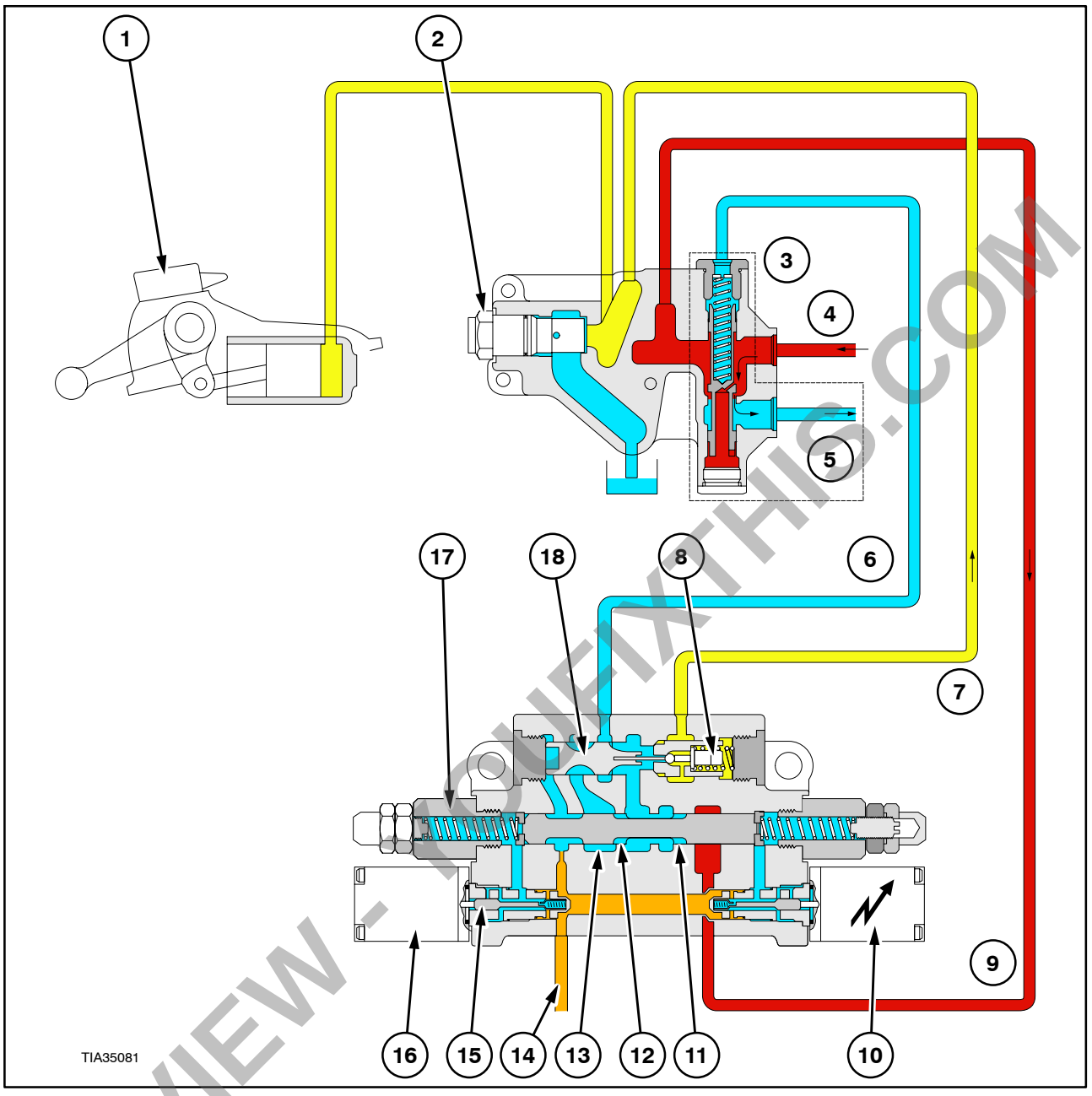


12

Electronically controlled lift functional diagram. Neutral phase

1. Hydraulic lift.
2. Lift cylinder safety valve.
3. Load Holding Valve.
4. Hydraulic pump flow.
5. Discharge in transmission casing.
6. Load measuring line.
7. To hydraulic lift.
8. Non–return valve.
9. Pump flow to hydraulic control valve.
10. Solenoid valve (Lowering).
11. Control valve block pin infeed dosage device.
12. Control valve block pin return to tank dosage device.
13. Oil discharge hole.
14. Low pressure circuit pilot pressure.
15. Pilot valve.
16. Solenoid valve (Lifting).
17. Control valve block pin centring spring.
18. Lifting valve.

Pump delivery oil.

Discharge oil.

Pilot oil at a pressure of 16 bar.

Oil at static rest.

PREVIEW - YOUFIXTHIS.COM
Download full manual at youfixthis.com

IMPLEMENT HITCHING DEVICE DATA

Type		three–point linkage
Category: Draft control		1st and 2nd by means of lower arms with flex bar
Maximum lifting load from horizontal arm link ends with three–point linkage connected to upper hole on top link and full length of lifting stroke	kg	2670
Maximum lifting load with centre of gravity 610 mm from the lower arm link ends for the full length of lifting stroke (with top link connected to upper hole on support):	kg	2385
Flex bar diameter:	mm	24.867 ÷ 24.900
End float of flex bar	mm	1.5 ÷ 5.42

BOLT TORQUES

PARTS TO BE TIGHTENED	Thread	Tightening torque	
		Nm	kgm
Lift			
Lift intervention speed adjustment valve cap (C_1, fig 1)	–	54	5.5
Control valve block pin spring cap (C_2)	–	54	5.5
Bolts securing control valve block to lift (C_3)	M 8 x 1.25	26	2.7
Bolts securing union to control valve block (C_4)	–	44	4.5
Check valve return (C_5)	M 24 x 1.5	83	8.5
Cylinder safety valve (C_6)	M 20 x 1.5	83	8.5
Control valve cap (C_7)	M 20 x 1.5	54	5.5
Lift cylinder retaining bolts:			
– front (C_8)	M 14 x 1.5	157	16
– top (C_{10})	M 16 X 1.5	260	26.5
Bolts securing lift to rear transmission housing (C_9)	M 12 x 1.25	98	10
Control lever quadrant cover stud bolts (C_{11})	–	49	5
Nuts for lever quadrant cover stud bolts (C_{12})	M 8 x 1.25	25	2.6
LIFT–O–MATIC control lever quadrant retaining nut (C_{13})	–	54	5.5
Lifting arm plate retaining bolts (C_{14})	M 14 x 1.5	142	14.5
Eccentric pin retaining nuts (C_{15})	–	49	5
Eccentric pin seat cap (C_{16})	–	83	8.5
LIFT–O–MATIC control lever retaining bolts (C_{17})	–	54	5.5
Quadrant with arms control pivot cam retaining bolts (C_{18})	–	49	5
Internal lever mechanisms support pin (C_{19})	–	54	5.5
Three point hitch assembly			
Flex bar seal support retaining bolts	–	64	6.5
Limiter stabiliser strut support retaining bolts	M16 X 1.5	221	22.5
Towing hook support retaining bolts	M16 X 1.5	221	22.5

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

GENERAL SPECIFICATIONS	
Engine, technical type:	
– mod. 85C type 44STA/MNG (BOSCH pump)	
– mod. 95C – type 44STA/MND (BOSCH pump)	
Cycle	diesel, 4–stroke
Fuel injection	Direct
Number of cylinders in line	4
Piston diameter	104 mm
Piston stroke	132 mm
Total displacement	4485 cm^3
Compression ratio	16.5:1
Maximum Power Output:	
– mod. 85C – type 44STA/MNG	63 kW (86 Hp)
– mod. 95C – type 44STA/MND	71 kW (97 Hp)
Maximum power speed	2300 rpm
– Maximum torque: mod. 85C – type 44STA/MNG	370 Nm
– Maximum torque: mod. 95C – type 44STA/MND	418 Nm
Maximum torque speed	1300 rpm
Number of main bearings	5
Sump pan	structural, cast iron
Lube	forced, with lobe pump
Pump drive	from crankshaft
Engine speed/oil pump speed ratio	1:1
Oil filtration	mesh screen on oil pick–up and filter cartridge in delivery line
Normal oil pressure with motor warmed–up	
at slow idling	1.2 bar
at fast idling	3.9 bar

(continued)

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

HYDRAULIC LIFT TROUBLESHOOTING

Problems	Possible Problem	Solutions
The lift does not rise.	1. Clogged oil filter.	Replace filter.
	2. Control valve jammed in discharge position.	Release control valve.
	3. Hydraulic pump faulty.	Overhaul or replace the pump.
The lift moves in jerks.	1. Clogged oil filter.	Replace filter.
	2. Air in the pump suction line.	Check that the unions are airtight and the seals are efficient.
The lift rises too slowly.	1. Clogged oil filter.	Replace filter.
	2. Oil leakage through the seals with consequent pressure drop: piston seals or seals on discharge fitting to cylinder.	Replace damaged seals.
	3. Hydraulic pump faulty.	Overhaul or replace the pump.
The lift lowers too slowly.	1. Arm descent speed set incorrectly.	Adjust correctly.
The lift lowers too quickly.	1. Arm descent speed set incorrectly.	Adjust correctly.

(continued)

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

CONSUMABLES

COMPONENT TO BE FILLED OR TOPPED UP	QUANTITY dm^3 (litres)	RECOMMENDED CASE IH PRODUCT	CASE IH SPECIFICATION	INTERNATIONAL SPECIFICATION
Cooling system: without cab with cab	14,0 16,0	Water and antifreeze fluid 50% + 50% **AKCELA PREMIUM ANTI–FREEZE**	MS1710	–
Windscreen wash reservoir	2.0	Water and antifreeze	–	–
Fuel tank:	88	Decanted, filtered diesel fuel	–	–
Engine oil sump: without filter: . . . . . with filter:	8,9 9,5	Oil **AKCELA No. 1 ENGINE OIL**	MS 1121	API CH–4 ACEA E5 SAE 15W–40
Brake control circuit . . . . . With front brakes	0,7 1,0	Oil **AKCELA LHM FLUID**	–	ISO 7308
Front axle: axle housing . . . . . final drives without brakes (each) . . . . . final drives with brakes (each)	4,5 1,0 1,5	Oil **AKCELA NEXPLORE**	MAT 3525	
Rear transmission (bevel drive, final drives and brakes), gearbox, hydraulic lift, PTO and hydraulic steering:	42			
Front power take–off	0,5			
Grease fittings	–	Grease **AKCELA MULTIPURPOSE GREASE**	251HEP	NLGI 2
Air conditioner system – refrigerant . . . . . – oil	– 1,40 0,15	–	–	R–134a SP10

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

1040 - LIFT NOT CALIBRATED.

Control module: Rear electronic lift control unit.

NOTE: *The lift is not disabled.*

Possible fault modes:

1. Replace arm lift potentiometer
2. Replace solenoid valve
3. Replace control unit
4. After deleting the memory in H8

Remedies:

NOTE: *When the cause of the fault code has been rectified, clear the fault code and test the system for normal operation.*

1. Check whether the lift has been calibrated.

   A. If the lift has not been calibrated, after replacing the control unit or after using H8 (deleting EEPROM memory) run the lift calibration procedure.
   Enter the **menu HH**, select the program **H1** then proceed with calibration; without tool 380000843, to access calibration, press and hold down push-button **Lifting/work/rapid ground entry SW-34** in rapid ground entry while starting the machine, release it after starting.

   B. If the transmission has been calibrated, download the correct level of the software and run the calibration procedure again. If the error is repeated, remove and replace the control unit.

NOTE: *for a description of the HH menus, refer to section 55 chapter 10.*

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

	Page	Date
Removal–Installation – coolant pump	101–102	11–07
Removal–Installation – thermostat valve	103–104	11–07
Removal–Installation – radiator	105–106–107–108	11–07
Coolant pump and generator drive belt	109–110	11–07

CHAPTER 2 – Engine 65C and 75C models

Summary	1	03–08
General specifications	2–3	03–08
Engine removal–installation	4–5–6–7–8–9–10–11–12–13–14–15–16–17	03–08

18 – CLUTCH

Data	1–2	11–07
Tightening torques	2	11–07
Tools	2–3	11–07
Sections	3–4	11–07
Fault finding	5	11–07
Removal–Installation – clutch	6–7–8–9–10–11–12–13–14–15	11–07
Clutch Overhaul	16–17–18–19–20	11–07
Checks and measurements – clutch	21–22	11–07
Adjustments – clutch disengagement levers	22–23	11–07
Adjustments – clutch pedal	24	11–07
PTO control adjustment	25	11–07
Sectional view of PTO clutch servo control	26	11–07
Description and operation of PTO servo control	27–28	11–07
PTO servo control adjustment	29	11–07
PTO engaged switch adjustment	30	11–07

	Page	Date

21 – TRANSMISSIONS

CHAPTER 1 – Transmission and range gear (16x16)

Data	1–2	11–07
Tightening torques	2–3	11–07
Tools	4–5–6–7	11–07
Sections	8–9–10–11	11–07
Description and operation	12	11–07
Fault finding	12–13	11–07
Removal–Installation – rear transmission – gearbox casing	14–15–16–17–18–19–20	11–07
Disassembly–Assembly – transmission–gearbox casing	21–22–23–24–25–26–27–28	11–07
Gearbox driving and driven shafts end float adjustment	29	11–07
Sealing compound application diagram	30	11–07
Gearbox control lever. Removal – Installation	31	11–07
Range gear control lever. Removal – Installation	32	11–07
Shuttle control lever. Removal – Installation	33	11–07
Fuel tank. Removal – Installation	34–35	11–07

CHAPTER 2 – Mechanical transmission and splitter

Data	1–2	11–07
Tightening torques	2	11–07
Tools	2	11–07
Sections	3–4–5	11–07
Description and operation	6	11–07
Fault finding	7	11–07
Splitter device and creeper unit casing, shafts and bearings disassembly	8–9–10	11–07

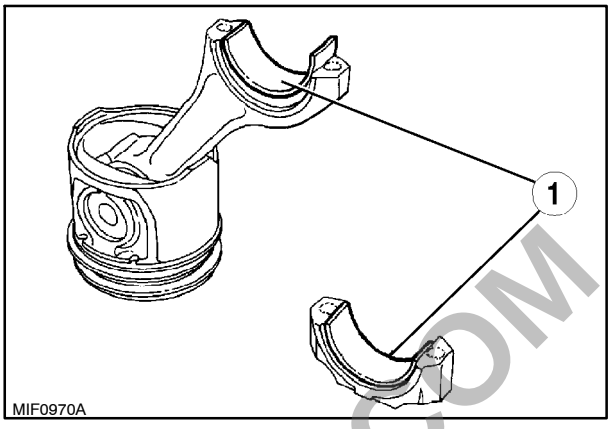
PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

– Fit the half bearings (1) on the connecting rod and cap.

NOTE: *If the crankpins of the crankshaft are undersized it is necessary to replace the big end bearings of the same undersize class made.*

Do not modify the half bearings in any way.



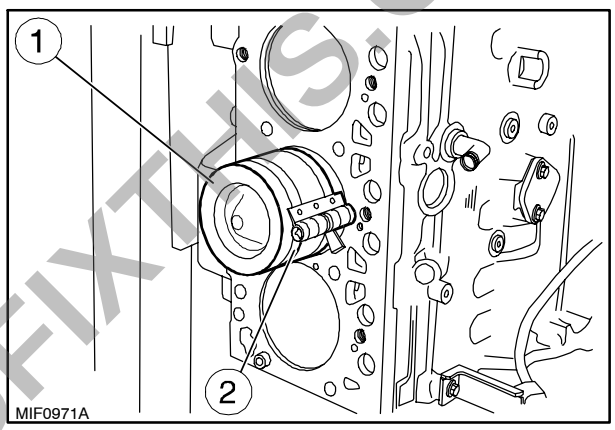
97

FITTING THE PISTON CONNECTING ROD ASSEMBLIES IN THE CYLINDER LINERS

(Disassembly operation 56.)

– Lubricate the pistons well, including the piston rings and the inside of the cylinder liners.

– With the aid of the ring clamp **380000220** (2), fit the connecting rod–piston assemblies (1) in the cylinder liners.

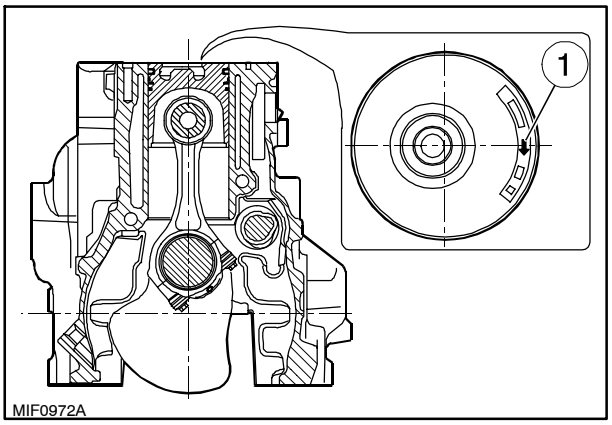


98

– The ring openings must be staggered apart by 120°;

– The connecting rod/piston assemblies must all have the same weight;

– The arrow (1) stamped on the crown of the pistons must face the auxiliary member side of the engine and the recess in the piston skirt must correspond to the position of the oil nozzles.



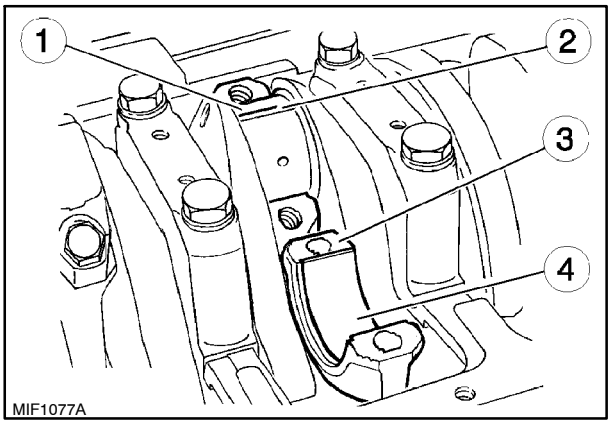
99

To measure the clearance proceed as follows:

– Carefully clean the parts and remove all traces of oil;

– Position a length of calibrated wire (2) on the crankshaft journals (1);

– Fit the connecting rod caps (3) with the relevant half bearings (4).



100

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

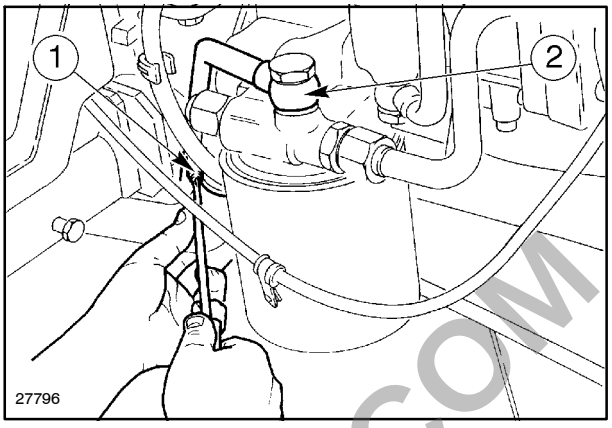
GENERAL SPECIFICATIONS	
Engine, technical type:	
– mod. 65C – type F5AE9484A*A (BOSCH pump)	
– mod. 75C – type F5AE9484B*A (BOSCH pump)	
Cycle	diesel, 4–stroke
Fuel injection	Direct
Number of cylinders in line	4
Piston diameter	99 mm
Piston stroke	104 mm
Total displacement	3200 cm^3
Compression ratio	17,5 ± 0,5:1
Maximum Power Output:	
– mod. 65C – type F5AE9484A*A	48 kW (65 Hp)
– mod. 75C – type F5AE9484B*A	57 kW (78 HP)
Maximum power speed	2300 rpm
– Maximum torque: mod. 65C – type F5AE9484A*A	290 Nm
– Maximum torque: mod. 75C – type F5AE9484B*A	330 Nm
Maximum torque speed	1250 rpm
Number of main bearings	5
Sump pan	structural, cast iron
Lube	forced, with lobe pump
Pump drive	from crankshaft
Oil filtration	mesh screen on oil pick–up and filter cartridge in delivery line
Normal oil pressure with motor warmed–up at fast idling	2 bar
Cooling	coolant circulation
Radiator	4 lines of vertical pipes with copper fins
Fan, attached to the pulley	intake, in plastic with 11 blades
Coolant pump	centrifugal vane–type
Temperature Control	via thermostat valve
– initial opening	79 ± 2 °C

(overleaf)

PREVIEW - YOUFIXTHIS.COM

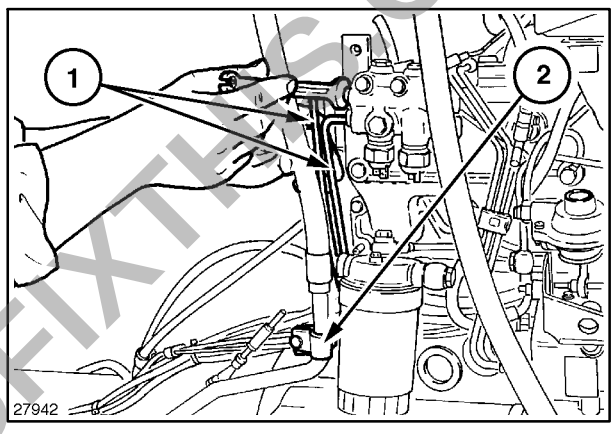
Download full manual at youfixthis.com

19. Unscrew the clamp (1) and detach the sleeve on the oil intake pipes, unscrew the union (2) and remove the lift oil feed pipes, detach and remove the two transmission gearbox casing pipes.



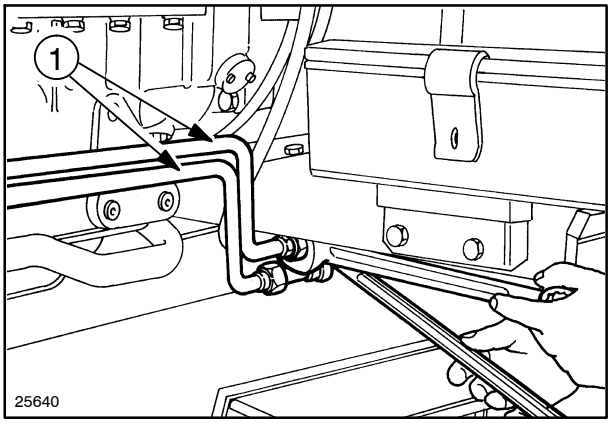
21

20. Disconnect the brake control pipes (1) from the brake block and the rear transmission casing and remove.
21. Unscrew the union and the retaining bolt, then remove the pipes (2).



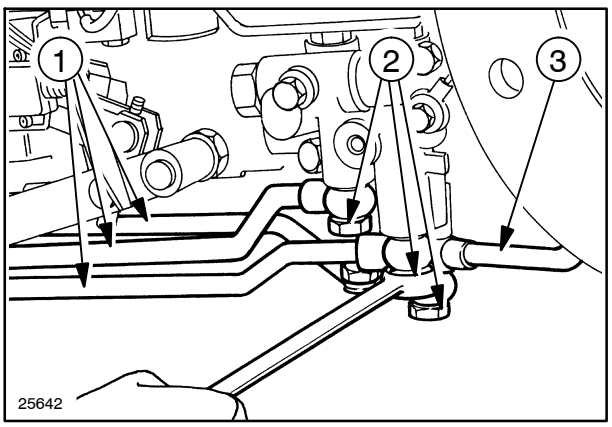
22

22. Disconnect the unions on the heat exchanger pipes (1).



23

23. Disconnect the unions (2) and remove the pipes (1 and 3).
24. Unscrew the retaining bolts and remove the cab support bracket (on both sides).



24

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

SPECIAL TOOLS

Warning– The operations described in this section cannot be carried out without the **ESSENTIAL** tools marked with an **(X)**.
To work safely and efficiently and obtain the best results, it is also necessary to use the recommended specific tools listed below and certain other tools, which are to be made according to the drawings included in this manual.

List of specific tools required for the various operations described in this Sect.

X 380001622 Drive shaft seal key.

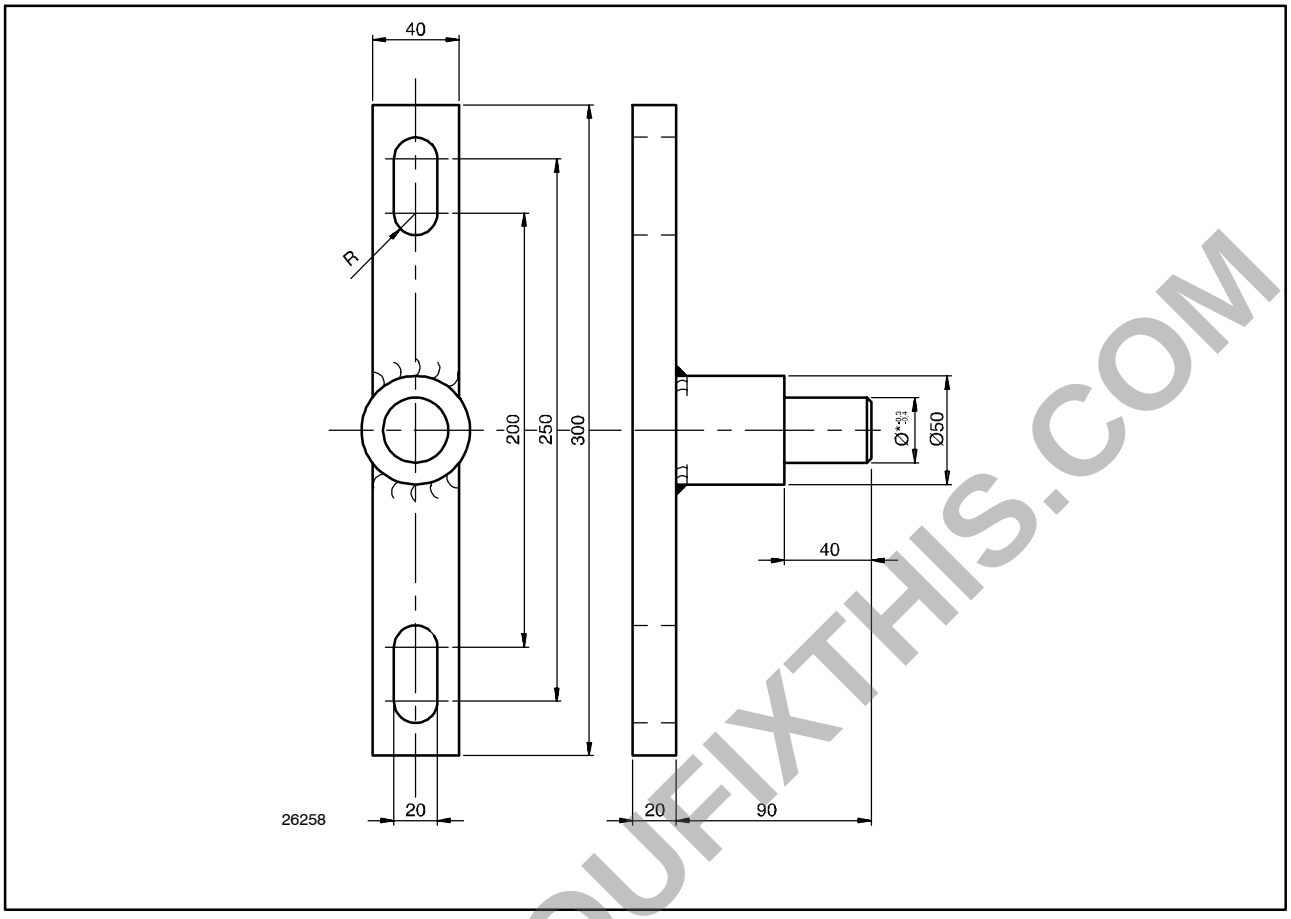
X 380000279 Key for Ø 50 mm piston.

X 380000280 Key for Ø 35 mm piston.

X 380000240 Hydraulic pressure control kit (use tool **380000560**).

PREVIEW - YOUFIXTHIS.COM

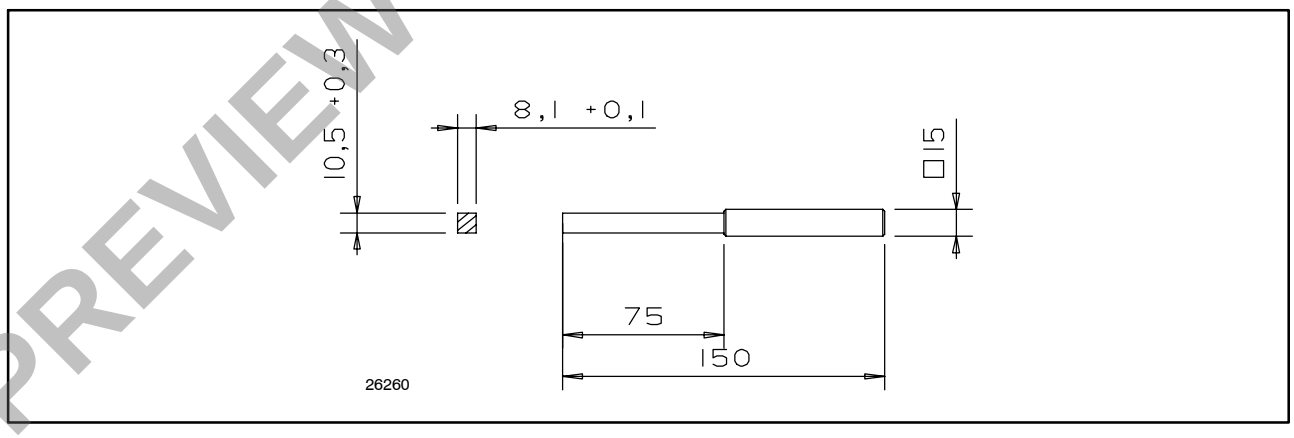
Download full manual at youfixthis.com



3

Tool to be made for removal–installation of the final drives, to be used with a part of 50091.
(Mark the tool with no. 50114 – Measurements in mm)

Make in Fe 42 C material – (*) Measurement according to hoist seat.



4

Tool to be constructed for adjusting differential lock sleeve travel.
(Mark the tool with no. 50041 – Measurements in mm)

Make using C40 material.

PREVIEW - YOUFIXTHIS.COM

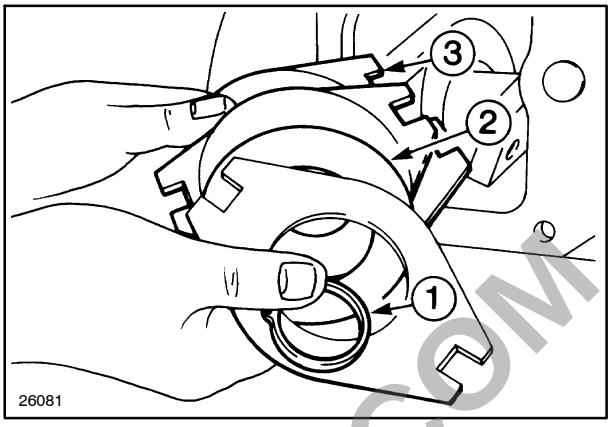
Download full manual at youfixthis.com

5. Recover the safety ring (1), the brake disks (2) and the friction disks (3).
6. To refit the parking brake disks, proceed as follows.

ATTENTION

Use suitable tools to align the holes. NEVER USE FINGERS OR HANDS.

– Study the illustrations in fig. 2 for the positioning of the various parts.
– Insert the brake disks and friction disks in their respective seats.
– Fit the safety ring.
– Fit the access guard on the transmission casing and secure with the four bolts.
– If fitted, Carry out operation **33 220 40**: Trailer brake valve, only installation (see Section 35, Chapter 3).
– Tighten the cap on the rear transmission casing and fill up with oil (for products and quantities see Section 00, page 6).



38

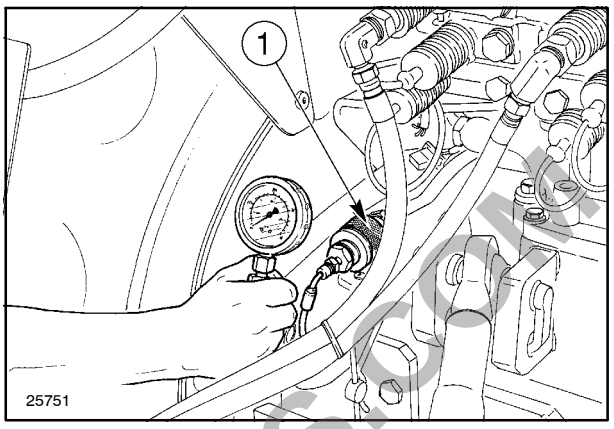
PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Testing the setting of the trailer brake system pressure control valve incorporated in the trailer brake control valve

Proceed as follows:

1. Insert union **380000550** (1) in the trailer brake coupling, connect to the pressure gauge with 0 ÷ 250 kg/cm^2 from kit **380000240**.
2. With the engine and the oil in the test conditions described at the beginning of the chapter, apply a force of 30 ÷ 35 daN (29.4 ÷ 34.3 kg/cm^2) to the service brake pedals; the pressure reading on the gauge should be 135 ÷ 145 bar (138 ÷ 148 kg/cm^2).
3. Apply the parking brake and disconnect the pressure gauge and union **380000550** (1).



10

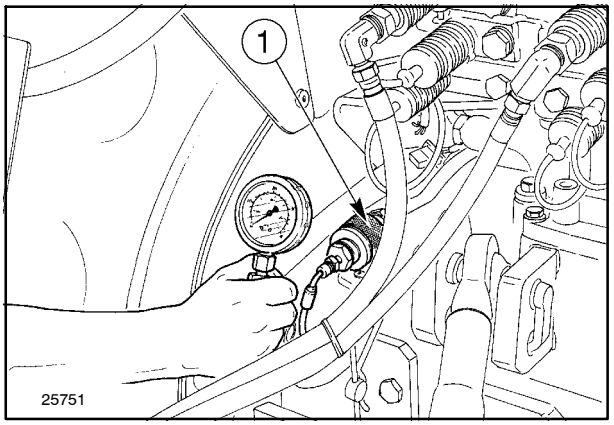
FAULT FINDING

Problems	Possible Problem	Solutions
Pressure above or below prescribed range.	1. Pressure control valve (6, fig. 8) of trailer brake system faulty.	Replace trailer brake auxiliary control valve.
	2. Hydraulic pump (9) faulty.	Replace pump.

Testing the hydraulic system for leakage

Proceed as follows:

1. Insert union **380000550** (1) in the trailer brake coupling, connect to the pressure gauge with 0 ÷ 250 kg/cm^2 from kit **380000240**.
2. With the engine and the oil in the test conditions described at the beginning of the chapter, apply a force of 30 ÷ 35 daN (29.4 ÷ 34.3 kg/cm^2) to the service brake pedals; the pressure reading on the gauge should be 135 ÷ 145 bar (138 ÷ 148 kg/cm^2).
3. Apply the parking brake and disconnect the pressure gauge and union **380000550** (1).



11

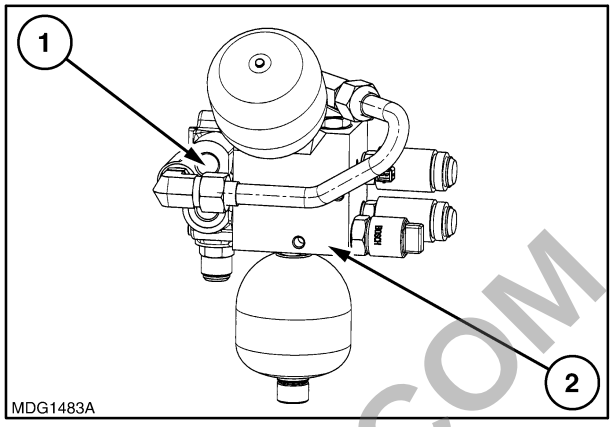
FAULT FINDING

Problems	Possible Problem	Solutions
On applying the prescribed force on the service brake pedals, there are an excessive number of pressure peaks over a 10–second period.	1. Oil leaks in the hydraulic system.	Find and eliminate the leaks.
	2. Excessive leakage from the solenoid valve (5b, fig. 8).	Replace solenoid valve.
	3. Excessive leakage from trailer brake control valve (7).	Replace trailer brake auxiliary control valve.

PREVIEW - YOUFIXTHIS.COM
Download full manual at youfixthis.com

Description and operation of accumulator control valve.

In parallel between the front electronic lift (1) and the cylinders there is a second control valve (2) with two solenoid valves, two accumulators (one 14 bar and the other 40 bar) and a pressure switch.



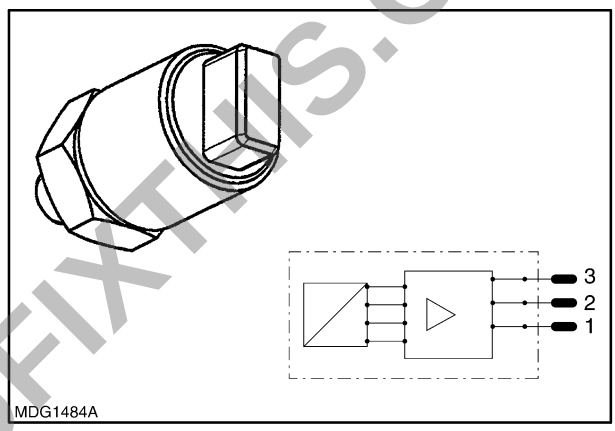
28

The pressure switch is constantly subjected to the loading pressure by the lifting cylinders and is used, by the control unit, as a signal transmitter for pressure control

The sensor is designed to withstand a pressure of from 0÷200 bar, it is supplied, by the control unit, with a current of 9.5 V.

The output signal changes in proportion to the operating pressure to which it is subjected (it increases as the pressure increases).

1 – Ground, **2** – Signal, **3** – Supply (9.5V).

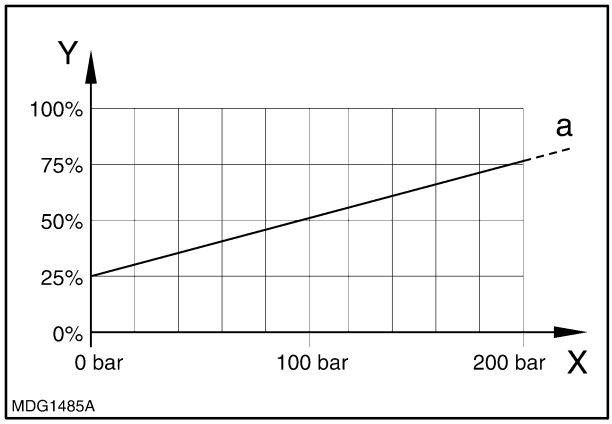


29

At a pressure of approximately 0 bar, the voltage signal (a) is approximately 25% of the supply voltage (approximately 2.4 V).

The voltage signal output from the sensor can come within a range of from 25% to 75% of the supply voltage.

Y – Supply (9.5 V = 100%), **X** – Pressure, **a** – Output signal

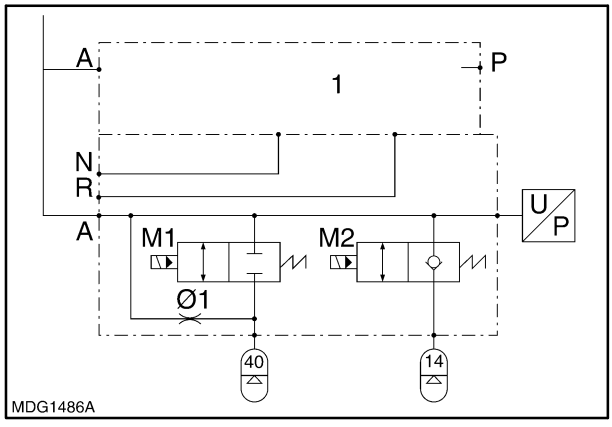


30

The two solenoid valves are coupled with the related accumulators: solenoid valve M2, in the neutral position, is connected with a check valve to the circuit and to the accumulator with 14 bar.

The solenoid valve M1 separates the circuit from the 40 bar accumulator: they are both connected by a constriction of ∅ 1 mm.

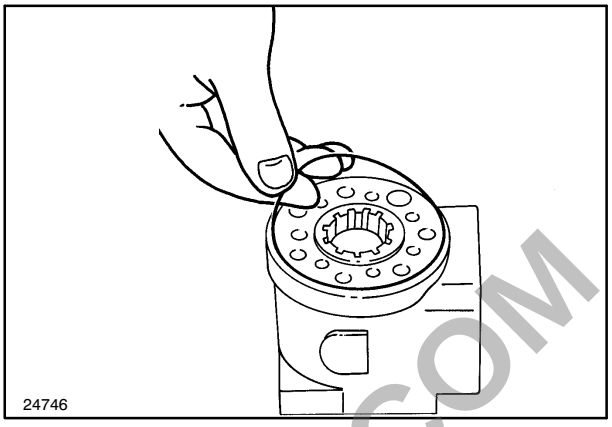
A – Oil to the cylinders, **N** – Oil to the other services, **P** – Oil from the pump, **R** – Outlet, **1** – Front lift control valve.



31

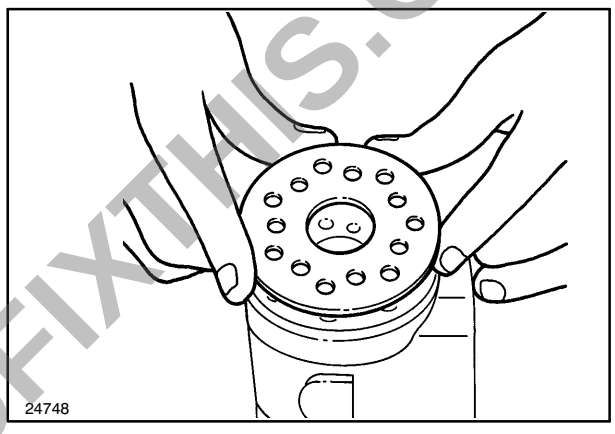
PREVIEW - YOUFIXTHIS.COM
Download full manual at youfixthis.com

51. Lubricate the O–ring seal and insert into the seat on the control valve body.



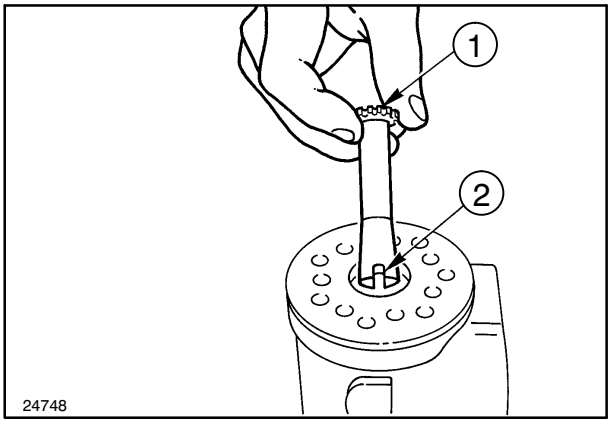
58

52. Fit the thrust washer, so that the holes coincide with the holes on the control valve body.



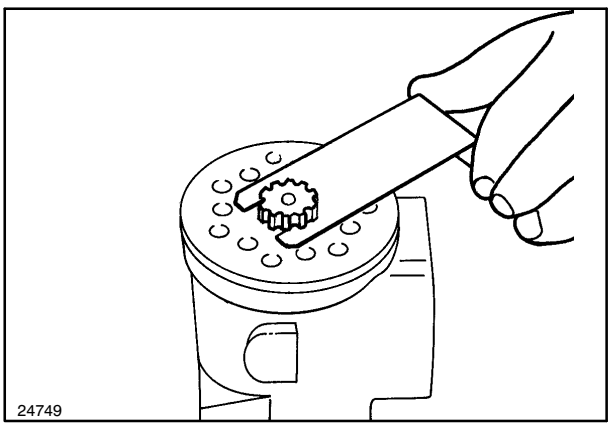
59

53. Make a reference mark on the upper part of the teeth (1), near the seat (2), to indicate the exact position of the valve–sleeve trim pin.



60

54. Fit the rotor drive shaft into the control valve body, insert tool **380000307** for retaining and centring the rotor drive shaft, between the rotor drive shaft and the thrust washer, rotating the shaft so as to facilitate coupling between the seat (2, fig. 60) and the trim pin installed on the sleeve.



61

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

NOTE: *The circular sector of the humidity indicator (15, fig. 17) must remain green throughout the recycling operation.*
If the colour of the sector tends to vary between yellow and green, or turns completely yellow, this means that the filter is saturated with moisture and therefore must be replaced.

23. On completion of the decontamination operation, close the yellow cock (18–REF) and continue to recover the refrigerant. The compressor will stop automatically when the pressure gauge (2) indicates a pressure of –0.3 bar.

24. Close the cock (6–LOW), the two cocks on the ends of the yellow (16) and blue (11) service pipes, disconnect pipes (16 and 11) and switch off the station, turning switch (5) to position ”0”.

Discharge of recovered oil

On completion of the recovery operation, any contaminated oil will be visible in the distillation chamber (4). This oil must be discharged and disposed of (in accordance with applicable regulations on the disposal of used oil).

Proceed as follows:

25. Slowly open the yellow cock (7) and discharge the recovered oil in the graduated container.

26. If no refrigerant leaks, whether major or minor, have ever been detected in the system, on recharging, replace the contaminated oil with same quantity of new oil (see page28).

Transfer of decontaminated refrigerant from cylinder (19) to an external cylinder

If for any reason the decontaminated refrigerant is not to be put back into the air conditioning system immediately, for reasons of safety it must be transferred from cylinder (19) to a homologated refillable gas container.

Proceed as follows:

27. Check that all the cocks are closed with the exception of cock (9) and that the station is switched off. Check that the container (cylinder) is large enough to contain all the refrigerant to be transferred without exceeding the permitted safety level.

28. Connect the end of the yellow service pipe (16) without the cock to the free connector (17) on the left–hand side of the pressure gauge manifold, and connect the other end (with the cock) to the red connector of the external cylinder.

29. Set switch (5) to position ”2” HEATING CYLINDER to switch on the refrigerant heater fitted to the cylinder (19) so as to facilitate the transfer of the refrigerant from the cylinder to the external cylinder.

30. Open the yellow cock (18–REF), the yellow cock on the service pipe and red cock on the external cylinder.

31. On completion of the transfer, close all cocks and switch off the station by turning switch (5) to position 0.

Evacuation and charging the cab air conditioning system using the recycling, evacuation and charging station 380000315.

NOTE: *Operations 32 ÷ 34 must only be carried out if there is no refrigerant in the graduated cylinder (31, fig. 18).*

Evacuation of the graduated cylinder (31) of the evacuation/charging station

Refer to figure 18, proceed as follows:

32. Close cocks (4, 22 and 27).

33. Open cocks (3, 9 and 10).

34. Start the pump by turning switch (19) to position ”1” to evacuate the cylinder (31). After 5 minutes close cocks (3, 9 and 10) and switch off the pump.

Charging the graduated cylinder (31) of the evacuation/charging station

If the decontaminated refrigerant in the recovery/recycling station is to be immediately put back into the tractor air conditioning system, it must be transferred from cylinder (19, fig. 17) to cylinder (31, fig. 18) of the evacuation/charging station, proceeding as follows:

35. Using figure 18, connect the end of the yellow service pipe (24) without the cock to the free connector (28) on the left–hand side of the evacuation/charging pressure gauge.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

6. Gradually increase the resistance charging load (2) (decreasing the resistance) until the ammeter indicates 45 or 65 A, according to the type of alternator.
7. Note that the voltmeter reading does not fall below 13.6 V.

Readings of less than 13.6 V indicate the presence of a faulty alternator component. Carry out the alternator component tests as described in this section.

Alternator component tests

The alternator component tests must only be carried out if the INITIAL CHECKS have shown the presence of a faulty alternator component, allowing the following checks to be performed:

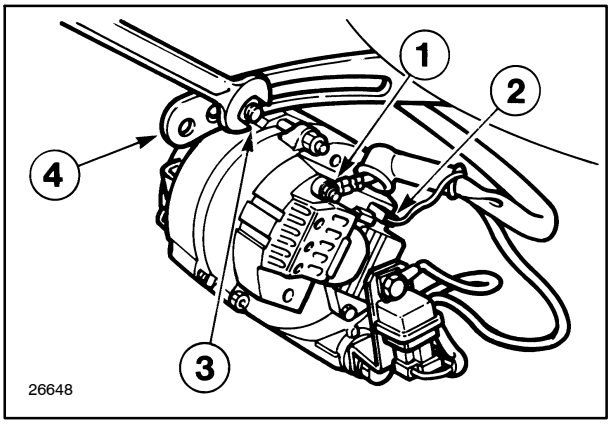
- the regulator,
- rotor field winding continuity,
- rotor brushes, springs and contact rings.

NOTE: *The previously described component tests can be carried out with the alternator installed on the tractor. In order to carry out the other alternator component tests, remove the alternator from the tractor. See the section REMOVAL, INSTALLATION AND OVERHAUL in this chapter.*

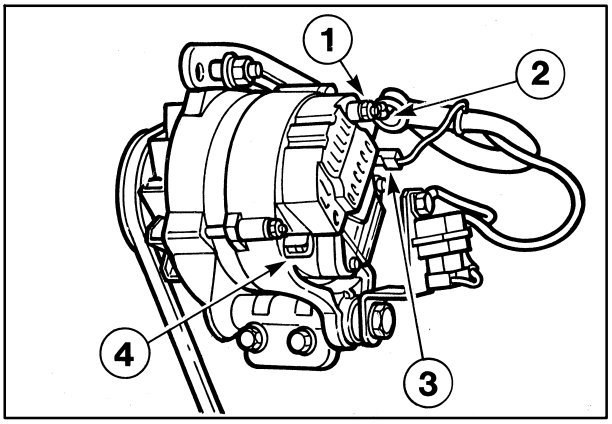
OP. 55 301 10
ALTERNATOR. Removal – Installation

IMPORTANT: *Before disconnecting the alternator wires, make sure that the starter key is in the OFF position – alternator removal.*

1. Raise the bonnet.
2. Carry out operation **90 100 80** Protective mesh, only removal of right–hand guard (see section 90).
3. Disconnect the two wires B+ (1, fig. 11) and D+ (2, fig. 11) from the alternator.
4. Loosen and remove the nut and bolt (3, fig. 11) fastening the alternator to the belt tensioner (4, fig. 11).
5. Move the alternator so as to slacken the tension in the belt (1, fig. 13), then remove it from the pulley (2, fig. 13) from the alternator.



10

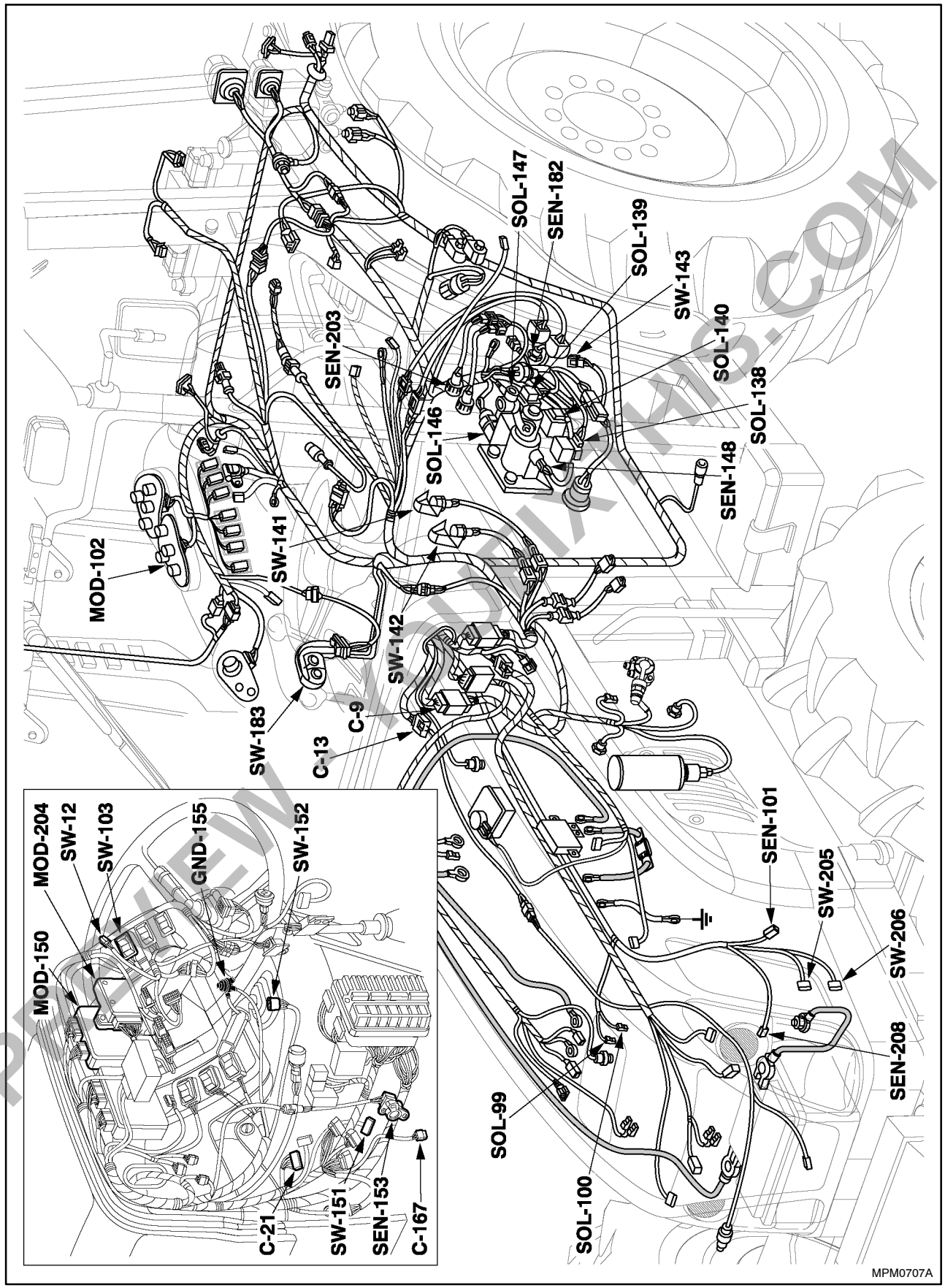


11

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

WIRING DIAGRAMS 22–23–24–25–26



PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

FRONT AND REAR ELECTRONIC LIFT CIRCUIT (Diagram 5)

GND–7	Dashboard ground
C–18	Rear electronic lift connection (8 PIN)
MOD–27	Rear lift electronic control unit
SW–34	Rear electronic lift up/down switch
SW–37	LH rear external electronic lift up/down switch
GND–38	Rear ground
MOD–40	Working depth adjustment and rear electronic lift control panel
MOD–43	Rear electronic lift control panel
SW–44	RH rear external electronic lift up/down switch
SEN–131	Draft sensor
SEN–132	Arms position sensor
SOL–133	Rear electronic lift DOWN solenoid valve
SOL–134	Rear electronic lift UP solenoid valve

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

VERSION 3

PERMANENT FOUR–WHEEL DRIVE, ELECTROHYDRAULIC DIFFERENTIAL LOCK, REAR MECHANICAL LIFT

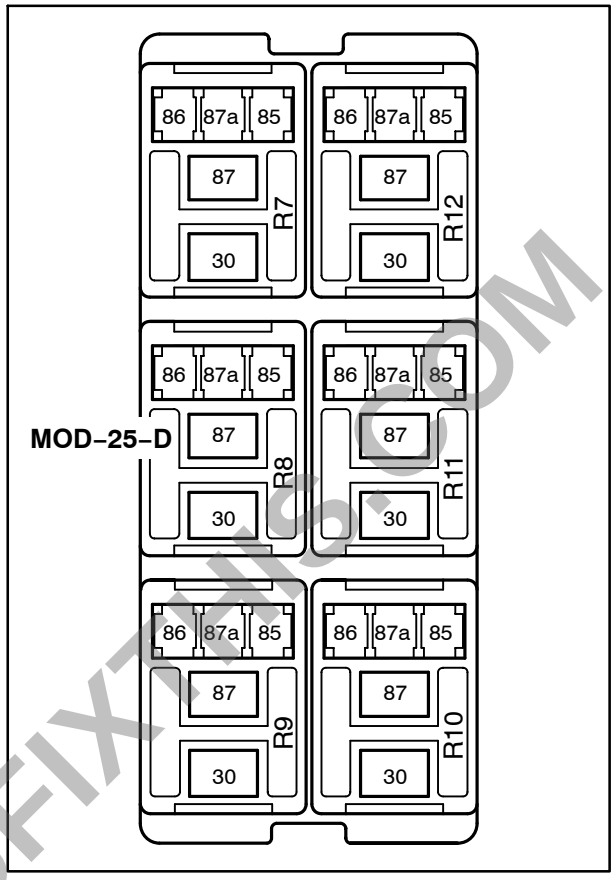
Description	Wiring diagram circuits	Page
Circuit 1	Four–wheel drive circuit	138
Circuit 2	Power socket circuit	140
Circuit 3	Brakes, brake lights, differential lock circuit	142
Circuit 4	Direction indicator and hazard lights circuit (control switches and flasher)	144
Circuit 5	Grid–heater circuit	148
Circuit 6	Instrument and sensor circuit	150
Circuit 7	Power take–off and safety device circuit	152
Circuit 8	Seven–pin socket and number plate light circuit	154
Circuit 9	External lights and horn circuit	158
Circuit 10	Power supplies 1 circuit	160
Circuit 11	Power supplies 2 circuit	162
Circuit 12	Trailer brake circuit	164
Circuit 13	Intermediate connections circuit	166
Circuit 14	Engine, sensors and transmitters circuit	170
Circuit 15	Diagnostics connection CAN line circuit	172
Circuit 16	Power Shuttle 8+8 / 16+16 circuit (dashboard side)	176
Circuit 17	Power Shuttle circuit (transmission side)	178
Circuit 18	Power Shuttle 32+16 / 44+16 circuit (dashboard side)	180
Circuit 19	Power Shuttle circuit (transmission side)	182
Circuit 20	Front PTO circuit	184

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Pin	Col.	Sect.	Pin	Col.	Sect.
R1_30	C	1.0	R4_85	–	–
R1_85	CB	0.5	R4_86	–	–
R1_86	CL	0.5	R4_87	–	–
R1_87	H	0.5	R4_87A	–	–
R1_87A	C	1.0	R5_30	–	–
R2_30	–	–	R5_85	–	–
R2_85	–	–	R5_86	–	–
R2_86	–	–	R5_87	–	–
R2_87	–	–	R5_87A	–	–
R2_87A	–	–	R6_30	L	2.5
R3_30	–	–	R6_85	N	0.5
R3_85	–	–	–	N	1.0
R3_86	–	–	R6_86	BR	0.5
R3_87	–	–	R6_87	B	1.0
R3_87A	–	–	–	B	1.5
R4_30	–	–	R6_87A	–	–

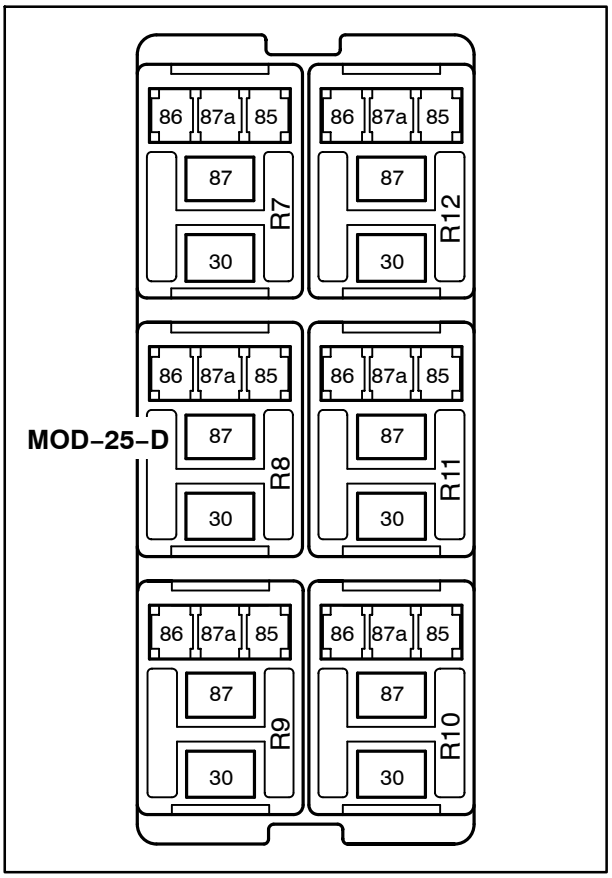
For model without cab, version 2.



111

Pin	Col.	Sect.	Pin	Col.	Sect.
R1_30	–	–	R6_30	L	2.5
R1_85	–	–	R4_85	–	–
R1_86	–	–	R4_86	–	–
R1_87	–	–	R4_87	–	–
R1_87A	–	–	R4_87A	–	–
R2_30	V	1.5	R5_30	–	–
R2_85	N	0.5	R5_85	–	–
R2_86	GR	0.5	R5_86	–	–
R2_87	VN	0.5	R5_87	–	–
–	VN	1.5	R5_87A	–	–
R2_87A	V	1.5	R6_85	N	0.5
R3_30	H	1.5	–	N	1.0
R3_85	N	0.5	R6_86	BR	0.5
R3_86	GR	0.5	R6_87	B	1.0
R3_87	HN	1.5	–	B	1.5
R3_87A	H	1.5	R6_87A	–	–
R4_30	–	–	–	–	–

For model with cab, version 1.



112

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

SECTION 55 - ELECTRICAL SYSTEM

Chapter 9 - FAULT CODES

INDEX

Section	Meaning	Page
	List of fault codes for EDC electronically controlled rear hydraulic lift (SA)	2
	List of transmission fault codes (SB)	3
	List of electric fault codes	4
	List of ADIC control panel fault codes (ZA)	5
	Diagnosis of fault codes for EDC electronic lift (SA)	6
	Diagnosis of transmission fault codes (SB)	35
	Diagnosis of electric codes	84
	Diagnosis of ADIC control panel codes (ZA)	91

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

2342 - CLUTCH A SOLENOID SHORTED TO GROUND OR CIRCUIT OPEN.

Control module: Power Shuttle control unit

NOTE: *The tractor only runs in reverse gear.*

Possible fault modes:

1. Solenoid valve faulty
2. Wiring fault
3. ECU fault

Remedies:

NOTE: *When the cause of the fault code has been rectified, clear the fault code and test the system for normal operation.*

1. Check the solenoid valve with HH diagnostic programs.

   A. Enter the program **H9** of the control unit **SB**, select the channel **ch43** or **ch53**. With the engine running, put the shuttle lever into forward drive, if the display does not show a number that from approximately 0, with the clutch pedal pressed, reaches up to approximately 300÷400, with clutch pedal released, continue to phase 2.

   B. If the values displayed are okay, while still in H9, wiggle the harness, the solenoid valve connector **SOL-146**, the main cable connector **C-9**, and the connector of the control unit **MOD-150** to check for an intermittent circuit. In this case the display may change. Repair or replace as necessary.

2. Check the clutch A solenoid valve connector **SOL-146**, the main connector **C-9**, and the connectors of the control unit **MOD-150**.

   A. Ensure that the connectors are connected, not damaged, the pins are in the correct position and that the fit is tight. Repair or replace as necessary.

   B. If the connectors are okay, continue to step 3.

3. Check the clutch A solenoid valve.

   A. Disconnect connector **SOL-146**. Measure the resistance in the connector:
   SOL-146 between pins **A** and **B**
   If the resistance indicated is not approximately 10 Ω, remove and replace the clutch A solenoid valve.

   B. If the resistance is okay, continue to step 4.

4. Check the clutch A solenoid for a short to ground.

   A. Check between the component side of connector:
   SOL-146 pin **A** and **ground**
   SOL-146 pin **B** and **ground**
   If a short to ground is indicated, remove and replace the clutch solenoid valve.

   B. If no short to ground is indicated, continue to step 5.

5. Check for a short to ground.

   A. Disconnect the connectors **MOD-150**. Check between:
   SOL-146 pin **A**, wire **(AN)** and **ground**
   SOL-146 pin **B**, wire **(AR)** and **ground**
   If a short to ground is indicated, repair or replace the harness as required.

   B. If no short to ground is indicated, continue to step 6.

6. Check for an open circuit.

   A. Check between:
   SOL-146 pin **A**, wire **(AN)** and **MOD-150** pin **5**, wire **(AN)**
   SOL-146 pin **B**, wire **(AR)** and **MOD-150** pin **26**, wire **(AR)**
   If an open circuit is indicated, repair or replace the harness as required.

   B. If the harness is okay, download the correct level software. If the error is repeated, remove and replace the control unit.

For the connectors, components and wiring diagrams affected, see (Connectors C-9, SOL-146 and MOD-150 sect. 55, chap. 8, figs. 42-44, figs. 276-277 and figs. 280-281), (Components, diagram 24÷28. sect. 55, chap. 6, page 235), (Diagram 25-27 sect. 55, chap. 6, pages 239-243).

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

LIFT CALIBRATION VALUES (SA)

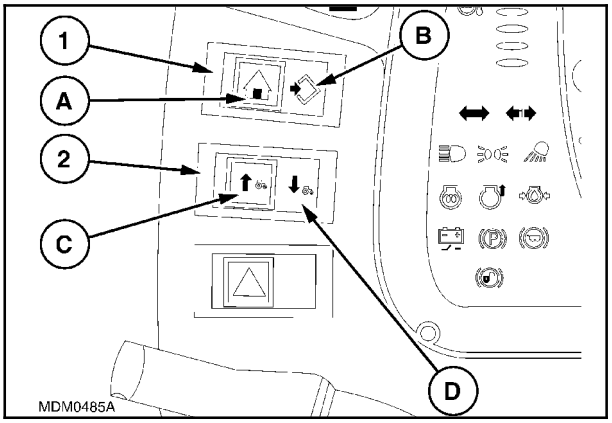
- Select the module (SA) and access the H2 MENU proceeding as described on page 2.
- Using the switch (2) select the channel number.

CHANNEL	ELEMENT	RANGE OF VALUES
Ch. 1	Lifting valve.	1000 to 4000
Ch. 2	Lowering valve.	1000 to 4000
Ch. 3	Lift arms position sensor. (TOP)	32000 to 40000
Ch. 4	Lift arms position sensor. (BOTTOM)	4000 to 12000
Ch. 5	Working depth control. (TOP)	28000 to 40000
Ch. 6	Working depth control. (BOTTOM)	400 to 8000
Ch. 7	Height limit control knob. (TOP)	28000 to 40000
Ch. 8	Height limit control knob. (BOTTOM)	400 to 8000
Ch. 9	Lowering limit control knob. (TOP)	28000 to 40000
Ch. 10	Lowering limit control knob. (BOTTOM)	400 to 8000
Ch. 11	Drop rate control knob. (TOP)	28000 to 40000
Ch. 12	Drop rate control knob. (BOTTOM)	400 to 8000
Ch. 13	Combined draft/position control knob. (TOP)	28000 to 40000
Ch. 14	Combined draft/position control knob. (BOTTOM)	400 to 8000

H3 - OPTIONS (SB - ZA - SD - SC)

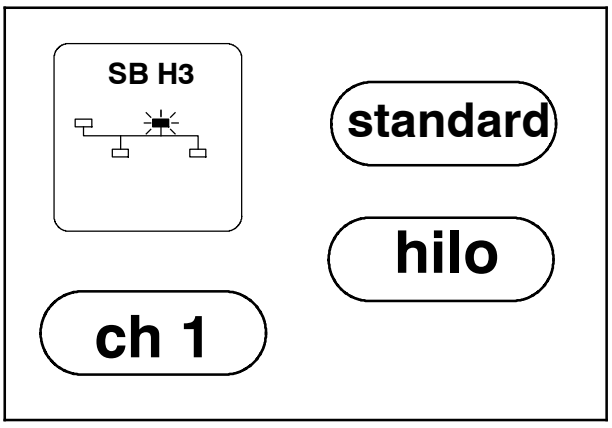
GEARBOX OPTIONS (SB)

- Select the module (SB) and access the H3 MENU proceeding as described on page 2.



20

- The display will show “ch__”, using the switch (2) select the desired channel.
- After a countdown, the “standard” or “hilo” options or specific numbers will be displayed, select the desired option with the switch (2) and save it with the switch (1) in position (B), saving will be confirmed by an audible warning.
- Using the switch (1, fig. 20) in position (A), exit the gearbox option and go back to the previous point.



21

PREVIEW - YOUFIXTHIS.COM
Download full manual at youfixthis.com

PREVIEW ONLY

You're viewing 25 of 1194 pages

The full manual includes:

- All 1194 pages, complete
- Searchable PDF (find any keyword)
- No watermarks
- Instant download
- Print-ready quality

GET FULL MANUAL NOW

Case IH Quantum 65C, Quantum 75C, Quantum 85C, Quantum 95C Service Manual



Scan or click anywhere
youfixthis.com

Click anywhere on this page to get the full manual