Operator's Manual

MASSEY FERGUSON

MF 5700 - Operation - Maintenance

MF 5708 MF 5709 MF 5710

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

Original Operator's Manual

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ACT0025840
English

1. Tractor identification

2.3.2 Presentation and location of the safety decals and instructions

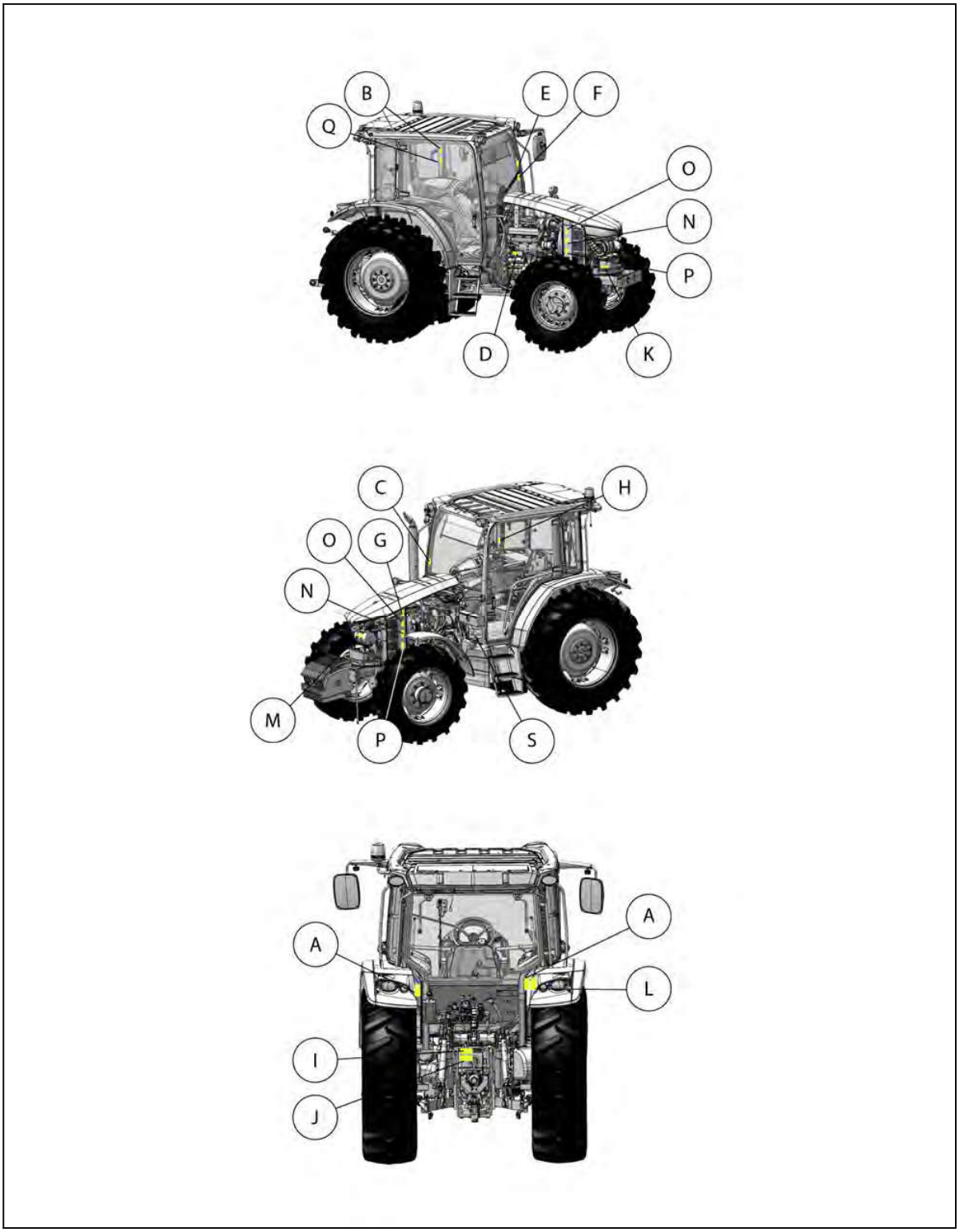

Fig. 1

2.6 Special safety instructions for preparing the tractor for use

2.6.1 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. 4

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.

2.6.2 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 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 with this filter does not have a safety sign like that of the filter, install the safety sign in a prominent place inside the cab where the operator can see it.

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 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. It must allow air circulation in order for the occupant to be able to breathe. 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.

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.

- **WARNING:**

  Risk of overturning. 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 .

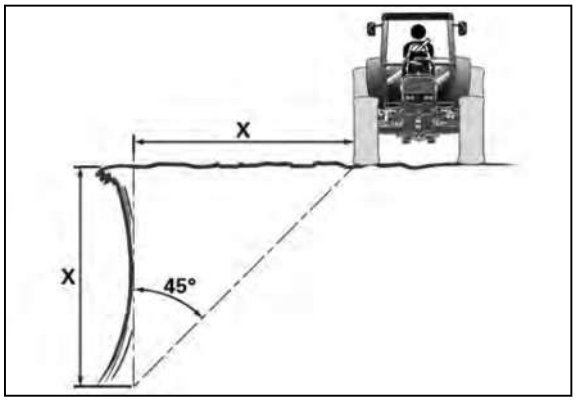

Fig. 12

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 toward the top of the slope; always slow down and take a wide turn
- keep the heavier end of the tractor facing toward 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 toward the top of the slope
- never be raised,
- be left as close as possible to the ground

When towing a load at road speed, lock the drawbar in the center position and use a safety chain.

Do not use the tractor to round up livestock.

Preventing a rear overturn

- **WARNING:**

  Risk of overturning. 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 center line of the rear axle. Always use an Massey Ferguson-approved drawbar and only use a lockable drawbar pin.
- When using a drawbar for a three-point hitch, use the stabilizers 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.

- 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.

2.9.3 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 or supports on stable ground that can support the load.

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

Positioning the axle stands

Depending on the requirements of the removal procedure, the axle stands must be placed under one of the following locations:

At the front of the tractor:

- (1) Under the front axle beam
- (2) Under the engine oil sump (if the front axle is to be removed)

At the rear of the tractor:

- (3) Under the rear axle beams

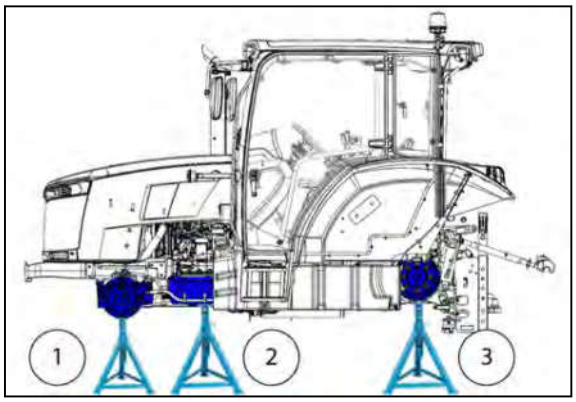

Fig. 23

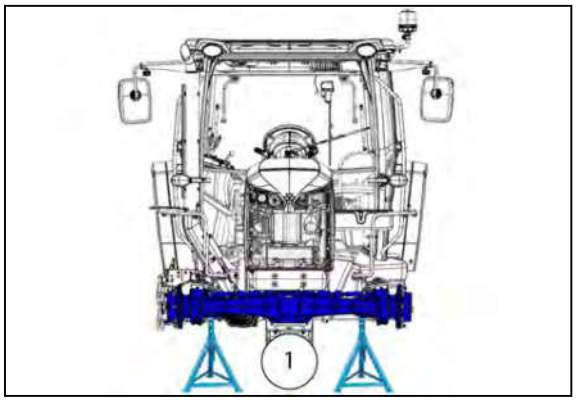

Fig. 23

Software version of the different controllers

- With the engine stopped and the ignition on, screen (1) appears.
- Press position C of switch (6) for 3 seconds.
- Screen (2) appears: Software version of the instrument panel.
- Press position C of switch (6).
- Screen (3) appears: Software version of the linkage/PTO controller.
- Press position D of switch (6) to return to the work hours screen.

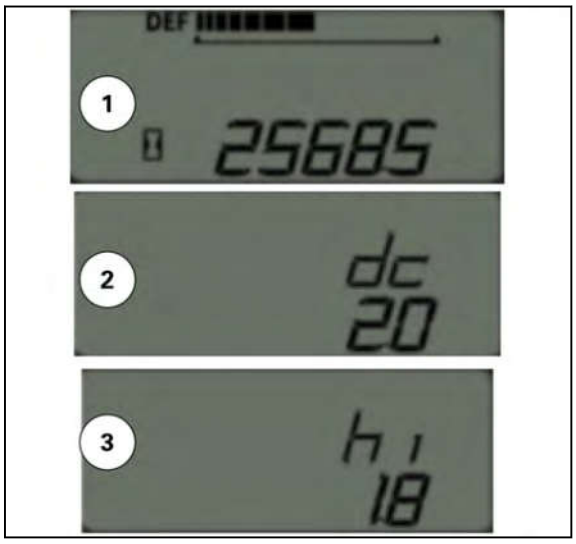

Fig. 18

3.1.4 Control unit

(1/2) Windscreen wiper

- 0. Off
- Intermittent
- I. First speed
- II. Second speed

(3) Left-hand indicator:

- (A): momentary. Cancels once it is released.
- (B): locked. Stops when the steering wheel returns to the centre (straight line), depending on option.
- It is the left-hand indicators that flash.

(4) Right-hand indicator:

- (A): momentary. Cancels once it is released.
- (B): locked. Stops when the steering wheel returns to the centre (straight line), depending on option.
- It is the right-hand indicators that flash.

(5) High beam lamps position after engagement of the low beam lamps with selector 4 on the steering console

NOTE:
If the side lights are illuminated, the high beam lamps cannot be operated.

(6) High beam lamps flash

(7) Horn

(8) Front windscreen washer

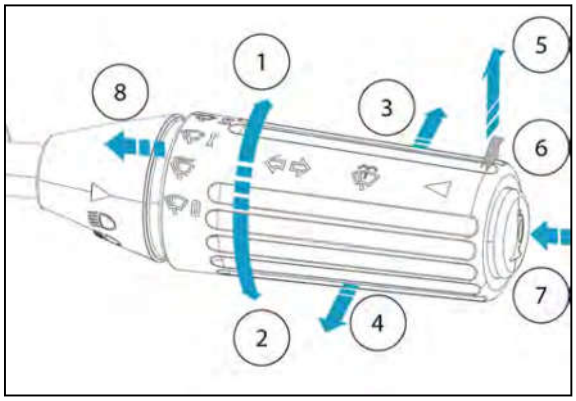

Fig. 19

Defrosting

Turn the heater knob (3) to the biggest red marking (maximum).

Move the ventilation knob (1) to position 3 (the fan speed is 75% of maximum).

If fitted, turn the air conditioning knob (2) to the ON position.

To increase the effectiveness of the defrost function, close all air vents.

3.1.13 Accessories sockets

(1) Cigarette lighter socket
(2) Diagnostics connector
(3) Cigarette lighter socket
(4) 12-volt electrical connector for connecting monitoring screens, control units and other accessories.

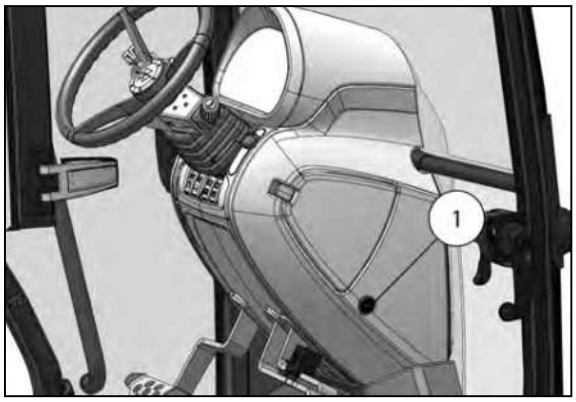

Fig. 32

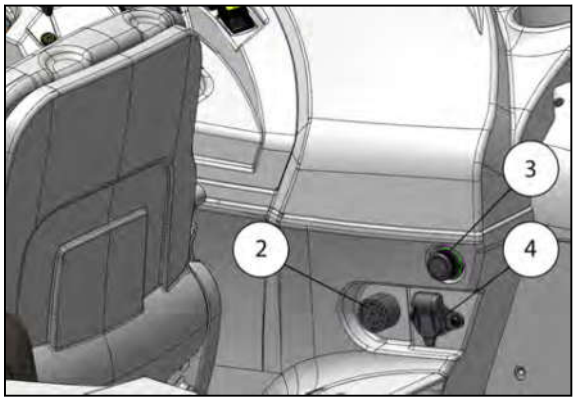

Fig. 32

3.1.14 Additional heater

The additional heater is available as a kit, reference ACW1453790.

It rapidly heats the inside of the cab at floor level.

Operation:

Press the switch (A) to start the heater:

Press (1) to activate the fan.

Press (2) for heat without the fan.

Turn the control knob (B) to adjust the temperature:

- The blue zone is for cold
- The red zone is for hot

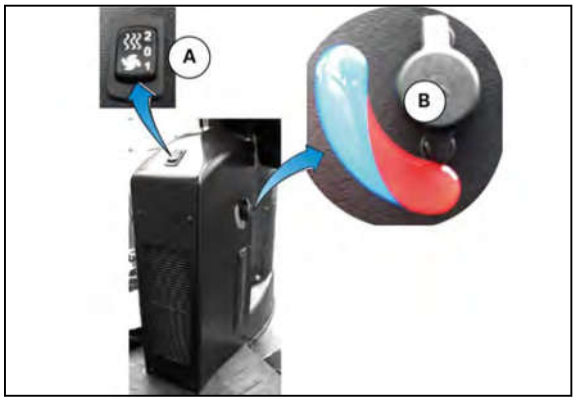

Fig. 33

3.3.5 Filling with fuel

Before filling, ensure that the fuel is in compliance with applicable regulations, see see chapter 4.3.17 *Fuel: Safety instructions and storage,* page 176 .

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.

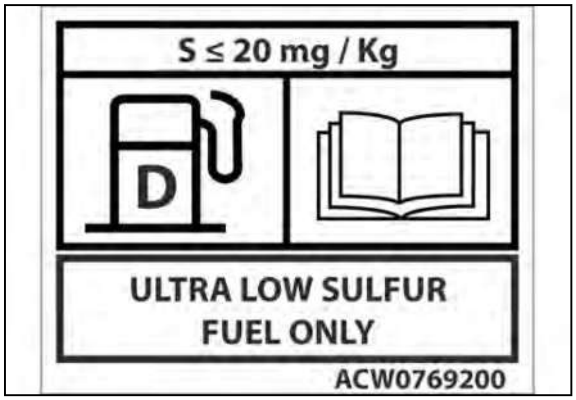

Fig. 47

Diesel fuel

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

Remove the BLACK cap (1) to fill the tank.

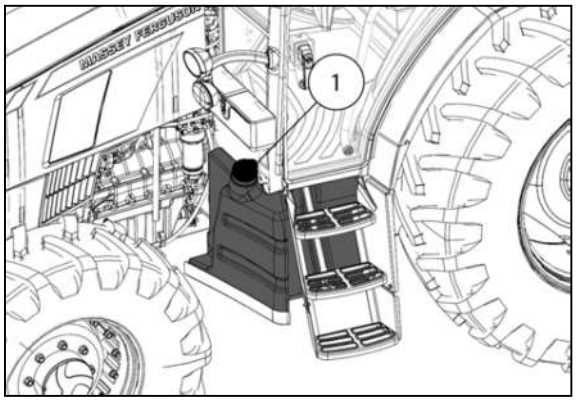

Fig. 48

3.7 Four-wheel drive front axle

3.7.1 Control locations

(2) 4-wheel drive front axle engagement switch

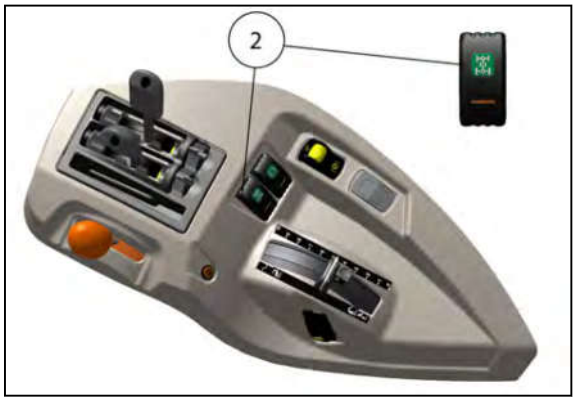

Fig. 56

3.7.2 Operation

General

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.

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.

IMPORTANT: *So as not to damage the tractor, it is essential to disengage the 4-wheel drive front axle during use on the open road.*

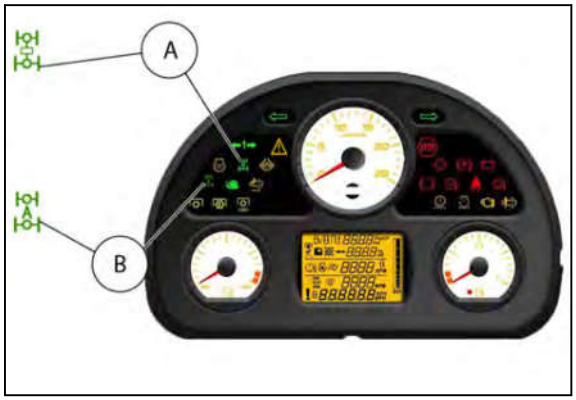

Fig. 57

Special conditions:

- The 4-wheel drive front axle is engaged as soon as the engine is stopped.
- The 4-wheel drive front axle is engaged as soon as the parking brake is engaged.
- The 4-wheel drive front axle is engaged as soon as the differential lock is engaged.
- If both brake pedals are depressed, the 4-wheel drive front axle is engaged automatically to provide 4-wheel braking, irrespective of the forward speed. When the brake pedals are released, the 4-wheel drive front axle is disengaged.

(A) 4-wheel drive front axle indicator light
(B) Automatic 4-wheel drive front axle indicator light

The 4-wheel drive front axle may be used in accordance with the following operating modes:

- Manual,

3.9.6 Power take-off protection

Power take-off cap

When the power take-off is not in use, fit the protective cap to prevent any faults occurring related to the rotation of the power take-off shaft.

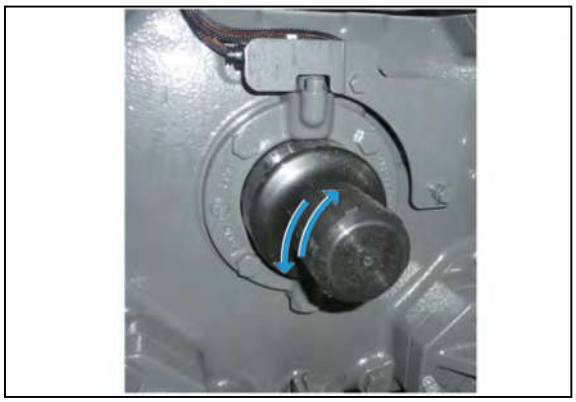

Fig. 69

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.**

For implements fitted to the three-point linkage, observe the lifting limit so that the operating angle of the universal joint is not exceeded.

It may be necessary to deactivate the PTO during maneuvers for towed implements.

Adjustment of the universal joint

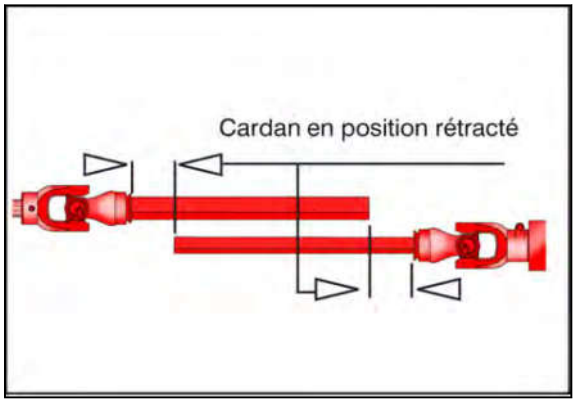

Fig. 70

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 (5) gives greater lift power and reduced lift height - wide clearance between the cab and the implement.
- The top link in the lower hole (6) gives reduced lift power and increased lift height.

  Use this position with equipment driven by the rear power take-off or for horizontal operation.

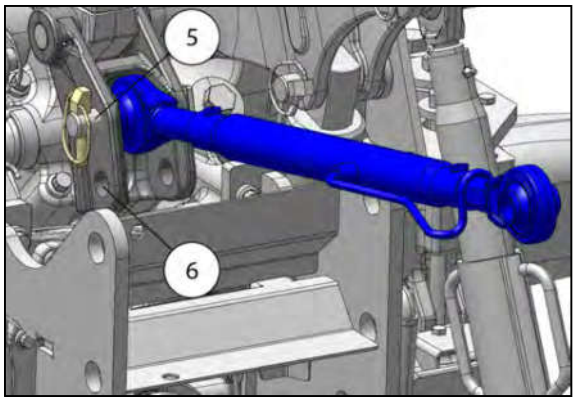

Fig. 88

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 (A), loosen the wing nut (3).

Turn the tube with the handle (4) to increase or decrease its length. When the required length is obtained, retighten the wing nut.

To adjust the length of the top link (B), fold out the anti-rotation safety device (3). Use this to turn the tube in the corresponding direction to increase or decrease its length. When the required length is obtained, fold in the anti-rotation safety device.

NOTE: *The thread must always be the same length on each side.*

When adjusting the length of the top link, do not exceed the thread extension limit (2).

IMPORTANT: *Failure to observe this limit can result in the loss of the implements hitched to the tractor and cause serious accidents.*

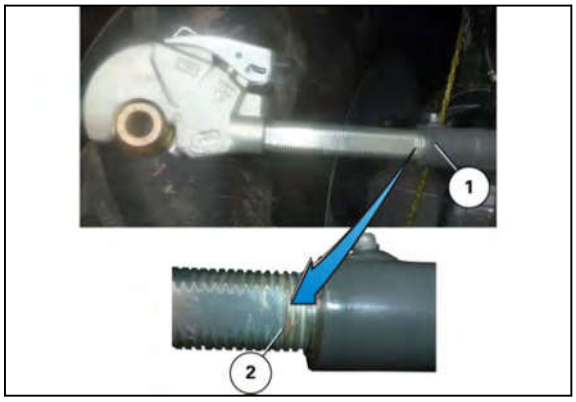

Fig. 89

Swinging drawbar (3)	
Brand	GIMA
Maximum dynamic force on the swinging drawbar	1100 kN
Maximum static force on the swinging drawbar	1100 kg

Clevis hitch (4)	
Brand	ZM
Maximum dynamic force on the clevis hitch	67.6 kN
Maximum static force on the clevis hitch	1,800 kg

3.11.9.3 Standard hitch with rail ladder

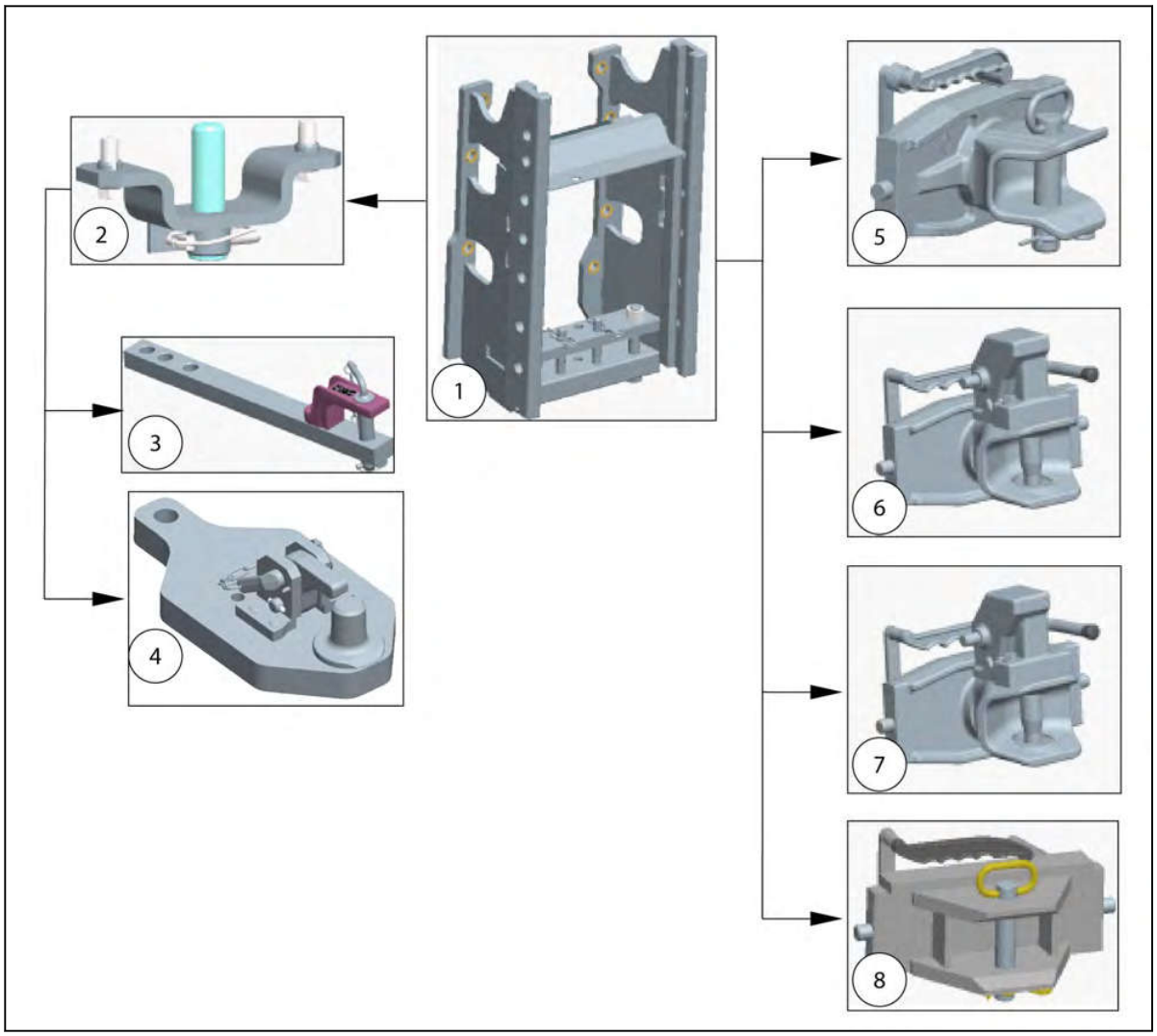

Fig. 110

(1) Ladder
(2) Attachment
(3) ISO category 2 swinging drawbar
(4) Plate with stud
(5) Standard clevis hitch
(6) Clevis hitch with German automatic closure
(7) Clevis hitch with European automatic closure
(8) Italian clevis hitch (6 tonnes)

3.13 Wheels and tires

3.13.1 Wheel studs

WARNING:
Always tighten the wheel screws and nuts to the correct tightening torque.
It is prohibited to apply grease to any of the screws or studs used for the wheels.
Check the tightness of the wheels every day until a constant torque is obtained see chapter 5.11.4 *Tightening torques,* page 248 .

3.13.2 Installation points of the axle stands

CAUTION:
The installation points of the axle stands must be strictly adhered to in order to prevent an accident.

- (1) Installation of the front axle stands

  The axle stands must be installed under the front axle beam.
- (3) Installation of the rear axle stands

  The axle stands must be installed under the rear axle beams.

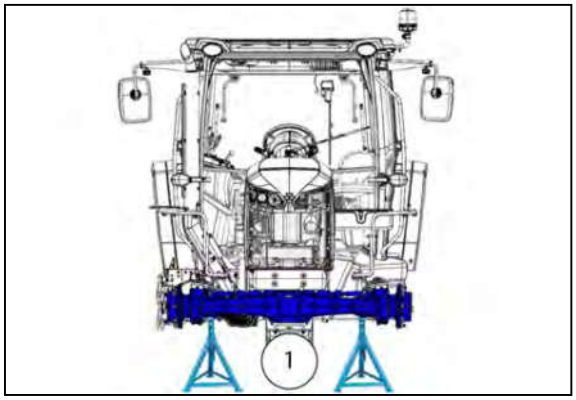

Fig. 123

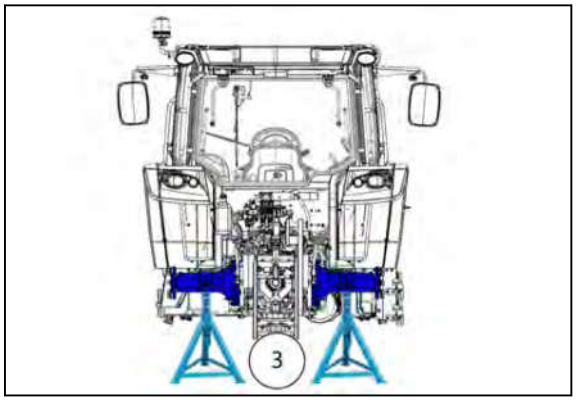

Fig. 123

3.13.3 Adjustment of the front track width, 4-wheel drive

General

The track widths available depend on the type of wheel rim and the tire dimensions.

(A) Water inlet
(B) Air discharge

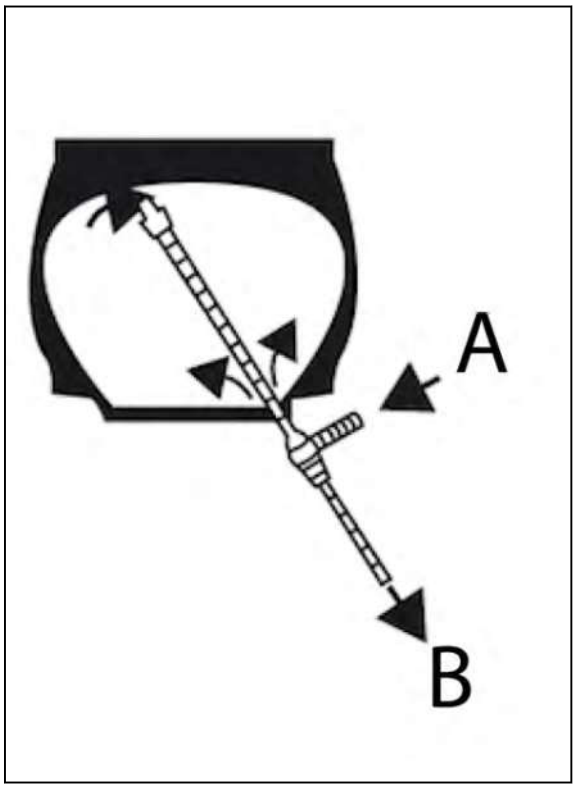

Fig. 133

The volume of liquid must never exceed 75% of the total volume of the tire.

In winter, with temperatures below freezing, use a Glycol-based antifreeze product.

To fill the air chamber or tubeless tire with liquid up to 75%, place the valve upward.

NOTE: *As the volume of air that ensures the pressure is low (around 25% of the volume), regular monitoring of the pressure is essential. Perform a monthly check.*

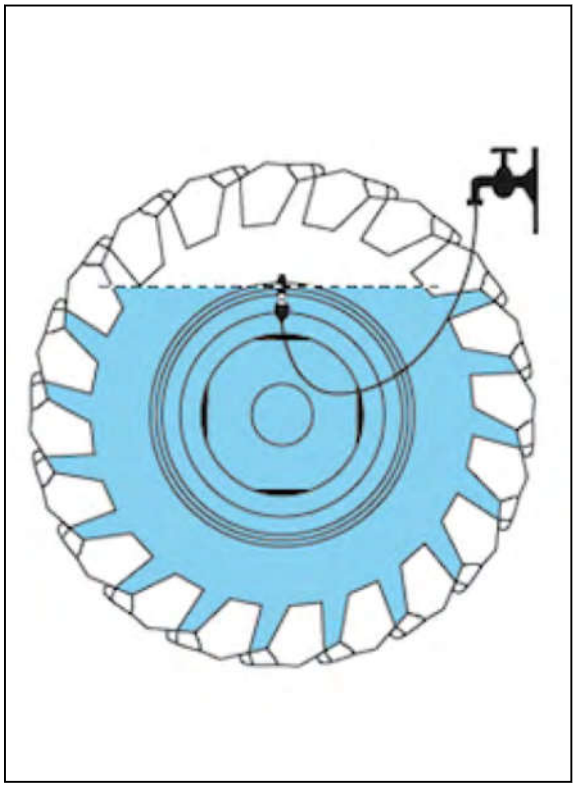

Fig. 134

4.2 Operator environment

4.2.1 Air conditioning system: condenser

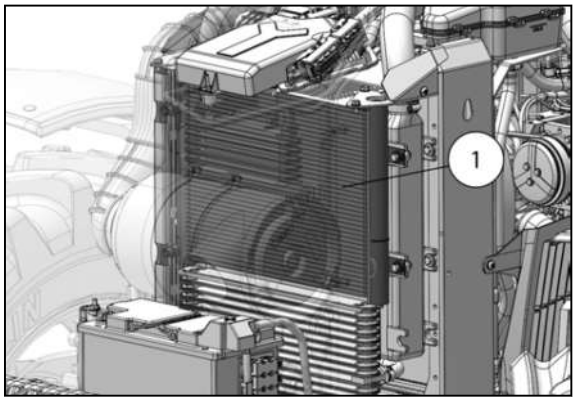

Fig. 1

Procedure

Clean the condenser (1) carefully.

NOTE: *Take care not to damage the cooler fins.*

4.2.2 Air conditioning system: checking the air conditioning system

Frequency

DANGER:

In the event of a leak, wear safety goggles. Escaping refrigerant gas or liquid can cause severe injuries to the eyes. The R134a refrigerant used in the installation gives off a toxic gas if it comes into contact with a flame.

WARNING:

Do not disconnect any part of the air conditioning system. Consult your dealer or agent if a fault occurs.

Procedure

1. Operate the air conditioning system for a few minutes every week to keep the whole system in good condition and to lubricate the seals.
2. Add charge to the air conditioning system every year at the start of summer (consult your dealer).

4.3.13.1 Checking the level and quality of the coolant

Procedure

1. **Cold engine**, visually check the coolant level daily.
2. **CAUTION:**
   The quality of the coolant must be checked when the engine is cold.

   Check the quality of the mixture regularly, especially before the cold season.

4.3.13.2 Filling to top up the coolant level

CAUTION:
If the engine is very hot, loosen the plug to the first notch before removing it to lower the expansion tank pressure.

IMPORTANT: *If the correct procedures are not used, AGCO cannot be held responsible for damage caused.*

Procedure

1. Lift the bonnet to access the expansion tank.
2. Open the expansion tank plug (1).
3. Fill the expansion tank with coolant up to the witness mark line (2).
4. After filling, open the heater tap fully and run the engine at 1000 rpm for several minutes.
5. Switch off the engine, check the level and top up if necessary, without exceeding the mid-way point on the tank.
6. Refit the plug.

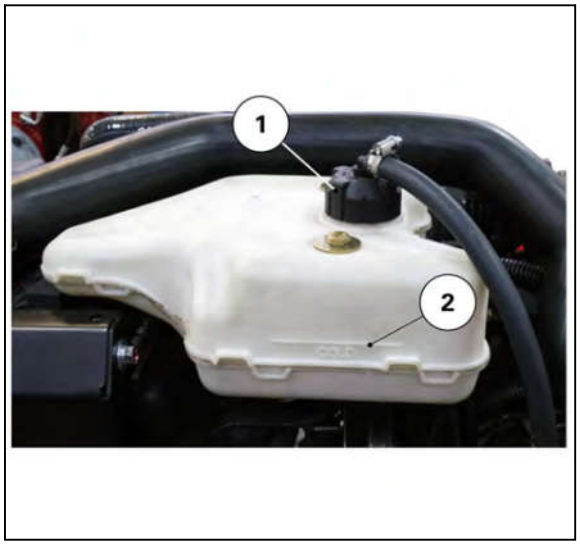

Fig. 18

4.3.13.3 Draining the cooling system

Drain the system every 1500 hours or every two years according to the following procedure.

CAUTION:
Wait until the system has completely cooled before draining.

4.4.5 Transmission oil cooler

Procedure

Clean by blowing compressed air several centimeters from the cooler.

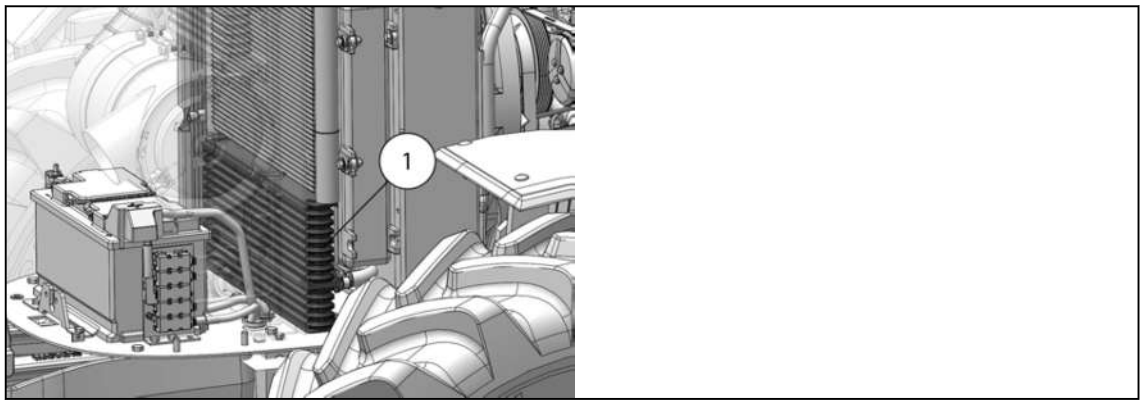

Fig. 29

NOTE: *Take care not to damage the cooler fins.*

4.4.6 Lubricating the rear axle shaft bearings

Frequency

See the Service Guide Chart.

Procedure

1. Remove the plugs (1). Replace them with grease nipples.
2. Operate the grease gun 2 or 3 times.
3. Refit the plugs.

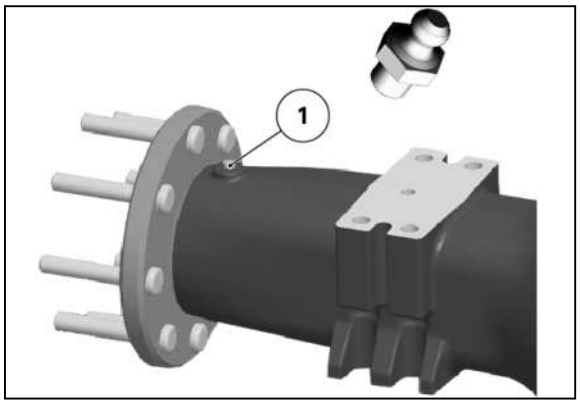

Fig. 30

4.8.3 Power socket (ISO)

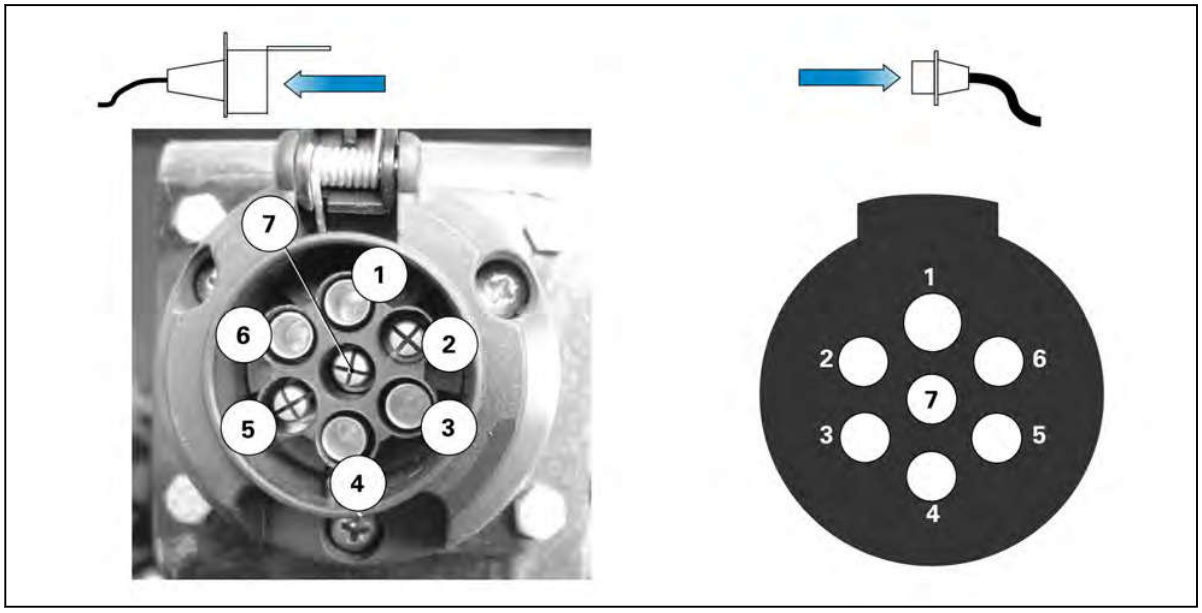

Fig. 43

Reference	ISO circuit	Maximum electrical charge
(1)	Left-hand indicator and hazard warning light	4x 21 W
(2)	Reversing light	NC
(3)	Earth	-
(4)	Right-hand indicator and hazard warning light	4x 21 W
(5)	Right-hand side lights and number plate lights	4x 6 W
(6)	Stop lights	NC
(7)	Left-hand side lights	20 A

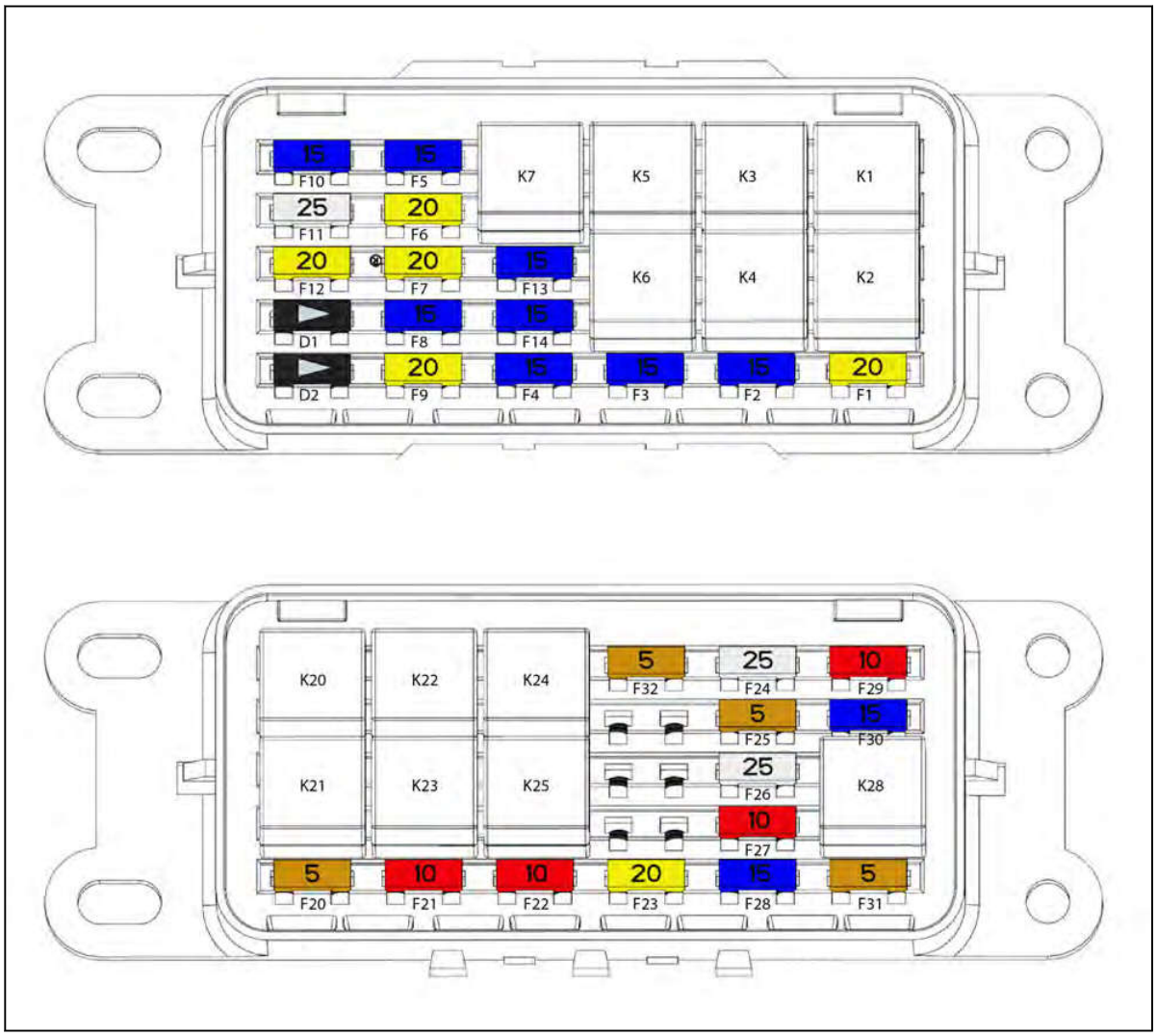

Fig. 51

F	Fuses
K	Relay
D	Diodes
+BAT	+ 12 V battery
+APC	+ 12 V ignition on
+ACC	+ 12 V accessory

Number	Amperage	Size	Protected function
F1	20 A	Small	+BAT[1] : • K2 relay power circuit supplying the +BAT to the low beam lamps

4.9 Pressure washing

4.9.1 Pressure washing

When pressure washing, protect and do not direct the jet on the following components:

- Alternator
- Starter
- Radiator
- Front axle pivot pins
- Inspection cover
- Radar
- Harnesses and electrical connections
- Decals
- Cab door and window seals.
- **IMPORTANT:** *Exhaust outlet: When washing, it is strictly prohibited to allow water into the exhaust outlet.*

No.	Components concerned	Causes
4.X.0E	**X556** - Forward solenoid valve	Incorrect command (the specified value cannot be obtained).
4.X.0F	**X557** - Reverse solenoid valve	Difference in value between the various methods of measuring the current of the reverse solenoid valve.
4.X.2C	**X906** - Quick declutching switch on the gear lever	The quick declutching switch on the speed lever is stuck closed or short-circuited at +12 V.
4.X.A2		CAN messages failure.
4.X.A7		Internal component failure.
4.X.C0	**X56** - PowerShuttle lever	The contact signal of the Power Shuttle Control lever neutral position is short-circuited to +12 V.
4.X.C1	**X56** - PowerShuttle lever	The contact signal of the Power Shuttle Control lever neutral position is short-circuited to earth.
4.X.C2	**X56** - PowerShuttle lever	The control signal for the Power Shuttle Control lever is outside its limit.
4.X.C3	**X68** - Clutch pedal sensor	The safety start is not active when the Power Shuttle Control lever is not in neutral or when the clutch pedal is at over 50%.
4.X.ED	**X68** - Clutch pedal sensor	The top-of-clutch (TOC) pedal switch has been locked in the open position for more than 15 seconds.
4.X.FD		The controller has started without saving the parameters in EEPROM.
4.X.FE		Program without parameters or calibration, or EEPROM failure.
4.X.FF		Internal fault.

Differential and 4 wheel drive

No.	Components concerned	Causes
5.X.33	**X5** - 4-wheel drive solenoid valve	Open circuit
5.X.53	**X6** - Differential lock solenoid valve	Open circuit

5.2 Operator environment

5.2.1 Noise levels (dBA) at operator's ears

Noise levels (dBA) at the operator's ears measured in accordance with Directive 2009/76/EC at the height of the operator's seat.

	2-wheel drive	4-wheel drive
At the height of the operator's seat	dB	dB

Noise levels (dBA) at the operator's ears measured in accordance with Directive 2009/63/EC next to the vehicle.

	High exhaust
To the right of the vehicle when stationary	dB
To the left of the vehicle when stationary	dB
To the right of the vehicle when moving	dB
To the left of the vehicle when moving	dB

5.2.2 Level of vibration felt through the operator's seat

Seat model	Approval number	Class II (m/s²)			
		Light operator		Heavy operator	
		kg	(m/s²)	kg	(m/s²)
COBO M200	e13 0010-07	59±1	1.21	98±5	1.05
COBO M91 (2)	e13 0004-09		1.13		0.75
GRAMMER MSG85/731	e1 0052-00		0.89		0.88
GRAMMER MSG95/731	e1 0058-00		1.13		0.95

Vibration measurement in accordance with Directive 78/764/EEC

5.10 Electrical equipment

5.10.1 Electrical equipment technical specifications

General	
Voltage	12 V, negative earth
Batteries	1 x maintenance-free battery
Alternator	80 A without air conditioning 120 A with air conditioning
Neutral start switch	Controlled by the clutch pedal and a presence detector on the seat

Type of lighting	Specifications
Indicators	12 V / 21 W
Front side light	12 V/10 W
High beams and low beam lamps	H7 12 V/55 W
Brake light/rear side light	12 V/21 W/5 W
Number plate lighting	12 V/10 W
Front/rear work light	H3 12 V/55 W
Instrument panel lighting	3 W - 2 W - 1.2 W
Rotary beacon	H1 12 V/55 W
Roof light	12 V/5 W