KOBELCO

SERVICE MANUAL

CRAWLER EXCAVATOR

70SR

ACERA TIER 4

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70SR ACERA SERVICE MANUAL

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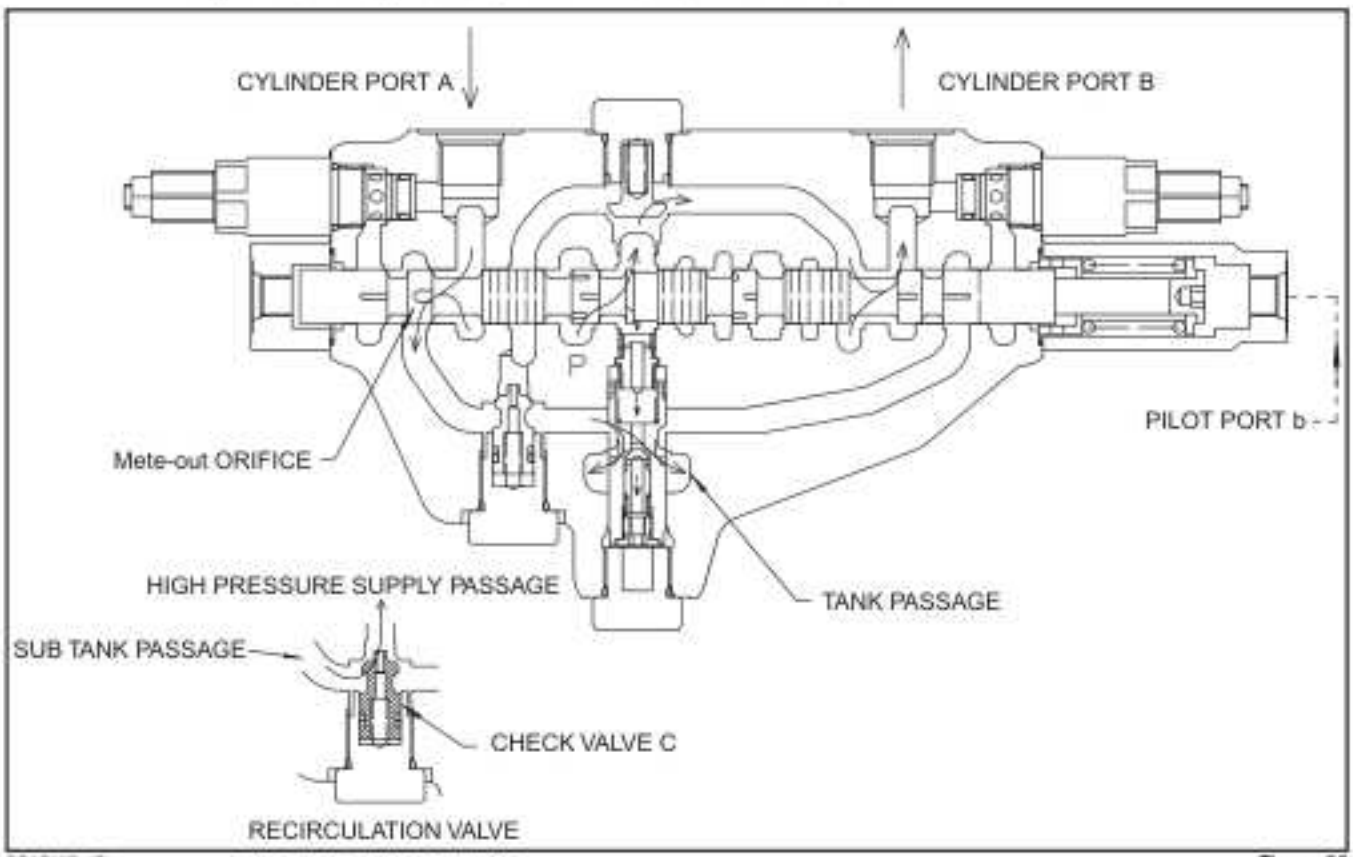
3)Recirculation valve 1 Boom, Bucket

a.Plunger operation (Pilot port b: Under pressure)

The return oil from cylinder port A passes through Meter-OUT orifice and flows into tank circuit through sub tank passage.

When the pressure of high pressure supply passage is higher than the pressure of sub tank passage, check valve C is securely seated. But when the pressure of high pressure supply passage drops and comes down to the pressure of sub tank passage or less, check valve C is opened by the differential pressure and the oil is fed into port B of cylinder again through high pressure supply passage and consequently cavitation is prevented from occurring and the actuator speed is maintained.

* Pilot port a: Under pressure, A and B reverses in flow direction.



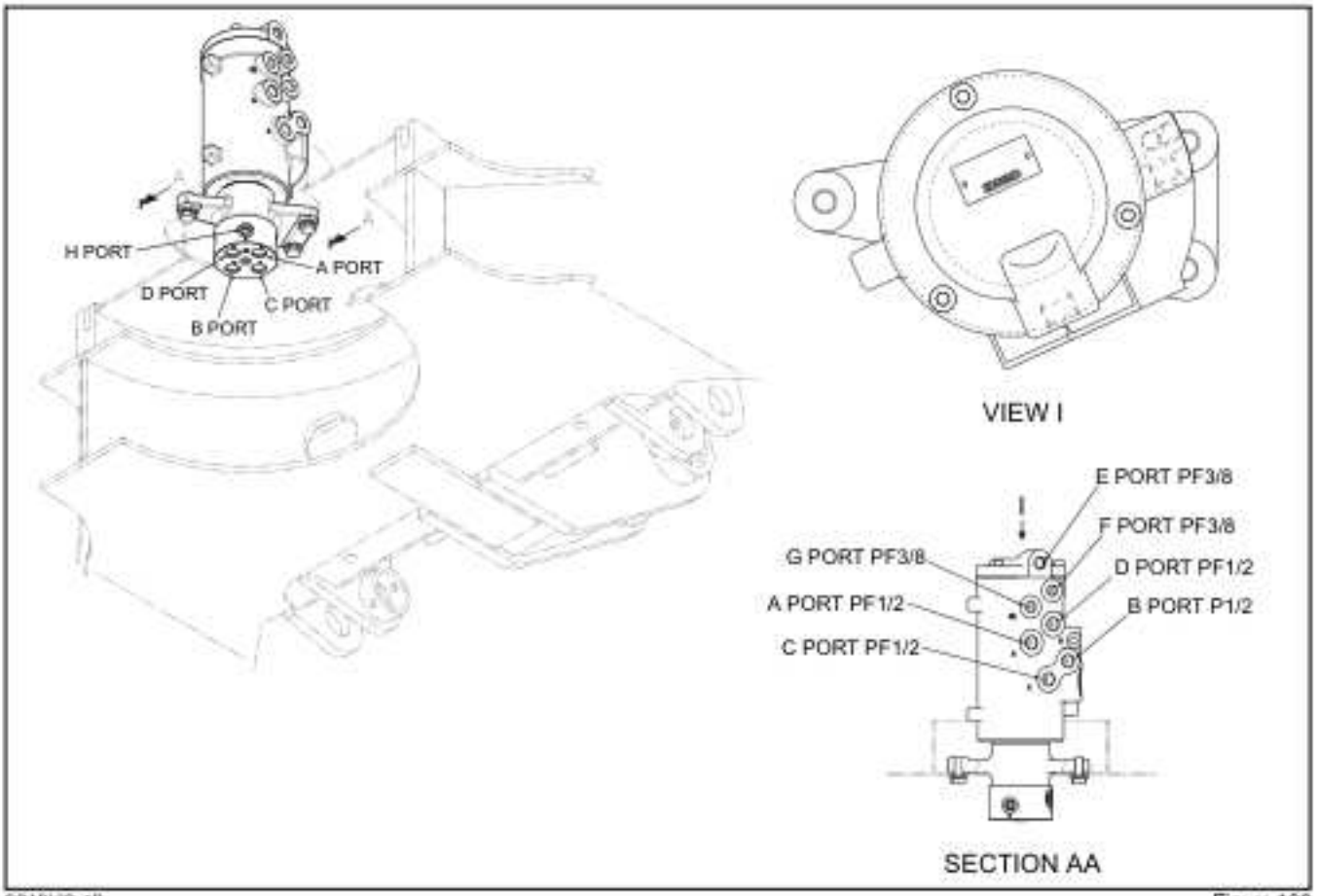
GRAPHIC_1D

Figure 55

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SWIVEL JOINT

General View



GRAPHIC_1D

Figure 109

Specification

ITEM		SPECIFICATION
PARTS No.		YT55V00009F1
High pressure port A, B, C, D	Working pressure Max. impact pressure (pressure proof) Rated flow	29.4 MPa (4263 psi) 44.1 MPa (6395 psi) 66 L/min (17.4 gal/min)
Low pressure port E	Working pressure Rated flow	0.5 MPa (73 psi) 20 L/min (5.3 gal/min)
High pressure port F, G	Working pressure Max. impact pressure (pressure proof) Rated flow	29.4 MPa (4263 psi) 44.1 MPa (6395 psi) 49 L/min (12.9 gal/min)
Low pressure port H	Working pressure Rated flow	3.5 MPa (508 psi) 20 L/min (5.3 gal/min)
Revolution		15 min^{-1}
Port size	A, B, C, D F, G E (stem) H	PF1/2 PF3/8 PF3/8 PF1/4
Total length : L		397 mm (15.63 in.)
Weight		28 kg (62 lbs)

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Table 39

Error code	F021		
Trouble	Swing parking solenoid valve and output transistor OFF are failure, and grounding is short-circuit.		
Judging condition	The feedback signal is grounding level while exciting command is output.		
Symptom	Swing parking is not available.		
Control in the event of failure	Normal control		
Returned in normal condition	The feedback signal is 24V level while exciting command is output.		
Service diagnosis checking screen	Screen No.	3	F-2 SWING-BRAKE
	Screen No.		
	Screen No.		
Checking object			Checking contents and remedy
1	• Swing parking solenoid valve SV-1		When F021 is cancelled and other error occurs by exchanging the connector for other solenoid valve. Check solenoid valve unit for possible failure. If failure found, replace it. Check solenoid valve unit for possible failure. If failure found, replace it.
2	• Wiring between swing parking solenoid valve and controller CN-123F CN-105F		When F021 is displayed after the connector is exchanged with other solenoid valve. Check wiring for possible failure according to the wiring checking procedure and repair it if necessary.
3	• Mechatro controller		Check that the error is corrected after replacement of controller.

Table 40

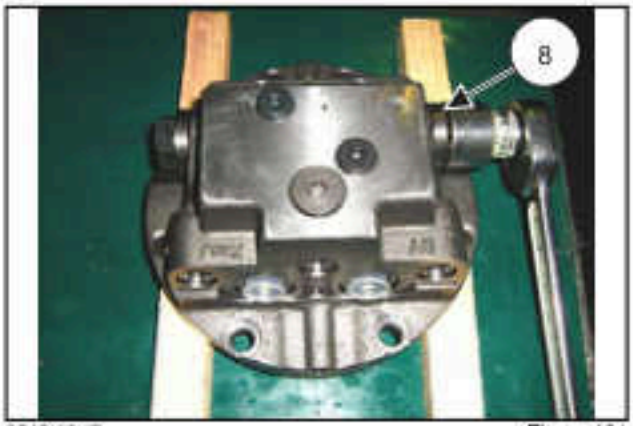
Error code	F023		
Trouble	Swing parking solenoid valve and output transistor ON are failure, and disconnection.		
Judging condition	The feedback signal is 24V level while exciting command is not output.		
Symptom	Swing parking is not available or is leaving available.		
Control in the event of failure	Normal control		
Returned in normal condition	The feedback signal is grounding level while exciting command is output.		
Service diagnosis checking screen	Screen No.	3	F-1 POWER BOOST
	Screen No.		
	Screen No.		
Checking object			Checking contents and remedy
1	• Swing parking solenoid valve SV-1		When F023 is cancelled and other error occurs by exchanging the connector for other solenoid valve. Check solenoid valve unit for possible failure. If failure found, replace it.
2	• Wiring between swing parking solenoid valve and controller CN-123F CN-105F		When F023 is displayed after the connector is exchanged with other solenoid valve. Check wiring for possible failure according to the wiring checking procedure and repair it if necessary.
3	• Mechatro controller		Check that the error is corrected after replacement of controller.

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7. Remove the cover (8) from the motor cover (3) as shown by the right figure.

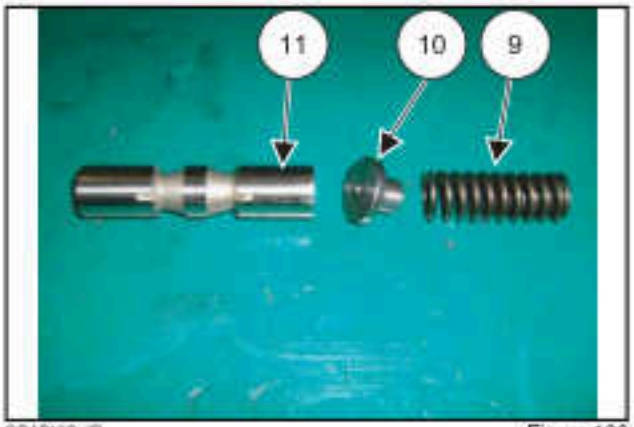
⚠ WARNING ⚠

The strong spring force is applied to the cover (8). Loosen bolts gradually with care to ensure safe and prevent the cover from damaging when removing.



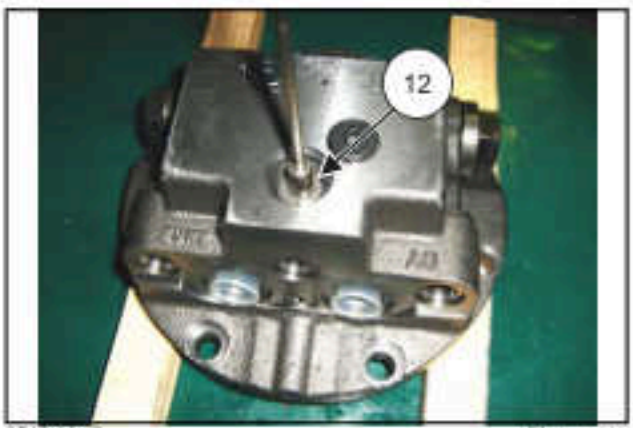
GRAPHIC_ID Figure 101

8. Remove the spring (9), pusher (10), and spool (11) from the motor cover. These parts are located under the cover (8).



GRAPHIC_ID Figure 102

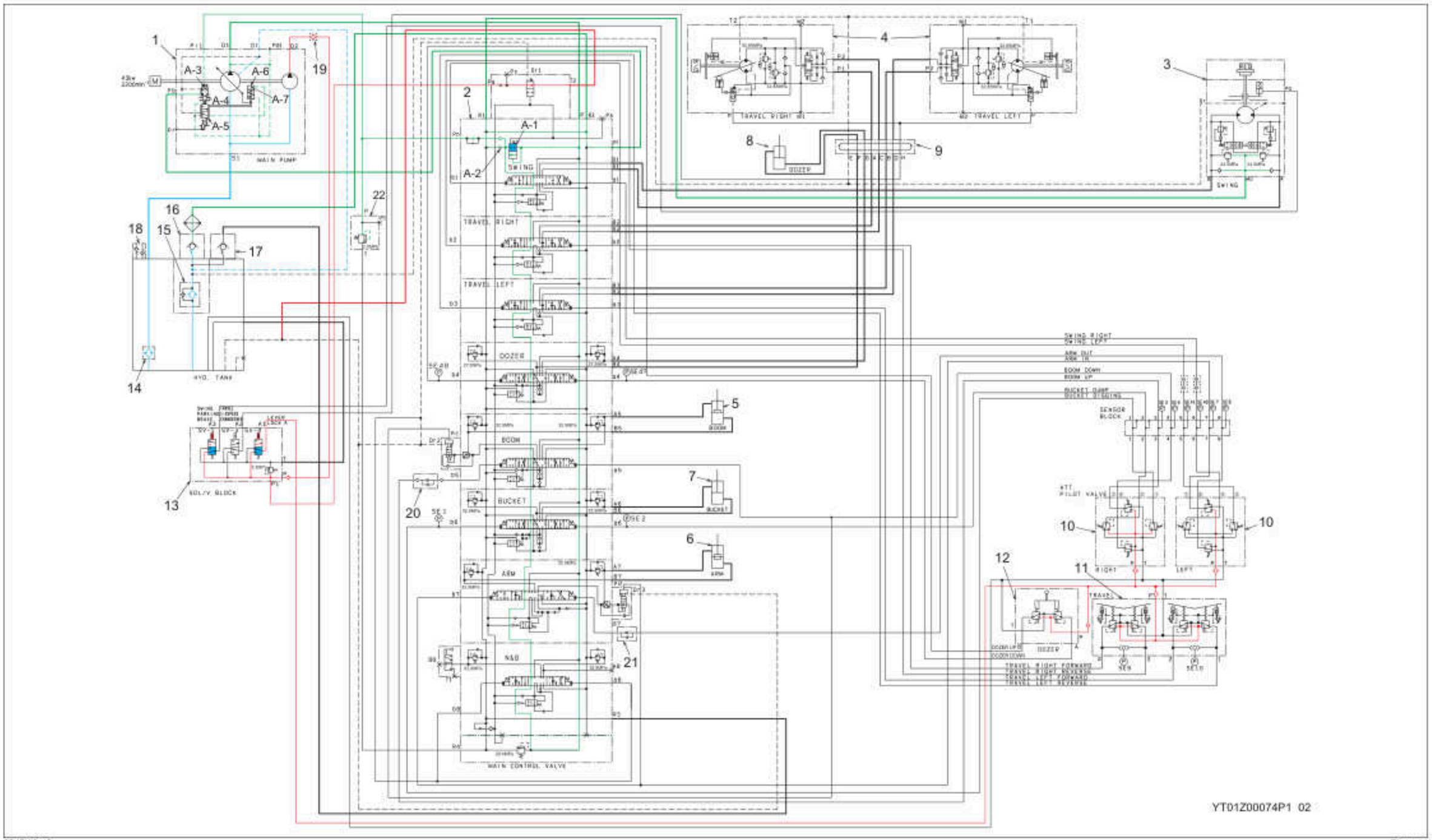
9. Remove the plug (12) from top of the motor cover.



GRAPHIC_ID Figure 103

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SECTION 3 - SYSTEMS
CHAPTER 2 - HYDRAULIC SYSTEM



GRAPHIC_10

Figure 5

NEUTRAL CIRCUIT: SAFETY LOCK LEVER ON

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