CRAWLER EXCAVATOR

SERVICE MANUAL

R145CR-9A

HYUNDAI

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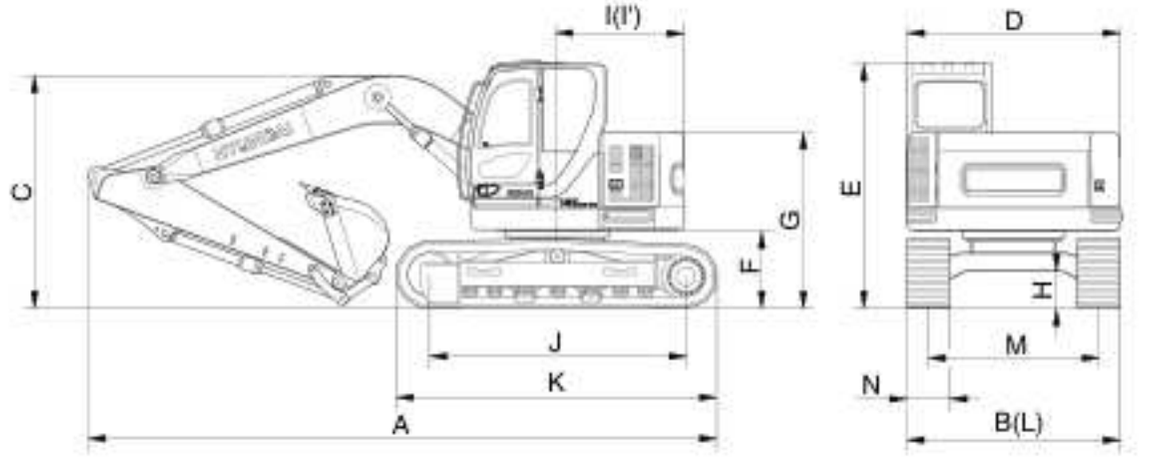
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3) R145LCR-9A

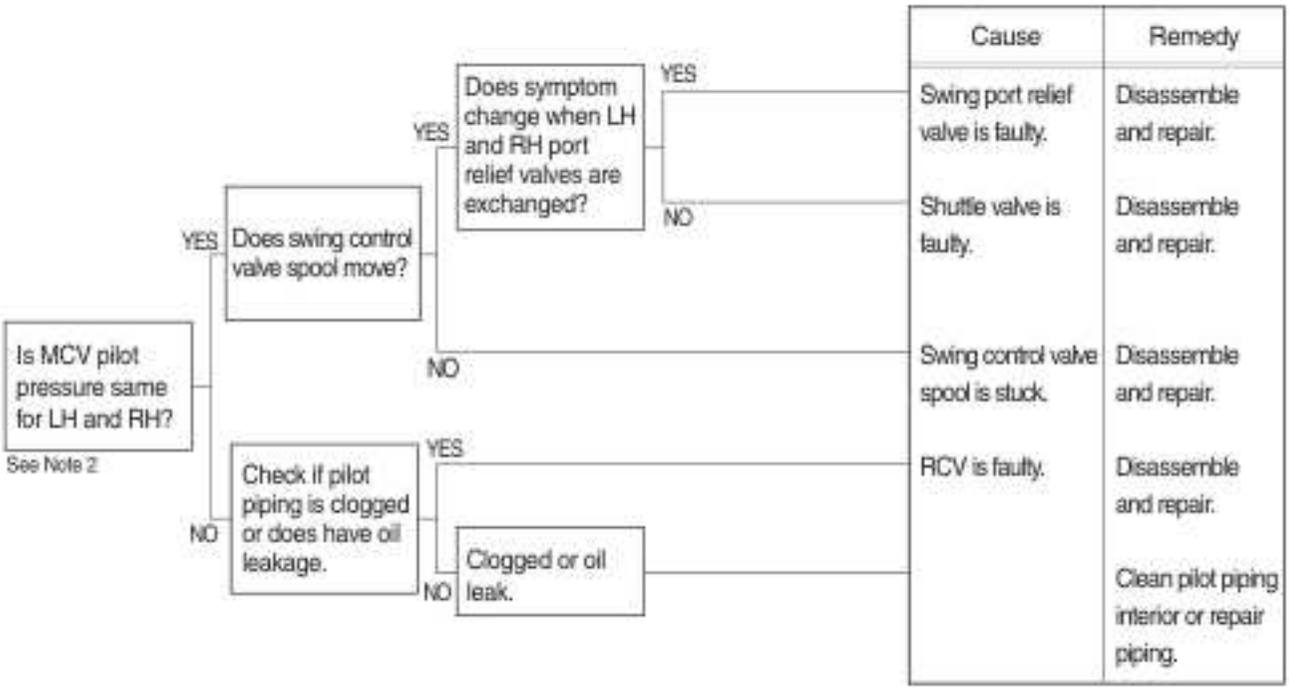
· 4.60 m (15' 1") BOOM and 2.50 m (8' 2") ARM



Description		Unit	Specification
Operating weight		kg (lb)	14980 (33030)
Bucket capacity (SAE heaped), standard		m³ (yd³)	0.52 (0.68)
Overall length	A	mm (ft-in)	7360 (24' 2")
Overall width, with 600 mm shoe	B		2600 (8' 6")
Overall height	C		2860 (9' 5")
Superstructure width	D		2500 (8' 2")
Overall height of cab	E		2900 (9' 6")
Ground clearance of counterweight	F		930 (3' 1")
Engine cover height	G		2215 (7' 3")
Minimum ground clearance	H		440 (1' 5")
Rear-end distance	I		1480 (4' 10")
Rear-end swing radius	I'		1480 (4' 10")
Distance between tumblers	J		3090 (10' 2")
Undercarriage length	K		3820 (12' 6")
Undercarriage width	L		2600 (8' 6")
Track gauge	M		2000 (6' 7")
Track shoe width, standard	N		600 (24")
Travel speed (low/high)		km/hr (mph)	3.3/5.5 (2.1/3.4)
Swing speed		rpm	11.5
Gradeability		Degree (%)	35 (70)
Ground pressure (600 mm shoe)		kgf/cm²(psi)	0.37 (5.26)
Max traction force		kg (lb)	13300 (29320)

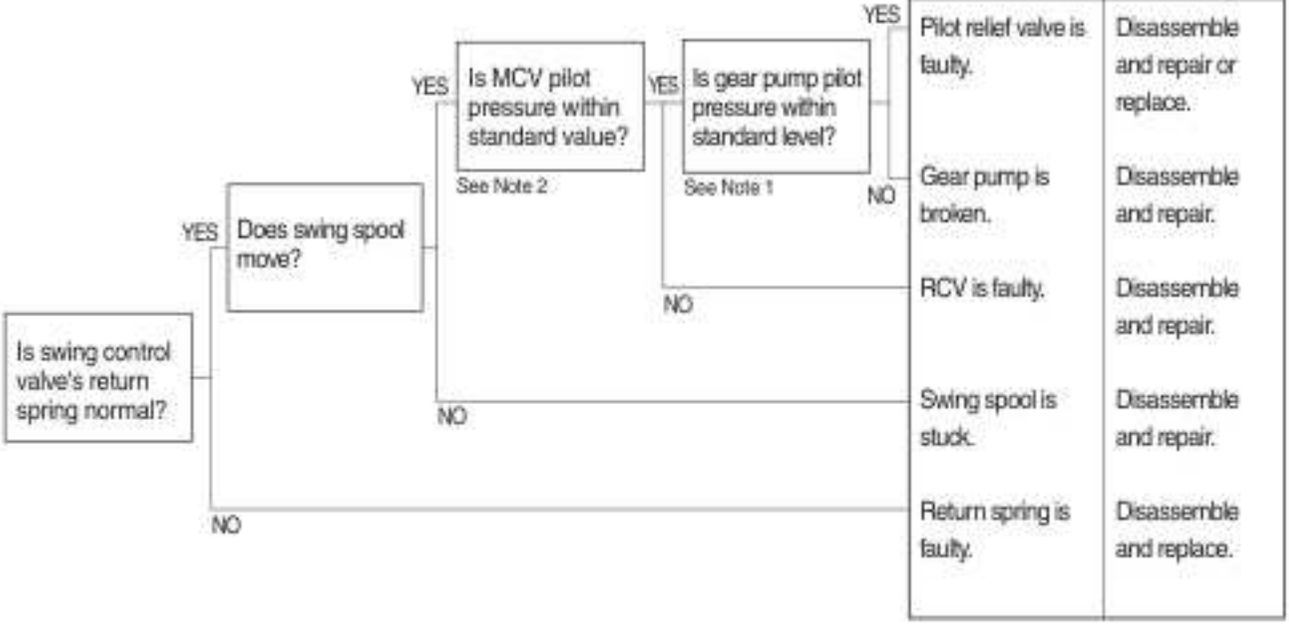
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3) SWING MOTION IS IMPOSSIBLE IN ONE DIRECTION



Cause	Remedy
Swing port relief valve is faulty.	Disassemble and repair.
Shuttle valve is faulty.	Disassemble and repair.
Swing control valve spool is stuck.	Disassemble and repair.
RCV is faulty.	Disassemble and repair.
	Clean pilot piping interior or repair piping.

4) MACHINE SWINGS BUT DOES NOT STOP



Cause	Remedy
Pilot relief valve is faulty.	Disassemble and repair or replace.
Gear pump is broken.	Disassemble and repair.
RCV is faulty.	Disassemble and repair.
Swing spool is stuck.	Disassemble and repair.
Return spring is faulty.	Disassemble and replace.

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15. MALFUNCTION OF BOOM PRIORITY EPPR VALVE

- Fault code : HCESPN 141, FMI 5 or 6

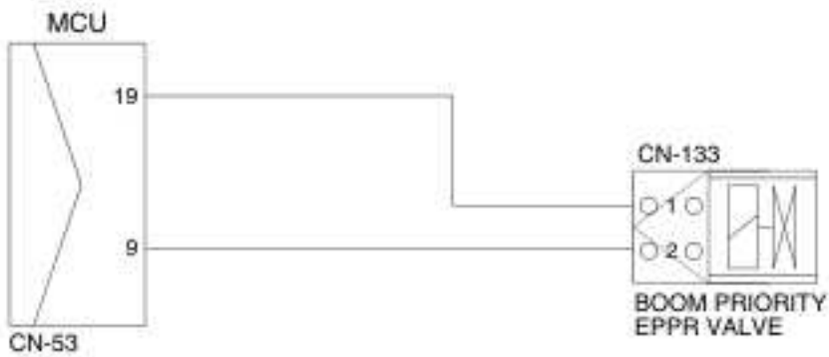
※ Before carrying out below procedure, check all the related connectors are properly inserted.

1) INSPECTION PROCEDURE



Cause	Remedy
Short circuit or poor connection between CN-53(19)-CN-133 (1) or CN-53(9)-CN-133(2)	Repair or replace
Defective EPPR valve	Repair or replace

Wiring diagram



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(11) Put spring (36), two speed control spool (35) into valve casing (25) in regular sequence and assemble plug (37) into valve casing (25) using a torque wrench.

· Tighten torque : 10 kgf-m (72.3 lbf-ft)



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(12) Assemble check (30), spring (29), plug (27) into main spool (26) in regular sequence.



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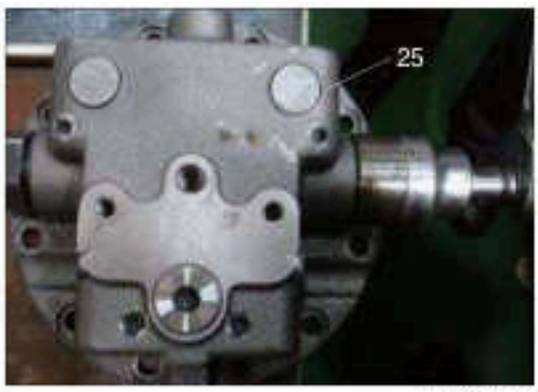
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(13) Put the main spool (26) into valve casing (25) and assemble plate (31), spring (29) into it. Tighten main spool plug (32) using a torque wrench.

· Tighten torque : 45 kgf-m (325.5 lbf-ft)



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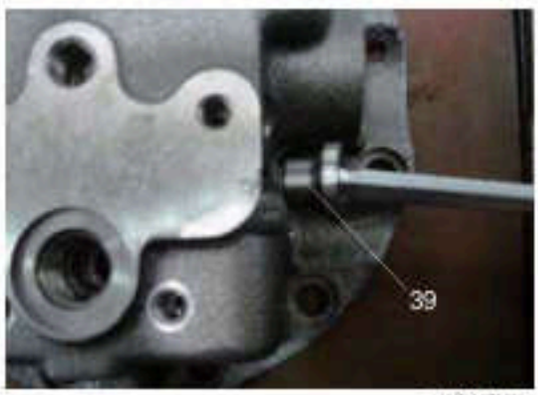
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(14) Put relief valve damping piston (38) into valve casing (25) and assemble plug (39) into valve casing (25).

· Tighten torque : 6 kgf-m (43.4 lbf-ft)



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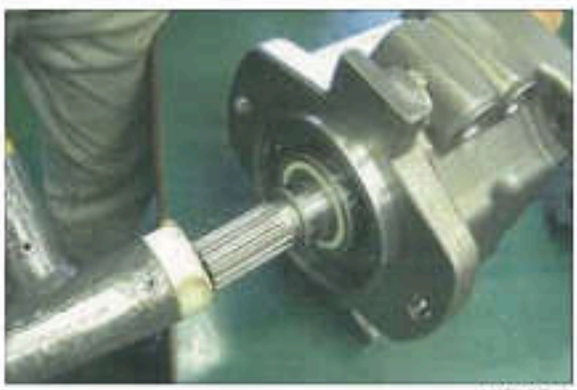
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(3) Fit tilting bush (214) of swash plate (212) to tilting pin (531), and fit swash plate (212) with shoe plate (211) to swash plate support (251) correctly.
- Confirm with fingers of both hands that swash plate can be removed smoothly.
- Apply grease to sliding sections of swash plate (212) and swash plate support (251), and drive shaft (111, 113) can be fitted easily.
- Take care not to damage shoe plate (211) surface.


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(4) To pump casing (271, 272), fit drive shaft (111, 113) set with bearing (123), bearing spacer (127) and stop ring (824).


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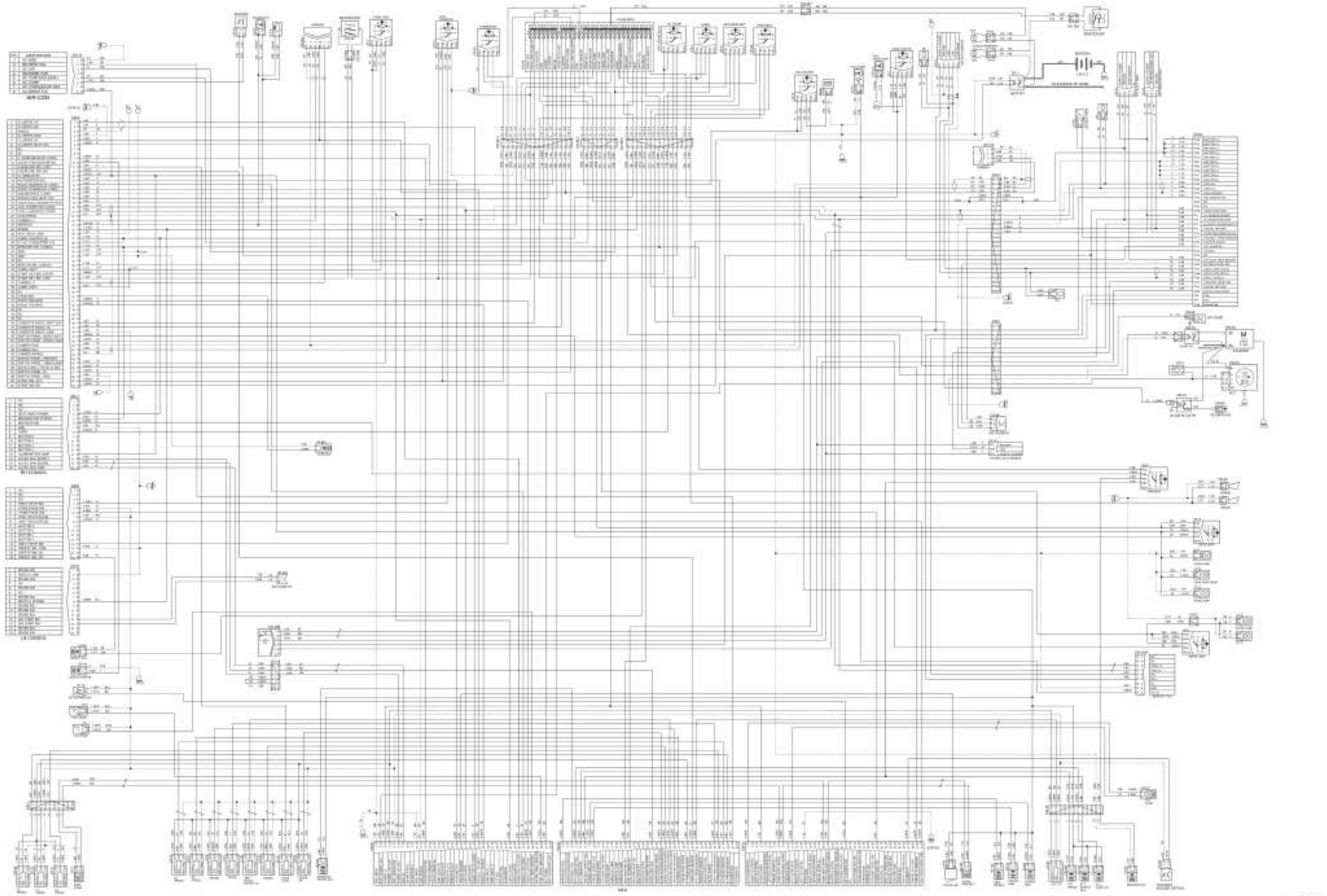
(5) In assemble of front pump, assemble seal cover (F) (261) to pump casing (271) and fix it with hexagon socket head bolt (406).
- Apply grease lightly to oil seal in seal cover (F) (261).
- For assemble oil seal (774), taking full care not to damage it.


140Z98MP26

(6) Assemble piston cylinder subassembly [cylinder (141), piston subassembly (151, 152), set plate (153), spherical bush (156) and cylinder spring (157)]. Fitting spline phases of cylinder, spherical bush (156) and drive shaft (111, 113), insert piston cylinder subassembly into pump casing (271, 272).


140Z98MP27

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