CRAWLER EXCAVATOR

SERVICE MANUAL

R235LCR-9A

HYUNDAI

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3) GEAR PUMP

Item	Specification
Type	Fixed displacement gear pump single stage
Capacity	15 cc/rev
Maximum pressure	40 kgf/cm² (570 psi)
Rated oil flow	28.5 ℓ/min (7.5 U.S. gpm/6.3 U.K. gpm)

4) MAIN CONTROL VALVE

Item		Specification
Type		9 spools two-block
Operating method		Hydraulic pilot system
Main relief valve pressure		350 kgf/cm² (4980 psi) [380 kgf/cm² (5400 psi)]
Port relief valve pressure	Boom	400 kgf/cm² (5690 psi)
	Arm	400 kgf/cm² (5690 psi)
	Bucket	400 kgf/cm² (5690 psi)

[ ]: Power boost

5) SWING MOTOR

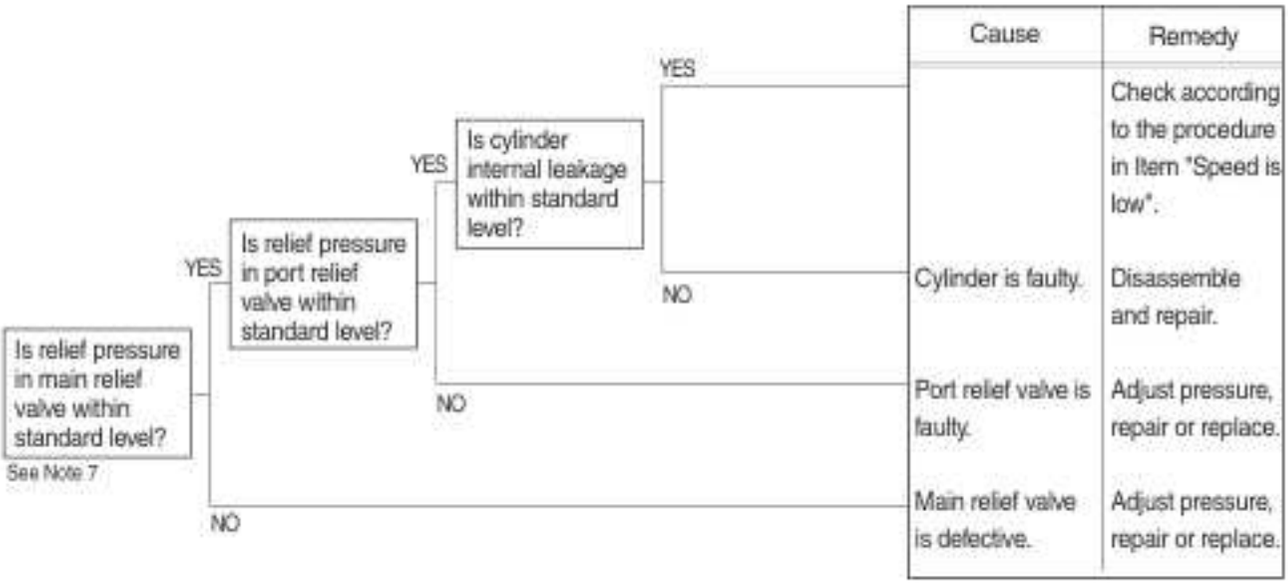
Item	Specification
Type	Two fixed displacement axial piston motor
Capacity	151 cc/rev
Relief pressure	285 kgf/cm² (4050 psi)
Braking system	Automatic, spring applied hydraulic released
Braking torque	59 kgf · m (427 lbf · ft)
Brake release pressure	33–50 kgf/cm² (470–711 psi)
Reduction gear type	2 - stage planetary

6) TRAVEL MOTOR

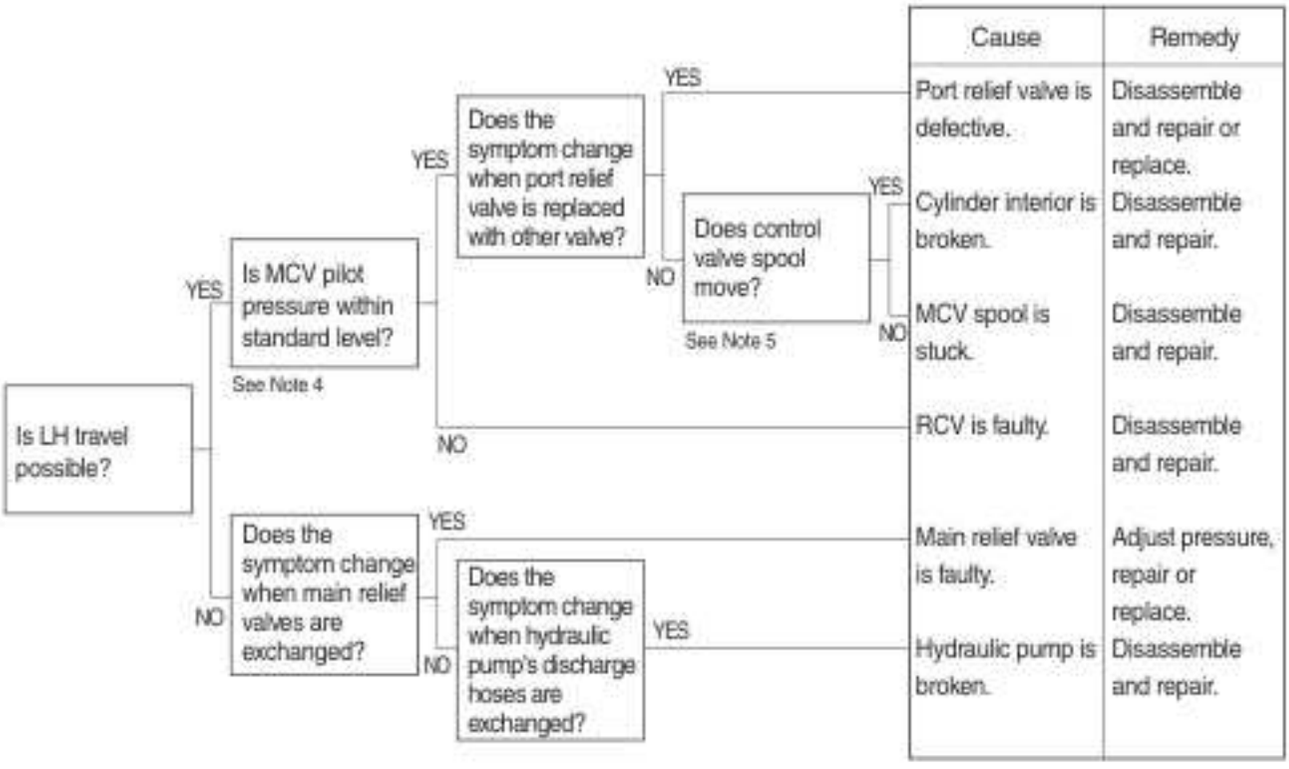
Item	Specification
Type	Variable displacement axial piston motor
Relief pressure	350 kgf/cm² (4980 psi)
Reduction gear type	2-stage planetary
Braking system	Automatic, spring applied hydraulic released
Brake release pressure	14.7–18.3 kgf/cm² (209–260 psi)
Braking torque	72 kgf · m (521 lbf · ft)

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4) BOOM, ARM OR BUCKET POWER IS WEAK



5) ONLY BUCKET OPERATION IS TOTALLY IMPOSSIBLE



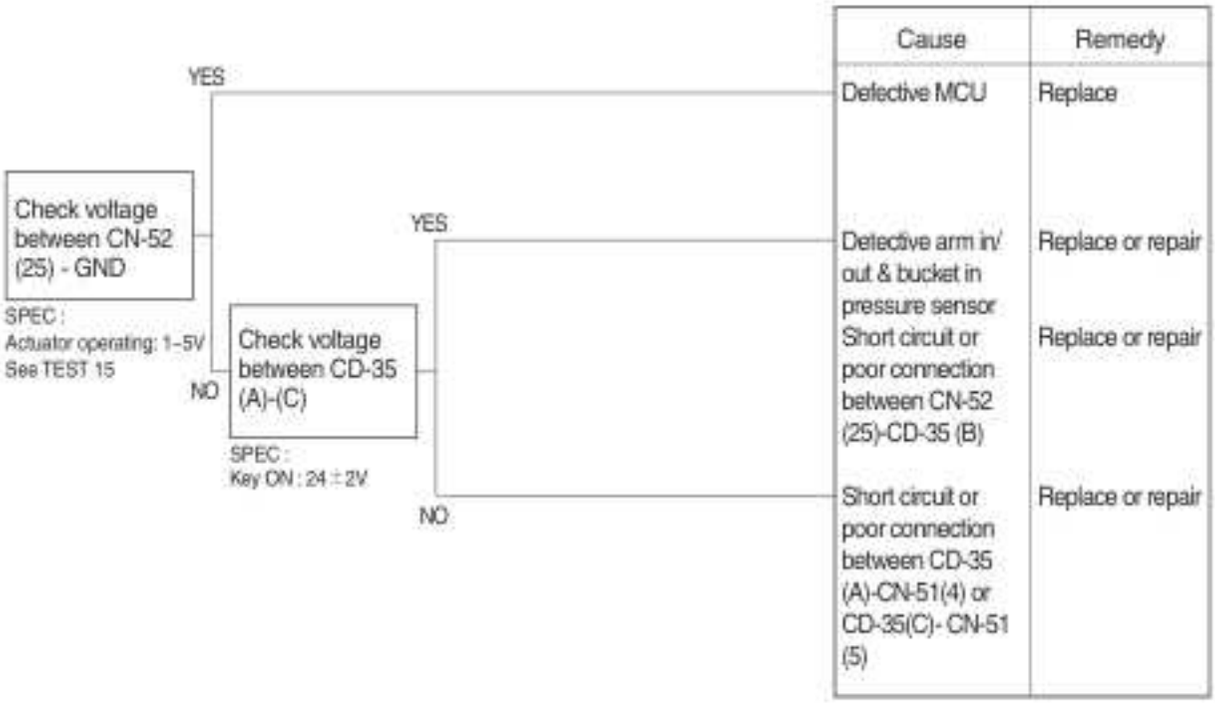
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12. MALFUNCTION OF ARM IN/OUT & BUCKET IN PRESSURE SENSOR

· Fault code : HCESPN 133, FMI 0~4

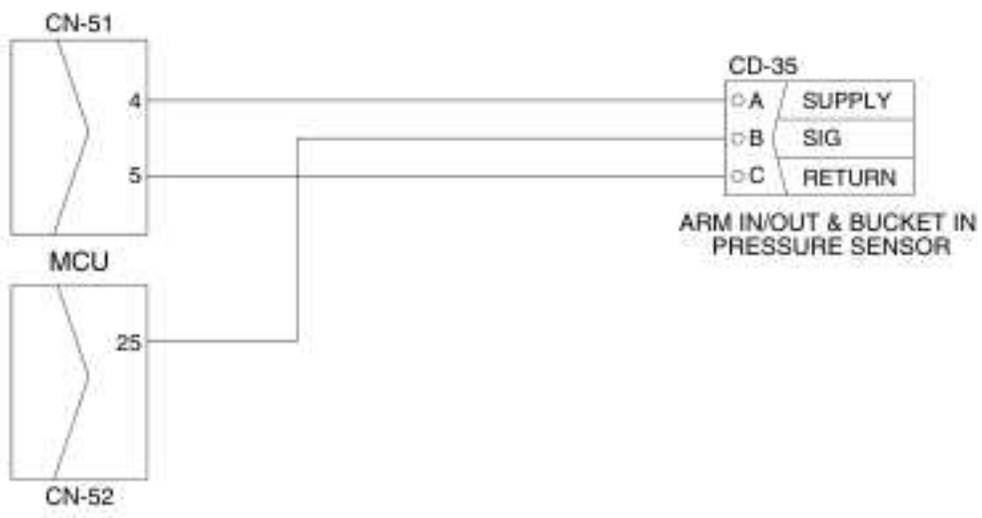
※ Before carrying out below procedure, check all the related connectors are properly inserted.

1) INSPECTION PROCEDURE



Cause	Remedy
Defective MCU	Replace
Defective arm in/ out & bucket in pressure sensor	Replace or repair
Short circuit or poor connection between CN-52 (25)-CD-35 (B)	Replace or repair
Short circuit or poor connection between CD-35 (A)-CN-51(4) or CD-35(C)- CN-51 (5)	Replace or repair

Wiring diagram



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3) DISASSEMBLY

The figure in ( ) shown after the part name in the explanation sentence shows its number in the structure figures (8-31~34).

(1) Place control valve on working bench.

※ Disassemble it in clean place and pay attention not to damage flange faces and plate faces.



(2) Disassembling of main spools

- Travel (301, 314), bucket (304), swing (305), option (308), arm 2 (306), boom 2 (307), swing priority (311).

① Loosen the hexagon the socket head bolts (273) and remove the spring cover (201, 202) and the O-ring (261).

- Hexagon key wrench : 6 mm



② Pull out the spool, spring, spring seats (322), stopper (335 or 339) and spacer bolt (336) in the spool assembly condition from the casing.

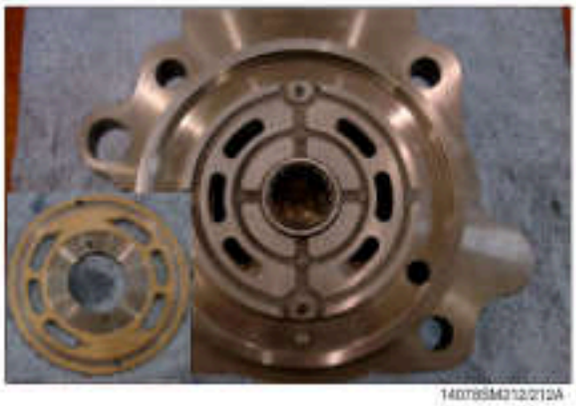
※ When pulling out the spool assembly from housing, pay attention not to damage the housing.



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(3) Disassemble rear cover assy sub

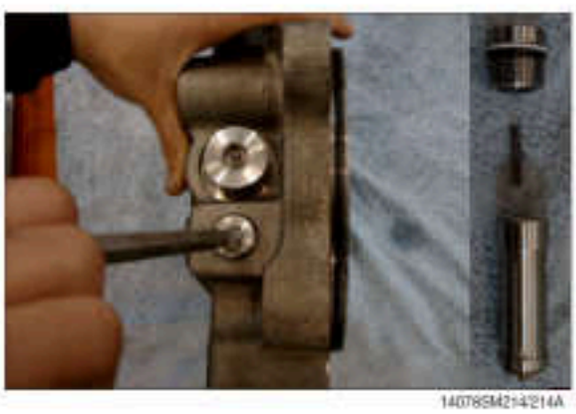
① Disassemble pin (8, 23), valve plate (24) from rear cover (21).



② Using a torque wrench, disassemble relief valve assy (33) 2 set from rear cover (21).



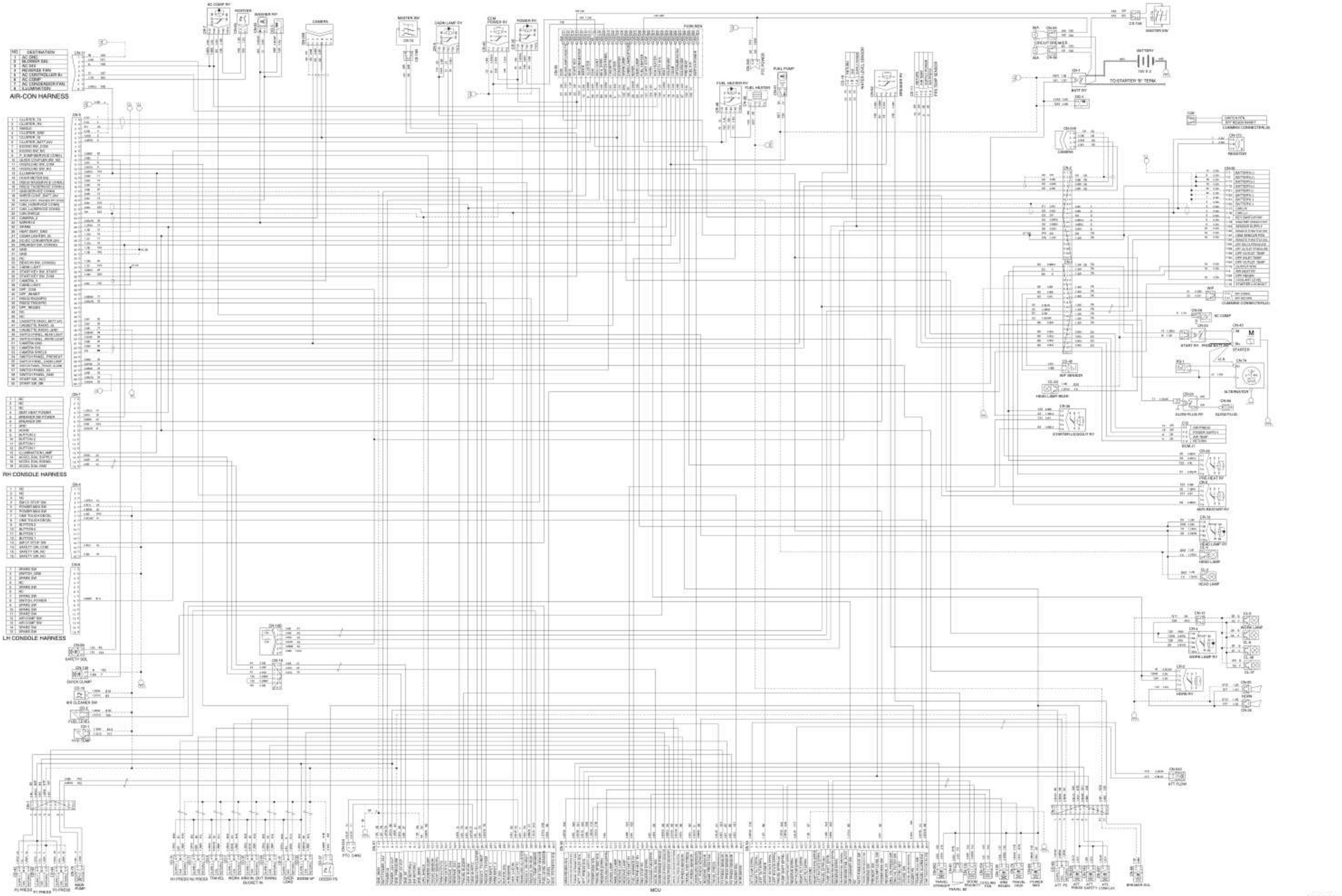
③ After disassembling plug with a L-wrench from rear cover (21), disassemble respectively back up ring, O-ring, O-ring, spring, anti-inversion valve assy (34)



④ Disassemble make up check valve assy with a torque wrench from rear cover (21).



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