CRAWLER EXCAVATOR

SERVICE MANUAL

R430LC-9A

HYUNDAI

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7) CYLINDER

Item		Specification
Boom cylinder	Bore dia × Rod dia × Stroke	ø 160 × ø 110 × 1500 mm
	Cushion	Extend only
Arm cylinder	Bore dia × Rod dia × Stroke	ø 170 × ø 120 × 1760 mm
	Cushion	Extend and retract
Bucket cylinder	Bore dia × Rod dia × Stroke	ø 150 × ø 105 × 1295 mm
	Cushion	Extend only

※ Discoloration of cylinder rod can occur when the friction reduction additive of lubrication oil spreads on the rod surface.

※ Discoloration does not cause any harmful effect on the cylinder performance.

8) SHOE

Item		Width	Ground pressure	Link quantity	Overall width
R430LC-9A	Standard	600 mm (24")	0.74 kgf/cm² (10.52 psi)	53	3340 mm (10' 11")
	Option	700 mm (28")	0.64 kgf/cm² (9.10 psi)	53	3440 mm (11' 3")
		750 mm (30")	0.60 kgf/cm² (8.53 psi)	53	3490 mm (11' 5")
		800 mm (32")	0.57 kgf/cm² (8.11 psi)	53	3540 mm (11' 7")
		900 mm (36")	0.51 kgf/cm² (7.25 psi)	53	3640 mm (11' 11")

9) BUCKET

Item		Capacity		Tooth quantity	Width	
		SAE heaped	CECE heaped		Without side cutter	With side cutter
R430LC-9A	Standard	◎2.10 m³ (2.75 yd³)	1.84 m³ (2.41 yd³)	5	1800 mm (70.9")	-
	Optioin	◎1.90 m³ (2.49 yd³)	1.65 m³ (2.16 yd³)	5	1670 mm (65.7")	-

◎ : Rock - heavy duty bucket

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Fault code J1939 SPN J1939 FMI	Reason	Effect (only when fault code is active)
3313 4765 4	Aftertreatment Diesel Oxidation Catalyst Intake Temperature Sensor Circuit - Voltage Below Normal or Shorted to Low Source. Low signal voltage detected at the catalyst intake sensor circuit.	Active aftertreatment diesel particulate filter regeneration will be disabled.
3314 4765 3	Aftertreatment Diesel Oxidation Catalyst Intake Temperature Sensor Circuit - Voltage Above Normal or Shorted to High Source. High signal voltage detected at the catalyst intake temperature sensor circuit.	Active aftertreatment diesel particulate filter regeneration will be disabled.
3315 4765 2	Aftertreatment Diesel Oxidation Catalyst Intake Temperature - Data Erratic, Intermittent, or Incorrect. The aftertreatment diesel oxidation catalyst intake temperature sensor is not changing with engine operating conditions.	Active aftertreatment diesel particulate filter regeneration will be disabled. EGR valve operation will be disabled.
3316 3242 4	Aftertreatment Diesel Particulate Filter Intake Temperature Sensor Circuit - Voltage Below Normal or Shorted to Low Source. Low signal voltage detected at the aftertreatment diesel particulate filter intake temperature sensor circuit.	The exhaust gas recirculation (EGR) valve operation will be disabled. Active aftertreatment diesel particulate filter regeneration will be disabled.
3317 3242 3	Aftertreatment Diesel Particulate Filter Intake Temperature Sensor Circuit - Voltage Above Normal or Shorted to High Source. High signal voltage or open circuit detected at the aftertreatment diesel particulate filter intake temperature sensor circuit.	The exhaust gas recirculation (EGR) valve operation will be disabled. Active aftertreatment diesel particulate filter regeneration will be disabled.
3318 3242 2	Aftertreatment Diesel Particulate Filter Intake Temperature - Data Erratic, Intermittent, or Incorrect. The aftertreatment diesel particulate filter intake temperature is not changing with engine operating conditions.	EGR valve operation will be disabled. Active aftertreatment diesel particulate filter regeneration will be disabled.
3319 3246 3	Aftertreatment Diesel Particulate Filter Outlet Temperature Sensor Circuit - Voltage Above Normal or Shorted to High Source. High signal voltage or open circuit detected at the aftertreatment diesel particulate filter outlet temperature sensor circuit.	EGR valve operation will be disabled. Active aftertreatment diesel particulate filter regeneration will be disabled.
3321 3246 4	Aftertreatment Diesel Particulate Filter Outlet Temperature Sensor Circuit - Voltage Below Normal or Shorted to Low Source. Low signal voltage detected at the aftertreatment diesel particulate filter outlet temperature sensor circuit.	EGR valve operation will be disabled. Active aftertreatment diesel particulate filter regeneration will be disabled.
3322 3246 2	Aftertreatment Diesel Particulate Filter Outlet Temperature - Data Erratic, Intermittent, or Incorrect. The aftertreatment diesel particulate filter outlet temperature is not changing with engine operating conditions.	EGR valve operation will be disabled. Active aftertreatment diesel particulate filter regeneration will be disabled.

※ Some fault codes are not applied to this machine.

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15. MALFUNCTION OF BOOM PRIORITY EPPR VALVE

- Fault code : HCESPN 141, FMI 5 or 6

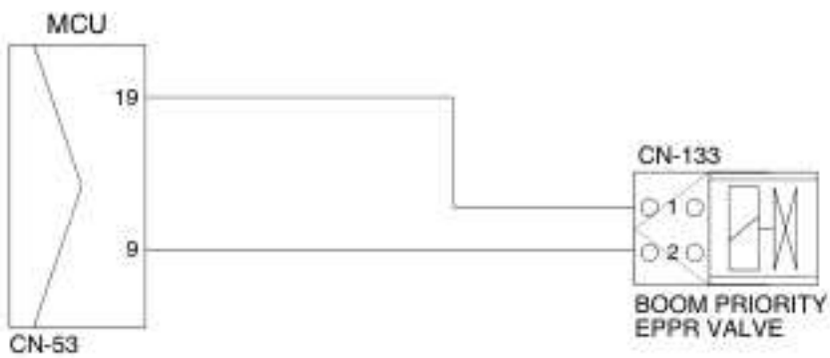
※ Before carrying out below procedure, check all the related connectors are properly inserted.

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

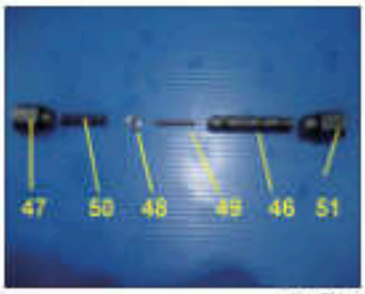


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(5) Insert spool (46), parallel pin (49), spring seat (48) and spring (50) in regular sequence and then assemble plug (47), connector (51) using torque-wrench.

· Tightening torque : 5.5±0.5 kgf · m (39.8±3.62 lbf · ft)



43038TM46


43038TM47


43038TM48

(6) Press needle bearing (10) into rear cover (32) using jig.


43038TM49

(7) Assemble spring pin (30), parallel pin (27) using small hammer.


43038TM50

(8) Apply loctitle #242 on the restrictor (57, 58) and then assemble restrictor (57, 58), O-ring (43, 44) into rear cover (34).



43038TM51



43038TM52



43038TM53

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⑤ Disassemble shoe plate (8) from body (1).



⑥ Using a plier jig, disassemble snap ring (4) and shaft assy (5).



(2) Disassemble cylinder block assy sub

① Disassemble pistion assy (14), set plate (13) from cylinder block assy.

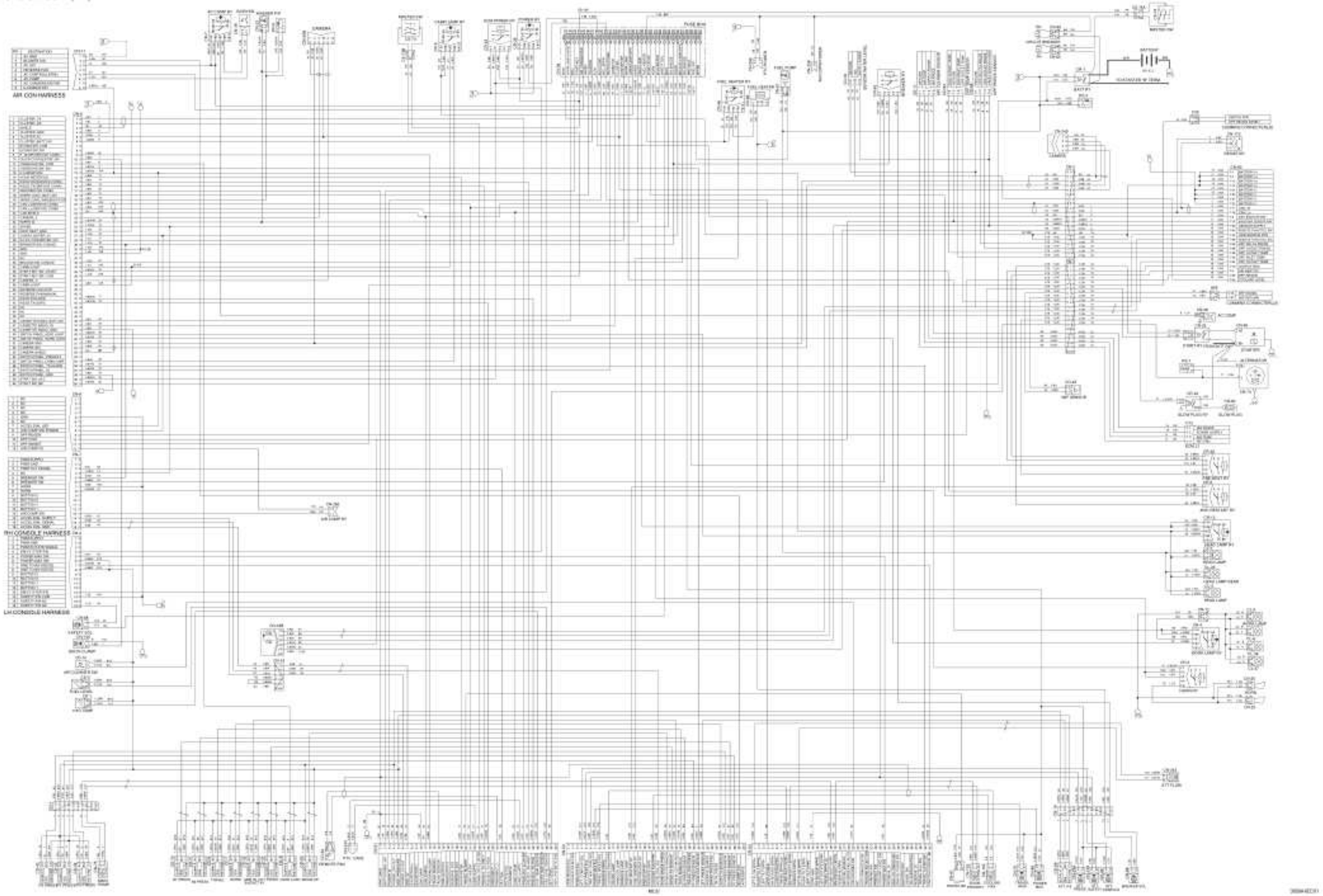


② Disassemble ball guide (12), friction plate (15), plate (16) and ball guide seat (11) from cylinder block (9).



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· ELECTRICAL CIRCUIT (1/2)



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