool valve.

There are two modes available:

- Time delay: An activation time (from 0 to 60 seconds) can be set for each spool valve

The engaged spool valve is cut off after the set time delay has elapsed

- Permanent flow rate: Select the infinity icon ∞ to have the spool valve remain permanently engaged after it is engaged using the control

Adjusting the hydraulic flow rate with the armrest potentiometer

Adjusting the maximum spool valve flow

Turn the potentiometer (1) to select the maximum flow rate position (A) (100%)

All the spool valves have a maximum flow rate setting for the cylinder rod extension and retraction phases

The user cannot modify any of the setting values

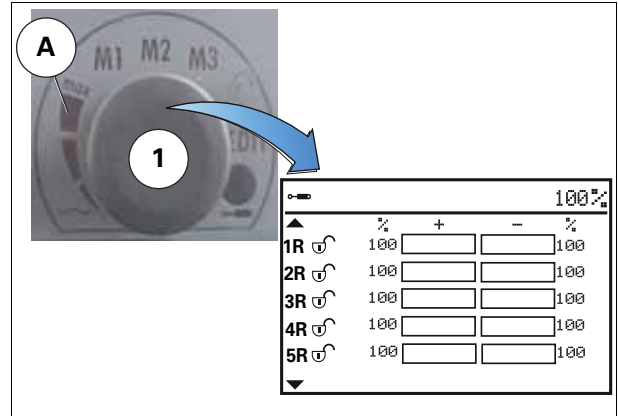


Fig. 31.

1051574

Turn the potentiometer (1) to select the medium flow rate position (B) (50%)

All the spool valves have a medium flow rate setting for the cylinder rod extension and retraction phases

The user cannot modify any of the setting values

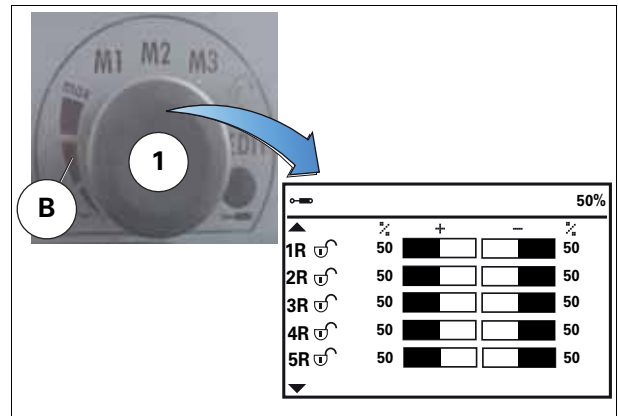


Fig. 32.

1051575

Turn the potentiometer (1) to select the low flow rate position (C) (10%)

All the spool valves have a low flow rate setting for the cylinder rod extension and retraction phases

The floating position of the spool valves can be activated

The user cannot modify any of the setting values

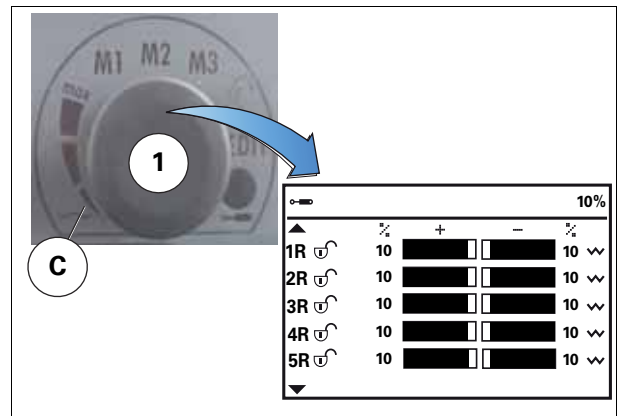




Fig. 33.

1051576

Auxiliary hydraulics assistance function

This function allows you to increase the engine speed when multiple valves are used at the same time or when the tractor has to provide a high hydraulic flow.

3

- Press the arrows to select the function to modify:
- Press the  or  arrows to select/deselect the box (A) (function activated or deactivated)

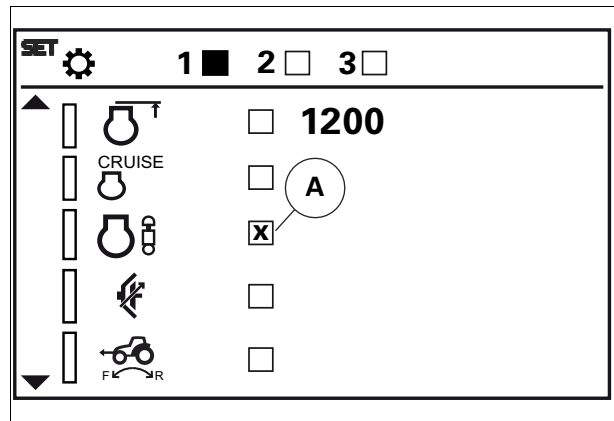


Fig. 34.

1051698

3.17 Front-end loader function

3.17.1 Front-end loader

T006905



WARNING:

The tractor must be fitted with a FOPS (Falling Object Protection Structure) roof if using a loader.

The programmable features of the joystick or other control **MUST NOT** be used to operate a loader. In order to prevent involuntary loader motion, the loader joystick controller must be a self neutralising type. When the operator releases his grip on the joystick, the joystick must return to a non-operational neutral position - except for float detent position in the loader lower direction.

Always read the implement instruction books fully for implements to be used with the tractor and comply with the safety instructions they contain.

For the attachment points, refer to the specifications chapter.



DANGER:

The use of front-end loaders involves the risk of falling objects; if used for forestry work there is a risk of objects penetrating into the passenger compartment.

This tractor is not designed for haulage applications; its use is prohibited unless you install a FORESTRY KIT; contact the dealer to find out if a forestry kit is available for this tractor model. Only a specific forestry kit can provide the necessary protection against falling trees and the penetration of objects.

Protection offered by the FOPS roof of the tractor



WARNING:

The use of sprayers fitted on the tractor or towed involves the risk of exposure to hazardous substances. The FOPS roof does not guarantee protection against dust, aerosols and fumes. In the event of application of crop protection products (e.g. pesticides, fungicides, herbicides etc.), see the chemical manufacturer's instructions as well as those supplied by the sprayer manufacturer. Personal protective equipment should be used if it is recommended by these instructions for tractors without a cab.

3.17.2 Layout of components

T022812

Joystick lever

The joystick lever controls 4 functions of the front-end loader.

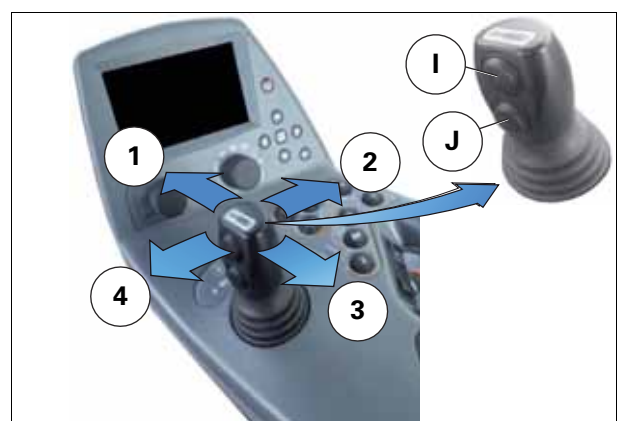


Fig. 1.

I052054

Hydraulic activation

- (1) Auxiliary hydraulics locking/unlocking button
- (2) Front/rear hydraulic spool valve selector button

To unlock the auxiliary hydraulics, press the switch (1). The indicator light must be illuminated.

To transfer the flow towards the rear, move the button (2) to position (A).

Indicator light status (1)

- On: Hydraulic functions active
- Off: Hydraulic functions locked



Fig. 2.

I052074

3

3.17.3 Using the electric joystick of the front-end loader

T022802

Joystick functions for the front-end loader

1. Lower the front-end loader arms by pushing on the joystick towards (1)
2. Tilt the front-end loader implement forwards by pushing on the joystick towards (2)
3. Raise the front-end loader arms by pulling on the joystick towards (3)
4. Tilt the front-end loader implement backwards by pushing on the joystick towards (4)

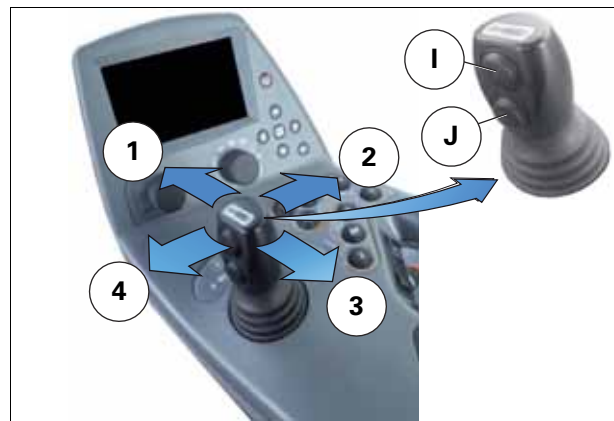


Fig. 3.

I052054

Floating position

Activation

1. Push the joystick lever as far as it will go towards (1) or towards (2) to obtain the floating positions

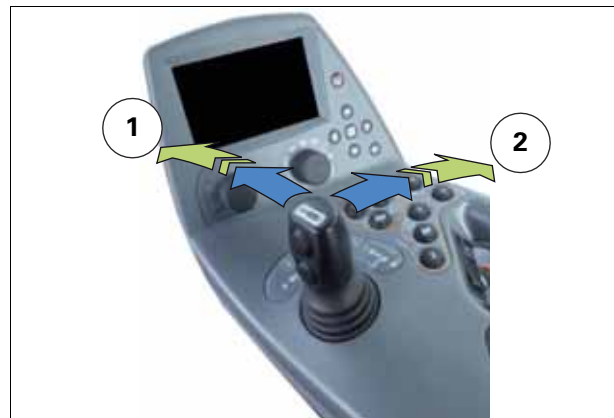


Fig. 4.

I052030

Canceling

2. Pull the joystick lever towards (3) or (4) to cancel the floating positions

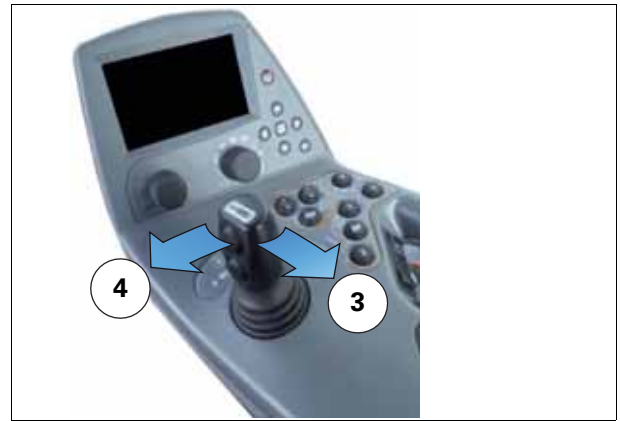


Fig. 5.

1052055

Front-end loader flow rate control

The front-end loader flow rates are adjusted using the front spool valve flow rate controls in the armrest terminal

3rd and 4th functions

IMPORTANT: The 3rd and 4th functions are activated temporarily.

Using joystick switches

1. Press and hold the switch (I), then tilt the joystick to the right (2) or to the left (4) to activate the 3rd function (for example: a gripper).
2. Press and hold the switch (J), then tilt the joystick to the right (2) or to the left (4) to activate the 4th function (for example: other front loader implement functions)

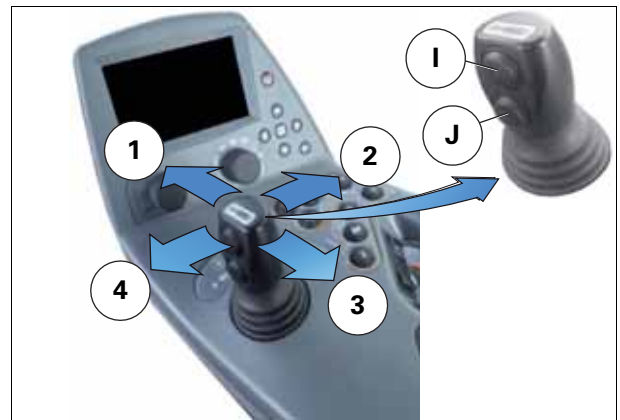


Fig. 6.

1052054

Arm suspension

NOTE: The arm suspension function position is stored by the tractor's electronic system when the engine is stopped.

Press the or arrows to choose which function to adjust (the index moves), then press (the function is greyed out when it can be adjusted)

- Press the or arrows to activate/deactivate the front-end loader suspension then press to validate



Fig. 7.

1052052

Locking and unlocking accessories

NOTE: This is a temporary function.

The function is deactivated as soon as the "OK" button is released.

1. Go to the corresponding Setup and Information Screen screen
2. Press "OK " and keep the key pressed; "ON" is displayed on the screen.
3. At the same time, press (H3) and move the joystick to the right or left to lock or unlock the accessories.
4. Once the accessory has been locked or unlocked, release the joystick and the "OK" button.



Fig. 8.

1052053

3.18 Lighting

3.18.1 Main lighting control module

T022673

- (1) Side lights: switch for operation of side lights only
- Switched on, indicator light illuminated: pressing the switch in position (1) operates the side lights (1) (all work lights stored the last time the engine was switched off will also be switched on)
 - Switched off, indicator light extinguished: pressing the switch in position (0) turns off all illuminated lights (all work lights in operation at this time will be stored when the engine is switched off)
- (2) Dipped beam lights/main beam lights: dipped beam lights activation switch
- Switched on, indicator light illuminated: pressing the switch in position (2) activates the dipped beam lights and the side lights (all work lights stored the last time the engine was switched off are illuminated but can be switched off manually) The dipped and main beam light positions (3) are selected using the control unit
 - Switched off, indicator light extinguished: pressing the switch in position (1) switches off the dipped beam lights and leaves the side lights on automatically Pressing the switch in position (0) switches off the dipped beam and the side lights.



I051955



I051961



I051962

Fig. 1.

3.18.2 Work lights module

(1) Control module and indicator lights for work lights.

Work lights: Press button(s) (2) to (8) to operate the required function(s). The corresponding indicator light will illuminate

(2) Front work lights

(3) Work lights on hand rails (optional)

(4) Work lights on fenders

(5) Rotary beacon

The rotary beacon may be activated automatically at 35 km/h

To enable this function, press and hold the switch for 10 seconds

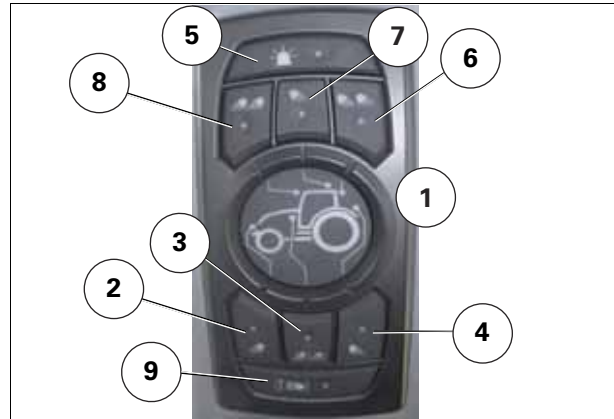
The rotary beacon does not deactivate if the forward speed falls below 35 km/h, instead the switch must be pressed and held for 10 seconds

(6) Work lights at the rear of the roof (located inside)

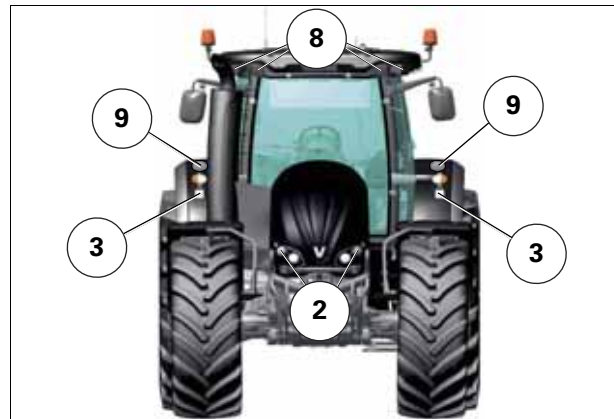
(7) Work lights at the rear of the roof (located outside)

(8) Work lights on front of roof

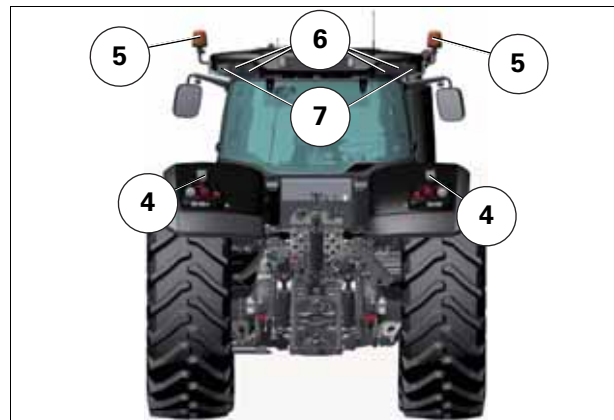
(9) Main beam lights/dipped beam lights on hand rails (optional): Press the main beam switch (2) ([see §3.18.1, page 251](#)) and the switch (9) to activate the hand rail lights (dipped beam lights/main beam lights changed using the control unit)



I052019



I052021



I052025

Fig. 2.

3.18.3 Direction indicators

T022787

Left direction indicator

The control unit must be activated in direction (A) to activate the left direction indicators

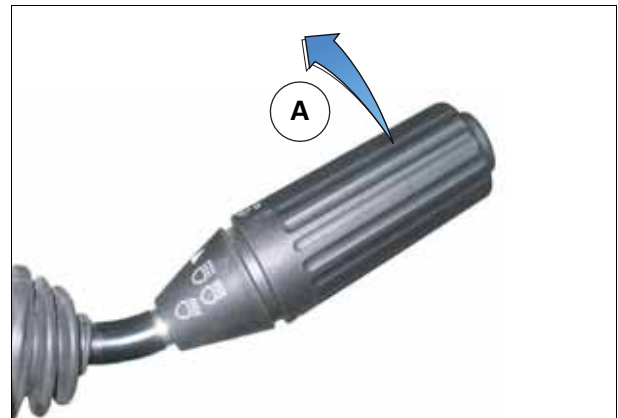


Fig. 3.

I049777

- The left direction indicators at the front (1) and rear (2) are illuminated.



I051966



Fig. 4.

I051967

Right direction indicator

The control unit must be activated in direction (B) to activate the right direction indicators

3

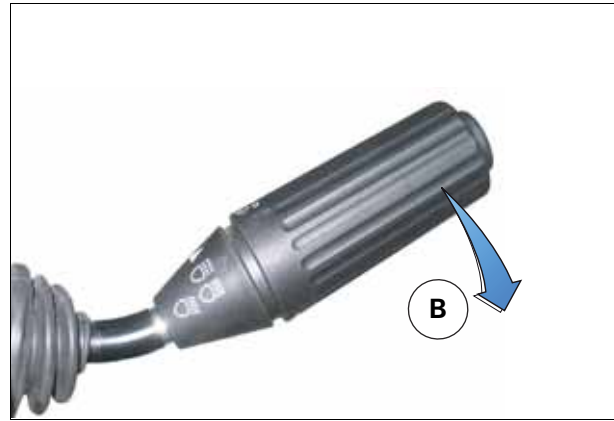


Fig. 5.

1049781

- The direction indicators at the front (3) and rear (4) are illuminated.



1051972



Fig. 6.

1051973

Hazard warning lights

- (0): Off
- (1) Activation

The battery isolator does not open if the hazard warning lights are on when the engine is turned off. When the battery isolator is already open, it will not close if the hazard warning lights are turned on.



Fig. 7.

1051964

After the hazard warning lights have been turned on with the switch:

- The front direction indicators (1) and (3) and the rear direction indicators (2) and (4) are illuminated flashing.



I051975



I052006

Fig. 8.

3.19 Suspended cab

3.19.1 Suspended cab

T022533

General

The tractor is fitted with the following cab suspension system:

1. Version AutoComfort: The four rams are individually controlled to improve the reaction of the cab. This assembly is also controlled by a controller located in the cab and four position sensors located inside the rams. This version can be adjusted by the operator via the cab controls.

AutoComfort cab suspension control

Press the switch in position (A) to switch to suspension mode; the cab symbol appears on the main screen of the Setup and Information Screen.

Press the switch in position (B) to disengage suspension mode; the cab symbol disappears from the main screen of the Setup and Information Screen.

The cab can be placed in the maximum raised position by holding down switch (A) for 5 seconds.

The parking brake must be engaged to activate this function.

The cab reverts back to suspension mode as soon as the forward speed exceeds 2 km/h.

This function allows the operator to select the cab reaction according to the type of work being carried out and the nature of the terrain.

The suspension status is stored after the engine is stopped.

The potentiometer (C) allows the firmness of the cab damping system to be adjusted.

- Turn the potentiometer clockwise (+) to reduce the firmness of the cab damping system
- Turn the potentiometer anti-clockwise (-) to increase the firmness of the cab damping system

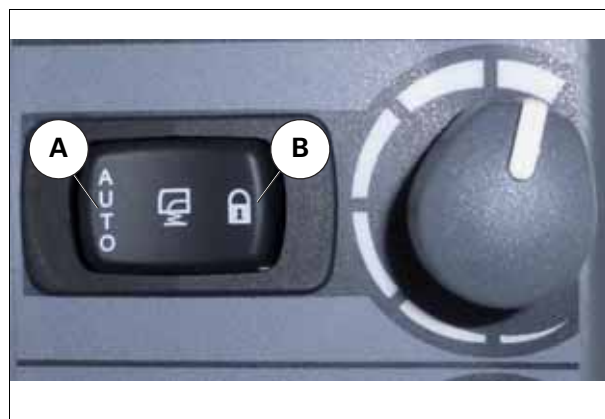


Fig. 1.

I051104

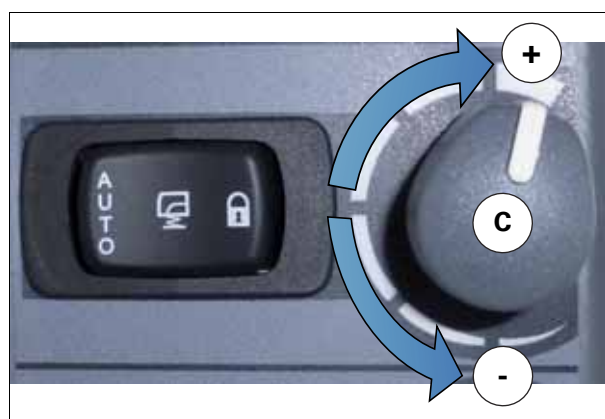


Fig. 2.

I051105

3.20 Front tyres and track widths

3.20.1 Wheel studs

T001011



WARNING:

Always tighten the wheel screws and nuts to the correct tightening torque.

Check the tightness of the wheels every day, until there is no longer a variation in the torque provided. After refitting a wheel, check the tightness of the wheel after the first two hours of operation and then every day.

3.20.2 Installation points of the axle stands

T018298



CAUTION:

The installation points of the axle stands must be strictly adhered to in order to prevent accidents.

Installing the front axle stands

The axle stands must be installed under the front axle beam

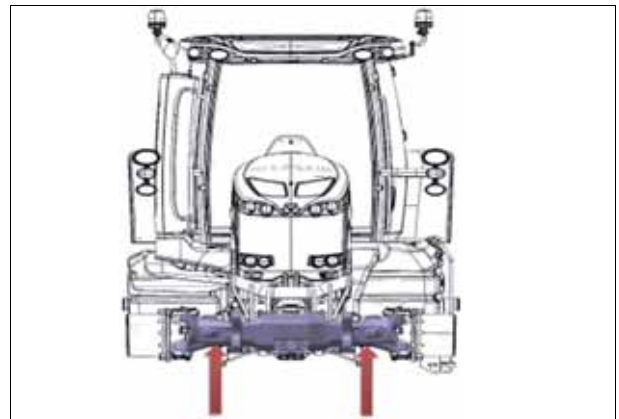


Fig. 1.

I046998

Installing the rear axle stands

The axle stands must be installed under the rear axle trumpet housings

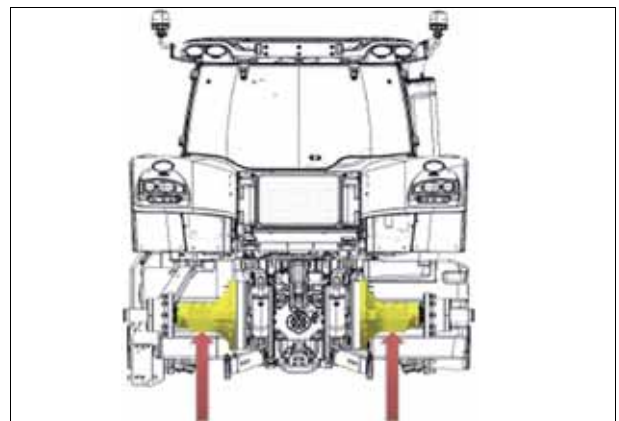


Fig. 2.

I047036

3.20.3 Adjusting the front wheel track width

T020670

General

The track widths available depend on the type of wheel rim and the tyre dimensions.

- (A) Centre of the tractor
- (B) Wheel-to-wheel distance:
The wheel to wheel distance is the inner distance between the two front tyres
- (C) Track width:
The track width is the distance between the centre of the right tyre and the centre of the left tyre
- (D) Plate-to-plate distance:
The plate-to-plate distance is the distance between the two bearing faces of the left and right rims
- (E) External dimension:
The external dimension is the longest distance between the outer sides of the tyres

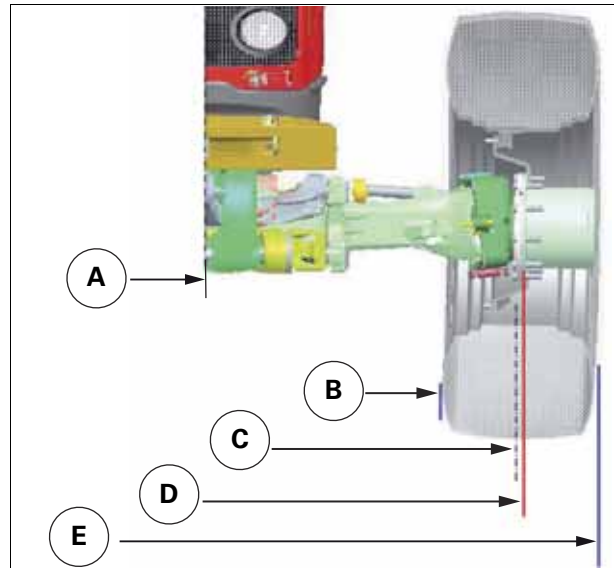


Fig. 3.

1042449

Models	Description of the 4-wheel drive front axle	Plate-to-plate distance
S274/S294/S324	DANA 770/504 or DANA 770/618 (standard)	1892 mm
	DANA 770/510 or DANA 770/624 (reinforced)	1904 mm
S354/S374	DANA 770/510 or DANA 770/624 (reinforced)	1904 mm

Rims with fixed disc

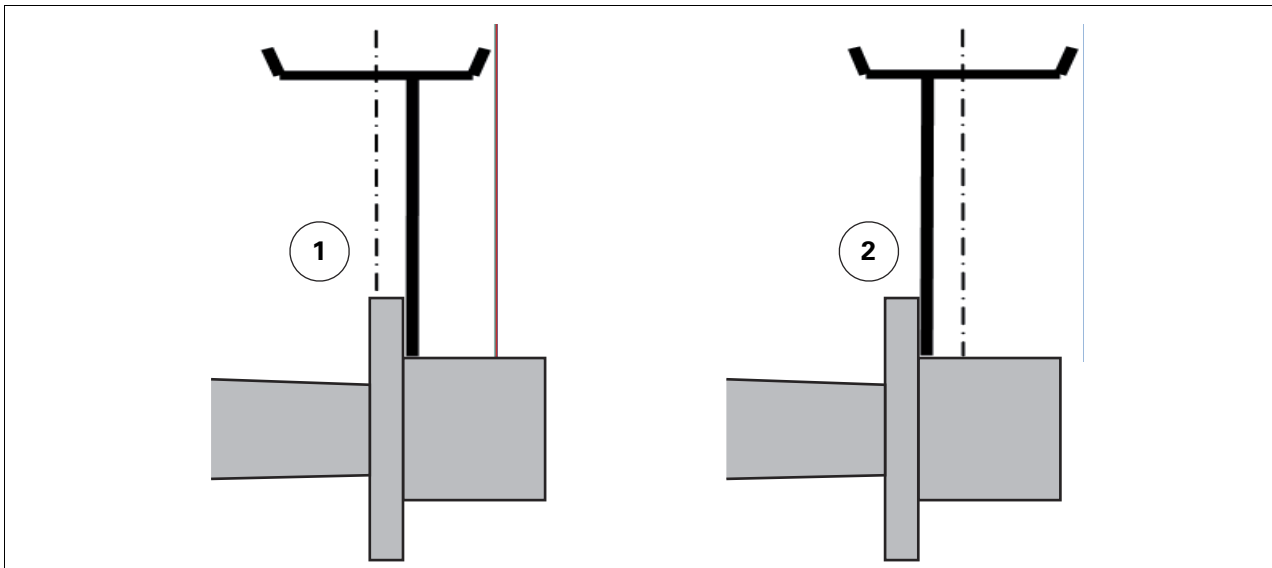


Fig. 4.

1029150

Steel rims fitted to front axle (according to front axle model), two track widths can be obtained by reversing the rims.

Description of the 4-wheel drive front axle	Plate-to-plate distance	Minimum track width (1)	Maximum track width (2)
DANA 770 (standard)	1892 mm	1708 mm	2052 mm
DANA 770 (reinforced)	1904 mm	1720 mm	2064 mm

When refitting, gradually tighten the nuts to the torque setting according to the recommendations in the table of tightening torques (see tightening torque in the Maintenance section of the Operator's Manual).

Rims with adjustable disc

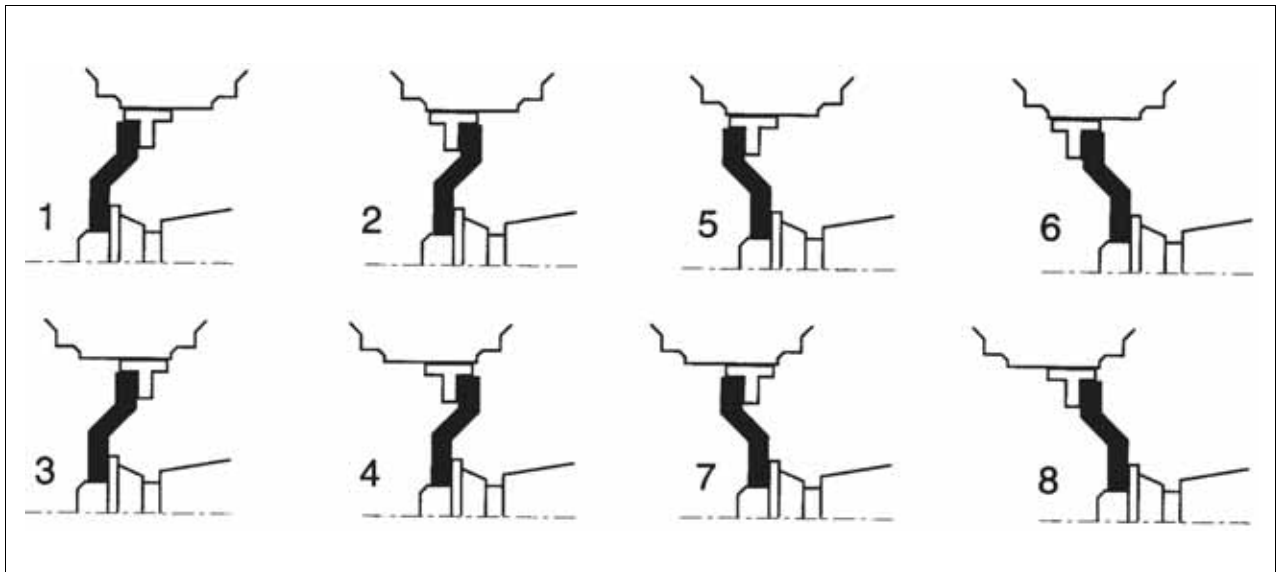


Fig. 5.

1003509

Eight track widths can be obtained by changing the position of the rim in relation to the disc or by reversing the wheels.

Position	Rims	Plate-to-plate distance	
		DANA 770 (standard): 1892 mm	DANA 770 (reinforced): 1904 mm
		Disc offset 100 mm	Disc offset 100 mm
Wheel disc facing inwards	(1)	1548 mm	1560 mm
	(2)	1652 mm	1664 mm
	(3)	1752 mm	1764 mm
	(4)	1856 mm	1868 mm
Wheel disc facing outwards	(5)	1948 mm	1960 mm
	(6)	2052 mm	2064 mm
	(7)	2152 mm	2164 mm
	(8)	2256 mm	2268 mm

When refitting, gradually tighten the nuts to the torque setting according to the recommendations in the table of tightening torques (see tightening torque in the Maintenance section of the Operator's Manual).

Adjustment after changing track widths

NOTE: With narrow track widths and with certain tyre fittings, the wheels may touch the bonnet when turning at maximum lock. To prevent this contact, the hubs are fitted with threaded stops (1)- that can be adjusted to limit the steering angle.

The adjustment made in the factory complies with the modification requirements for tractor transport (see §3.20.4, page 260).

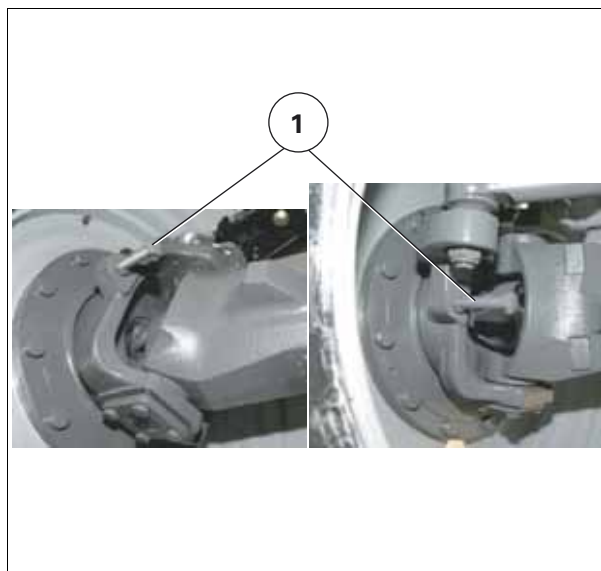


Fig. 6.

I006121

3.20.4 Adjusting the 4WD front axle stops

T021248

General

Check and, if necessary, adjust the front axle stops each time the front track width is altered or following a wheel and/or tyre change.

Oscillation stops

1. Fit each stop using the retaining screw.

Adjusting the steering angle

NOTE: The front axles are intended for a maximum steering angle of 55°.

- (1) Front adjustment screw
- (2) Rear adjustment screw

1. Place the front of the tractor on a fixed support so that the front axle is able to swing freely over the entire length of its high and low travel.
2. Switch the engine on and activate the front axle suspension.
3. Start by adjusting the rear stop screw on the side that presents the greatest risk for the front wheel of contact with the immediate environment *fig. 7*, move the axle over the entire length until it touches the oscillation stop in order to adjust the stop screw while maintaining a minimum clearance of 40 mm between the tyre and the nearest point (e.g.: body/attachments).
4. Bring the diagonally opposed stop screw in contact with the front axle and tighten the locknut.
5. Repeat the adjustment operations (3) and (4) to adjust the remaining stop screws.
6. Swing to the right and left once more to check that the adjustment has not moved and/or there is no contact with the immediate surrounding area of the tractor and then tighten the stops fully.

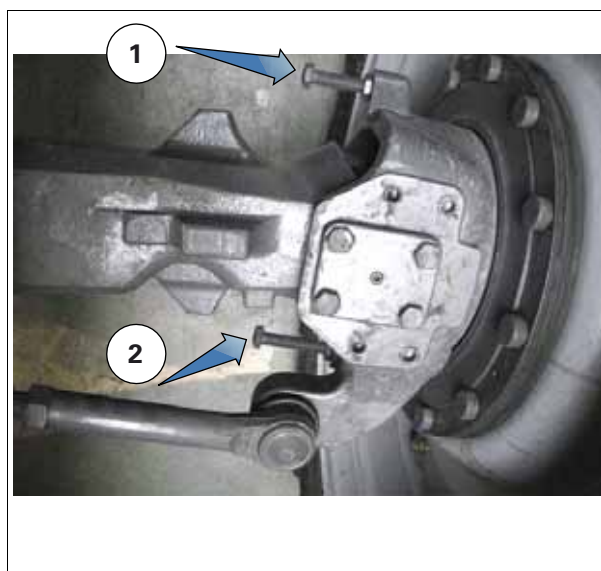


Fig. 7.

I011956

Toe-in check

The toe-in check requires specific tools; please consult your dealer if a problem occurs.

Adjusting the front fenders Shoe side adjustment on the front axle

1. Loosen the screw (1) to slide the shoe from the fender.
2. After changing the position, retighten the screw (1) to a torque of 22 Nm.

NOTE: After adjusting the position of the front fenders, it may be necessary to adjust the stop (2) to limit the movement when the wheels are turned.

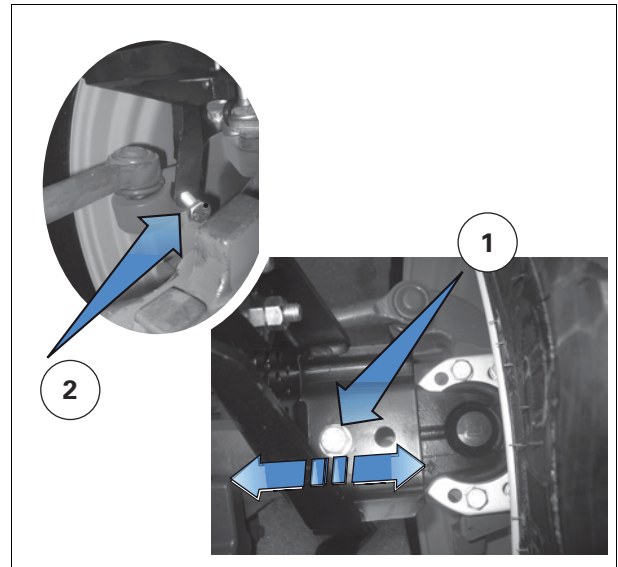


Fig. 8.

1034515

3

Adjusting the front fenders Adjusting the height of the support on the shoe

1. Modify the position of the support (5) [fig. 9](#) to adapt the height of the fender to the size of the wheel.

Adjusting the front fenders Adjusting the lateral position of the fender on the support (two adjustments are possible)

1. Move the fender in relation to the support (5) by changing the position of the screws (3).
2. Move the fender in relation to the support by loosening the screws (4) to move the fender into the required position.

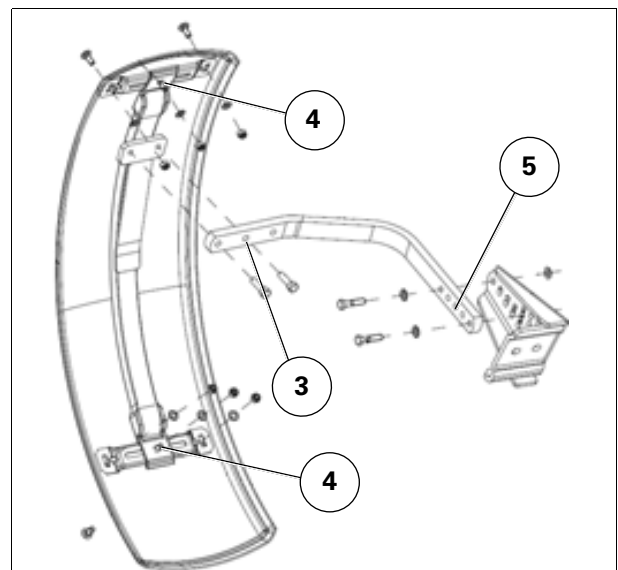


Fig. 9.

1036616

3.20.5 Tyres

Agricultural tyre markings

- (1) Flange size in inches or millimetres
- (2) Type of manufacture (e.g. radial)
- (3) Nominal rim diameter in inches
- (4) Side/flange size ratio
- (5) Load capacity index per tyre 121 = 1450 kg;
153 = 3650 kg
- (6) Speed symbol A8 = 40 km/h
- (7) Reference pressure: 1,6 bar
- (8) Tubeless: Without inner tube

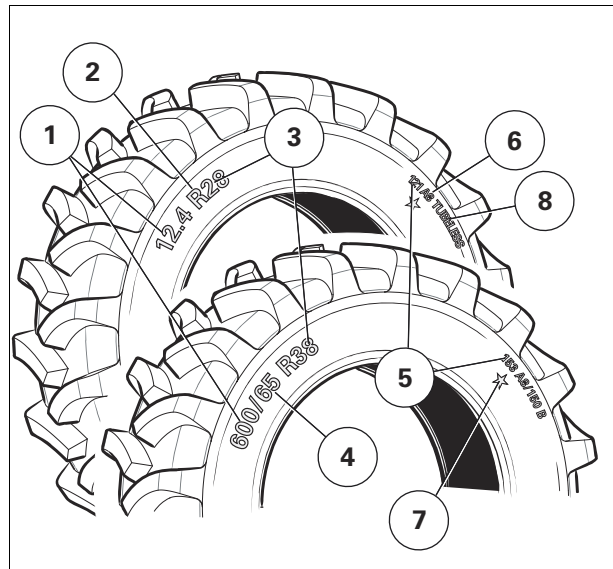


Fig. 10.

1008034

3.20.6 Tyre pressures

T001319

Pressure under load

Check the tyre pressures every 100 hours. Tyre pressures vary according to make, load and speed as well as to the type of work being carried out. Refer to the inflation tables issued by the tyre manufacturers.

3.21 Rear tyres and track widths

3.21.1 Wheel studs

T001011



WARNING:

Always tighten the wheel screws and nuts to the correct tightening torque.

Check the tightness of the wheels every day, until there is no longer a variation in the torque provided. After refitting a wheel, check the tightness of the wheel after the first two hours of operation and then every day.

3.21.2 Wheel chock(s) (optional)

T021943

Wheel chock location

Located on the left-hand side below the tank, this shim (1) (depending on option) immobilises the tractor when required.

Unscrew the wing nuts to slide the chock out of its housing.



Fig. 1.

I050124

Using the wheel chock

1. Once the wheel chock has been extracted from its housing, place it on the ground with the larger side face down.

2. **CAUTION:**
 **The chock springs open automatically.**

Hold down the top of the chock and press (1) to open.

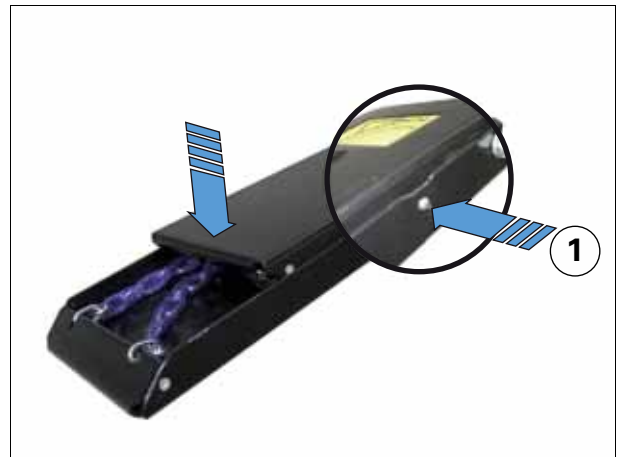


Fig. 2.

I017852

3. Gently release the top of the chock.

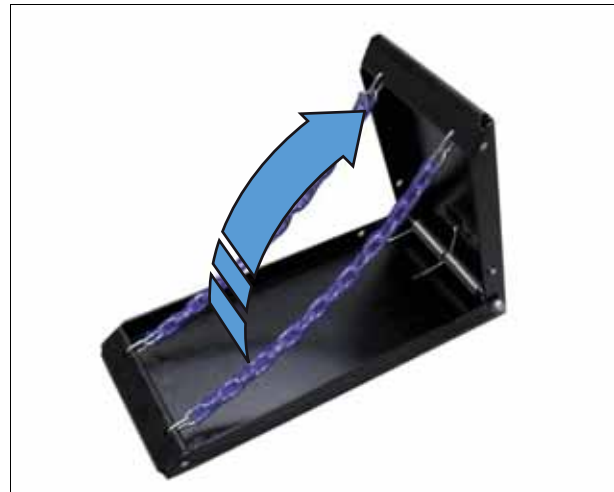


Fig. 3.

I017855

4. **IMPORTANT:** Ensure the chock is facing in the right direction before placing it under the vehicle.

To immobilise the tractor, position the chock underneath a wheel as shown.



Fig. 4.

I018298

3.21.3 Installation points of the axle stands

T018298



CAUTION:

The installation points of the axle stands must be strictly adhered to in order to prevent accidents.

Installing the front axle stands

The axle stands must be installed under the front axle beam

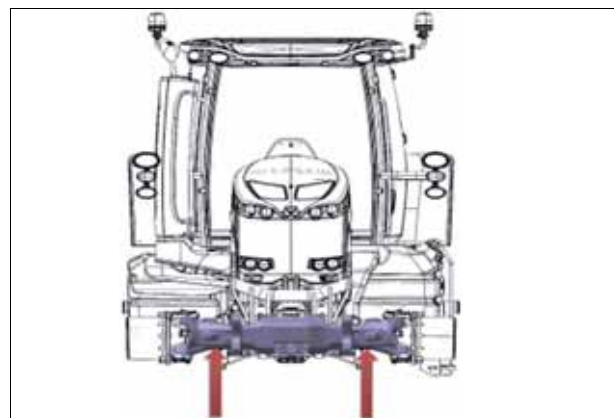


Fig. 5.

I046998

Installing the rear axle stands

The axle stands must be installed under the rear axle trumpet housings

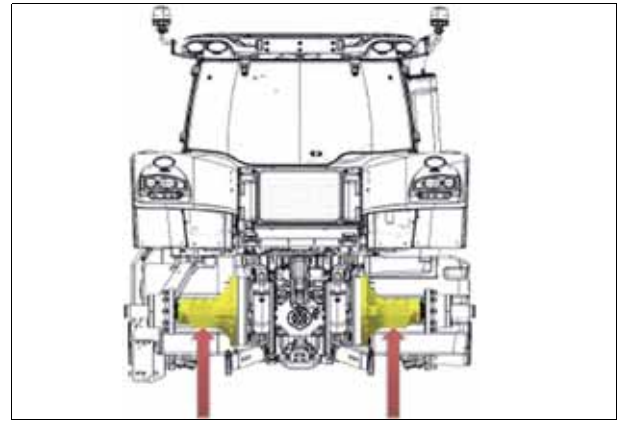


Fig. 6.

I047036

3.21.4 Rear track width with short straight shafts

T020680

General

The various track widths are obtained by changing the position of the rim in relation to the disc or by reversing the wheels.

- (A) Centre of the tractor
- (B) Wheel to wheel distance
The wheel to wheel distance is the inner distance between the two rear tyres
- (C) Track width
The track width is the distance between the centre of the right tyre and the centre of the left tyre
- (D) Plate-to-plate distance
The plate-to-plate distance is the distance between the two bearing faces of the left and right rims
- (E) External dimension
The external dimension is the longest distance between the outer sides of the tyres

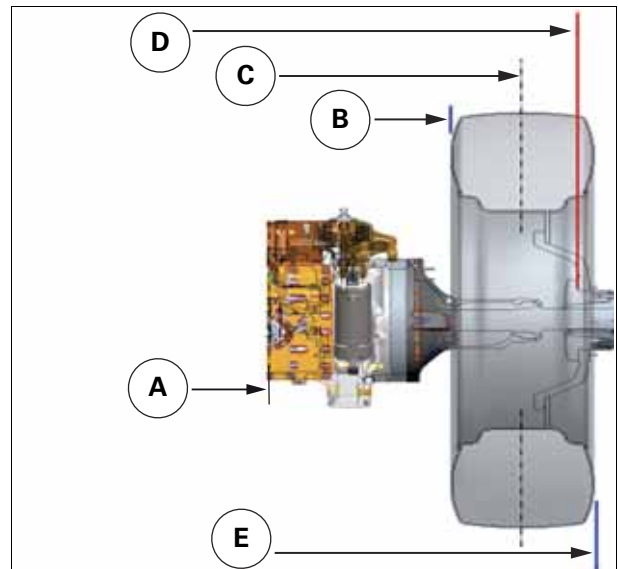


Fig. 7.

I042512

Rear axle type	Diameter of the straight shaft	Plate-to-plate distance	
		Min.	Max.
HA 260F	110 mm	1930 mm	2262 mm

Rims with fixed disc

3

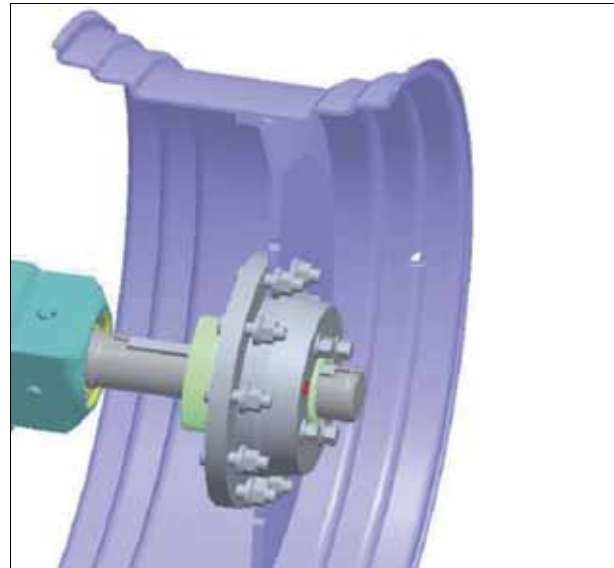


Fig. 8.

I042577

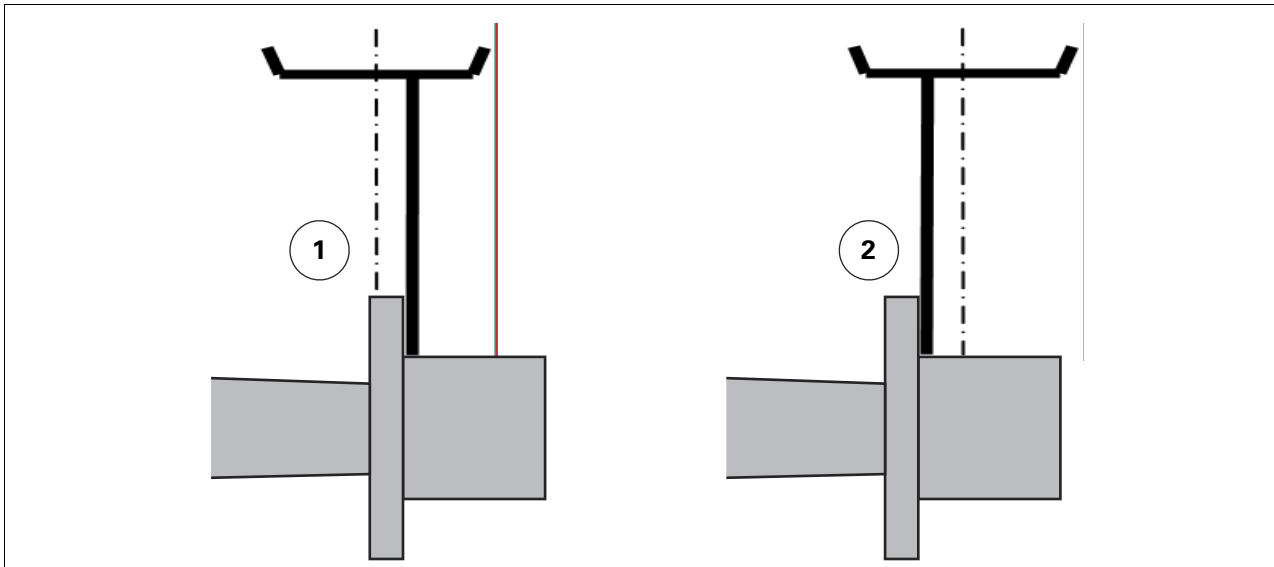


Fig. 9.

I029150



CAUTION:

The distance between the side of the inner tyre and the cab must always be higher than or equal to 40 mm (European Directive 89-173)

Track widths possible with rims with steel discs

Rear axle type	Rim in position (1)		Rim in position (2)	
	Minimum track width with plate-to-plate distance of 1930 mm	Maximum track width with plate-to-plate distance of 2262 mm	Minimum track width with plate-to-plate distance of 1930 mm	Maximum track width with plate-to-plate distance of 2262 mm
HA 260F	1780 mm	2112 mm	2106 mm	2438 mm

When refitting, gradually tighten the nuts to the torque setting according to the recommendations in the table of tightening torques (see tightening torque in the Maintenance section of the Operator's Manual).

Rims with adjustable disc

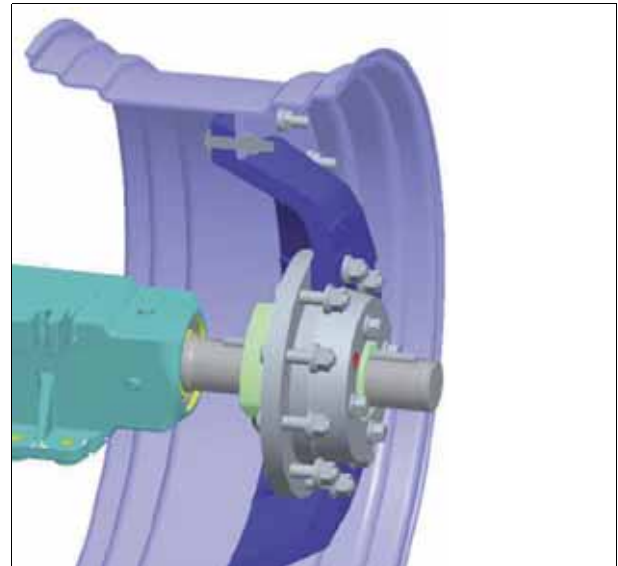


Fig. 10. I042580

CAUTION:
 The distance between the side of the inner tyre and the cab must always be higher than or equal to 40 mm (European Directive 89-173)

Track widths possible with rims with cast iron disc

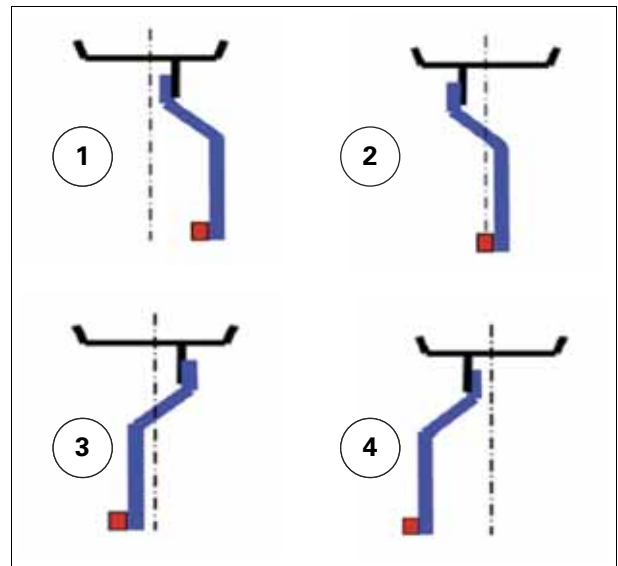


Fig. 11. I042543

Rear axle type	Rim in position (1)		Rim in position (2)		Rim in position (3)		Rim in position (4)	
	Minimum track width with plate-to-plate distance of 1930 mm	Maximum track width with plate-to-plate distance of 2262 mm	Minimum track width with plate-to-plate distance of 1930 mm	Maximum track width with plate-to-plate distance of 2262 mm	Minimum track width with plate-to-plate distance of 1930 mm	Maximum track width with plate-to-plate distance of 2262 mm	Minimum track width with plate-to-plate distance of 1930 mm	Maximum track width with plate-to-plate distance of 2262 mm
HA 260F	1565,6 mm	1897,6 mm	1891,6 mm	2223,6 mm	2070,4 mm	2402,4 mm	2396,4 mm	2728,4 mm

When refitting, gradually tighten the nuts to the torque setting according to the recommendations in the table of tightening torques (see tightening torque in the Maintenance section of the Operator's Manual).

3

3.21.5 Rear track width with long straight shafts

T020681

General

The various track widths are obtained by changing the position of the rim in relation to the disc or by reversing the wheels.

- (A) Centre of the tractor
- (B) Wheel to wheel distance
The wheel to wheel distance is the inner distance between the two rear tyres
- (C) Track width
The track width is the distance between the centre of the right tyre and the centre of the left tyre
- (D) Plate-to-plate distance
The plate-to-plate distance is the distance between the two bearing faces of the left and right rims
- (E) External dimension
The external dimension is the longest distance between the outer sides of the tyres

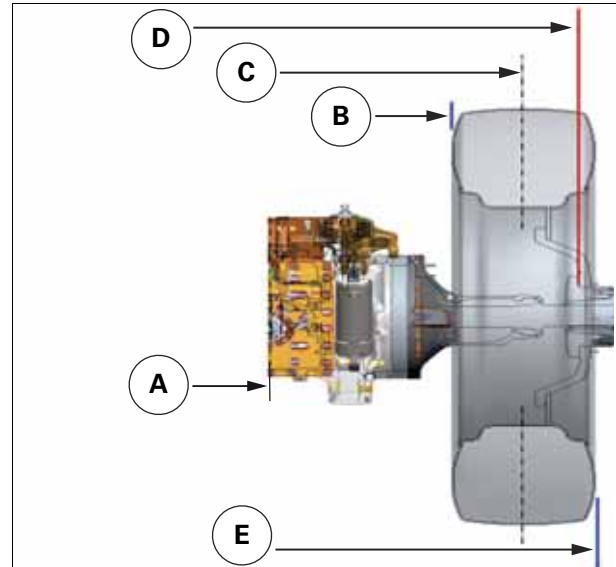


Fig. 12.

I042512

Rear axle type	Diameter of the straight shaft	Plate-to-plate distance	
		Min.	Max.
HA 260F	110 mm	1893 mm	3012 mm

Rims with fixed disc

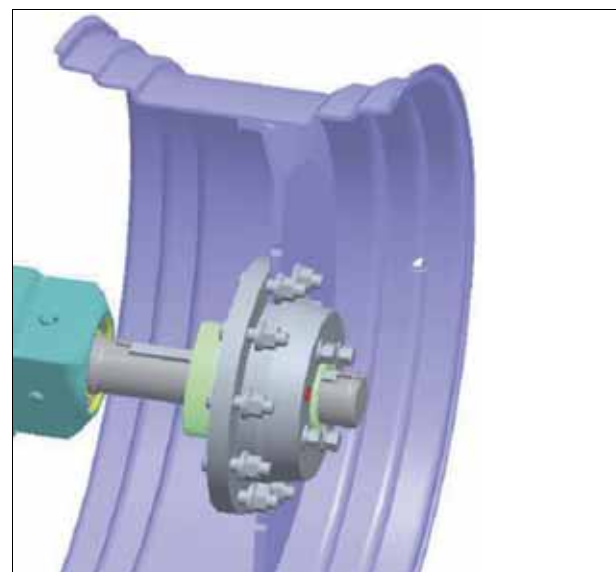


Fig. 13.

I042577

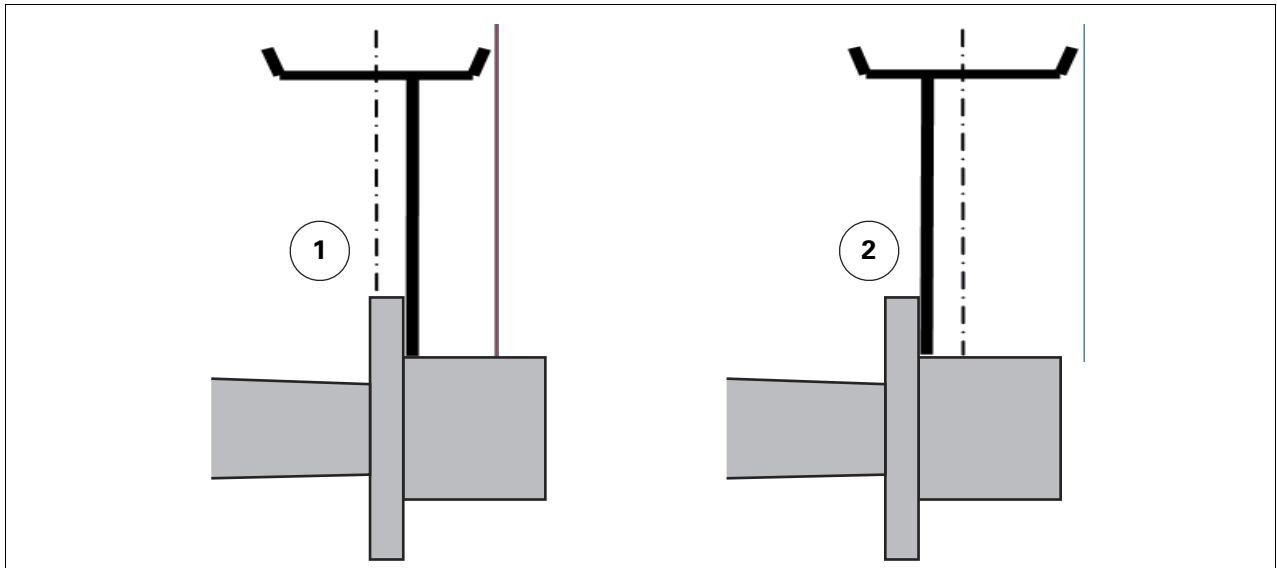


Fig. 14.

1029150



CAUTION:

The distance between the side of the inner tyre and the cab must always be higher than or equal to 40 mm (European Directive 89-173)

Track widths possible with rims with steel discs

Rear axle type	Rim in position (1)		Rim in position (2)	
	Minimum track width with plate-to-plate distance of 1893 mm	Maximum track width with plate-to-plate distance of 3012 mm	Minimum track width with plate-to-plate distance of 1893 mm	Maximum track width with plate-to-plate distance of 3012 mm
HA 260F	1743 mm	2862 mm	2069 mm	3188 mm

When refitting, gradually tighten the nuts to the torque setting according to the recommendations in the table of tightening torques (see tightening torque in the Maintenance section of the Operator's Manual).

Rims with adjustable disc

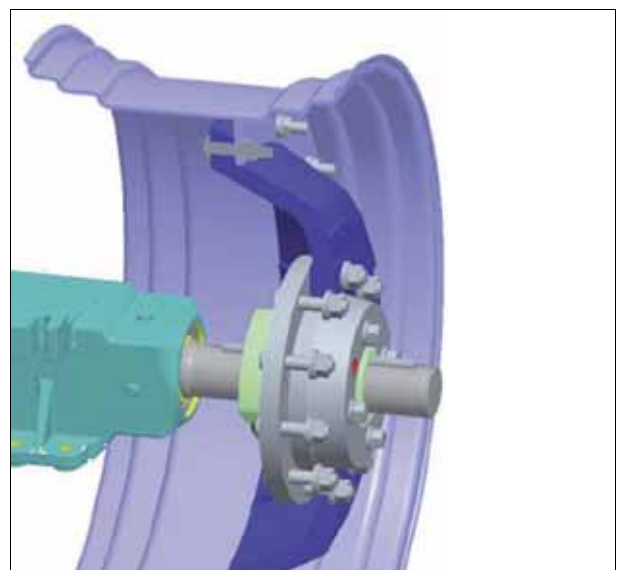


Fig. 15.

1042580



CAUTION:

The distance between the side of the inner tyre and the cab must always be higher than or equal to 40 mm (European Directive 89-173)

Track widths possible with rims with cast iron disc

3

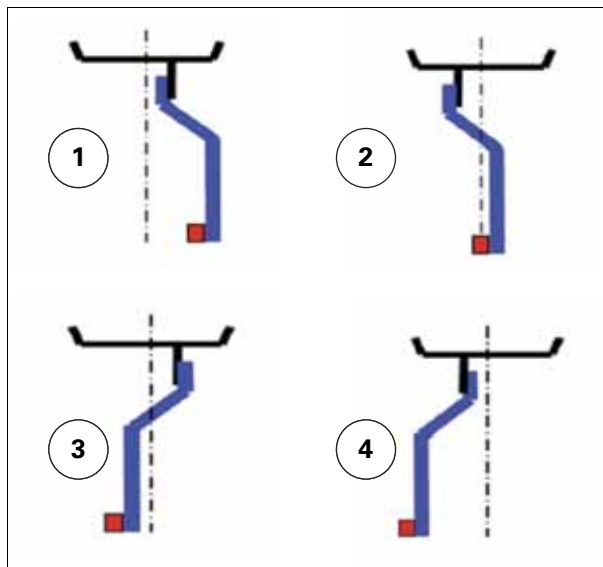


Fig. 16.

I042543

Rear axle type	Rim in position (1)		Rim in position (2)		Rim in position (3)		Rim in position (4)	
	Minimum track width with plate-to-plate distance of 1893 mm	Maximum track width with plate-to-plate distance of 3012 mm	Minimum track width with plate-to-plate distance of 1893 mm	Maximum track width with plate-to-plate distance of 3012 mm	Minimum track width with plate-to-plate distance of 1893 mm	Maximum track width with plate-to-plate distance of 3012 mm	Minimum track width with plate-to-plate distance of 1893 mm	Maximum track width with plate-to-plate distance of 3012 mm
HA 260F	1528,6 mm	2647,6 mm	1854,6 mm	2973,6 mm	2033,4 mm	3152,4 mm	2359,4 mm	3478,4 mm

When refitting, gradually tighten the nuts to the torque setting according to the recommendations in the table of tightening torques (see tightening torque in the Maintenance section of the Operator's Manual).

3.21.6 Assembly configuration for an external width of 2550 mm

T020695

General

The various track widths are obtained by changing the position of the rim in relation to the disc or by reversing the wheels.

- (A) Centre of the tractor
- (B) Wheel to wheel distance
The wheel to wheel distance is the inner distance between the two rear tyres
- (C) Track width
The track width is the distance between the centre of the right tyre and the centre of the left tyre
- (D) Plate-to-plate distance
The plate-to-plate distance is the distance between the two bearing faces of the left and right rims
- (E) External dimension
The external dimension is the longest distance between the outer sides of the tyres

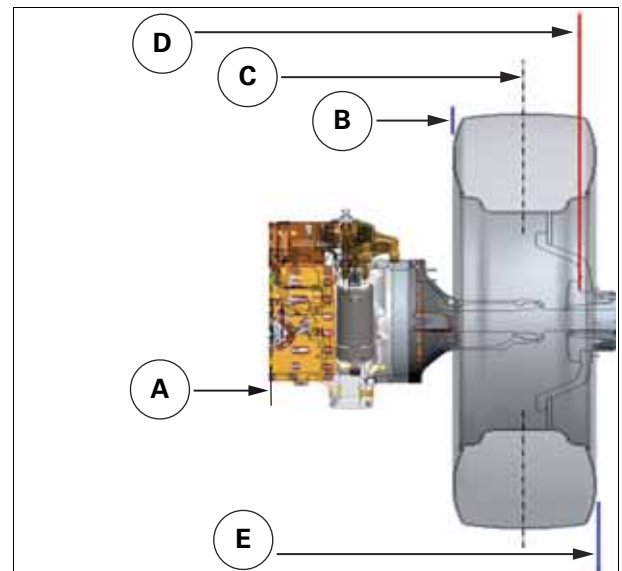


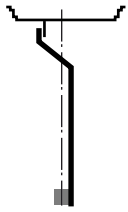
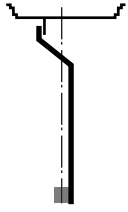
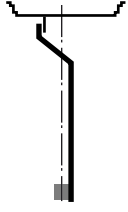
Fig. 17.

1042512

3

Assembly configuration for external dimension (E) of 2550 mm

Tyre dimensions	Configura-tion	External dimension	Stabi-liser/rim distance	Plate-to-plate distance	Hub/final drive distance
650/85R38		2550 mm	19,77 mm	2090 mm	150 mm
710/85R38		2800 mm	19 mm	2250 mm	230 mm
710/75R42		2510 mm	20,44 mm	2036 mm	123 mm

Tyre dimensions	Configura- tion	External dimension	Stabi- liser/rim distance	Plate-to- plate dis- tance	Hub/final drive dis- tance
650/85R38		2550 mm	19,57 mm	1978 mm	94 mm
710/85R38		2800 mm	20 mm	2170 mm	190 mm
710/75R42		2509 mm	19,8 mm	1925 mm	68 mm

3.21.7 Adjusting the rear wheel track width

T018013

General



WARNING:

If work is carried out on the wheels, check to ensure the tractor is immobilised.

If work is carried out on the tractor while it is raised on a jack, there should be nobody underneath the tractor.

The various track widths are obtained by moving the wheel on the straight shaft.

Adjustment of wheel position on the straight shaft

1. Lift the rear of the tractor to lift the wheels off the ground and carefully chock the tractor
2. Loosen the 3 screws (A) from each half cone, so 6 screws in total for the whole wheel
3. Tighten these 6 screws in the holes (B) (3 screws in each half cone), which loosens the cone mounting.
4. Adjust to the desired track width

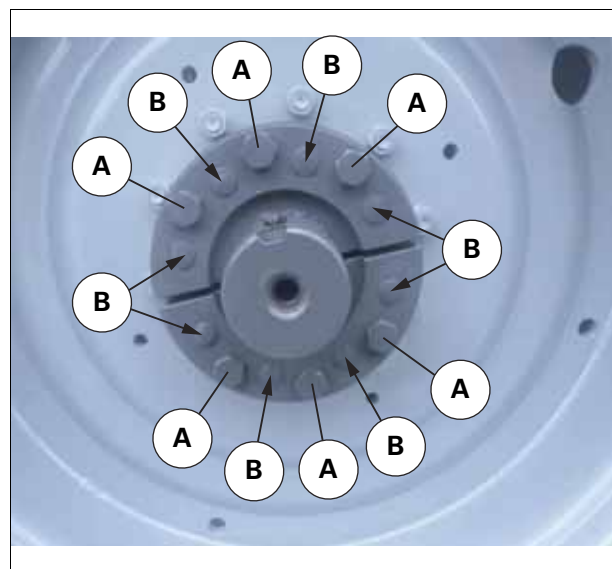


Fig. 18.

I042842

5. Tighten the 6 screws on the cone, so 3 screws per half cone
6. Tighten the screws to the tightening torque (see tightening torque in the Maintenance section of the Operator's Manual) in the specified order (1 to 6).
After reassembly, check the tightness of the screws after the first two hours of use, then every day until there is no longer a variation in the torque provided.

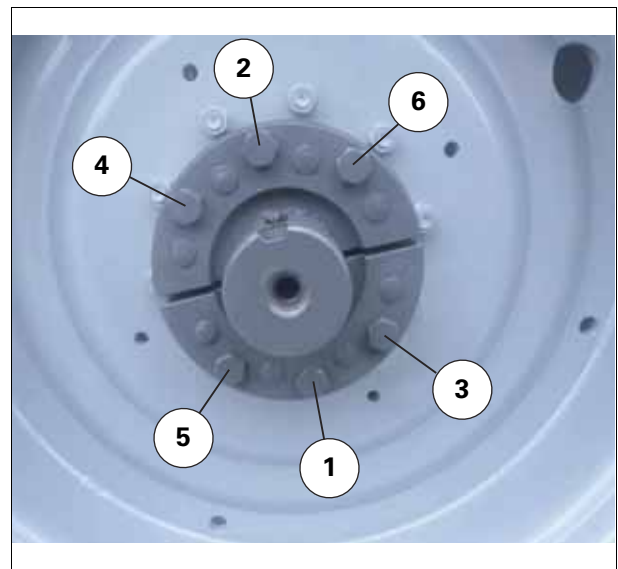


Fig. 19.

I042867

Adjustment of wheel position on the straight shaft

1. Lift the rear of the tractor to lift the wheels off the ground and carefully chock the tractor.
2. Remove the two mounting screws (1) and fit them into the holes (2)
3. Slacken off the other two screws by three or four turns
4. Tighten screws (1) alternately until the outer hub is released from the inner hub.
5. Adjust the position of the wheel on the shaft according to the required track width.
6. Refit the 4 screws (1) in their original location and retighten them (see tightening torque in the Maintenance section of the Operator's Manual). When fitting, gradually tighten the nuts to the torque setting according to the recommendations in the table of tightening torques (see tightening torque in the Maintenance section of the Operator's Manual).

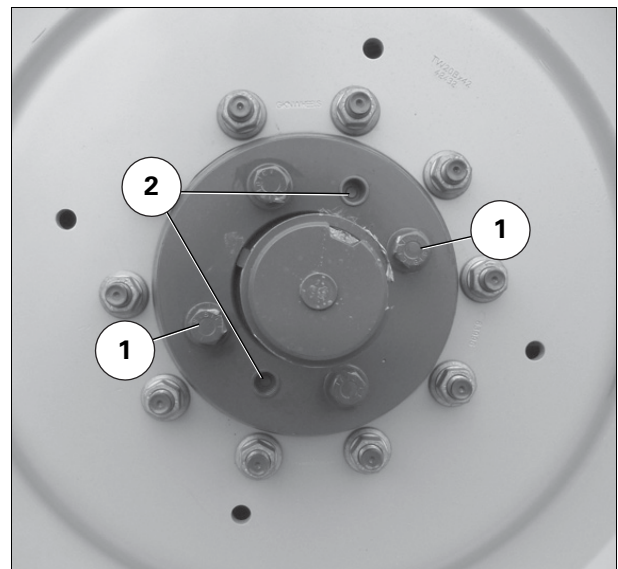


Fig. 20.

I035409

3.22 Dual wheels

3.22.1 Dual wheels

T001014

In general, dual wheels should be used only for reducing soil compaction work (surface treatment work).

**WARNING:**

If work is carried out on the wheels, check to ensure the tractor is immobilised.

If work is carried out on the tractor while it is raised on a jack, there should be nobody underneath the tractor.

For dual rear wheels, it is recommended to place the original wheel on the outside and a wheel with a thicker disc on the inside.

When selecting dual wheels that reuse the rims fitted as standard in the factory with a disc thickness less than 16 mm, you must obtain additional wheels with a thickness equal to or greater than 16 mm and fit them on the inside and then lock together with the standard rims (factory fitted) on the outside.

IMPORTANT: Use a tube type dual wheel kit, which is fitted to the hubs and not to the rims (kit available from your dealer).

The following four criteria must be taken into account when selecting the correct dual rear wheels:

1. Soil conditions
2. Traction (narrow wheels)
3. Overall dimensions (2,50 m for road use)
4. Type of tyre

IMPORTANT: The wrong choice of dual wheels has a direct influence on the mechanical components and the wheel rims of the tractor. Avoid using dual wheels for intensive pulling, even for short periods (hauling out a tractor stuck in the mud etc.).

NOTE: It is preferable to use wide tyres or low-pressure tyres instead of dual wheels.

Conditions of use of dual wheels

IMPORTANT: Certain conditions must be respected with dual wheels

- Double the rear lights, marker lights and reflectors when the fitted series lights are more than 400 mm away from the sides of the tractor.
- Maximum forward speed of the tractor is limited to 25 km/h
- Check that the steering angle is large enough.

Use of dual wheels

- Set the inner wheels to minimum track width -
NOTE: The use of very wide tyres on dual wheels is not recommended.
 The most efficient dual wheels arrangement uses two tyres of the same specifications.
- When fitting dual wheels with tyres of different widths, the wider wheel must be fitted inside.
- When fitting dual wheels with tyres of the same width, the tyre which is more worn must be fitted on the outside.
- The tyre pressure of the outer tyres should be slightly reduced by approximately 0,2 bar.
- On clay soil, the minimum track width should be increased in proportion to the size of the tyres.

IMPORTANT: Dual wheels do not double the load capacity of the tractor.

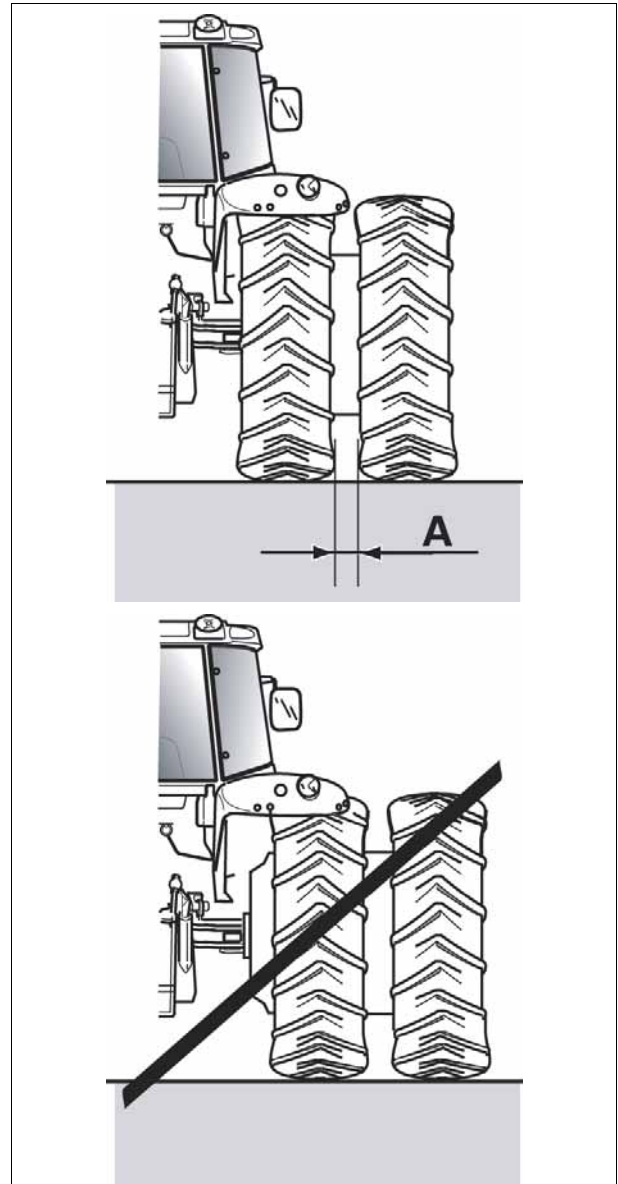


Fig. 1.

1003510

3.22.2 Installation points of the axle stands

T018298



CAUTION:

The installation points of the axle stands must be strictly adhered to in order to prevent accidents.

Installing the front axle stands

The axle stands must be installed under the front axle beam

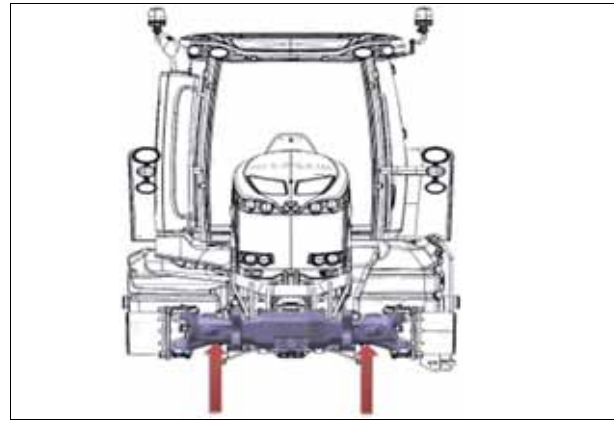


Fig. 2.

I046998

3

Installing the rear axle stands

The axle stands must be installed under the rear axle trumpet housings

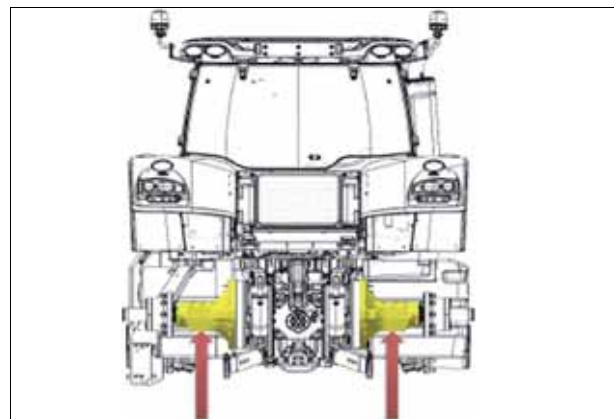


Fig. 3.

I047036

3.22.3 Dual rear wheel track width with short straight shafts

T020685

General

The various track widths are obtained by changing the position of the rim in relation to the disc or by reversing the wheels.

- (A) Centre of the tractor
- (B) External dimension
The external dimension is the longest distance between the outer sides of the tyres
- (C) Outer track width
The outer track width is the distance between the centre of the right outer tyre and the centre of the left outer tyre
- (D) Outer plate-to-plate distance
The outer plate-to-plate distance is the distance between the two bearing faces of the left and right outer rims
- (E) Inner plate-to-plate distance
The inner plate-to-plate distance is the distance between the two bearing faces of the left and right inner rims
- (F) Inner track width
The inner track width is the distance between the centre of the right inner tyre and the centre of the left inner tyre
- (G) Wheel to wheel distance

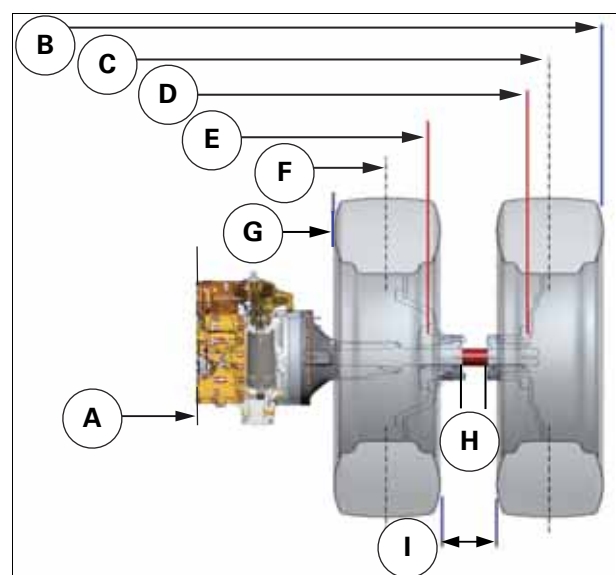


Fig. 4.

I042655

The wheel to wheel distance is the inner distance between the two rear tyres

- (H) Free space
Free space is the distance between two cone/hub assemblies from the same side allowing variation in twinned track widths
- (I) Wheel to wheel distance of the dual wheels
The wheel to wheel distance of the dual wheels is the free space between two tyres on the same side of the tractor

Rear axle type	Diameter of the straight shaft	Inner plate-to-plate distance	Outer plate-to-plate distance	Free space
		Min.	Max.	
HA 260F	110 mm	1930 mm	3602 mm	11 mm

Assembly with rims with fixed disc/rims with fixed disc

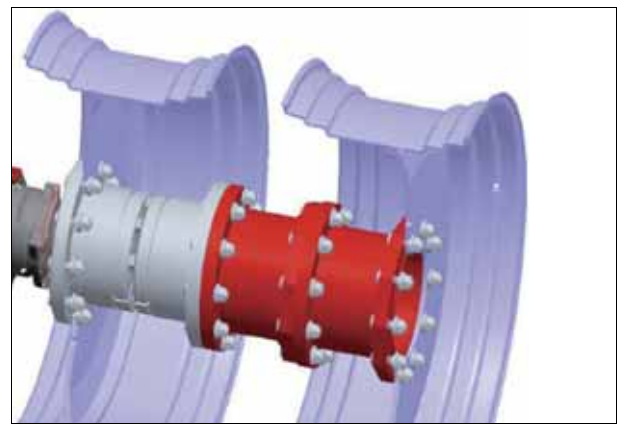


Fig. 5. 1047126

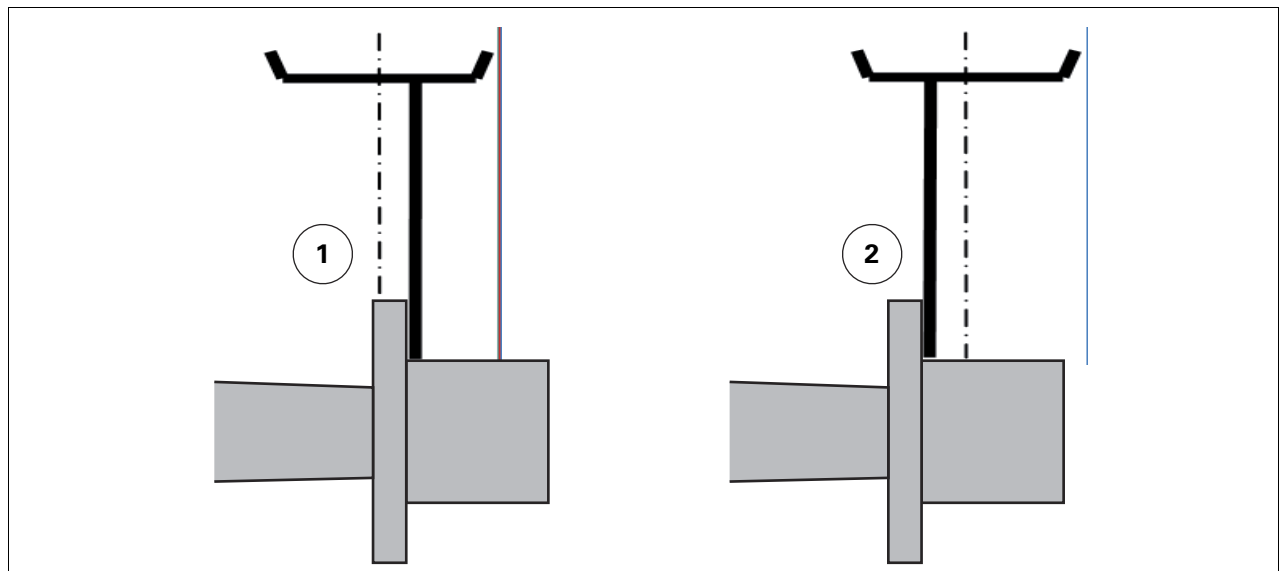


Fig. 6. 1029150

CAUTION: *The distance between the side of the inner tyre and the cab must always be higher than or equal to 40 mm (European Directive 89-173)*

Inner wheel: track widths possible with rims with steel discs

Rear axle type	Inner rim in position (1)		Inner rim in position (2)	
	Minimum wheel track	Maximum wheel track	Minimum wheel track	Maximum wheel track
HA 260F	1780 mm	1802 mm	2106 mm	2128 mm

3

Outer tyre: track widths possible with rims with steel discs

Rear axle type	Outer rim in position (1)		Outer rim in position (2)	
	Minimum wheel track	Maximum wheel track	Minimum wheel track	Maximum wheel track
HA 260F	3430 mm	3452 mm	3756 mm	3778 mm

When refitting, gradually tighten the nuts to the torque setting according to the recommendations in the table of tightening torques (see tightening torque in the Maintenance section of the Operator's Manual).

Assembly with rims with adjustable disc/rims with fixed disc

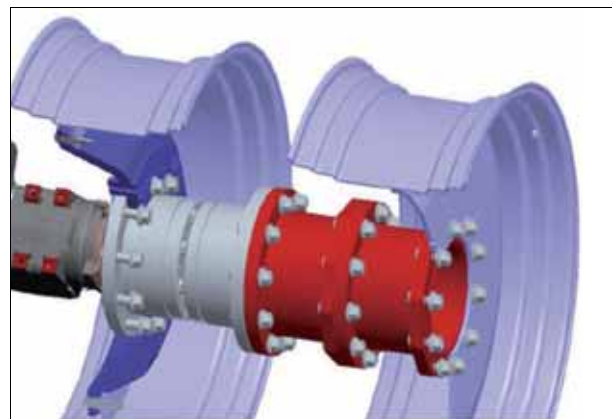


Fig. 7.

I047128



CAUTION:

The distance between the side of the inner tyre and the cab must always be higher than or equal to 40 mm (European Directive 89-173)

Inner wheel: track widths possible with rims with cast iron disc

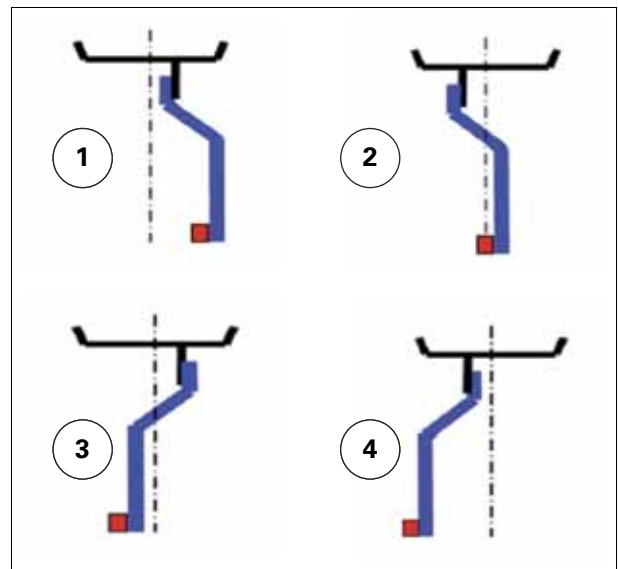


Fig. 8.

1042543

Rear axle type	Inner rim in position (1)		Inner rim in position (2)		Inner rim in position (3)		Inner rim in position (4)	
	Minimum wheel track	Maximum wheel track	Minimum wheel track	Maximum wheel track	Minimum wheel track	Maximum wheel track	Minimum wheel track	Maximum wheel track
HA 260F	1565,6 mm	1587,6 mm	1891,6 mm	1913,6 mm	2070,4 mm	2092,4 mm	2396,4 mm	2418,4 mm

When refitting, gradually tighten the nuts to the torque setting according to the recommendations in the table of tightening torques (see tightening torque in the Maintenance section of the Operator's Manual).

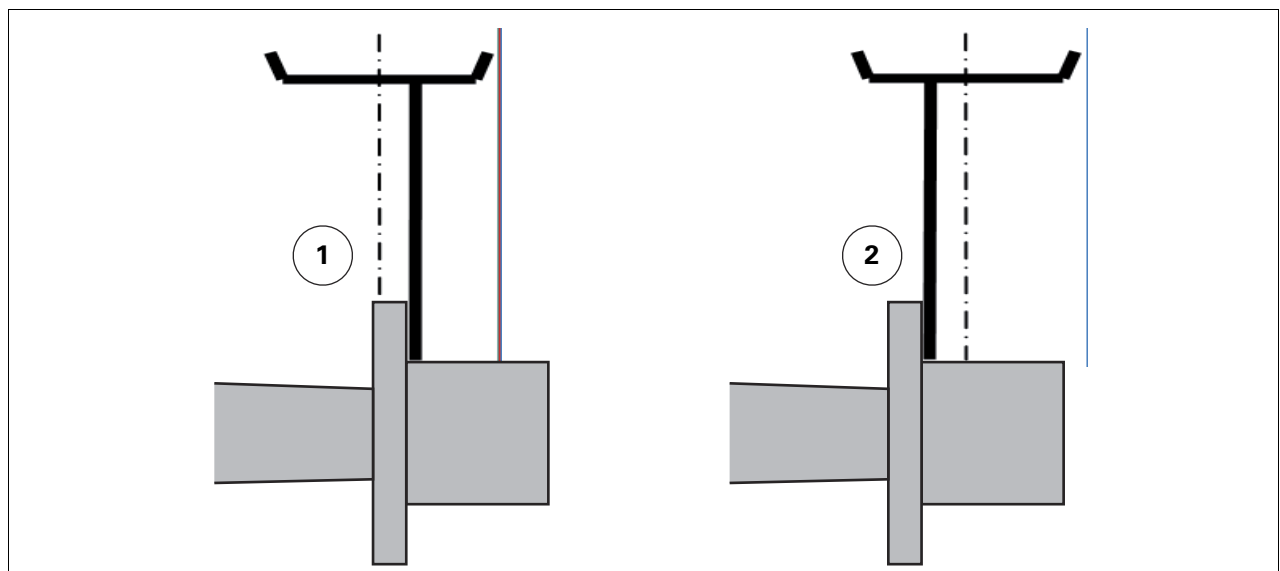


Fig. 9.

1029150

Outer tyre: track widths possible with rims with steel discs

Rear axle type	Outer rim in position (1)		Outer rim in position (2)	
	Minimum wheel track	Maximum wheel track	Minimum wheel track	Maximum wheel track
HA 260F	3430 mm	3452 mm	3756 mm	3778 mm

3

Assembly with rims with adjustable disc/rims with adjustable disc

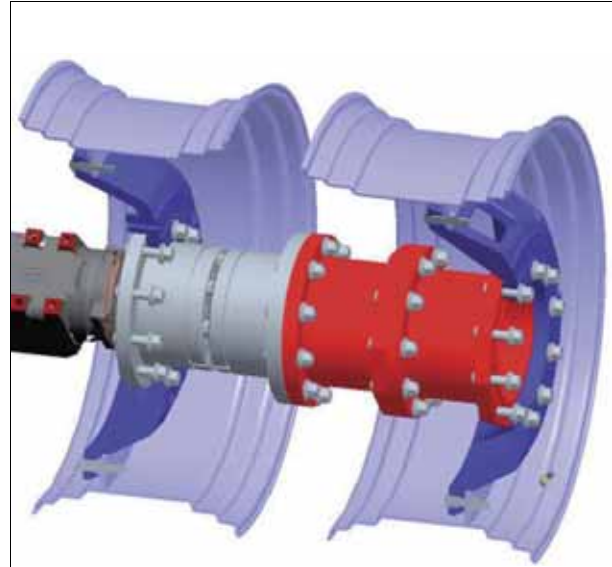


Fig. 10. I043868

CAUTION: The distance between the side of the inner tyre and the cab must always be higher than or equal to 40 mm (European Directive 89-173)

Inner wheel: track widths possible with rims with cast iron disc

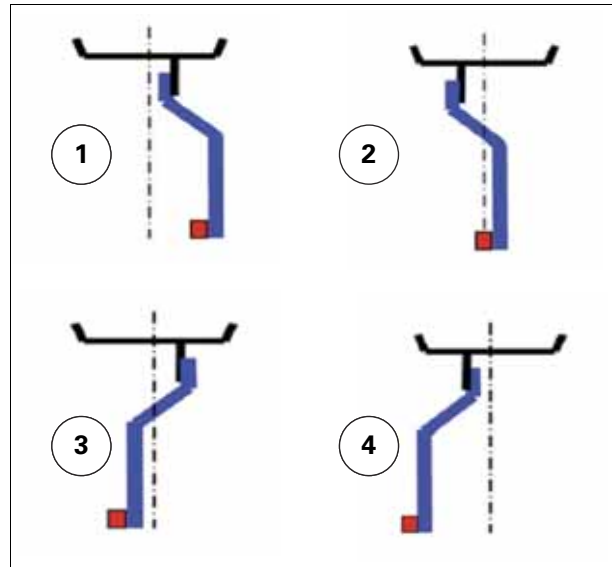


Fig. 11. I042543

Rear axle type	Inner rim in position (1)		Inner rim in position (2)		Inner rim in position (3)		Inner rim in position (4)	
	Minimum wheel track	Maximum wheel track	Minimum wheel track	Maximum wheel track	Minimum wheel track	Maximum wheel track	Minimum wheel track	Maximum wheel track
HA 260F	1565,6 mm	1587,6 mm	1891,6 mm	1913,6 mm	2070,4 mm	2092,4 mm	2396,4 mm	2418,4 mm

Outer tyre: track widths possible with rims with cast iron disc

Rear axle type	Outer rim in position (1)		Outer rim in position (2)		Outer rim in position (3)		Outer rim in position (4)	
	Minimum wheel track	Maximum wheel track	Minimum wheel track	Maximum wheel track	Minimum wheel track	Maximum wheel track	Minimum wheel track	Maximum wheel track
HA 260F	3215,6 mm	3237,6 mm	3541,6 mm	3563,6 mm	3720,4 mm	3742,4 mm	4046,4 mm	4068,4 mm

When refitting, gradually tighten the nuts to the torque setting according to the recommendations in the table of tightening torques (see tightening torque in the Maintenance section of the Operator's Manual).

3.22.4 Dual rear wheel track width with long straight shafts

T020691

General

The various track widths are obtained by changing the position of the rim in relation to the disc or by reversing the wheels.

- (A) Centre of the tractor
- (B) External dimension
The external dimension is the longest distance between the outer sides of the tyres
- (C) Outer track width
The outer track width is the distance between the centre of the right outer tyre and the centre of the left outer tyre
- (D) Outer plate-to-plate distance
The outer plate-to-plate distance is the distance between the two bearing faces of the left and right outer rims
- (E) Inner plate-to-plate distance
The inner plate-to-plate distance is the distance between the two bearing faces of the left and right inner rims
- (F) Inner track width
The inner track width is the distance between the centre of the right inner tyre and the centre of the left inner tyre
- (G) Wheel to wheel distance
The wheel to wheel distance is the inner distance between the two rear tyres
- (H) Free space
Free space is the distance between two cone/hub assemblies from the same side allowing variation in twinned track widths
- (I) Wheel to wheel distance of the dual wheels
The wheel to wheel distance of the dual wheels is the free space between two tyres on the same side of the tractor

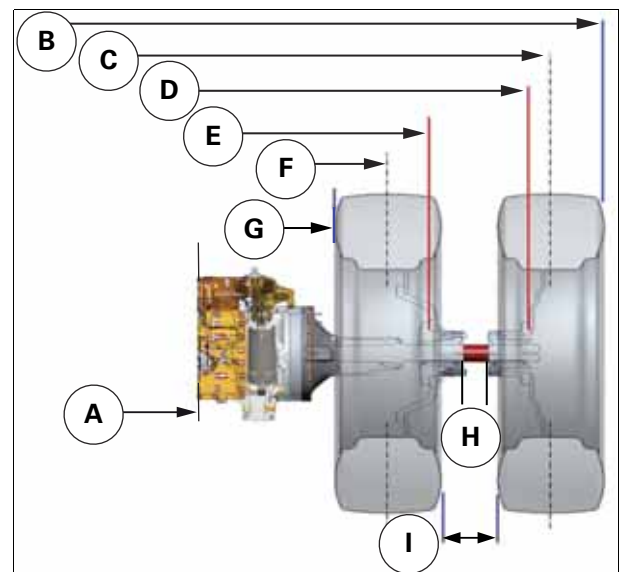


Fig. 12.

I042655

Rear axle type	Diameter of the straight shaft	Inner plate-to-plate distance	Outer plate-to-plate distance	Free space
		Min.	Max.	
HA 260F	110 mm	1893 mm	3012 mm	214,5 mm

Assembly with rims with fixed disc/rims with fixed disc

3

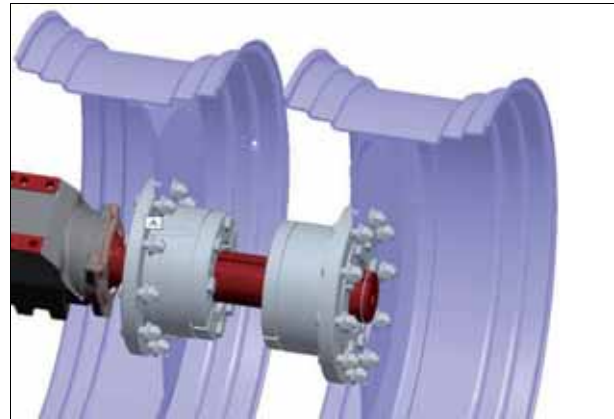


Fig. 13.

I047129

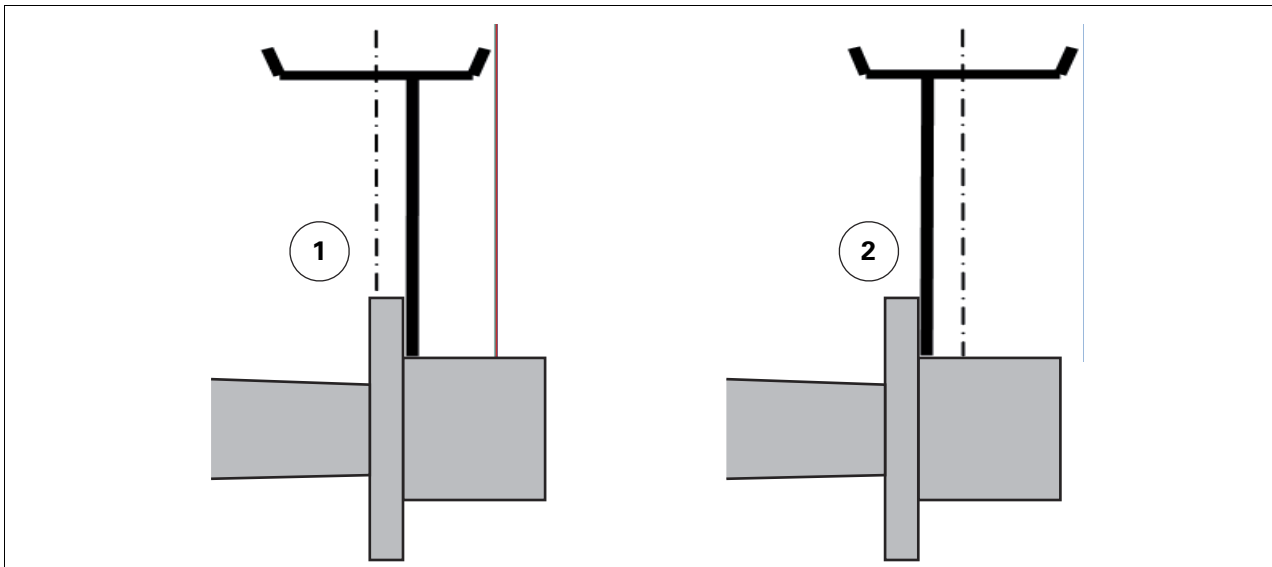


Fig. 14.

I029150



CAUTION:

The distance between the side of the inner tyre and the cab must always be higher than or equal to 40 mm (European Directive 89-173)

Inner wheel: track widths possible with rims with steel discs

Rear axle type	Inner rim in position (1)		Inner rim in position (2)	
	Minimum wheel track	Maximum wheel track	Minimum wheel track	Maximum wheel track
HA 260F	1743 mm	2172 mm	2069 mm	2498 mm

Outer tyre: track widths possible with rims with steel discs

Rear axle type	Outer rim in position (1)		Outer rim in position (2)	
	Minimum wheel track	Maximum wheel track	Minimum wheel track	Maximum wheel track
HA 260F	2433 mm	2862 mm	2759 mm	3188 mm

When refitting, gradually tighten the nuts to the torque setting according to the recommendations in the table of tightening torques (see tightening torque in the Maintenance section of the Operator's Manual).

Assembly with rims with adjustable disc/rims with fixed disc

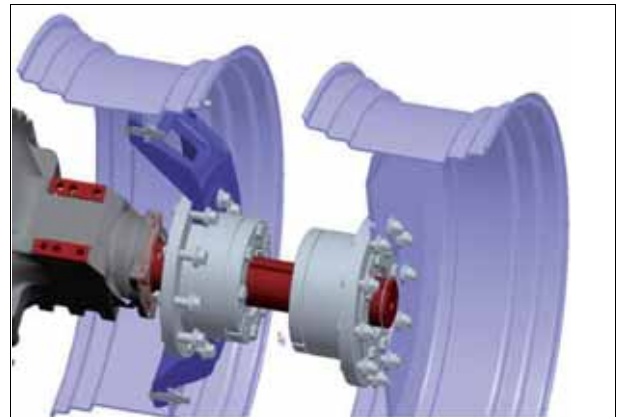


Fig. 15. 1047130

CAUTION: The distance between the side of the inner tyre and the cab must always be higher than or equal to 40 mm (European Directive 89-173)

Inner wheel: track widths possible with rims with cast iron disc

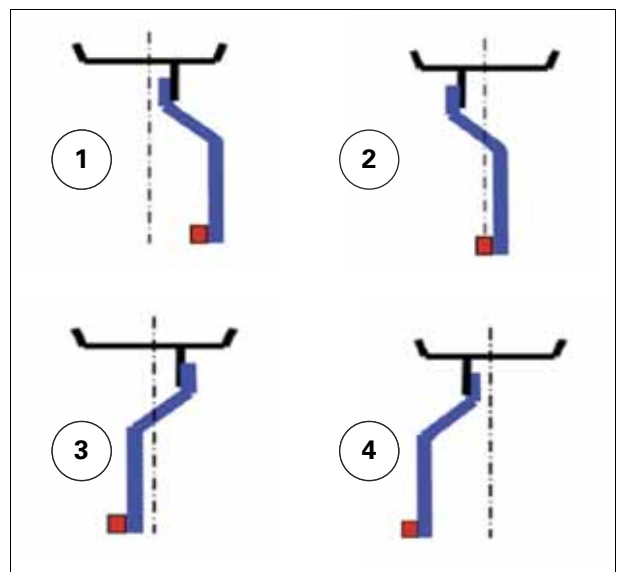


Fig. 16. 1042543

Rear axle type	Inner rim in position (1)		Inner rim in position (2)		Inner rim in position (3)		Inner rim in position (4)	
	Minimum wheel track	Maximum wheel track	Minimum wheel track	Maximum wheel track	Minimum wheel track	Maximum wheel track	Minimum wheel track	Maximum wheel track
HA 260F	1528,6 mm	1957,6 mm	1854,6 mm	2283,6 mm	2033,4 mm	2462,4 mm	2359,4 mm	2788,4 mm

When refitting, gradually tighten the nuts to the torque setting according to the recommendations in the table of tightening torques (see tightening torque in the Maintenance section of the Operator's Manual).

3

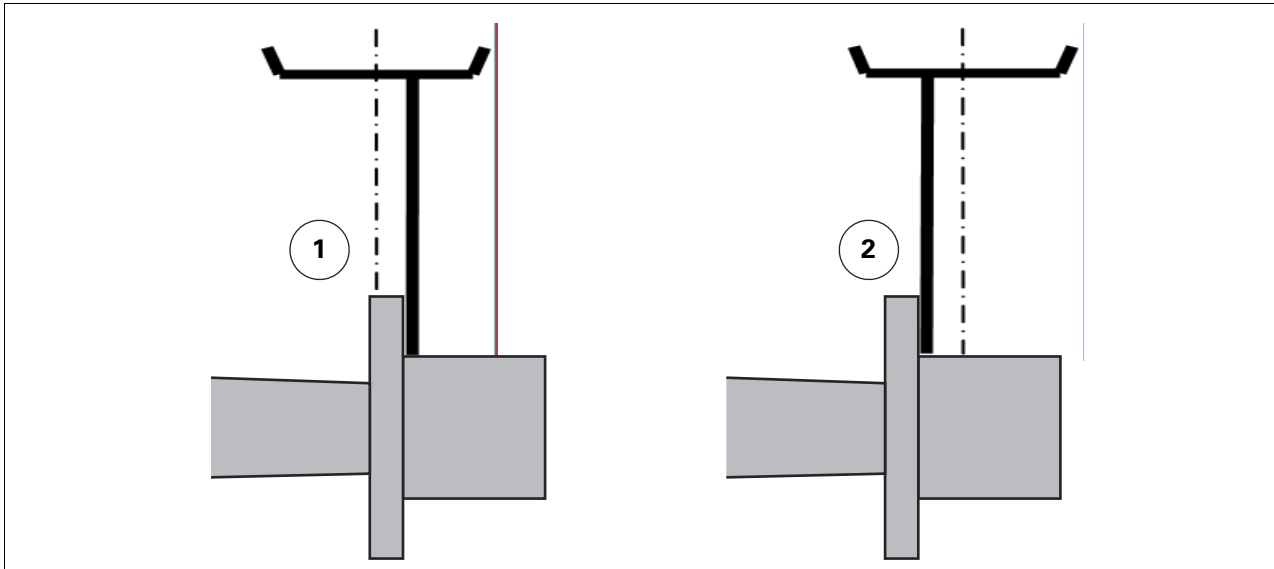


Fig. 17.

1029150

Outer tyre: track widths possible with rims with steel discs

Rear axle type	Outer rim in position (1)		Outer rim in position (2)	
	Minimum wheel track	Maximum wheel track	Minimum wheel track	Maximum wheel track
HA 260F	2433 mm	2862 mm	2759 mm	3188 mm

Assembly with rims with adjustable disc/rims with adjustable disc

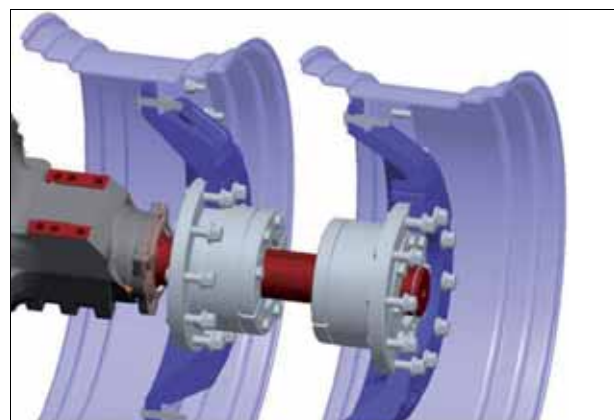


Fig. 18.

1047131



CAUTION:

The distance between the side of the inner tyre and the cab must always be higher than or equal to 40 mm (European Directive 89-173)

Inner wheel: track widths possible with rims with cast iron disc

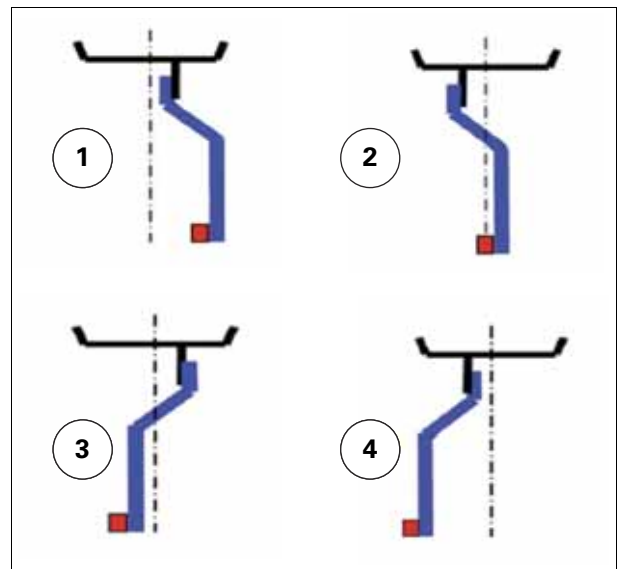


Fig. 19.

1042543

Rear axle type	Inner rim in position (1)		Inner rim in position (2)		Inner rim in position (3)		Inner rim in position (4)	
	Minimum wheel track	Maximum wheel track	Minimum wheel track	Maximum wheel track	Minimum wheel track	Maximum wheel track	Minimum wheel track	Maximum wheel track
HA 260F	1528,6 mm	1957,6 mm	1854,6 mm	2283,6 mm	2033,4 mm	2462,4 mm	2359,4 mm	2788,4 mm

Outer tyre: track widths possible with rims with cast iron disc

Rear axle type	Inner rim in position (1)		Inner rim in position (2)		Inner rim in position (3)		Inner rim in position (4)	
	Minimum wheel track	Maximum wheel track	Minimum wheel track	Maximum wheel track	Minimum wheel track	Maximum wheel track	Minimum wheel track	Maximum wheel track
HA 260F	2218,6 mm	2647,6 mm	2544,6 mm	2973,6 mm	2723,4 mm	3152,4 mm	3049,4 mm	3478,4 mm

When refitting, gradually tighten the nuts to the torque setting according to the recommendations in the table of tightening torques (see tightening torque in the Maintenance section of the Operator's Manual).

Special assembly with rims with adjustable disc/spacers/rims with fixed disc

3

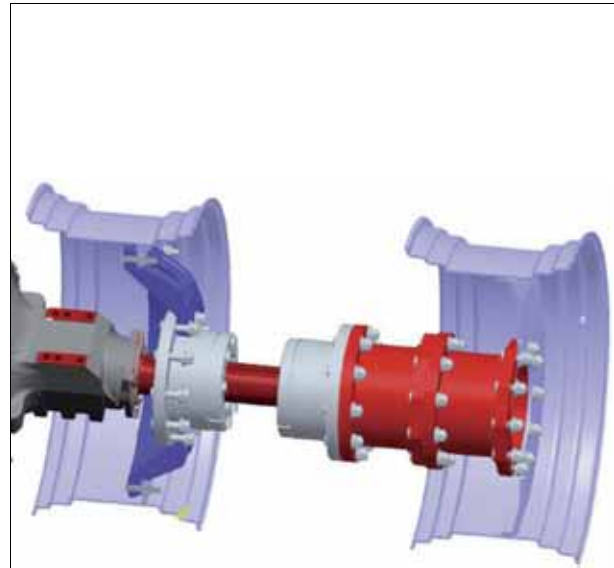


Fig. 20.

I043887

Rear axle type	Diameter of the straight shaft	Inner plate-to-plate distance	Outer plate-to-plate distance	Free space
		Min.	Max.	
HA 260F	110 mm	1893 mm	3972 mm	214,5 mm

CAUTION:
 The distance between the side of the inner tyre and the cab must always be higher than or equal to 40 mm (European Directive 89-173)

Inner wheel: track widths possible with rims with cast iron disc

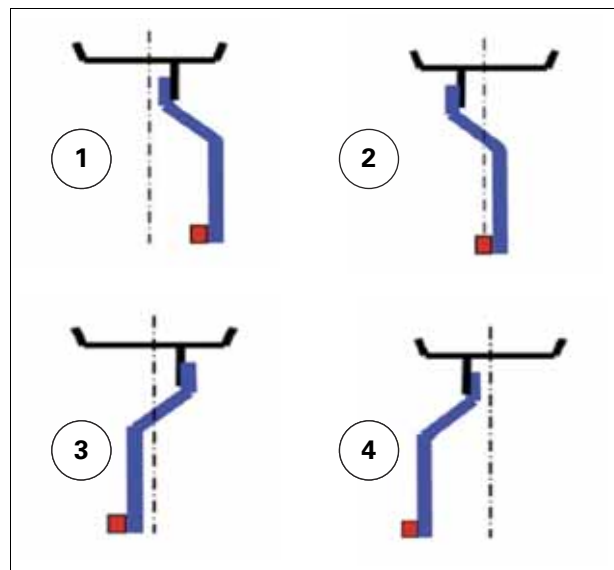


Fig. 21.

I042543

Rear axle type	Inner rim in position (1)		Inner rim in position (2)		Inner rim in position (3)		Inner rim in position (4)	
	Minimum wheel track	Maximum wheel track	Minimum wheel track	Maximum wheel track	Minimum wheel track	Maximum wheel track	Minimum wheel track	Maximum wheel track
HA 260F	1528,6 mm	1957,6 mm	1854,6 mm	2283,6 mm	2033,4 mm	2462,4 mm	2359,4 mm	2788,4 mm

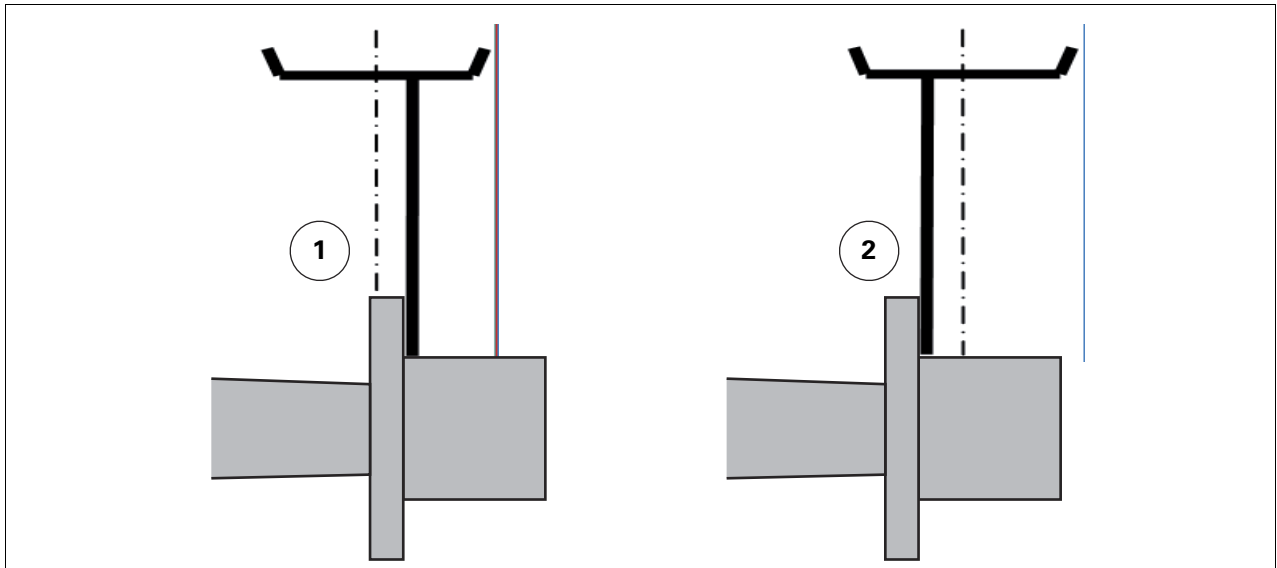


Fig. 22.

1029150

Outer tyre: track widths possible with rims with steel discs

Rear axle type	Outer rim in position (1)		Outer rim in position (2)	
	Minimum wheel track	Maximum wheel track	Minimum wheel track	Maximum wheel track
HA 260F	3393 mm	3822 mm	3719 mm	4148 mm

Special assembly with rims with adjustable disc/spacers/rims with adjustable disc

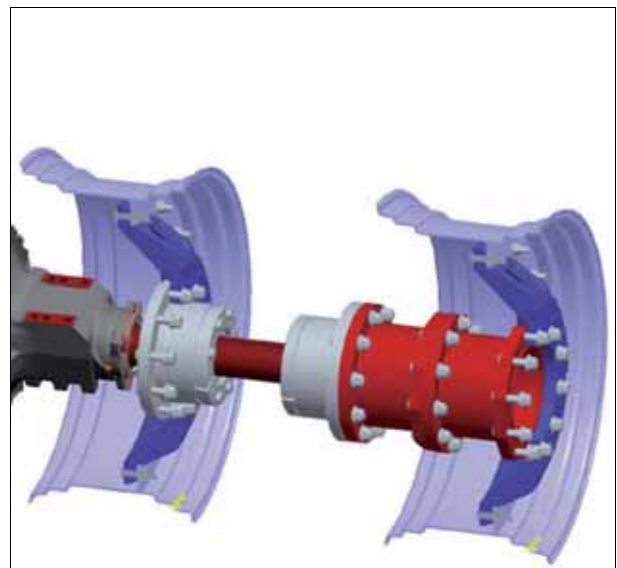


Fig. 23.

1043889

Inner wheel: track widths possible with rims with cast iron disc

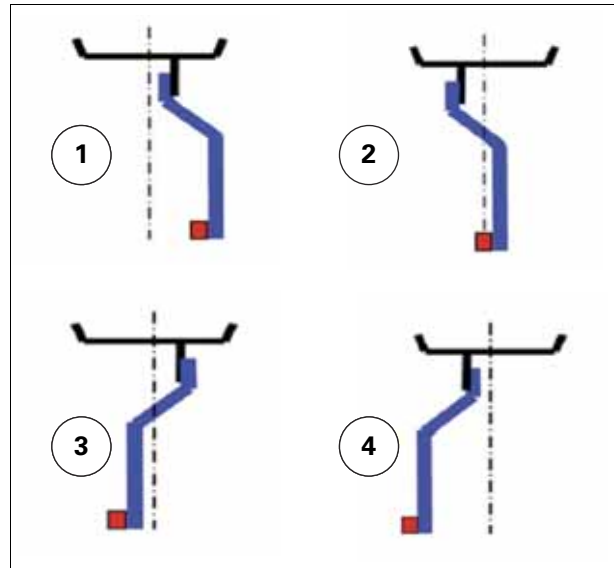


Fig. 24.

I042543

Rear axle type	Inner rim in position (1)		Inner rim in position (2)		Inner rim in position (3)		Inner rim in position (4)	
	Minimum wheel track	Maximum wheel track	Minimum wheel track	Maximum wheel track	Minimum wheel track	Maximum wheel track	Minimum wheel track	Maximum wheel track
HA 260F	1528,6 mm	1957,6 mm	1854,6 mm	2283,6 mm	2033,4 mm	2462,4 mm	2359,4 mm	2788,4 mm

Outer tyre: track widths possible with rims with cast iron disc

Rear axle type	Outer rim in position (1)		Outer rim in position (2)		Outer rim in position (3)		Outer rim in position (4)	
	Minimum wheel track	Maximum wheel track	Minimum wheel track	Maximum wheel track	Minimum wheel track	Maximum wheel track	Minimum wheel track	Maximum wheel track
HA 260F	3178,6 mm	3607,6 mm	3504,6 mm	3933,6 mm	3683,4 mm	4112,4 mm	4009,4 mm	4438,4 mm

3.23 Ballast

3.23.1 Liquid ballasting

T001016

Steering and braking performance can be considerably affected by attaching implements. To maintain the required ground contact pressure, ensure that the tractor is ballasted correctly. Advice is available from your Dealer.

Tyres with inner tube

These tyres can be inflated with water mixed with calcium chloride. Refer to your dealer.



WARNING:

When preparing a calcium chloride solution for ballasting the tractor tyres with water, NEVER pour the water onto the calcium chloride as this may produce chlorine, which is a toxic and explosive gas. This can be avoided by slowly adding calcium chloride flakes to the water and stirring until they are dissolved.

Tyres without inner tubes (tubeless):

Use a monoethylene glycol-based liquid containing corrosion inhibiting agents other than nitrites (Na No2). Example: Agrilest, Castrol, Lestagel, Igol, etc.

3.23.2 Front-end weight

T020702

Front weight

- (A) Front weight
- (B) Hitch weight

The front weights can be installed with the hitch weight on the front support of the tractor

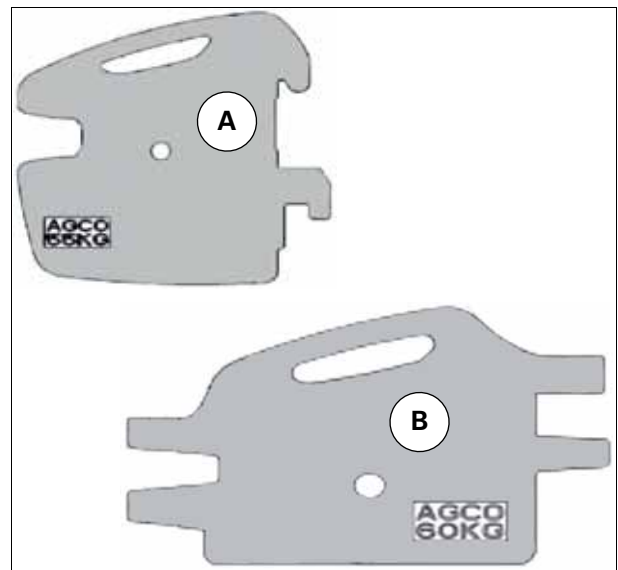


Fig. 1.

I042988

Weight	Unit weight	Number of parts	Total weight	Material
Front weight (A)	55 kg	10	550 kg	Cast iron
		12	660 kg	Cast iron
		14	770 kg	Cast iron
		22	1210 kg	Cast iron
		24	1320 kg	Cast iron
Hitch weight (B)	60 kg	1	60 kg	Cast iron

Single-piece weight

3

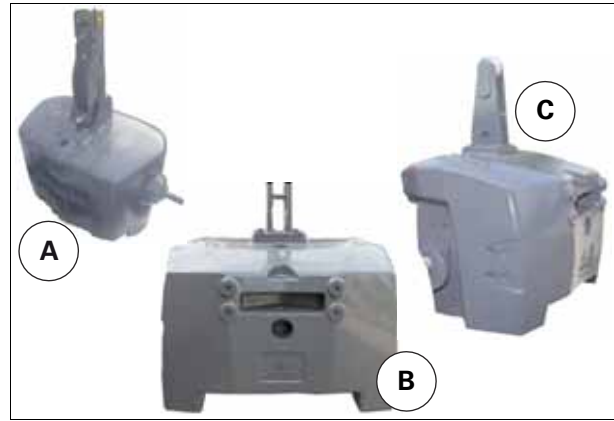


Fig. 2.

I047162

Type of single-piece weight	Total weight	Material
Single-piece weight (A)	900 kg	Cast iron
Single-piece weight (B)	1500 kg	Cast iron
Single-piece weight (C)	2300 kg	Cast iron

The single-piece weights can be installed on front power lift (1) or front support (2) of the tractor

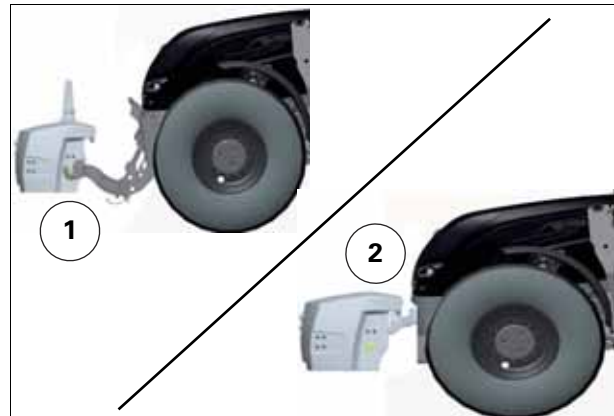


Fig. 3.

I051711

CAUTION: *Attaching additional weights to the single-piece weights installed on the front support is not permitted*

Additional weights may be added to the 1500 kg or 2300 kg single-piece weights installed on the front poser lift.



Fig. 4.

I047166

Single-piece weight	Additional weight	Total weight
Single-piece weight (B) of 1500 kg	14 max. weights x 55 kg + weight support of 40 kg + hitch weight of 60 kg	2370 kg
Single-piece weight (C) of 2300 kg	14 max. weights x 55 kg + weight support of 40 kg + hitch weight of 60 kg	3170 kg

Centre weight

Centre weight (A) cannot be installed on tractors with a front PTO.

Centre weight (B) can be installed on tractors with a front PTO.

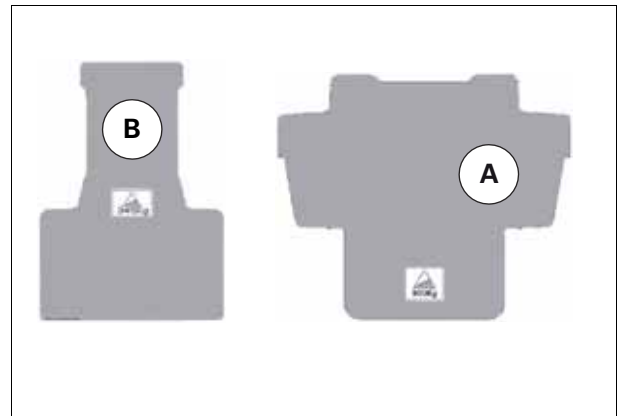


Fig. 5.

I047161

Type of centre weight	Total weight	Material
Centre weight (A)	920 kg	Cast iron
Centre weight (B)	345 kg	Cast iron