

Operator's Manual

Challenger[®]

Operation - MT500E
Deluxe and Premium versions

MT 525E
MT 535E
MT 545E



AutoPower VI

Beauvais

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Original Operator's Manual

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1. Tractor identification

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2.3.2 Presentation and location of the safety decals and instructions

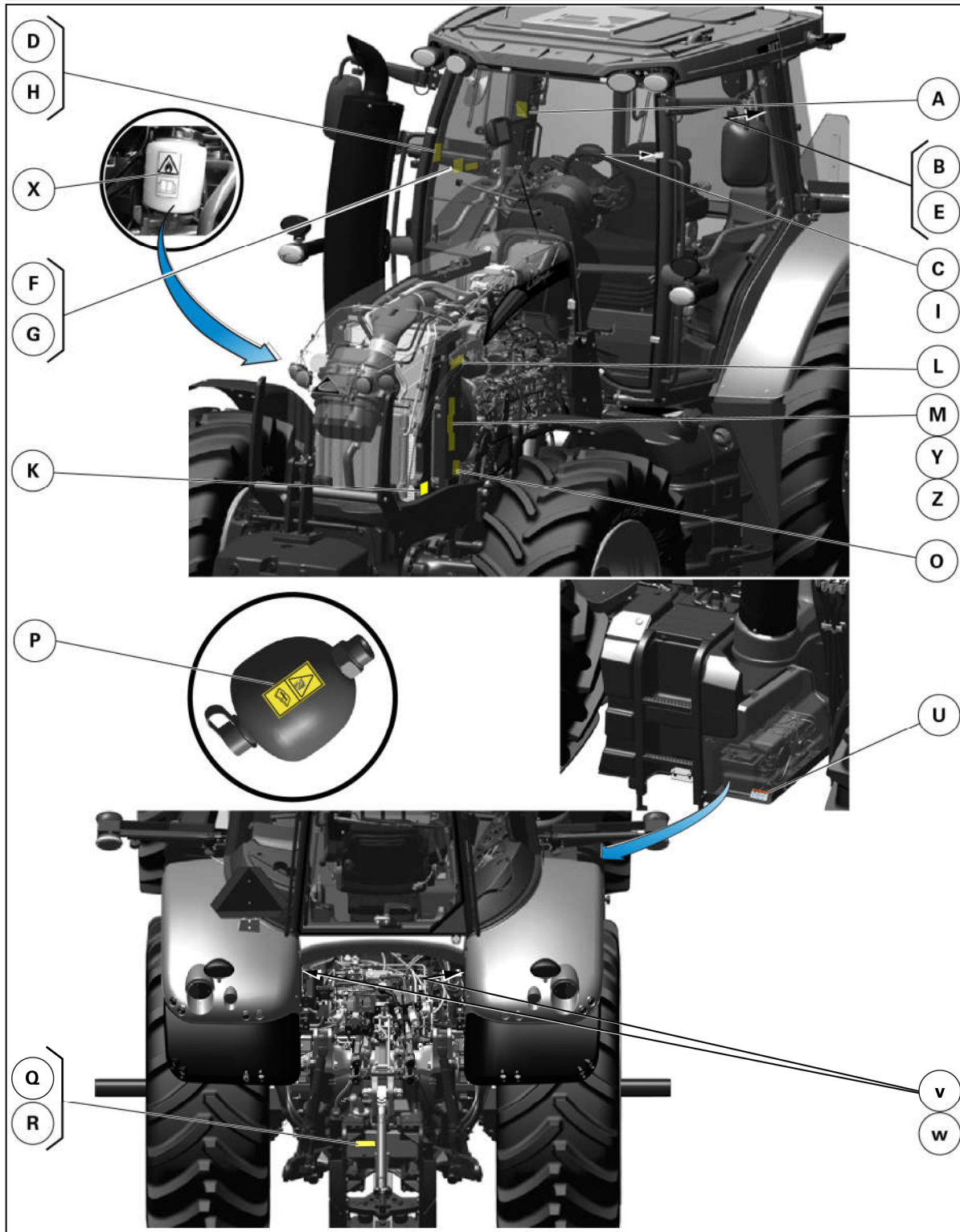


Fig. 1

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 work-place 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.

- 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.

2.7.4 Tractor towing

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

2.7.5 Regulatory data on maximum permitted trailed weights

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 authorized for the vehicle and towed equipment which should not be exceeded so as not to affect tractor safety.

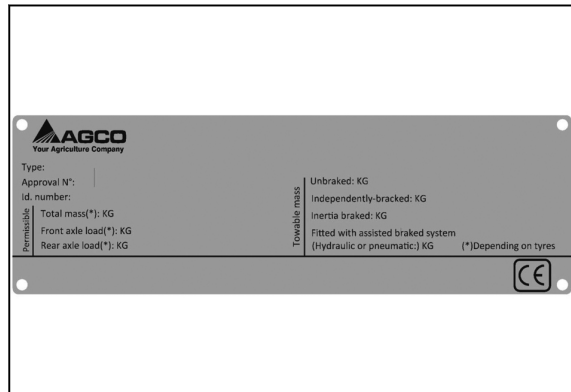


Fig. 14

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:

Positioning axle stands at the rear of the tractor

- (6) and (7) Under the rear axle beams

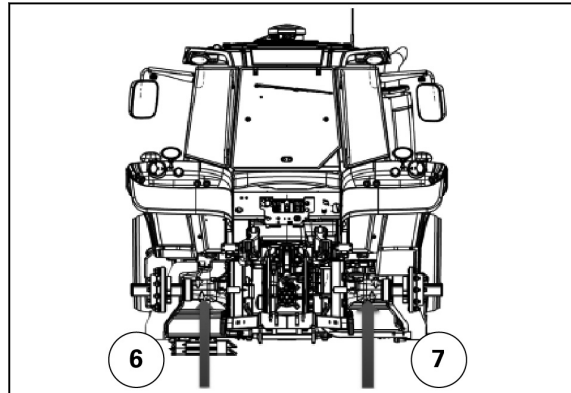


Fig. 24

Front sling points

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

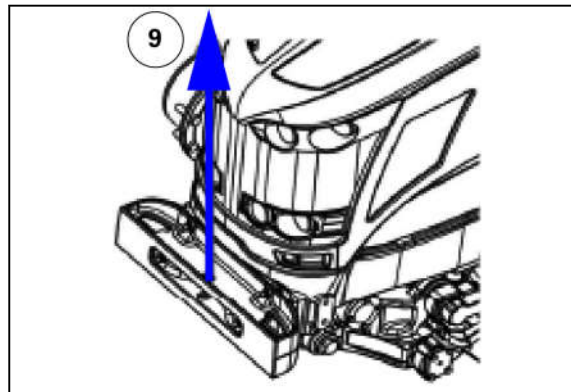
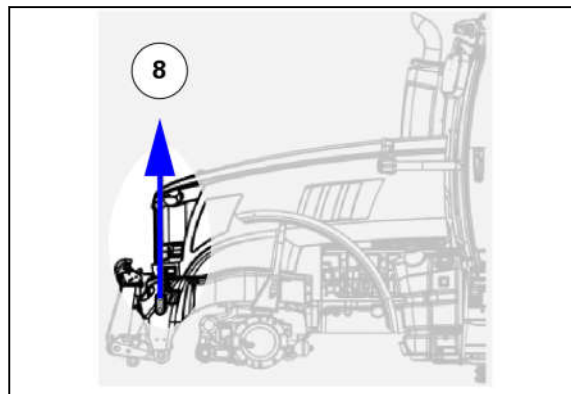


Fig. 25

POWER RANGE	WARRANTY TERM	COVERED COMPONENTS
Below or equal to 19 kw	2 years or 1500 hours	Rubber Flanges, Fuel Injection Pump, Fuel Injectors, Intake Manifold, Exhaust Manifold, Nozzle Assembly, Turbo Charger (if applicable), Controlled Hot air Intake System. Miscellaneous Vacuum, temperature, and time sensitive valves and switches, Electronic control units, sensors, solenoids and wiring harnesses. Hoses, belts, connectors, assemblies, clamps, fitting, tubing, sealing , pulleys, belts and idlers, Emission Control Information Labels, Any other part with the primary purpose of reducing emissions or that can increase emissions during failure without significantly degrading engine performance.
19-37 kw	5 years or 3000 hours	Rubber Flanges, Fuel Injection Pump, Fuel Injectors, Intake Manifold, Exhaust Manifold, Nozzle Assembly, Turbo Charger (if applicable), Controlled Hot Air Intake system, Miscellaneous Vacuum, temperature, and time sensitive valves and switches, Electronic control units, sensors, solenoids, and wiring harnesses. Hoses, belts, connectors, assemblies, clamps, fitting, tubing, sealing , pulleys, belts and idlers, Emission Control Information Labels, Any other part with the primary purpose of reducing emissions or that can increase emissions during failure without significantly degrading engine performance.
37kw-Up	5 years or 3000 hours	Fuel Injection Pump, Nozzle Assembly, Injection Pipe, Connector of Fuel Line, Intake manifold, Fuel pipe Assembly, Inlet Pipe, Inlet Pipe band, air cleaner element, fuel filter element, turbocharger systems, exhaust manifold, hoses, clamps, connectors, and sealing gaskets of devices used in systems above, catalysts, Electronic control units and sensors**, cold start enrichment system, charge air cooling system, controlled hot air intake system, catalytic converter, exhaust manifold, regenerators, oxidizers, fuel additive devices, and any other device used to regenerate or aid in the regeneration of the particulate control device, smoke puff limiters, selective catalyst reduction, reductant (DEF) containers/dispersing systems, Miscellaneous Vacuum, temperature, and time sensitive valves and switches, solenoids, and wiring harnesses. Hoses, belts, connectors, assemblies, clamps, fitting, tubing, sealing, gaskets or devices and mounting hardware, pulleys, belts and idlers, Emission Control Information Labels, Any other part with the primary purpose of reducing emissions or that can increase emissions during failure without significantly degrading engine performance.

NOTE: Filters that are replaced as part of normal scheduled maintenance are NOT covered by emissions warranty. These parts are listed as, but not limited to, engine air filter, oil filter, fuel filter, DEF filters, etc.

**** SENSORS RELATING TO EMISSION COMPONENTS ONLY**











Repair or replacement of any warranted part under the warranty provisions of this statement shall be performed at no charge to the owner at an authorized warranty station.

The owner shall not be charged for diagnostic labor that leads to the determination that a warranted part is in fact defective, provided that such diagnostic work is performed at an authorized warranty station.

Left-hand indicator light panel



Fig. 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
	Front PTO engaged indicator light
	4WD front axle engaged indicator light

Initial status of the Auto-Guide™ function (optional)	Presence detector status	Position of the parking brake or ParkLock	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 (10 seconds), and the symbol is displayed on the control panel screen and Auto-Guide™ OFF

Initial status of electrical switches H3 and H4 on the Multi Function Joystick	Presence detector status	Position of parking brake	Result
OFF	ON	ON or OFF	Operation of the H3 and H4 electrical switches (3rd and 4th function) possible
OFF	OFF	ON	Operation of the H3 and H4 electrical switches (3rd and 4th function) impossible
OFF	OFF < 3 seconds	OFF	The H3 and H4 electrical switches (3rd and 4th functions) can operate for three seconds
OFF	OFF > 3 seconds	OFF	Operation of electrical switches H3 and H4 not possible (an audible signal sounds and the symbol is displayed on the control panel)

3.1.7 Automatic adjustment pneumatic seat

Availability of adjustments varies according to the seat option fitted



WARNING:

Runaway machine and rollover hazards. Never adjust the seat when the tractor is in motion.

3.1.12 Left-hand console

- (1) Main storage tray
- (2) Passenger seat
- (3) Can/bottle holder
- (4) Mobile phone support
- (5) Cigarette lighter socket
- (6) Electrical control for adjusting external rear-view mirrors (optional).
- (7) External rear-view mirror defrosting control (optional).
- (8) Rear windscreen wiper control and rear windscreen washer control

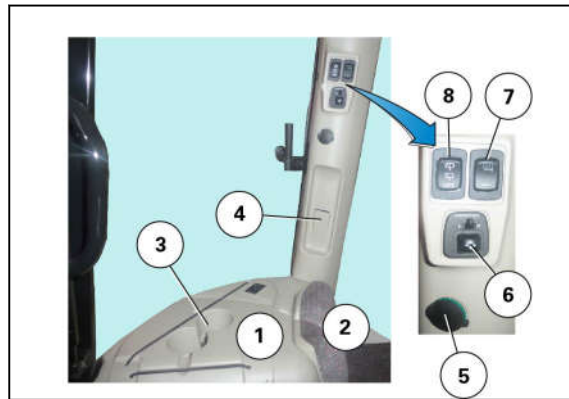


Fig. 38

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 enabled (the switch indicator light (3) is lit).

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

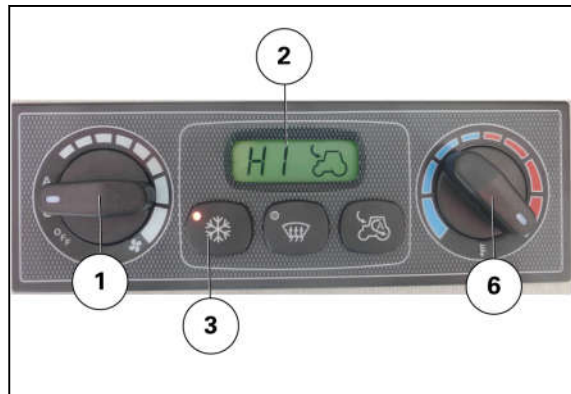


Fig. 58

Minimum temperature

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

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

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

The air conditioning compressor is active (the switch indicator light ((3)) is lit).

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)

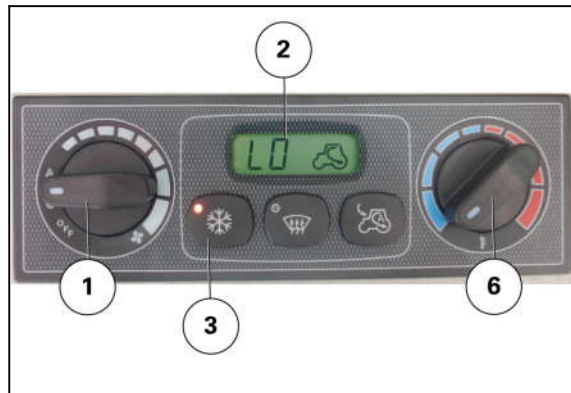


Fig. 59

Defroster button

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

HI is displayed on LCD screen (2).

The air conditioning compressor is active (the switch indicator light ((3)) is lit).

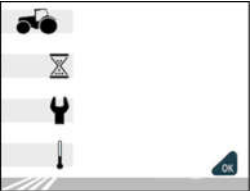



The recirculation function is deactivated (the air is taken from outside the cab) and the symbol appears on LCD screen (2)

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

3.2.2 Setup and Information screens

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 600 hours for the number of hours before the next maintenance period can be reset by pressing the  key for five seconds.</p>
	<p>Main screen</p> <p>Displays the restart forward speeds, the stored engine speed (A), the stored forward speeds (C1) and (C2), the lever/pedal mode, the Upper and lower limits of the engine speed function (if enabled and only with the TMC Display), the neutral brake pedal function (displayed only if the function is active), the right-hand reverse shuttle (displayed only if the function is active), the ISOBUS function (displayed only if the MultiPad lever is configured on the ISOBUS joystick) and the function selected by the user.</p> <p>Press the  key to select the function to display on the main screen:</p> <ul style="list-style-type: none"> • Area worked • Hourly consumption • Area worked per hour • Power consumption in relation to the area worked • Current rate of slip (%) • Rear power lift position (%)

Procedure

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

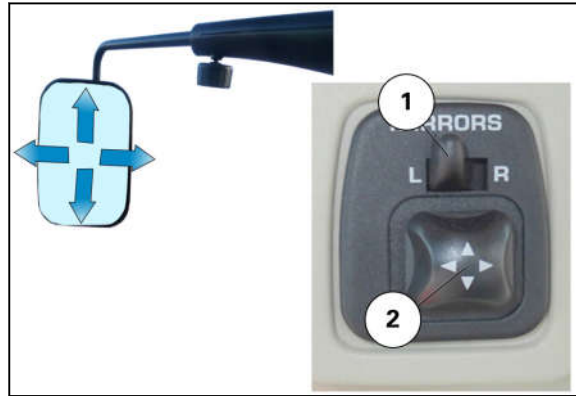


Fig. 87

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. 88

Electric defroster

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



Fig. 89

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T1	T2	T3	T4	T5
10 minutes (**) and 30 minutes (***)	30 minutes	150 minutes	1 minute	30 seconds
<ul style="list-style-type: none"> T10 minutes (**) if no DEF injection is required to check the error (electrical or hydraulic problem detected). T30 minutes (**), if an DEF injection is required to check the error. 			T = 1 minute if there are less than 30 engine restarts	T = 30 seconds if there are more than 30 engine restarts

- 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 150 minutes (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 is restarted (D) or (E) 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.
 - 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.

Lever MultiPad

It is also possible to store the transmission ratios using the C1 and C2 switches.

Select the required transmission ratios using the MultiPad/Power Direction lever.

Then hold down the transmission ratio switch C1 (2) or C2 (3) positioned on the MultiPad lever (A) for 3 seconds.

The transmission ratio is then stored and activated. It is displayed on the main screen of the Setup and Information Screen

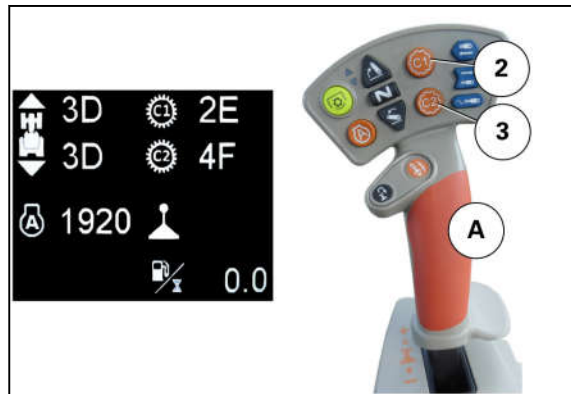


Fig. 114

T-handle lever

Select the required transmission ratios using the T-handle / Power Direction lever.

Using the T-handle (B), hold down the transmission ratio switch C1 (2) or C2 (3) for 3 seconds.

The transmission ratio is then stored and activated. It is displayed on the main screen of the Setup and Information Screen

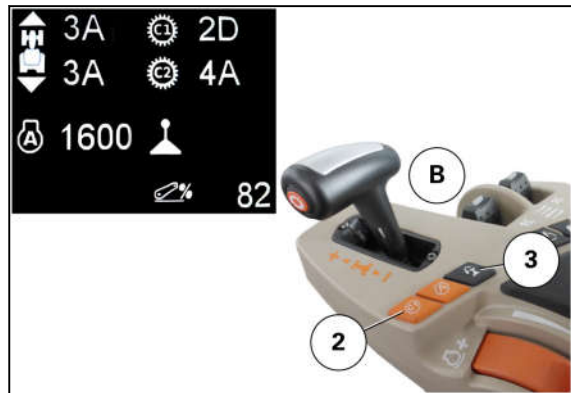


Fig. 115

NOTE:

The headland switch activates the transmission ratio C2 if no headland sequence is programmed. If a headland sequence is programmed by default, the headland switch will be reassigned to its headland function.

When the transmission ratio C1 or C2 is active, it can be modified using the C1 or C2 potentiometers respectively

The user can now activate or deactivate the stored transmission ratios "C1" or "C2" by simply pressing the corresponding switch.

NOTE:

Exclusively in Pedal mode, if the function C2/Pedal is "ON", it is not possible to engage the stored transmission ratio C2

Conditions to be met for activation.

- Clutch pedal not activated

Deactivation conditions.

- Shift the Power Direction control
- Clutch pedal depressed
- Action on the armrest control lever
- Press the switch corresponding to the stored and engaged transmission ratio
- Press the left-hand and/or right-hand brake pedals with forward speed > 20 km/h (12 mph)
- Press the left-hand and right-hand brake pedals with forward speed < 20 km/h (12 mph)

NOTE:

Pressing the left-hand or right-hand brake pedals with forward speed < 20 km/h (12 mph) maintains the activated transmission ratios

3.6 Brakes

3.6.1 Brake pedals



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 memorized 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) outward
 - Push the locking lever (1) downward
 - Use the brake pedal corresponding to the side the brake is to be applied

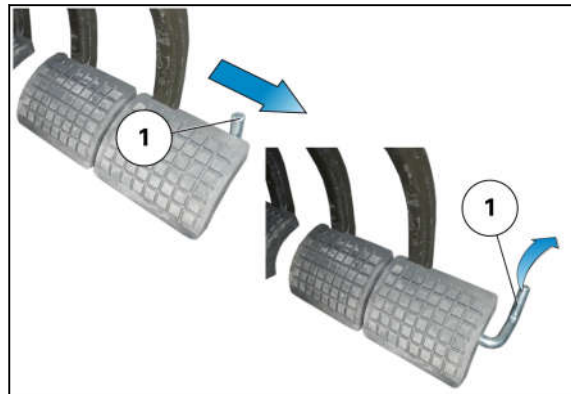


Fig. 133

- Use the brake pedals locked together when traveling on the road. To lock the brake pedals together:
 - Raise the locking lever (1)
 - Pull the lever (1) inward

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.

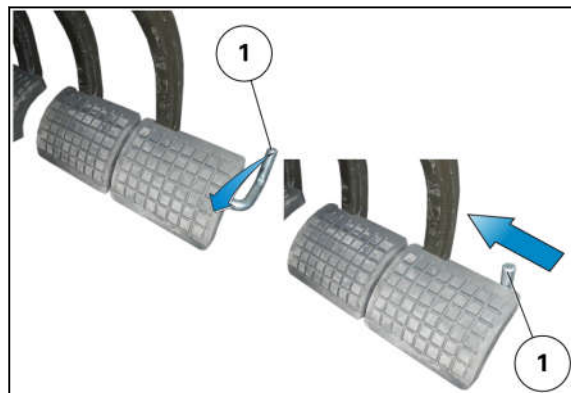


Fig. 134

3.6.2 Hydraulic trailer brake



WARNING:

When using the trailer brake, it is recommended that the brake pedals are locked together .

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.

3.8.3 Permissible load on the front axle

The tractor track width (V) is measured from the center of one wheel to the center of the other for single wheels.

For dual wheels, it is measured from the center of the right wheel assembly to the center of the left wheel assembly.

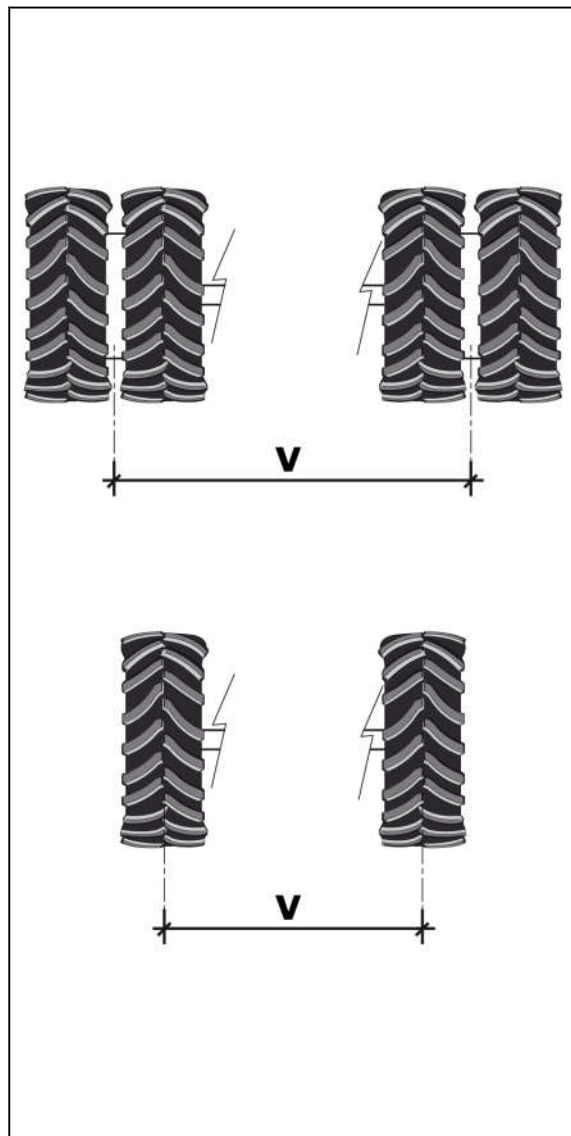


Fig. 150

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.

With cab electrical controls

To engage the GSPTO, first select the 1000 rpm speed (1) then place the lever in the position (2).
 To disengage it, place the lever in neutral position.



Fig. 162

With cab mechanical controls

To engage the GSPTO, first select the 1000 rpm speed (1) then place the lever in the position (2).
 To disengage it, place the lever in neutral position.

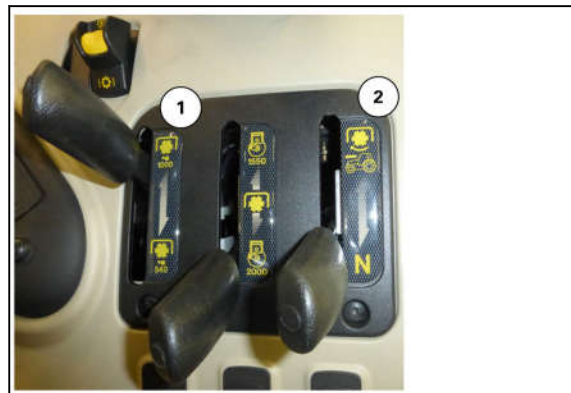


Fig. 163



WARNING:

The GSPTO must be engaged and disengaged when the tractor is stationary and the PTO is declutched.

Position	MT515E	MT525E	MT535E	MT545E
1000 rpm	12.52	12.52	12.52	12.52

Number of possible PTO turns for one turn of the wheel, by model

3.10.5 Changing the flanged shaft

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) (1.8 in) (1"3/4) with 20 splines (1000 rpm)



CAUTION:

Risk of entanglement. Rotating components. The engine must be shut off to change the shaft.

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

Rear linkage/engine speed automation

This function can be accessed from the Setup and Information Screen settings window. This screen is used to adjust the engine speed when changing the rear linkage status (work or transport).

- 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 activation function of stored engine speed (A) when changing the position of the rear power lift (work or transport) (**ON** and **OFF**), and then press to confirm

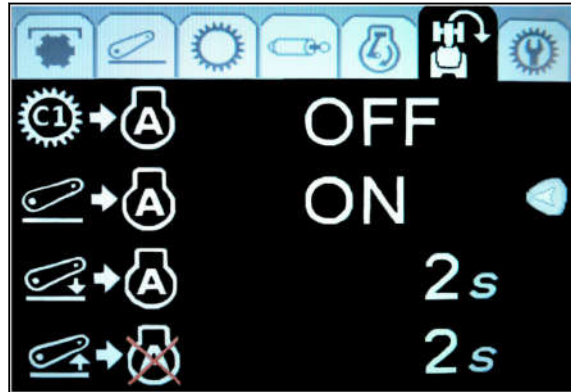


Fig. 185

NOTE: The rear linkage controls must be unlocked to activate this function

- - Press the or arrows to increase/decrease the activation time of stored engine speed (A) when the rear linkage is in working position and the forward speed is > 0 kph, and then press to confirm
- Press the or arrows to increase/decrease the deactivation time of the stored engine speed (A) when the rear linkage is in transport position and the forward speed is > 0 kph, and then press to confirm

With a forward speed > 0 kph	Consequences
Rear linkage in working position	Engine speed stored in (A) is activated after the preset time
Rear linkage in the transport position	Engine speed stored in (A) is deactivated after the preset time

Hydraulics priority to the rear linkage

This function can be accessed from the Setup and Information Screen settings window. This screen is used to prioritize 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.

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.

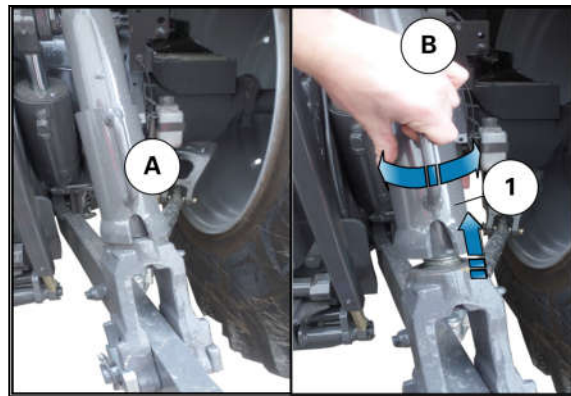


Fig. 207

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.

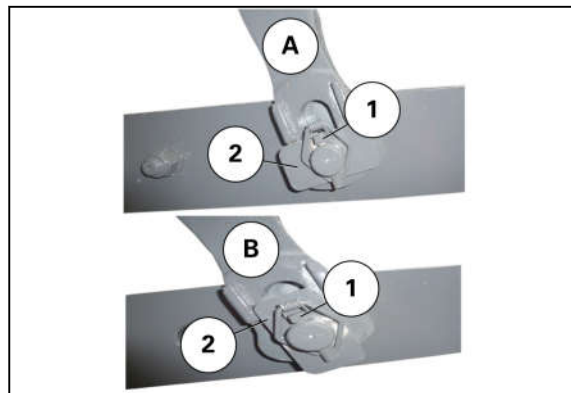


Fig. 208

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.

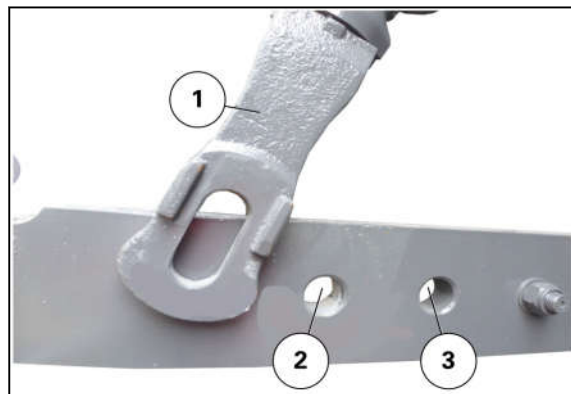


Fig. 209

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.

3.13 Auxiliary hydraulics

3.13.1 General

MT500E AutoPower VI tractors are sold with the 57 l/min (15.1 gal/min (US)) standard Open Center hydraulic system or the 100 l/min (26.4 gal/min (US)) Open Center hydraulic system (optional) or the 110 l/min (29.1 gal/min (US)) Closed Center hydraulic system (optional).

The tractor may be fitted with a maximum of 4 spool valves. It may be fitted with up to 4 pairs of couplers at the rear and 2 pairs of couplers at the front.

The spool valve controls are grouped together on the right-hand console or on the armrest (according to the option fitted).

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.

3.13.2 Description of hydraulic couplers on Closed Center system (Load Sensing)

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

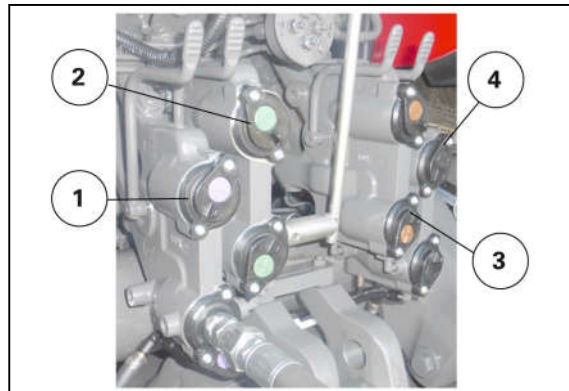


Fig. 223

NOTE:

Each spool valve controls one pair of couplers

All spool valves have slight internal leakage.

The spool valves on this tractor avoid this inconvenience.

- **All electrohydraulically controlled spool valves except the last spool valve no. 4:** The spool valves in the cylinder-rod extension phase (+) or in the cylinder-rod retraction phase (-) are equipped with a zero-leak valve that prevents pressure losses and the need to modify the height of the implements.
- **All mechanically controlled spool valves:** The spool valves in the cylinder-rod extension phase (+) are equipped with a zero-leak valve that prevents pressure losses and the need to modify the height of the implements.

NOTE:

Additional FingerTIP nos. 6, 7 and 8 located on the right-hand console are only present if the tractor is fitted with a front lift

Using rear spool valves 1 and 2 with the armrest controls

- (A) Cylinder rod extension
- (B) Cylinder rod retraction
- (C) Ram floating position

NOTE:

The TMC Display hydraulic spool valve menu can be used to prevent the joystick from shifting to the floating position.



Fig. 248

Press switch (1); the LED located on this switch must be off

NOTE:

The control change-over switch is only present if the tractor is fitted with a front lift
The position of the control change-over switch is stored when the engine stops

FingerTIP no. 1 controls the 1st rear spool valve.

FingerTIP no. 2 controls the 2nd rear spool valve.

Using front spool valve 1 and the front lift with the right-hand console controls (optional)

- (A) Cylinder rod extension
- (B) Cylinder rod retraction
- (C) Ram floating position

NOTE:

The TMC Display hydraulic spool valve menu can be used to prevent the joystick from shifting to the floating position.



Fig. 249

Press switch (1); the LED located on this switch must be off

NOTE:

The position of the control change-over switch is stored when the engine stops

FingerTIP no. 6 controls the front lift.

FingerTIP no. 7 controls the 1st front spool valve.

Hydraulic activation

- (1) Auxiliary hydraulics locking/unlocking button
- (2) Auxiliary hydraulics flow rate change/memory switch

To unlock the auxiliary hydraulics, press switch (1). The red indicator light should extinguish.

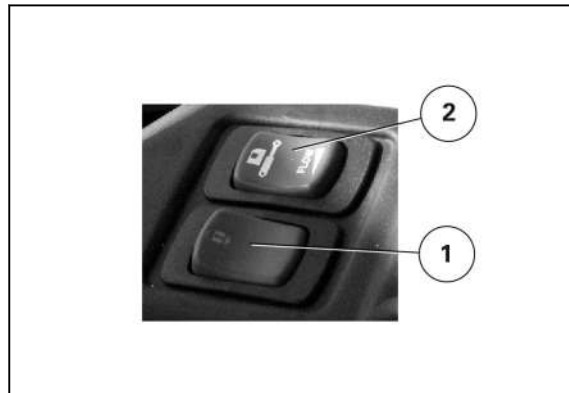


Fig. 270

3.14.3 Standard front-end loader connection

When connecting the hydraulic system to the loader, connect the hoses as shown in the diagram below. Check that the front-end loader is operating correctly.

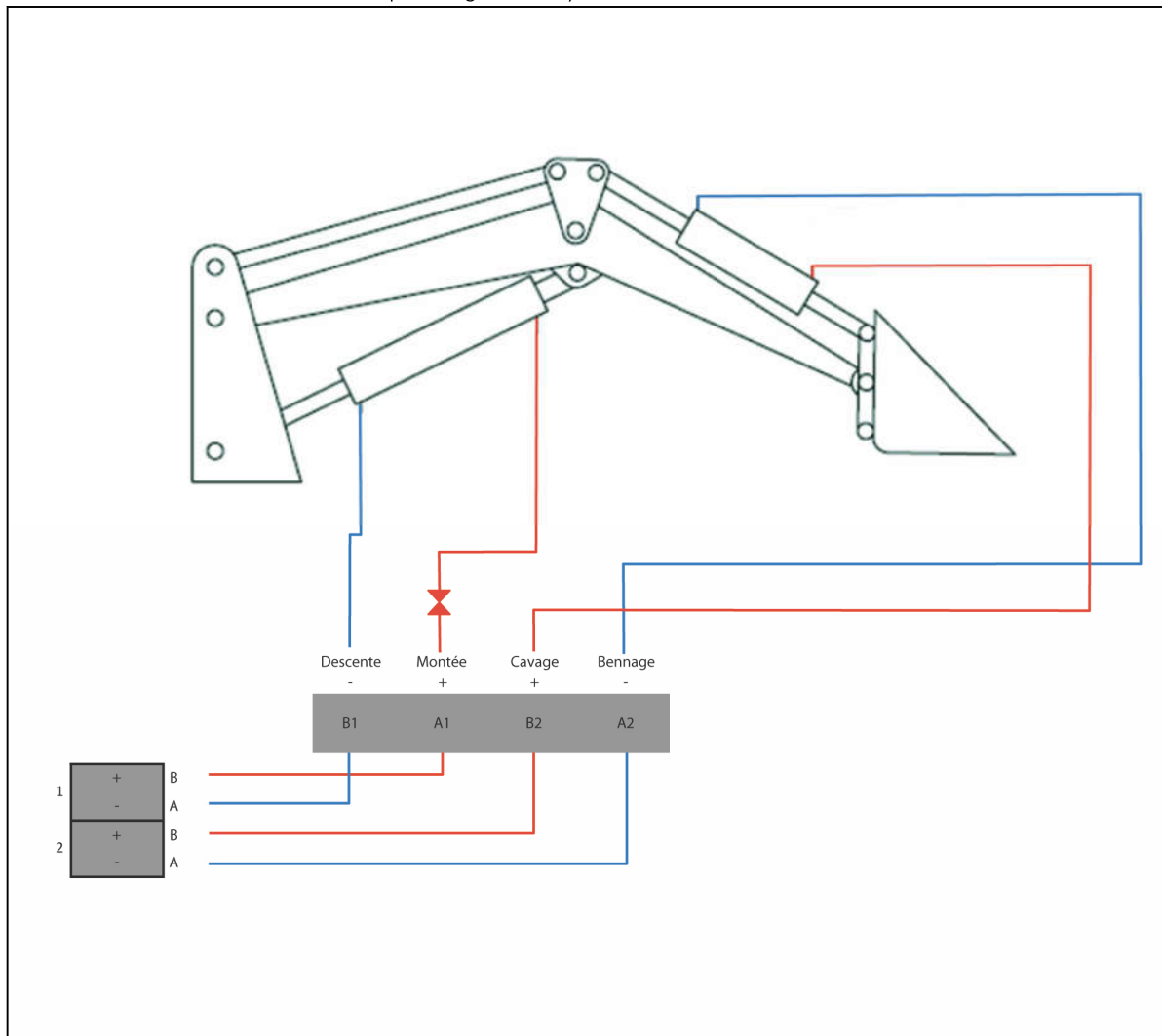


Fig. 271

A1: Loader lifting function

B1: Loader lowering function

Activation

1. Push the joystick lever as far as it will go toward (1) to obtain the floating position.



Fig. 289

Canceling

2. Pull the joystick toward (3) to cancel the floating position.



Fig. 290

3.15.4.3 Displaying the front-end loader flow rates with the 3rd function option

NOTE:

Display on Setup and Information Screen

Lifting/lowering:

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 select the front loader lifting/lowering function and then press to validate
- Press the or arrows to increase/decrease the hydraulic flow rate for the front loader lifting phase (from 0% to 100%) and then press to validate
- Press the or arrows to increase/decrease the hydraulic flow rate for the front loader lowering phase (from 0% to 100%) and then press to validate

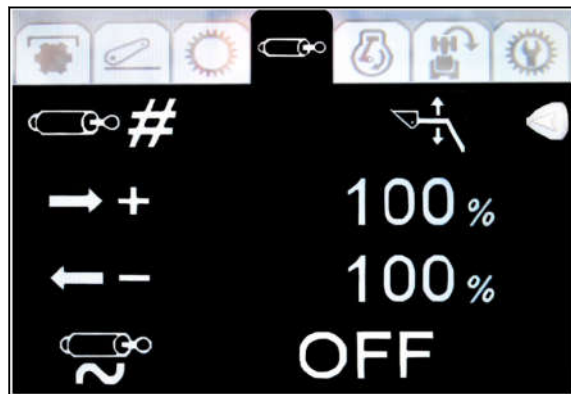


Fig. 291

After the hazard warning lights have been turned on with the switch:

- The front direction indicators (1) and (3), the extension direction indicators (5) and (6) and the rear roof direction indicators (7) and (8) are illuminated flashing
- The rear fender direction indicators (2) and (4) are not illuminated.

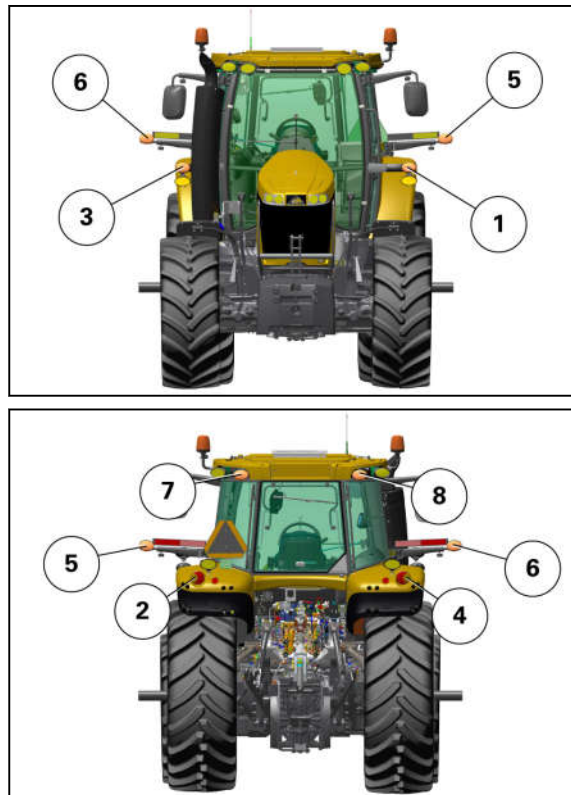


Fig. 308

3.18.4.6 Adjusting the front fenders Adjusting the lateral position of the fender on the support (two adjustments are possible)

Procedure

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.

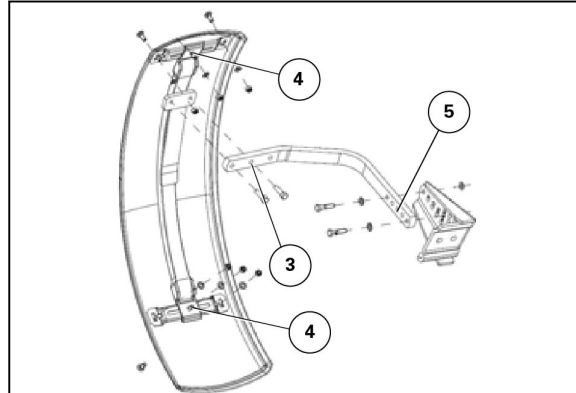


Fig. 323

3.18.5 Tires

Agricultural tire markings

- (1) Tire size in inches or millimetres
- (2) Type of manufacture (e.g. radial)
- (3) Nominal rim diameter in inches
- (4) Side/tire size ratio
- (5) Load capacity index per tire 121 = 1450 kg (3197 lb); 153 = 3650 kg (8047 lb)
- (6) Speed symbol A8 = 40 kph
- (7) Reference pressure: 1.6 bar (23 psi)
- (8) Tubeless: Without inner tube

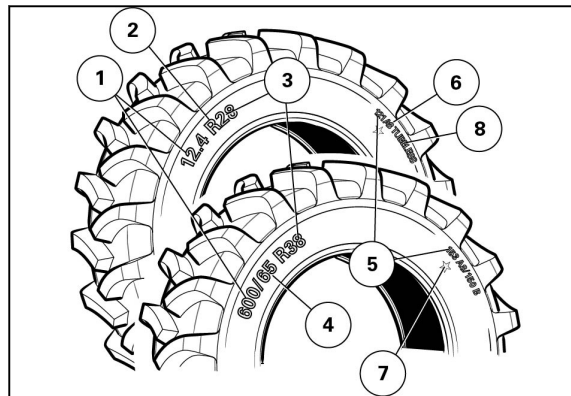


Fig. 324

3.18.6 Tire pressures

Pressure under load

Check the tire pressures every 100 hours. Tire 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 tire manufacturers.

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 1657 mm (65.3 in)	Maximum track width with plate-to-plate distance of 2672 mm (105.3 in)	Minimum track width with plate-to-plate distance of 1657 mm (65.3 in)	Maximum track width with plate-to-plate distance of 2672 mm (105.3 in)	Minimum track width with plate-to-plate distance of 1657 mm (65.3 in)	Maximum track width with plate-to-plate distance of 2672 mm (105.3 in)	Minimum track width with plate-to-plate distance of 1657 mm (65.3 in)	Maximum track width with plate-to-plate distance of 2672 mm (105.3 in)
GPA 23/ GPA 23+ (increased capacity of linkage)	1292,6 mm (509.3 in)	2307,6 mm (909.2 in)	1618,6 mm (637.7 in)	2633,6 mm (1037.6 in)	1797,4 mm (708.2 in)	2812,4 mm (1108.1 in)	2123,4 mm (836.6 in)	3138,4 mm (1236.5 in)

Track widths possible with rims with cast iron disk

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).

3.19.6 Adjusting the rear wheel track width

General



WARNING:

If work is carried out on the wheels, make sure that the tractor is immobilized. If work is carried out on the tractor raised on a jack, no one is allowed to be underneath the tractor.

The various track widths are obtained by moving the wheel on the straight shaft.

3.19.6.1 Adjustment of wheel position on the straight shaft

Procedure

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

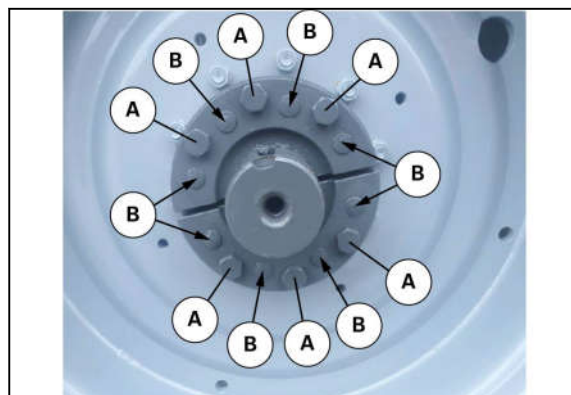


Fig. 340

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