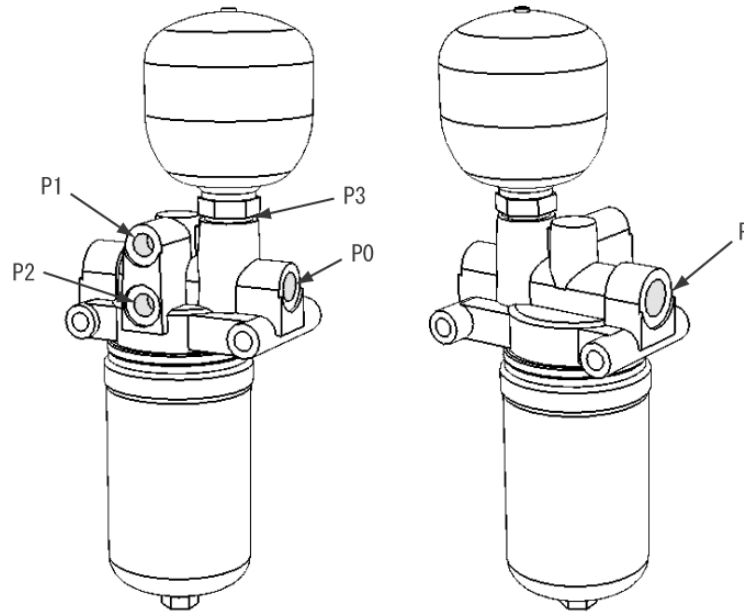


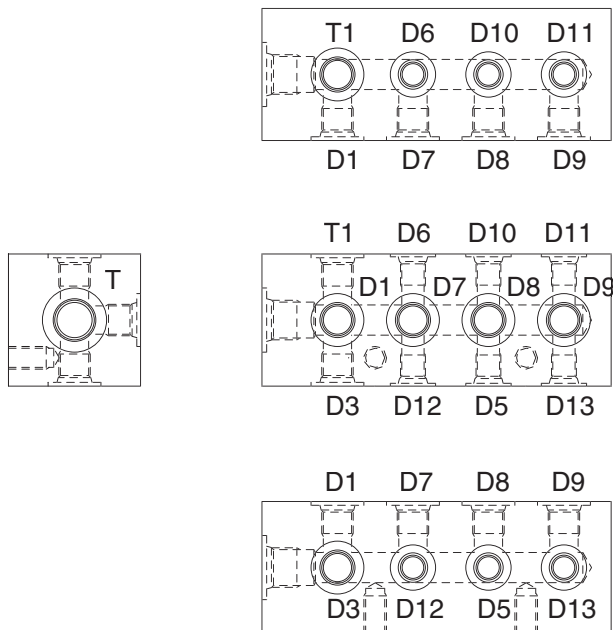
2. Manifold (accumulator section)



RST-04-06-0001T

Port	Location
P	G1/2
P1	G1/4
P2	G1/4
P3	G1/2
P0	G3/8

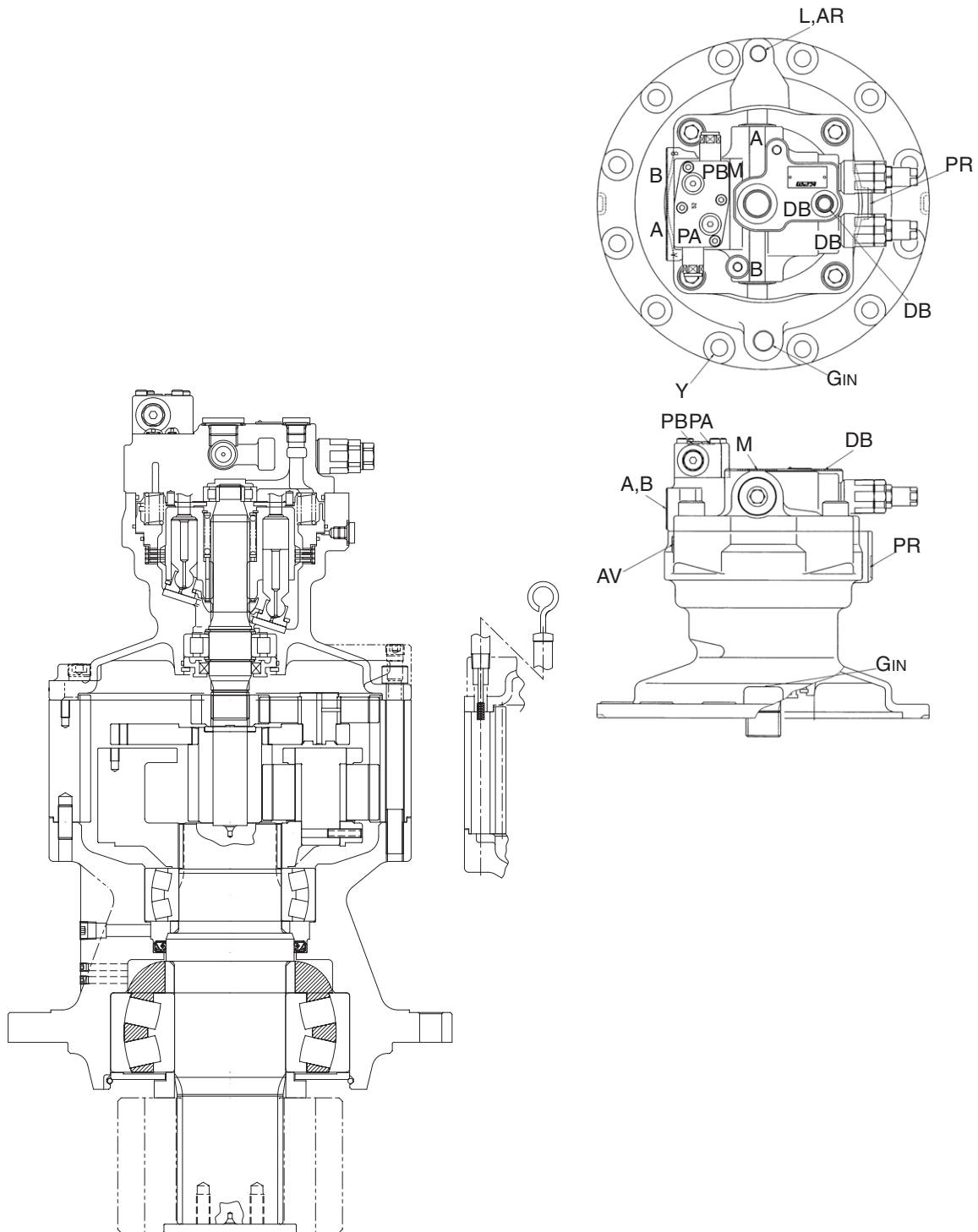
3. Manifold (hydraulic oil tank section)



WD06013-001

Port	Location
T1, D5, D6, D10, D11, D12, D13	G1/4
D3, D7, D8, D9	G3/8

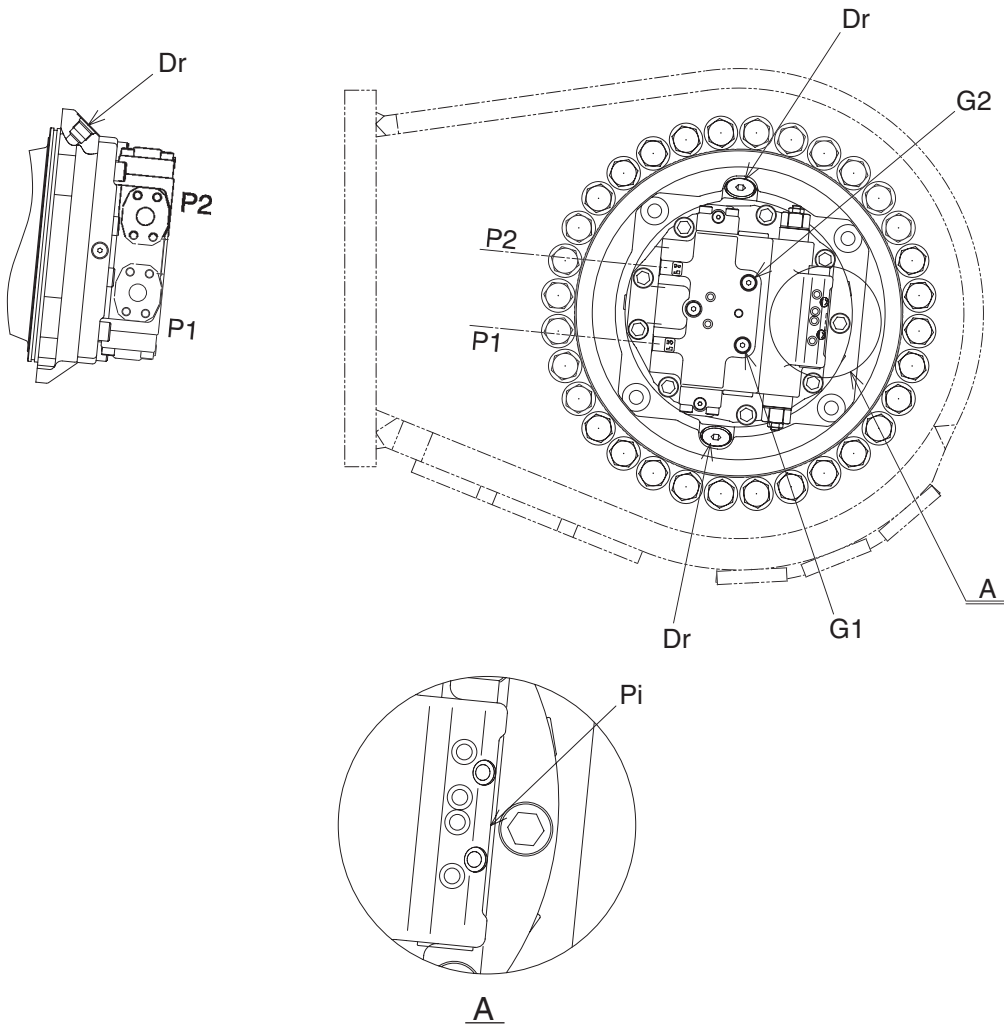
Swing motor



UD06016-002

Port	Description	Location
M	Make-up	G1-24
DB	Drain	G1/2-19
PR	Brake release	G 1/4-12
A, B	Main ports	2 - Ø20
PA, PB	Pressure measurement	2 - G1/4-15
AV	Air vent port	G1/4-15
L, AR	Level bar and air breather port	Rc1/2-19
GIN	Inlet port of gear oil	Rc3/4-19

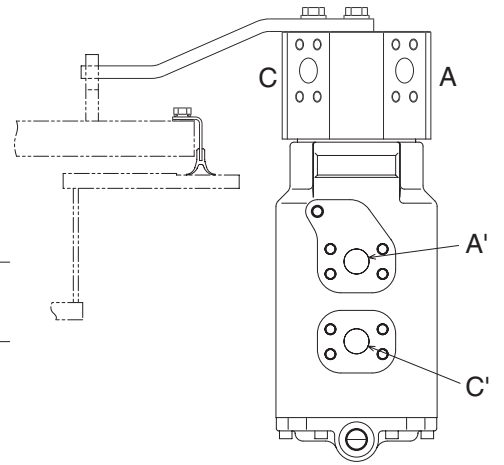
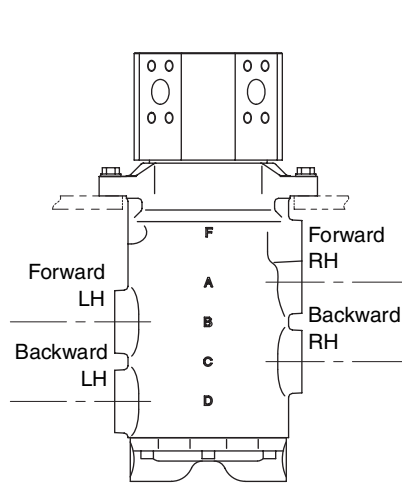
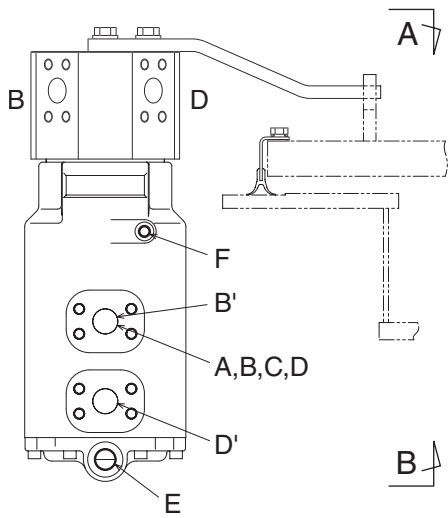
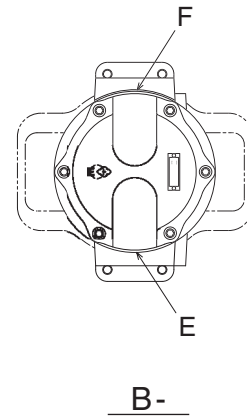
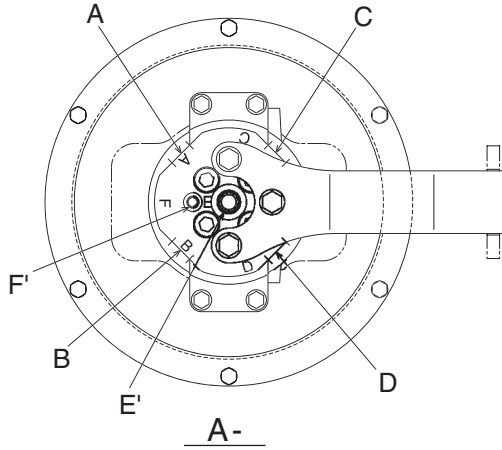
Travel motor



WD06013-002

Port	Description	Location
P1, P2	Main port	SAE 1"
Dr	Drain port	G3/4
Pi	Pilot port	G1/4
G1, G2	Pressure detection port	2 - G1/4

Center joint




WD06013-011


Port	Description	Location
A, A'	Main port	1 1/4 split flange
B, B'	Main port	1 1/4 split flange
C, C'	Main port	1 1/4 split flange
D, D'	Main port	1 1/4 split flange
E'	Drain port	G3/4
F'	Pilot port	G1/4
E	Drain port	2 - G3/4
F	Pilot port	2 - G1/4

PREPARATION BEFORE INSPECTION


WARNING: Hydraulic fluid output under pressure can penetrate the skin. Hydraulic fluid can also cause or infect a slight skin cut. In the event of being injured by hydraulic fluid under pressure, consult a doctor immediately. Any delay in obtaining treatment for an injury can cause a serious infection or reaction. Before pressurizing the circuits, make sure that all the connections are correctly tightened and that the hoses and pipes are in good condition. Release pressure in the circuits completely before disconnecting pipes or carrying out any operation on the hydraulic system. Always use a small piece of cardboard or wood to detect leaks of fluid under pressure. Never use your hands. M1307



WARNING: Any incorrect use or maintenance of a construction machine can cause accidents. Only persons who have read, understood and who observe the instructions in the operator's manual are accredited to use or maintain this machine. 046-59C



WARNING: The accumulator of this machine is charged with nitrogen under pressure. In the event of incorrect operation of the circuit, change the accumulator. Never attempt to repair it. Non-observance of these instructions and the procedure shown below can cause serious or fatal injury. M424A

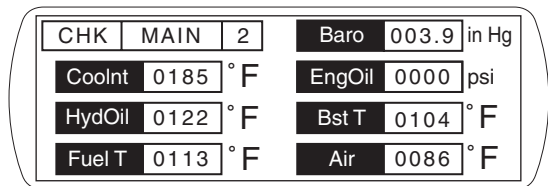


Releasing pressure in the hydraulic system and pressure measurement preparations

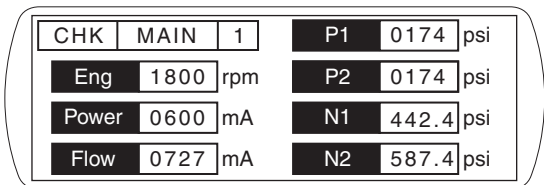
NOTICE: Operation to be carried out before every service operation on the hydraulic system.

1. Position the machine on hard, flat ground.
2. Open the bucket until the cylinder rod is completely retracted.
3. Extend the dipper until the cylinder rod is completely retracted. Lower the boom so that the end of the dipper is resting on the ground. Lower the tool to the ground.
4. Check with the diagnostic display in "SP" mode that the following values are shown.

7. Use the service check to check the hydraulic oil temperature.



RST-09-01-001K



RST-09-01-001H

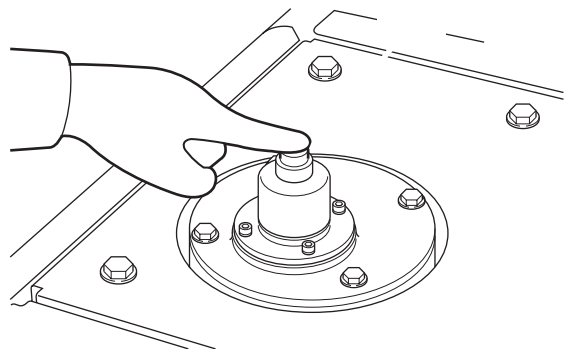
Oil temperature	45 to 55°C 113 to 131°F
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If the oil temperature is low, raise the oil temperature according to the warm-up operation procedure in the operator's manual.

Eng = Engine rpm	1870 rpm
Power = Electric current value	500 mA (operating)

5. Lower the engine speed to idle for 30 seconds, then shut down the engine.
6. Turn the starter key switch to "ON", without starting the engine.

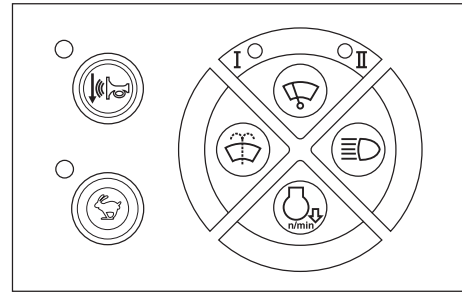
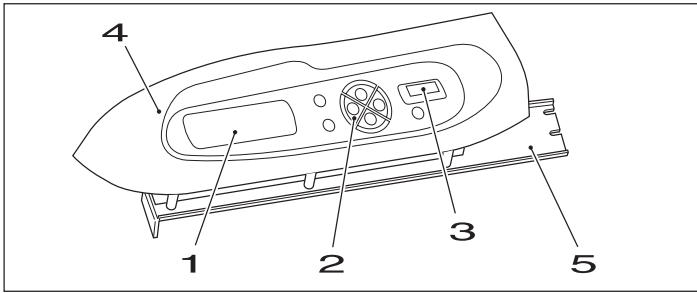
8. Lower the pilot control cancellation lever.
9. Operate each control more than 10 times in both directions to release pressure in the circuits.
10. Press the button located on the hydraulic reservoir breather to release pressure in the reservoir.



RST-09-01-001N

Procedures for pressure measurement from the monitor display

- Monitor and switch panel



RST-09-01-001a

1	Liquid crystal monitor	4	Design panel
2	Switch panel	5	Installation bracket
3	Hour meter		

1. Pressure Measurement Method

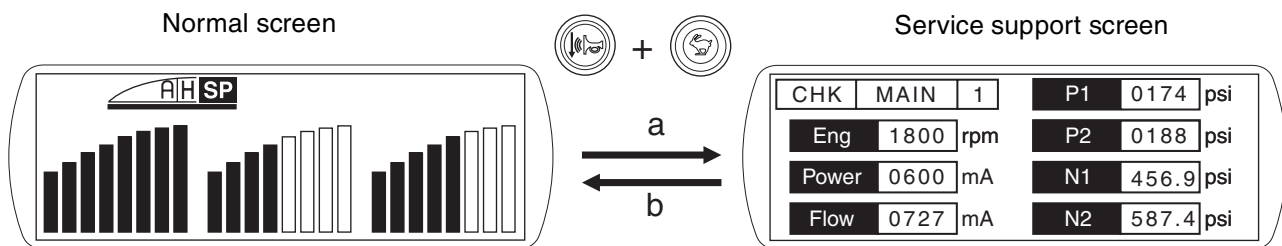
The P1, P2, N1, and N2 pressure can be measured from the monitor display. (The pilot pressure cannot be measured.)

2. Operating Method

If you hold down both the travel mode select switch and the horn volume select switch on the switch panel for 3 seconds, the display switches to the service support screen.

The respective pressures are displayed in the service support screen's "P1" (P1 pump main pressure), "P2" (P2 pump main pressure, "N1" (N1 negative control pressure, and "N2" (N2 negative control pressure) columns.

If you again hold down both the travel mode select switch and the horn volume select switch on the switch panel for 1 second, the display returns to the normal screen.



SI01009-002

- a: Hold down for 3 seconds
- b: Hold down for 1 second

Procedures for measuring hydraulic oil temperature from the monitor display

1. Hydraulic Oil Temperature Measurement Method

The hydraulic oil temperature can be measured from the monitor display.

2. Operating Method

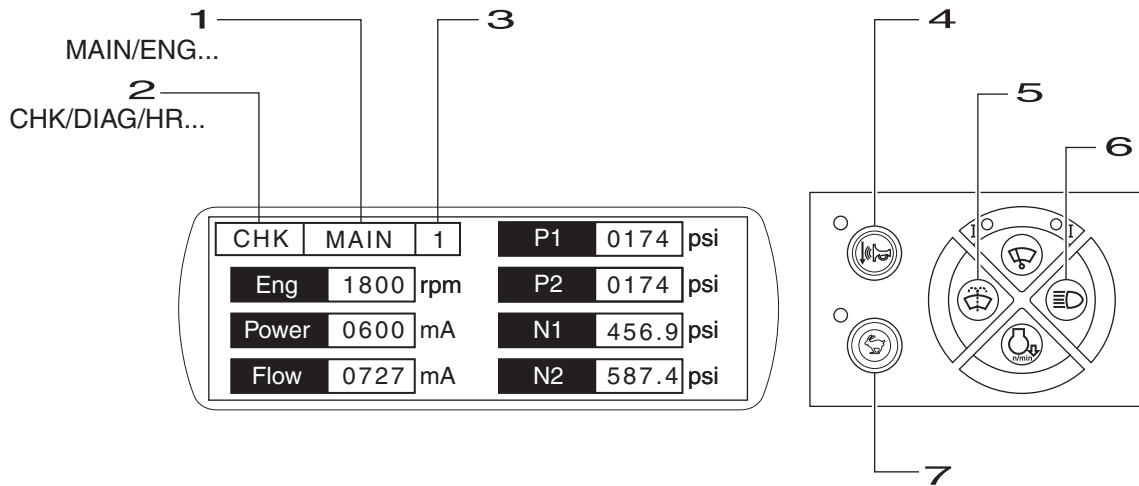
If you hold down both the travel mode select switch and the horn volume select switch on the switch panel for three seconds, the display switches to the service support screen.

With the travel mode select switch (mode select switch), set the mode to "CHK".

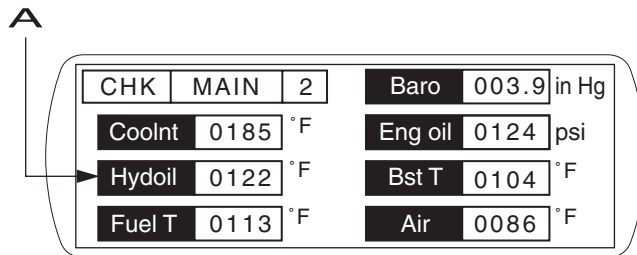
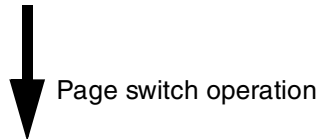
With the horn volume select switch (section switch), set the section "MAIN".

With the light switch (page +), switch to Page "2".

The hydraulic oil temperature is displayed in the "Hydoil" column.



SI01009-003



SI01009-004

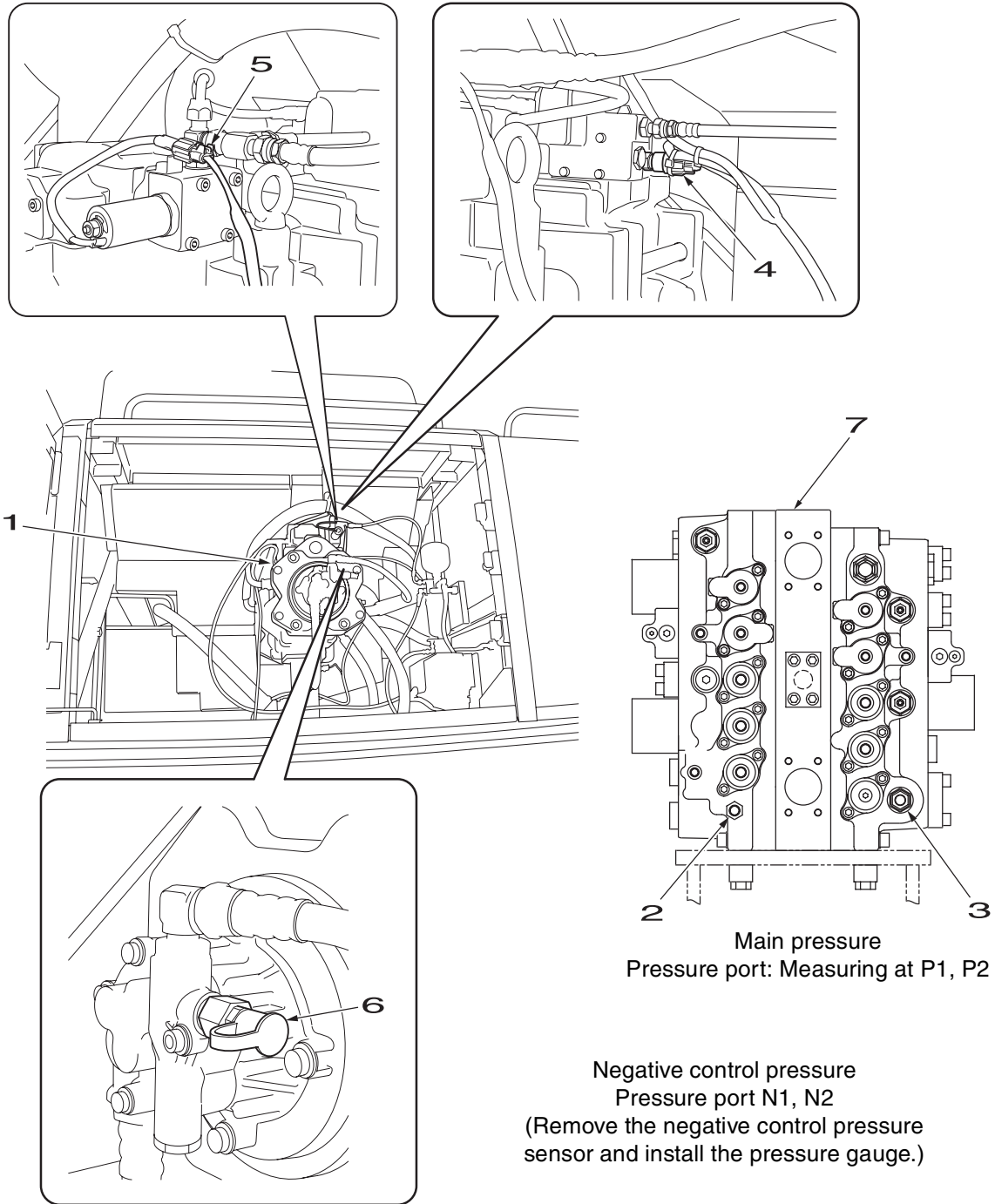
N101005-002

1	Section	5	Page (-)
2	Mode	6	Page (+)
3	Page	7	Mode select switch
4	Section switch	A	Hydraulic oil temperature (°C)

Pressure measuring port

There are the following three ports for measuring the pressure.

- Main pressure: pressure ports (P1, P2)
- Negative control pressure: pressure ports (N1, N2)
- Pilot pressure: pressure port (P3)



Pilot pressure
Pressure port: Measuring at P3

Main pressure
Pressure port: Measuring at P1, P2

Negative control pressure
Pressure port N1, N2
(Remove the negative control pressure sensor and install the pressure gauge.)

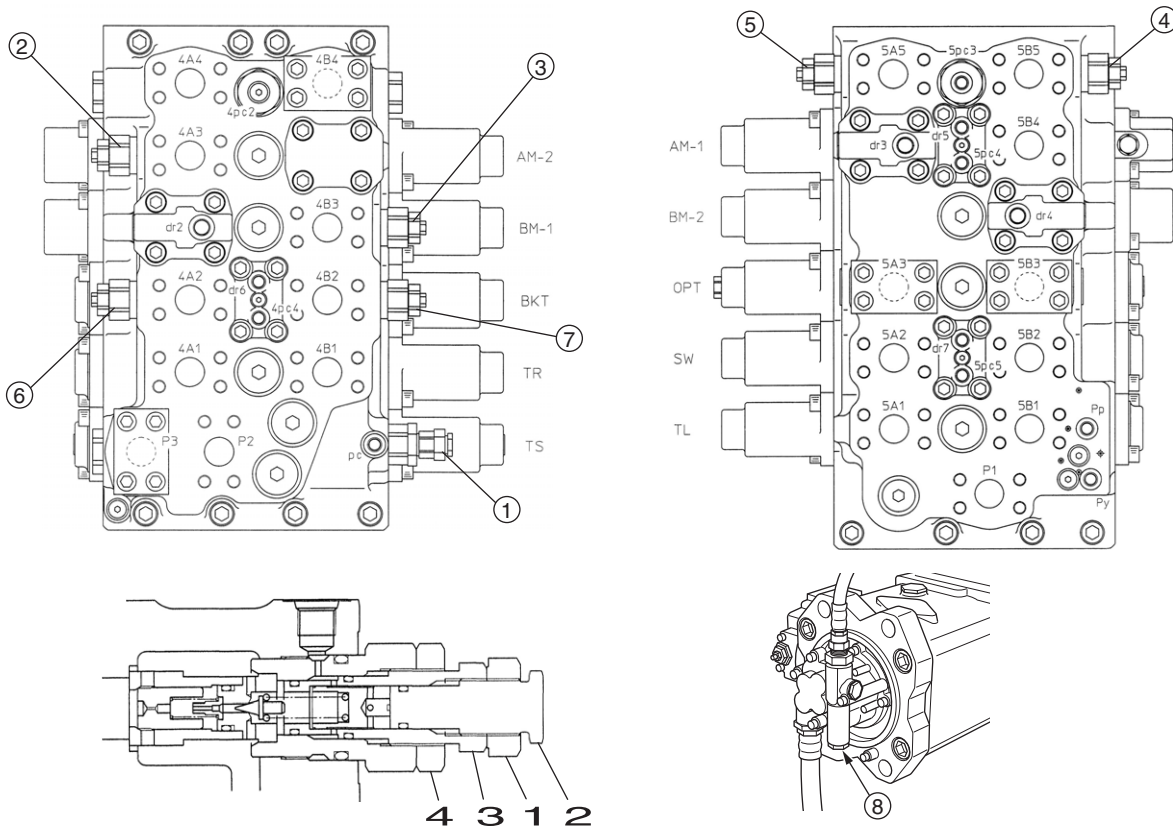
WI01010-006

1	Pump	5	Negative control pressure: N2
2	Main pressure: P2	6	Pilot pressure: P3
3	Main pressure: P1	7	Control valve
4	Negative control pressure: N1		

Control valve

Location of relief valves

Position		Tools		Set pressure	Pressure per rotation of adjusting screw	Measuring port	
		Lock nut	Adjusting screw				
1	a	Main (normal use)	30 mm in	27 mm 1.06 in	31.4 MPa 4554 Psi	17.6 Mpa 2553 Psi	Monitor P1
	b	Main (boosted pressure)	41 mm in	27 mm 1.06 in	34.3 Mpa 4975 Psi	17.6 Mpa 2553 Psi	Monitor P1
2	Boom-up	13 mm in	4 mm in	36.3. Mpa 5265 psi	36.3. Mpa psi	Monitor P2	
3	Boom down			36.3. Mpa 5265 psi	36.3. Mpa 5265 psi	Monitor P2	
4	Arm-in			36.3. Mpa 5265 psi	36.3. Mpa psi	Monitor P1	
5	Arm-out			36.3. Mpa 5265 psi	36.3. Mpa psi	Monitor P1	
6	Bucket close			36.3. Mpa 5265 psi	36.3. Mpa psi	Monitor P2	
7	Bucket open			36.3. Mpa 5265 psi	36.3. Mpa psi	Monitor P2	
8	Pilot			24 mm 0.94 in	6 mm in	4.4 Mpa 638 psi	2.1 Mpa 304.6 Psi



WI01010-002

Main relief valve adjustment location details

1	Boosted pressure lock nut	3	Standard pressure adjusting screw
2	Boosted pressure adjusting screw	4	Standard lock nut