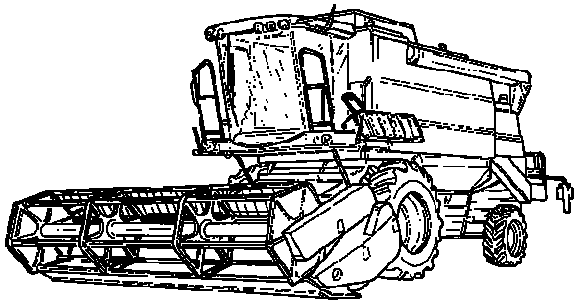
ACTIVA



7240 ACTIVA from serial no. 551110073

ORIGINAL
OPERATOR'S MANUAL

MASSEY FERGUSON

Chaff spreader identification (if fitted) - Fig. 10

The type plate is located on the right-hand side next to the chaff spreader adjustment lever.

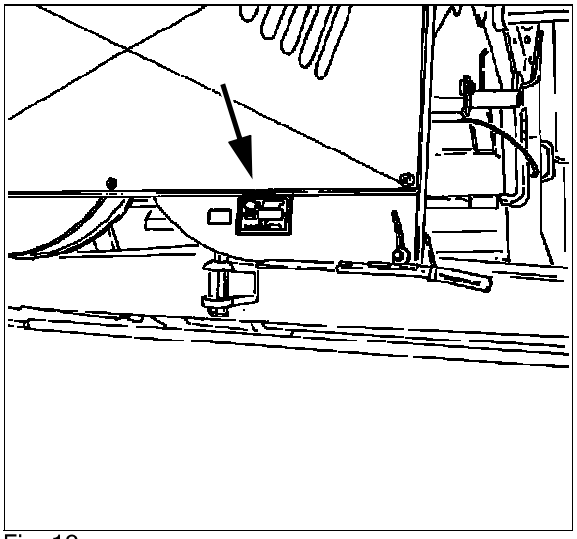


Fig. 10

Trailer hitch identification (if fitted) - Fig. 11

The plate is positioned on the right-hand side of the trailer hitch.

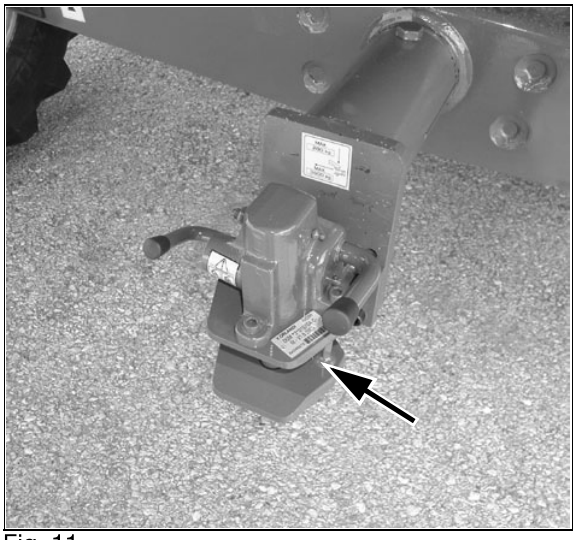
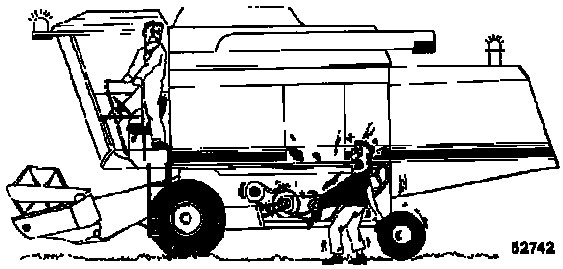


Fig. 11

***DANGER**: Risk of getting trapped.*

17.) Never work on the machine wearing loose clothing that could get caught in a moving part. Check that all rotating parts are protected with safety guards.



18.) Keep clear of all moving parts on the machine and particularly on the table.

19.) After any lubrication, adjustment or repair work, always refit all safety guards. Replace or repair missing or damaged safety guards immediately.

***DANGER**: Risk of falling.*

20.) Do not step onto the grain tank cover or cab roof.
To reach high areas (for example, the inspection lids on the unloading tube), use the access ladder for the engine area.

21.) While operating the combine, pay special attention to correct function and the efficiency of the braking system, checking the oil level in the tank and replacing friction pads before they wear out completely.

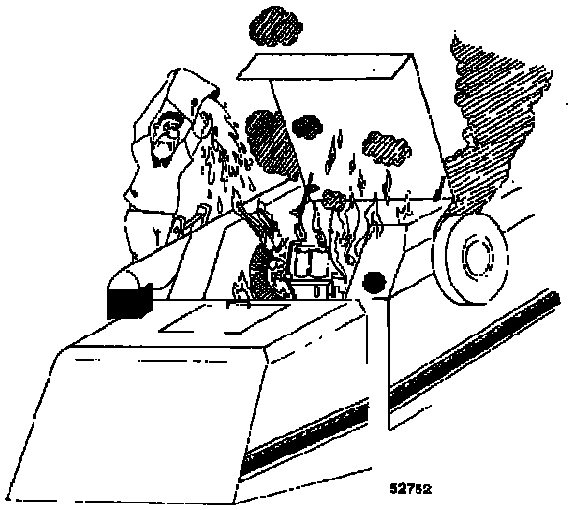
***DANGER**: Risk of explosion.*

22.) It is strictly forbidden to modify a hydraulic accumulator by mechanical machining, welding, etc. For the accumulator inspection or replacement, refer to your local Dealer.

Engine

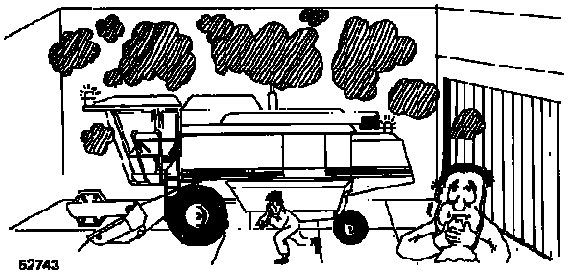
1.) Never start the engine if battery recharging equipment is connected to the machine.

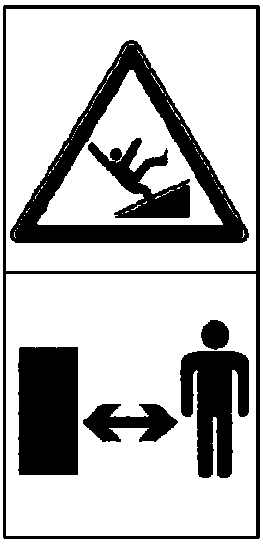
2.) Always keep the engine and the engine compartment clean. Dust, diesel oil, oil and accumulated straw are highly flammable. For the same reason, also keep the transmission housing and the brake system clean.



***DANGER**: Risk of breathing in toxic gases.*

3.) Never operate the engine in an enclosed area without ensuring proper ventilation, since highly toxic exhaust gases are generated.

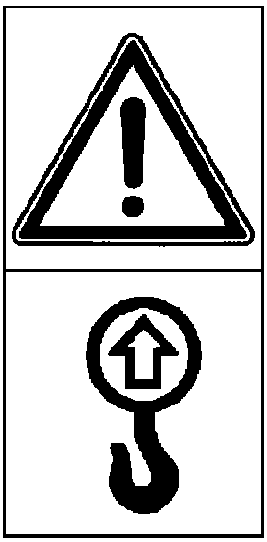




341000031

Decal 18

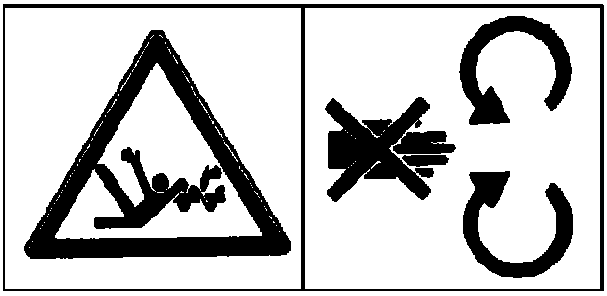
Stay clear of the table: Before carrying out any maintenance or clearing the table, disengage the drive, stop the engine and remove the ignition key.



341000019

Decal 19

Use only the appropriate hooks to lift the machine.



341000033

Decal 20

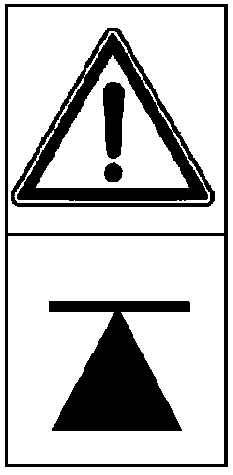
Keep clear of moving augers.

321700650

341000095

Decal 21

Max. speed limit of the machine during road transport; this decal is only available in some countries (e.g. Austria, Germany, France, Russia, etc.).



341000093

Decal 22

Use only the positions shown to lift the machine by a jack.

Safety Guards - Fig. 29

For safety reasons and in compliance with European Directives the safety guards are equipped with a quick lock which can only by opened with a special key (1) or a fixed 13 mm wrench. This is to prevent unauthorised persons from accessing dangerous areas on the machine.

The key (1) for opening the guards is supplied with the ignition key.

It is recommended to remove both of them from the ignition lock when leaving the operator seat.

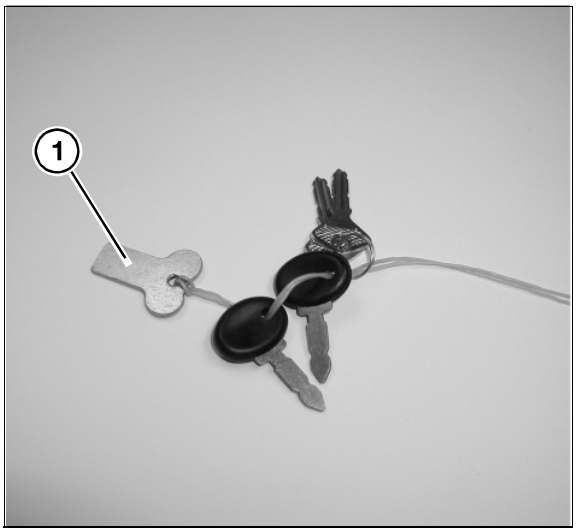


Fig. 29

Straw Chopper (if fitted) - Fig. 30

For road transport, the spreader hood (1) must be in the working position, as shown in the figure. If a table trailer is attached to the machine, the spreader hood can be folded up and secured in this position.

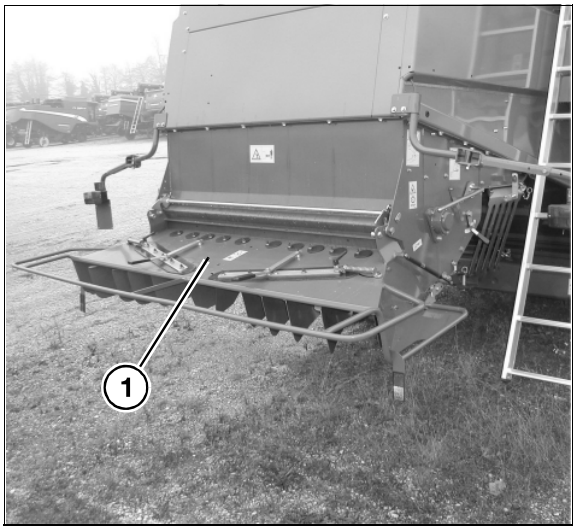


Fig. 30

Fire Extinguisher - Fig. 31

The fire extinguisher is positioned beneath the operator seat. It is easily pulled out, having removed the magnetic attachment (1).

The extinguisher must contain at least 6 kg of extinguishing agent, fire class ABC, and have a temperature range of -20° C to +60° C.

The meaning of the decal on the extinguisher supplied with the combine is as follows:

1.) Pull out the locking pin.

2.) Squeeze the handle.

3.) Aim the nozzle at the base of the fire.

In case of replacement use a CE approved fire extinguisher with dimensions suited for storage in the support supplied with the machine.

***WARNING**: Have the fire extinguisher checked by skilled staff before the beginning of each new harvest season.*

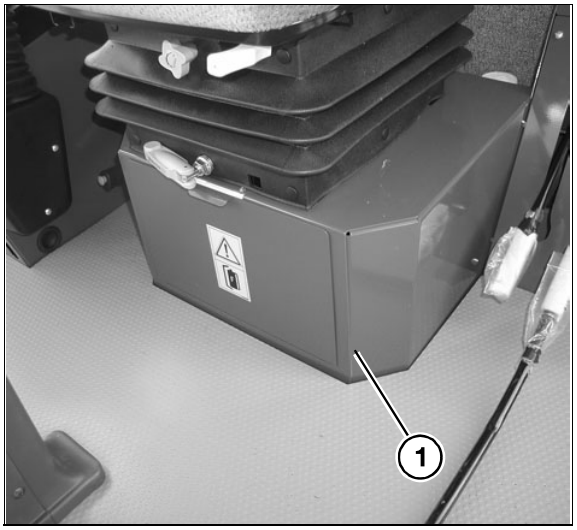


Fig. 31

2. OPERATION

2.1 CROP PROCESSING

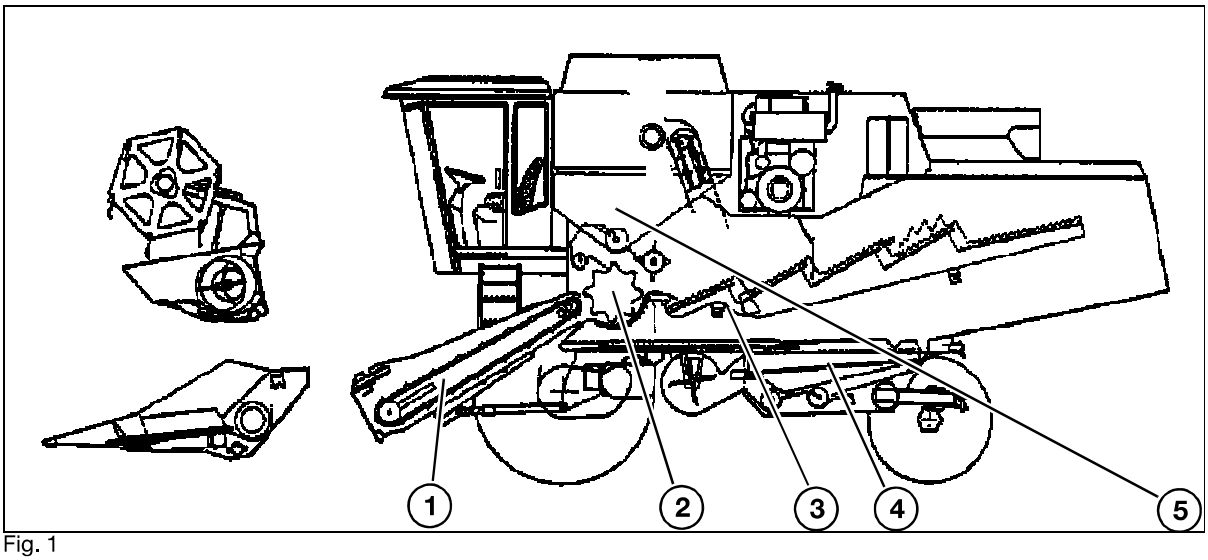


Fig. 1

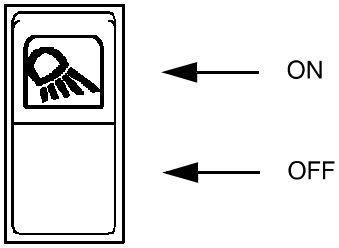
The combine performs five basic operations - Fig. 1

1. **Cutting and gathering**
2. **Threshing**
3. **Separation**
4. **Cleaning**
5. **Grain storage and unloading**

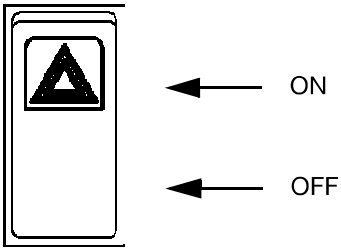
USE OF THE CONTROL PANEL COMPONENTS

1.) Not used.

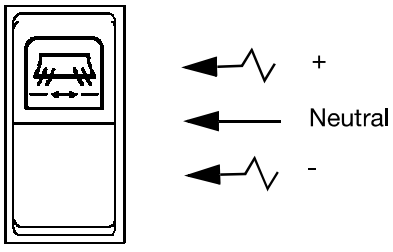
2.) Switch for light in grain tank.



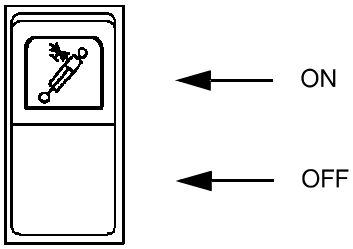
3.) Switch for hazard light.



4.) Toggle switch for adjustment of straw chopper spreading width (optional).

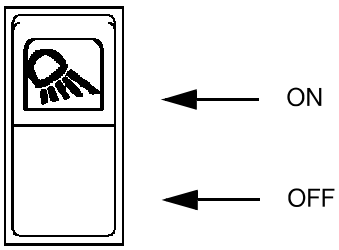


5.) Switch for table auxiliary lifting ram (optional).



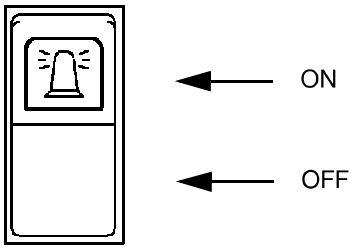
6.) Switch for work lights.

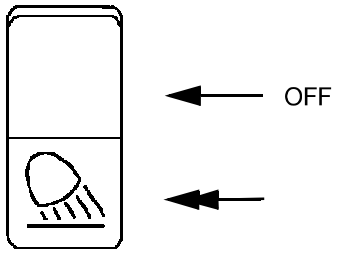
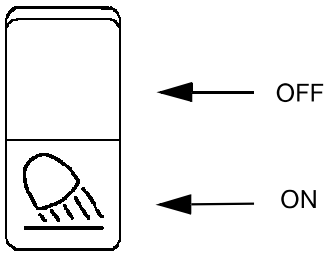
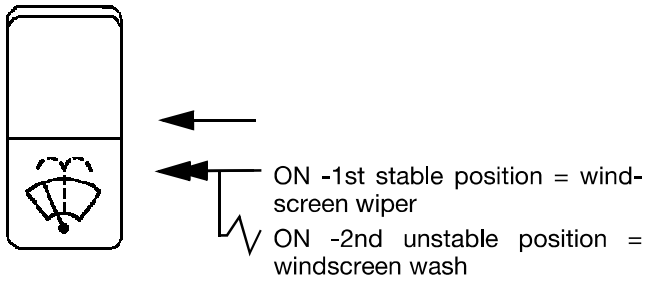
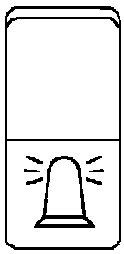
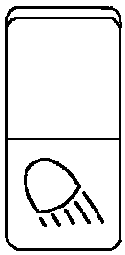
***CAUTION**: Do not drive the machine on public roads with the work lights on.*



7.) Not used.

8.) Switch for rotating yellow beacons.



3. Light switch: • 1st position: Middle work lights. • 2nd position: Inner work lights.	
4. Switch for outer work lights. 5. Switch: Not used.	
6. Switch and toggle switch for windscreen wiper/wash.	
7. Switch: Not used. ***NOTE:*** *The rotating yellow beacons are activated manually using the switch located on the control panel.*	
8. Switch for unloading area light.	

3.9 DRIVING THE COMBINE

***WARNING**: The combine driving direction is controlled by the rear wheels.*
Pay the utmost attention to the movement of the rear part of the machine while cornering when the cutting table is not towed on the trailer.

1.) Make sure the multifunction lever is in neutral position.

2.) Engage the gear range most suitable for the conditions.
For example, in the field use the first or the second gear range, depending on the conditions.
During road transport, use the third gear.

3.) Release the parking brake.

4.) Move the multifunction lever progressively, avoiding abrupt movements.

5.) Familiarise yourself with the various driving and steering features.

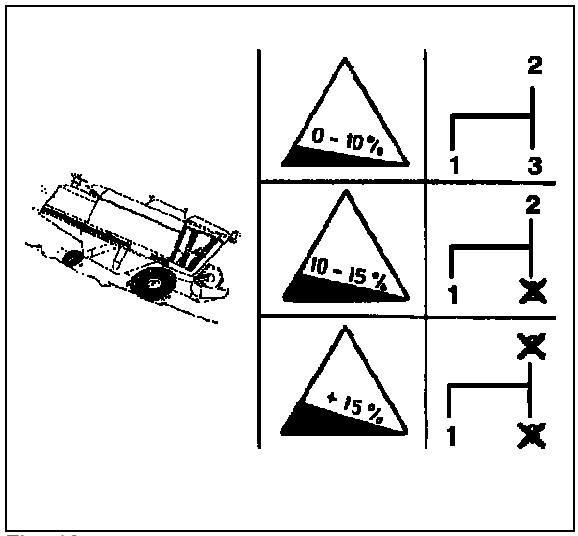


Fig. 46

REMOVING THE CUTTING TABLE FROM THE COMBINE

Fig. 10

Cutting table

1.) Lower the reel and move it completely back.

ALL TABLES:

2.) Disconnect the PTO shaft from the main crop elevator drive shaft and place it in the support on the cutting table.

3.) Disconnect the hydraulic couplings protecting them with the plugs, and place them in the retainer (1).

4.) Disconnect the connector of the electric cable for the cutting table.

5.) Release and turn back the lever (2) fastening the bottom hooks of the cutting table.

6.) With the engine at idle speed, place the cutting table on level ground or on the table trailer and lower the main crop elevator until it releases from the cutting table, then reverse the machine.

ADJUSTING THE CUTTER BAR ANGLE IN RELATION TO THE GROUND

Fig. 11 and Fig. 12

Proceed as follows:

1.) Release the cutting table (see instructions on page 4-4).

2.) Remove the bolts (1) fastening the hook (2) from both sides.

3.) Change the position of the hooks (2) by moving them backward; fasten as shown in Fig. 12

4.) Reattach the cutting table to the machine (see instructions on page 4-3).

The normal position (Fig. 11) is recommended for all crops (even laid crops). The table angle in relation to the ground should only be increased (Fig. 12) if the stone trap fills too quickly.

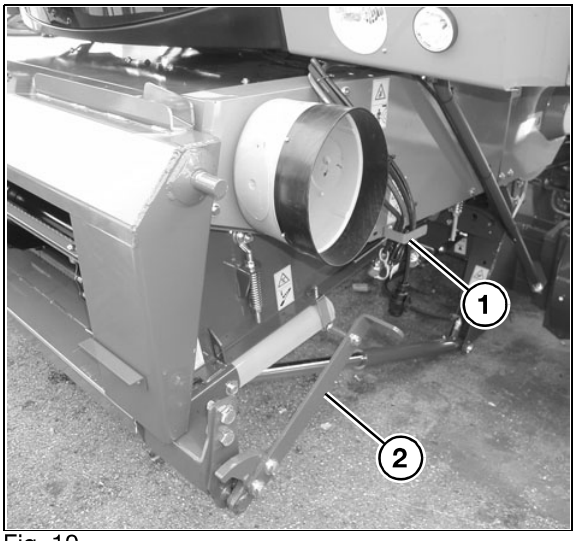


Fig. 10

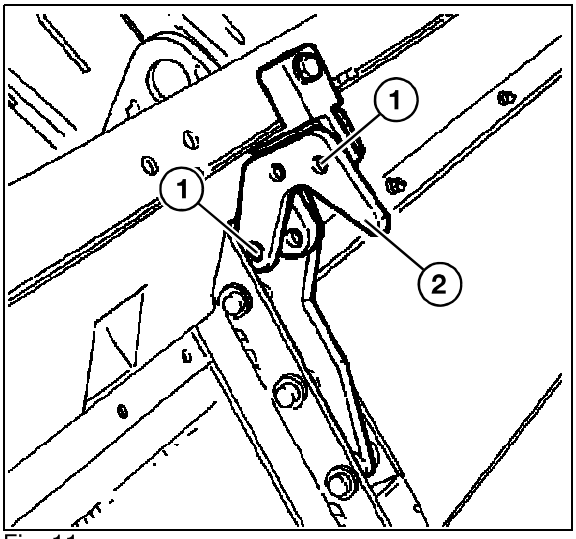


Fig. 11

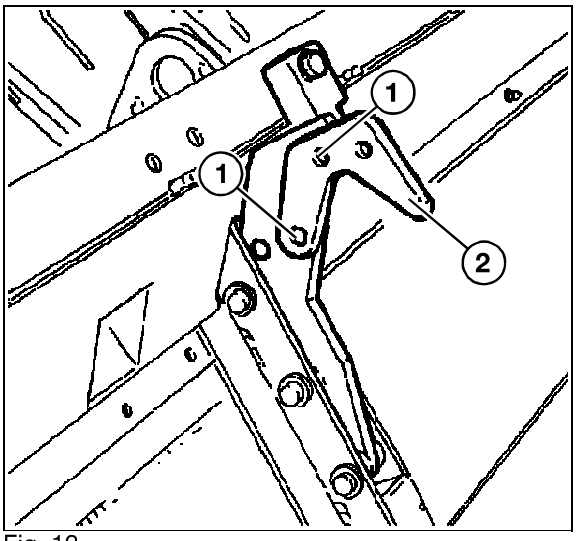


Fig. 12

4.7 REAR BEATER

Fig. 39 and Fig. 40

The rear beater strips the material from the cylinder and conveys it towards the straw walkers.

For certain crops it may be necessary to remove the vanes (1) of the rear beater to avoid damaging the crop. To dismount the vanes remove the door (2) inside the grain tank next to the rear beater.

IMPORTANT: *When dismounting the vanes they must be numbered and mounted again in the same order and position as before to ensure the dynamic balancing of the rear beater.*

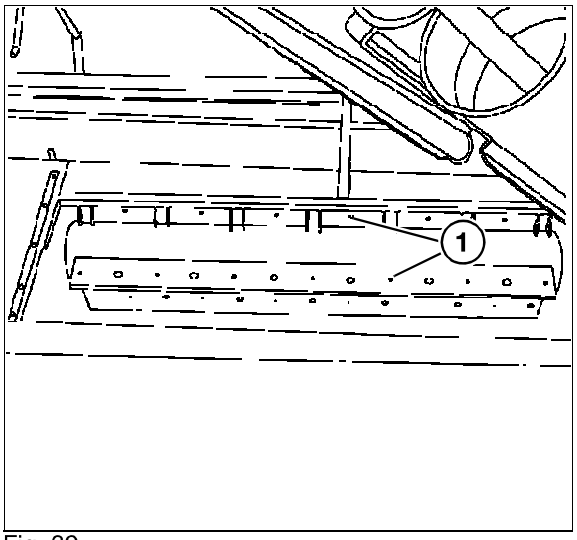


Fig. 39

The combination of the ABC module (3) and the rear beater that conveys the crop towards the straw walkers provides optimum separation.

ABC . . . . . = **A**ctive - **B**eater - **C**oncave

REVMODULE - Fig. 41

The ABC module (3) ensures maximum versatility and capability of handling many different crops. The two additional bars increase the separation angle to 120° (106° + 14°) improving combine performance and efficiency.

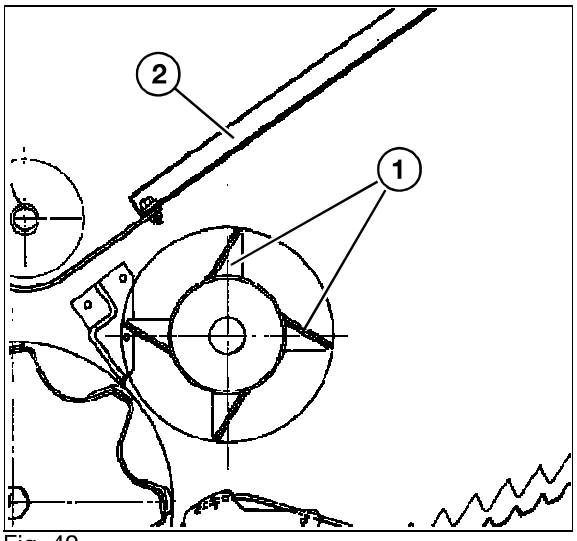


Fig. 40

The ABC module (3) is positioned at the factory in the middle hole (4). This adjustment is suited to almost any crop condition.

When working in long and wet crops, it is advisable to raise the ABC module by fixing it in the lower hole.

In brittle and short crops, it is advisable to lower the ABC module by fixing it in the upper hole.

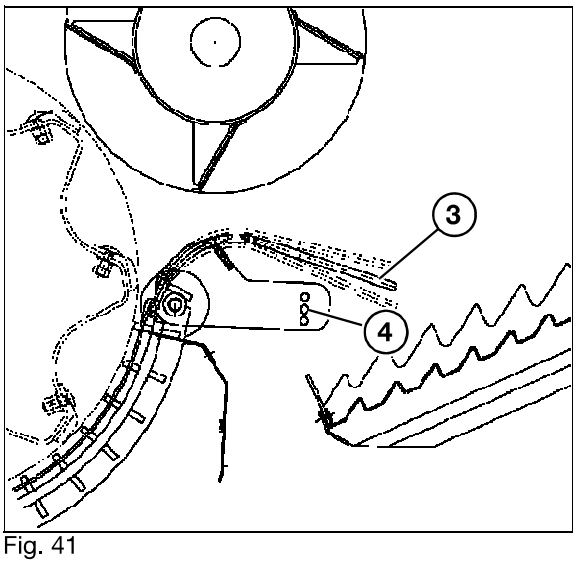


Fig. 41

4.14 GRAIN TANK

Fig. 70 – Fig. 72

The crop in the tank can be unloaded both when the machine is at a standstill and on the move, irrespective of the position of the unloading auger.
The grain tank unloading is engaged by pulling the lever (1) upwards.
Before engaging the grain tank unloading, ensure that the unloading auger is in the desired position.
Unloading is engaged with the push buttons (2) on the multifunction lever.

***WARNING**: When the horizontal unloading auger (3) is operated or when the combine is driven with the auger in turned out position, make sure it does not interfere with any obstacles or overhead power lines.*

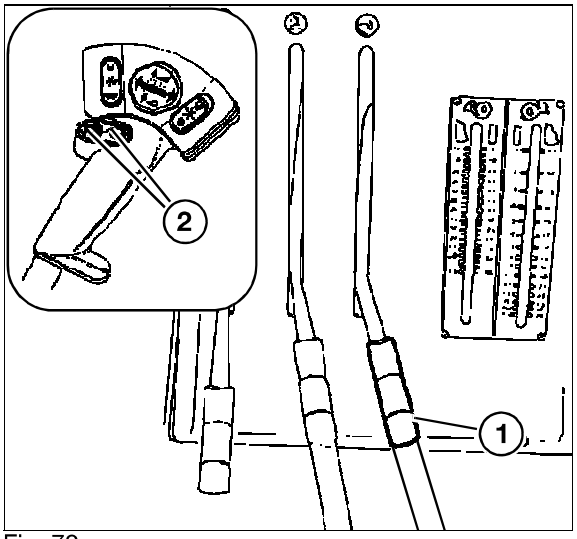


Fig. 70

Grain tank unloading auger

The grain tank is unloaded through the interacting operation of the grain tank bottom auger, the vertical auger and the unloading auger.

The grain tank bottom auger is protected by a cover plate with extensions (4). The extensions make it possible to adjust the unloading speed according to crop type and moisture.

Raise the extensions to increase the unloading speed and lower them to obtain the opposite effect.

From the factory the clearances A and B are set at 120 mm and 80 mm, respectively.

The unloading auger transmission is protected against overloading by a shear bolt.

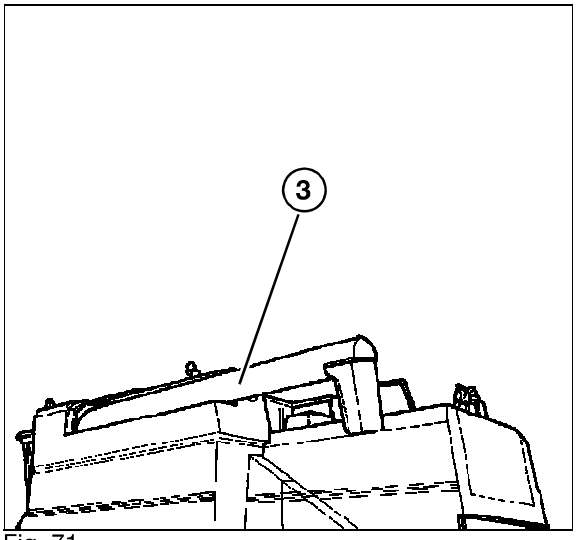


Fig. 71

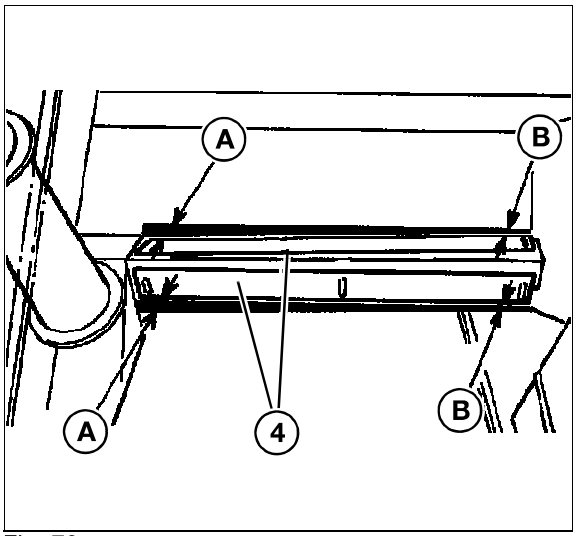
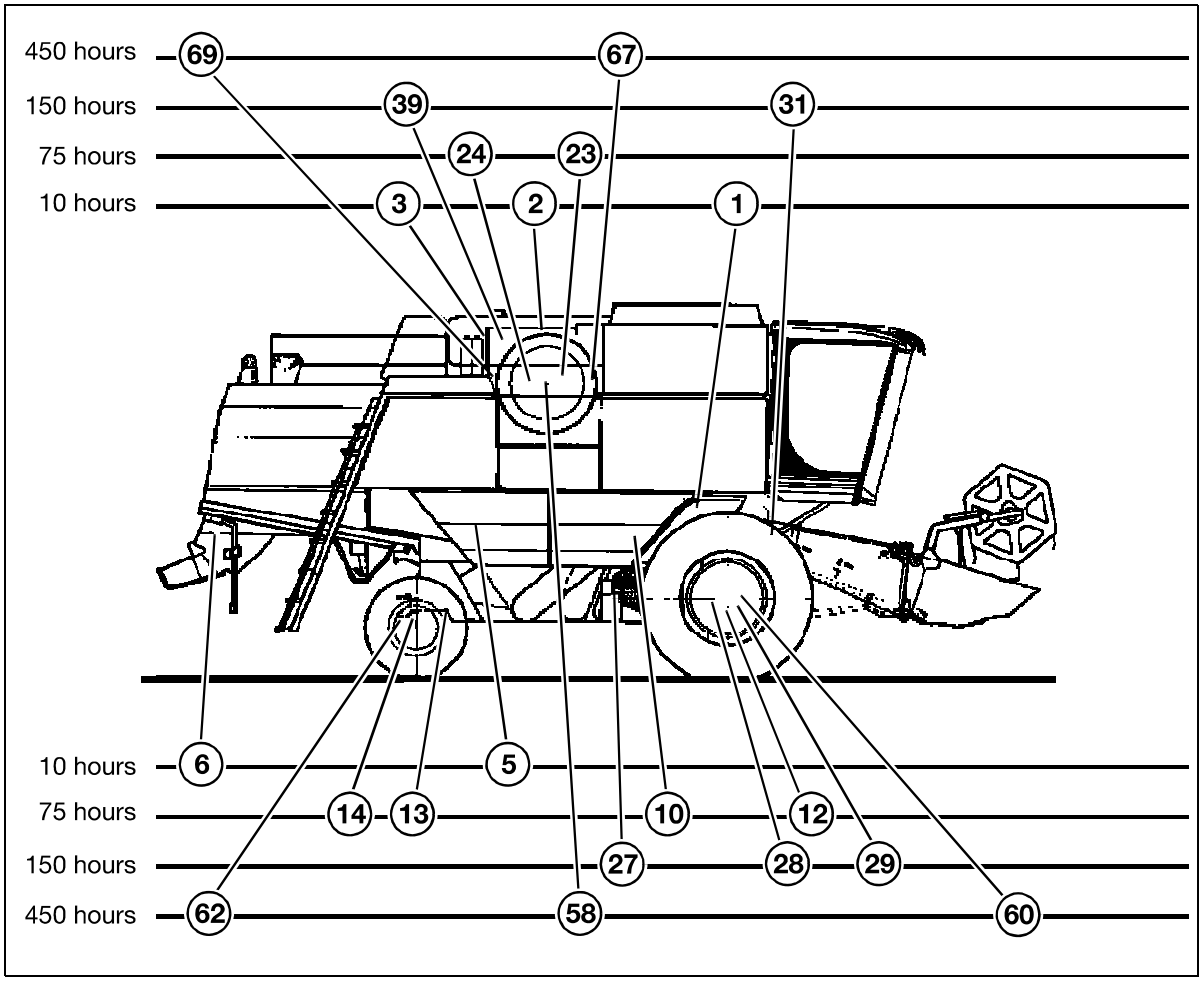


Fig. 72

MF7240 - RIGHT-HAND SIDE



1.) Cylinder variator
2.) Engine sump
3.) Radiator and expansion tank
5.) Prefilter/water separator
6.) Straw chopper rotor =>
10.) Fanning mill variator
12.) Coupling bushes of final drive shafts =>
13.) Rear axle pivot
14.) Rear axle king pins =>
23.) Condenser
24.) Radiator
27.) Parking brake
28.) Gearbox
29.) Final drive housings =>
31.) Main crop elevator suspension =>
39.) Engine air filter
58.) Engine sump breather
60.) Final drive housings =>
62.) Ball joints =>
67.) Engine fuel filter
69.) Engine oil filter

=> Repeat the operation on the opposite side of the machine.

25.) Chaff Spreader Drive (if fitted) - Fig. 33

Check that the transmission housing is filled with 350 grams of **MF Grease EP**. Top up through the grease nipple (1), if required.

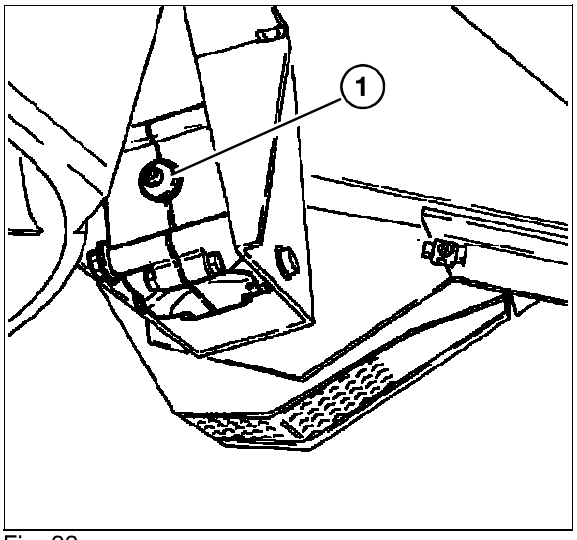


Fig. 33

64.) Oil, Hydrostatic Transmission

Fig. 59 – Fig. 61

NOTE: *The line for draining the hydrostatic transmission oil tank is marked with the following decal:*

To change oil, proceed as follows:

1.) Clean the plug (1) and surrounding area.

2.) Remove the plug (2), ensuring the oil is not hot, but always wear rubber gloves.

CAUTION: *Collect the oil in a suitable container and do not let it percolate into the ground.*

3.) Top up the tank at the plug (1) and check the oil level at the sight glass (3).
The level is correct when the oil reaches 5 cm at the sight glass (3) at ambient temperature.
Use **MF Agri Hyd 46** oil.

ATTENTION: *Correct oil quality and proper cleaning are extremely important for the optimum operation and long life of the hydrostatic system.*
If oils other than the specified ones are used, severe damage may occur to the whole system, in which case the warranty shall not apply.

4.) Repeat the procedure described above to replace the filter (points 4 to 8).

5.) Change into neutral gear, move the multifunction lever (3) forward up to 1/4 of its travel, pull it back to 0 and then move it backward by 1/4 of its travel.

6.) Check the oil level and check for leaks.

The whole system on this model contains 44 litres of oil, the tank alone holding 20 litres (normal level).

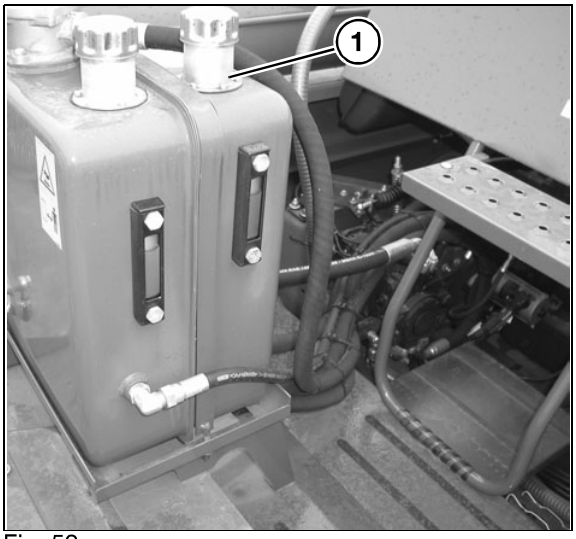


Fig. 59

Fig. 60

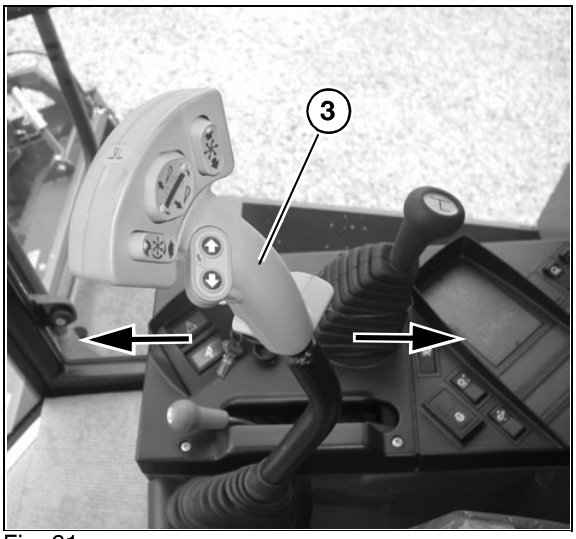


Fig. 61

	50 Hours	225 Hours	450 Hours	900 Hours	End of the 1st season	End of the 2nd season	End of the 3rd season	End of the 4th season
Engine								
Check the safety (inner) and clean the outer air cleaner elements.	X	X						
Change both air cleaner elements.			X	X	X	X	X	X
Check that the intake system is not obstructed or damaged.				X	X	X	X	X
Change the oil and oil filter(s).	X	X	X	X	X	X	X	X
Check the valve clearances (replace rocker cover gasket).				X	X		X	
Change engine sump vent filters.			X	X	X	X	X	X
Check the coolant level and check that the radiator is clean and free of leaks.	X	X	X	X	X		X	
Change the coolant.						X		X
Check the coolant level and check that the radiator is clean and free of leaks.					X	X	X	X
Change the fuel sedimentor / water trap element.		X	X	X	X	X	X	X
Replace the fuel filter.		X	X	X	X	X	X	X
Clean the fuel sedimentor / water trap element.	X							
Check the operation of the extractor.					X	X	X	X
Check the lubrication, fuel supply and cooling systems for leaks or damage.	X	X	X	X	X	X	X	X
Check the tightening torque of the bolts fixing the engine to the frame.	X			X	X	X	X	X
Check the minimum and maximum engine speed.					X	X	X	X
Check the alternator, fan and compressor belt tension.					X	X	X	X
Check turbocharger lubrication.					X	X	X	X
Check that the diesel oil tank is clean and not distorted.					X	X	X	X
Ensure that all components are fixed correctly and are not blocking air intake or exhaust areas.					X	X	X	X

6.3 BELTS AND CHAINS (right-hand side)

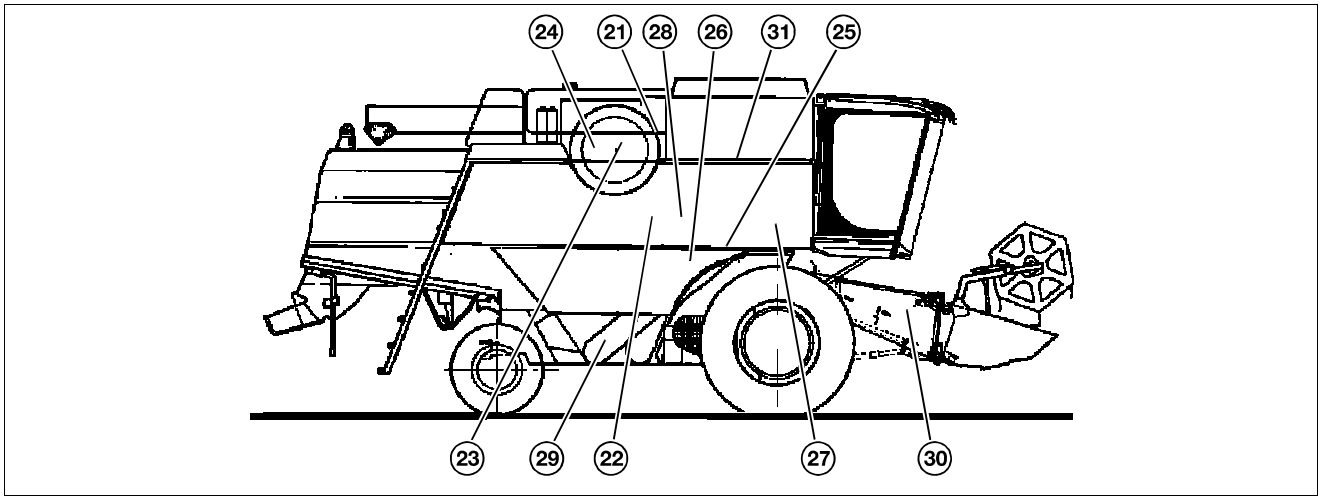


Fig. 20

21.) Belt drive for rotary screen
22.) Counter drive for rotary screen
23.) Belt drive for cooling fan
24.) Belt drive for alternator
25.) Belt drive for cylinder variator
26.) Belt drive for fanning mill variator
27.) Top chain drive for returns auger
28.) Chain drive for crop elevator
29.) Chain drive for returns elevator
30.) Chain drive for main crop elevator
31.) Chain drive for tank filling auger

Replacement of Rear Wheels

Fig. 41 – Fig. 43

If a rear wheel needs to be replaced, proceed as follows:

***DANGER**: Risk of squeezing, cutting or shocks. Park the machine on firm and level ground.*

a.) Apply the parking brake and secure the other wheels with sprags or similar devices.

b.) Loosen all the screws fastening the wheel.

c.) Insert a height-adjustable stand (2) under the rear axle, as indicated on the decal (1).

d.) Loosen the wheel nuts and lift the relevant end of the rear axle, until the wheel only just touches the ground.

e.) Replace the wheel and tighten the nuts.

f.) Remove the safety stand and lower the rear axle.

g.) Tighten the wheel nuts by a torque of 304 Nm.

***IMPORTANT:** The correct mounting of the rear wheels requires that the value A (measured between the flange and the rim edge on the outside of the wheel) corresponds to 275 mm on machines fitted with tyres 16.0/70-20 (405/70-20) and 306 mm on machines with tyres 460/70 R24.*

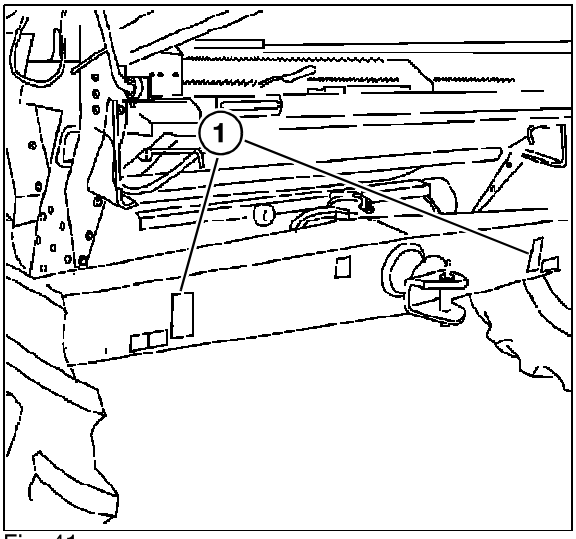


Fig. 41

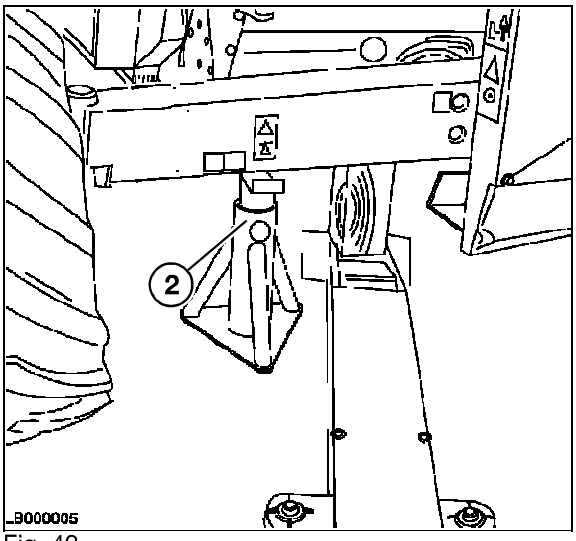


Fig. 42

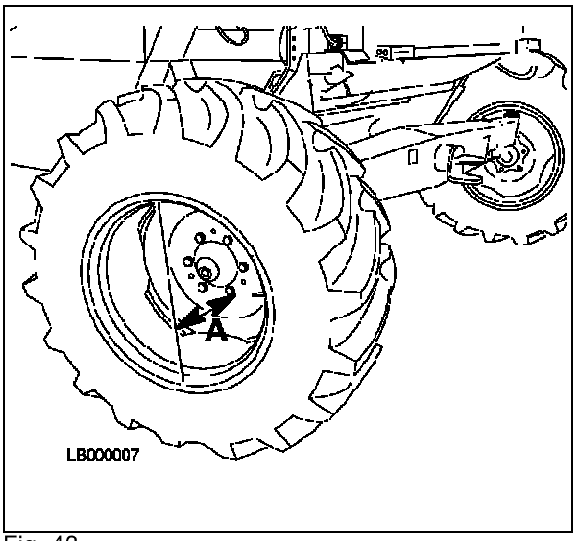


Fig. 43

Cutting table oleopneumatic shock absorber

Fig. 12

There are often pressure spikes in the table up/down positioning circuit (e.g. when the oil to the tank is cut off during table lowering).

To limit the impact of these pressure variations, the table up/down positioning circuit features a nitrogen-charged oleopneumatic shock absorber (1).

When there is a pressure spike, the gas is compressed by the force exerted by the oil against the separating membrane. The reduced gas volume flattens the spike, the force exerted by the oil is reduced and the membrane returns to its original position.

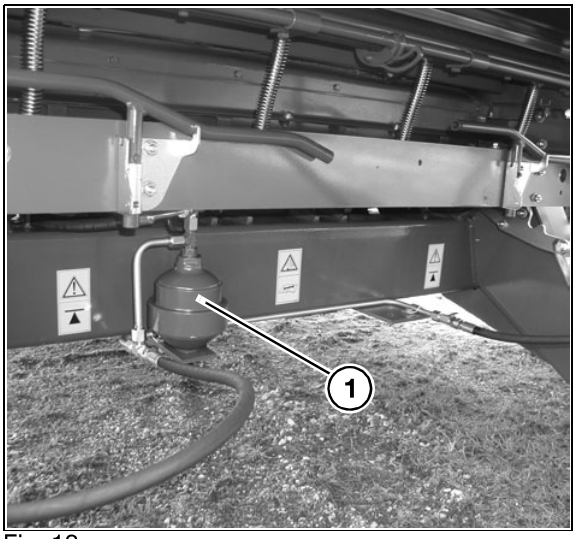


Fig. 12

Hose burst valve

Fig. 13

***DANGER**: Risk of squeezing, cutting or shocks.*
Do not climb under the cutting table unless the safety stops on the lifting rams have been engaged; the safety stops must also be engaged during road transport.

Safety valves (2) are fitted inside the bushings (1) on the two table lifting/lowering hydraulic rams. Under normal operating conditions, these valves have no impact on system operation.

However, if oil flow increases unexpectedly (due, for example, to a burst hose), both valves close to prevent the table from falling to the ground.

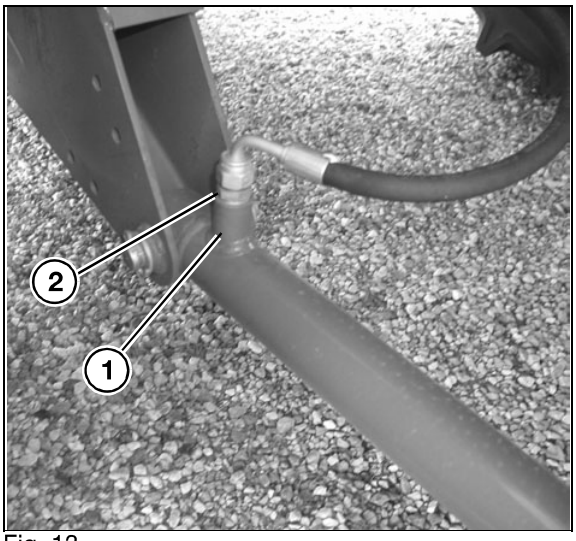


Fig. 13

Cutting table positioning pressure switch

Fig. 14

The pressure switch (1) is directly connected to the circuit that controls the cutting table position.

Under normal conditions, the entire weight of the cutting table is supported by hydraulic cylinders and the pressure switch does not send a signal.

If the cutting table is too low, part of its weight is transferred directly to the ground and the pressure within the circuit is lowered. In this case, the pressure switch activates the orange indicator light (2) located on the control panel.

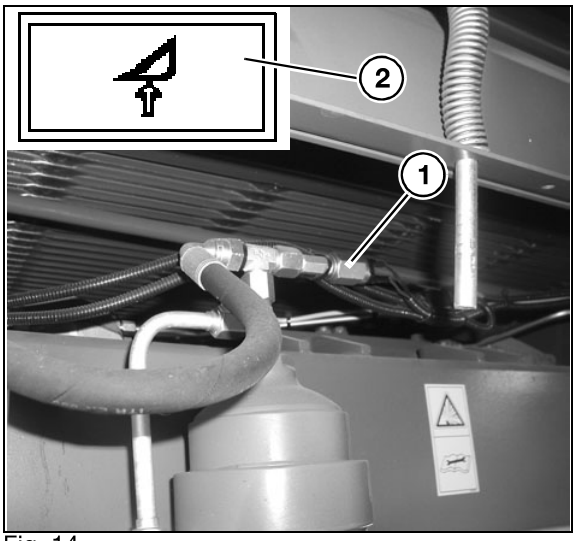


Fig. 14

GRAIN TANK LIGHT AND GRAIN TANK FULL SENSOR

Fig. 33 – Fig. 35

To improve visibility inside the grain tank, particularly at night, the combine is fitted as standard with a light (1) above the front window of the tank.

The control switch is located on the instrument control panel.

The direction of the light beam can be adjusted manually.

The combine can be fitted with a tank full sensor (2) as an option.

The sensor (2) is activated by the force on its external diaphragm when the crop in the tank approaches the maximum level.

When the circuit is closed, an indicator light  and a buzzer are activated in the cab.

At the same time, the front rotating yellow beacons (3) and the rear rotating yellow beacon come on.

This allows the combine operator and the driver of the vehicle to which the crop is to be transferred to prepare for unloading in advance.

IMPORTANT: *The grain tank full sensor (2) can be adjusted in height depending on humidity and crop type.*

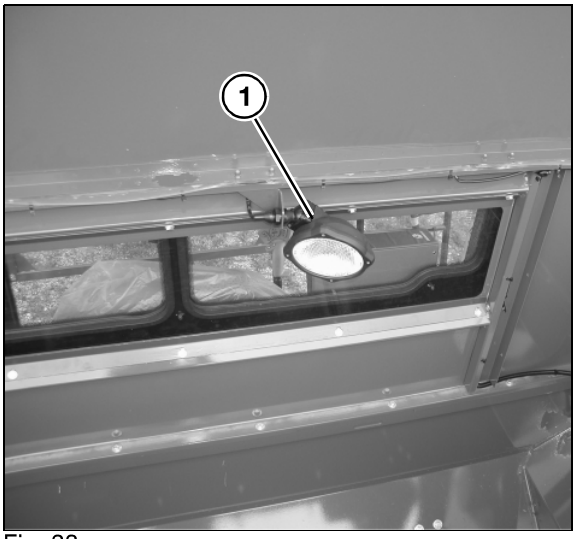


Fig. 33

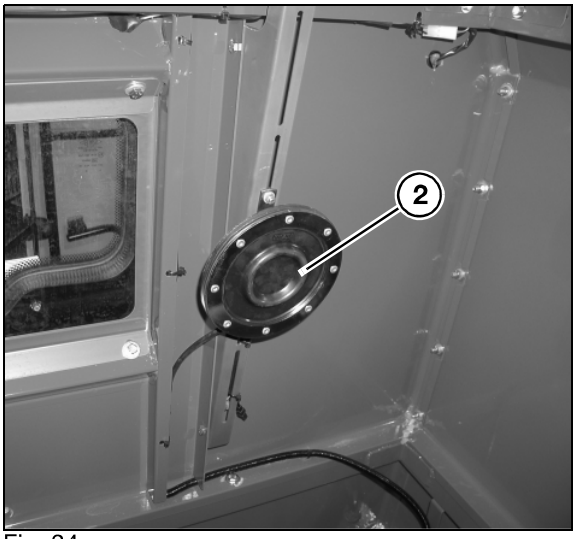


Fig. 34

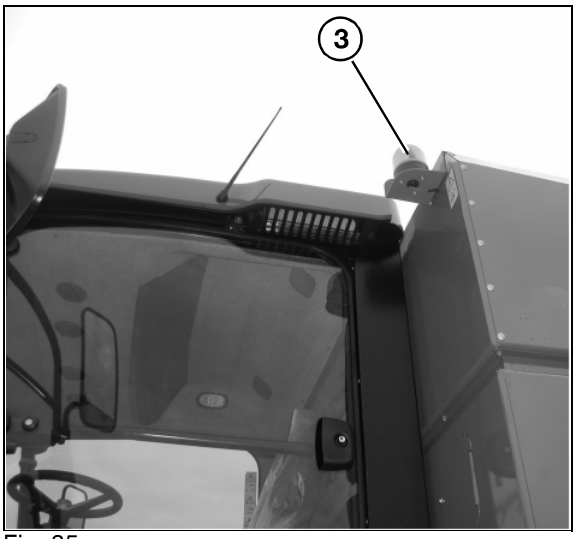


Fig. 35

8.6 AUXILIARY HYDRAULICS

PROBLEM	CAUSE	REMEDY	DESCRIPTION
The various functions do not work (e.g.: table lift)	No oil in the circuit.	Check oil level in the tank and top up, if required.	**page 5-7**
	Pump drive belt slipping.	Check condition of drive belt.	**page 6-5**
	The max. pressure in the circuit does not reach the preset value.	Contact your local dealer.	**-**
	The pump does not work at the prescribed speed.	Check condition of drive belt.	**page 6-5**
The various functions react very slowly.	No oil in the circuit.	Check oil level in the tank and top up, if required.	**page 5-7**
	The pump does not work at the prescribed speed.	Check condition of drive belt.	**page 6-5**
Only one function does not work.	Solenoid valve control fuse blown.	Replace the fuse.	**page 7-14**
	Solenoid valve failure.	Contact your local dealer.	**-**
The power steering is hard to operate with engine at max. speed.	The pump does not work at the prescribed speed.	Check condition of drive belt.	**page 6-5**
	The working pressure is incorrect.	Contact your local dealer.	**-**
The power steering is hard to operate with engine at idling speed.	The pump capacity is insufficient at this speed.	Move the steering wheel more slowly or increase the engine speed.	**-**

8.7 AUXILIARY ELECTRICAL SYSTEM

PROBLEM	CAUSE	REMEDY	DESCRIPTION
Failure in push-button type electrical controls.	Main fuse not working. Diode short circuit. Relay not functioning.	Check the non-functioning or short-circuited component and replace it, if required.	**page 7-13**

WINDBREAK

Fig. 13

It is advisable to fit the windbreak on machines without straw chopper, particularly when working in windy areas.

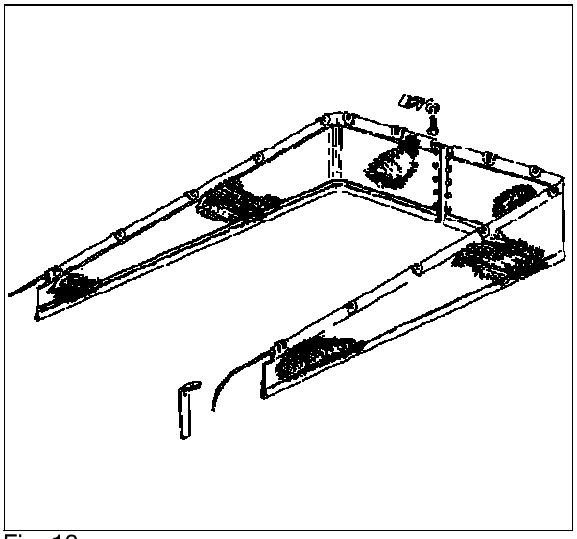


Fig. 13

CUTTING HEIGHT CONTROL

Fig. 14

This device allows the operator to control the distance of the cutting blade from the ground.

A slider, which can be seen easily from the cab, slides on a graduated scale and, being mechanically coupled to the cutting table, follows all of its movements.

Fig. 14

HYDRAULIC QUICK COUPLERS

Fig. 15

For easier connection of the hydraulic pipes between cutting table and machine, a quick-attach coupler is available for simultaneous coupling and uncoupling of all hydraulic pipes.

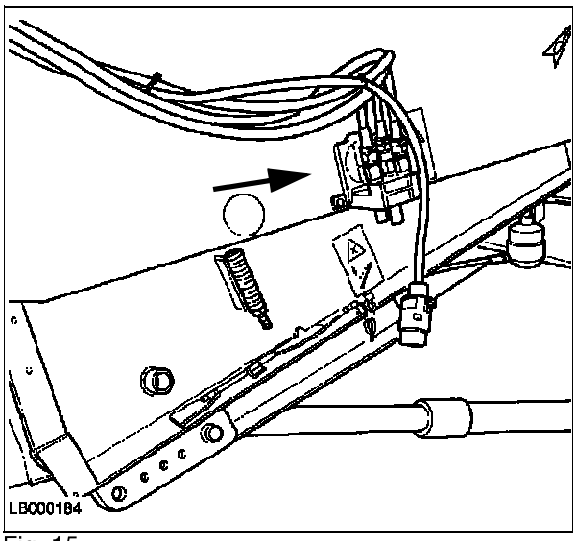


Fig. 15

To change the chaff spreader position, proceed as follows:

1.) Press the knob (1) on the right-hand side of the straw hood.
2.) Using the lever (2), place the chaff spreader in the desired position.
3.) Release the spring-loaded knob (1) and turn up the chaff spreader until the stop engages.

***DANGER**: Risk of solid parts being thrown out. Never allow any persons near the back of the combine when starting the chaff spreader and when it is working.*
Never use the chaff spreader if there is any risk of crop or small stones being thrown onto public roads.

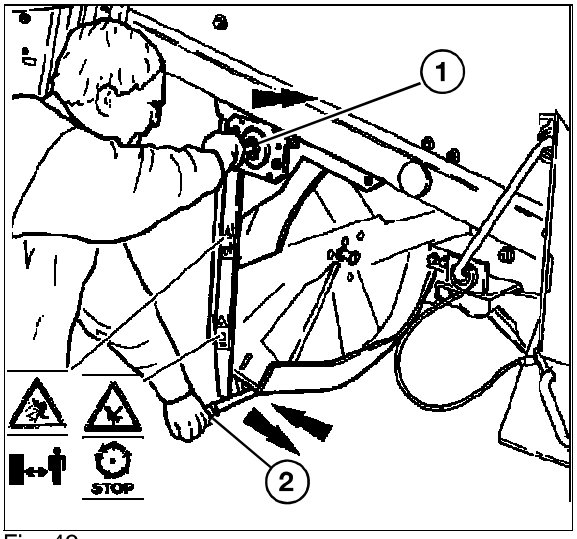


Fig. 40

CHAFF SPREADER SPEED - Fig. 41

The normal speed is 630 rpm (drive pulley 1, 132 mm dia.).

The speed can be increased from 630 to 790 rpm by inverting the position of the two pulleys (1) and (2).

***NOTE:** To reduce the speed of the chaff spreader, particularly when using 4.80 m cutting tables, a special belt and drive pulley are available from the Spare Parts Department.*

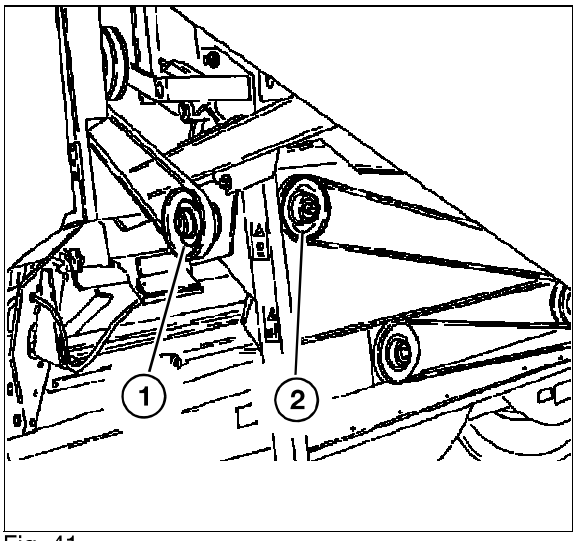


Fig. 41

DISENGAGING THE CHAFF SPREADER - Fig. 42

When the chaff spreader is not used, remove the drive belt (1) and the pulley assembly (2); leave the chaff spreader vertical.

CHAFF SPREADER BELT TENSIONING

Check regularly that the length of the springs loading the tensioners of the two chaff spreader belts corresponds to the range of the gauge.

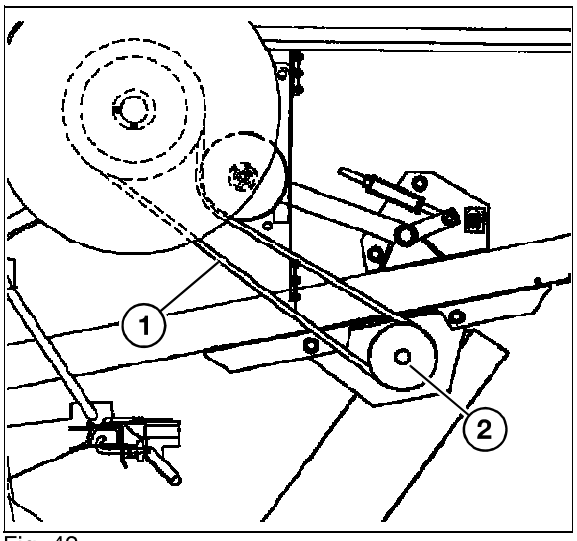
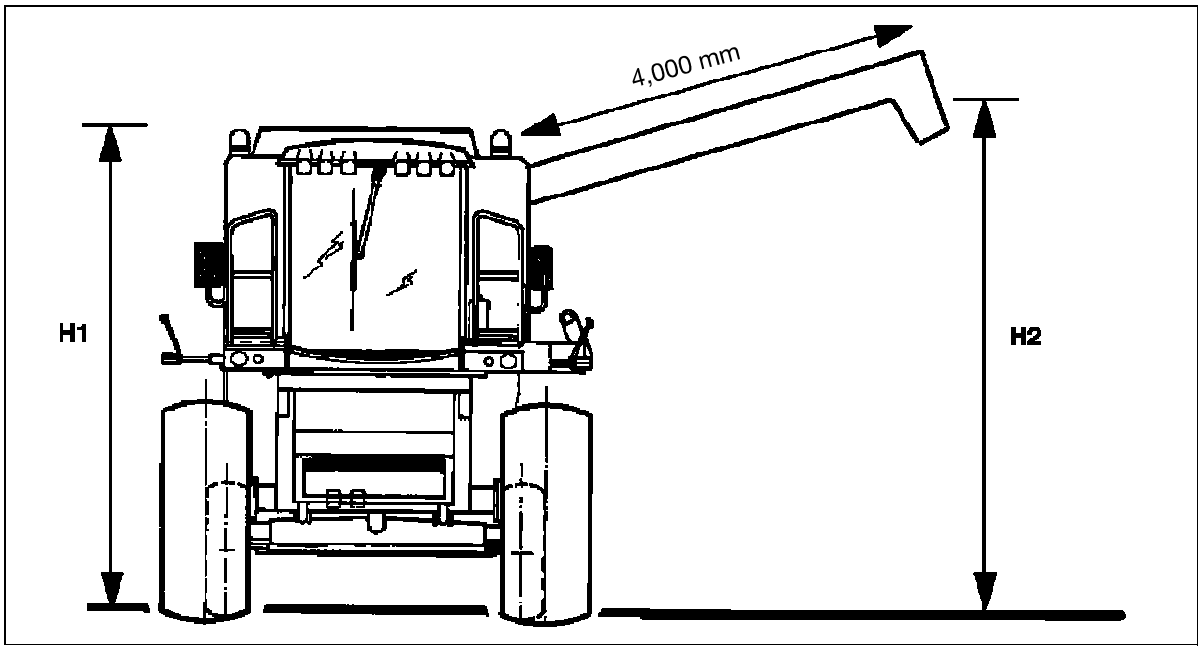


Fig. 42

11.7 CLEARANCE BETWEEN UNLOADING AUGER AND GROUND

with tyres on front axle



	TYRE TYPE	H1 (mm)	H2 (mm)
MF 7240	620/75R30	3950	4185
	650/75R32 and 620/75 R 34	3975	4210

with half-tracks on front axle