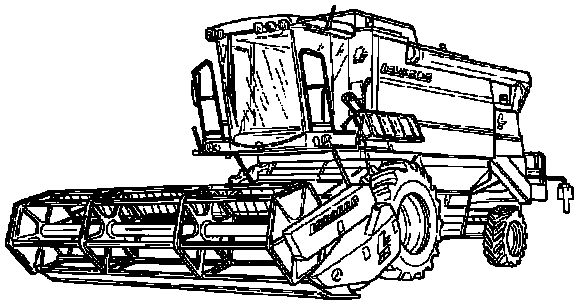


225 REV

255 REV

256 REV

LAVERDA

ARGO
Gruppo Industriale ARGO

WORKSHOP
MANUAL

START–UP

◊ Never run the engine in closed areas without suitable ventilation systems for exhaust gas ejection.

◊ Never bring your head, body, arms, legs, feet, hands or fingers next to fans or rotating belts.

ENGINE

◊ Before removing the radiator cap loosen it very slowly, to relieve pressure from the system. Coolant top–ups must be made only when the engine is stopped or idle, if hot.

◊ Never fill up the fuel tank when the engine is running, especially if it is hot, to prevent triggering fires in case of fuel leaks.

◊ Never try to check or adjust the fan belt tension when the engine is running.
Never adjust the fuel injection pump when the machine is moving.

◊ Never lubricate the machine when the engine is running.

ELECTRICAL SYSTEMS

◊ When using auxiliary batteries, remember that the cables on both sides must be connected as follows: (+) with (+) and (–) with (–). Do not short–circuit the terminals. GAS RELEASED FROM BATTERIES IS HIGHLY FLAMMABLE. During recharging, leave the battery compartment open for an improved ventilation. Never check the battery charge by "jumpers" obtained by laying metal objects on the terminals. Avoid sparks or flames in the area surrounding the batteries. Do not smoke to prevent explosion hazards.

◊ Before any intervention, check there are no fuel or power leaks: eliminate these leaks before going on with the work.

◊ Never recharge the batteries in closed areas: make sure there is enough ventilation to prevent accidental explosions due to the build–up of gases released while charging.

◊ Always disconnect the batteries before any intervention on the electrical system.

HYDRAULIC SYSTEMS

◊ Fluid coming out from a very small port can be almost invisible and be strong enough to penetrate the skin. For this reason, use a piece of cardboard or of wood for checking. NEVER USE YOUR HANDS TO CHECK FOR LEAKS: in case of any fluid injected into the skin, seek medical aid immediately. Lack of immediate medical care can give origin to serious infections or dermatosis.

◊ While checking the system pressures, use the suitable instruments.

WHEELS AND TYRES

◊ Make sure that tyres are correctly inflated at the pressure specified by the manufacturer.
Regularly check possible damages of rims and tyres.

◊ Keep off and stay next to the tyre to correct the inflating pressure.

◊ Check the pressure only with unladen machine and cool tyres to prevent a wrong measurement due to overpressure. Never use parts of recovered wheels as improper welding, brazing or heating could have weakened them and cause breakages.

◊ Never cut nor weld a rim with fitted inflated tyre.

◊ To remove the wheels, lock both front and rear wheels. After lifting the machine to prevent its falling, arrange suitable supports underneath, according to the regulations in force.

◊ Deflate the tyre before removing any object caught in the tread.

◊ Never inflate tyres using flammable gases as they may cause explosions and injuries to by–standers.

REMOVAL AND INSTALLATION

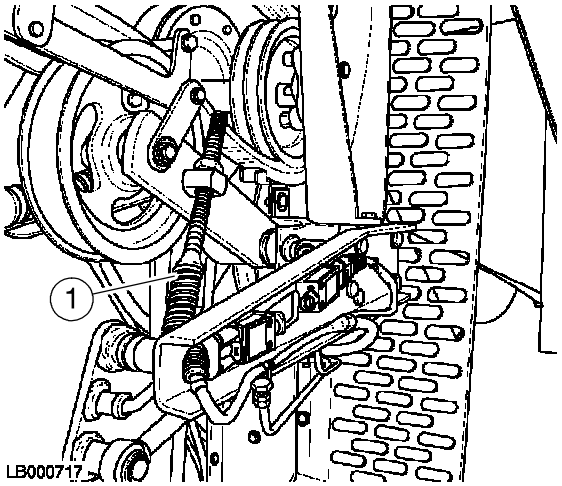
◊ Lift and handle all heavy parts by suitably sized lifting means. Make sure all the parts are held by suitable slings and hooks. Use the appropriate lifting eyebolts. Make sure no one is standing next to the load to be lifted.

◊ Handle all parts with great care. Do not put hands and fingers between parts. Wear approved safety clothing such as goggles, gloves and safety footwear.

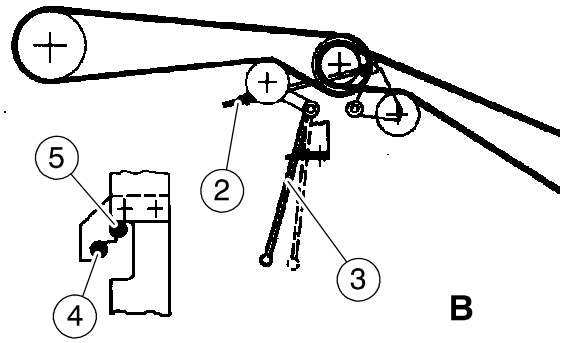
◊ Do not twist metal chains or ropes. Always wear safety gloves to handle cables or chains.

	225 REV	255 REV	256 REV
ELECTRICAL COMPONENTS			
BATTERY			
– type 12 V ..... A/h	150		
– peak current ..... A	650		
STARTER			
– type	BOSCH		
ALTERNATOR			
– type	BOSCH		
– charging capacity ..... A/h	120		
TRACTION			
– standard tyres	620/75 R30	650/75 R32	
– optional tyres	620/75 R34 650/75 R32 800/65 R32	620/75 R34 800/65 R32	
– gearbox type	with frontal engagements		
– gears	3		
SPEED WITH 620/75 R30 TYRES			
1st gear ..... km/h	0 ÷ 6,5		
2nd gear ..... km/h	0 ÷ 13		
3rd gear ..... km/h	0 ÷ 23 (*)		
SPEED WITH 650/75 R32 TYRES			
1st gear ..... km/h	0 ÷ 7		
2nd gear ..... km/h	0 ÷ 13,5		
3rd gear ..... km/h	0 ÷ 24,5 (*)		
SPEED WITH 620/75 R34 – 800/65 R32 TYRES			
1st gear ..... km/h	0 ÷ 7,3		
2nd gear ..... km/h	0 ÷ 14		
3rd gear ..... km/h	0 ÷ 25 (*)		
REAR AXLE			
– axle type	adjustable		
– standard tyres	16.0/70–20	460/70 R24	
– optional tyres	460/70 R24	–	
WEIGHTS			
– weight of the combine without cutting header, with straw chopper and with empty grain tank ..... kg	10100	10300	11400
– cab ..... kg	350		

(*) In some countries (Germany and Austria ecc.) the road homologation forecasts the max. speed at 20 km/h.



A



B

DESCRIPTION	COMPRESSED SPRING mm
A – Straw chopper transmission control (spring re. 1) mm	85
B – Straw chopper transmission control (spring re. 2) mm	180

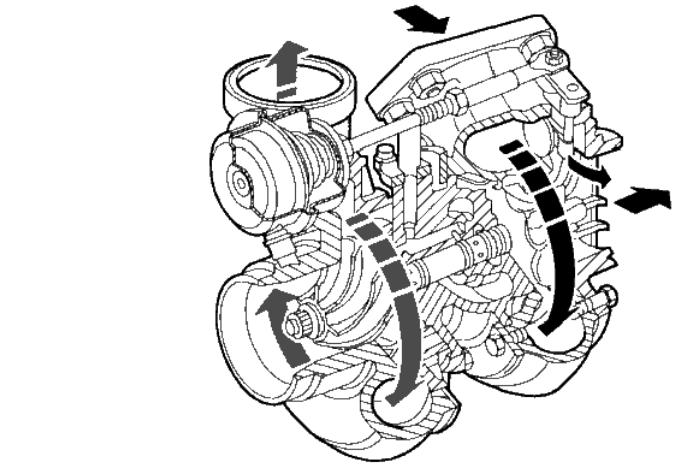
The lever, re. 3, must be coupled in position 5, with standard revolution speed.

With revolution reduction kit (required for crops such as maize), the lever, re. 3, must be coupled in position 4.

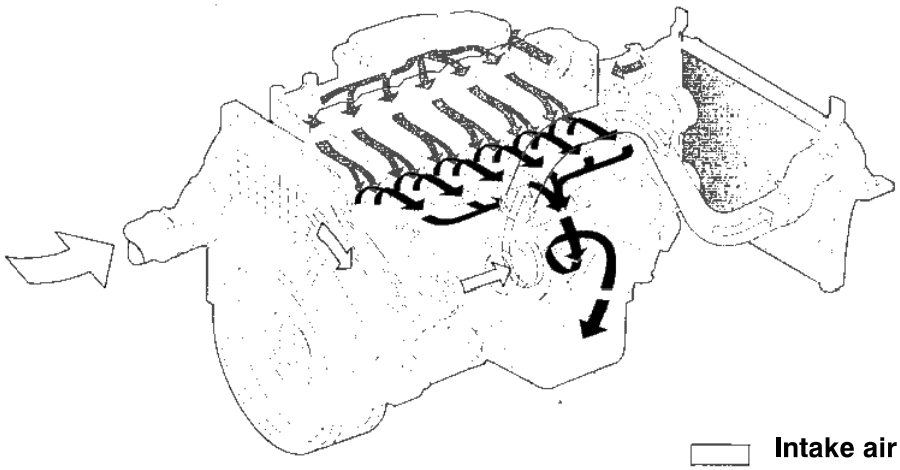
TURBOCHARGING

Engine boosting system with Holset HX35W turbocharger and intercooler.

Turbocharging diagram



Exhaust
Hot intake air



Intake air
Hot compressed air
Cold compressed air
Exhaust

ENGINE AIR FILTER

Every 150 hours, or if the warning light on the dashboard switches on and the relevant alarm sounds, clean the filter outer cartridge by blowing from inside with compressed air (max. 6 bar) and keep the nozzle at least at 5 cm from the filter.

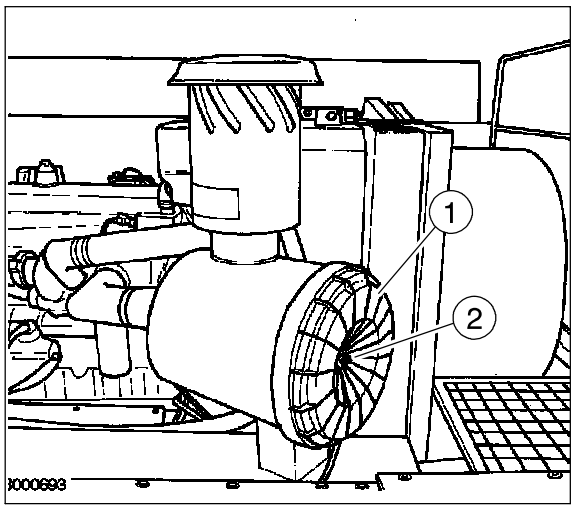
To remove the filter element, remove the cover (1) loosening the nut (2).

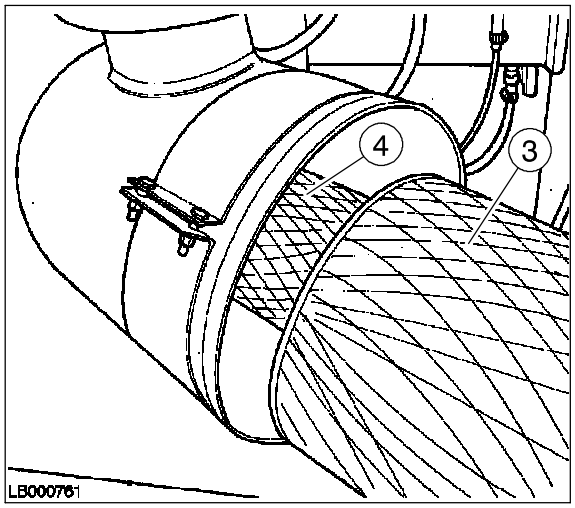
If the outer element (3) shows cracks or the filtering surface is irregular, replace it immediately.

If the outer element (3) is perfectly sound, it can be cleaned up to max. six times.

Independently of the filter (3) cleaning intervals, it must be replaced once a year (just before the harvesting season).

IMPORTANT: *the inner safety element (4) cannot be cleaned; it must be replaced every three cleaning operations of the outer element (3); thus, all the maintenance operations should be noted down.*





TOOLS

List of special tools required for the different operations listed in this section.

291051 Puller
296008 Tie rods
293495 Installer

OPERATION DESCRIPTION

Live PTO is transmitted through the transmission shaft connected to the engine by a coupling ring.
A driving plate is linked to the engine flywheel, while a driven one is fastened to the transmission shaft.
The transmission shaft is fitted on two bearings, installed on a hood on the engine.
The transmission shaft houses a drive pulley with different belts.

Hydrostatic pump transmission belt.
Hydrostatic pump transmission belt.
Thresher control belt.
Tank unloading control belt.
Straw chopper control belt (if fitted).

TROUBLESHOOTING

FAULTS	POSSIBLE CAUSES	REMEDIES
Transmission shaft wobbling.	**1.** Rubber pad wear.	Replace the pads.
	2. Rubber pad breakage.	Replace the pads.
	3. Wear of the spline between shaft and pulley.	Replace the spline and check the housings.
	4. Loose pulley locking nut.	Tighten the nut and check the couplings.
	5. Bearings with excessive clearance.	Replace the bearings.
The live PTO shaft doesn't turn.	**1.** Broken coupling.	Replace it.
	2. Cut driving plate screws.	Replace the screws.
	3. Broken live PTO shaft.	Replace the shaft.
	4. Cut spline.	Check the spline housing and if it's ok, replace the damaged parts.

Section 21 – TRANSMISSION

CONTENTS

SPECIFICATIONS

Transmission type	Hydrostatically–operated
Gearbox	With 3 ratios and live gears for all ranges
Gear type	With straight toothing
Transmission controls	By hand lever, on the operator's right side
Engagements	Front

TRANSMISSION HOUSING

INTRODUCTION

Inner part disassembly/assembly procedure (with disassembled transmission housing cover and assembly on bench).

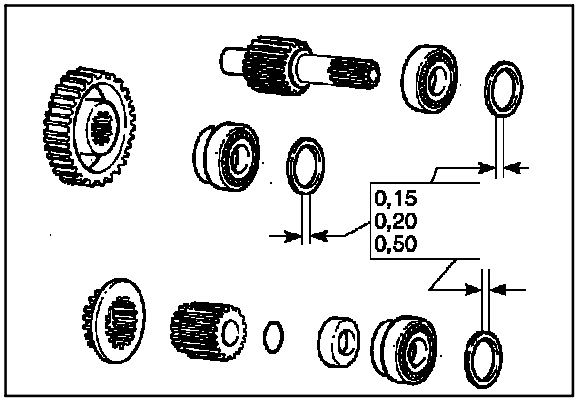
MAIN SHAFT:
disassembly/direct reassembly

LAY SHAFT:
disassembly/direct reassembly

AUXILIARY SHAFT:
possible disassembly only after disassembling the lay shaft.
Assembly possible only before assembling the lay shaft.

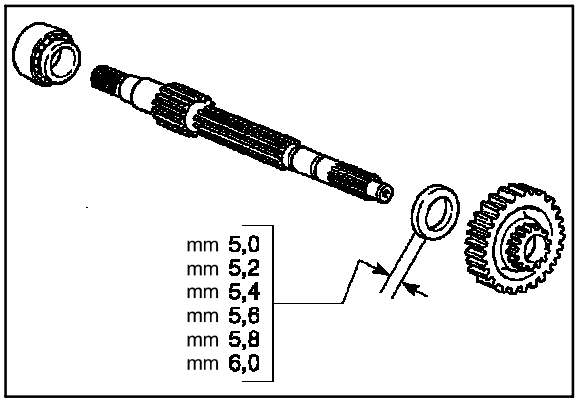
DIFFERENTIAL ASSEMBLY:
disassembly possible only after disassembling the lay shaft.
Assembly possible only before assembling the lay shaft.

Available shims for shaft bearing end float setting.



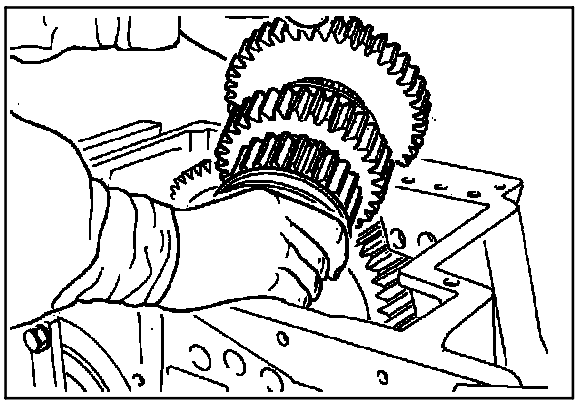
13

Available shims for lay shaft gear end float setting.



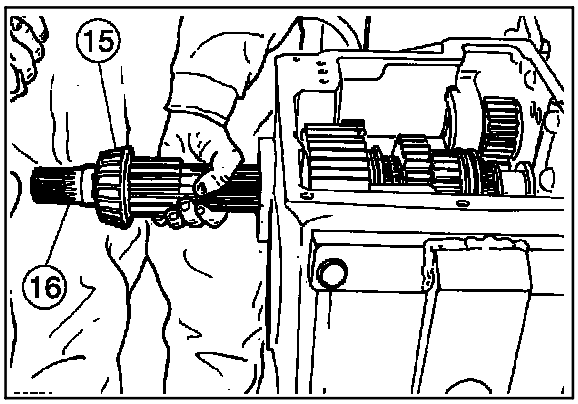
14

Fit the guide tool re. 296120 with the parts disassembled from the lay shaft, to take it out from the transmission left side.



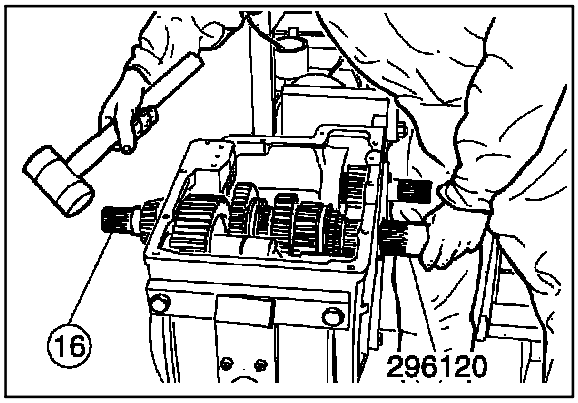
48

Fit the lay shaft (16) on the right side with the previously installed bearing (15).
Slightly beat the assembly with a plastic hammer, for an easier procedure.



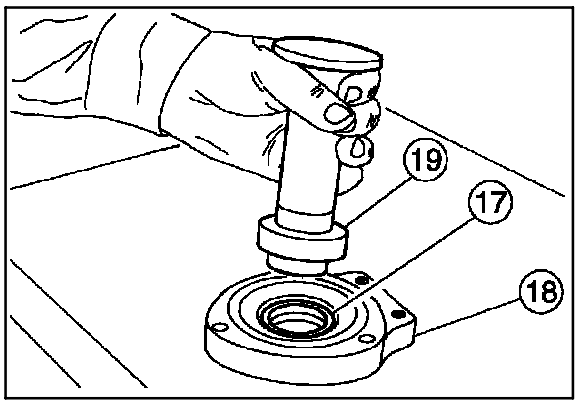
49

The fitting of the shaft (16) in its housing makes the guide tool re. 296120 come out and couples the gear assembly.
Use your hand to make the guide tool come out.



50

Using a suitable drift (19), fit the seal (17) on the flange (18) and oil the inner and outer housings.



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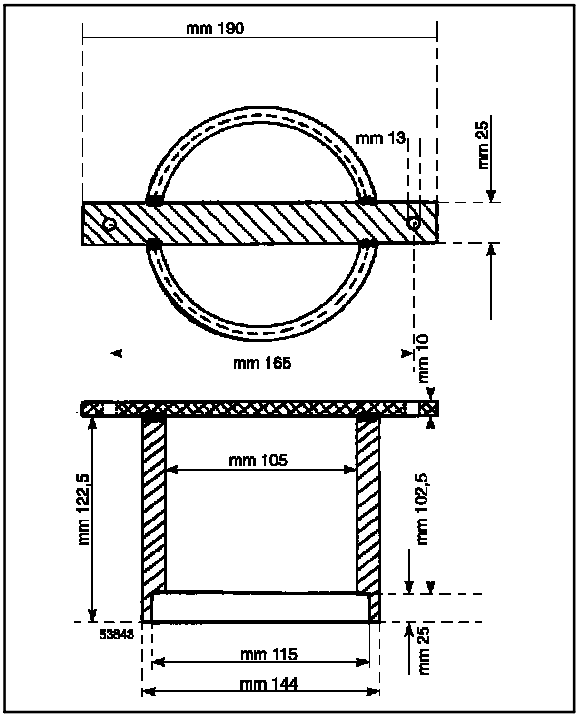
NOTE: to operate safety and get the best technical results, saving both time and power, add the special tools listed below to those made directly by you, according to the special manufacturing drawing attached to this manual.

Tool to be made to hold the differential assembly (on the tool, print no. 51009).
Make in FE 00.



OPERATION DESCRIPTION

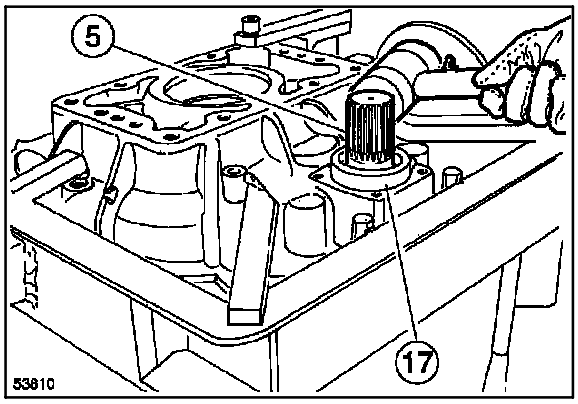
SINGLE–STAGE FINAL DRIVES

Single–stage final drives are fastened to the front axle and are operated by the transmission, through the axle–shaft.
The axle–shaft is connected to the final drive pinion through a bush.
The pinion sends the drive to the ring gear, splined on the wheel axle.
To prevent inlet of water, mud, etc... on the final drive housing, special seals are fitted between the mobile parts, wheel axle and housing.

TROUBLESHOOTING

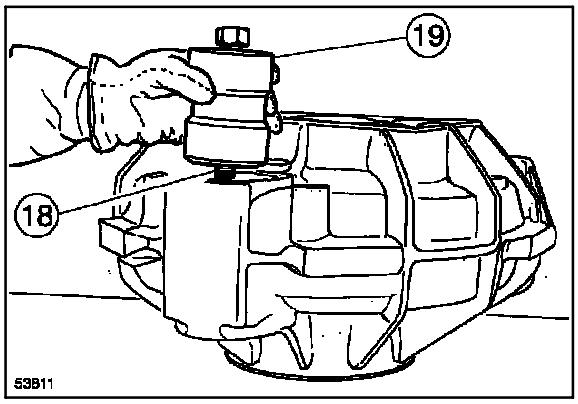
FAULTS	POSSIBLE CAUSES	REMEDIES
Oil leak	**1.** Damages seals.	Replace the seals.
	2. Closed bleed.	Open the bleed.
	3. Too much oil.	Top–up oil level.
Noise	**1.** Cracked pinion tooth.	Replace the pinion.
	2. Cracked ring gear tooth.	Replace the ring gear.
	3. Bearings with excessive clearance.	Replace the bearings or restore the clearance.
	4. Loose bearing fastening ring nuts.	Tighten the ring nuts at the correct torque.

Using a hammer with plastic beater, beat the pinion (5) on the side, to take out the ring nut from the bearing (17), then take the pinion out.



34

Remove the ring nut inside the bearing, using the special tool (18) re. 291206 and the beating puller (19) re. 293450.



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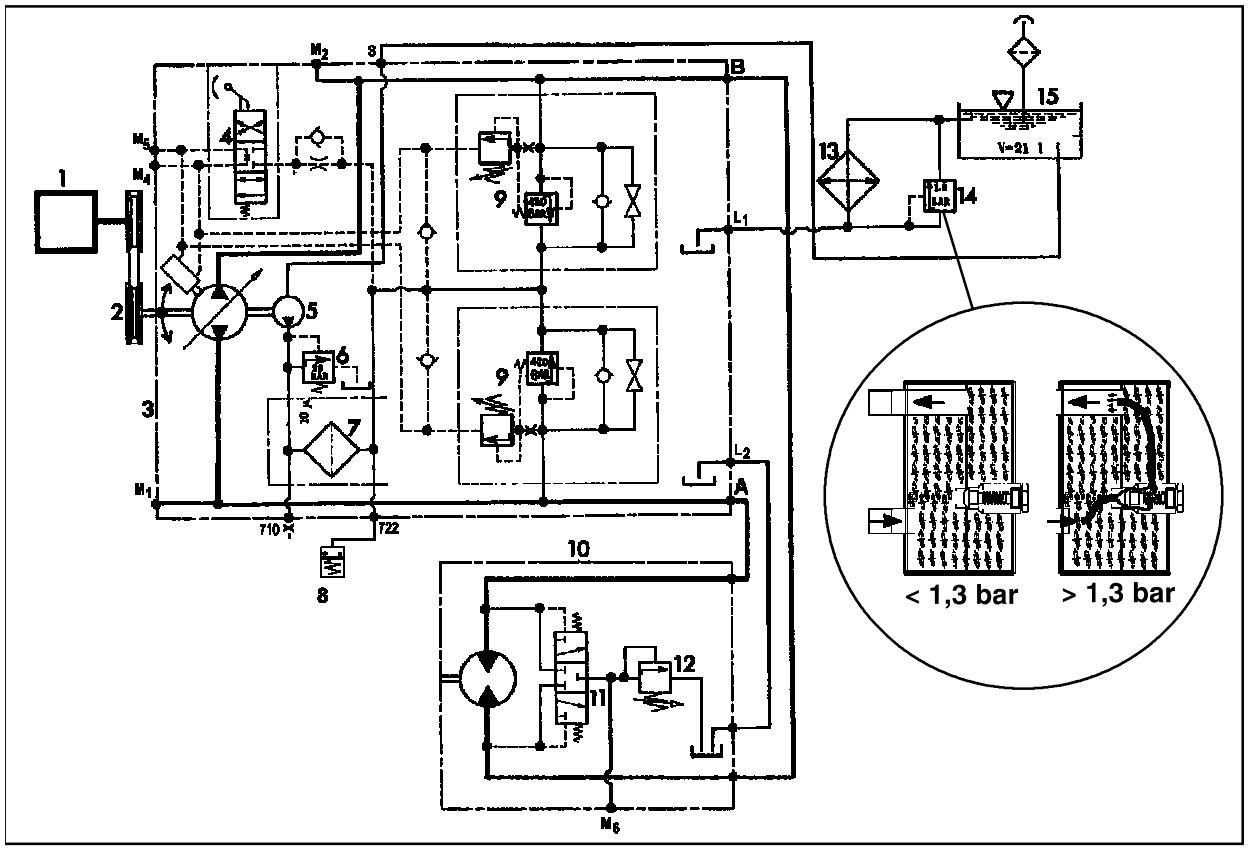
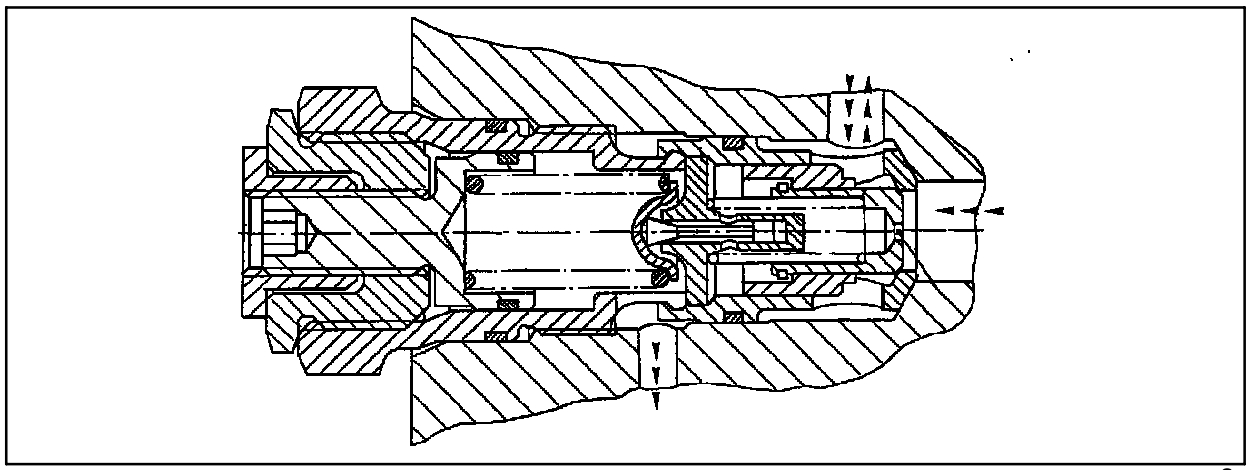
HYDROSTATIC SYSTEM DIAGRAMME



5

1. Diesel engine
2. Hydrostatic pump pulley
3. Sauer pump 90 L 100
4. Servo–control
5. Supply pump
6. Supply pressure limiting valve
7. Filter, 10 micron (in pressure)
8. Supply circuit pressure control pressure switch
9. Max. pressure limiting valves
10. Sauer motor, 90 M 100
11. Shifting valve
12. Drain valve
13. Heat exchanger
14. By–pass valve
15. Oil tank

PRESSURE LIMITING VALVE SECTIONAL VIEW



6

WARNING

Lift and handle all the parts with lifting means of suitable capacity. Make sure the assemblies or parts are held by suitable slings and hooks. Make sure no one is standing next to the load to be lifted.

WARNING

Handle all parts with the utmost care. Do not put hands and fingers between parts. Wear the suitable safety clothing, such as goggles, gloves and safety shoes.

Precautions

Before operating on the hydrostatic transmission, make sure all is clean. Work in a clean environment, using clean tools. A careful cleaning is indispensable to prevent dirt inlet and severe damages to the pump.

While repairing the pump, always replace all the seals.

After disconnecting the lines, close their ends and plug the transmission parts to prevent any dirt inlet.

While assembling the seal rings on the parts, lay a thin film of lubricant (vaseline).

Op. 2921242
Motor – R./I.

Op. 2921258
Pump assembly – R./I.

Hydrostatic system filling and purging procedure after repair or replacement

WARNING

Do not carry out these operations when the oil is hot and anyway protect your hands with rubber gloves. Always wear an eye protection and a dust mask while using compressed air for system cleaning.

System purge

1. Drain oil from the hydrostatic system tank and from the motor drain plug.
2. Disassemble pump and/or motor from the machine.
3. Flush with diesel oil all the lines and the system tank then, using compressed air, drain the possible trapped diesel oil.

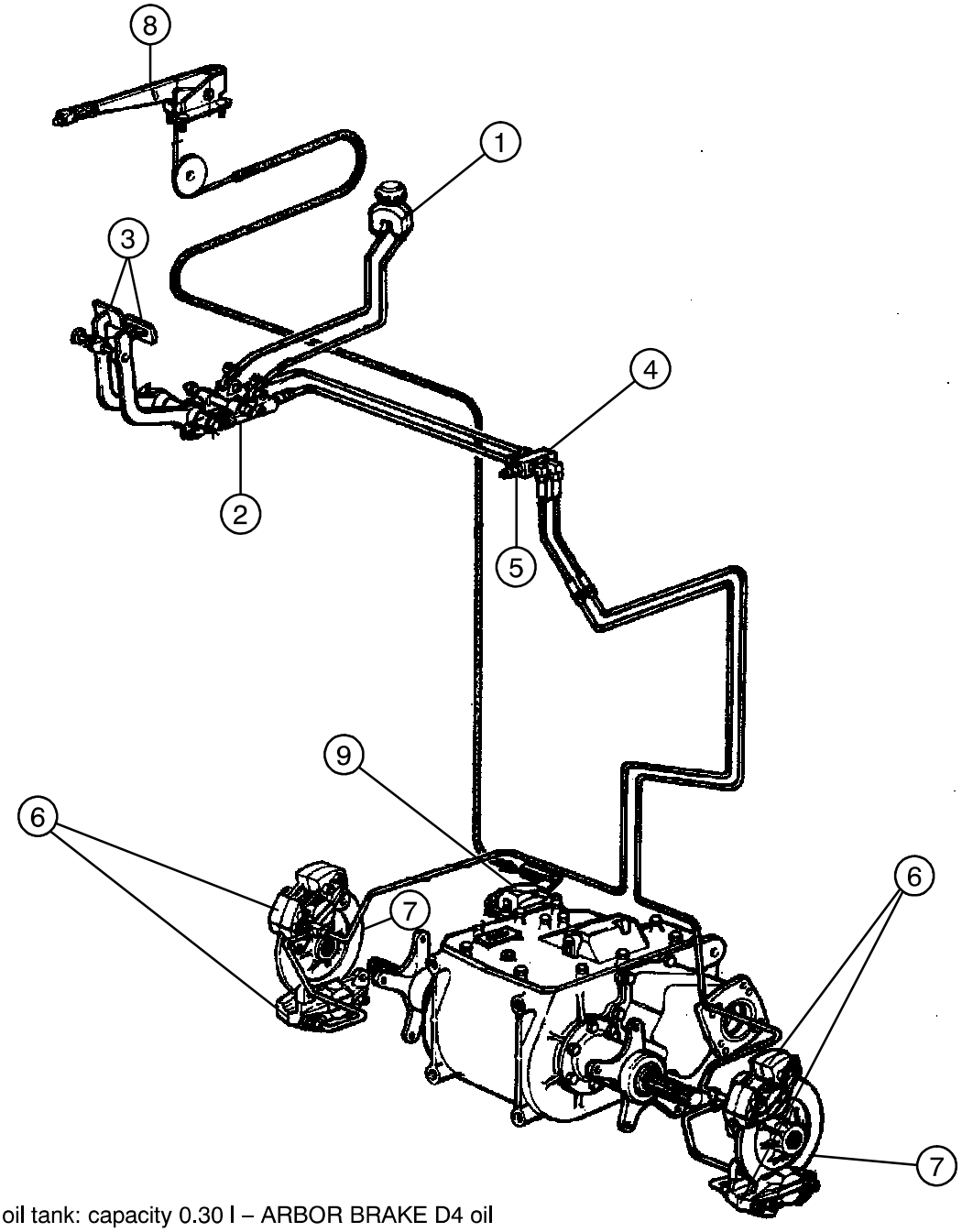
NOTE: collect used oil or diesel oil and do not dispose of them in the environment.

Hydrostatic system assembly and filling

NOTE: before assembly, storage oil must be drained from the new parts.

1. Assemble the pump and motor assembly, then connect all the lines making sure no foreign bodies enter.
2. Fill the hydrostatic system tank with the oil type suggested in the machine Operator's Manual.
3. Place the transmission lever in neutral.
4. Start the engine at low idle for 15" until the low supply pressure warning light switches off then stop the engine. Repeat the operation if, after 15" of operation of the engine, the warning light is still on.
5. Start the engine at low idle and let it run for about 5 minutes.
6. Check the oil level and top–up, if necessary, until reaching the level suggested in the Operator's Manual.
7. Increase the engine speed at about 1500 rpm then, leaving the transmission lever in neutral, move the forward movement control lever up to 1/4 of its stroke, then bring it back to 0.
   Move it backwards for 1/4 of its stroke and go back to 0; repeat this operation by shifting the control lever by one further 1/4 of stroke each time.
8. Top–up the oil level in the tank.
9. Check the supply pressure: it should be 18 ÷ 24 bar on the fitting (2 – fig.14) and the max. pressure 420 bar on the fitting (M1).
10. Work for 1–2 hours, then replace the filter of the hydrostatic pump.
11. After 2 working days, the filter should be replaced again.

SERVICE AND HAND BRAKE SECTIONAL VIEW



1 – Brake oil tank: capacity 0.30 l – ARBOR BRAKE D4 oil
2 – Brake pump
3 – Pedal
4 – Braking balancer
5 – STOP light control switch
6 – Brake caliper (Single caliper for 225 REV and 255 REV – Double caliper for 256 REV)
7 – Brake disc
8 – Hand brake lever
9 – Hand brake caliper

Op. 3320256
Brake calipers – R./I.

CAUTION

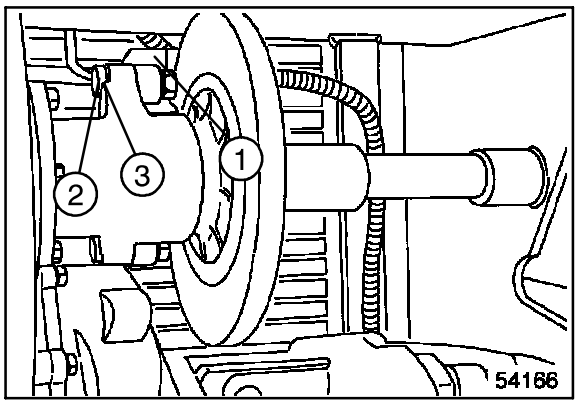
Before starting the braking sector replacement, park the machine on flat ground and place suitable wedges under the driving and steering wheels.

CAUTION

Protect the hands with rubber gloves.
Collect oil in a container and do not dispose of it in the environment.

Removal – models with 5 straw walkers

- Place a container under the brake calipers (1), to collect the braking circuit liquid.
- Disconnect the steel pipe (2).
- Remove the two screws (3) and take out the caliper.



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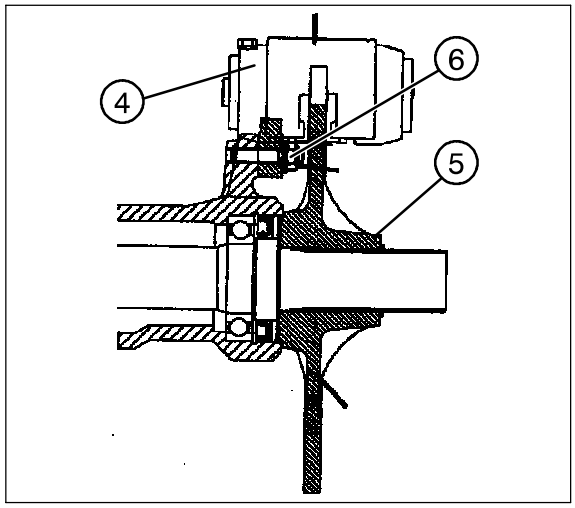
Installation – models with 5 straw walkers

- For the installation, proceed in the reverse order, tightening the screws (3) at 460 Nm.

Removal – models with 6 straw walkers

- Place a container under the brake calipers (4), to collect the braking circuit liquid.
- Disconnect the delivery steel pipe and the caliper connecting pipe.
- Remove the retaining ring and move the axle–shaft bush outwards.
- From the hole on the disc (5) take out the nuts (6).
- Move the brake disc (5) outwards and take out the calipers (4).



22

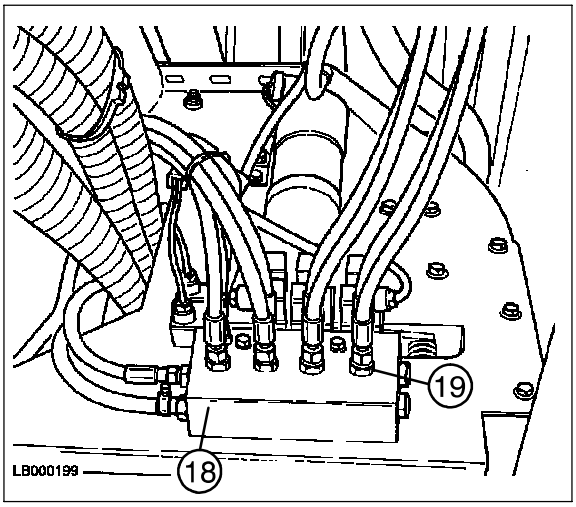
Installation – models with 6 straw walkers

- For the installation, proceed in the reverse order, tightening the nuts (6) fastening the calipers at 120 Nm.

HYDRAULIC COMPONENTS

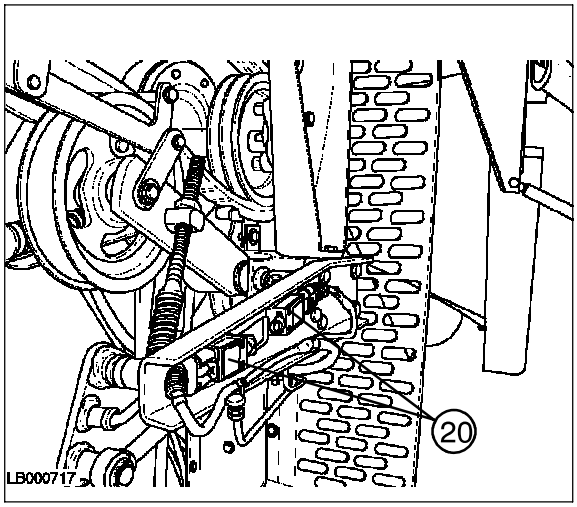
18 Four–element electrohydraulic engagement control valve block.

19 Straw chopper engagement/release control valve element (if fitted).



14

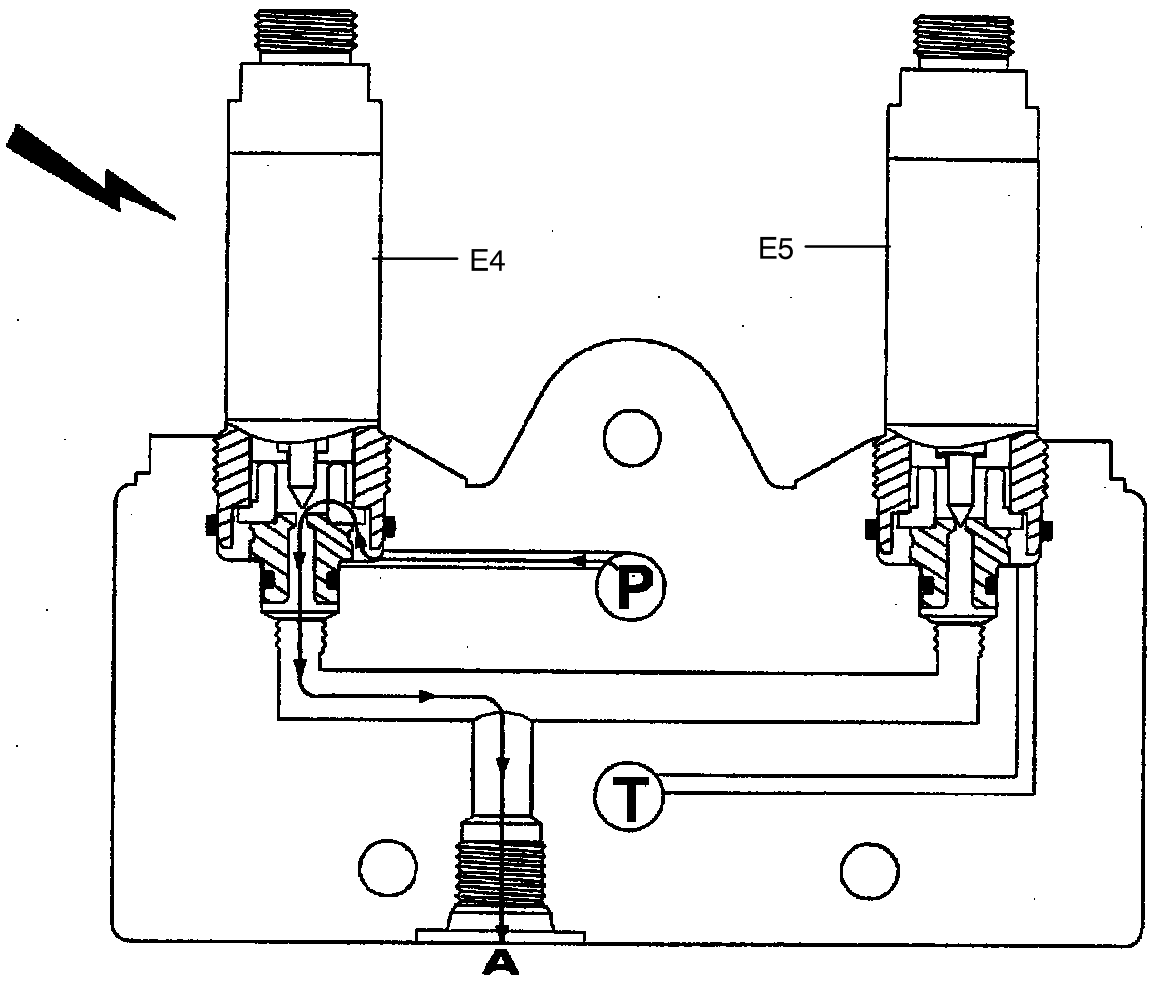
20 Straw chopper engagement/release control end of stroke micro–switches (if fitted).



15

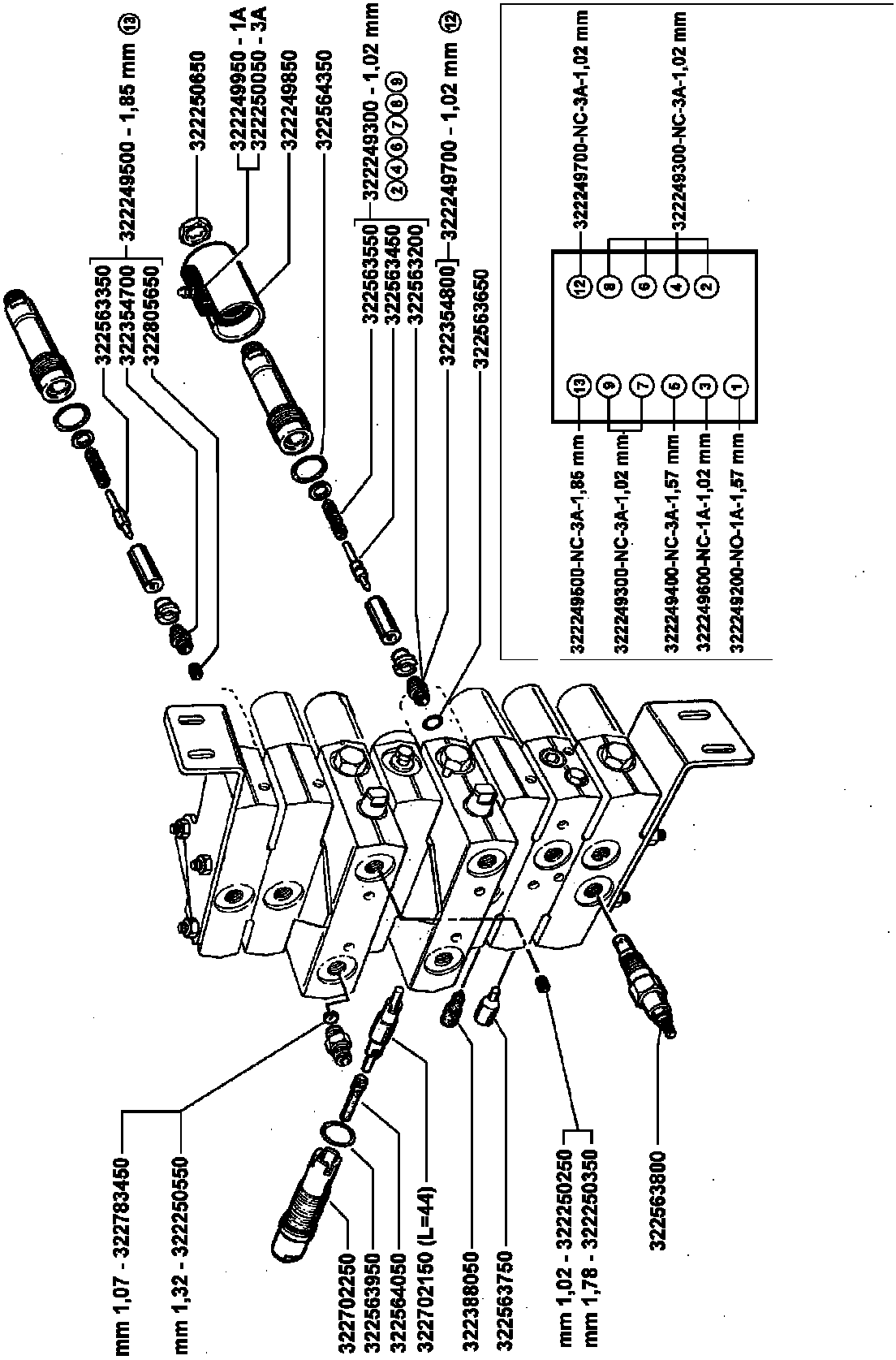
REEL VERTICAL CONTROL VALVE ELEMENT

LIFTING CONTROL POSITION



E4. Solenoid valve (4, page 8–10) powered: it lets oil flow from the duct P to the duct A, to control reel lifting.
E5. Solenoid valve (5, page 8–10) for reel lowering control.

REFERENCES OF THE SERVICE HYDRAULIC CONTROL VALVE COMPONENTS



THE HEADER DOES NOT BEND TO THE LEFT

Is the coil **B** of the solenoid valve **E19, pages 24** powered? (+12 V).

No ⇨ Electric fault **(see section 55)**.

Yes ⇩

The coil of the solenoid valve **E19 B** is cut–out "no resistance" (standard resistance value **7.8 ohm**)

Yes ⇨ Replace the coil.

No ⇩

Remove the solenoid valve **E19,** the solenoid valve central rod is seized.

Yes ⇨ Clean the central rod and its housing, remove possible stuck foreign bodies, replace the worn or damaged parts.

THE HEADER DOES NOT BEND TO THE RIGHT

Is the coil **A** of the solenoid valve **E19, pages 24** powered? (+12 V).

No ⇨ Electric fault **(see section 55)**.

Yes ⇩

The coil of the solenoid valve **E19 A** is cut–out "no resistance" (standard resistance value **7.8 ohm**)

Yes ⇨ Replace the coil.

No ⇩

Remove the solenoid valve **E19,** the solenoid valve central rod is seized.

Yes ⇨ Clean the central rod and its housing, remove possible stuck foreign bodies, replace the worn or damaged parts.

Section 41 – STEERING

CONTENTS

SPECIFICATIONS

FEATURES		225 REV	255 REV	256 REV
Power steering pump capacity	l/min	14		
Power steering	type	OSPC 125		
Pressure limiting valve calibration	bar	140		
Anti–shock valve calibration	bar	200		
Type of oil in the system		ARBOR HYDRAULIC 46 HV		
Oil quantity		From the service tank		
Axle type		Adjustable		
Steering cylinders	no.	2		

CONDITIONING CIRCUIT

COMPONENTS:

1 – Compressor

2 – Dehydrator filter

3 – Condenser

4 – Evaporator

5 – Expansion valve

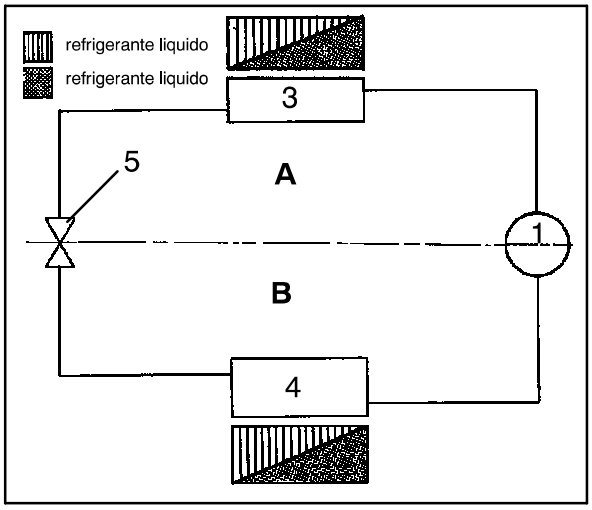
9 – Condensate drain lines

A – High pressure circuit

B – Low pressure circuit

M – Evaporator delivery

R – Return to the compressor



1

OPERATION DESCRIPTION

SYSTEM LINE CONNECTION

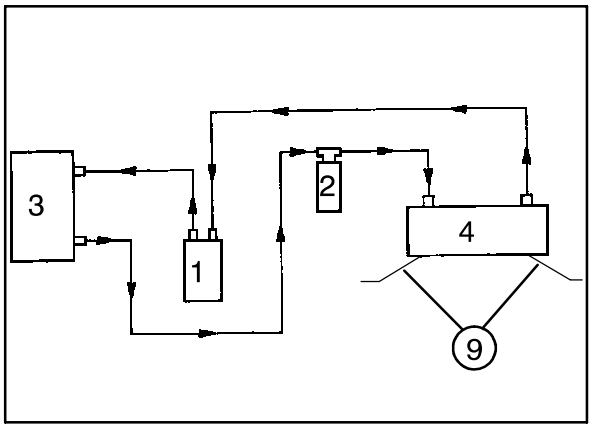
The compressor (1) is fed by coolant coming from the evaporator (4) as low pressure cold steam.

The coolant is compressed and pumped, at high pressure and temperature, to the condenser, as steam.

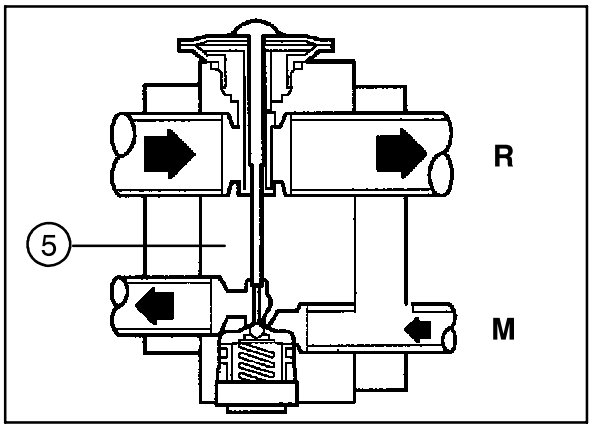
The refrigerating steam, passing through the condenser (3), gives heat outside and is then converted in liquid and sent to the expansion valve (5), passing through the dehydrator filter (2) that removes possible foreign bodies and humidity.

While passing through the metering hole of the expansion valve (5), the coolant pressure and temperature are decreased, thus the coolant exits the valve as a sprayed liquid, at low pressure and temperature, passing to the evaporator.

The sprayed liquid then passes through the evaporator (4), where it absorbs heat before going back to the compressor, through the expansion valve, as hot steam at low pressure.

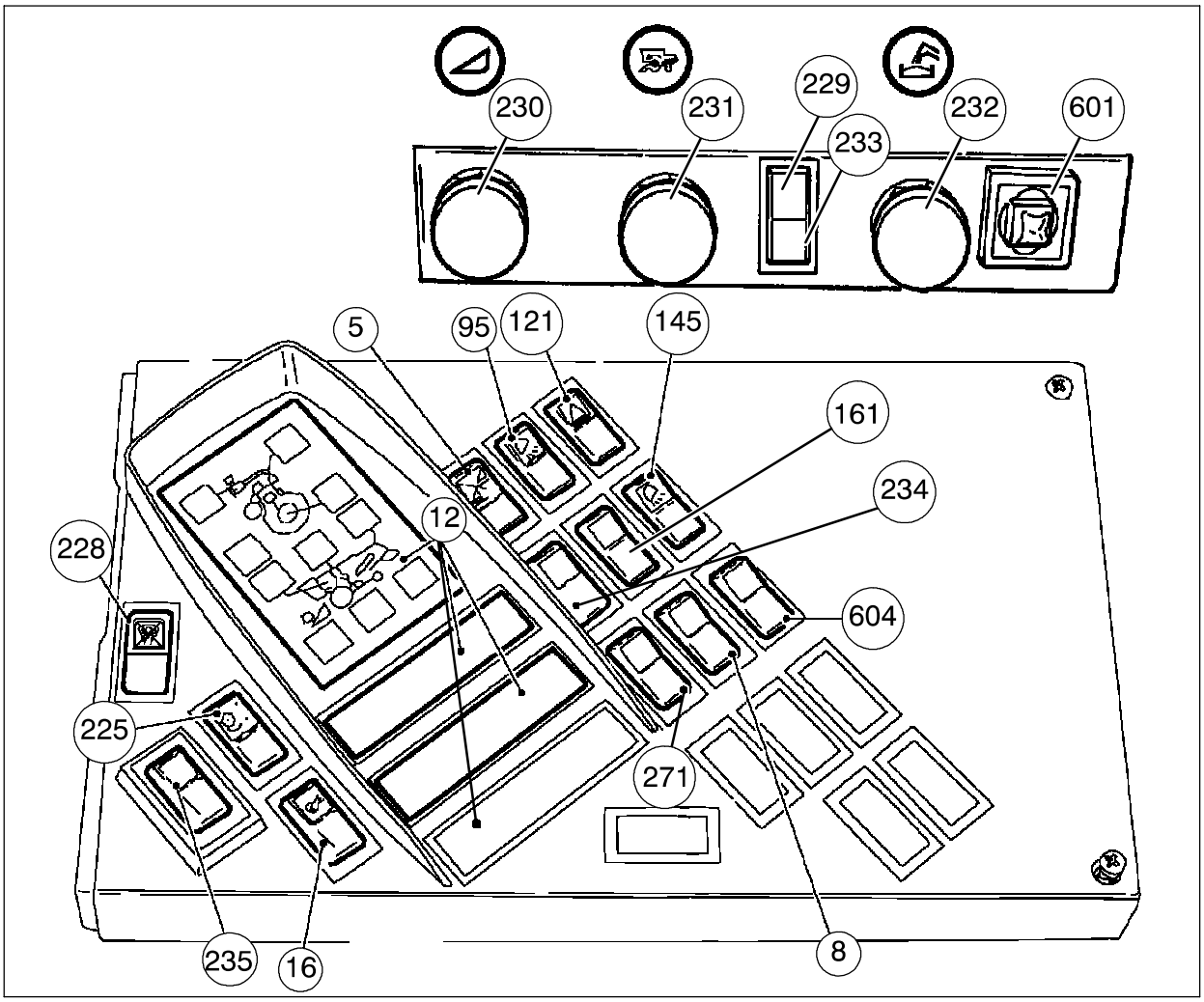


2



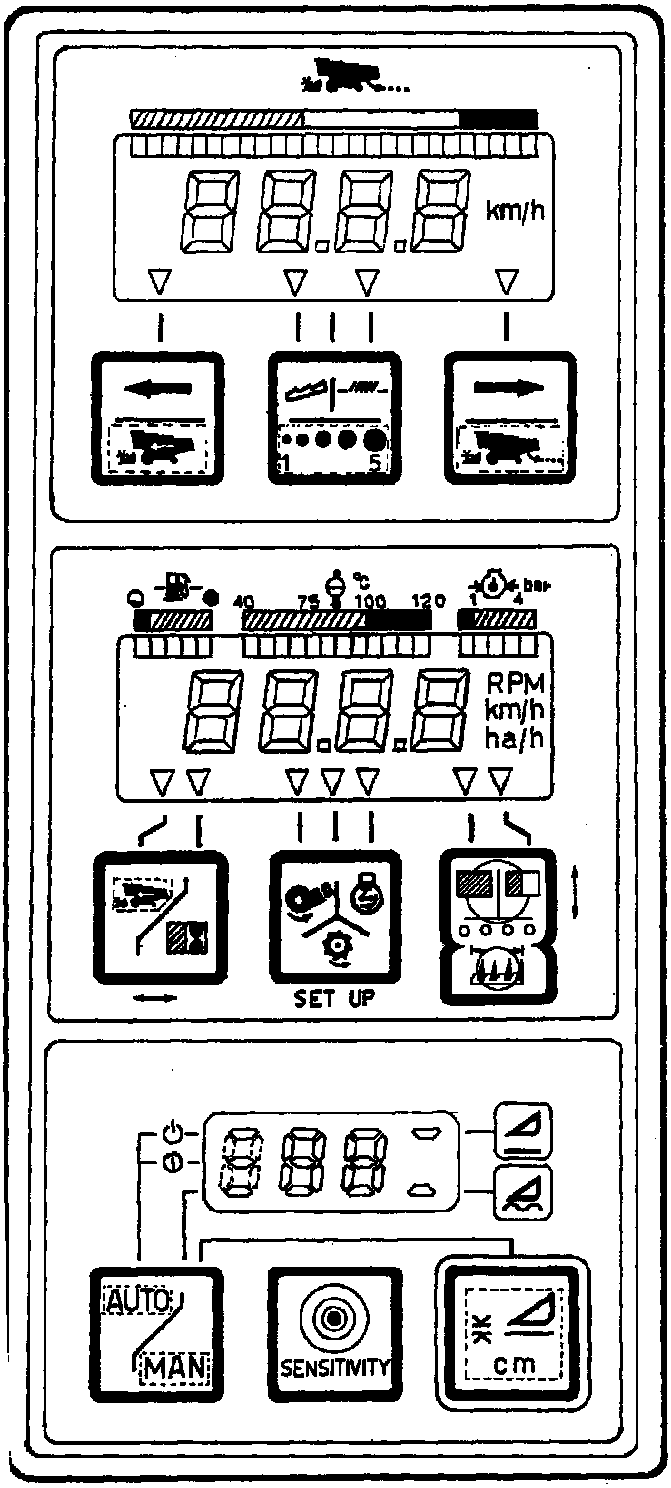
3

DASHBOARD REAR PANEL



5. Switch for header operation shifting from flotation to header automatic height.
8. 4WD engagement switch (optional).
12. Multiple light indicators.
16. Fan variator control push button.
95. Grain tank inner light switch.
121. Simultaneous hazard warning light switch.
145. Reverse light control switch.
It must be disabled when driving on roads.
161. Header auxiliary cylinder control switch (optional).
225. Beater variator control switch.
228. Switch to cut–out the controls on the machine forward lever knob.
It must be enabled only during road transfers.
229. Engagement/release step red warning light.
230. Feeder engagement/release switch.
231. Thresher engagement/release switch.
232. Tank discharge engagement/release switch.
233. Yellow warning light for operating tank discharge.
234. GSA – switch for header automatic lateral flotation engagement (optional).
235. Accelerator control switch.
271 Engine diagnostic check switch.
601. Rear view mirror aiming electrical control.
604. Rear view mirror defrosting switch.

AGRITRONIC



1 – Performance monitor

2 – On–board computer

3 – Terra–Control

55100 – HARNESSES AND CONNECTIONS

CONTENTS

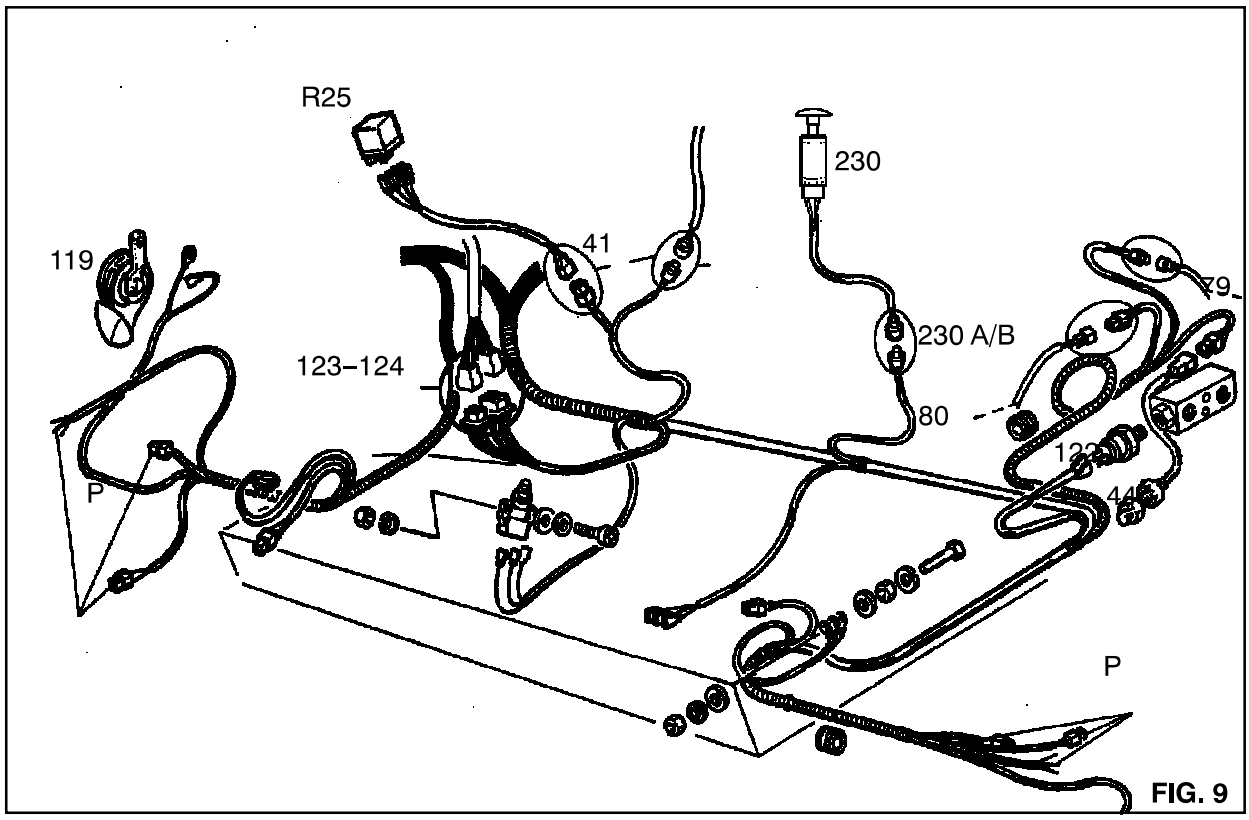


FIG. 9

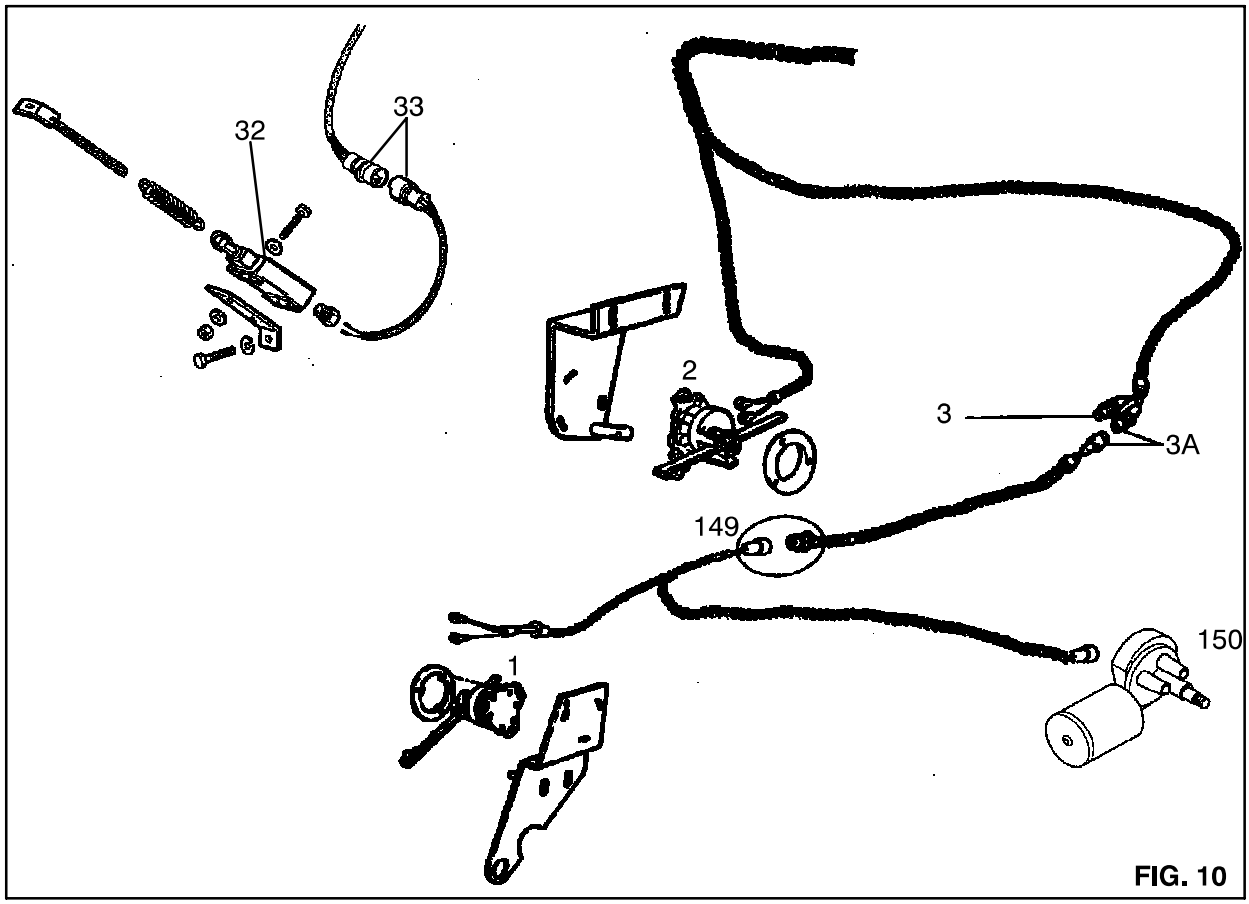


FIG. 10

ELECTRICAL SYSTEM WIRING DIAGRAMMES

DIAGRAMME N. 3

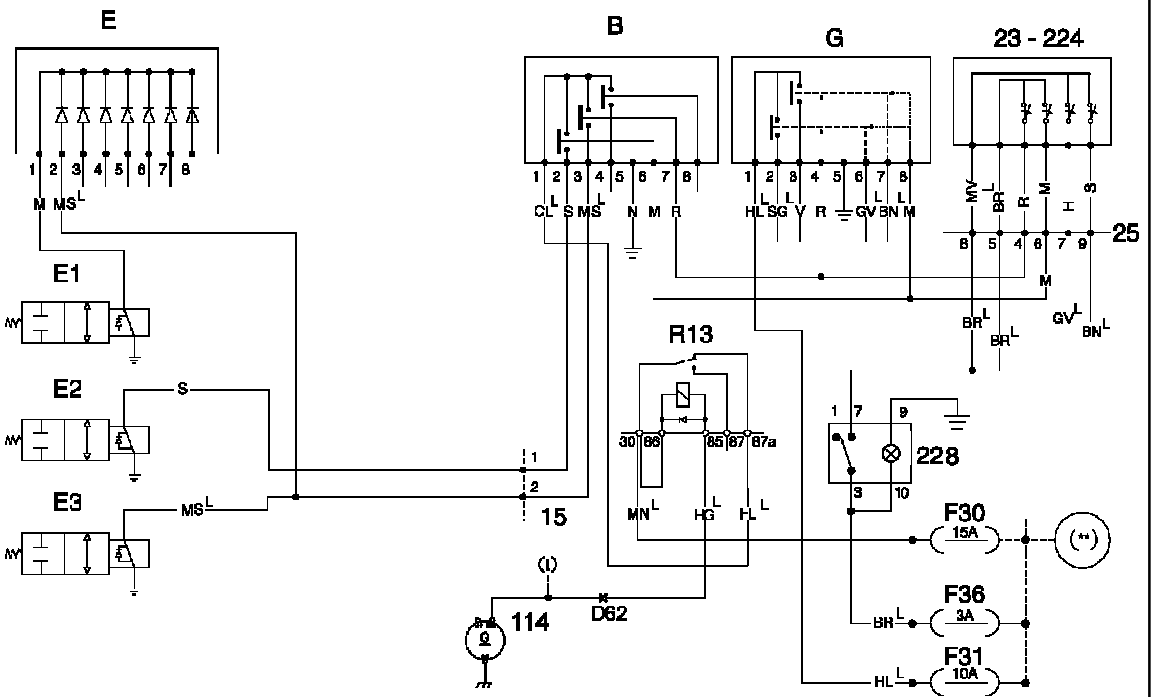


DIAGRAMME N. 4

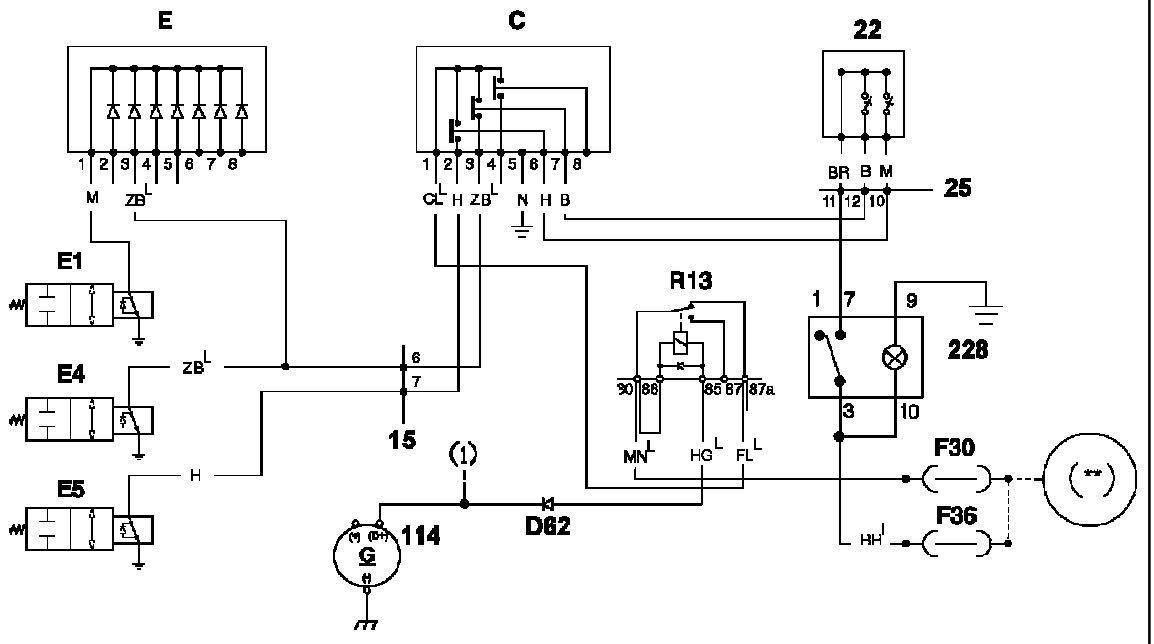


DIAGRAMME NO. 11

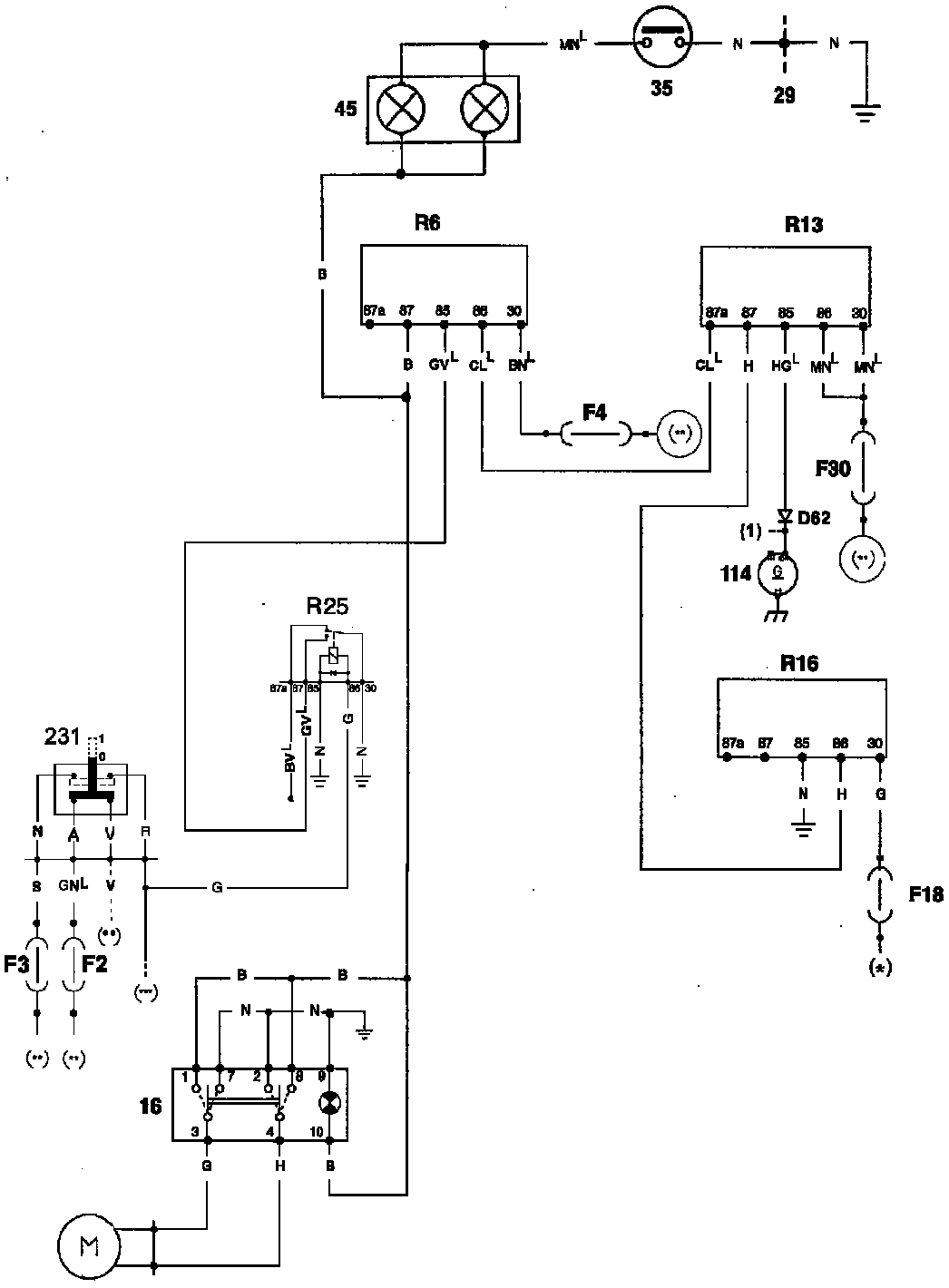


DIAGRAMME NO. 16

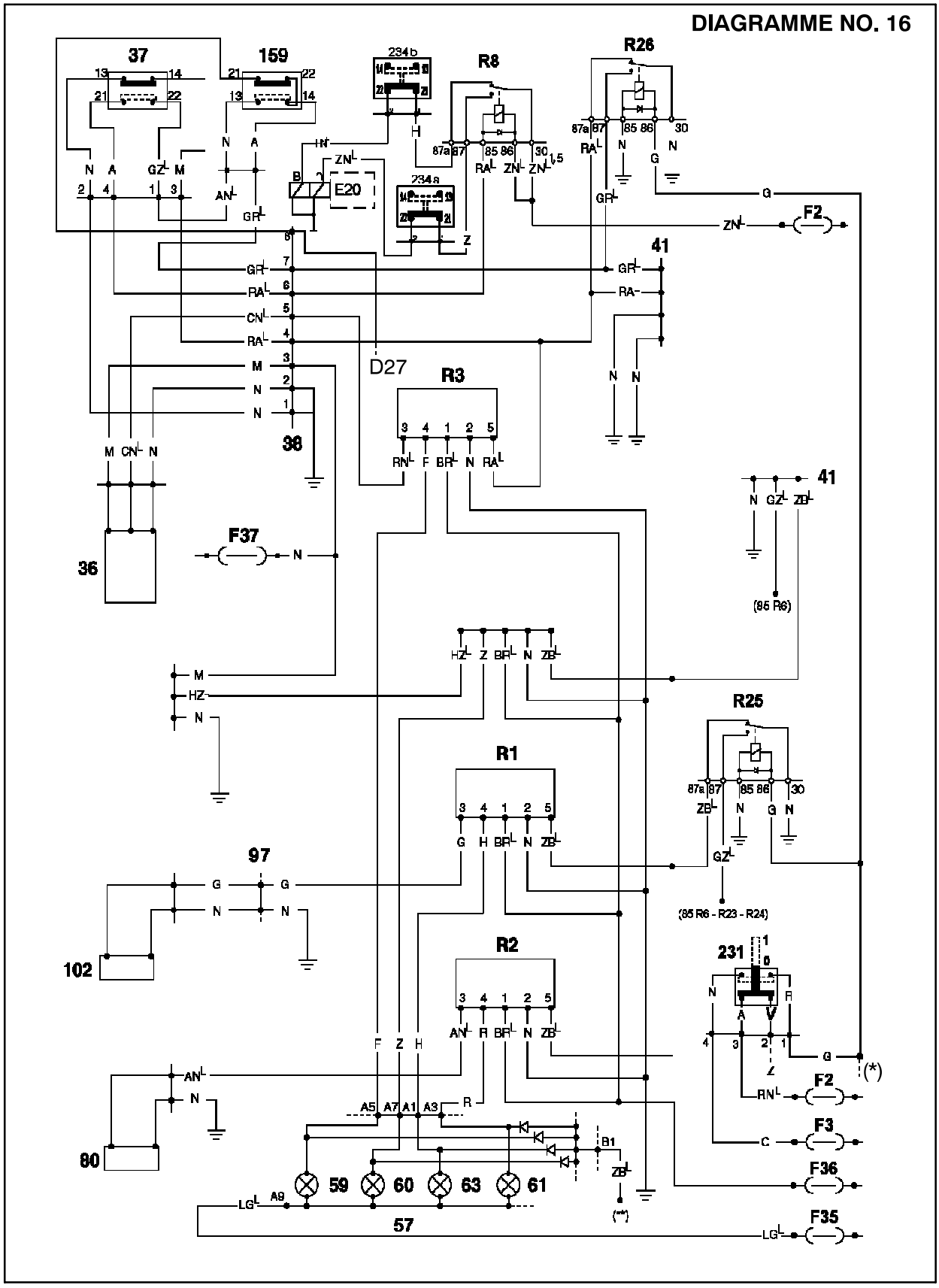
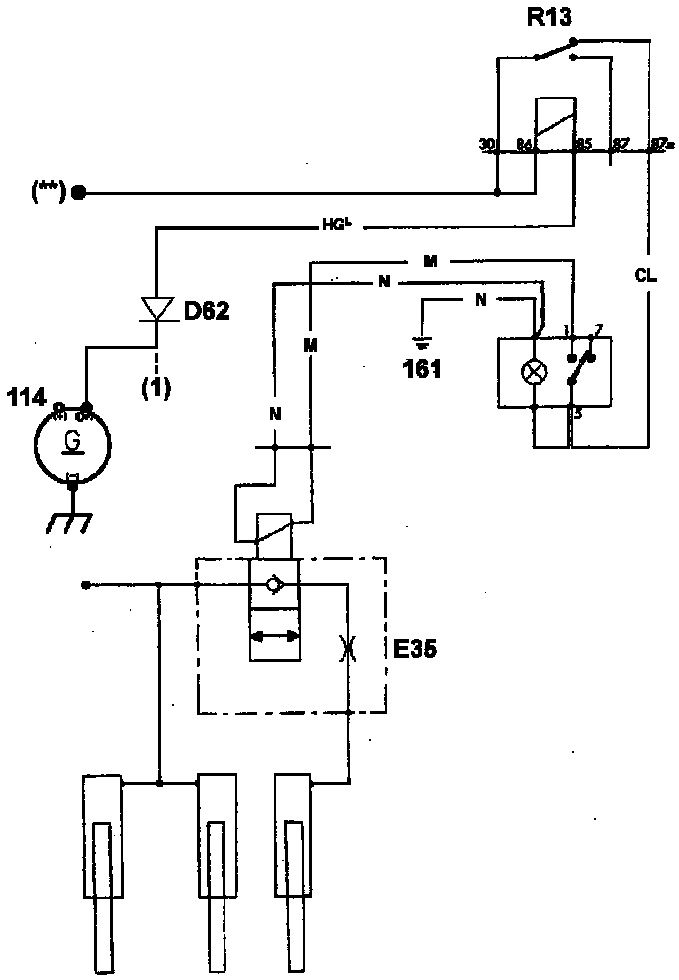
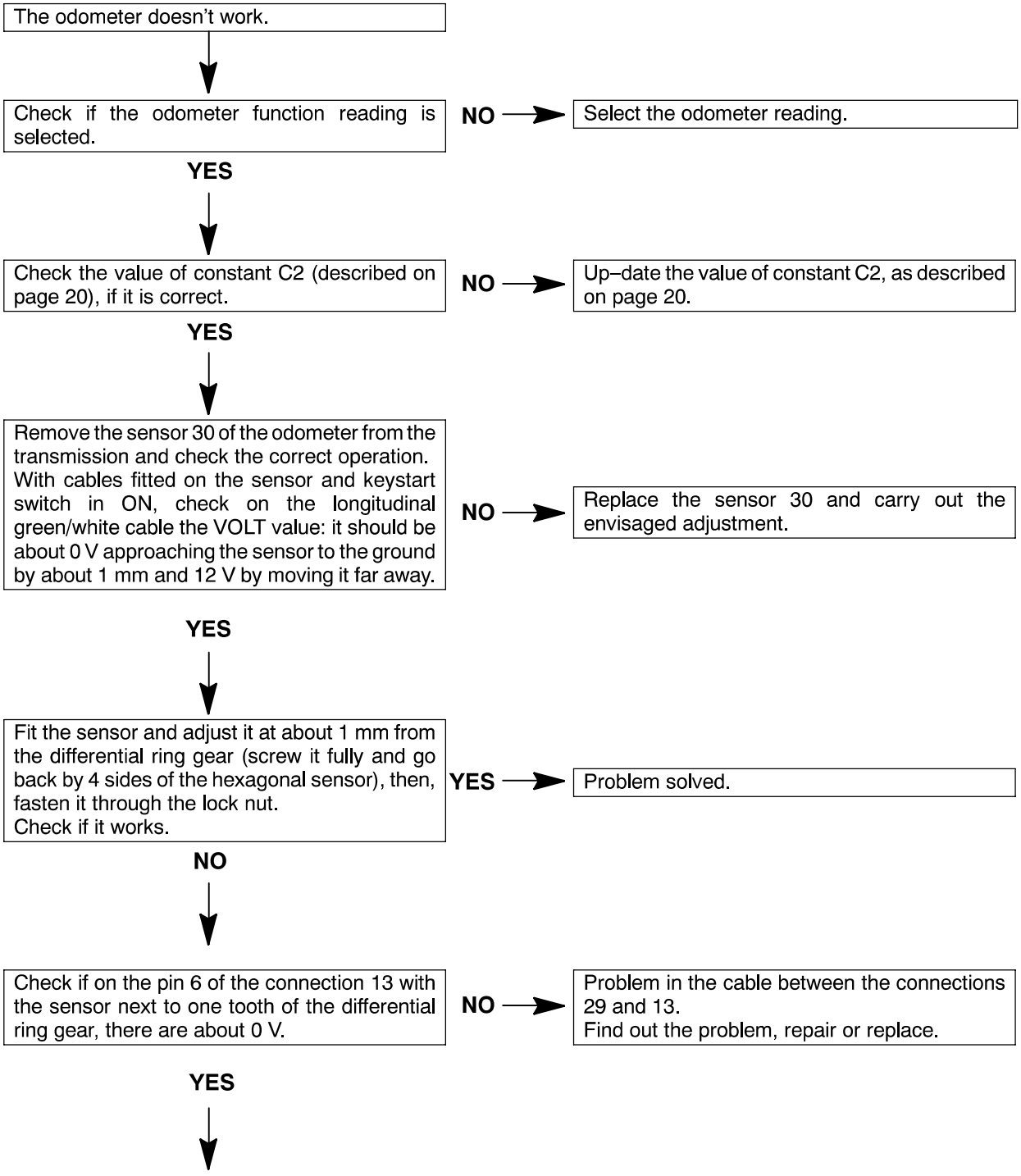


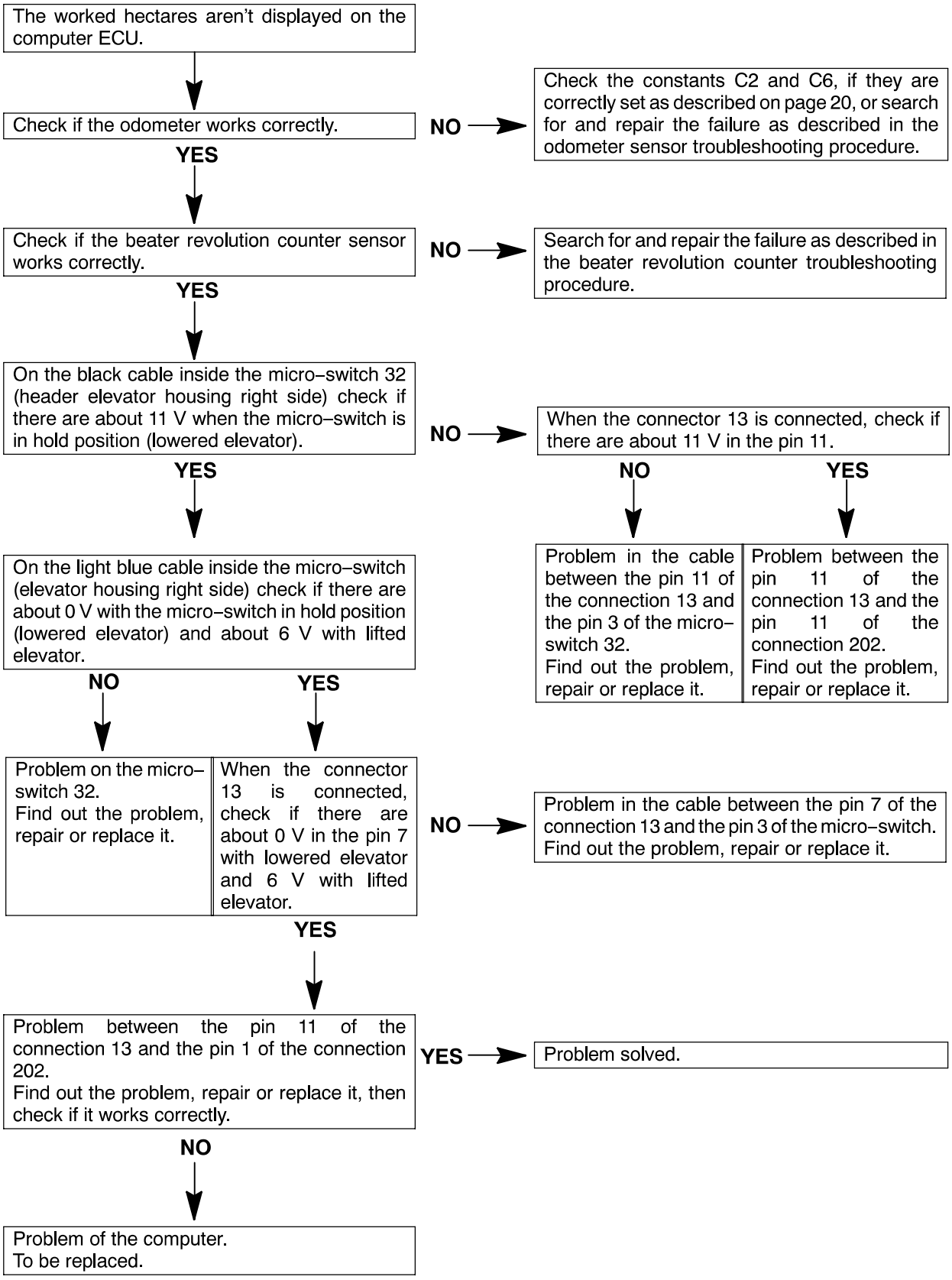
DIAGRAMME NO. 21



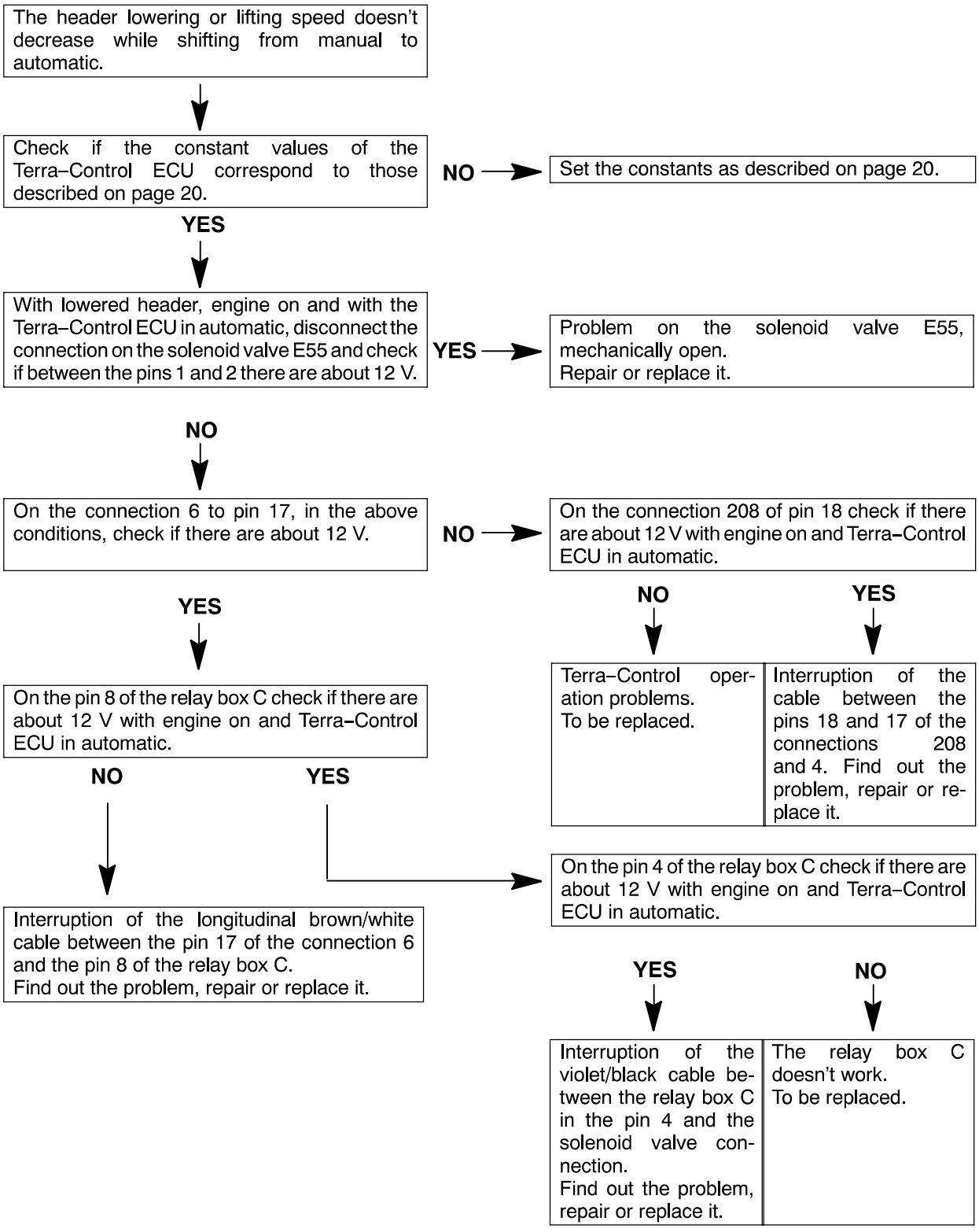
NO OPERATION OF THE ODOMETER IN THE PERFORMANCE CONTROL MONITOR
DIAGRAMME NO. 12



NO DISPLAYING OF THE WORKED HECTARES ON THE COMPUTER ECU
DIAGRAMME NO. 13



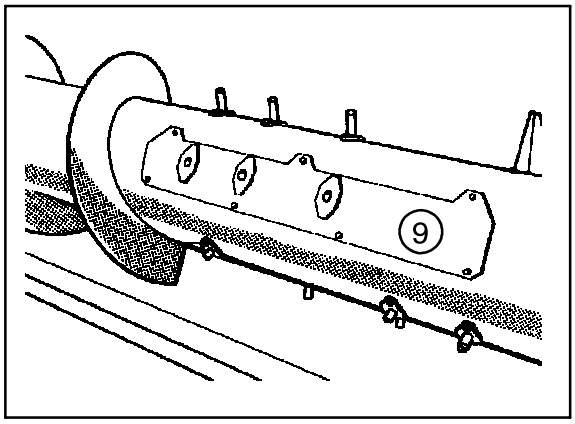
ENGAGING THE HEADER AUTOMATIC CONTROL THE LOWERING OR LIFTING SPEED DOES NOT DECREASE
DIAGRAMME NO. 14



Op. 5812054 – Replacement of the retractable finger supporting central shaft

Proceed as follows:

– remove the cover (9);

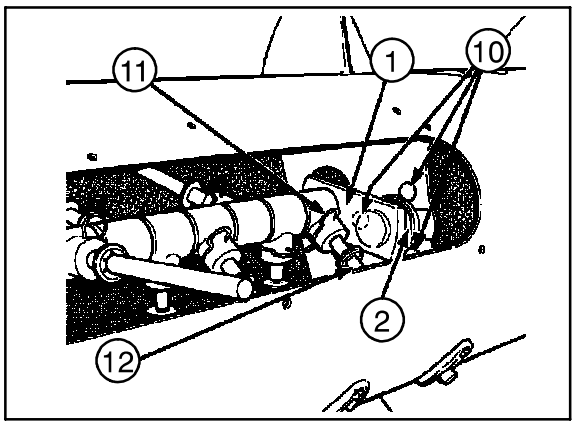


19

– remove all the split pins (11) and the corresponding fingers (12);

– remove the support (2) on the right side of the central shaft;

– remove the three screws (10);

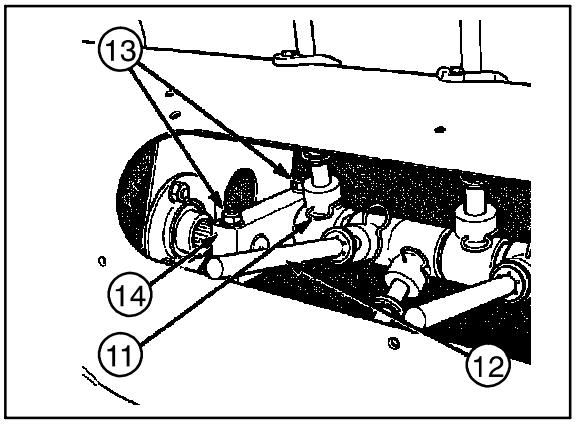


20

– loosen the two screws (13) and move the support (14) to the left;

– take out the auger central shaft;

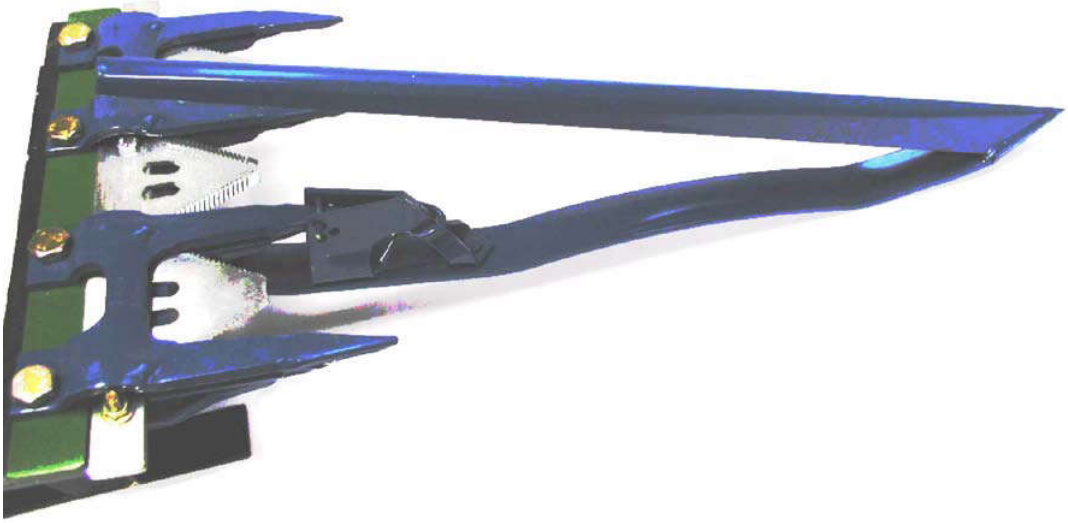
– during re–assembly, repeat the above operations in the reverse order, paying special attention to the alignment of the shafts, as they should lay on the same plane.



21

SCHUMAKER CROP LIFTER FOR THE FOLLOWING HEADERS:

4.80 m, re. 711570247
5,40 m, re. 711570257
6,00 m, re. 711570267
6,60 m, re. 711570277



AUGER DRIVE SPROCKET

Z47 – re. 300114490 +
re. 344375101 blank link
re. 344375170 chain section

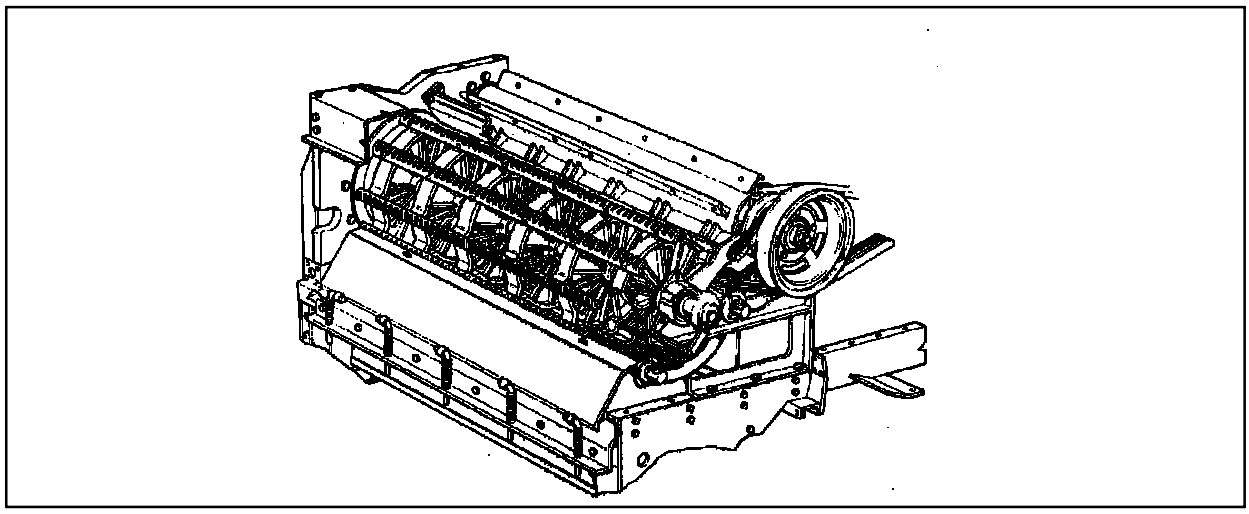
Z51 – re. 322779050 +
re. 344375101 blank link
re. 344375170 chain section

They are recommended to reduce feed auger revolutions, in particular for soya, peas and other brittle crops.

Section 66 – THRESHING

CONTENTS

BEATER

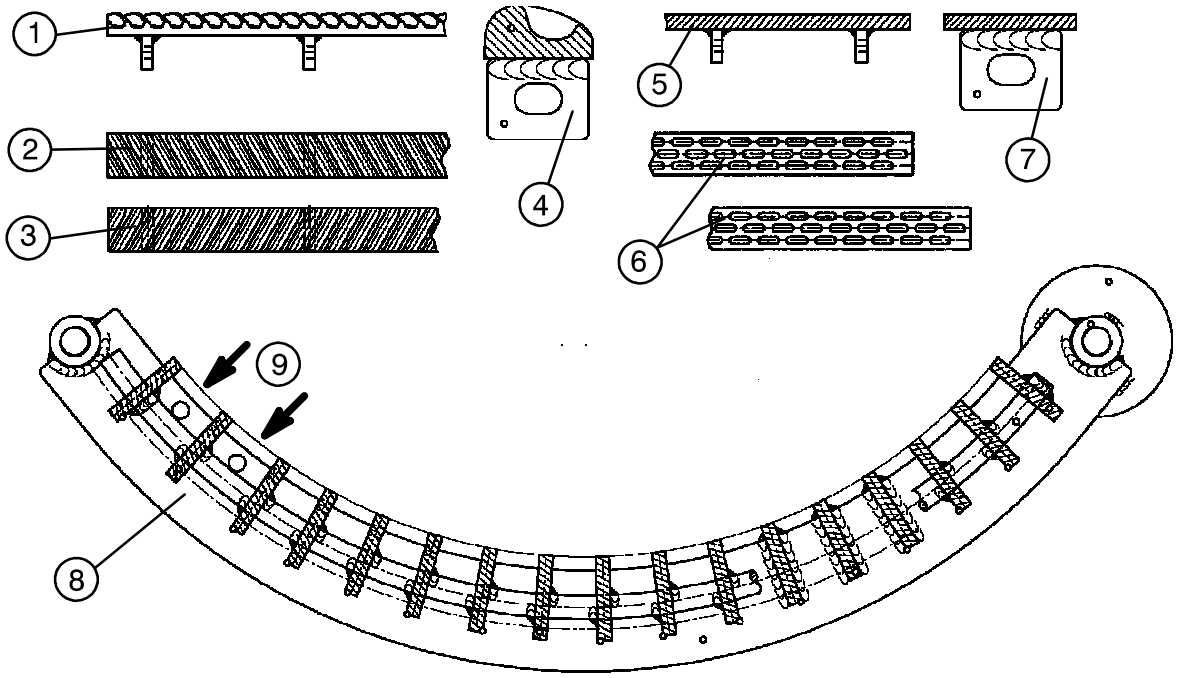


SPECIFICATIONS

STANDARD BEATER FEATURES	225 REV	255 REV	256 REV
Diameter ..... mm	600		
Box width ..... mm	1346		1600
Bar sloping	10°		
Beating bars ..... no.	8		
Minimum speed at idle ..... rpm	380		430
Max. speed at idle ..... rpm	1210		1310

UNIVERSAL WHEAT/MAIZE CONCAVE SUGGESTED FOR COUNTRIES/ AREAS WHERE MAIZE CROP IS PREDOMINANT TO THE WHEAT

availability as spare kit – ref. 711151046 for 225 REV–255 REV
– ref. 711151047 for 256 REV



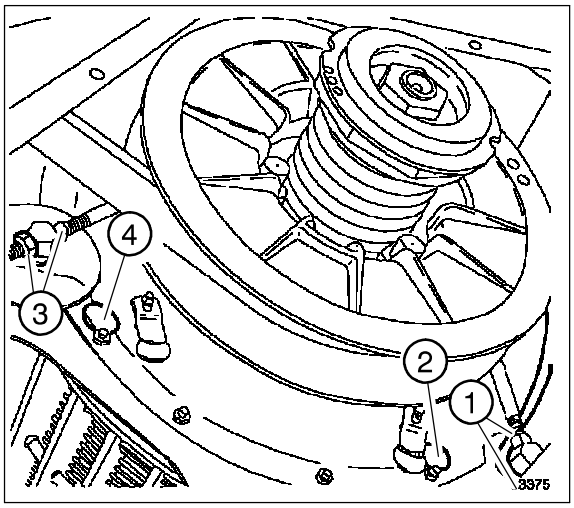
1 Ribbed bar side section, 2 Right ribbed bar, 3 Left ribbed bar, 4 Ribbed bar front section, 5 Deawning bar side bar, 6 Deawning bars, 7 Deawning bar front section, 8 Universal concave, 9 Bar fitting position, fastened with a pin in the shown holes.

NOTE: *the universal concave is available only as a spare part, because it is never fitted as standard outfit.*

The ribber bars are used only on the universal concave. The deawning bars can be fitted on the universal or on the standard concave.

Adjustments during fitting:

- fully tighten the concave adjustment handles.
- Adjust the nuts re. 1 to get, on both sides, a clearance by 12 mm between the bar of the concave corresponding to the lid re. 2 and one beater bar.
- Adjust the nuts 3 to get, on both sides, a clearance by 3 mm between the bar of the concave corresponding to the lid 4 and one beater bar.
- Check that the concave opening pointers correspond to the adjustment made.



Basic setting for maize, adjust the concave opening at 30 mm at the front and 20 mm at the back.

Basic setting for soya, adjust the concave opening at 25 mm at the front/15 mm at the back.

Basic setting for wheat, fit the ribbed bars re. 2 and re. 3 to increase the shelling effect, adjust the concave opening at 15 mm at the front, so that, after fitting the ribbed bars, the clearance between concave bars and beater corresponds to about 6 mm; at the back, the clearance should be 5 mm.

In special harvesting conditions (extremely brittle crop), the deawning bars re. 6 should be fitted.

The deawning bars are available at Spare Parts Dept. with ref. 322929150 for 225 REV – 255 REV and ref. 322929250 for 256 REV.

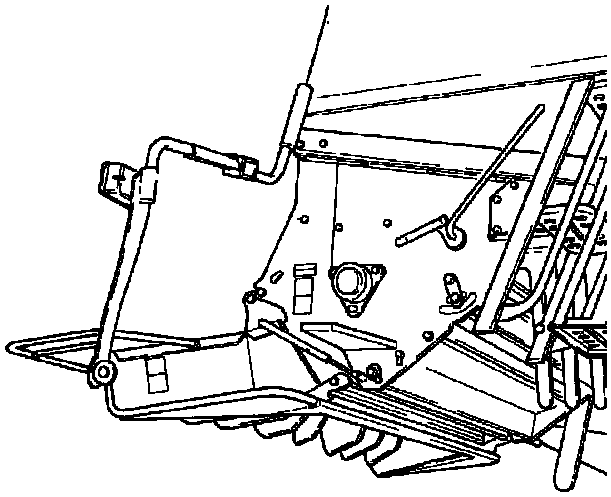
Section 73 – STRAW CHOPPER

CONTENTS

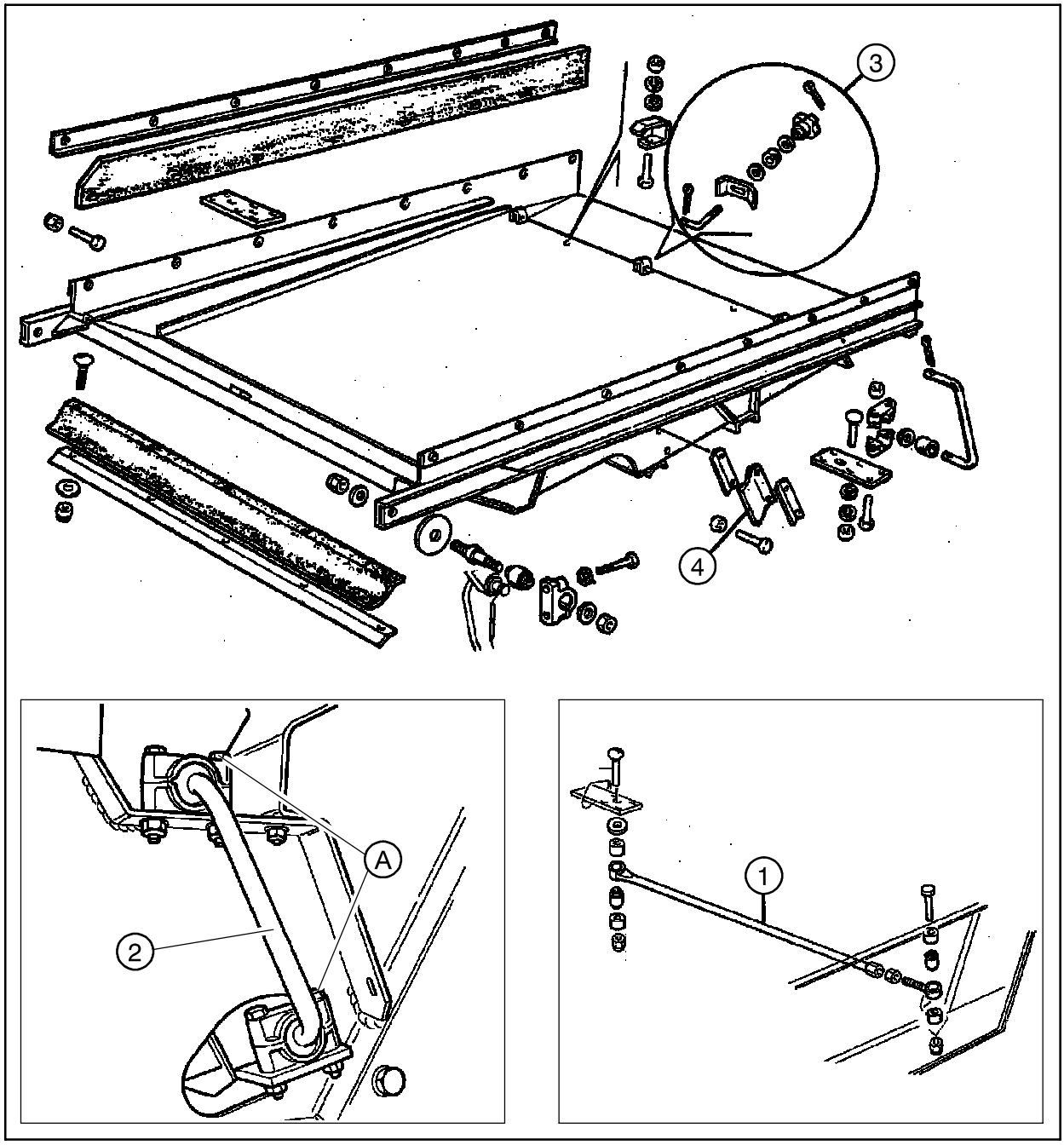
SPECIFICATIONS

FEATURES		225 REV	255 REV	256 REV
Transmission type		belt type		
Engagement		electro–hydraulic		
Rotor diameter	mm	498.5		
Blade	no.	52		64
Counter–blade	no.	50		60
Counter–blade position		adjustable		
Rotation	rpm	3544 (wheat) – 2200 (maize)		
Crop spreader adjustment		manual (electrical upon demand)		

SECTIONAL VIEW



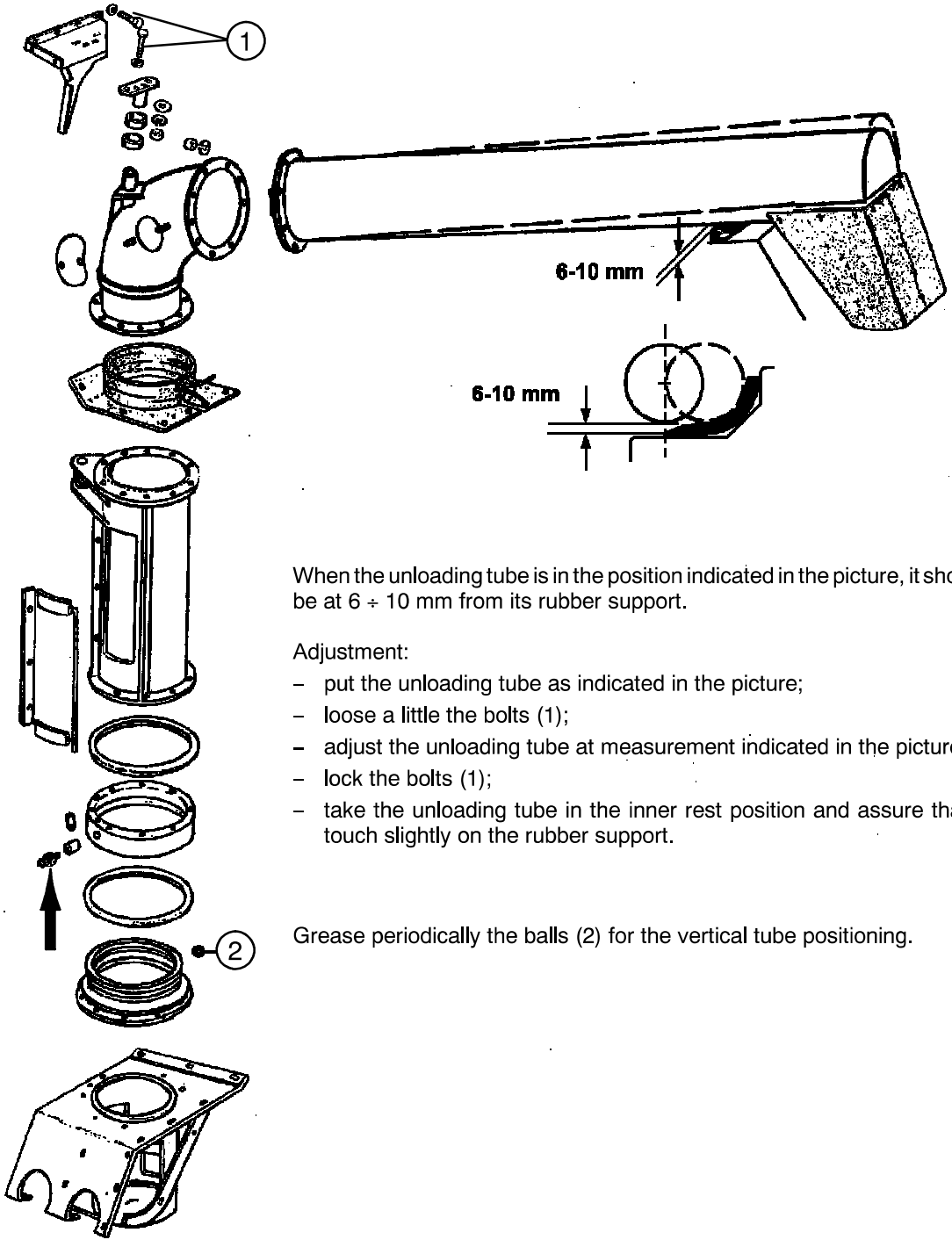
Sgr. 74 118 – LOWER SHAKER SHOE



1. Swinging box guide link rod
2. Swinging box support connecting rods
3. Lower sieve rear fastening
4. Side savers for lower swinging box

NOTE: the screws (A) of supports must be fastened with the connecting rods at half stroke.

CROP UNLOADING TUBE

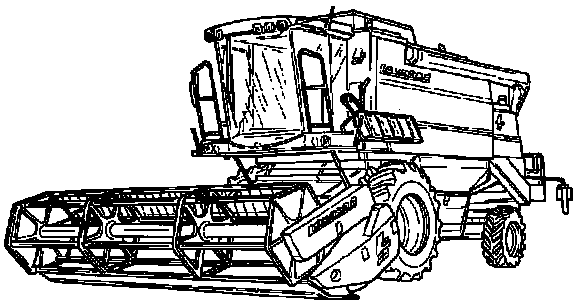


When the unloading tube is in the position indicated in the picture, it should be at 6 ÷ 10 mm from its rubber support.

Adjustment:

- put the unloading tube as indicated in the picture;
- loose a little the bolts (1);
- adjust the unloading tube at measurement indicated in the picture;
- lock the bolts (1);
- take the unloading tube in the inner rest position and assure that it touch slightly on the rubber support.

Grease periodically the balls (2) for the vertical tube positioning.



WORKSHOP MANUAL UPDATING

Ref. 327 163 011

This appendix contains additional information for the Workshop Manual ref. 327163010 relevant to the following combines:

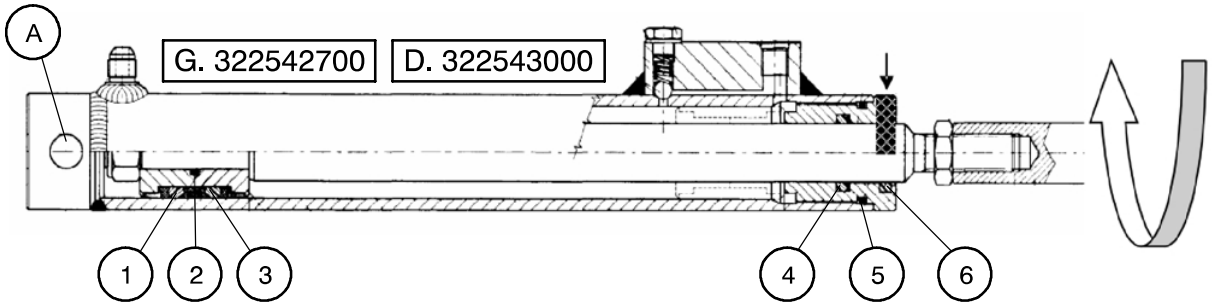
REV 205: from serial number 551 300 039
REV 225: from serial number 551 500 138
REV 255: from serial number 551 700 030
REV 256: from serial number 565 500 010

LAVERDA

ARGO
Gruppo Industriale ARGO

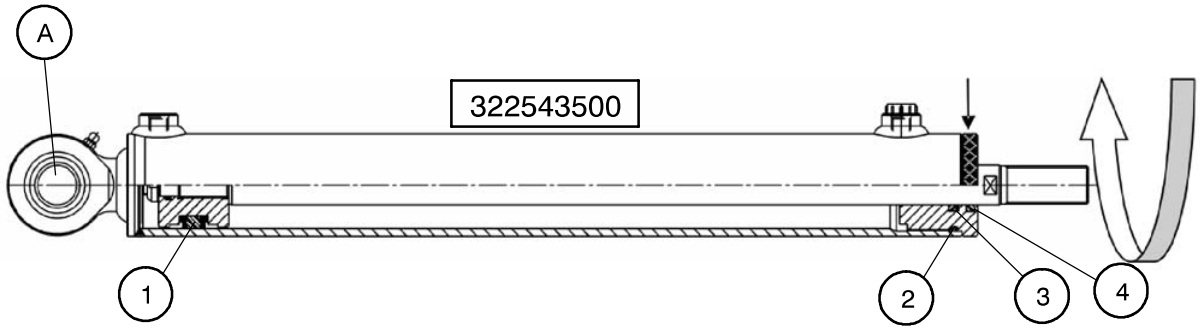
C6,C7. – REEL FORWARD/BACKWARD MOVEMENT CYLINDER – RIGHT AND LEFT SIDE

For dismounting the cylinder use a pin wrench. Unscrew the indicated side (if necessary insert a pin inside the hole A to avoid rotation of the cylinder), then take off the rod.



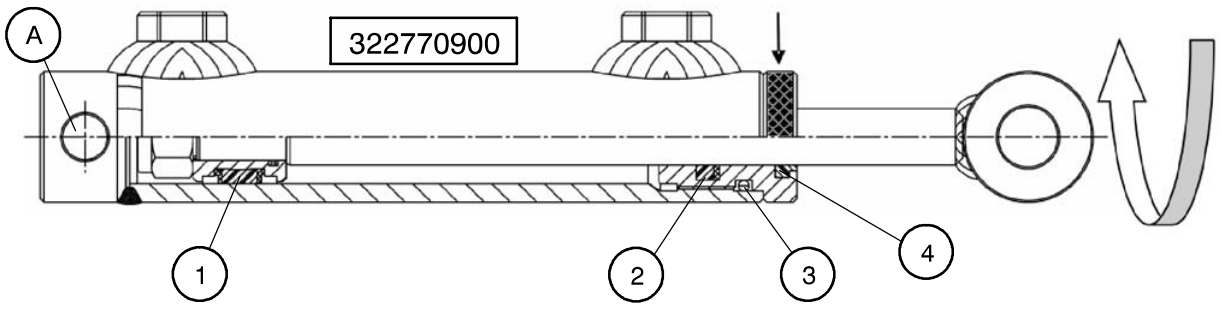
C8. – CROP UNLOADING TUBE POSITIONING CYLINDER

For dismounting the cylinder use a pin wrench. Unscrew the indicated side (if necessary insert a pin inside the hole A to avoid rotation of the cylinder), then take off the rod.



C9, C10, C11, C12. – THRESHER, GRAIN TANK DISCHARGE, HEADER AND STRAW CHOPPER ENGAGEMENT CYLINDERS

For dismounting the cylinder use a pin wrench. Unscrew the indicated side (if necessary insert a pin inside the hole A to avoid rotation of the cylinder), then take off the rod.



NOTE:

ELECTROHYDRAULIC ENGAGEMENT, POWER STEERING AND HEADER HYDRAULIC PUMP

Pump type	with three sets of sprockets and different displacement
Transmission	belt type
Pump revolutions	2380 rpm
Header control stage pump displacement	25,5 l/min
Power steering control stage pump displacement	14 l/min
Electrohydraulic engagement control stage pump displacement	5,2 l/min

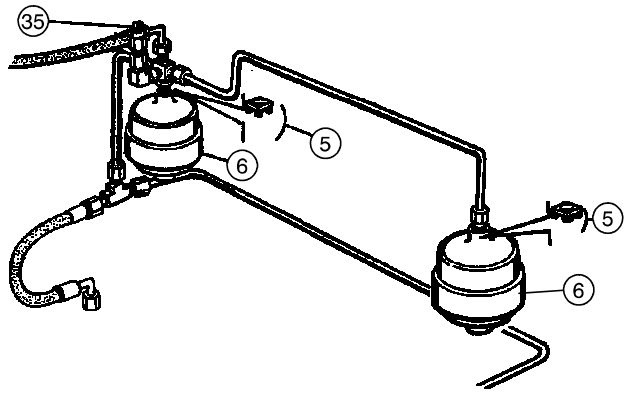
HEADER DRIVE CONTROL VALVE

Control valve type	single block, with single and double–acting solenoid valves
Solenoid valve type	normally open (no. 1) – normally closed (no. 5)
NO single acting solenoid valves	common solenoid valve
NC single acting solenoid valves	header lifting/lowering reel lifting/lowering
NC double acting solenoid valves	reel forward/backward movement

BEATER VARIATOR AND ELECTROHYDRAULIC ENGAGEMENT DRIVE CONTROL VALVE

Control valve type	single block, with single and double–acting solenoid valves
Solenoid valve type	normally open (no. 1) – normally closed (no. 7)
NO single acting solenoid valves	common solenoid valve
NC single acting solenoid valves	drum revolution increase / decrease
NC double acting solenoid valves	swinging tube opening/closing thresher engagement/release tank unloading engagement/release header engagement/release straw chopper engagement/release (optional accessory)

HEADER VERTICAL CONTROL OPERATION – 205REV MODEL



MANUAL CONTROL

– Through the header lifting and lowering controls, the header moves at the max. speed and its flotation is achieved by the 2 shock–absorbers (6).
When the header lays on the ground and pressure drops under the calibration value of pressure switch (35), the latter closes the circuit to ground and switches on the header load on ground indicator on the dashboard.

HEADER	Pressure switch (35) bar	Shock–absorber setting
4,20 m	60	85
4,80 m – 5,40 m	80	85
6,00 m – 6,60 m – 7,60 m	95	85

NOTE: in REV models, the pressure switches (35) are fitted as standard and calibrated at 80 bar. Cutting headers having a width different from the calibration of the above pressure switches, included in the machine standard fitting, shall be supplied with suitable pressure switches, replacing the standard ones.

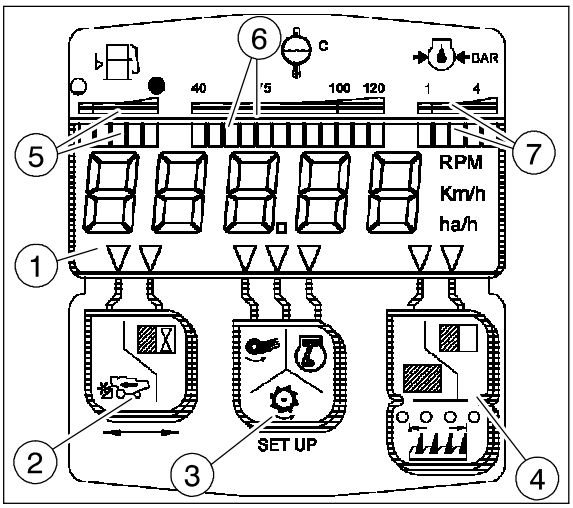
ON–BOARD COMPUTER – Figg. 9 ÷ 17

The **on–board computer** is an ECU installed on the auxiliary control panel, on the cab right upright.

A set of sensors sends to the on–board computer the electric signals for controlling all the combine functions.

Within the operator's easy reach, the computer features an LCD display (1) and a multifunction keyboard with three keys (2–3–4).

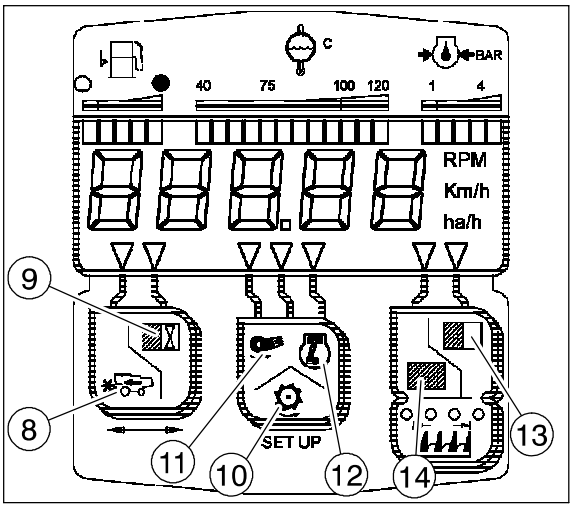
The computer gives the following data:



9

A. Bar displaying (continuous, in the display upper area):

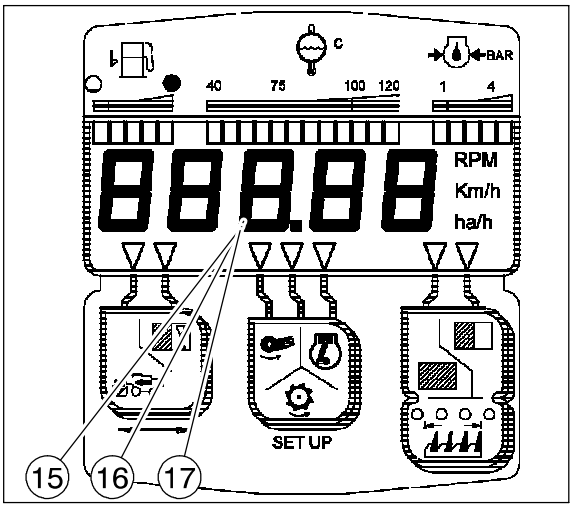
- fuel level (5) (in parts of filled tank)
- engine coolant temperature (6) (in Centigrade degrees)
- engine lubrication oil pressure (7) (in bar).



10

B. On the digital display (according to the selection made by the keys)

- forward speed (8) (in km/h)
- worked hourly surface (9) (in hectares/hour: "ha/h")
- beater revolutions (10) (in rpm: "RPM")
- fan revolutions (11) (in RPM)
- engine revolutions (12) (in RPM)
- partial worked surface (13) (in hectares: "ha")
- total worked surface (14) (in ha).

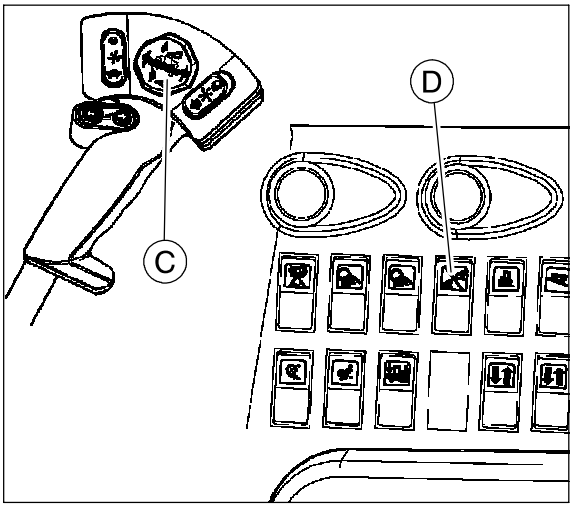


11

C. On the digital display (during the system feeding start cycle)

- battery voltage (15) (in volt);
- engine operating hours (16) (in hours: "h");
- hours for scheduled maintenance (17) (in hours: "h").

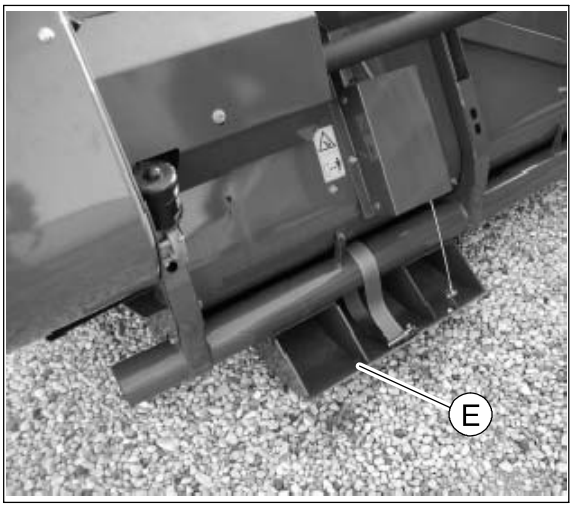
IMPORTANT: *the automatic mode can be released temporarily and can be engaged again by the push buttons (C) of the multifunction lever.*



34

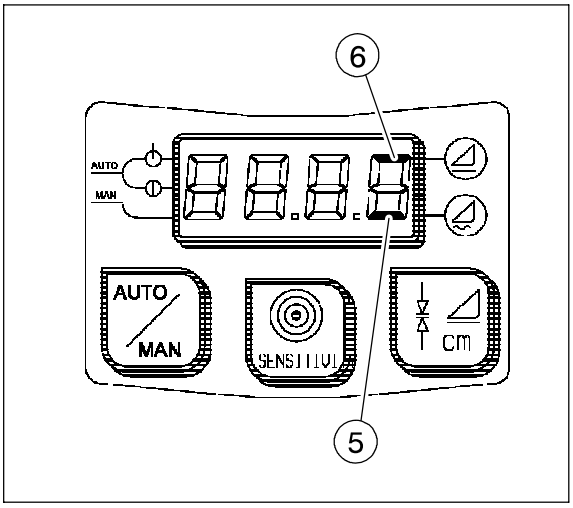
The operating modes of the Terra–Control system are two (that can be selected by the switch (D) on the control panel):

– **FLOTATION**: the programmable cutting heights range **between 5 and 18 cm**; the mobile slides (E) of the cutting header always touch the ground (segment 5 on).



35

– **AUTOMATIC HEIGHT**: the programmable cutting heights range **between 10 and 50 cm**; the cutting header is always lifted from the ground (segment 6 on).



36

Ref.	Fuse or diode	DESCRIPTION/USE
22	–	Free.
23	–	Free.
24	Diodo 1A	Not used.
25	Diodo 1A	Buzzer alarm and general light indicator for hydrostatic circuit oil high temperature.
26	Diodo 1A	Buzzer alarm and general light indicator for hydrostatic circuit oil low pressure.
27	Diodo 1A	Buzzer alarm for straw walker clogging and straw chopper spreader in upper position.
28	Diodo 1A	Buzzer alarm for engaged parking brake.
29	25 A	General functions of fuses 30, 31, 32, 33, 34, 35, 36, 37 and 38.
30	15 A	R13–R6–R12 functions, power supply to device B–C–I; power supply to solenoid valve for header lifting auxiliary cylinder (optional accessory).
31	10 A	Relay switch box for header cross orientation and power supply to GSAX.
32	15 A	Refrigeretor (optional accessory).
33	3 A	Performance monitor.
34	7,5 A	“Terra Control” ECU (except for 205 REV).
35	10 A	Beacon relay switch coil (with crop tank feeding) and buzzer (with straw walkers clogging or engaged parking brake) light indicators supply, on Board computer on Agritronicplus and buzzer on dashboard.
36	3 A	Alarm unit, push buttons on forward lever knob for header vertical positioning, reel vertical positioning, reel revolution variator, crop discharge pipe positioning, header side orientation and reel longitudinal positioning.
37	3 A	Power supply to beater revolution, fan revolution, odometer, straw chopper revolution and rotary separator revolution sensors.
38	7,5 A	Auxiliary relay switch coils and stop light relay switch; cab fan enabling, push button lighting in the cab and engine ECU supply (key operated).
39	25 A	General functions of fuses 40, 41 and 42.
40	15 A	Beacons with full crop tank.
41	7,5 A	Combine and trailer directions signals.
42	7,5 A	Horn.
43	25 A	General functions of fuses 44, 45, 46, 47, 48, 49 and 50.
44	7,5 A	Front right and rear left position lights, position light indicator and instrument lighting.
45	7,5 A	Left front position light and rear right position light.
46	7,5 A	Right low beam.
47	7,5 A	Left low beam.
48	7,5 A	Right high beam and high beam light indicator.
49	7,5 A	Left high beam.
50	10 A	Stop lights.
51	25 A	General functions of fuses 52, 53, 54 and 55.
52	10 A	Front left side auxiliary socket.
53	10 A	Reverse light and reverse buzzer.
54	15 A	Grain tank inner light.
55	15 A	Front right side auxiliary socket, rear auxiliary sockets and cab auxiliary socket.
56	3 A	Engine starting relay switch coil.
57	–	Available supplied fuses.

DIAGRAMME (3) – CONTROL VALVE BLOCK FOR CROP UNLOADING TUBE POSITIONING, ELECTROHYDRAULIC ENGAGEMENT AND DRUM REVOLUTION VARIATOR

D. Relay switch ECU
F. Diode ECU
G. Relay switch ECU: for header orientation control (optional)
H. Diode ECU
D13. Diode (1A) – Signal for alternator low charge and piloting R13
D19. Diode (1A) – Engine starting cut–out with crop unloading tank starting switch engaged
D20. Diode (1A) – Engine starting cut–out with header starting switch engaged
D21. Diode (1A) – Engine starting cut–out with thresher starting switch engaged
E19. Header orientation solenoid valve
F1 25 A Fuse – F2 – 15 A Fuse – F3 – 7.5 A Fuse – F4 – 20 A Fuse
F5 10 A Fuse – F6 – 10 A Fuse – F30 – 15 A Fuse – F31 – 10 A Fuse
F36 3 A Fuse – F38 – 7.5 A Fuse
R6. Relay switch for drum variator, fan and reel speed control enabling
R7. Auxiliary relay switch for functions of fuses 2–3–4–5 and 6
R8. Straw chopper control relay switch
R13. Relay switch for running engine enabling
R25. Relay switch for shaft revolution alarm and relay switches R6 enabling
R26. Relay switch for revolution alarm and straw chopper engagement/release
R40 Y7 common solenoid valve piloting relay
X1. 50–ways black connector under the dashboard
X2. 50–ways light–blue connector under the dashboard
X3. 50–ways brown connector under the dashboard
X5. 6–ways connector on engagements cable/control valve cable
X7. 24–ways connector on main cable/engagements cable
Y7. Common solenoid valve (NO)
Y8. Crop unloading tube positioning solenoid valve (a = close – b = open)
Y9. Thresher control solenoid valve (a = engagement – b = release)
Y10. Grain tank discharge control solenoid valve (a = engagement – b = release)
Y11. Header control solenoid valve (a = engagement – b = release)
Y12. Straw chopper control solenoid valve (a = engagement – b = release)
Y13. Drum revolution increase solenoid valve (NC)
Y14. Drum revolution decrease solenoid valve (NC)
Y19. Header orientation solenoid valve
15. Main cable/control valve cable connection
23. Header vertical adjustment push buttons
25. Multifunction lever connector
37. Straw chopper engagement micro–switch on boot
38. Main cable/straw chopper cable connection
41. Main cable/engagements cable connection
114. Alternator
159. Straw chopper engagement micro–switch with lowered spreader
223. 3–ways connector on engagements cable/control valve cable
224. Header cross orientation control push button
225. Drum revolution variator control push button
226. Crop discharge tube positioning push buttons
228. Multifunction lever control cut–out switch
230. Header engagement/release switch
231. Thresher engagement/release switch
232. Tank unloading engagement/release switch
230a – 231a – 232a – 234a. Engagement limit switch
230b – 231b – 232b – 234b. Release limit switch (engaged).
\+ Positive 12 V supply from starter
(1). From ignition block (84), position 15
(2). To signal for battery low charge
(3). To the shaft revolution control ECUs
(4). To the auxiliary relay switches and to the engine EDC
(5). To reel forward control
(6). To the shaft revolution control ECUs enabling
(7). To D27 for horn control with lifted straw chopper spreader
(8). To R11 starting cut–out relay switch with engaged electrohydraulic engagement
(9). To relay box (B) – (C)
(10). To Diode for engine starting cut–out with levelling enabling

CABLE COLOURS

A = Light blue	B = White	C = Orange
G = Yellow	H = Grey	L = Blue
M = Brown	N = Black	R = Red
S = Pink	V = Green	Z = Violet

DIAGRAMME (8) – FAN VARIATOR CONTROL AND LIGHT INDICATOR FOR HEADER LOAD ON GROUND

(1) to the poor alternator charge warning light

16. Fan variator control switch (on dashboard)

17. Fan variator control electrical actuator

114. Alternator

231. Thresher engagement/release switch

D13. Diode

R6. Enabling relay switch with engine on and engaged thresher switch

R13. Relay switch for engine–on enabling

R16. Enabling relay switch with engine on for straw chopper baffle positioning electrical control

R25. Variator operation enabling relay switch

F2. Fuse (15 A)

F3. Fuse (7,5 A)

F4. Fuse (20 A)

F6. Fuse (15 A)

F30. Fuse (15 A)

(••) Thresher release solenoid valve supply

(*) Supply from terminal 87 of the relay switch R7 (with key at the first stop)

(**) Supply from terminal 15 of the keystart switch (key at the first stop)

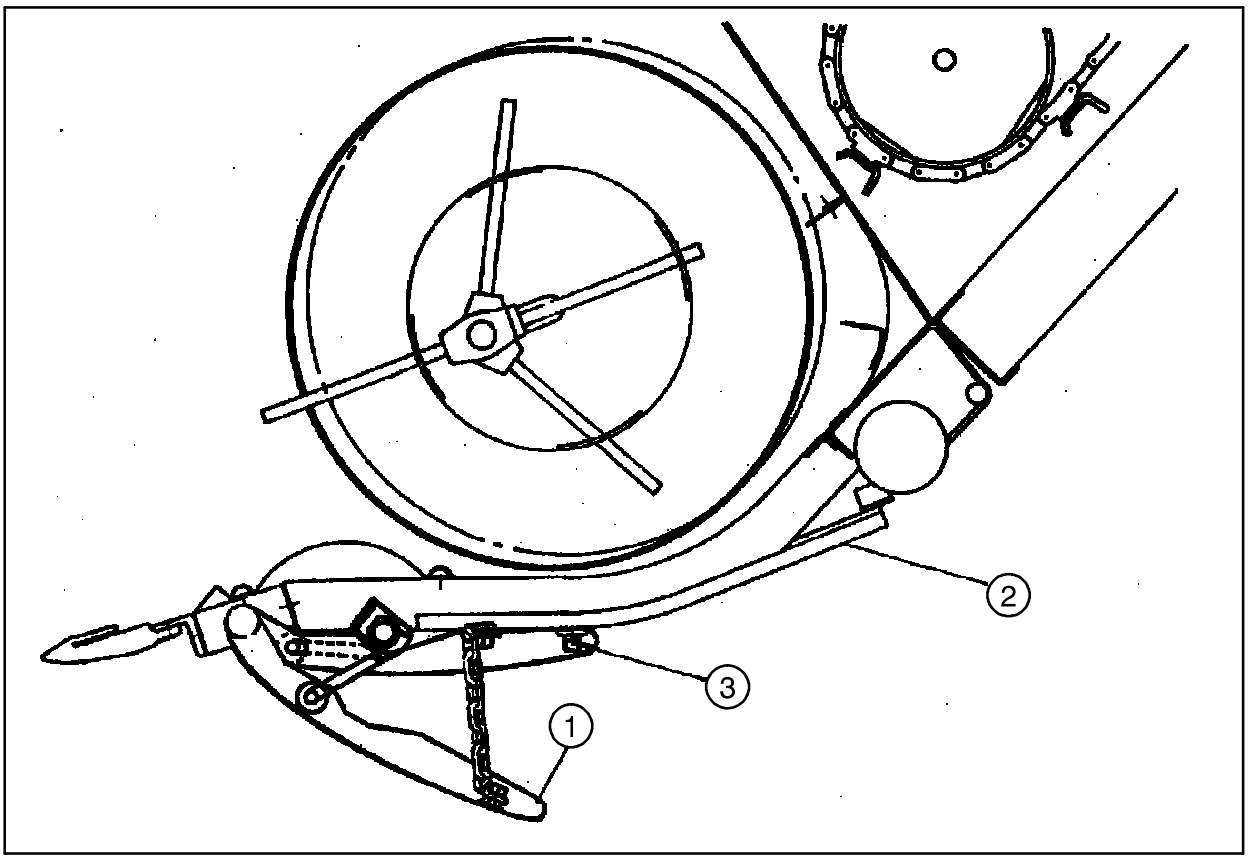
(***) Thresher engagement solenoid valve supply

X1. 50–ways black connector under the dashboard

X2. 50–ways light–blue connector under the dashboard

X3. 50–ways brown connector under the dashboard

SECTIONAL VIEWS
STARDARD GRAIN HEADER PROFILE



The mobile skids (1) can be fastened to the fixed skids (2) by the screws (3), thus excluding the flotation control function.

Cutting header width		4,20	4,80	5,40	6,00	6,60
Skids in open position	no.	2	2	2	2	2

NOT

The **GSA (optional accessory)** system has been installed until the serial number:

4.20 = 723 000139

4.80 = 733 001 197

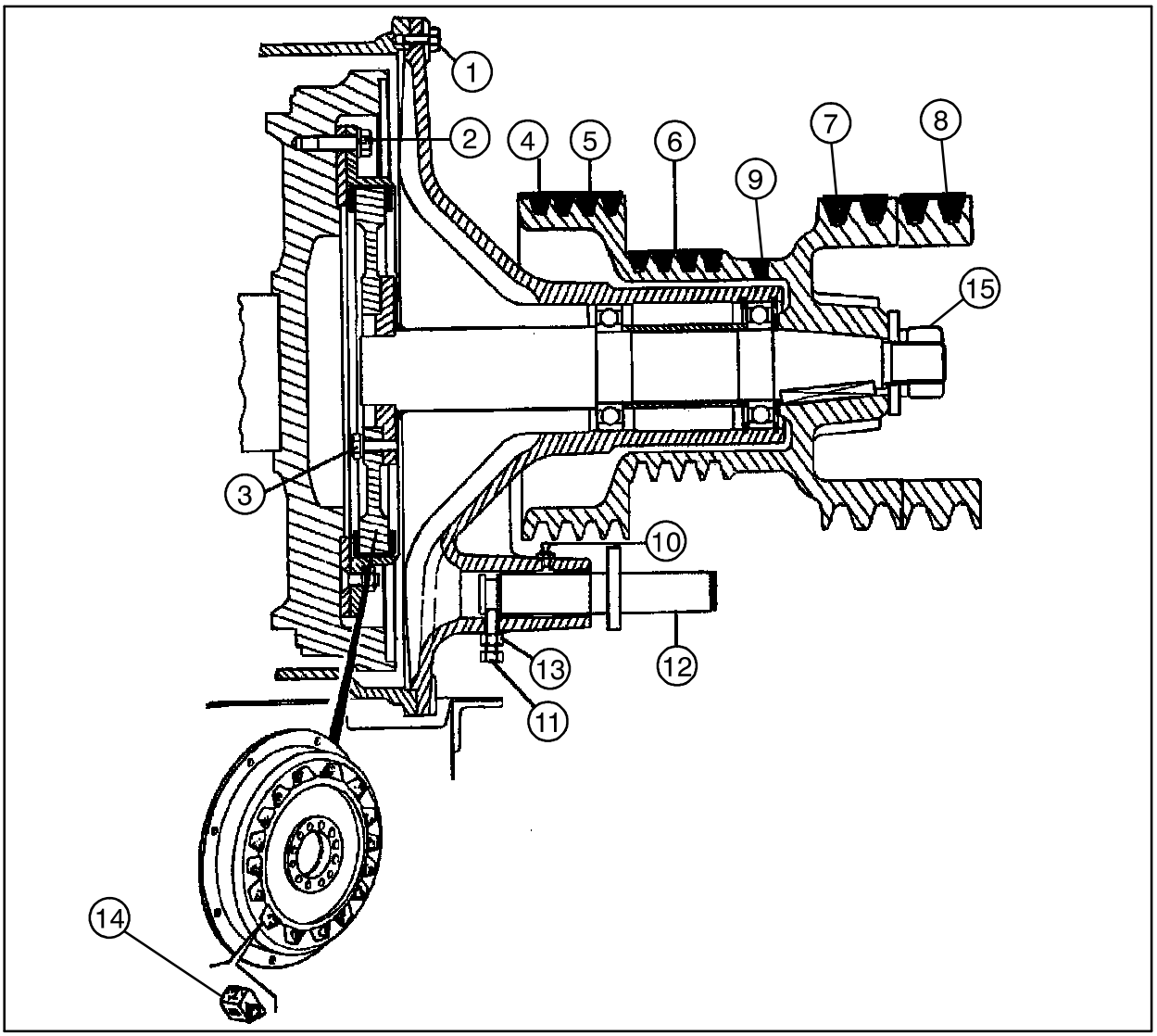
5.40 = 743 001 127

6.00 = 753 000 652

6.60 = 736 000 219

NOTE:

TIGHTENING TORQUES AND SECTIONAL VIEW



1 – Live PTO support fastening screws (tighten at 60 Nm)

2 – Coupling drive plate fastening screws (tighten at 49 Nm)

3 – Coupling driven disc fastening screws (tighten at 74 Nm using Loctite 270

4 – Service control valve and hydrostatic steering hydraulic pump transmission belt

5 – Multiple–section belt for hydrostatic pump transmission

6 – Multiple–section belt for thresher transmission

7 – Multiple–section belt for straw–chopper transmission (if fitted)

8 – Multiple–section belt for crop tank discharge.

9 – Compressor drive belt.

10 – Greaser.

11 – While assembling the belt tensioner (thresher) (12) tighten the screw (11) until touching the pin groove, then loosen the screw to get a free rotation and tighten the lock nut (13).

14 – Rubber pads for coupling connection.

15 – Tighten the nut at 700 Nm.

ELECTROHYDRAULIC ENGAGEMENT CONTROL VALVE

From s.n.: pag. 22/A sec. 35

SINGLE–ACTING SOLENOID VALVES: Y7 – Y13 – Y14

The **Y7** common solenoid valve (the only **NO** solenoid valve in this control valve) works simultaneously with all double–acting solenoid valves and with the **Y13** beater revolution increase solenoid valve. It closes the reservoir return circuit (for circuit pressurisation) then, depending on the circuit to be operated, the solenoid valve of the relevant service must be powered, to open oil flow towards the concerned circuit.

The **Y14** solenoid valve for beater revolution decrease is the only one operating individually in this control valve; when it is powered, it opens the circuit sending oil into discharge and reducing beater revolutions.

ELEMENTS WITH DOUBLE–ACTING SOLENOID VALVES: Y8 – Y9 – Y10 – Y11 – Y12

ENGAGEMENT: lifting the control knob located on the dashboard, the Y7 solenoid valve is powered simultaneously with the A coil of the concerned control solenoid valve; in this case, delivery oil passes from duct P to duct A and supplies the big chamber of the cylinders C9, C10, C11 and the chamber on the stem side of the cylinder C12, while, in the opposite chamber, oil is drained from duct B into the return circuit T through the same solenoid valve.
The stem retraction tensions the belt and operates a limit switch cutting power off to the above solenoid valves when the belt tensioning mechanism passes the dead centre.

RELEASE: lowering the control knob located on the dashboard, the Y7 solenoid valve is powered simultaneously with the B coil of the solenoid valve; in this case, delivery oil passes from duct P to duct B and supplies the chamber on the stem of the cylinders C9, C10, C11 and the chamber opposite the stem of the cylinder C12, while, in the opposite chamber, oil is drained from duct A into the return circuit T through the solenoid valve.
The jack extension loosens the belt and operates the limit switch, that places the control solenoid valves in rest position.

⚠ IMPORTANT ⚠

- **Engage the thresher only at low engine speed.**
- **A red light on the Agritronicplus EV. COM. shows when the solenoid valves are powered for threshing component engagement and release.**
  This operation is made in a few seconds, then the right light MUST switch off.If the red light switches on continuously, check the adjustment and/or the operation of the limit switches.

SUPPLY TO SOLENOID VALVES FOR ELECTROHYDRAULIC HEADER DRIVE CONTROL VALVE

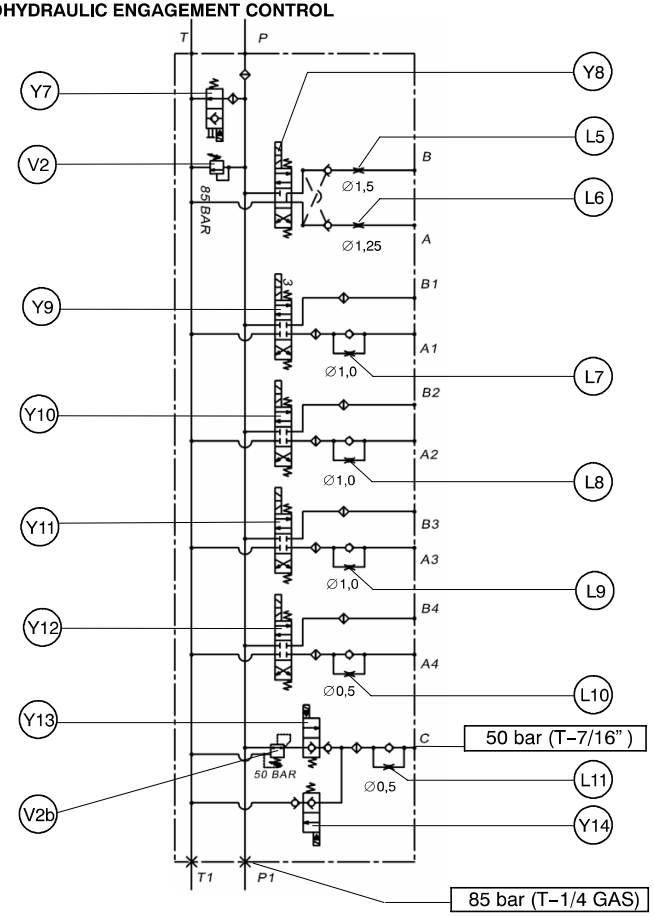
CABLE COLOUR	FUNCTIONS	ELECTRICAL OPERATION	SOLENOID VALVE SUPPLY
CB–VZ–C	Swinging tube opening/closing control	Y7–Y8a–Y8b	First key notch
CB–GN–ZN	Thresher engagement/release control	Y7–Y9a–Y9b	First key notch
CB–BN–CN	Grain unloading engagement/release control	Y7–Y10a–Y10b	Engine ON
CB–AN–RN	Header engagement/release control	Y7–Y11a–Y11b	Engine ON
CB–VN–HN	Straw chopper engagement/release control	Y7–Y12a–Y12b	Engine ON
CB–MN	Beater revolution increase control	Y7–Y13	Engine on and thresher engaged
R	Beater revolution decrease control	Y14	

CABLE COLOUR TABLE

A = light blue – B = white – C = orange – G = yellow – H = grey – L = blue – M = brown

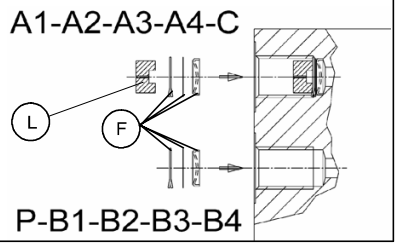
N = black – R = red – S = pink – V = green – Z = purple

CONTROL VALVE FOR BEATER REVOLUTION VARIATOR, CROP DISCARGE TUBE POSITIONING AND ELECTROHYDRAULIC ENGAGEMENT CONTROL



Single–acting throttles must all be installed with the plane side facing outside, as shown in the figure; they have a calibrated hole as follows: L5 = 1.5 mm, L6 = 1 mm, L7–L8–L9 = 1.0 mm, L10 = 0.5 mm

Y = SOLENOID VALVE
L = THROTTLE
F = FILTER
V = ADJUSTMENT VALVES



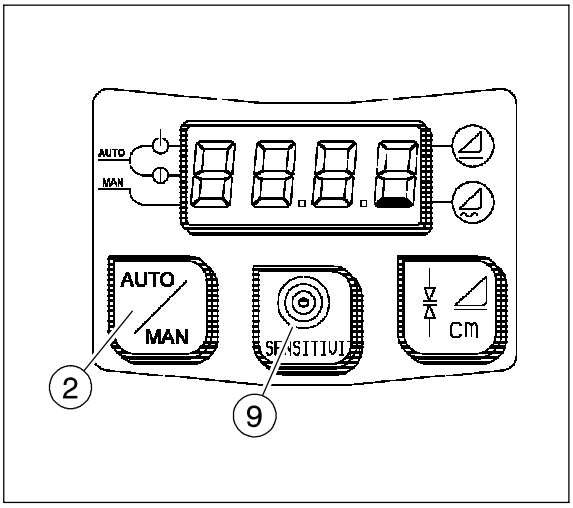
TERRA–CONTROL OPERATING SENSITIVITY (GSAX SYSTEM) (Agritronic Plus ref. 323378600)

The control sensitivity can be set AUTOMATICALLY. It is measured by the inoperativity range of the system, with values ranging from 1 to 5.

NOTE: *the values from 1 to 5 correspond to the unit of measurement in centimetres.When you select the automatic height operation, the values are doubled.*

Sensitivity control (flotation mode)

To control the current value of sensitivity, press the key (9) SENSITIVITY. The set value shall be displayed for one second, then the system goes back to the AUTO–MAN previously selected operating mode.

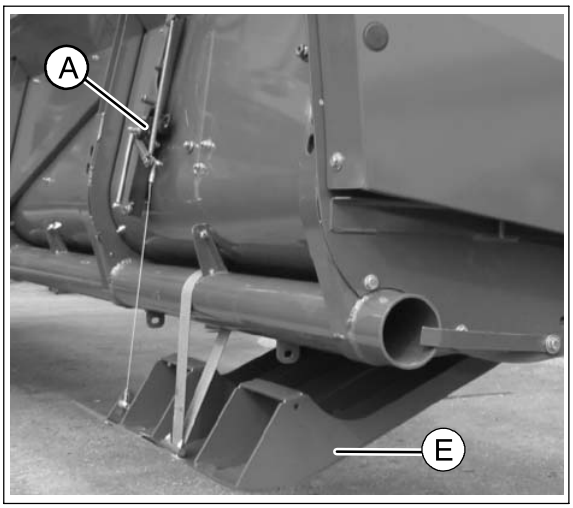


Sensitivity calibration (flotation mode)

Hold the key (9) SENSITIVITY pressed until the current value of sensitivity is displayed. Press few times the key (9) for scrolling values from 1 to 5. When the wished value is displayed, for setting this one hold the key (9) pressed until “cm” is displayed.

After this operation, the system goes back to the MANUAL operation.

Press the AUTO–MAN key (2) to shift to AUTOMATIC.



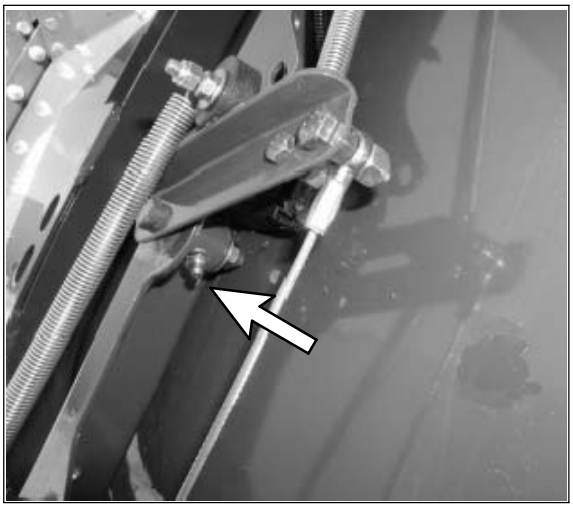
Suggested sensitivity values:

Programmed height *(in cm)*	Sensitivity
5 – 7	2
8 – 12	3
13 – 18	4

NOTE: *Higher values – Reduction of the number of interventions on the valve and increase of cutting header stability.*
Lower values – Increase of the cutting precision.

IMPORTANT: *for a correct operation of the TERRA–CONTROL, daily check:*

- *the cleaning of the areas next to rheostats A and B.*
- *The efficiency and cleaning of the cutting header mobile slides E.*
- *IThat the arm of potentiometer A rotates smoothly.; if necessary apply* ***LAVERDA GREASE*** *to the grease nipple underlined by the white arrow. Repeat this ioperation on the opposite side.*



INTRODUCTORY REMARKS

◊ *This manual is subdivided in sections marked by two–digit numbers, with independent page numbering within each section.*
For a quick reference, these sections have the same identification number and the same description of the relevant Flat Time Rate Manual.

◊ *The dealt matters and the information can be easily detected by index on the following pages.*

◊ *At the bottom of each page there is the manual print number and the relevant publication/up–dating date.*

◊ *The pages of further up–datings shall have the same print number of the current publication, changing the last digit (for example: first up–dating 327163011; second up–dating 327163012; etc.) and the relevant publication date.*
These pages shall be completed by the new print of the index, duly revised.

◊ *The information of this manual are up–dated at the date of the publication.*
As LAVERDA continuously improves its product range, some information could be not up–dated due to modifications of technical or commercial type, as well as for suiting the law regulations of the different countries.
In case of disagreement, refer to LAVERDA Sales and Service networks.

IMPORTANT CAUTION

◊ *All repair and maintenance works listed in this manual must be carried out only by staff belonging to the LAVERDA Service Network, strictly complying with the instructions given and using, whenever required, the special tools.*

◊ *Anyone who carries out the above operations without complying with the prescriptions shall be responsible for the subsequent damages.*

◊ *The Manufacturer and all the organizations of its distribution chain, including – without limitation – national, regional or local dealers, reject any responsibility for damage due to the anomalous behaviour of parts and/or components not approved by the manufacturer himself, including those used for the servicing or repair of the product manufactured or marketed by the Manufacturer.*
In any case, no warranty is given or attributed on the product manufactured or marketed by the Manufacturer in case of damages due to an anomalous behaviour of parts and/or components not approved by the Manufacturer.

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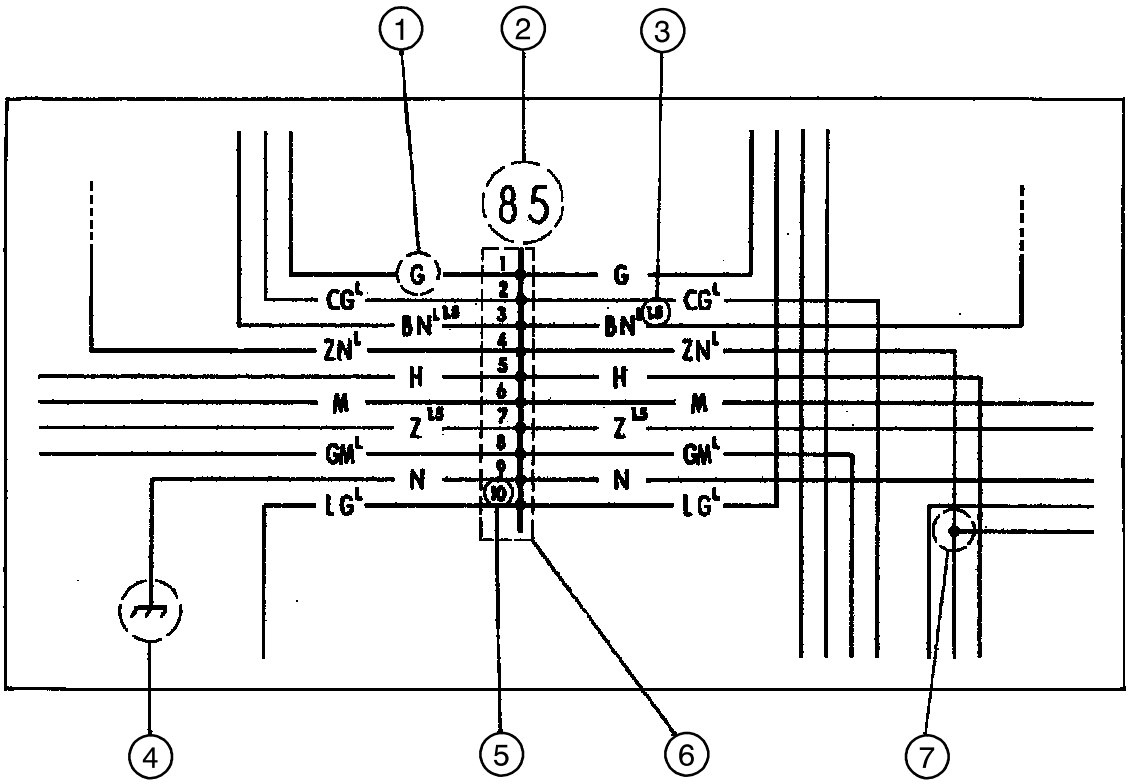
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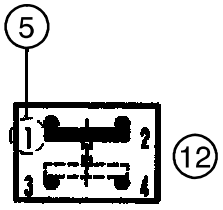
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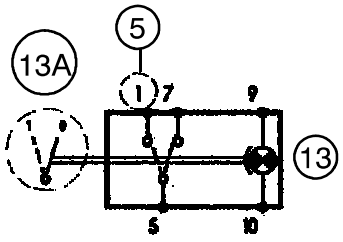
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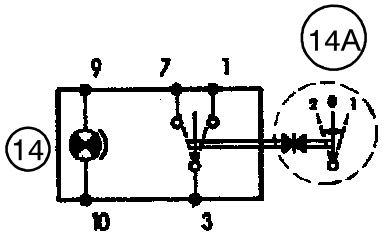
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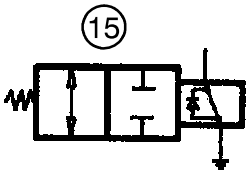
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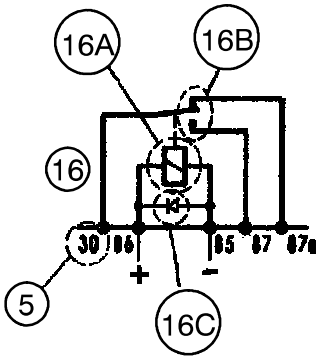
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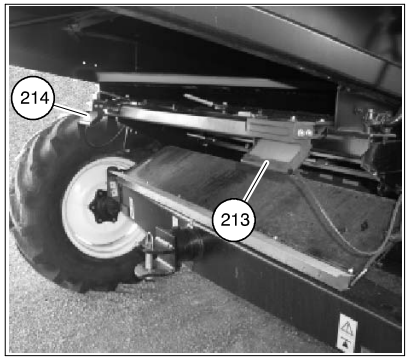

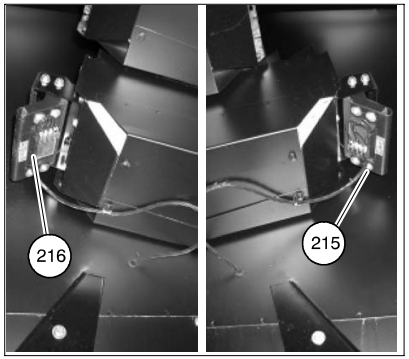

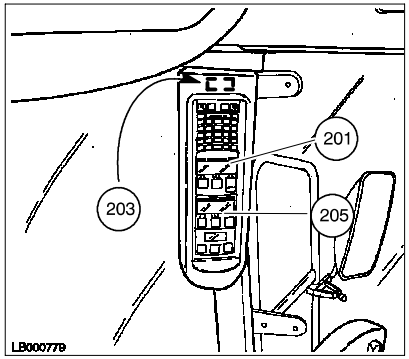

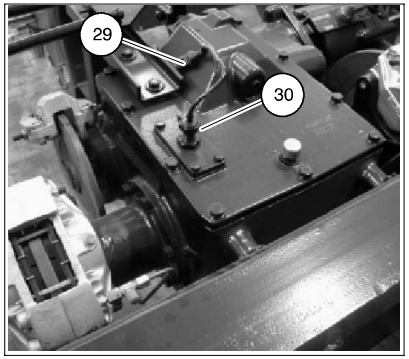

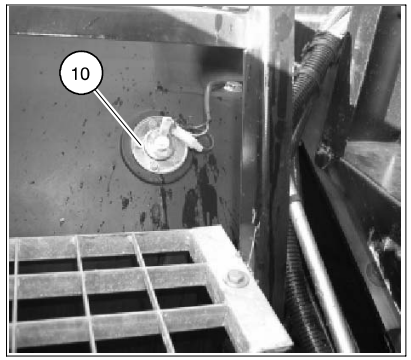

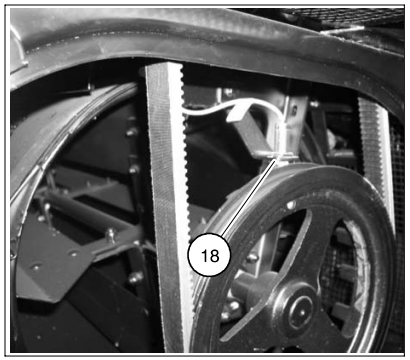

DIGITAL INSTRUMENT CONTROLS

FROM SERIAL NUMBERS:

205 REV 551300157
225 REV 551500325
255 REV 551700045
256 REV 565500032

Component

F33. 3A fuse for performance monitor supply.
F34. 3A fuse for Terra–Control ECU supply.
F35. 10A fuse light indicators, On–Board computer on Agritronicplus and buzzer on dashboard supply.
F37. 3A fuse for revolution sensors supply.
F44. 7,5A fuse Front right and rear left position lights, position light indicator and instrument lighting supply.
10. Fuel level sensor.
13 Main cable – on–board computer cable connection.
14 On–board computer cable – main cable connection.
18. Fan revolution sensor.
29. Transmission sensor cable connector.
30. Odometer sensor.
33. Connector on additional micro–switch cable.
44. Drum revolution sensor.
201. Agritronicplus, on–board computer section.
202. Agritronicplus connector for on–board computer functions.
203. Buzzer on Agritronicplus.
205. Agritronicplus, performance monitor section.
206. Agritronicplus connector for performance monitor functions.
208a 24–ways connector for Terra–Control ECU functions.
208b 6–ways connector for Terra–Control ECU functions.
X2. 50–ways light–blue connector under the dashboard.
X3. 50–ways brown connector under the dashboard.
X15. 41–ways connector outside cab.
X16. 32–ways connector outside cab.
211. Agritronicplus / performance sensor cable connector.
212. Connector on sensors cable.
213. Sieve right sensor.
214. Sieve left sensor.
215. Straw walker right sensor.
216. Straw walker left sensor.
241. Engine EDC connector.
263. Connector on Agritronicplus for light indicator section.
265. Additional cable connection for Agritronicplus, section A – main cable.
283. Lighting equipment electric cable connector.
284. Main electric cable connector.
294. Main cable / engine cable connection.
273.* Iveco Nef engine EDC connector.

(*). **Iveco Nef Engine only**.