CRAWLER EXCAVATOR

SERVICE MANUAL

R210-7 (India)

HYUNDAI

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10) BUCKET

Item		Capacity		Tooth quantity	Width	
		SAE heaped	CECE heaped		Without side cutter	With side cutter
R210-7	STD	0.92m³(1.20yd³)	0.80m³(1.05yd³)	5	1150mm(45.3")	1270mm(50.0")
	OPT	0.51m³(0.67yd³)	0.45m³(0.59yd³)	3	700mm(27.6")	820mm(32.3")
		0.80m³(1.05yd³)	0.70m³(0.92yd³)	5	1000mm(39.4")	1120mm(44.1")
		1.05m³(1.37yd³)	0.90m³(7.18yd³)	5	1250mm(49.2")	1370mm(53.9")
		1.20m³(1.57yd³)	1.00m³(1.31yd³)	6	1400mm(55.1")	1520mm(59.8")
		1.34m³(1.75yd³)	1.15m³(1.50yd³)	6	1550mm(61.0")	1670mm(65.7")
		◈0.74m³(0.97yd³)	0.65m³(0.85yd³)	5	985mm(38.8")	-
		◈0.90m³(1.18yd³)	0.80m³(1.05yd³)	5	1070mm(42.0")	-
		◈1.05m³(1.37yd³)	0.92m³(1.20yd³)	5	1290mm(50.8")	-
		⊙0.87m³(1.14yd³)	0.75m³(0.98yd³)	5	1140mm(44.9")	-
		⊙1.20m³(1.57yd³)	1.00m³(1.31yd³)	5	1410mm(55.5")	-
		■0.75m³(0.98yd³)	0.65m³(0.85yd³)	-	1790mm(70.5")	-

◈ : Heavy duty bucket
⊙ : Rock-Heavy duty bucket
■ : Slope finishing bucket

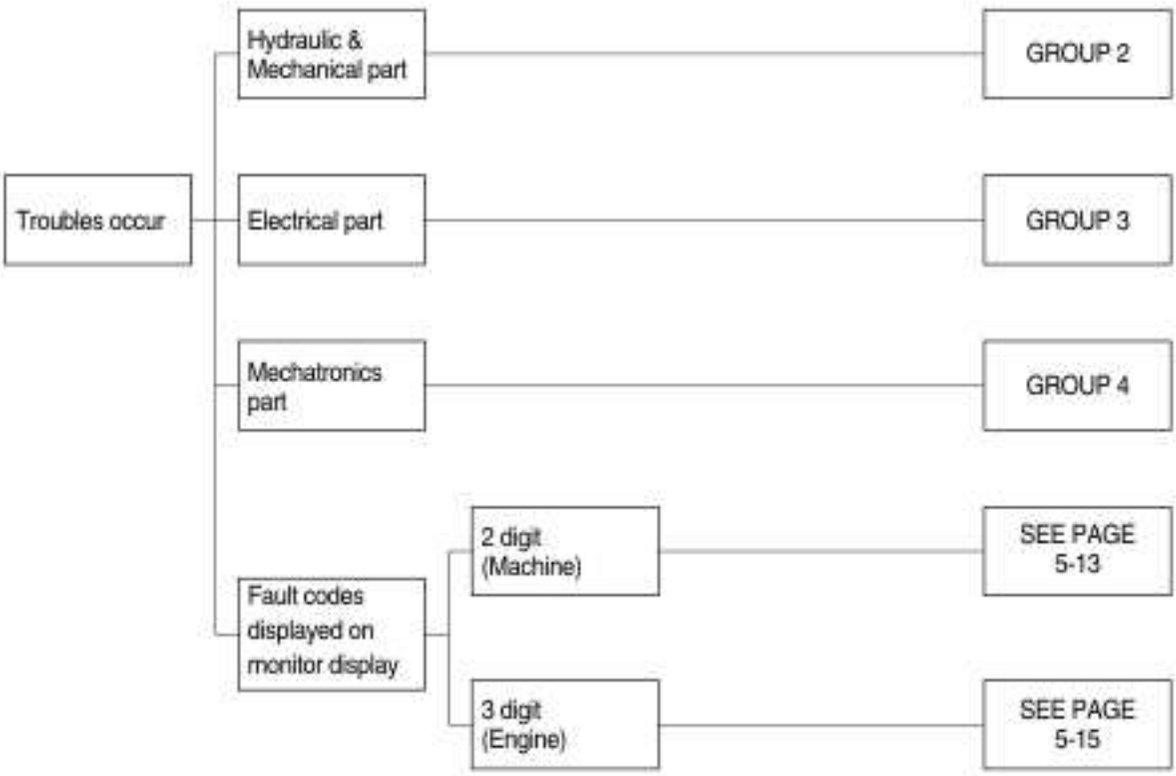
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GROUP 1 BEFORE TROUBLESHOOTING

1. INTRODUCTION

When a trouble is occurred in the machine, this section will help an operator to maintain the machine with easy.

The trouble of machine is parted Hydraulic & Mechanical system, Electrical system and Mechatronics system. At each system part, an operator can check the machine according to the troubleshooting process diagram.

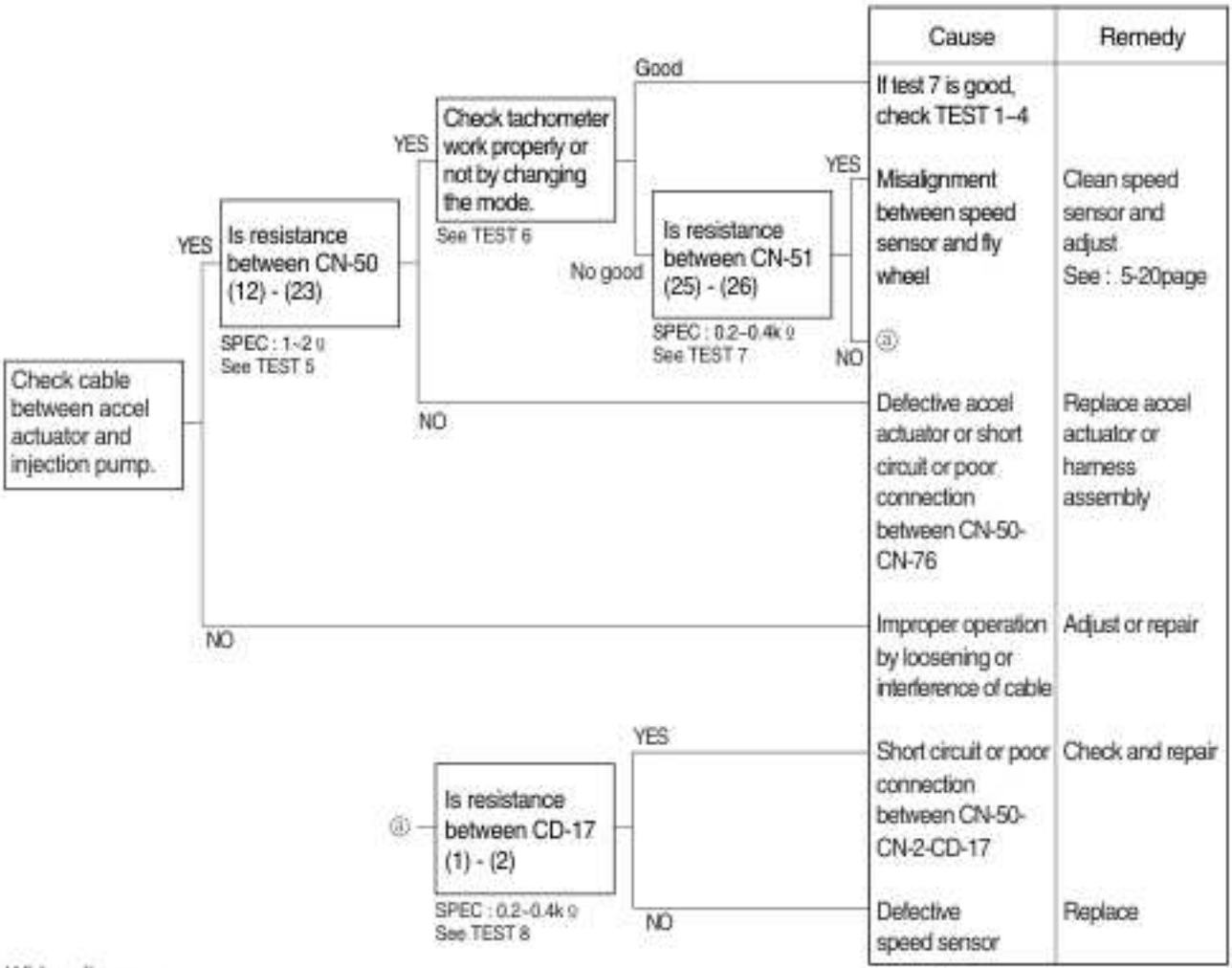


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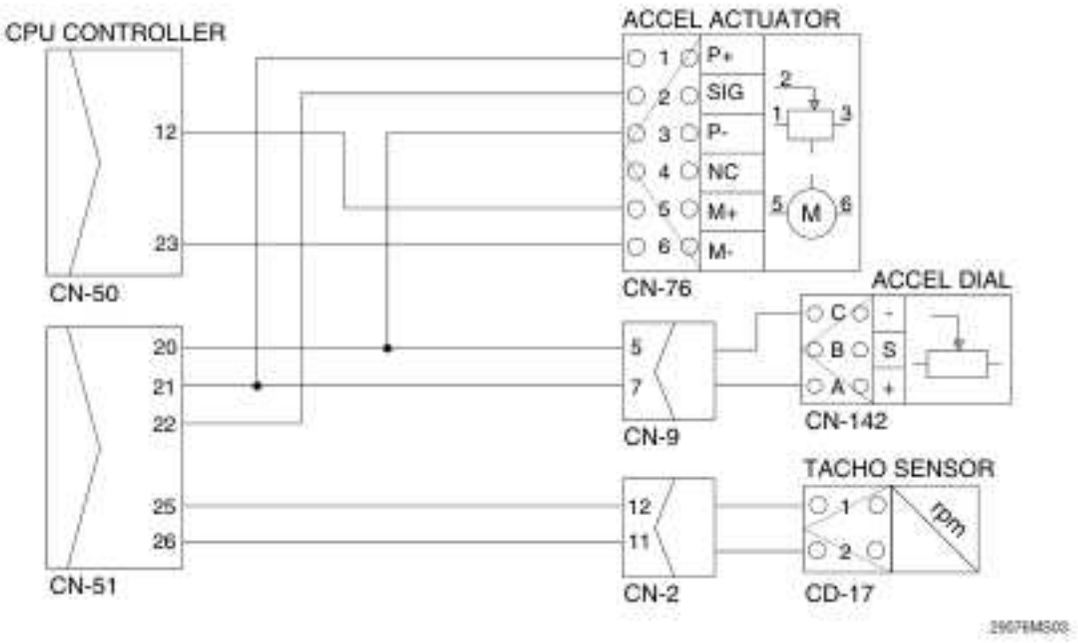
2. ENGINE SPEED IS SLOW AT ALL MODE

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

1) INSPECTION PROCEDURE



Wiring diagram



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■ **Disassemble cylinder sub.**

9) Disassemble cylinder block assembly, piston assembly(9) and seat plate(M).





10) Disassemble ball guide(16), ring and pin(15) from cylinder block, respectively.

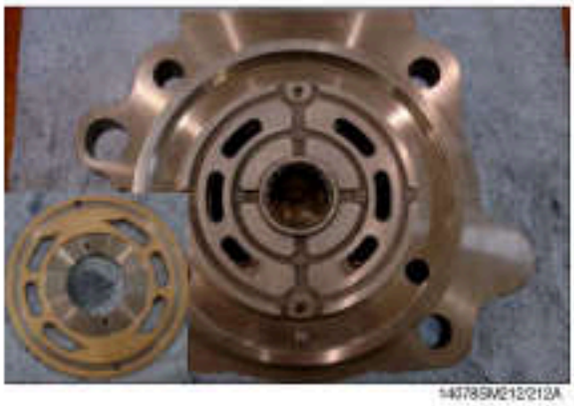




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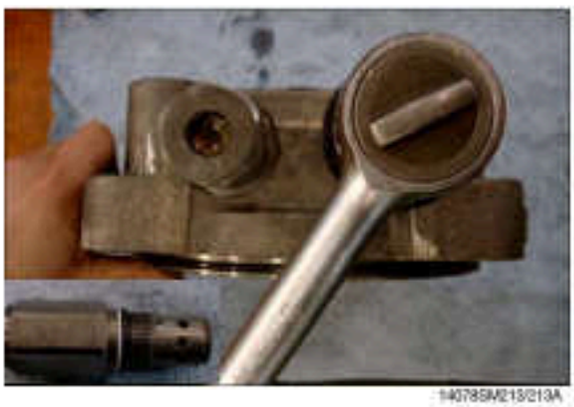
(3) Disassemble rear cover assy sub

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



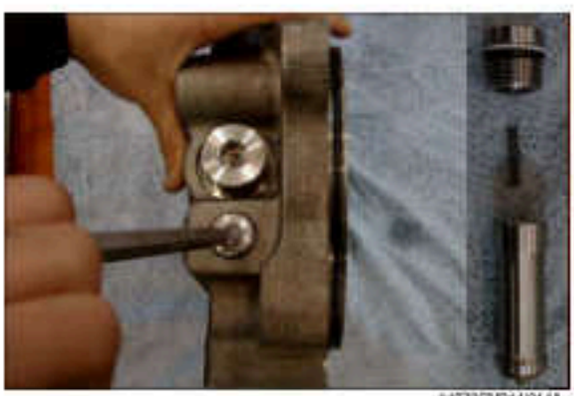
1407SM213/213A

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



1407SM213/213A

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)



1407SM214/214A

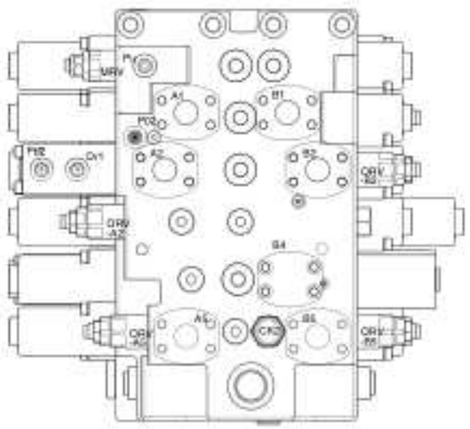
④ Disassemble make up check valve assy with a torque wrench from rear cover(21).



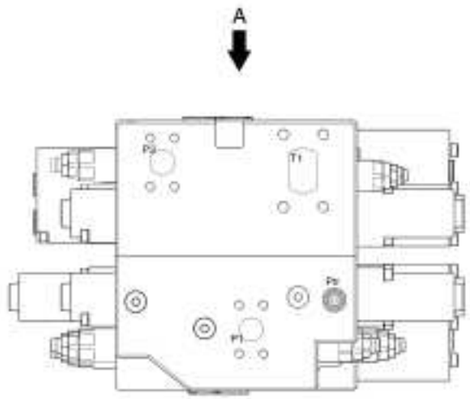
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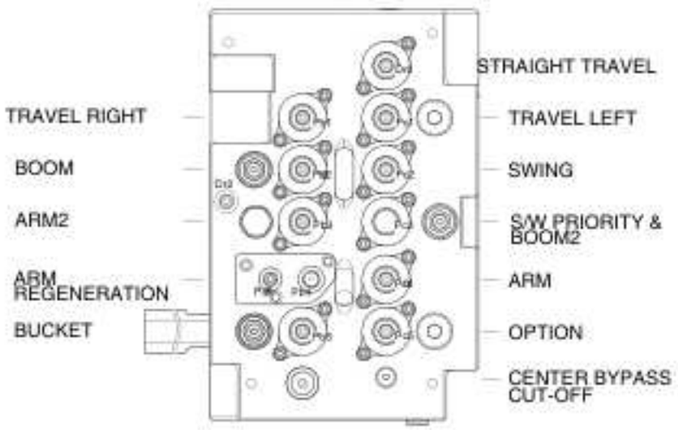
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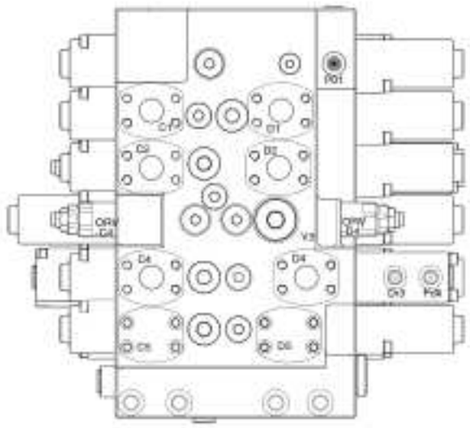
1. STRUCTURE

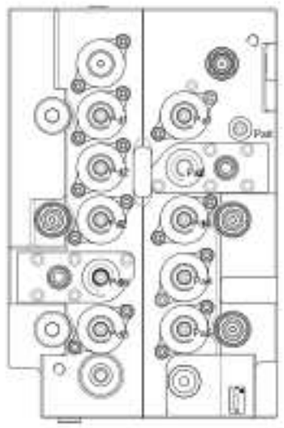


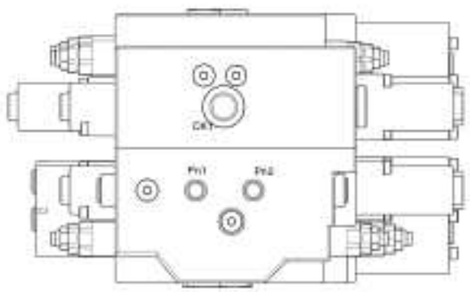
VIEW A











D210728M031

Mark	Port name	Port size	Tightening torque
Rs	Make up for swing motor	G1	20–25 kgf · m (145–180 lbf · ft)
Patt Pb21 Pcb P01 P02 Pc41 Pc42 Ptr Pu Dr1 Dr2	Auto idle signal-attachment Lock valve pilot port (boom) Bucket in confluence pilot port Pilot signal port Pilot signal port Unlock signal Arm in regen-cut signal selector port Auto idle signal-travel Power boost Drain port Drain port	G1/4	3.5–3.9 kgf · m (25.3–28.2 lbf · ft)
Ck1 Ck2	Bucket confluence Bucket confluence	G3/4	17–19 kgf · m (123–137.4 lbf · ft)
Pa1 Pb1 Pc1 Pd1 Pa20 Pa21 Pb20 Pc2 Pd2 Pb3 Pc3 Pa4 Pb4 Pc40 Pd40 Pd41 Pa5 Pb5 Pc5 Pd5 Dr0 Pn1 Pn2	Travel pilot port-RH (FW) Travel pilot port-RH (BW) Travel pilot port-LH (BW) Travel pilot port-LH (FW) Boom up pilot port Boom up confluence pilot port Boom down pilot port Swing pilot port (LH) Swing pilot port (RH) Arm in confluence pilot port Swing priority pilot port Option A pilot port (breaker) Arm in regeneration cut port Arm in pilot port Arm out pilot port Arm out confluence pilot port Bucket in pilot port Bucket out pilot port Option B pilot port Option B pilot port Drain port Negative control signal port (A2 port side) Negative control signal port (A1 port side)	G3/8	7–8 kgf · m (50.6–57.8 lbf · ft)
A1 B1 C1 D1 A2 B2 C2 D2 B4 C4 D4 A5 B5 C5 D5 P1 P2	Travel motor port-LH (FW) Travel motor port-LH (BW) Travel motor port-RH (BW) Travel motor port-RH (FW) Boom up port Boom down port Swing motor port (LH) Swing motor port (RH) Option A port (breaker) Arm in port Arm out port Bucket in port Bucket out port Option B port Option B port Pump port (A2 side) Pump port (A1 side)	SAE 5000 psi 1"	7.5–9.2 kgf · m (54.2–66.5 lbf · ft)
Dr5	Drain port	G1/8	1.5–1.9 kgf · m (10.8–13.7 lbf · ft)
T1	Return port	SAE 3000 psi 2" (M12)	6.4–8.6 kgf · m (46.2–62.2 lbf · ft)

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