CRAWLER EXCAVATOR

SERVICE MANUAL

R220NLC-9A

HYUNDAI

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CONTENTS

SECTION 1 GENERAL

Group 1 Safety Hints 1-1
Group 2 Specifications 1-10

SECTION 2 STRUCTURE AND FUNCTION

Group 1 Pump Device 2-1
Group 2 Main Control Valve 2-21
Group 3 Swing Device 2-48
Group 4 Travel Device 2-70
Group 5 RCV Lever 2-92
Group 6 RCV Pedal 2-99

SECTION 3 HYDRAULIC SYSTEM

Group 1 Hydraulic Circuit 3-1
Group 2 Main Circuit 3-2
Group 3 Pilot Circuit 3-5
Group 4 Single Operation 3-13
Group 5 Combined Operation 3-23

SECTION 4 ELECTRICAL SYSTEM

Group 1 Component Location 4-1
Group 2 Electrical Circuit 4-3
Group 3 Electrical Component Specification 4-21
Group 4 Connectors 4-29

SECTION 5 MECHATRONICS SYSTEM

Group 1 Outline 5-1
Group 2 Mode selection System 5-3
Group 3 Automatic Deceleration System 5-6
Group 4 Power Boost System 5-7
Group 5 Travel Speed Control System 5-8
Group 6 Automatic Warming Up Function 5-9
Group 7 Engine Overheat Prevention Function 5-10
Group 8 Variable Power Control System 5-11

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Group 9 Attachment Flow Control System 5-12
Group 10 Anti-Restart System 5-13
Group 11 Self-Diagnostic System 5-14
Group 12 Engine Control System 5-39
Group 13 EPPR Valve 5-40
Group 14 Monitoring System 5-45
Group 15 Fuel Warmer System 5-70

SECTION 6 TROUBLESHOOTING

Group 1 Before trobleshooting 6-1
Group 2 Hydraulic and Mechanical System 6-4
Group 3 Electrical System 6-24
Group 4 Mechatronics System 6-40

SECTION 7 MAINTENANCE STANDARD

Group 1 Operational Performance Test 7-1
Group 2 Major Components 7-21
Group 3 Track and Work Equipment 7-31

SECTION 8 DISASSEMBLY AND ASSEMBLY

Group 1 Precaution 8-1
Group 2 Tightening Torque 8-4
Group 3 Pump Device 8-7
Group 4 Main Control Valve 8-36
Group 5 Swing Device 8-60
Group 6 Travel Device 8-115
Group 7 RCV Lever 8-179
Group 8 Turning Joint 8-193
Group 9 Boom, Arm and Bucket Cylinder 8-198
Group 10 Undercarriage 8-215
Group 11 Work Equipment 8-227

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SECTION 9 COMPONENT MOUNTING TORQUE

Group 1 Introduction guide 9-1
Group 2 Engine system 9-2
Group 3 Electric system 9-4
Group 4 Hydraulic system 9-6
Group 5 Undercarriage 9-10
Group 6 Structure 9-11
Group 7 Work equipment 9-14

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(2) 5.65 m (18' 6") boom, 2.00 m (6' 7") arm equipped with 0.87 m³ (SAE heaped) bucket, 500 mm (20") triple grouser shoe.

Load point height		Load radius								At max. reach		
		3.0 m (10.0 ft)		4.5 m (15.0 ft)		6.0m (20.0 ft)		7.5 m (25.0 ft)		Capacity		Reach
												m (ft)
7.5 m (25.0 ft)	kg									*4050	3800	6.61
	lb									*8930	8380	(21.7)
6.0 m (20.0 ft)	kg					*4470	4360			*4120	2800	7.75
	lb					*9850	9610			*9080	6170	(25.4)
4.5 m (15.0 ft)	kg			*5730	*5730	*4890	4210			*4250	2340	8.41
	lb			*12630	*12630	*10780	9280			*9370	5160	(27.6)
3.0 m (10.0 ft)	kg			*7480	6130	*5650	3970	*4880	2740	4350	2130	8.71
	lb			*16490	13510	*12460	8750	*10760	6040	9590	4700	(28.6)
1.5 m (5.0 ft)	kg			*9040	5650	*6440	3730	*5240	2640	4300	2080	8.71
	lb			*19930	12460	*14200	8220	*115510	5820	9480	4590	(28.6)
Ground Line	kg			*9780	5440	*6980	3580	5340	2560	4540	2190	8.40
	lb			*21560	11990	*15390	7890	11770	5640	10010	4830	(27.6)
-1.5 m (-5.0 ft)	kg	*14220	10460	*9740	5410	*7080	3540			*4980	2530	7.73
	lb	*31350	23060	*21470	11930	*15610	7800			*10980	5580	(25.4)
-3.0 m (-10 ft)	kg	*12730	10670	*8950	5520	*6440	3620			*4960	3360	6.58
	lb	*28060	23520	*19730	12710	*14200	7980			*10910	7410	(21.6)

(3) 5.65 m (18' 6") boom, 2.40 m (7' 10") arm equipped with 0.87 m³ (SAE heaped) bucket, 500 mm (20") triple grouser shoe.

Load point height		Load radius										At max. reach		
		1.5 m (5.0 ft)		3.0 m (10.0 ft)		4.5 m (15.0 ft)		6.0m (20.0 ft)		7.5 m (25.0 ft)		Capacity		Reach
														m (ft)
7.5 m (25.0 ft)	kg											*3740	3340	7.12
	lb											*8250	7360	(23.4)
6.0 m (20.0 ft)	kg							*4030	*4030			*3820	2530	8.18
	lb							*8880	*8880			*8420	5580	(26.8)
4.5 m (15.0 ft)	kg							*4510	4250	*4080	2850	*3950	2140	8.80
	lb							*9940	9370	*9020	6280	*8710	4720	(28.9)
3.0 m (10.0 ft)	kg					*6900	6220	*5310	3990	*4600	2740	4050	1950	9.09
	lb					*15210	13710	*11710	8800	*10140	6040	8930	4300	(29.8)
1.5 m (5.0 ft)	kg					*8590	5690	*6160	3730	*5020	2620	4000	1910	9.08
	lb					*18940	12540	*13580	8220	*11070	5780	8820	4210	(29.8)
Ground Line	kg			*9030	*9030	*9560	5410	*6800	3550	5300	2520	4190	2000	8.79
	lb			*19910	*19910	*21080	11930	*14990	7830	11680	5560	9240	4410	(28.8)
-1.5 m (-5.0 ft)	kg	*9880	*9880	*13740	10260	*9750	5330	*7030	3480			*4710	2270	8.16
	lb	*21780	*21780	*30290	22620	*21500	11750	*15500	7670			*10380	5000	(26.8)
-3.0 m (-10 ft)	kg	*14280	*14280	*13430	10450	*9200	5400	*6670	3520			*4790	2920	7.09
	lb	*31480	*31480	*29610	23040	*20280	11900	*14700	7760			*10560	6440	(23.3)
-4.5 m (-15.0 ft)	kg			*10820	*10820	*7500	5640							
	lb			*23850	*23850	*16530	12430							

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SECTION 6 TROUBLESHOOTING

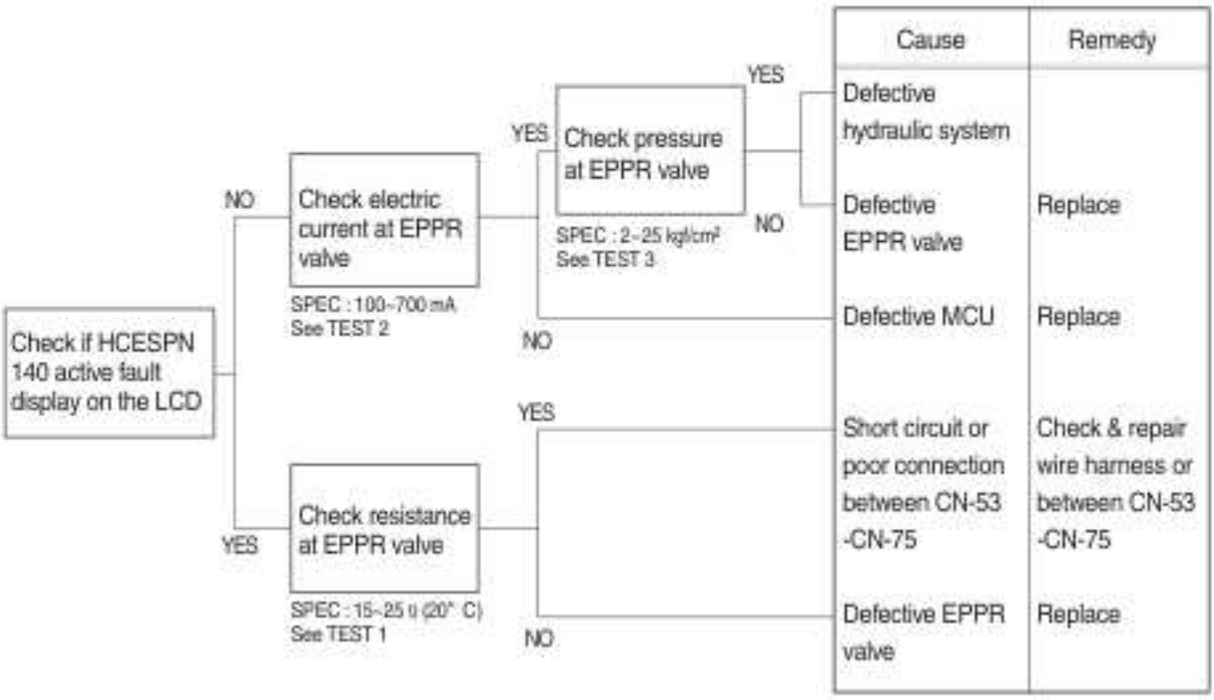
Group 1 Before Troubleshooting 6-1
Group 2 Hydraulic and Mechanical System 6-4
Group 3 Electrical System 6-24
Group 4 Mechatronics System 6-40

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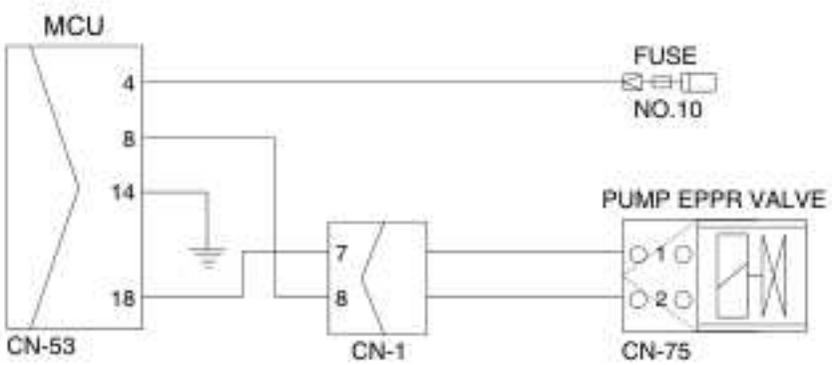
1. ALL ACTUATORS SPEED ARE SLOW

※ Boom, Arm, Bucket, Swing and travel speed are slow, but engine speed is good.
※ Spec : P-mode 1800 ± 50 rpm S -mode 1700 ± 50 rpm E-mode 1600 ± 50 rpm
※ Before carrying out below procedure, check all the related connectors are properly inserted and fault code on the cluster.

1) INSPECTION PROCEDURE



Wiring diagram



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3) ASSEMBLING PINION GEAR SUB ASSY

(1) Prepare drive shaft pinion gear vertical with ground.

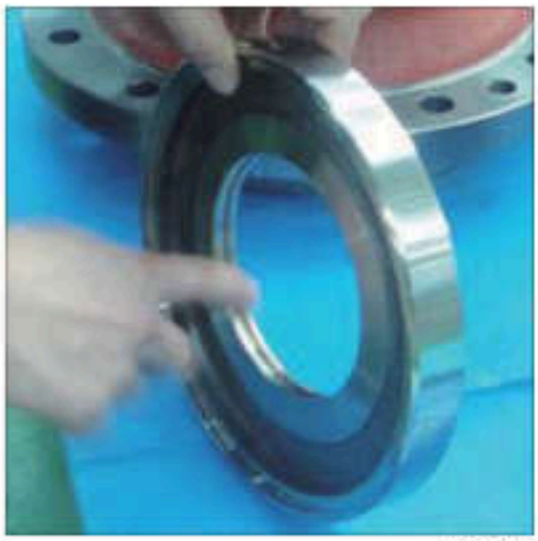


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(2) Fully apply grease (albania EP02) to O-ring groove of sleeve.

※ Be sure to maintain it vertical with ground when assembling it.

(3) Put O-ring into O-ring groove of sleeve. Fully apply grease on O-ring.



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(4) Assemble taper bearing and sleeve into drive shaft using press jig.
Use special jig for pressing. Leave no space between sleeve and taper bearing.



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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), 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

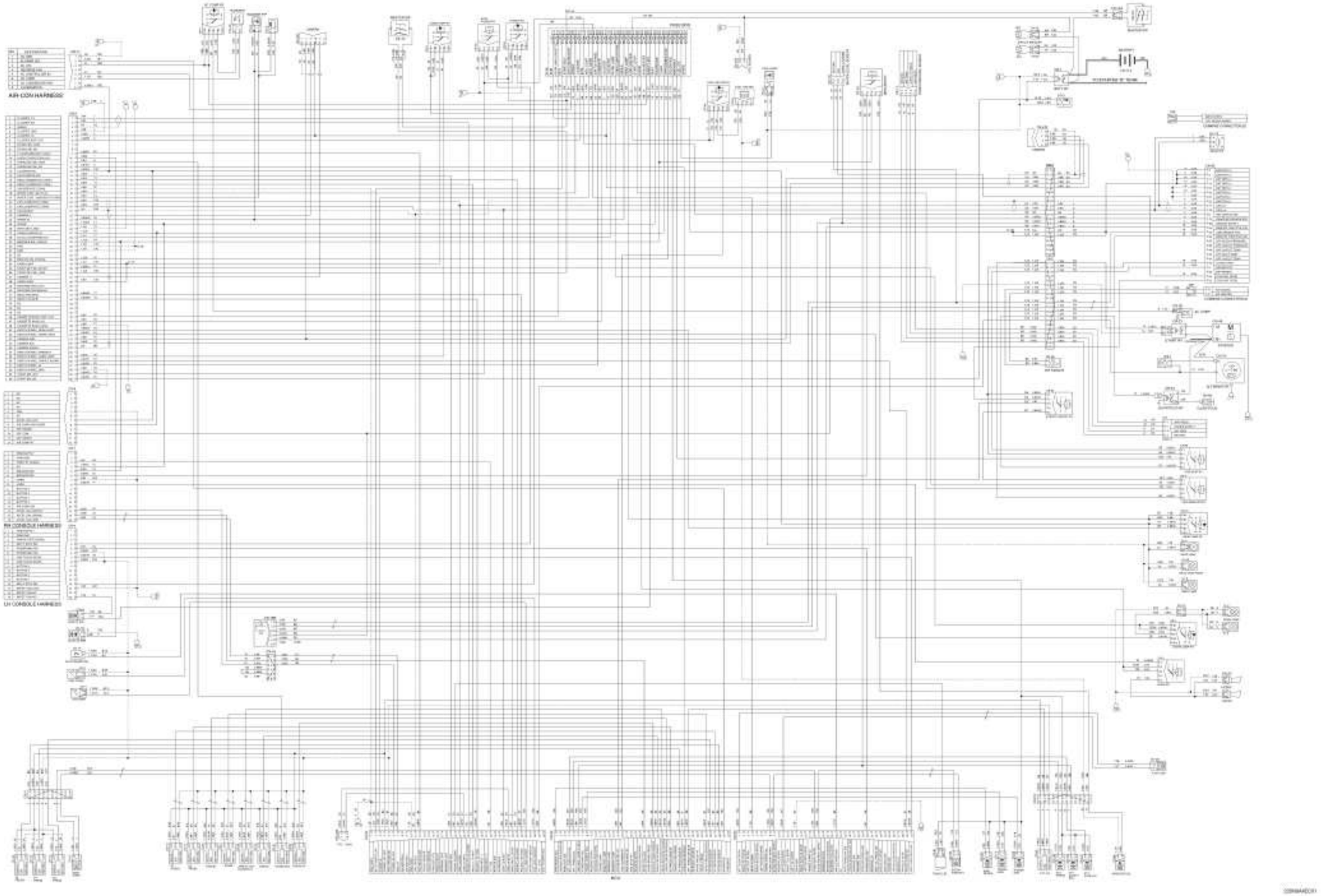


② Pull out the spool, spring, spring seats (322), stopper (335 or 339) and spacer bolt (336) in the spool assembly condition from the casing.

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



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