

GENERAL INFORMATION



WARNING: Use insulated gloves or mittens when working with hot parts.



WARNING: Lower all attachments to the ground or use stands to safely support the attachments before you do any maintenance or service.



WARNING: Pin sized and smaller streams of hydraulic oil under pressure can penetrate the skin and result in serious infection. If hydraulic oil under pressure does penetrate the skin, seek medical treatment immediately. Maintain all hoses and tubes in good condition. Make sure all connections are tight. Make a replacement of any tube or hose that is damaged or thought to be damaged. DO NOT use your hand to check for leaks, use a piece of cardboard or wood.



WARNING: When removing hardened pins such as a pivot pin, or a hardened shaft, use a soft head (brass or bronze) hammer or use a driver made from brass or bronze and a steel head hammer.



WARNING: When using a hammer to remove and install pivot pins or separate parts using compressed air or using a grinder, wear eye protection that completely encloses the eyes (approved goggles or other approved eye protectors).



WARNING: Use suitable floor (service) jacks or chain hoist to raise wheels or tracks off the floor. Always block machine in place with suitable safety stands.



WARNING: When servicing or repairing the machine, keep the shop floor and operator's compartment and steps free of oil, water, grease, tools, etc. Use an oil absorbing material and/or shop cloths as required. Use safe practices at all times.



WARNING: Some components of this machine are very heavy. Use suitable lifting equipment or additional help as instructed in this Service Manual.



WARNING: Engine exhaust fumes can cause death. If it is necessary to start the engine in a closed place, remove the exhaust fumes from the area with an exhaust pipe extension. Open the doors and get outside air into the area.



WARNING: When the battery electrolyte is frozen, the battery can explode if (1), you try to charge the battery, or (2), you try to jump start and run the engine. To prevent the battery electrolyte from freezing, try to keep the battery at full charge. If you do not follow these instructions, you or others in the area can be injured.

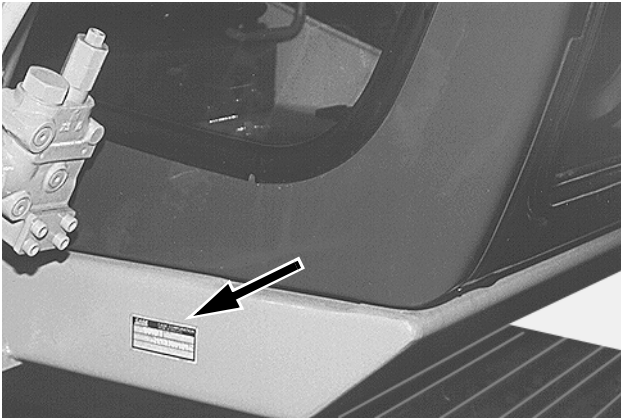
GENERAL INFORMATION

TYPE, SERIAL NUMBER AND YEAR OF MANUFACTURE OF THE MACHINE

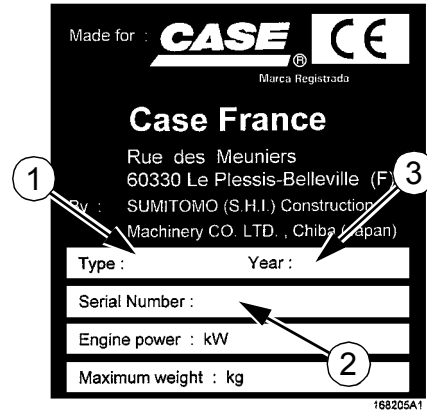
When placing a parts order or making a request for information or assistance, always give you CASE Dealer the type and serial number of the machine concerned.

Enter the required information on the lines below: Type, serial number, year of manufacture of the machine and the serial numbers of hydraulic and mechanical components.

Machine



CP98N006



(1) Type

(2) Serial number

(3) Year of manufacture

Engine

Make and type

Serial number

Component serial numbers

Hydraulic pump

Swing reduction gear

Travel reduction gears

Travel control valve

Attachment control valve

Swing control valve

GENERAL INFORMATION

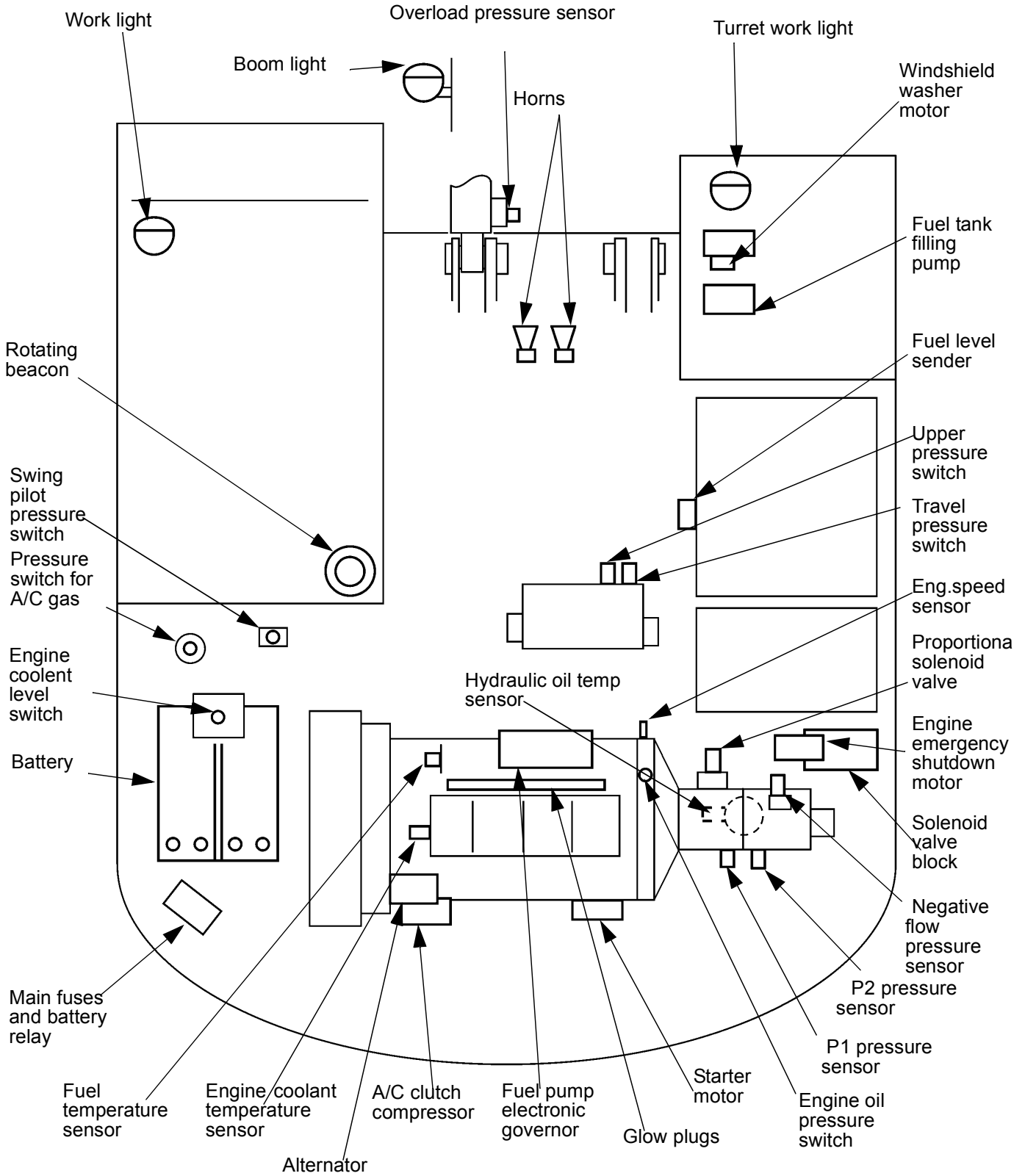
SPECIAL TORQUE SETTINGS

N	Component	Screw (Ø)	Key (mm)	Torque setting (Nm)	
				CX130	CX210
1 *	Travel motor/reduction gear assembly	M16	24	267-312	267-312
2 *	Sprocket	M16	24	267-312	267-312
3 *	Idler wheel	M16	24	267-312	267-312
4 *	Upper roller	M16	24	267-312	-
		M20	30	-	521-608
5 *	Lower roller	M16	27	267-312	-
		M18	27	-	371-432
6	Chain guide	M18	27	-	380-443
7	Track pad	M16	24	392-430	-
		M20	30	-	300 + 120°
8	Counterweight	M27	41	844-980	-
		M27	41	-	1058-1235
		M30	46	-	1333-1549
9	Turntable (undercarriage)	M16	24	280-322	-
		M20	30	-	468-545
		M24	36	-	783-913
10	Turntable (upperstructure)	M16	24	280-322	-
		M20	30	-	468-545
		M24	36	-	783-913
11 *	Swing motor/reduction gear assembly	M16	24	280-322	-
		M20	30	-	521-608
		M24	36	-	783-913
12 *	Engine	M16	24	265-313	265-313
13 *	Engine support	M10	17	64-73	64-74
14	Radiator	M12	19	64-73	-
		M16	24	-	147-176
15 *	Hydraulic pump	M10	17	63-72	-
		M10	17	-	64-74
		M20		-	367-496
16 *	Hydraulic reservoir	M16	24	206-247	-
		M16	24	-	232-276
17 *	Fuel tank	M16	24	206-247	-
		M16	24	-	232-276
18 *	Control valve	M16	24	267-312	267-312
		M12	19	88-107	-
19 *	Hydraulic swivel	M12	19	109-127	109-127
20	Cab	M16	24	78-80	78-80
21	Battery	M10	17	20-29	20-29

Nota: Use Loctite 262 or an equivalent on retaining screws of components marked with an asterisk (*).

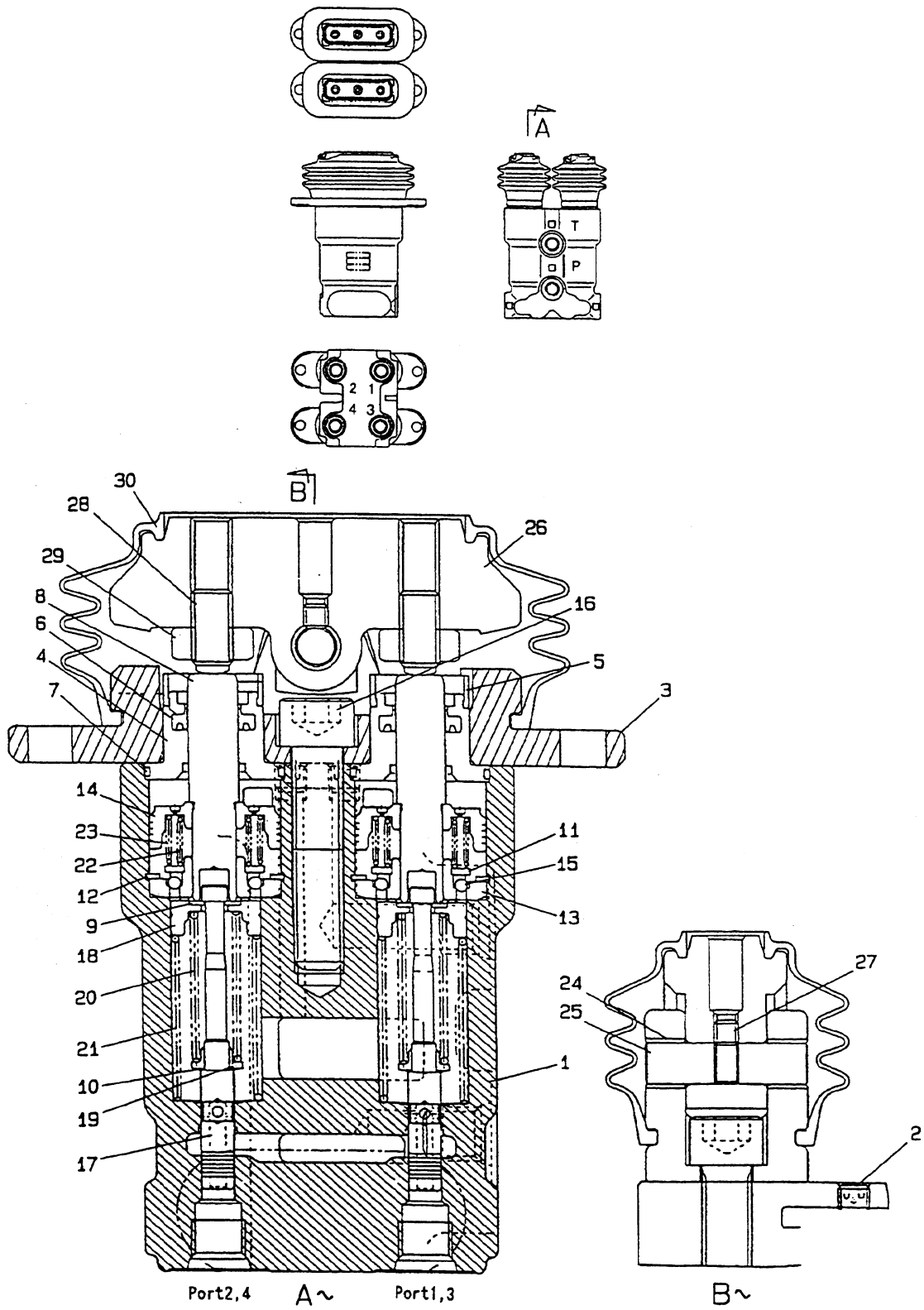
COMPONENTS LAYOUT CX130

Turret electrical components



COMPONENTS CX130

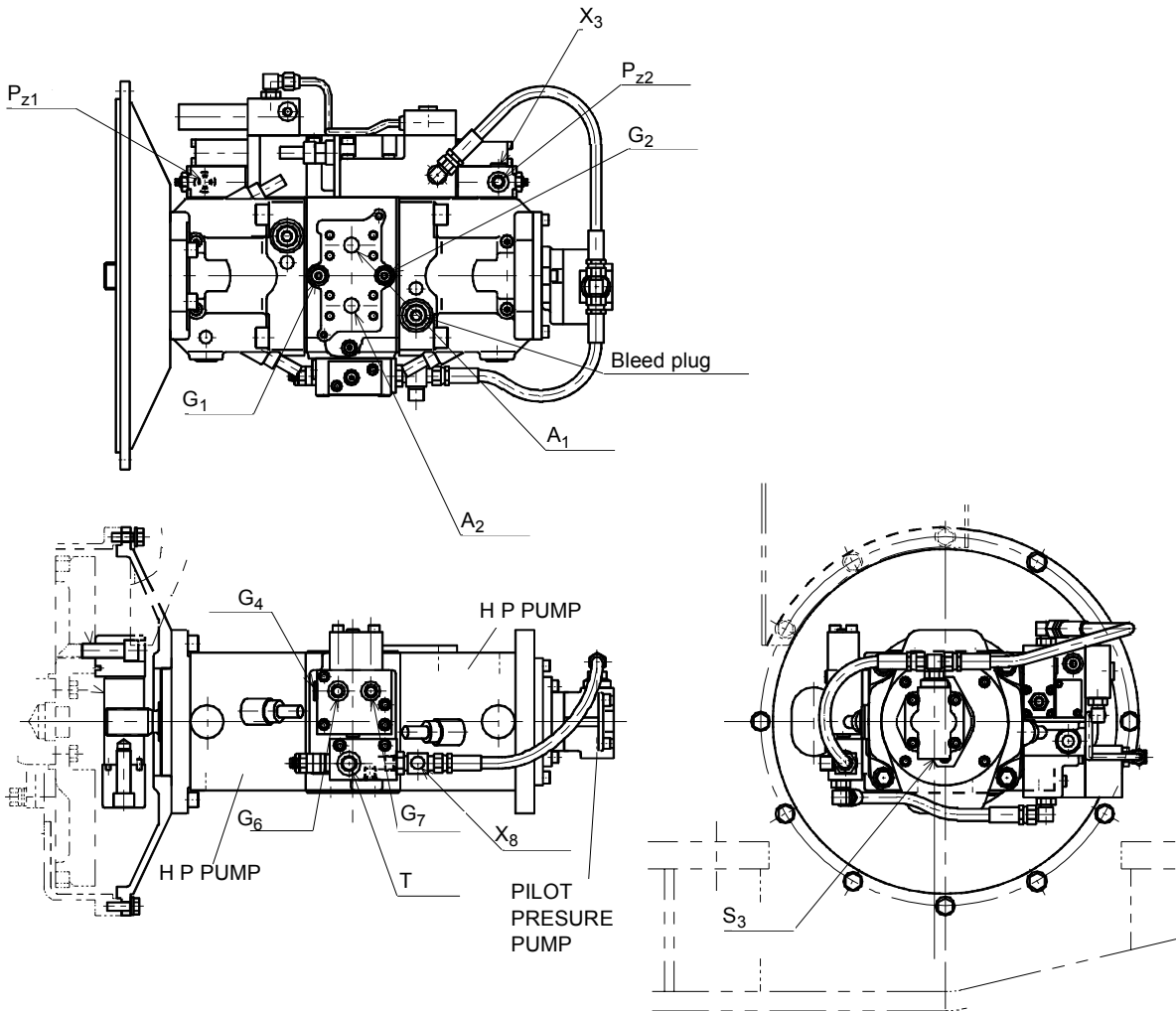
Foot control



COMPONENTS CX130

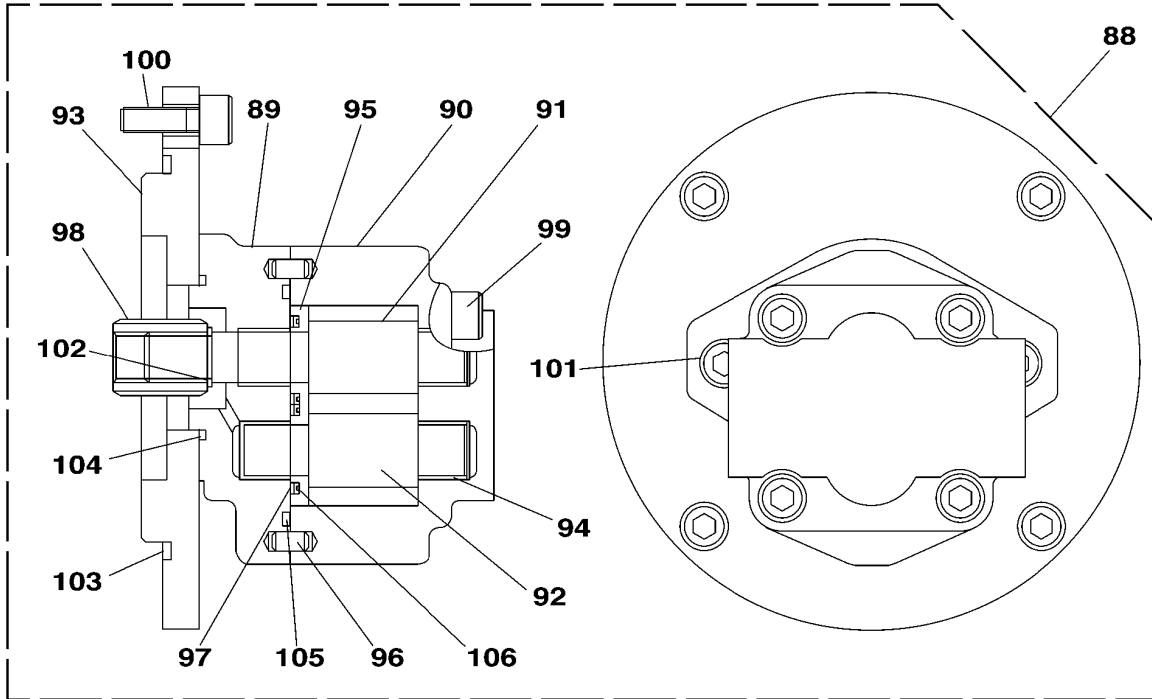
Pump

	Port name	Port size
A _{1, 2}	Discharge port	SAE 6000 psi 3/4"
S	Intake port	SAE 2500 psi 2 1/2"
T	Drain port	G 3/8
PZ _{1, 2}	Negative flow control pressure port	G 1/4
X ₃ , G _{1, 2, 6, 7}	Gauge port	G 1/4
G ₄	Gauge port	G 3/8
X ₈	Gear pump discharge s	G 3/8
S	Gear pump intake port	



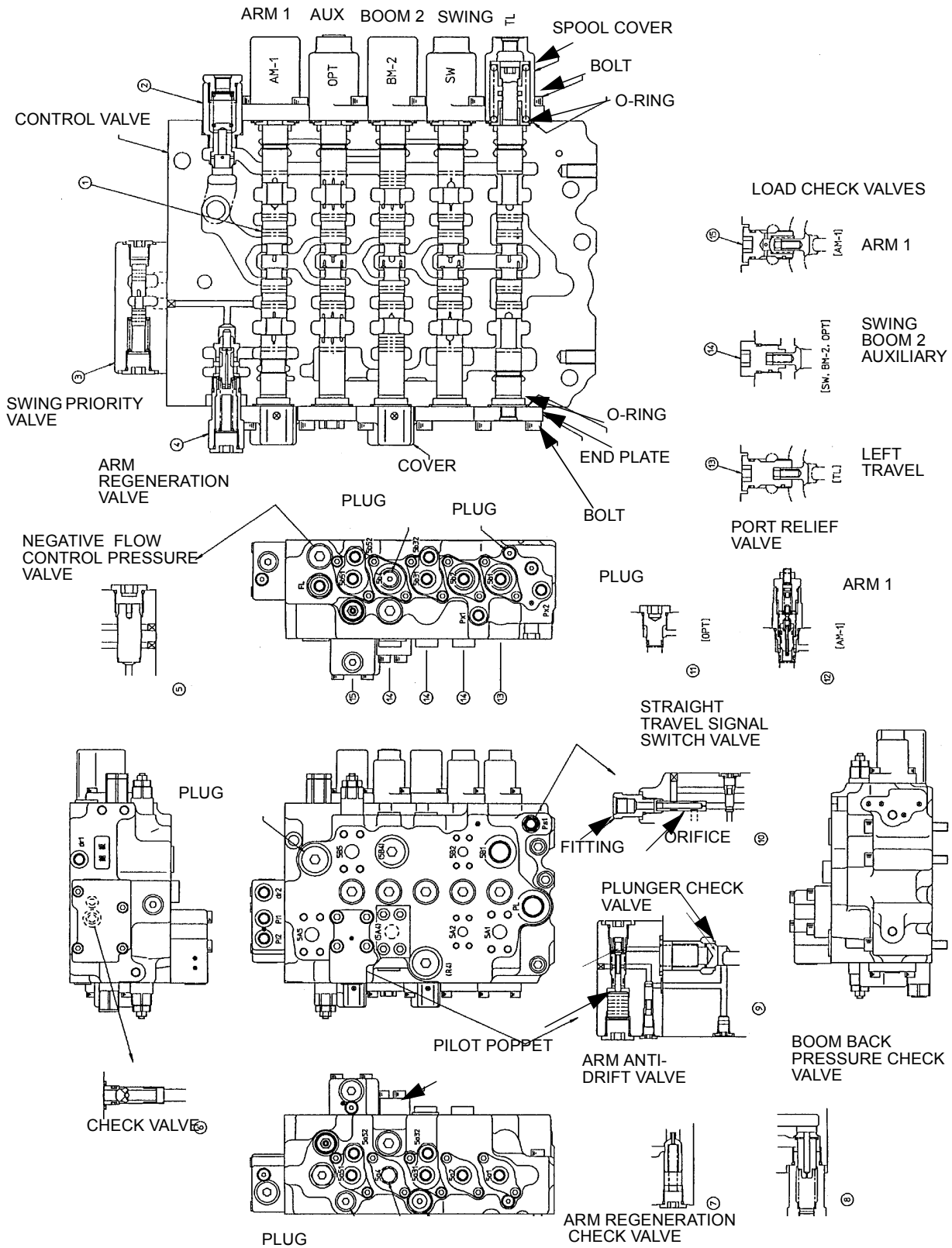
COMPONENTS CX130

Pilot pressure pump



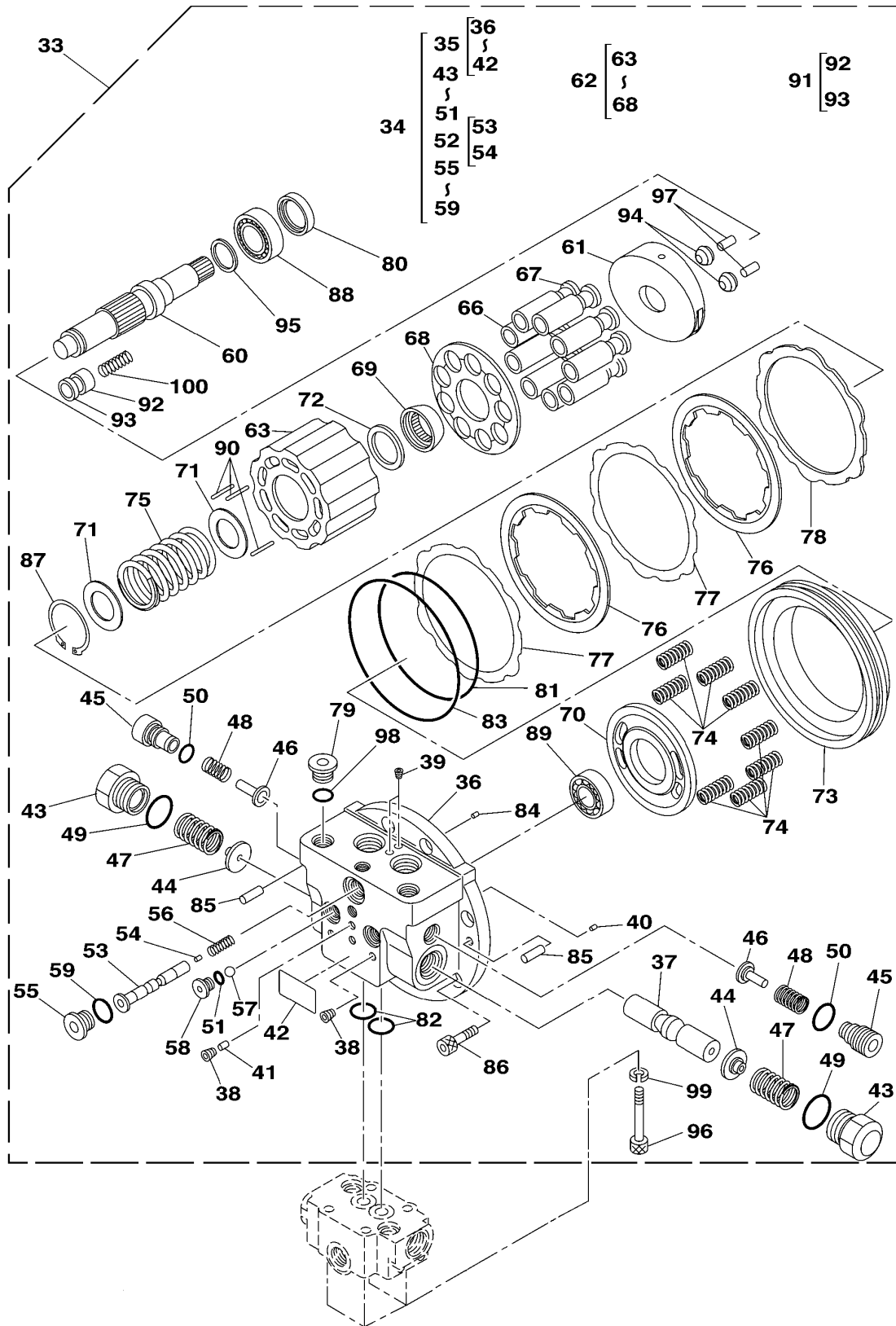
COMPONENTS CX130

Control valve (follow)



COMPONENTS CX130

Travel motor



DIAGNOSTIC - SELECTION

SW4	0	0	0	0		SW5	0	0	0	0		SW6	0	0	0	0	
					Shock absorption						Swing brake						Windshield washer
				X							Emergency stop					X	
				X							Working lights						Hammer mode
					Engine idle						Windshield wiper					X	

SW7	0	0	0	0	
					Anti-theft
					Starter motor switch
					Overload indicator
				X	

X = Not used

4. Machine condition CHK4

CHK	MODE I H	TG	0000	
4				
	FS	0080	BP	0000
	AC	0005	SP1	0000
	TR5	0010	SP2	0000

- FS: Fuel gauge
- AC: A/C control temperature
- TR5: Electronic control box transistor output (Not used)
- TG: Engine speed
- BP: Boom cylinder pressure
- SP1 and SP2: Not used

AC	0	0	0	4	
					1: below 30°C
					2: between 30°C and 45°C
					3: between 45°C and 65°C
					4: between 65°C and 75°C

DIAGNOSTIC - SELECTION

ANTI-THEFT DEVICE

To prevent the machine from being stolen it is possible to use the anti-theft system, which makes it necessary for a special code to be entered before the machine can be operated.

Your CASE Dealer can do this for you.

Once this operation has been performed, a special access code has to be entered each time you start the engine.

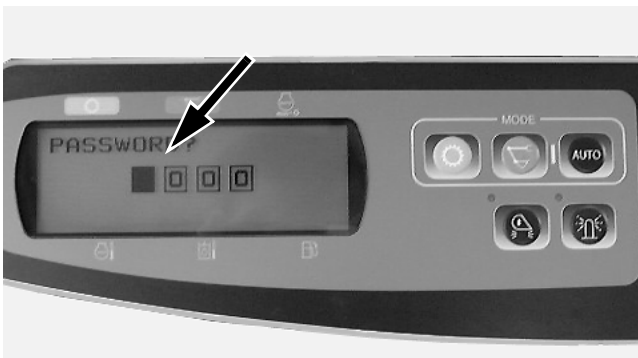
IMPORTANT: Once the code has been entered, do not forget it, as it can not be changed without consulting your CASE Dealer.

Entering the code

Step 1

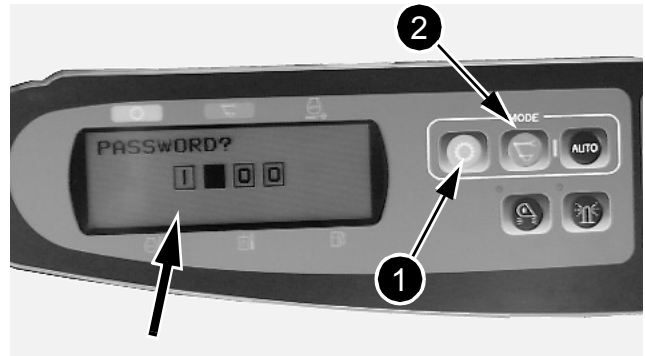
Place the starter switch key in "ON" position.

Step 2



The message "Password" and four boxes will appear on the display screen.

Step 3



To enter the code (e.g. 1234) press button (1) the same number of times as the digit selected (e.g. once), then press button (2) to proceed to the second digit. Press the button (1) same number of times as the second digit (e.g. twice) and then press button (2) to proceed to the third digit. Repeat the procedure for the third and fourth digits.

Step 4



Once all four digits have been entered, press button (3) for the code to be entered in the system. The audible alarm device will sound.

DIAGNOSTIC - SELECTION

Overheating (continued)

Troubleshooting	Cause	Action
<p>2. The hydraulic temperature bar-graph displays 8 bars. Starter key switch ON</p> <p>The temperature sender temperature (oil) is abnormal compared to maintenance assistance CHK1 (comparison between the real temperature and that indicated). See coolant temperature in CHK1 OT. Measure the real temperature</p> <p>YES</p> <p>See problem code M0020 for the oil temperature sender using maintenance diagnostic (DIAG 4)</p> <p>YES</p> <p>Disconnect the temperature sender connector (oil) to measure the resistance. (Refer to the table below for the resistances).</p> <p>NO</p> <p>Disconnect connector CN24 to measure the resistance between the male terminals OL and BO. (Refer to the table below for the resistances).</p> <p>NO</p> <p>Disconnect connector CN1 to measure the resistance between the female terminals OL and BO. (Refer to the table below for the resistances).</p> <p>NO</p> <p>YES</p>	<p>Temperature sender (oil) defective</p> <p>Bad connection on the thermal detector (oil) connector</p> <p>Bad connections on CN24</p> <p>Electronic control box defective or bad connection on CN1</p>	<p>Change the oil temperature sender</p> <p>Clean the detector connecting terminal</p> <p>Clean the connecting terminal on CN24</p> <p>Change the electronic control box or clean the connecting terminals on CN1</p>
<p>Note: In the event of a short-circuit, the bar-graph disappears completely.</p>		

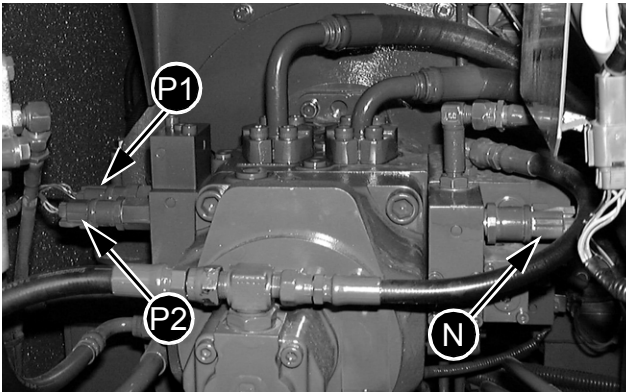
DIAGNOSTIC - SELECTION

6	The hydraulic oil temperature is not displayed or is below 25°C on the CHK1 check screen	The electrical harness between the hydraulic oil temperature sender and the electronic control box (CN1 terminal 6 and 13) is defective	Repair the electrical harness
		Voltage below 5 V, at sender input	Change the electronic control box
		Voltage equal to 5 V, at sender input	Change the oil temperature sender

DIAGNOSTIC - SELECTION

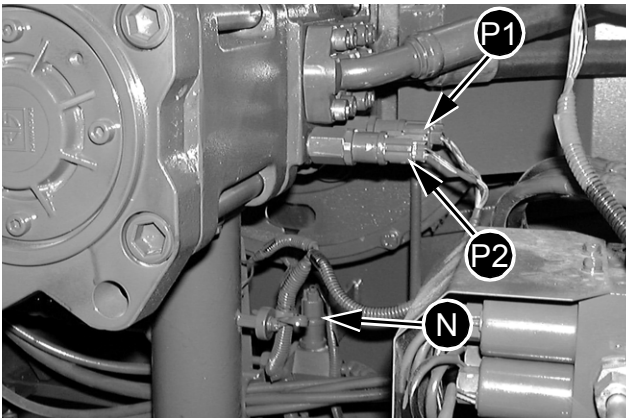
Pressure sender

CX130



CD00E145

CX210



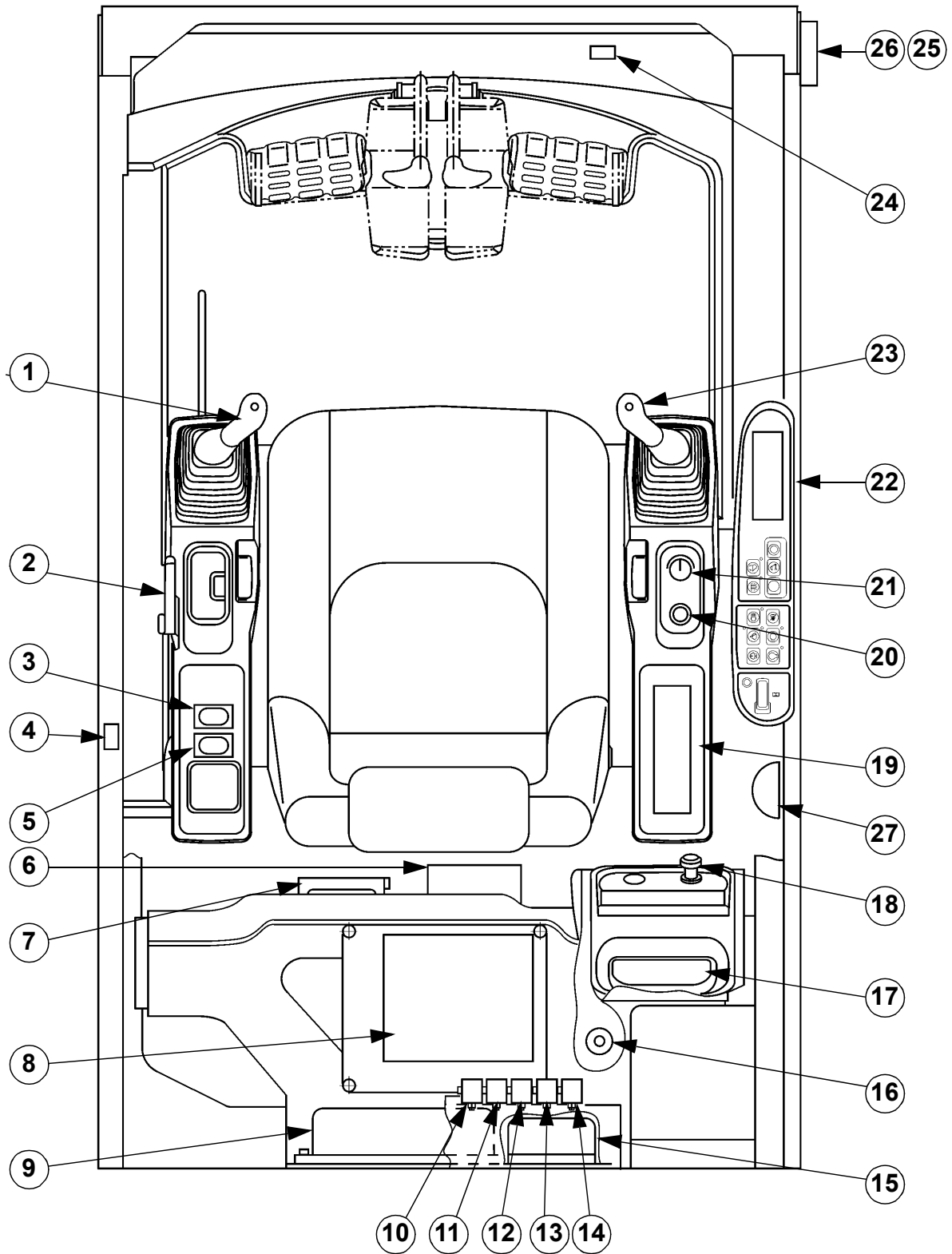
CD00E146

- P1.** Pressure detector P1
- P2.** Pressure detector P2
- N.** Pump regulating pressure detector

1. Disconnect the pressure detector connector from the hydraulic pump.

ELECTRIC CIRCUIT

General location of components (inside the cab)



CM00E002