CRAWLER EXCAVATOR

SERVICE MANUAL

R300LC-9A

HYUNDAI

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SECTION 9 COMPONENT MOUNTING TORQUE

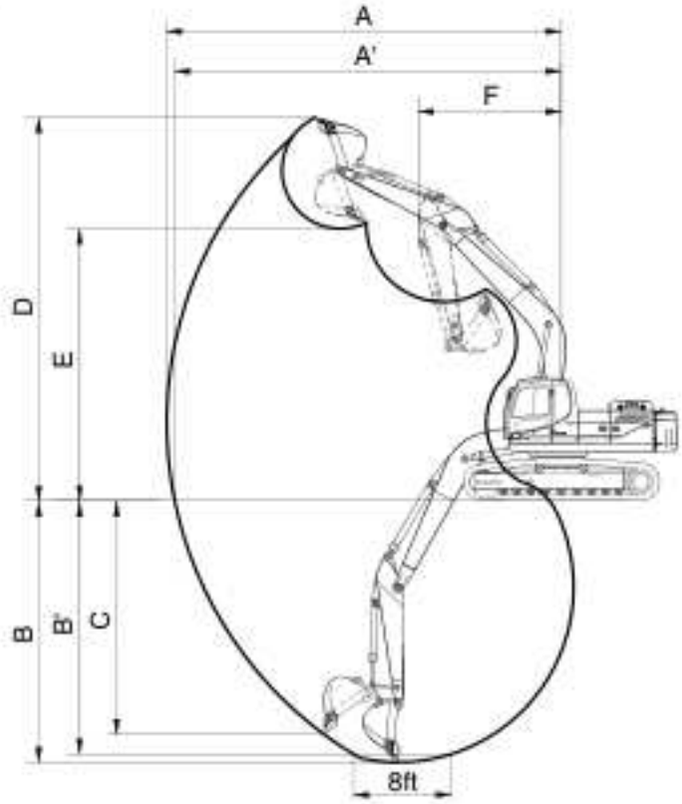
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3. WORKING RANGE

1) R300LC-9A, R300NLC-9A

· 6.25 m (20' 6") BOOM



Description		2.10m (6' 11") Arm	2.50 m (8' 2") Arm	3.05 m (10' 0") Arm	3.75 m (12' 4") Arm
Max digging reach	A	10020 mm (32' 10")	10280 mm (33' 9")	10820 mm (35' 6")	11400 mm (37' 5")
Max digging reach on ground	A'	9820 mm (32' 3")	10080 mm (33' 1")	10620 mm (34' 10")	11220 mm (36' 10")
Max digging depth	B	6440 mm (21' 2")	6840 mm (22' 5")	7390 mm (24' 3")	8090 mm (26' 7")
Max digging depth (8 ft level)	B'	6240 mm (20' 6")	6630 mm (21' 9")	7200 mm (23' 7")	7920 mm (26' 0")
Max vertical wall digging depth	C	6000 mm (19' 8")	5850 mm (19' 2")	6380 mm (20' 11")	7080 mm (23' 3")
Max digging height	D	10070 mm (33' 0")	10110 mm (33' 2")	10160 mm (33' 4")	10360 mm (34' 0")
Max dumping height	E	6940 mm (22' 9")	7030 mm (23' 1")	7110 mm (23' 4")	7310 mm (24' 0")
Min swing radius	F	4380 mm (14' 4")	4260 mm (14' 0")	4230 mm (13' 11")	4190 mm (13' 9")
Bucket digging force	SAE	168.7 [183.1] kN	168.7 [183.1] kN	168.7 [183.1] kN	168.7 [183.1] kN
		17200 [18670] kgf	17200 [18670] kgf	17200 [18670] kgf	17200 [18670] kgf
		37920 [41170] lbf	37920 [41170] lbf	37920 [41170] lbf	37920 [41170] lbf
	ISO	192.2 [208.7] kN	192.2 [208.7] kN	192.2 [208.7] kN	192.2 [208.7] kN
		19600 [21280] kgf	19600 [21280] kgf	19600 [21280] kgf	19600 [21280] kgf
		43210 [46910] lbf	43210 [46910] lbf	43210 [46910] lbf	43210 [46910] lbf
Arm digging force	SAE	180.4 [195.9] kN	156.9 [170.4] kN	131.4 [142.7] kN	114.7 [124.6] kN
		18400 [19980] kgf	16000 [17370] kgf	13400 [14550] kgf	11700 [12700] kgf
		40570 [44050] lbf	35270 [38290] lbf	29540 [32070] lbf	25790 [28000] lbf
	ISO	190.3 [206.6] kN	163.8 [177.8] kN	136.3 [148] kN	119.6 [129.9] kN
		19400 [21060] kgf	16700 [18130] kgf	13900 [15090] kgf	12200 [13250] kgf
		42770 [46440] lbf	36820 [39980] lbf	30640 [33270] lbf	26900 [29210] lbf

[ ] : Power boost

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Fault code J1939 SPN J1939 FMI	Reason	Effect (only when fault code is active)
2765 2797 13	Engine Injector Bank 1 Barcodes - Out of Calibration. Invalid injector barcode information has been entered, or has not been entered at all.	None on performance.
2777 3703 31	Particulate Trap Active Regeneration Inhibited Due to Inhibit Switch - Condition Exists. Regeneration of the diesel particulate filter has been prevented due to the permit switch being disabled.	None on performance.
2878 4097 7	Aftertreatment Fuel Drain Valve - Mechanical System Not Responding Properly or Out of Adjustment. The aftertreatment fuel shutoff drain valve has been detected to be stuck closed.	Active aftertreatment diesel particulate filter regeneration will be disabled.
2961 412 15	Exhaust Gas Recirculation Temperature - Data Valid But Above Normal Operational Range - Least Severe Level. EGR temperature has exceeded the engine protection limit.	Slight fueling derate to bring EGR temperature under the maximum limit.
2962 412 16	Exhaust Gas Recirculation Temperature - Data Valid But Above Normal Operational Range - Moderately Severe Level. EGR temperature has exceeded the engine protection limit.	Severe fueling derate to bring EGR temperature under the maximum limit.
2973 102 2	Intake manifold 1 pressure - Data erratic, intermittent, or incorrect. The intake manifold pressure sensor is reading an erratic value.	The ECM will estimate the intake manifold pressure. Possible engine power derate.
3133 3610 3	Aftertreatment Diesel Particulate Filter Outlet Pressure Sensor Circuit - Voltage Above Normal, or Shorted to High Source. High signal voltage detected at the aftertreatment diesel particulate filter outlet pressure sensor circuit.	Active and stationary regeneration of the diesel particulate filter will be disabled.
3134 3610 4	Aftertreatment Diesel Particulate Filter Outlet Pressure Sensor Circuit - Voltage Below Normal, or Shorted to Low Source. Low signal voltage detected at the aftertreatment diesel particulate filter outlet pressure sensor circuit.	Active and stationary regeneration of the diesel particulate filter will be disabled.
3135 3610 2	Aftertreatment Diesel Particulate Filter Outlet Pressure - Data Erratic, Intermittent or Incorrect. The aftertreatment diesel particulate filter outlet pressure sensor is reading an erratic value at initial key ON or during engine operation.	Active and stationary regeneration of the diesel particulate filter will be disabled.
3139 3667 3	Engine Air Shutoff Circuit - Voltage Above Normal or Shorted to High Source. High signal voltage detected at the air shutoff circuit.	The engine air shutoff valve will be disabled.
3186 1623 9	Tachograph Output Shaft Speed - Abnormal Update Rate. No communication or an invalid data transfer rate has been detected on the J1939 data link between the ECM and the tachograph output shaft speed sensor.	None on performance.

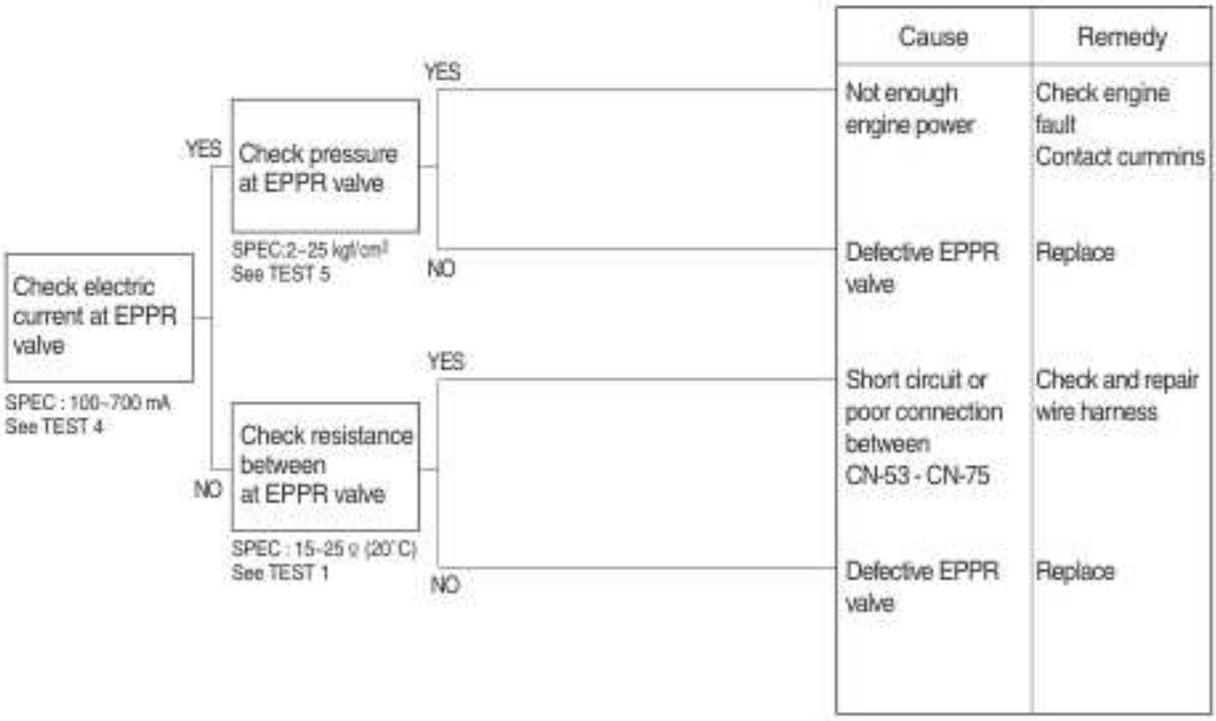
※ Some fault codes are not applied to this machine.

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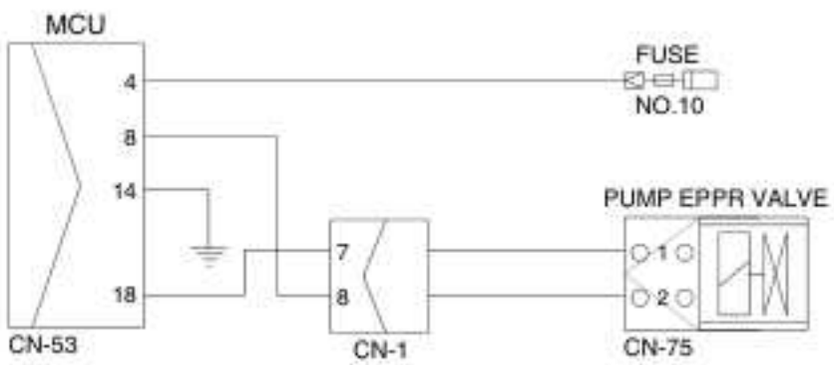
2. ENGINE STALL

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

1) INSPECTION PROCEDURE



Wiring diagram



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(28)Assemble piston ring (30), piston ring 252 (30) and 278 (31) into brake piston (29).



(29)Assemble brake piston into shaft casing.

※ Be careful of the direction of assembling brake piston.



(30)Assemble brake spring (32).

※ Quantity : Spring-10 pieces, Holes-11 pieces

※ Do not assemble on the top of brake piston.



(31)Insert O-ring (69), after fastening orifice screw (4) with standard torque.

· Quantity and size : (4) 2 pieces- ø 1.0
(56) 1pieces- ø 1.5

· Tightening torque : 7 kgf · m (50.63 lbf · ft)



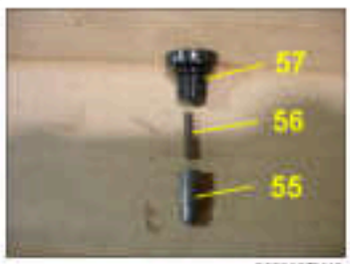
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4. REASSEMBLING

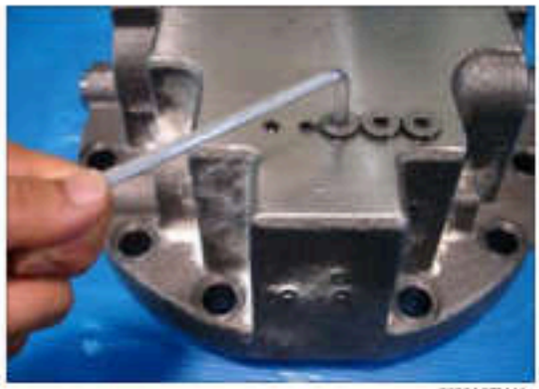
1) ASSEMBLING MOTOR

- REAR COVER ASSY

(1) Assemble check valve (55), spring (56) into rear cover (34) and then assemble plug (57) using L-wrench.



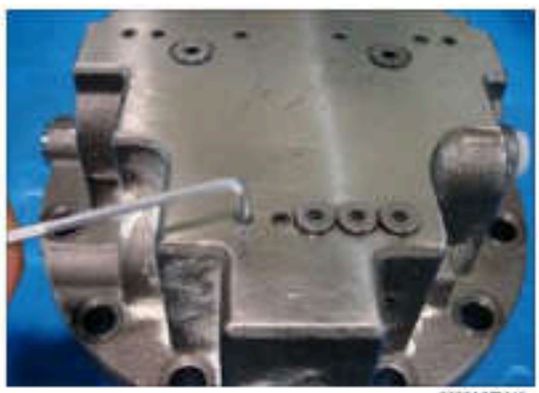
2609A8TM40


2609A8TM41

(2) Apply loctite #242 on the NPTF 1/16 plug (2) and then assemble 12-NPTF 1/16 Plug (2) into rear cover(34).



2609A8TM42


2609A8TM43

(3) Assemble spool (47), parallel pin (50), spring seat (49) and spring (51) into rear cover (34) in regular sequence and then assemble plug (48) and connector (52).



2609A8TM44


2609A8TM45


2609A8TM46

(4) Assemble relief valve (42, 2EA) into rear cover (34).

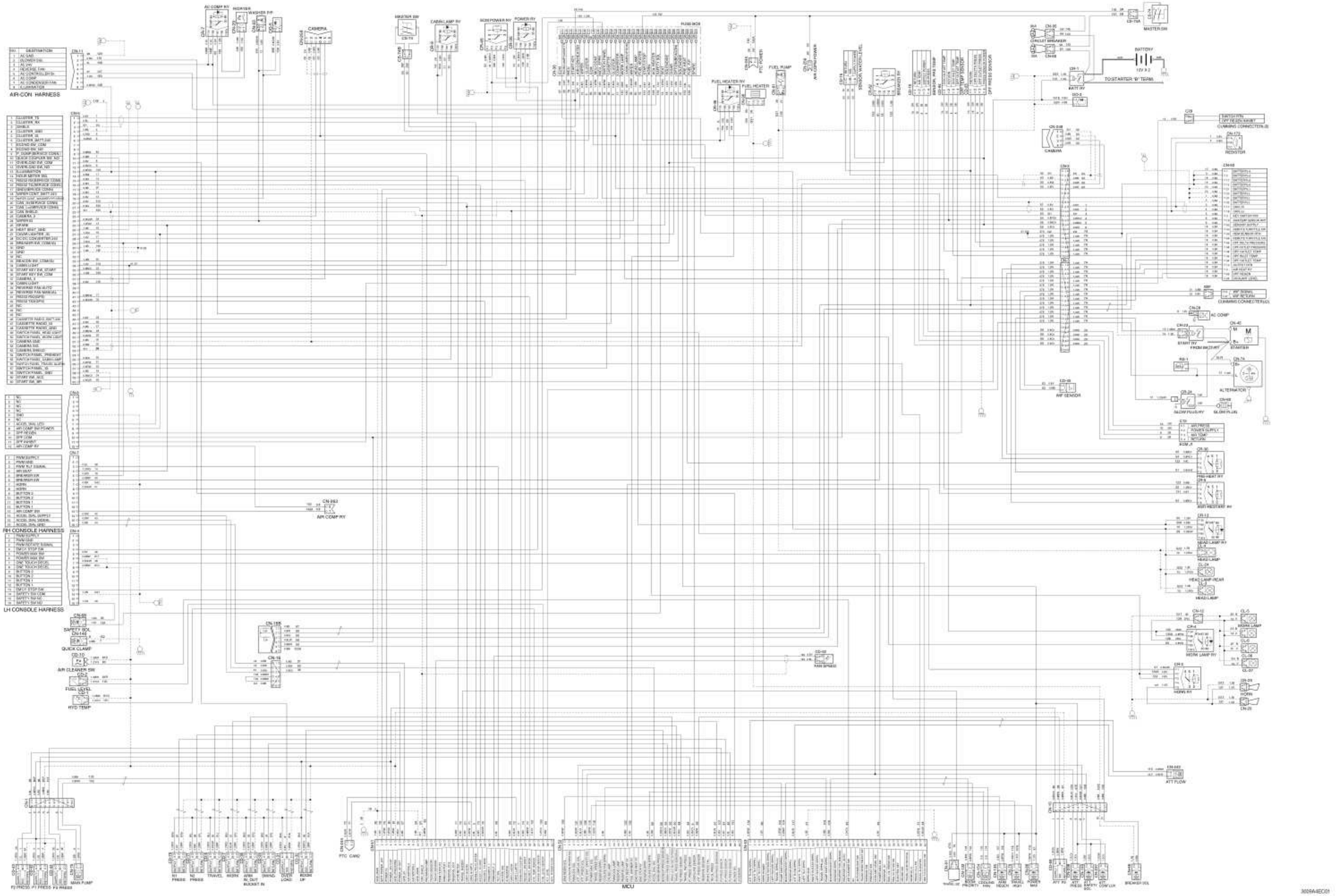


2609A8TM47


2609A8TM48


2609A8TM49

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