KOBELCO

SERVICE MANUAL

Hydraulic Excavator

SK485-9

Tier 4

S5LS0018E02

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APPLICABLE:
SK485-9 . . . . . YS12U0800 and higher ~

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1 - SPECIFICATIONS

SECTION 1 - OUTLINE

BOOK 1 - 84587033

CONTENTS

Section	Description	Page
1.1	GENERAL PRECAUTIONS FOR MAKING REPAIRS	1-3
1.1.1	PREPARATION BEFORE DISASSEMBLING	1-3
1.1.2	SAFETY WHEN DISASSEMBLING AND ASSEMBLING	1-3
1.1.3	DISASSEMBLING AND ASSEMBLING HYDRAULIC EQUIPMENT	1-4
1.1.4	ELECTRICAL EQUIPMENT	1-6
1.1.5	HYDRAULIC PARTS	1-7
1.1.6	WELD REPAIR	1-7
1.1.7	ENVIRONMENTAL ISSUES	1-7
1.2	INTERNATIONAL UNIT SYSTEM	1-8

SECTION 2 - SPECIFICATIONS

BOOK 1 - 84587033

CONTENTS

Section	Description	Page
2.1	NAME OF COMPONENTS	2-3
2.2	GENERAL DIMENSIONS	2-4
2.2.1	SK485LC-9 [7.00m (23ft-0in) Boom+3.45m (11ft-4in) Standard Arm+1.9m3 (2.48cu-yd) Bucket Shoe]	2-4
2.3	WEIGHT OF COMPONENTS	2-5
2.4	TRANSPOTATION	2-7
2.4.1	OVERALL DIMENSIONS OF MACHINE ON A TRAILER	2-7
2.4.2	DIMENSIONS OF ATTACHMENT	2-8
2.5	SPECIFICATIONS AND PERFORMANCE	2-10
2.5.1	SPEED AND CLIMBING CAPABILITY	2-10
2.5.2	ENGINE	2-10
2.5.3	HYDRAULIC COMPONENTS	2-10
2.5.4	WEIGHT	2-10
2.6	TYPE OF CRAWLER	2-11
2.7	TYPE OF BUCKET	2-12

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SECTION 2 - SPECIFICATIONS (CONT)

BOOK 1 - 84587033

CONTENTS

Section	Description	Page
2.8	COMBINATIONS OF ATTACHMENT	2-13
2.9	ENGINE SPECIFICATION	2-14
2.9.1	SPECIFICATIONS	2-14
2.9.2	ENGINE CHARACTERISTIC CURVE (HINO P11C-VC)	2-15

SECTION 3 - ATTACHMENT DIMENSIONS

BOOK 1 - 84587033

CONTENTS

Section	Description	Page
3.1	BOOM	3-3
3.1.1	BOOM DIMENSIONAL DRAWING	3-3
3.1.2	BOOM MAINTENANCE STANDARD	3-4
3.2	ARM	3-6
3.2.1	ARM DIMENSIONAL DRAWING	3-6
3.2.2	ARM MAINTENANCE STANDARD	3-7
3.3	BUCKET	3-10
3.3.1	BUCKET DIMENSIONAL DRAWING	3-10

SECTION 11 - TOOLS

BOOK 1 - 84587033

CONTENTS

Section	Description	Page
11.1	TIGHTENING TORQUES FOR CAPSCREWS AND NUTS	11-3
11.2	SCREW SIZE	11-5
11.2.1	CAPSCREW (BOLT)	11-5
11.2.2	CAPSCREW (SOCKET BOLT)	11-5
11.2.3	SOCKET SET SCREW	11-5

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SECTION 11 - TOOLS (CONT)

BOOK 1 - 84587033

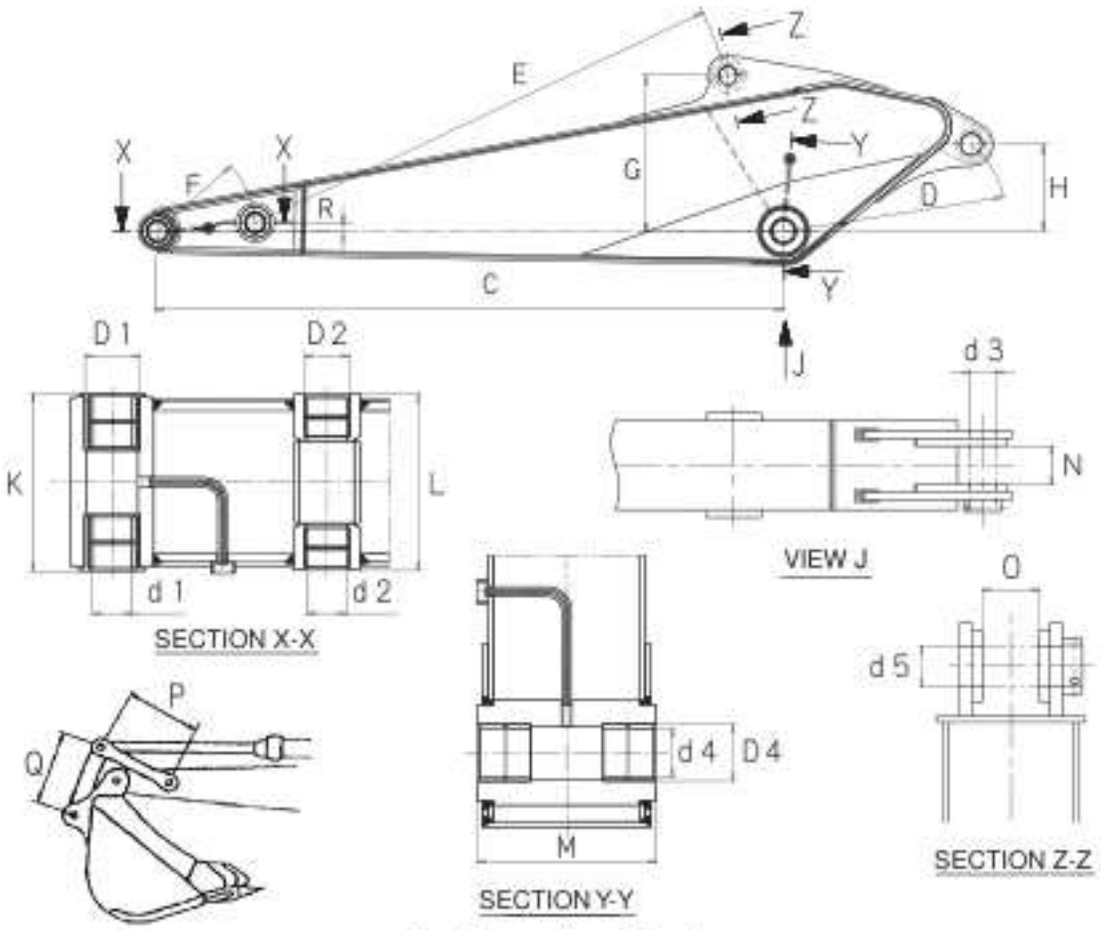
CONTENTS

Section	Description	Page
11.3	TIGHTENING TORQUE FOR HOSE AND FITTING	11-6
11.3.1	JOINT (O-RING TYPE)	11-6
11.3.2	HYDRAULIC HOSE (30 DEG. FLARE TYPE)	11-6
11.3.3	JOINT (ORS TYPE)	11-6
11.3.4	SPLIT FLANGE	11-6
11.4	TIGHTENING TORQUES FOR NUTS AND SLEEVES	11-7
11.5	PLUG	11-8
11.5.1	PLUG FOR HYDRAULIC PIPE JOINT	11-8
11.5.2	PLUG FOR HYDRAULIC EQUIPMENT	11-9
11.6	SPECIAL SPANNER FOR TUBE	11-11
11.7	SPECIAL TOOLS	11-12
11.8	APPLICATION OF SCREW LOCKING COMPOUND AND SEALING COMPOUND	11-14
11.9	SUCTION STOPPER	11-15
11.9.1	COMPONENTS	11-15
11.9.2	DIMENSION	11-15
11.9.3	APPLICABLE MODEL	11-15
11.10	UPPER FRAME LIFTING JIG	11-16
11.11	ENGINE MOUNTING PEDESTAL	11-17
11.12	EXHAUST GAS POST-CLEANING DEVICE (DPF (DIESEL PARTICULATE FILTER)) INSTALLING JIG	11-18
11.12.1	DIMENSION	11-18

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3.2 ARM

3.2.1 ARM DIMENSIONAL DRAWING



Arm Dimensional Drawing

3.45m (11ft-4in) ARM	LS12B00242F1				Unit: mm (ft-in)
Code	NAME	DIMENSION	Code	NAME	DIMENSION
C	Arm length	3,450 (11'4")	N	Arm cyl. rod inner width	166 (6.54")
D	Distance between pins of boss and bracket	R1,140 (3'9")	O	Bracket cyl. head inner width	166 (6.54")
D1	I.D of boss	ϕ 140 (5.51")	P	Idler link dimension	785 (30.9")
D2	I.D of boss	ϕ 115 (4.53")	Q	Bucket link dimension	680 (26.8")
D4	I.D of boss	ϕ 140 (5.51")	R	Height between pins of boss and center	48 (1.89")
E	Distance between pins of boss and bracket	R2,728 (8'11")	d1	Pin dia.	ϕ 100 (3.94")
F	Distance between pins of boss and boss	R540 (21.3")	d2	Pin dia.	ϕ 100 (3.94")
G	Height between pins of boss and bracket	858 (33.8")	d3	Pin dia.	ϕ 120 (4.72")
H	Height between pins of boss and bracket	479 (18.9")	d4	Pin dia.	ϕ 120 (4.72")
K	Arm top end boss width	450 (17.7")	d5	Pin dia.	ϕ 100 (3.94")
L	Arm link section boss width	446 (17.6")		Weight kg (lb)	1,650 (3,638)
M	Boss width	444 (17.5")			

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Table 46-10

Error code	B014		
Trouble	Boom up pressure sensor's power source is shortcut.		
Judging condition	The input voltage from boom up pressure sensor is 4.7V or more.		
Symptom	The boom up speed slows down.		
Control in the event of failure	Set proportional valve output rate of P1 and P2 pumps to constant current. (Current when all operation is in neutral.) Only on independent operation of boom-up, set output of P1, P2 unload proportional valves to 750 mA.		
Returned in normal condition	It returns automatically in normal condition.		
Service diagnosis checking screen	Screen No.	5	B-1 BOOM RAISE
	Screen No.		
	Screen No.		
Checking object			Checking contents and remedy
1	Boom up pressure sensor SE-3		When B014 is cancelled and another error occurs after exchanging the connector with another sensor. Check sensor unit for possible failure. If failure found, replace it.
2	Wiring between boom up pressure sensor and controller CN-126F CN-101F		When B014 is displayed after the connector is exchanged with another sensor. 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 46-11

Error code	B022		
Trouble	Boom down pressure sensor outputs error		
Judging condition	After starter switch ON and engine does not start yet. And the input voltage from the sensor after starter switch ON is in the range of 1.4 V or more to less than 4.7 V.		
Symptom	The boom down operability becomes poor.		
Control in the event of failure	Normal control		
Returned in normal condition	Not returned automatically under normal condition. Switch the power OFF once and turn it on again.		
Service diagnosis checking screen	Screen No.	5	B-2 BOOM LOWER
	Screen No.		
	Screen No.		
Checking object			Checking contents and remedy
1	Boom down pressure sensor SE-4		When B022 is cancelled and another error occurs by turning starter switch on after exchanging the connector with another sensor. Check sensor unit for possible failure. If failure found, replace it.
2	Wiring between boom down pressure sensor and controller CN-127F CN-101F		When B022 is displayed after turning the starter switch on after the connector is exchanged with another sensor. 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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DTC code P0108 [25]

/Boost pressure sensor circuit high input

DTC code P0237 [25]

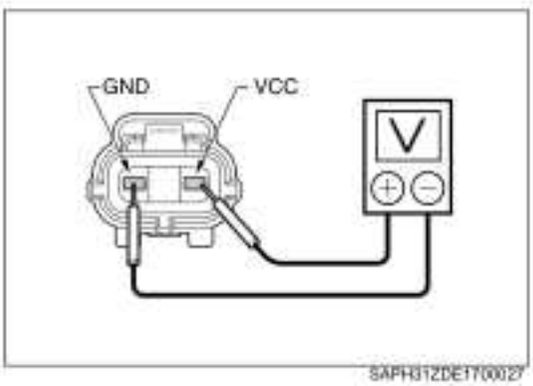
/Boost pressure sensor circuit low input

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1	CHECK THE VOLTAGE BETWEEN TERMINALS

1. Set the starter switch to "LOCK" and connect the signal check harness.
2. Tilt the cab and disconnect the connector of boost pressure sensor.
3. Set the stater switch to "ON" (The engine is stopped).
4. Measure the voltage between VCC and GND terminals of boost pressure sensor (unit harness side).

   Standard value: 4.5-5.5V
   (After measurement, turn the starter switch to "LOCK" position.)



SAPH31ZDE1700027

NG → Proceed to 2

OK

Proceed to 3

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7. Fit drive gear (191), driven gear (192), and bearing spacers (126 and 127) to drive shaft (111) and driven shaft (113). Then fix them with snap rings (824 and 825).

   - Confirm the attaching direction of drive gear (191) and driven gear (192) before fitting.
   - Direct the sharp edge of snap rings (824 and 825) to the outside.



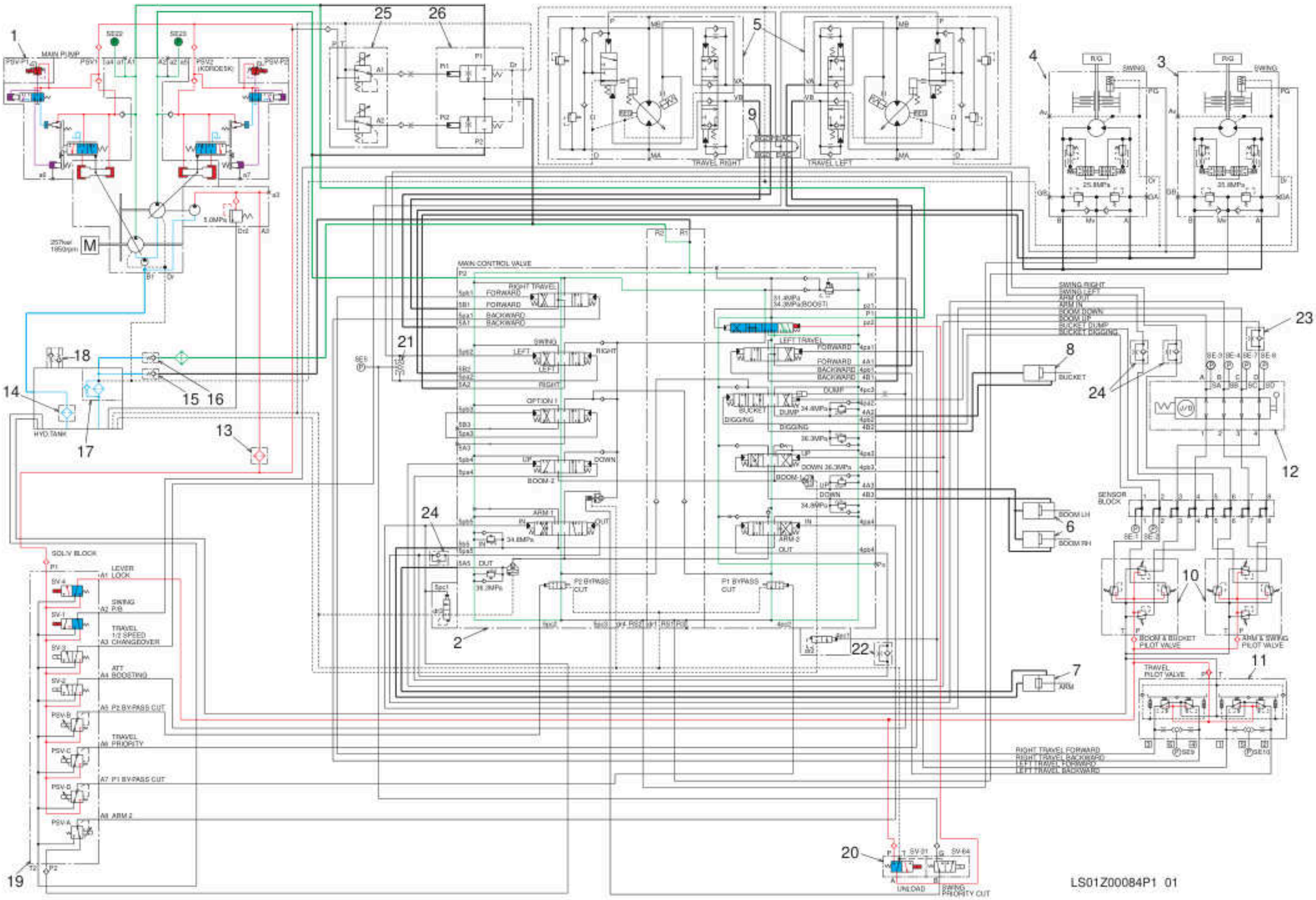
8. Fit front casing (171) to pump casing (271) and fix them with socket bolts (408).

   - Take care of front casing (171) not to fall because it is heavy (about 28 kg).
   - Fit front casing (171) with respect to drive shaft (111) horizontally.
   When the guide bolt is used, posture is steady. (Refer to attached dwg.)
   In addition, take care not to damage oil seal sliding surfaces of drive shaft (111) in fitting front casing.
   - There is the seat packing (752) between front casing (171) and pump casing (271).
   Apply grease to seat packing (752) because it tends to come off.





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PRESSURE DRAIN (RELEASE) CIRCUIT: At Pressure Release Mode.

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