Operator's Manual

MASSEY FERGUSON

Operation - MF 6700 S

Deluxe and Premium versions

MF 6713 S
MF 6714 S
MF 6715 S
MF 6716 S
MF 6718 S

Dyna-VT

Beauvais
AGCO S.A.S. - 41 avenue Blaise Pascal - 60000
Beauvais - France - RC B562 104 539

Original Operator's Manual

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2.2 Safety — Symbols and terms

2.2.1 Safety — Symbols and terms

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 recognize 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.*

2.5 Special safety instructions for preparing the tractor for use

2.5.1 Protective clothing

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

For example, you may need:

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

Fig. 5

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

2.5.2 Activated carbon filter information

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 vapors, 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 vapors 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-born contaminant for which it is being employed.

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 structures may collapse and cause the tractor to overturn. Always examine the condition and the permissible load of bridges and ramps before crossing.**
- **Do not use the tractor without a safety belt system during operations that involve a risk of tilting or overturning.**
- **Do not use the tractor beyond its dynamic stability limits. High speed, abrupt maneuvers and sudden, 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 transporting stumps. The tractor is at risk of tipping backward if the stumps are impossible to tow.**
- **Exercise extreme caution when working with the tractor on forage silos without concrete walls.**
- **Do not forget that the tractor center of gravity may increase when loads on the front 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 safety belt fastened, hold the steering wheel firmly and do not attempt to leave the seat until the tractor has come to a complete stop.

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

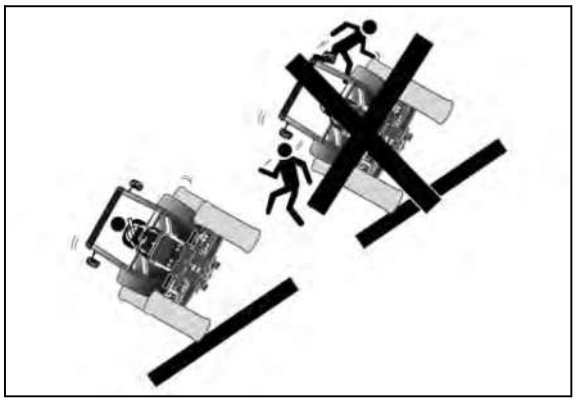

Fig. 12

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.

- Accumulators.

  The accumulators contain nitrogen and are pressurized.

  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 Massey Ferguson dealer regarding any maintenance.

2.8.3 Handling instructions

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

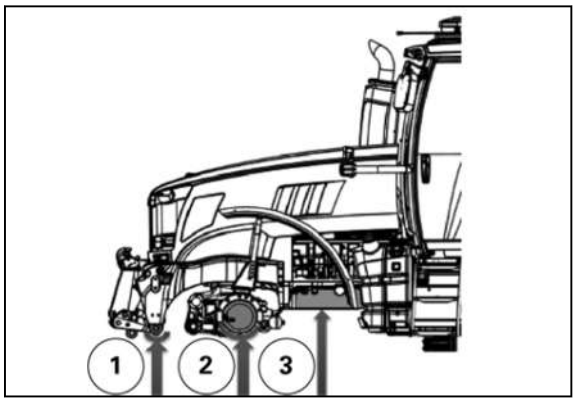

Fig. 23

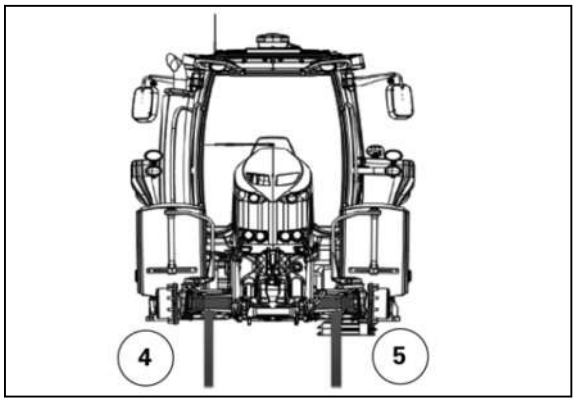

Fig. 23

designed, built, and equipped so as to conform with all applicable regulations adopted by the US Environmental Protection Agency, pursuant to its authority under the Federal Clean Air Act provided there has been no abuse, neglect, or improper maintenance of the engine. This warranty is effective in all states of the U.S.A. and all provinces and territories of Canada.

WARRANTY PERIOD

The warranty period for this engine's emission related parts to be free from defects in materials and workmanship which cause the failure of a warranted part to be identical in all material respects to the parts as described in the engine manufacturer's application for certification begins on the date the engine or equipment is delivered to an ultimate purchaser and continues for a period of five (5) years or 3,000 hours for 19 to 560 kW emission related parts except as noted below. In the absence of a device to measure hours of use, the engine emissions related parts shall be warranted for a period of five (5) years.

For all engines rated less than 19 kW, and for constant-speed engines rated under 37 kW with rated speeds higher than or equal to 3000 rpm, the period of two (2) years or 1500 hours of operation, whichever occurs first. In the absence of a device to measure hours of use, the engine shall be warranted for a period of two years. If any emission related part on your engine fails within the warranty period, the part will be repaired or replaced by AGCO.

AGCO'S WARRANTY RESPONSIBILITY

Listed below are the parts covered by this warranty. Any part listed below that is subject to scheduled maintenance during the warranty period is warranted up to the first scheduled replacement point for that part. A part repaired or replaced under this warranty is warranted for the remainder of the warranty period. Parts replaced under this warranty become the property of the manufacturer. The warranted parts could include:

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

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 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)

Initial status of the electrical controls for the hydraulic spool valves (Multi Function Joystick or FingerTIP)	Presence detector status	Position of parking brake	Result
OFF	ON	ON or OFF	Operation of the electrical controls possible
OFF	OFF	ON	Operation of the electrical controls not possible
OFF	OFF < 3 seconds	OFF	The electrical controls can operate for 3 seconds
OFF	OFF > 3 seconds	OFF	Operation of the electrical controls not possible (an audible signal sounds and the symbol is displayed on the control panel screen)
OFF	ON	ON or OFF	Activation of the spool valve activation time function (kick-out) possible **NOTE:** *The spool valve activation time function (kick-out) remains activated even if the operator presence detector then goes OFF*
OFF	OFF	ON	Activation of the spool valve activation time function (kick-out) not possible
OFF	OFF < 3 seconds	OFF	Activation of the spool valve activation time function (kick-out) possible for 3 seconds
OFF	OFF > 3 seconds	OFF	Activation of the spool valve activation time function (kick-out) not possible (an audible signal sounds and the symbol is displayed on the control panel screen)

Transmission functions with MultiPad version

(1) Maximum engine speed switch
(2) ISO switch to allocate MultiPad functions to an Isobus implement via the Control Center Display
(3) field mode (tortoise)/road mode (hare) switch

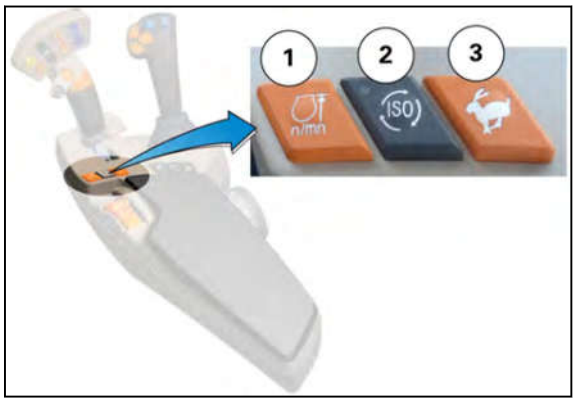

Fig. 35

Rear linkage control on the armrest

(1) Rear linkage switch in lifting position
(2) Rear linkage switch in neutral position
(3) Rear linkage switch in lowering position
(4) Height/depth adjustment thumb wheel with adjustable control stop

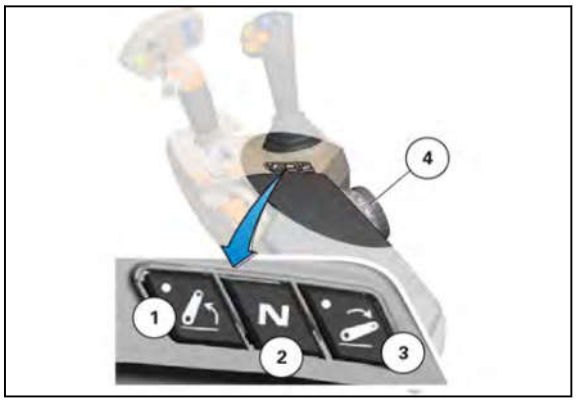

Fig. 36

3.1.11 Right-hand pillar

(A) Work lights module
(B) Selecting the power take-off speed
(C) Electronic linkage control plate
(D) Hazard warning lights indicator light and switch
(E) Activation switch of the front loader (if this option is fitted)
(F) Start switch
(G) Control switches: Side lights/low beam lamps, 4-wheel drive front axle/differential, suspended front axle/Auto-Guide™ (if this option is fitted)/SpeedSteer steering system (if this option is fitted).

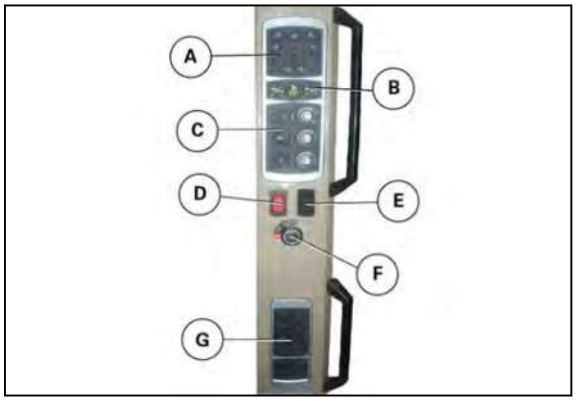

Fig. 37

°C	°F
23.5	75
24	76
25	78
26	80
27	82
28	84.
HI	HI

Temperature scale in Celsius and Fahrenheit:

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.
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.

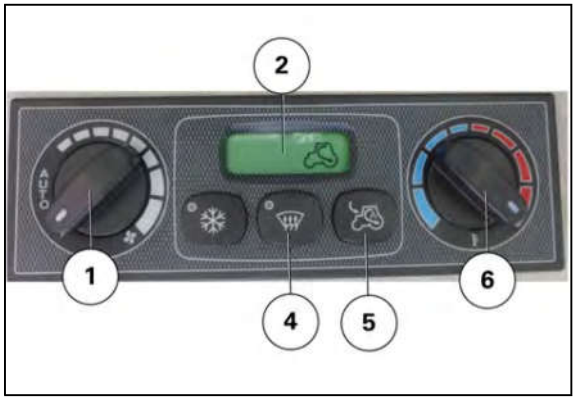

Fig. 54

NOTE:
*When there is a problem or error, an **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).

3.1.21 Wheel chock(s) (optional)

Wheel chock location

Located on the left-hand side below the tank, this chock (depending on option) immobilizes the tractor when required.

Unscrew the wing nuts to slide the chock out of its housing.

Fig. 78

Using the wheel chock

1. Once the wheel chock has been extracted from its housing, place it on the ground with the larger side facing down.
2. **IMPORTANT:** *The chock springs open automatically.*

   Hold down the top of the chock and press (1) to open.

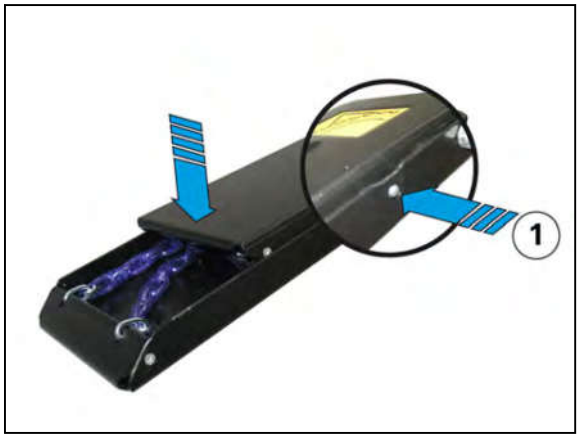

Fig. 79

3. Gently release the top of the chock.

Fig. 80

Screen	Function
	arrows to choose which function to adjust (the index moves), then press OK (the function is grayed out when it can be adjusted) • Press the or arrows or to enable/disable the activation of the stored engine speed (A) when engaging the stored forward speed (C1) and then press OK to confirm • 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 OK to confirm 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 power lift is in working position and a ground speed >0 km (0 mile), and then press OK to confirm • Press the or arrows to increase/decrease the deactivation time of stored engine speed (A) when the rear power lift is in transport position and a ground speed >0 km (0 mile), and then press OK to confirm

DEF (only for SCR Technology engines)

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

Fig. 95

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.*
- *DEF crystals may appear on the vehicle in the event of spillage. Rinse immediately with water to remove these crystals.*

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

IMPORTANT:
If the 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 DEF

The level of DEF in the tank appears on the instrument panel gauge

- When the level of DEF reaches the minimum mark on the tank (it must remain at a minimum of 5% for the system to operate correctly):
  - The gage level bars flash on the instrument panel
  - The final degraded mode is activated progressively.

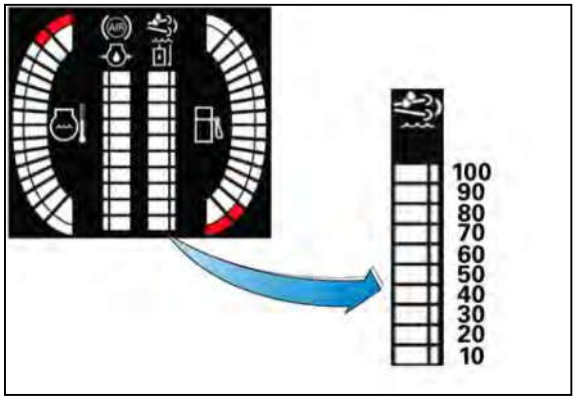

Fig. 96

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 (1) allows you to vary the engine speed and to maintain a constant speed. To do this, simply push or pull the lever to select a speed. The lever remains in this position to maintain the selected speed. The lever in rear position corresponds to idle speed.

Fig. 103

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. Select a ratio which allows the engine to operate comfortably at about 75% of its maximum power.

Maximum engine speed setting

The maximum engine speed can be set on the Setup and Information Screen screen.

- Press the ⏢ or ⏣ arrows to choose which function to adjust (the index moves), then press OK (the function is grayed out when it can be adjusted)
  - Press the ⏢ or ⏣ arrows to enable/disable (**ON** on, **OFF** off) and increase the maximum engine speed (1400 rpm to 2160 rpm) and then press OK to confirm

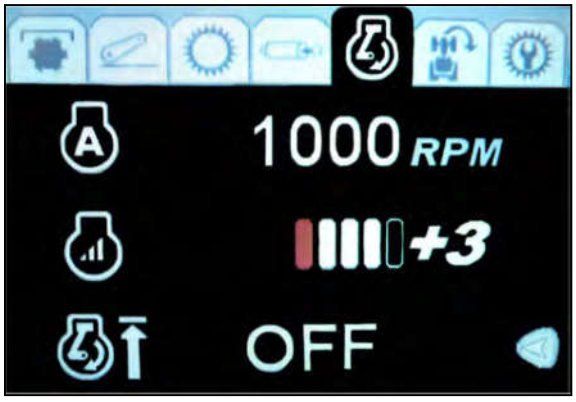

Fig. 104

- Press the ⓫ or ⓬ arrows to choose which function to adjust (the index moves), then press OK (the function is greyed out when it can be adjusted)
  - Press the ⓫ or ⓬ arrows or to enable/ disable the activation of the stored engine speed (A) when engaging the stored forward speed (C1) and then press OK to confirm

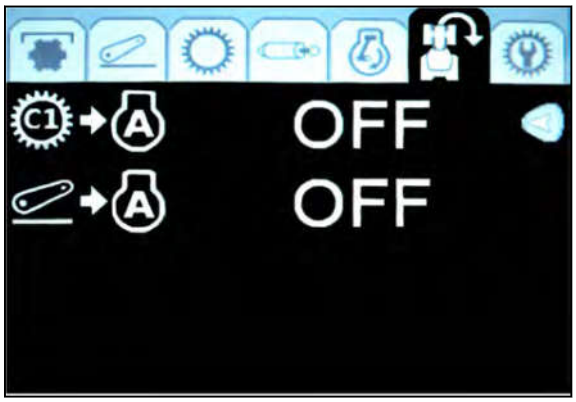

Fig. 120

Engine speed A is activated automatically after switch C1 is pressed.

3.5.6 Engine underspeed supervisor

Principles of operation

The engine underspeed supervisor controls the transmission in order to optimize the ratio between forward speed/engine load.

The underspeed supervisor operates automatically if an increase in torque results in a drop in engine speed.

The tractor forward speed is then decreased automatically by the gearbox control to prevent an even greater drop in engine speed.

Adjusting the underspeed supervisor

For tractors equipped with the Control Center Display, the various adjustments can be made using the appropriate screen on the Control Center Display (see the Operator's Manual for the Control Center Display).

For tractors without the Control Center Display, the default adjustments are:

Supervisor <transport mode> active by default, set to 10%, and thus the forward speed will take priority over the engine speed.

Supervisor <power take-off mode> active when the PTO is engaged, set to 2%, and the engine speed will then take priority over the forward speed.

3.5.7 Lever mode

This mode is accessed via the Pedal/Lever mode switch. The tractor forward speed depends on the position of the armrest lever and/or the Power Control lever. The engine speed depends on the position of the throttle pedal/hand throttle or the engine speeds stored in A or B.

NOTE:
The selected mode is stored when the tractor is stopped.

Fig. 121

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

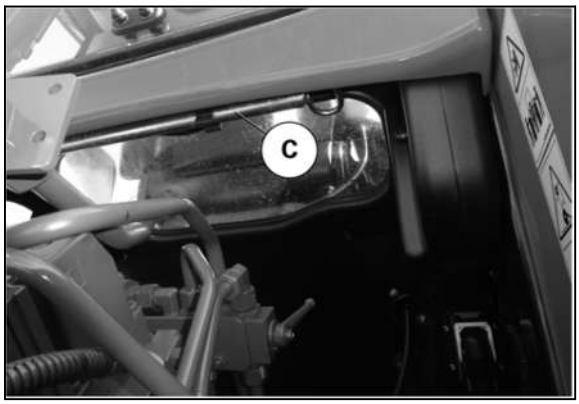

Fig. 142

6. Declutch and start the tractor while holding down red button (D) (limp home button).
7. **IMPORTANT:**
   Keep the clutch pedal depressed.

   Release the red button.

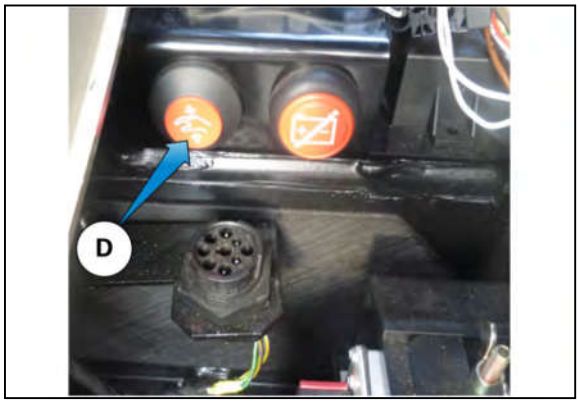

Fig. 143

8. Place the limp home lever on control (E).
9. Turn the lever in the required direction of travel:
   - counterclockwise, forward travel
   - clockwise, reverse travel

   NOTE:
   Travel speed depends on the rotational value of the lever.
10. 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.
11. When the tractor is stopped, the speed range must be in neutral position (middle position) and the park brake must be engaged.

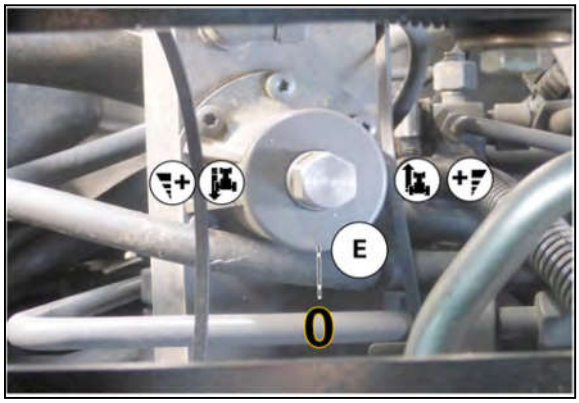

Fig. 144

3.5.14 Forward speed calibration

General

This calibration allows improved precision of forward speed depending on:

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

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.

This procedure cancels manual mode if it was engaged

The 4-wheel drive front axle indicator lights on the instrument panel and on the switch (1) illuminate.

Fig. 160

Actions	Consequences
Forward speed of tractor greater than 20 kph	Temporary disengagement of the 4-wheel drive front axle
Forward speed of tractor less than 19 kph	Re-engagement of the 4-wheel drive front axle
Steering angle greater than 25° (with steering angle sensor option)	Temporary disengagement of the 4-wheel drive front axle
Steering angle less than 23° (with steering angle sensor option)	Re-engagement of the 4-wheel drive front axle
Wheel slip rate < 15%	Temporary disengagement of the 4-wheel drive front axle
Wheel slip rate > 20%	Re-engagement of the 4-wheel drive front axle

NOTE:
The disengagement angle can be adjusted by your dealer.
This automatic mode is not available with Headland Management

3.8.2 Suspended front axle

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.

Initial setting	Actions	Consequences
Rear linkage control is in lowering position and forward speed is greater than 0.1 kph	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 kph	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 kph	The rear linkage control is in the lowering position	The rear PTO is re-engaged and the indicator light (C) is permanently lit
Rear linkage control is in lowering position and forward speed is greater than 0.1 kph	Forward speed equal to 0 kph	The rear PTO remains engaged and the indicator light (C) remains permanently lit
Rear linkage control is in lowering position and forward speed is equal to 0 kph	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 equal to 0 kph	The rear linkage control is in the lowering position	The rear PTO remains temporarily disengaged and the indicator light (C) flashes
Rear linkage control is in lowering position and forward speed is equal to 0 kph	Forward speed greater than 0.1 kph	The rear PTO is re-engaged and the indicator light (C) is permanently lit
Forward speed equal to or greater than 0 kph	Forward speed greater than 25 kph	The rear PTO is permanently disengaged and the indicator light (C) is off

5. Press the selector switch (D) to disengage the rear PTO permanently

3.10.3 Economy PTO

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.

Mechanical control

To engage the economy PTO, position the lever in the economy PTO position (1)

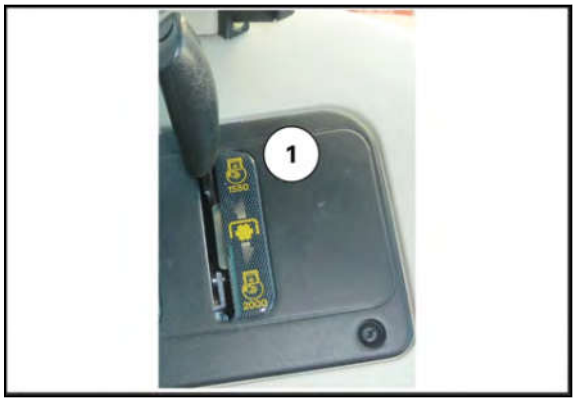

Fig. 173

Electrical controls

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.

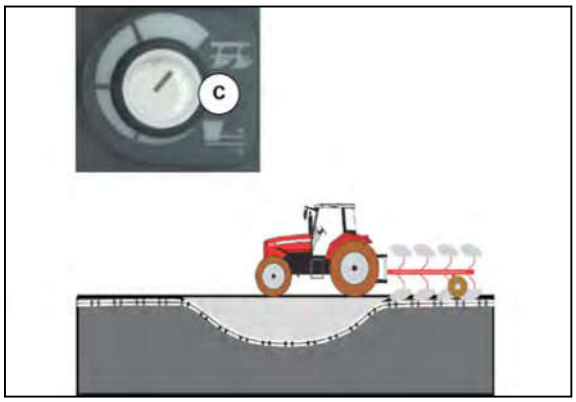

Fig. 194

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.

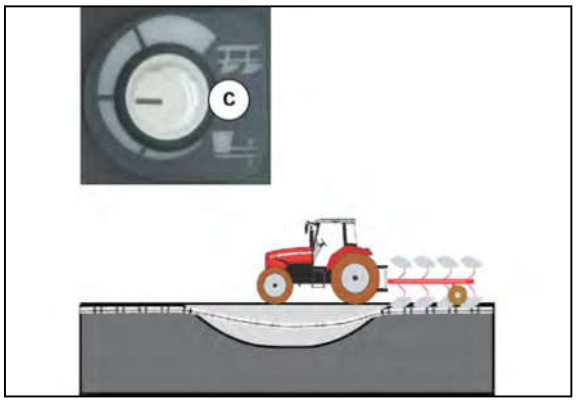

Fig. 195

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 wheel 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 tire wear
  - Causes less damage to the soil

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.

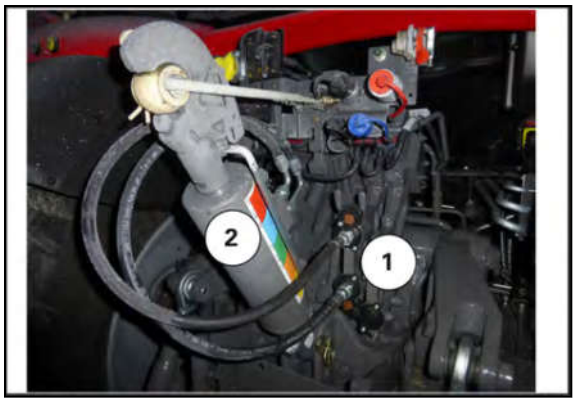

Fig. 217

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:
After using this hydraulic top link and refitting 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.

3.11.7 Bottom links

(5) Link with category 3 hook
(6) Category 2 or 3 telescopic link

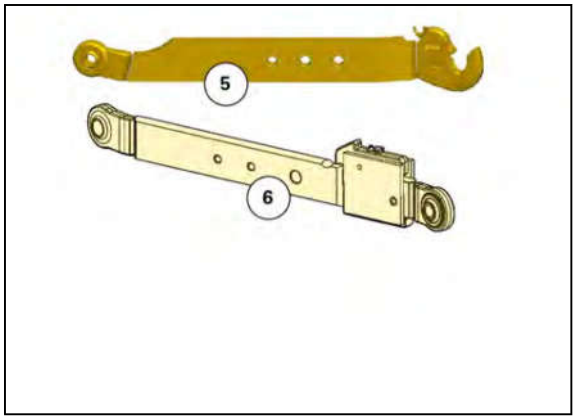

Fig. 218

Category 2 (SAE) drawbar	Length T	Position	PTO speed (rpm)	PTO type	Number of splines	PTO diameter	Vertical static load:
Minimum	350 mm (13.8 in)	A	540 or 1000	3	20	45 mm (1.8 in)	2080 kg (4586 lb)
Standard	400 mm (15.8 in)	B	540 or 1000	3	20	45 mm (1.8 in)	1,600 kg (3527 lb)
Maximum	550 mm (21.7 in)	C	540 or 1000	3	20	45 mm (1.8 in)	1120 kg (2469 lb)
Ø of pin	30 mm (1.2 in)						
Width of drawbar	90 mm (3.5 in)						
Thickness of drawbar	50 mm (2 in)						

3.12.2.1 Fitting the swinging drawbar

Procedure

1. Unscrew the 2 screws (1)
2. Extract the pin (2).

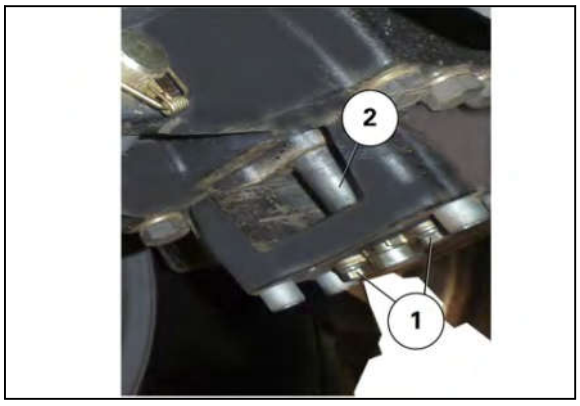

Fig. 234

3. Insert swinging drawbar (3) and move it into the desired position.

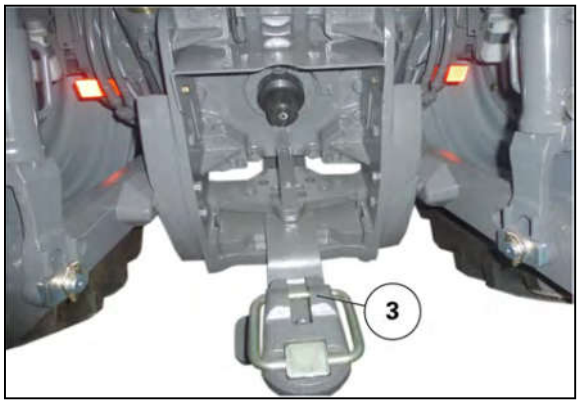

Fig. 235

If the tractor is fitted with a Control Center Display, it is possible to activate/deactivate the auxiliary hydraulics using the onboard computer (see the Control Center Display Operator's Manual).

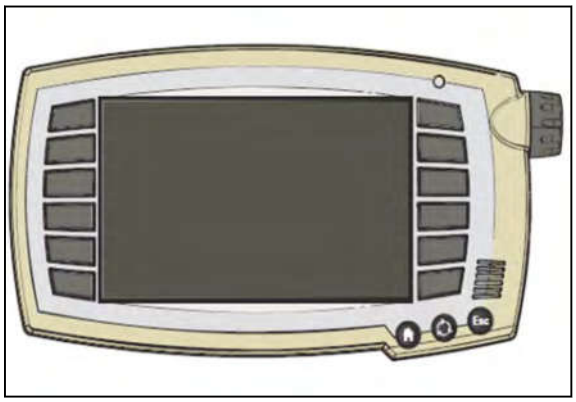

Fig. 255

3.13.5 Hydraulics control lever

Using the control levers

(A) Mechanical levers

- Neutral position Each spool valve controlled by a lever can be set in various positions by actuating the lock (D)

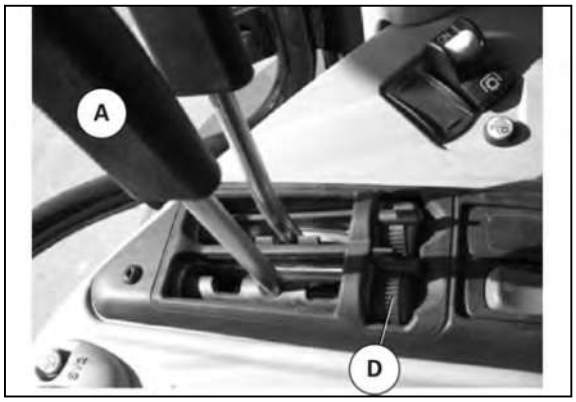

Fig. 256

- Ram rod extended position

Fig. 257

- 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

Adjustment with the flow rate setting/memory switch

It is also possible to adjust the hydraulic flow rate of a spool valve using the flow rate setting/memory switch.

First, access the screen for the hydraulic spool valves of the Setup and Information Screen and then choose the spool valve concerned

- Tilt the Multi Function Joystick or the FingerTIPs into a position and press the flow rate memory switch (1) for 2 seconds

  The stored value for a position will be displayed on the screen.
- Press the flow rate setting switch (2) to apply the values 0% or 25% or 50% or 75% or 100%.

  The flow rates are identical for the ram rod extension phase and ram rod retraction phase of the spool valve and are displayed on the screen.
- Keeping the switch (1) pressed for 5 seconds deletes all memories and provides 100% of the flow rate for the ram rod extension phase and ram rod retraction phase of the spool valve.

Fig. 280

Hydraulic flow rate adjustment at the rear of the tractor

For mechanically operated spool valves, adjustments to the hydraulic flow rates are made at the rear of the tractor.

To adjust the oil flow, turn knob (1) of the relevant spool valve.

To increase the flow rate, turn the button to **+** and to reduce the flow rate, turn it to **-**.

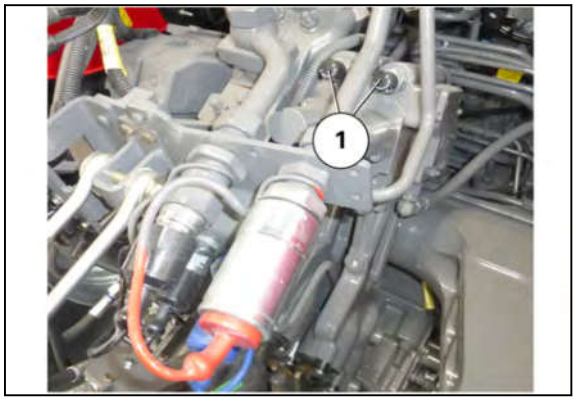

Fig. 281

3.13.9 Emergency manual spool valve control

In the event of operating faults of the joystick or spool valve electrical controls, an emergency control fitted to the last spool valve is available to lift and lower installed attachments manually.

3.15 Front-end loader function with 3rd function option

3.15.1 Front-end loader

WARNING:
The tractor must be fitted with a FOPS (Falling Object Protection Structure) roof if using a loader.
The programmable functions of the joystick or any other control MUST NOT be used to operate a loader. In order to prevent involuntary loader movement, the loader joystick controller must be of the self-cancelling 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 forestry applications; its use is prohibited unless a FORESTRY KIT is installed.
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.

3.15.2 Layout of components

Joystick lever

The joystick lever controls 4 functions of the front-end loader.

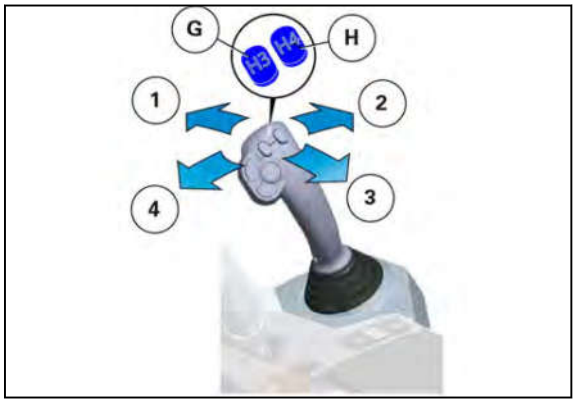

Fig. 298

- Work lights on hand rails (3)
- Work lights on fenders (4)
- Work lights at rear of roof (6)
- Work lights on front of roof (7)

Press the ⓫ or ⓬ arrow to select the Comfort lights delay function (the index moves), then press ⓪ (the function turns gray when it can be modified)

- Press the ⓫ or ⓬ arrows or to enable/disable the Comfort lights delay function (**ON** on, **OFF** off) and then press ⓪ to confirm

Fig. 316

3.16.3 Direction indicators

Left direction indicator

The control unit must be activated in direction (A) to activate the left direction indicators

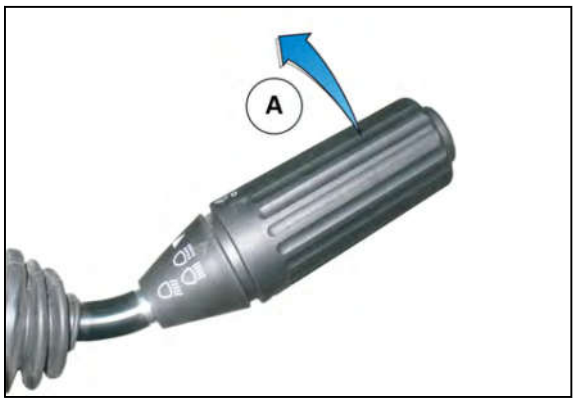

Fig. 317

- The front left direction indicator (1), left extension direction indicator (5), rear left roof direction indicator (7) and rear left fender direction indicator (2) are illuminated flashing
- The front right direction indicator (3), right extension direction indicator (6) and rear right roof direction indicator (8) are illuminated continuously
- The rear right fender direction indicator (4) is not illuminated.

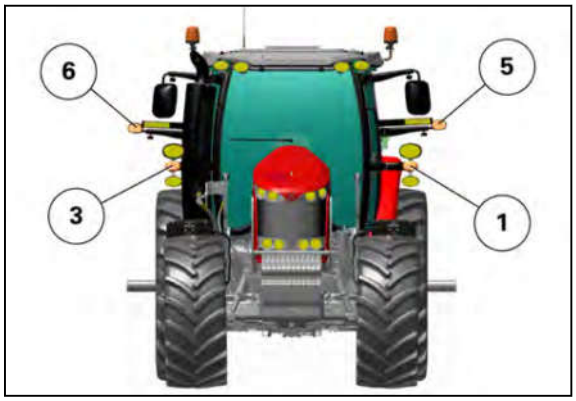

Fig. 318

Rims with adjustable disk

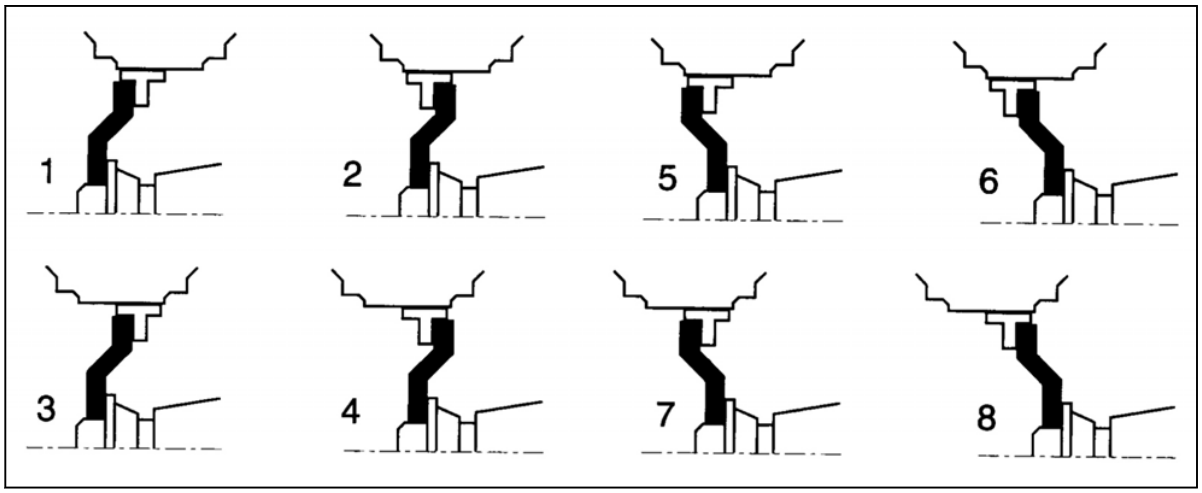

Fig. 332

Eight track widths can be obtained by changing the position of the rim in relation to the disk or by reversing the wheels.

Position	Rims	Plate-to-plate distance					
		DANA 735: 1800 mm (70.9 in)		DANA 740: 1800 mm (70.9 in)		DANA 740: 1784 mm (70.3 in)	
		Disk offset 42 mm (1.7 in)	Disk offset 100 mm (3.9 in)	Disk offset 42 mm (1.7 in)	Disk offset 100 mm (3.9 in)	Disk offset 42 mm (1.7 in)	Disk offset 100 mm (3.9 in)
Wheel disk facing inward	1	1566 mm (61.7 in)	1456 mm (57.4 in)	1566 mm (61.7 in)	1456 mm (57.4 in)	1550 mm (61.1 in)	1440 mm (56.7 in)
	2	1680 mm (66.2 in)	1560 mm (61.5 in)	1680 mm (66.2 in)	1560 mm (61.5 in)	1664 mm (65.6 in)	1544 mm (60.8 in)
	3	1734 mm (68.3 in)	1660 mm (65.4 in)	1734 mm (68.3 in)	1660 mm (65.4 in)	1718 mm (67.7 in)	1644 mm (64.8 in)
	4	1772 mm (69.8 in)	1764 mm (69.5 in)	1772 mm (69.8 in)	1764 mm (69.5 in)	1756 mm (69.2 in)	1748 mm (68.9 in)
Wheel disk facing outward	5	1848 mm (72.8 in)	1856 mm (73.1 in)	1848 mm (72.8 in)	1856 mm (73.1 in)	1832 mm (72.2 in)	1840 mm (72.5 in)
	6	1886 mm (74.3 in)	1960 mm (77.2 in)	1886 mm (74.3 in)	1960 mm (77.2 in)	1870 mm (73.7 in)	1944 mm (76.6 in)
	7	1940 mm (76.4 in)	2060 mm (81.2 in)	1940 mm (76.4 in)	2060 mm (81.2 in)	1924 mm (75.8 in)	2044 mm (80.5 in)
	8	2054 mm (80.9 in)	2164 mm (85.3 in)	2054 mm (80.9 in)	2164 mm (85.3 in)	2038 mm (80.3 in)	2148 mm (84.6 in)

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).

3.19.5 Rear track width with long straight shafts

General

The various track widths are obtained by changing the position of the rim in relation to the disk or by reversing the wheels.

(A) Center of the tractor
(B) Wheel to wheel distance

The wheel to wheel distance is the inner distance between the two rear tires

(C) Track width

The track width is the distance between the center of the right tire and the center of the left tire

(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 tires

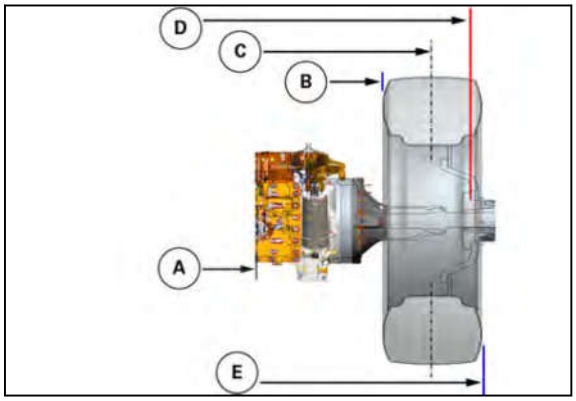

Fig. 348

Rear axle type	Diameter of the straight shaft	Plate-to-plate distance	
		Min.	Max.
HA 140	95 mm (3.7 in)	1832 mm (72.2 in)	2869 mm (113 in)

Rims with fixed disk

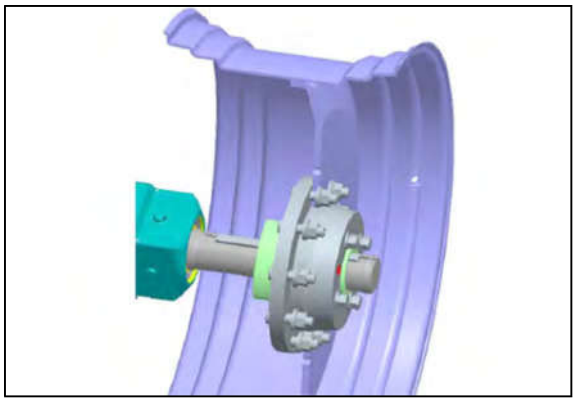

Fig. 349

Assembly with rims with adjustable disk/rims with fixed disk

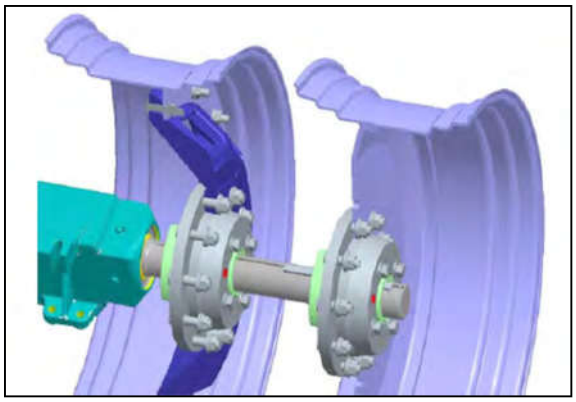

Fig. 362

CAUTION:
The distance between the side of the inner tire and the cab must always be higher than or equal to 40 mm (1.6 in) (European Directive 89-173)

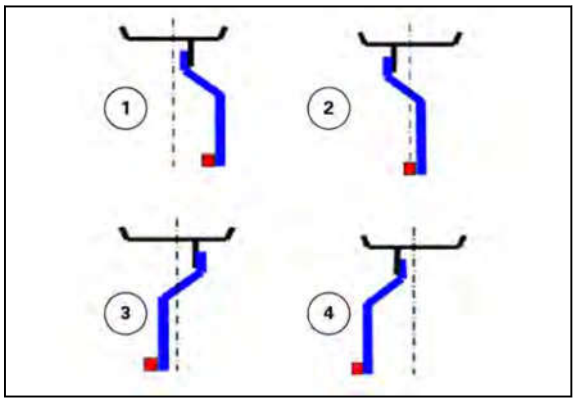

Fig. 363

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 140	1467,6 mm (578.2 in)	2066,6 mm (814.2 in)	1793,6 mm (706.7 in)	2392,6 mm (942.7 in)	1972,4 mm (777.1 in)	2571,4 mm (1013.1 in)	2298,4 mm (905.6 in)	2897,4 mm (1141.6 in)

Inner wheel: 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).