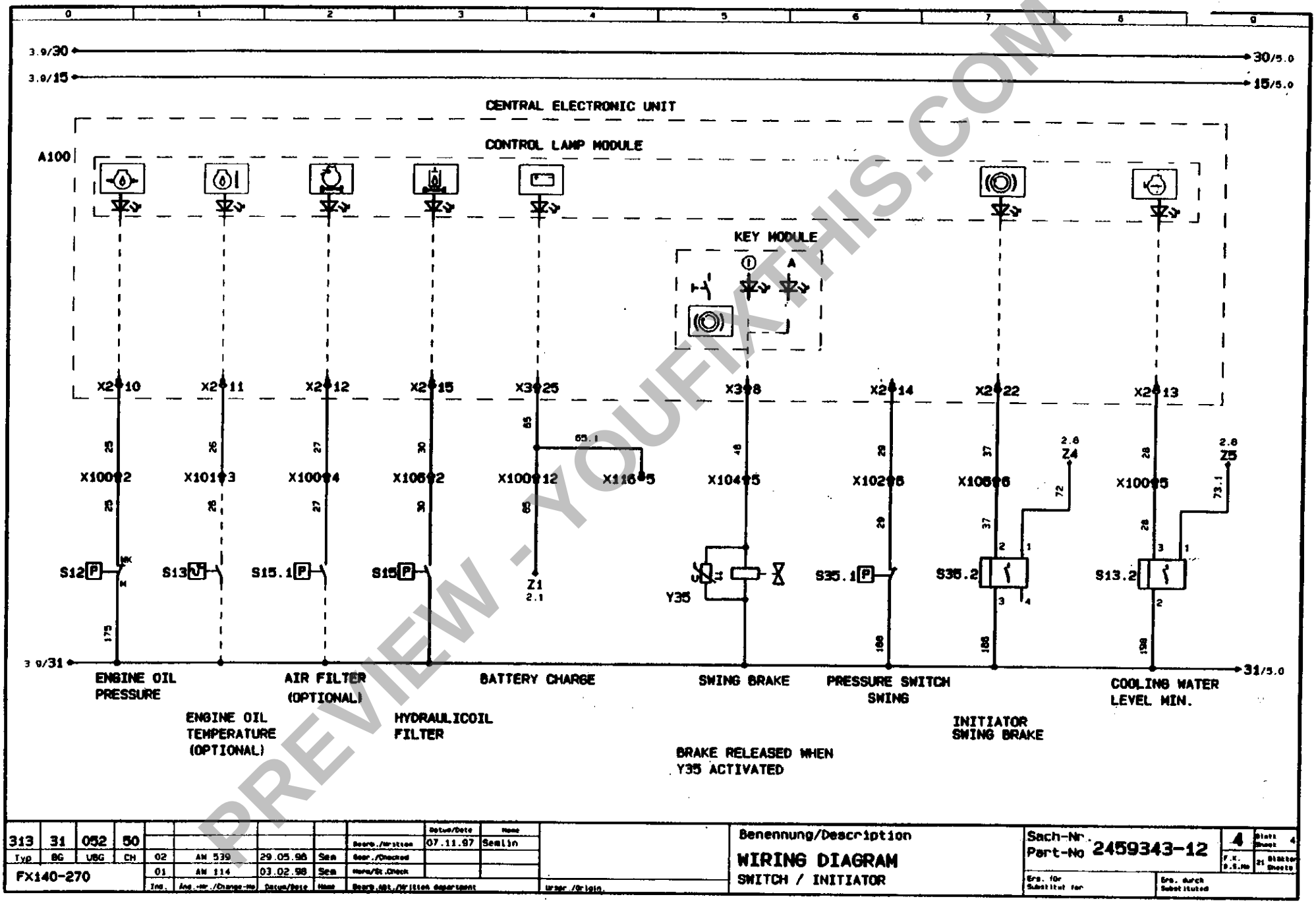


313	31	052	50					Datum/Date	Name	
Typ	BG	UBG	CH	02	AN 539	29.05.98	Sem	Bearb./Written	07.11.97	Semlin
FX140-270				01	AN 114	03.02.98	Sem	Gepr./Checked		
				Ind.	Aend.-Nr./Change-No	Datum/Date	Name	Name/Dt./Check		
								Bearb.Abt./Written department		

Ursprung/Origin

Benennung/Description

WIRING DIAGRAM
SWITCH / INITIATOR

Sach-Nr. / Part-No **2459343-12**

Ers. für / Substitut for

Ers. durch / Substituted

4 Blatt / Sheet 4

21 Blätter / Sheets

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Opening front window
(optional equipment)

2472064

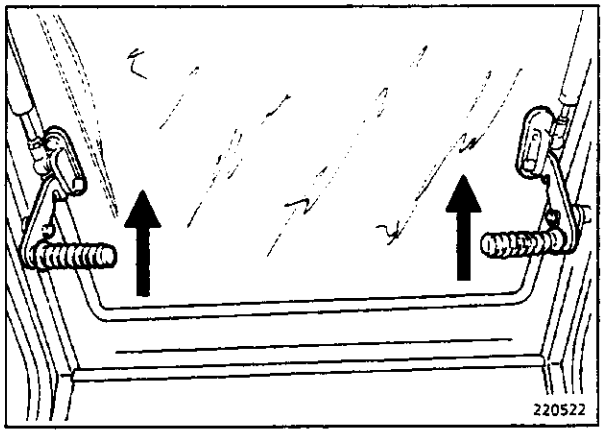


Fig. 13

Ventilation position:

- Raise two handles (Fig. 13), swing window out and engage handles.

The front window can also be opened fully:

- Raise two handles (Fig. 13), swing out past engaging point.
  The front window is held in limit position by two gas-filled spring devices.

To close the front window, pull to driver's cab and lock using handles. □

Cab interior light

2472068

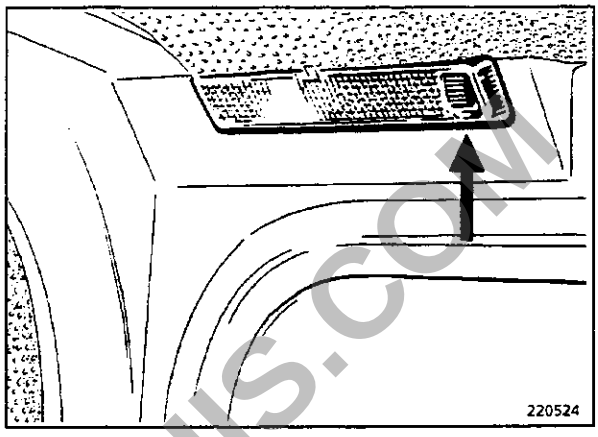


Fig. 14

Switch the interior light on and off using the switch (Fig. 14).

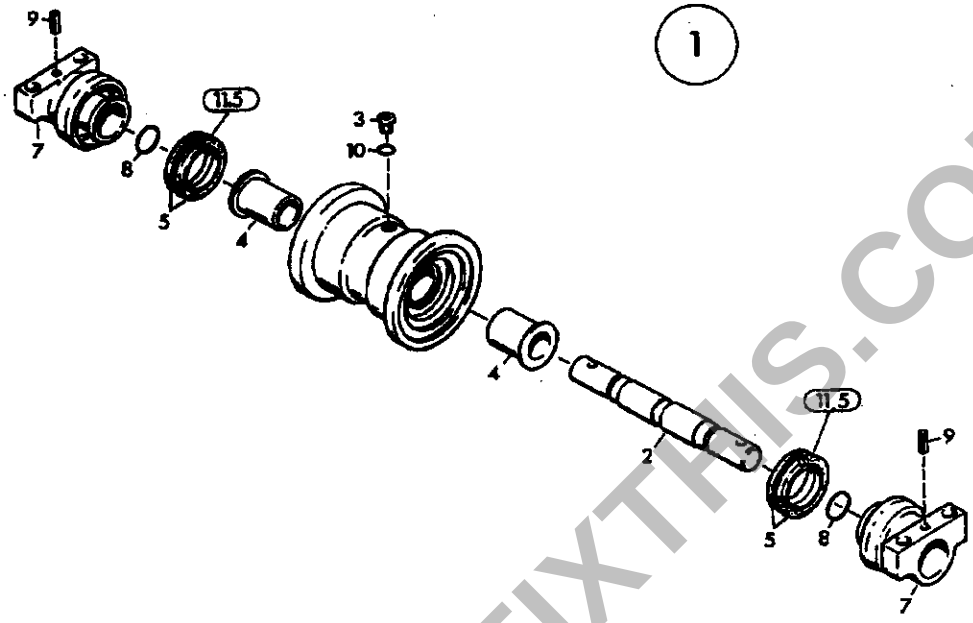
The lamp may be operated even when the electrical system is switched off.

The batteries could be run down if the interior light is left on too long.

Therefore, please switch the interior light off when you leave the machine. □

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com



2 283 022.010

PREVIEW - YOUFIXTHIS.COM

FIATALLIS

IDLER ROLLER

06.150

FX200 / 39101 - .....

T 2283022 - 001
B 2283022 - 010

Item	Quan.	ME	Part No.	Description
001	1	00	**73171596**	IDLER ROLLER
002	1	00	**73171597**	AXLE
003	1	00	**73171598**	SREW PLUG
004	2	00	**73171599**	BUSHING
005	2	00	**73171600**	SEALING RING
007	2	00	**73171601**	LID
008	2	00	**73171602**	O-RING
009	2	00	**73171603**	LOCKING PIN
010	1	00	**73171604**	ROUND SEALING RING
011	2	00	**73171605**	DUO-CONE SEAL

Download full manual at youfixthis.com

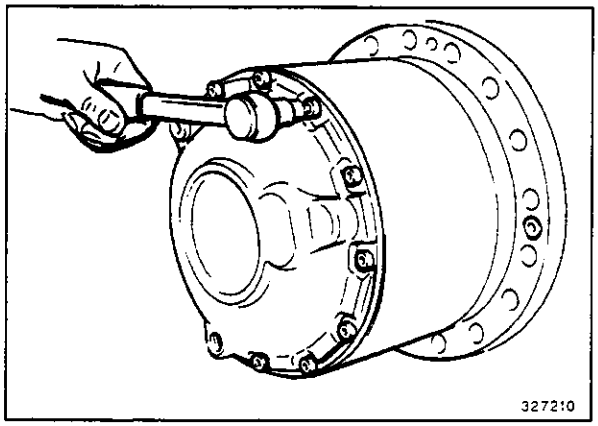


Fig. 62
Turn in the screws and tighten.
For the tightening torque, refer to Table 1 in the Annex.

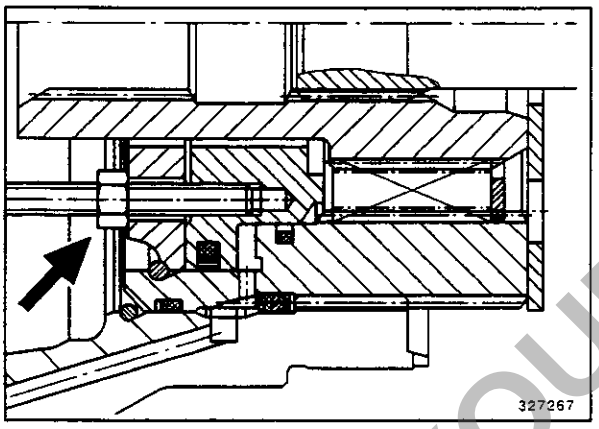


Fig. 63
Remove both M6 screws from the brake piston.

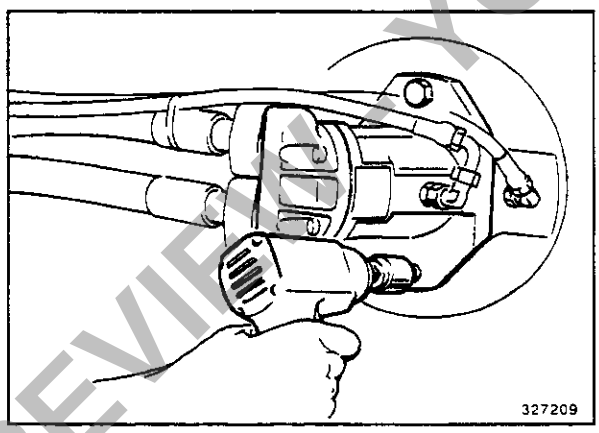


Fig. 64
Fit the travelling motor with a new O-ring.
Secure the ring gear fastening screws with liquid screw locking agent (P/No. 73171473) and tighten.
For the tightening torque, refer to Table 1 in the Annex.

Start-Up

- Fill the gearbox with gear oil according to the Operating Instructions.
- Vent the brake.

  For this purpose, loosen the screwing of the brake line on the gearbox for approx. one turn. Then, by activating the "travelling right" or "travelling left" functions, apply brake pressure and allow the brake oil to come out until it emerges free of bubbles. □

PREVIEW ONLY YOUFIXTHIS.COM

Download full manual at youfixthis.com

No.	Quantity	Designation	Location
93			
94			
95	1	Load limit regulator PMS3	Cab
96			
97			
98			
99			
100	2	Travel drive complete, with:	Travel unit
101	(1)	Travel hydraulic motor T12 - 60	Travel gearbox
102	(1)	Travel brake valve	Travel gearbox
103	(1)	Travel gearbox	Travel drive
104			
105			
106			
107			
108			
109			
110			
111			
112			
113			
114			
115			
116			
117			
118			
119			

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

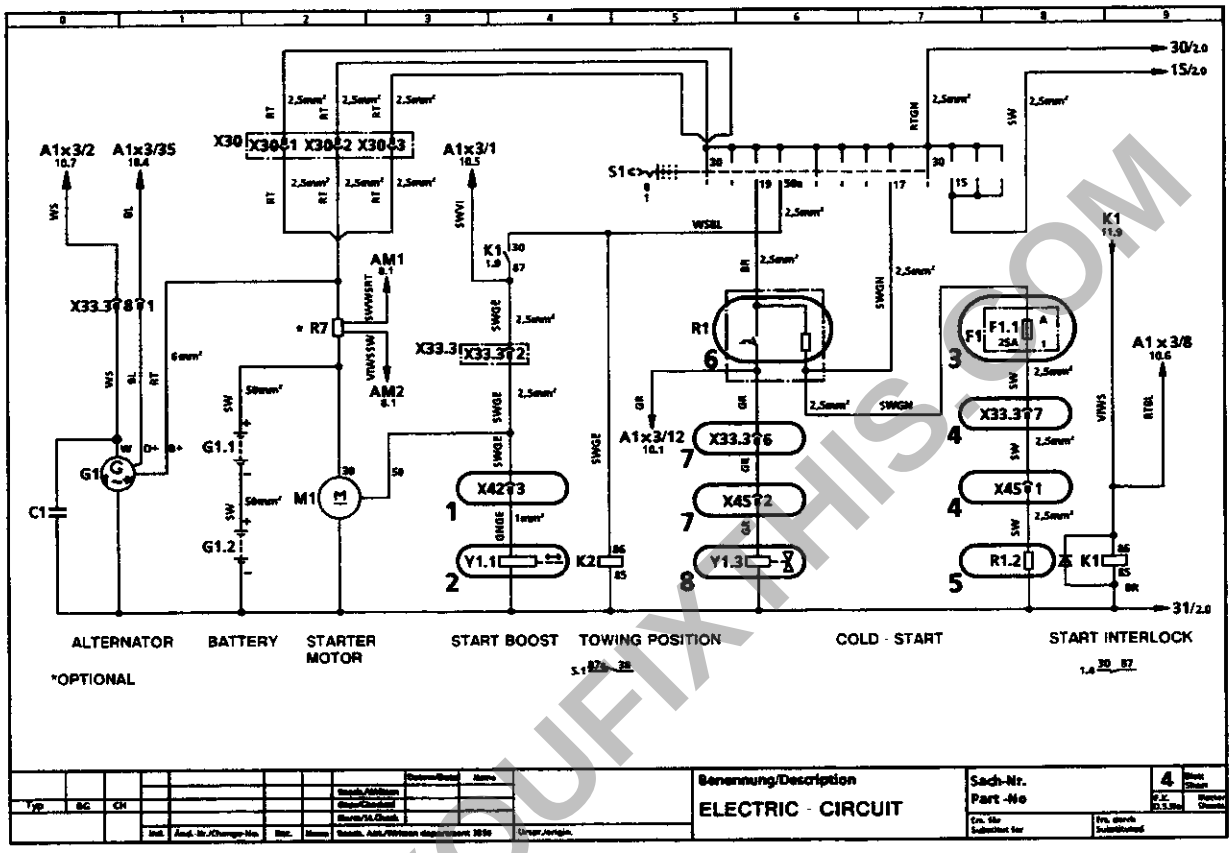


Fig. 3

3281861

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

PREVIEW YOUFIXTHIS.COM

Operating Instructions

Electronic diagnostic System (EDS)

for Pump Control System (PCS 3)

O&K Baumaschinen

Download full manual at youfixthis.com

The FIATALLIS operating manual is in 5 sections; the sections are designed for different target groups:

2732589

Operating manual		Target group
Part 1	INTRODUCTION FUNDAMENTAL SAFETY INSTRUCTIONS	Operating personnel + Inspection and servicing personnel + Repair personnel
Part 2	OPERATION	Operating personnel The operating personnel must have know-how relevant to the operation and the application of this or comparable machines.
Part 3	INSPECTION AND SERVICING	Inspection and servicing personnel The inspection and servicing personnel must have know-how relevant to the inspection and servicing of this or comparable machines.
Part 4	REPAIR WORK	Repair personnel The repair personnel must have know-how and experience relevant to the repair of this or comparable machines.
Part 5	ANNEX	Operating personnel + Inspection and servicing personnel + Repair personnel

□

PREVIEW - YOUFIXTHIS.COM

Copyright by FIATALLIS NORTH AMERICA. Reproduction of the text and illustrations or any part thereof is not permitted.

73175846 (273266401) Issue 2, III-1998

Download full manual at youfixthis.com

Braking and stopping 2472326

Braking travelling movement

The machine brakes the travelling movement and stops as soon as the travel pedals are released.

The travel pedals return to the middle position automatically.

Parking brake / travel

The multi-disc brakes in the travel gear units operate as parking brakes.

They are actuated automatically when the machine is at a standstill. When the travelling movement starts they are released automatically. □

Altering travelling speed 2732716

- Deflect travel pedals (61, 63, Fig. 4) or
- Adjust engine speed using potentiometer (45).

High engine speed or increased deflection of drive pedals causes higher travelling speed.

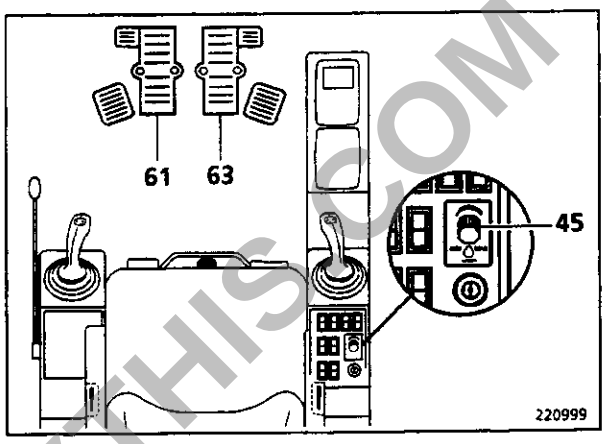


Fig. 4

Activating fast gear

The travel motors can be switched to a second stage (fast gear). The machine then reaches a travelling speed of approx. 5 km/h (3.1 mph).

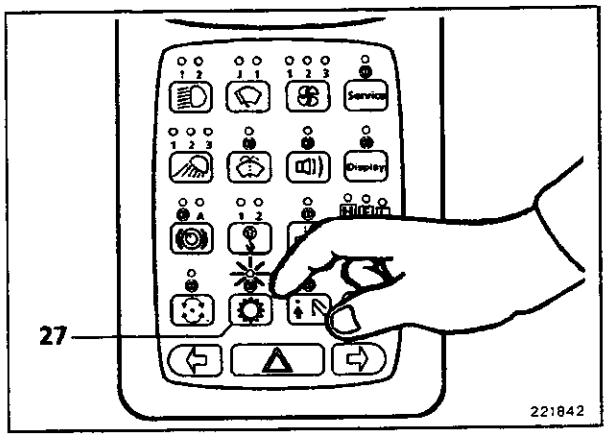


Fig. 5

- Activating fast gear:
  Depress key (27, Fig. 5) on the control panel once, LED **I** lights up.
- Deactivating fast gear:
  Depress key (27) until the LED does not light.

□

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Checking the drive belts

2732895

WARNING

Risk of injury from rotating fan blades and running V-belts.

Switch off the engine before opening the engine compartment.

Risk of burning due to hot parts on engine, exhaust and radiator.

Never begin servicing and repair work until engine, exhaust and radiator have cooled down.

- Open engine compartment.

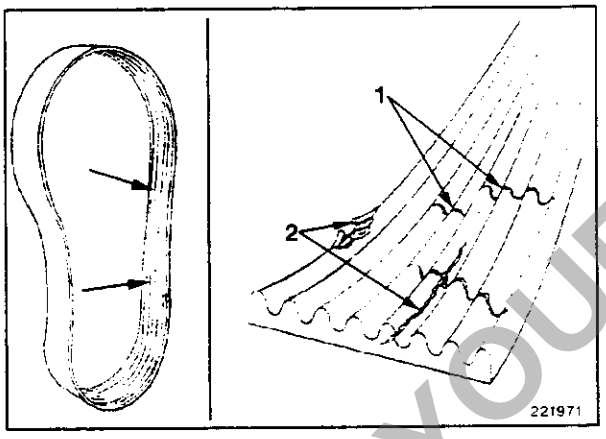


Fig. 3

- Visually inspect the belts.
- Check the belts for intersecting cracks.
  Transverse cracks (1, Fig. 3) are acceptable.
  Cracks in direction of belt length that intersect with traverse cracks are not acceptable (2).
- Replace belt if it is frayed or has pieces of material missing.
  For more information about adjustment and replacement see: "Engine operation and maintenance manual". □

Checking the coolant level

2732736

WARNING

Danger of scalding due to hot coolant!

Therefore only screw off the cap of the cooling system when the engine is cold and at a standstill.

- Open engine compartment.

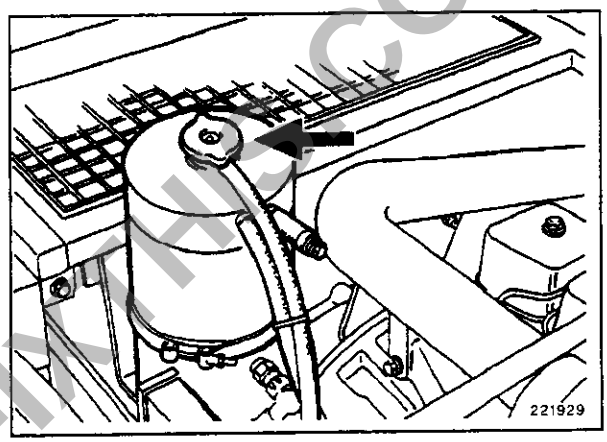


Fig. 4

- Carefully screw off cap (Fig. 4) from filler neck. (Excess pressure is released from cooling system).
- Coolant level must be at the small metal banner inside the filler tube. Top up cooling agent if required.
  (For grade and mixing proportions see: "Engine operation and maintenance manual).
- Screw cap back on. □

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

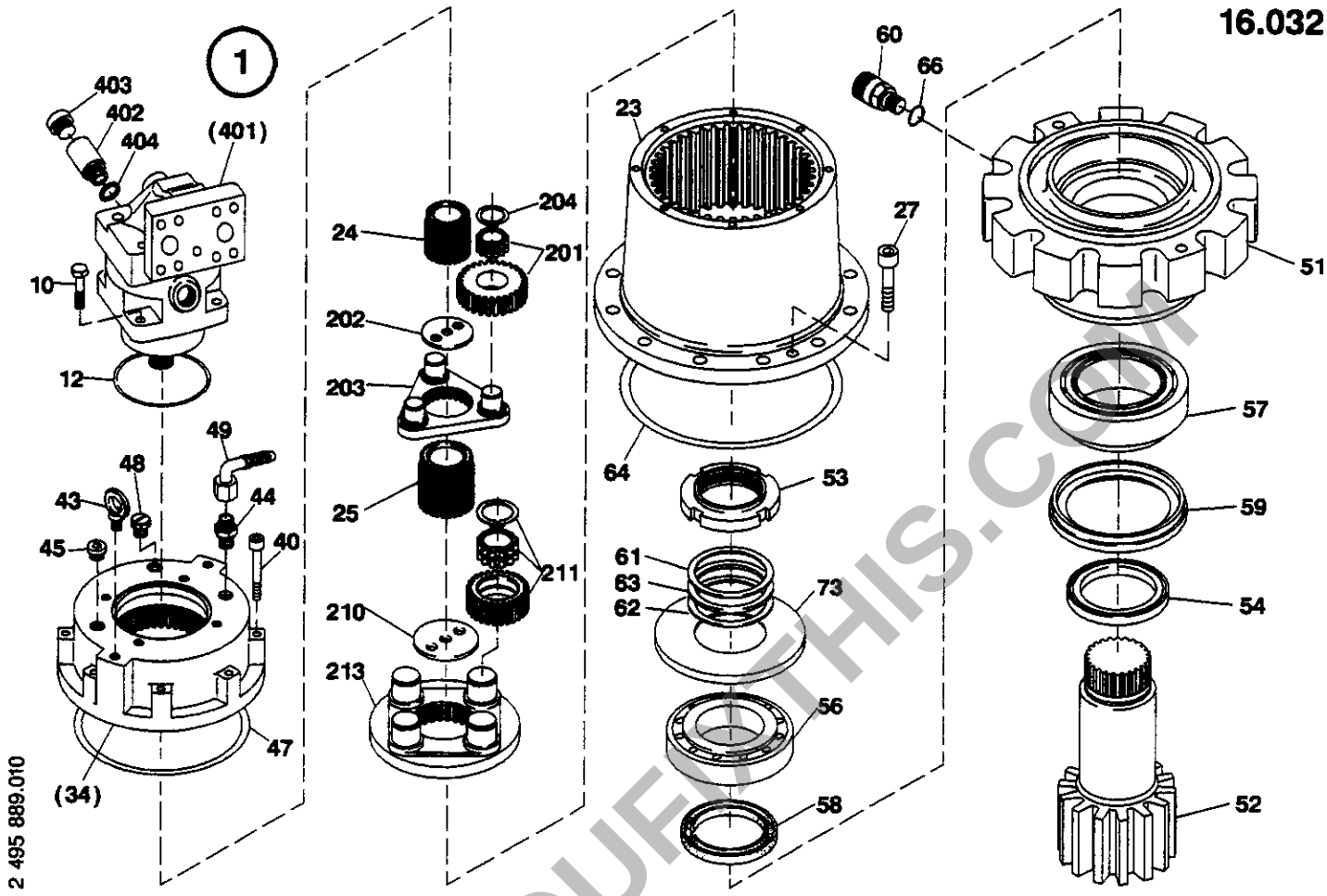
Table of contents

SURVEY | Machine type **FX200** | Machine no.

No. ofassembly		Description
23.050 -	2495629	ADDING VALVE
13.502 -	2782104	AIR FILTER
13.501 -	2782105	AIR FILTER MOUNTING PARTS
22.510 -	2443934	ARRESTOR ROTOR
22.110 -	2495890	AXIAL PISTON MOTOR
22.110 -	2283591	AXIAL PISTON MOTOR
24.052 -	2284448	BACKHOE CYLINDER
24.050 -	2284449	BACKHOE CYLINDER INSTALL.MATERIAL
12.010 -	2443119	BALLAST INSTALL.MATERIAL
12.010 -	2783416	BALLAST INSTALL.MATERIAL
31.300 -	2782122	BATTERY INSTALL.MATERIAL
01.670 -	2495967	BEARING BOOM
01.650 -	2283840	BEARING FRAME
13.020 -	2782075	BEARING MOTOR
34.300 -	2444897	BEARING OPERATOR'S CAB
24.022 -	2443205	BOOM CYLINDERS
24.020 -	2443206	BOOM CYLINDERS INSTALL.MATERIAL
34.140 -	2496981	BRACKET INSTALL.MATERIAL
34.140 -	2444887	BRACKET INSTALL.MATERIAL
35.020 -	2284176	BRACKET INSTALL.MATERIAL
34.140 -	2496981	BRACKET INSTALL.MATERIAL
35.020 -	2284176	BRACKET INSTALL.MATERIAL
34.140 -	2444887	BRACKET INSTALL.MATERIAL
34.140 -	2496981	BRACKET INSTALL.MATERIAL
34.140 -	2444887	BRACKET INSTALL.MATERIAL
34.141 -	2444874	BRACKET MOUNTING PARTS
34.141 -	2444877	BRACKET MOUNTING PARTS
34.141 -	2444874	BRACKET MOUNTING PARTS
34.141 -	2444877	BRACKET MOUNTING PARTS
34.141 -	2444874	BRACKET MOUNTING PARTS
34.220 -	2444896	CAB DOOR
34.012 -	2496795	CAB MODULE
34.012 -	2782596	CAB MODULE
34.012 -	2496795	CAB MODULE
34.210 -	2443232	CAB ROOF
23.152 -	2496165	CHECK VALVE
06.200 -	2444104	CLAMPING CYLINDER GREASE FILLING
13.400 -	2782790	COLD-START SYSTEM
15.122 -	2782723	COMBINED COOLER WATER/OIL
10.010 -	2444764	CONTAINER INSTALL.MATERIAL
10.010 -	2782072	CONTAINER INSTALL.MATERIAL
10.010 -	2444764	CONTAINER INSTALL.MATERIAL
10.010 -	2782072	CONTAINER INSTALL.MATERIAL
10.010 -	2444764	CONTAINER INSTALL.MATERIAL

PREVIEW-YOUFIXTHIS.COM

Download full manual at youfixthis.com



PREVIEW - YOUFIXTHIS.COM

16.032

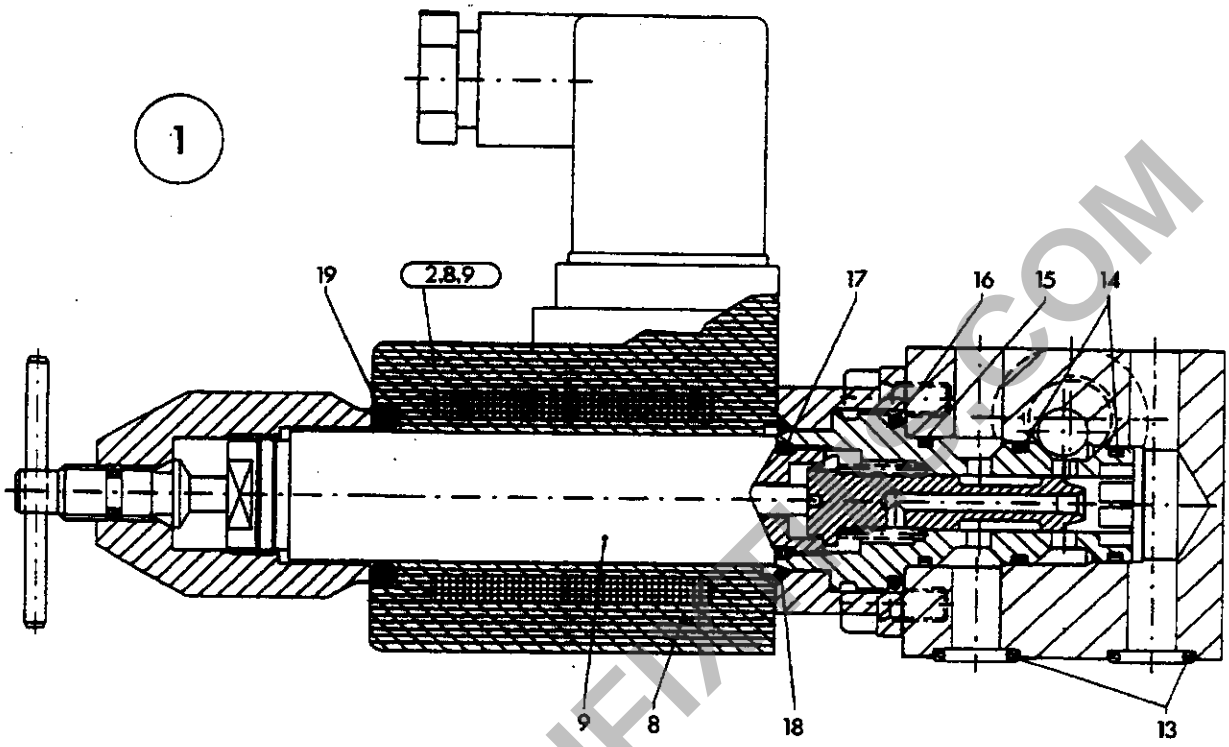
SLEWING GEAR COMPLETE

T 2495889 - 000
B 2495889 - 010

FX200 / 39101 - .....

Item	Quan.	ME	Part No.	Description
211	1	00	**73175505**	SET OF SPUR GEARS
213	1	00	**73175506**	PLANETARY CARRIER
401	1	00		**22.110 2495890** AXIAL PISTON MOTOR
402	1	00	**73175507**	ADAPTER
403	1	00	**73172404**	SCREW PLUG
404	1	00	**73170142**	SEALING RING

Download full manual at youfixthis.com



/ 696.010

SOLENOID VALVE

23.232

FIATALLIS

FX200 / 39101 - .....

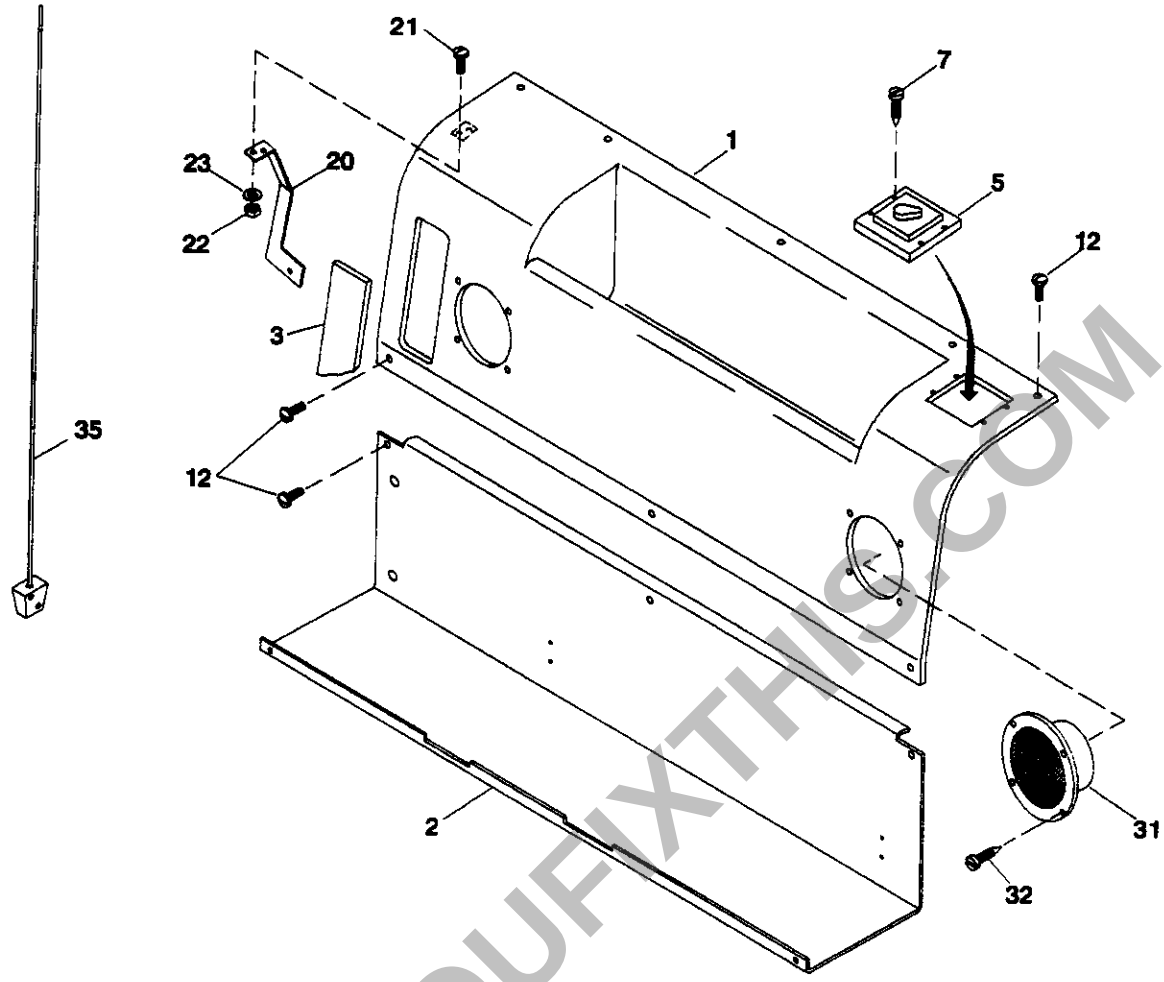
T 2249696 - 000
B 2249696 - 010

Item	Quan.	ME	Part No.	Description
001	1	00	**73171253**	VALVE
002	1	00	**73170664**	SOLENOID VALVE
008	1	00	**73171254**	SOLENOID COIL
009	1	00	**73171255**	PIPE
013	2	00	**73170496**	O-RING
014	2	00	**73171256**	O-RING
015	1	00	**73171257**	O-RING
016	1	00	**73171258**	O-RING
017	1	00	**73171259**	ROUND SEALING RING
018	1	00	**73171260**	O-RING
019	1	00	**73171261**	O-RING

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

ME: 00 = Stück/piece 13 = m 26 = m^2 39 = m^3 43 = kg 50 = l (litre)



2 496 871.010

RADIO INSTALL.MATERIAL

31.510

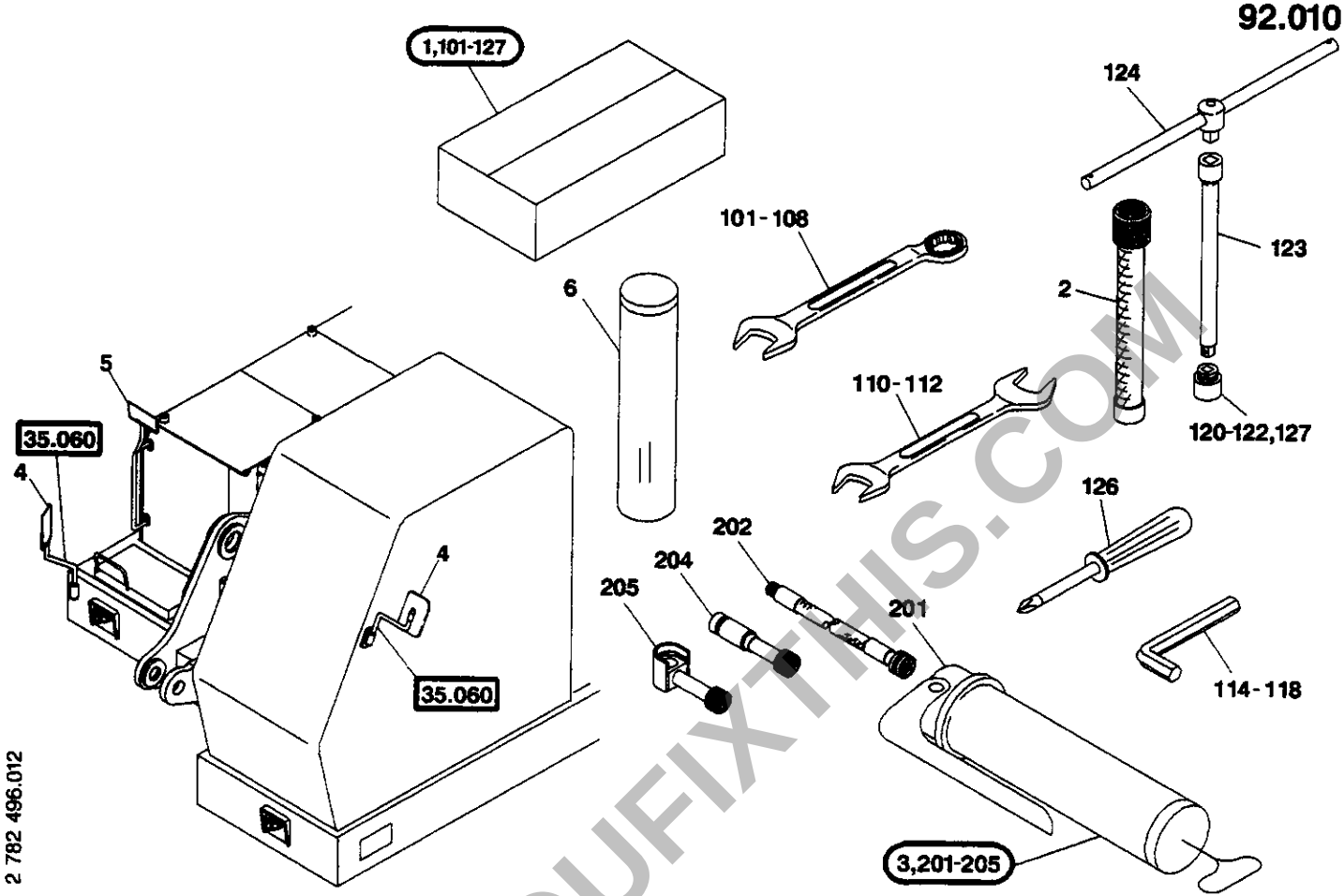
T 2496871 - 000
B 2496871 - 010

FX200 / 39101 - .....

Item	Quan.	ME	Part No.	Description
001	1	00	**73171169**	COMPUTER HOLDER
002	1	00	**73171170**	COVER
003	1	00	**73171171**	BLIND
005	1	00	**73171172**	CONTROL ELEMENT
007	4	00	**73171173**	SELF-TAPPING SCREW
012	10	00	**73171030**	CLAMPING SCREW
020	1	00	**73171174**	BRACKET
021	2	00	**73171030**	CLAMPING SCREW
022	3	00	**73170963**	HEXAGON NUT
023	3	00	**73170834**	DISK/WASHER
031	2	00	**73171175**	BLIND
032	8	00	**73171173**	SELF-TAPPING SCREW
035	1	00	**73171176**	ANTENNA

ME: 00 = Stück/piece 13 = m 26 = m^2 39 = m^3 43 = kg 50 = l (litre)

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



92.010

TOOL SET

FIATALLIS

FX200 / 39101 - .....

T 2782496 - 001
B 2782496 - 012

Item	Quan.	ME	Part No.	Description
112	1	00	**73176164**	KEY 32X36 .
114	1	00	**73171012**	SCREW DRIVER 4 .
115	1	00	**73176165**	SCREW DRIVER 5 .
116	1	00	**73176166**	SCREW DRIVER 6 .
117	1	00	**73176167**	SCREW DRIVER 8 .
118	1	00	**73176168**	SCREW DRIVER 10 .

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Schwenkpumpe **Swing pump**	**Einheit** **Unit**	**FX 200** Nr./ No. 39 101 -
Bauart Type		Verstellpumpe mit Drehwerkssteuerung Variable-displacement pump with pressure limitation
Typ Model		A4VG40DWD
Sach-Nr. Part No.		73177238
Geometrisches Fördervolumen Displacement	cm^3/U cc/rev.	40
Betriebsdrehzahl (= Nenndrehzahl Dieselmotor) Operating speed (= rated speed of engine)	min^{-1} rpm	2200
Ölfördermenge (bei Betriebsdrehzahl) Oil flow (at operating speed)	l / min gal / min	85 22.5
Speisepumpe Schwenkkreis **Filling pump swing circuit**		
Geometrisches Fördervolumen Displacement	cm^3/U cc/rev.	8,4
Betriebsdrehzahl (= Nenndrehzahl Dieselmotor) Operating speed (= rated speed of engine)	min^{-1} rpm	2200
Ölfördermenge (bei Betriebsdrehzahl) Oil flow (at operating speed)	l / min gal / min	18 4.8

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Bottom rollers

2796428

Bottom rollers have lifetime lubrication. They do not require any maintenance until the wear limits have been reached.

The rollers are sealed with duo-cone seals (8, Fig. 1). Function and assembly of duo-cone seals - see chapter "Duo-cone seal".

The majority of roller leaks is due to dirt that enters through the labyrinth (see arrow, Fig. 2) and penetrates into the duo-cone seals.

The roller can be made fully operational by removing and cleaning it, and then filling it with fresh oil.

Components of the bottom roller

Item	Quan.	Description	Weight kg / lb	Torque				
				Thread size	Material grade	Wrench size mm	M_A Nm	Torque lbft.
1	1	Bottom roller	40 / 90					
2	2	Bearing	3 / 10					
3	2	Locking pin						
4								
5	1	Screw plug						
6	1	Sealing ring						
7	2	Bushing						
8	2	Duo-cone seal						
9	2	O-Ring						
10	1	Axle	11 / 25					
11	1	Roller	22 / 50					

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

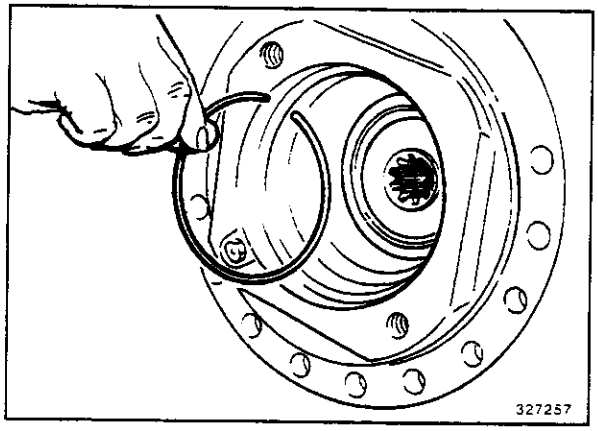


Fig. 54
Insert the snap ring.
Offset the opening of the snap ring with respect to the brake oil duct hole in the axle tube.

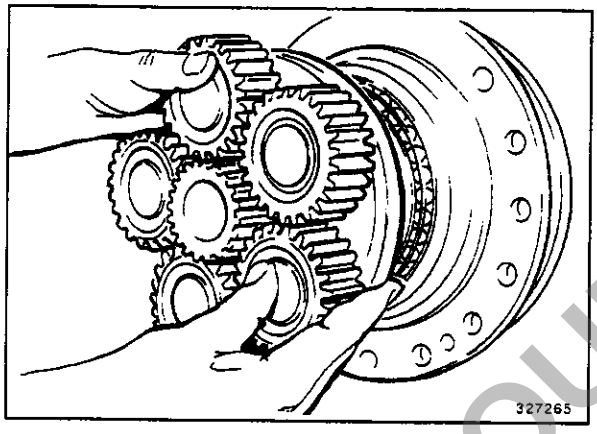


Fig. 55
Attach planetary stage 3.

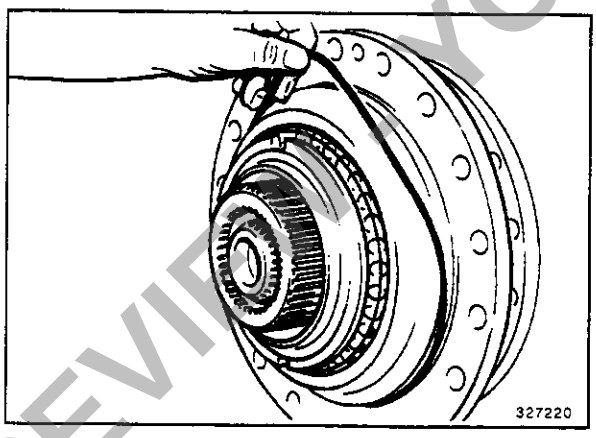


Fig. 56
Neuen O-Ring einlegen und ölen.

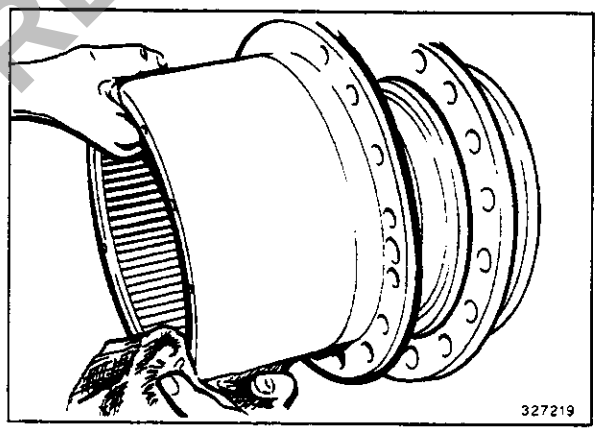


Fig. 57
Fit the axle tube with a new O-ring.

PREVIEW OF YOUFIXTHIS.COM

Download full manual at youfixthis.com

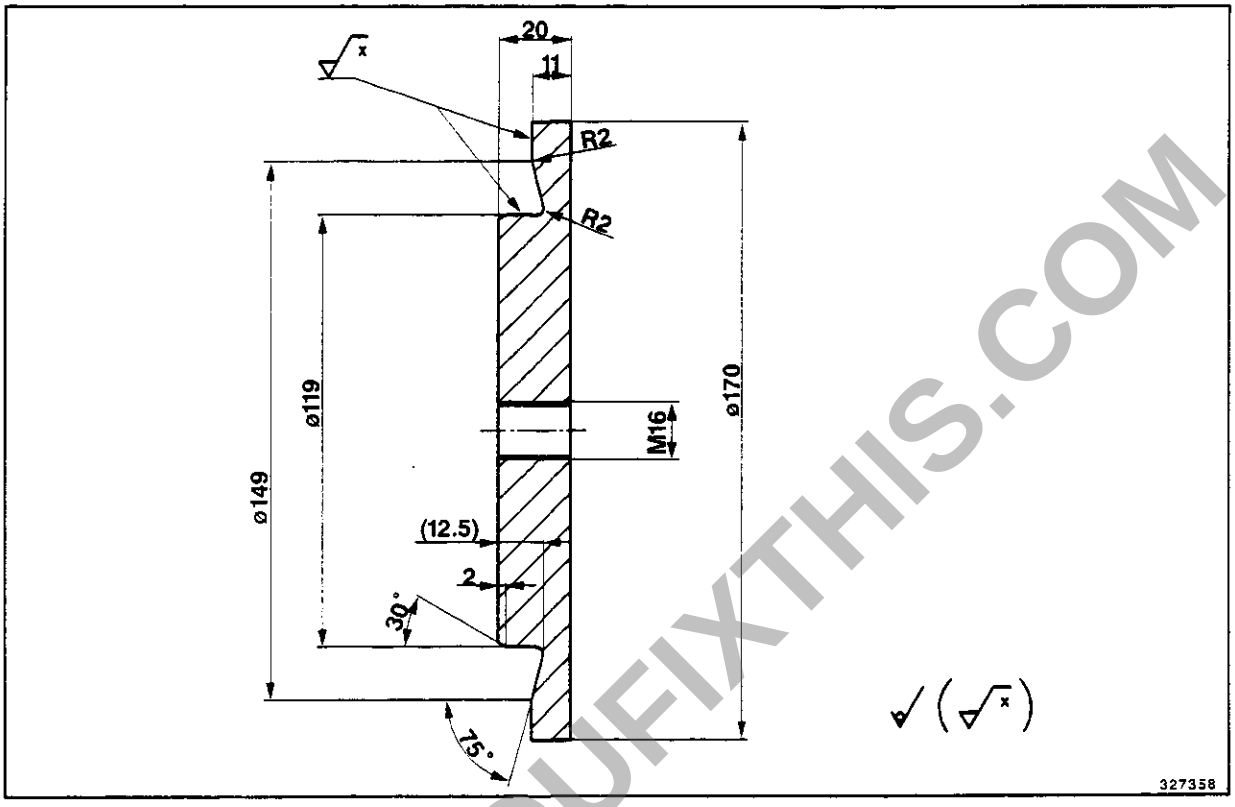


Fig. 3

Cover (S2)

P/N: 73176728

Material: S355J2G3 (St52-3)

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

2800333

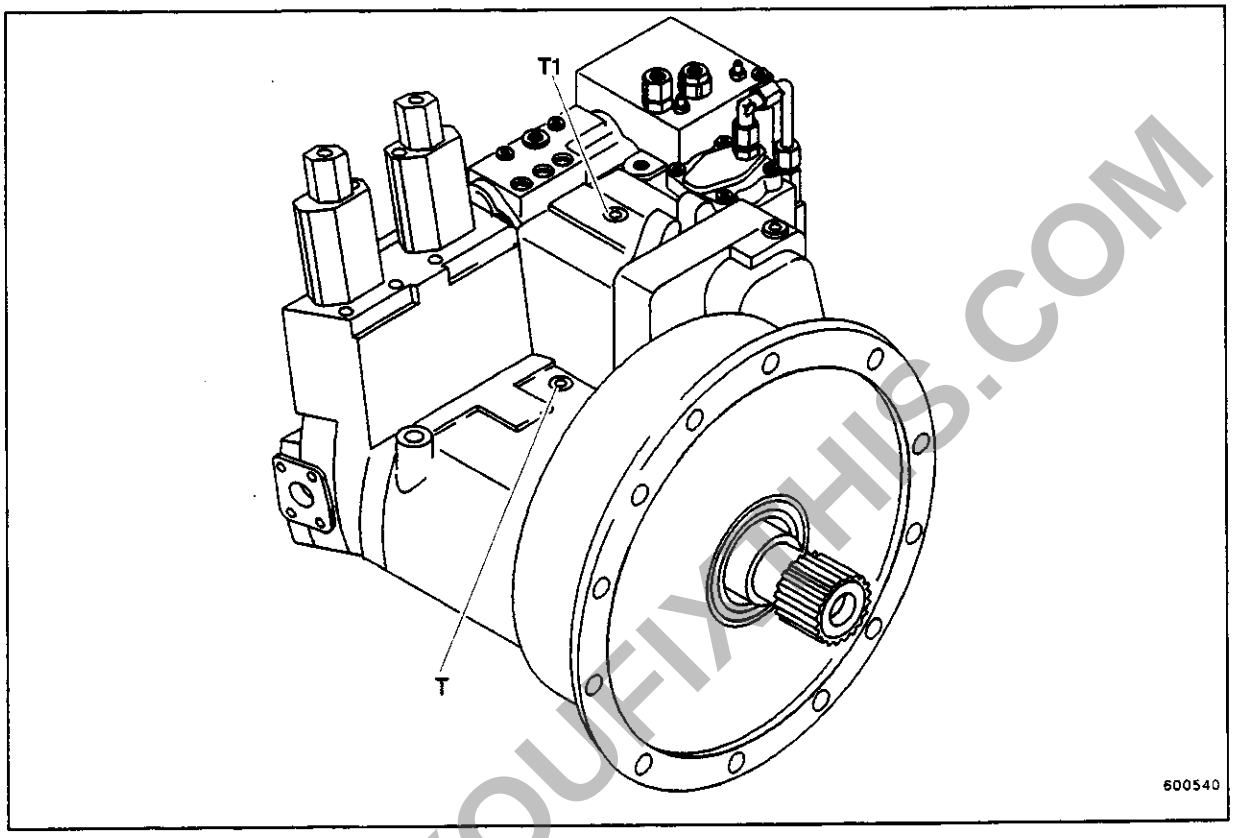


Fig. 1

Installing and dismantling the hydraulic pumps

Dismantling a pump

- Drain hydraulic oil from reservoir into clean container. Note quantity.
- Disconnect hydraulic lines carefully at pump. Collect escaping oil in a suitable container.
- Remove hydraulic lines. Close open connections to prevent dirt from penetrating.
- Attach pump to lifting tackle, unscrew fastening screws and remove pump.
- When removing gear pumps and swing pump, there is no need to drain the oil out of the reservoir (use vacuum pump if necessary).

Installing a pump

- Coat toothed connection of pump and coupling with lubricant paste P/N 73171484.
- Attach pump to lifting tackle and install. Turn in fastening screws and tighten with tightening torque shown in table.
- Reconnect all hydraulic lines.
  Fill hydraulic oil reservoir again.

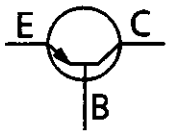
Vent pump.

The working pumps are vented through the venting plug (T, Fig. 1). The working pump housing can be filled in addition through this connection if necessary.

The swing pump housing **must** be **filled** through the connection (T1), as venting cannot be done through the intake line. □

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com



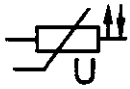
NPN transistor



Photo-transistor



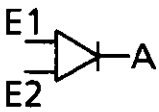
Temperature-dependent resistor



Voltage-dependent resistor, e.g. NTC



Electronic amplifier



Operational amplifier (amplifies the voltage between E1 and E2)



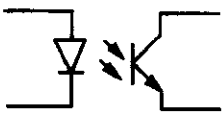
D.c. converter



Voltage converter (24 to 15 volts)



Initiator



Optocoupler

328088

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Control loop

This is where the power-limiting function sets in.

The speed of a diesel engine is reduced immediately when the engine is loaded. In extreme cases, this condition may even lead to the engine being throttled down to n = 0 and stalling.

A power-limiting controller makes use of this effect for the indirect measurement of engine power.

Because of the high precision requirements, the speed of the drive engine is determined electronically by sensing the teeth of the gearing of the starter motor in the flywheel housing.

The actual speed measured (A) is compared by a micro-controller (8, Fig. 1) to the pre-determined nominal speed (B) of the engine.

On reaching a preset value of speed loss (see chapter "Types of engines"), the main hydraulic pumps (2) are tilted back electronically by means of proportional valve (6) until the pump reaches a stable point of operation.

This point is defined by an equilibrium between the power supplied by the engine and the power consumed by the hydraulic system.

The main reference variable of the electronic power-limiting control PCS III is the speed of the diesel engine.

Types of engines (FX 140 - FX 600)

Type of excavator	Engine CUMMINS	Net flywheel power HP (kW) Controlled rpm	Fuel system	Controller regulation	Max. coolant temperature (°C)
FX 140	4 BT	100 (75) / 2200	Bosch A/RSV	8%	100
FX 200	6 BT	135 (101) / 2200	Bosch A/RSV	8%	100
FX 240	6 BTA	165 (123) / 2200	Bosch A/RSV	8%	100
FX 270	6 BTA	184 (138) / 2200	Bosch A/RSV	8%	100
FX 350	6 CTA	230 (172) / 2000	Bosch A/RSV	8%	100
FX 480	M 11	315 (235) / 1800	PT Centry/STC	6%	100
FX 600	N 14	400 (298) / 1800	PT Centry/STC	6%	100
FX 200 W	6 BT	135 (101) / 2200	Bosch A/RSV	8%	100
FX 220 W	6 BTA	165 (123) / 2200	Bosch A/RSV	8%	100

1 kW = 1.341 HP

The powers set out in the table are continuous net effective outputs in acc. with SAEJ1995/ISO 3046 / 1 IFN blocked.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Do not connect or disconnect any connections to the EDS tester while the plug-in power supply unit (item 15) is in the socket.

Connecting sequence:

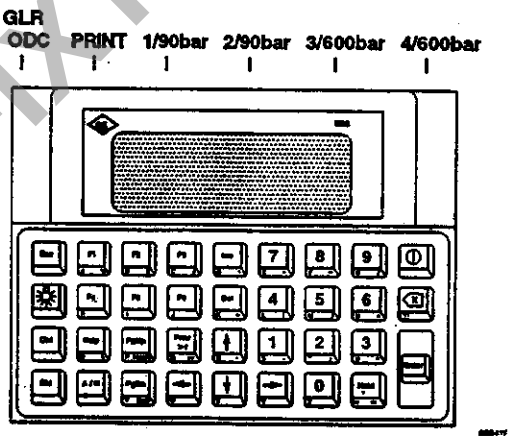
- Connect printer to PRINT (through cable, item 11).
- Connect ODC port with ODC and plug-in power supply unit through special cable (item 14).
- Insert RAM card with program (item 2).
- Insert plug-in power supply unit into socket.
- Switch on EDS tester by the ⏻ key.

List of the labelled connections:

ODC = Cable connection to the load sensing device, EDS voltage supply and, at the same time, serial data link with the ODC.

PRINT = Cable connection for the log printer. The printer is battery powered.

The connections are located on the rear side of the EDS tester.



Never disconnect the link between the mains adapter and the connection cable (item 14) while the EDS tester is on and the plug-in power supply unit (item 15) is in the socket, or software loss on the RAM card may impend.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Double-hex bolts (Fig. 3)

When limited space is available, and therefore whenever SAE flange couplings are being used, double-hexagon bolts are used. They have metric threads (DIN 13), material quality 10.9 (DIN 267) and surface protection A3B (DIN 267).

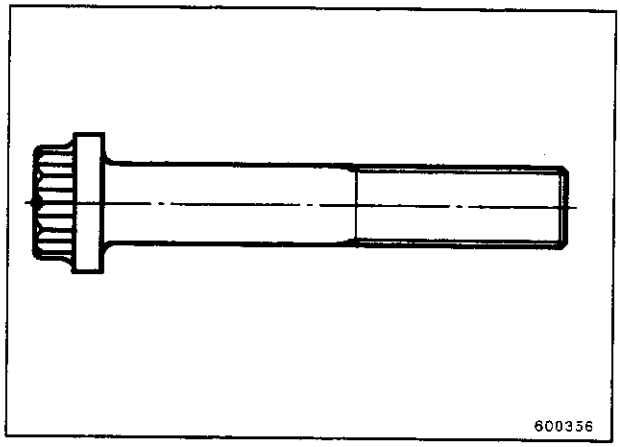


Fig. 3

Double-hex bolts bring the following advantages:

- high rust resistance - bolts are galvanized
- small wrench sizes, e.g. M 10 requires only wrench size 11 (the same size of hex. bolt requires size 17)
- tidy, positive tightening using standard ring spanners and socket spanners
- no danger of head becoming clogged, as with hexagon sockets
- easier positioning of wrench, due to twelve-sided head

Sizes of bolts available can be found in Table 2 (Appendix).

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

3.7.3.3 Possible causes of damage to chord plates

The following faults may occur in chord plates of box-type sections:

1. Transverse cracking

The chord plate may crack open transverse to the component in the chord plate.

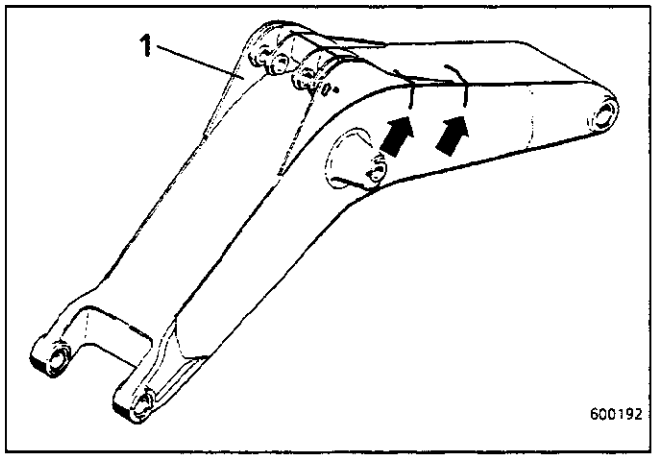


Fig. 88

Reason for the damage:

Expansion of the component obstructed by non-optimally dimensioned or welded

component elements such as bearing blocks, ribs, reinforcing plates etc.

Measures:

The component can almost always be repaired by welding. For a durable repair, the component must be opened to allow the welds in the component areas subject to maximum stress to be capped.

2. Plate parting

The plate may crack open almost exactly at the centre of the plate, as shown in the diagram (fig. 89).

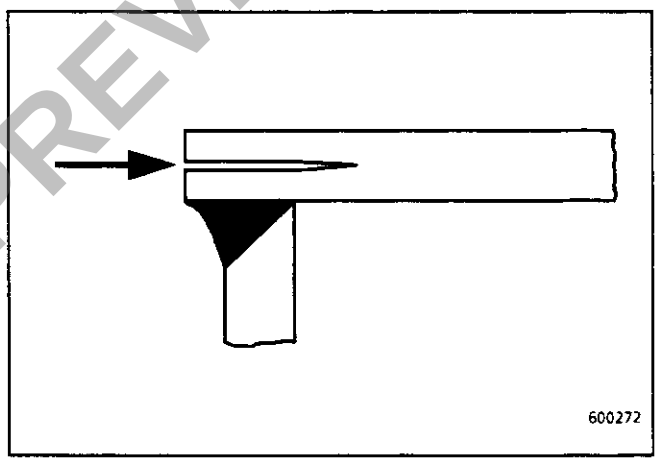


Fig. 89

Reason for the damage:

There are non-metallic inclusions from the pool (segregation defects), distributed over the entire plate dimension, at the centre of the plate.

Measures:

The plate cannot be repaired by welding.

For durable repairs, the damaged plate must be replaced. It is to be assumed that areas of the plate not yet cracked open would eventually also crack open as a result of the dynamic stress on the component.

3. Longitudinal cracking

The chord plate may crack open in longitudinal direction of the component parallel to the edge of the plate (fig. 90).

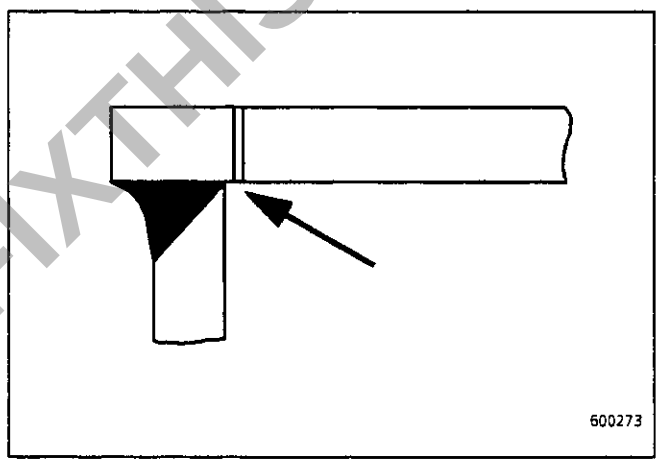


Fig. 90

Reason for the damage:

The component is not adequately stable. The chord plate is deformed under changing loads, resulting in material distortions at the weld/chord plate transition.

Measures:

The chord plate cannot be repaired by welding.

For a durable repair, the plate must be replaced in the cracked area. The new plate must be thicker than the cracked one to reduce deformation to a tolerable level.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

PREVIEW ONLY

You're viewing 25 of 1257 pages

The full manual includes:

- All 1257 pages, complete
- Searchable PDF (find any keyword)
- No watermarks
- Instant download
- Print-ready quality

GET FULL MANUAL NOW

FiatAllis FX200, FX200LC Manual Set

Scan or click anywhere
youfixthis.com

Click anywhere on this page to get the full manual