CRAWLER EXCAVATOR

SERVICE MANUAL

R160LC-3

HYUNDAI

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4. WEIGHT

1) R160LC-3

Item	R160LC-3	
	kg	lb
Upperstructure assembly	7220	15920
Main frame weld assembly	1210	2670
Engine assembly	410	904
Main pump assembly	125	276
Main control valve assembly	135	298
Swing motor assembly	218	481
Hydraulic oil tank assembly	145	320
Fuel tank assembly	110	243
Counterweight	2900	6390
Cab assembly	275	610
Lower chassis assembly	6450	14220
Track frame weld assembly	2005	4420
Swing bearing	230	507
Travel motor assembly	210	463
Turning joint	36	79
Track recoil spring and idler	137	302
Idler	160	353
Carrier roller	21	46
Track roller	38	84
Track-chain assembly(600mm standard triple grouser shoe)	1183	2610
Front attachment assembly(5.10m boom, 2.60m arm, 0.65m³ PCSA heaped bucket)	2930	6460
5.10m boom assembly	1035	2280
2.60m arm assembly	525	1157
0.65m³ PCSA heaped bucket	510	1124
Boom cylinder assembly	135	298
Arm cylinder assembly	183	403
Bucket cylinder assembly	125	276
Bucket control link assembly	112	247

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7) REMOTE CONTROL VALVE

Item		Specification
Type		Pressure reducing type
Operating pressure	Minimum	5.5kgf/cm²(78psi)
	Maximum	19.5kgf/cm²(277psi)
Single operation stroke	Lever	82.7mm(3.3in)
	Pedal	123mm(4.8in)

8) CYLINDER

Item		Specification
Boom cylinder	Bore dia × Rod dia × Stroke	ø 110 × ø 80 × 1180mm
	Cushion	Extend only
Arm cylinder	Bore dia × Rod dia × Stroke	ø 120 × ø 85 × 1320mm
	Cushion	Extend and retract
Bucket cylinder	Bore dia × Rod dia × Stroke	ø 105 × ø 75 × 1005mm
	Cushion	Extend only

9) SHOE

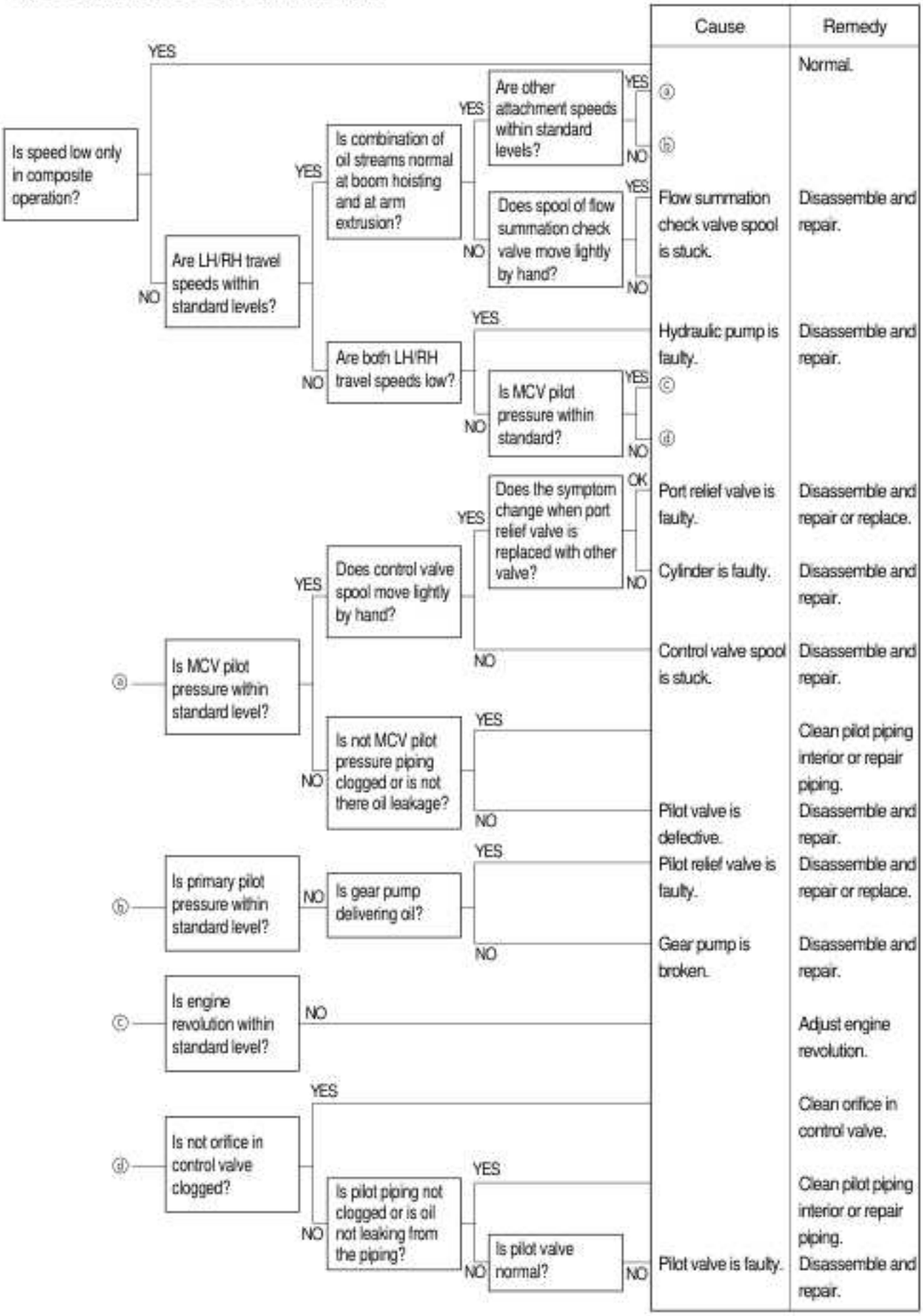
Item	Width	Ground pressure	Link quantity	Overall width
STD	600mm(24")	0.40kgf/cm²(5.69psi)	49	2590mm(8' 6")
OPT	500mm(20")	0.47kgf/cm²(6.68psi)	49	2490mm(8' 2")
	700mm(28")	0.35kgf/cm²(4.98psi)	49	2690mm(8' 10")
	800mm(32")	0.31kgf/cm²(4.41psi)	49	2790mm(9' 2")

10) BUCKET

Item	Capacity		Tooth quantity	Width	
	PCSA heaped	CECE heaped		Without side cutter	With side cutter
STD	0.65m³(0.85yd³)	0.55m³(0.72yd³)	5	930mm(37")	1050mm(41")
OPT	0.39m³(0.51yd³)	0.35m³(0.46yd³)	3	620mm(24")	740mm(29")
	0.57m³(0.75yd³)	0.50m³(0.65yd³)	4	840mm(33")	960mm(38")
	0.70m³(0.92yd³)	0.60m³(0.78yd³)	5	990mm(39")	1110mm(44")
	0.80m³(1.05yd³)	0.70m³(0.92yd³)	5	1080mm(43")	1200mm(47")

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2) BOOM, ARM OR BUCKET SPEED IS LOW

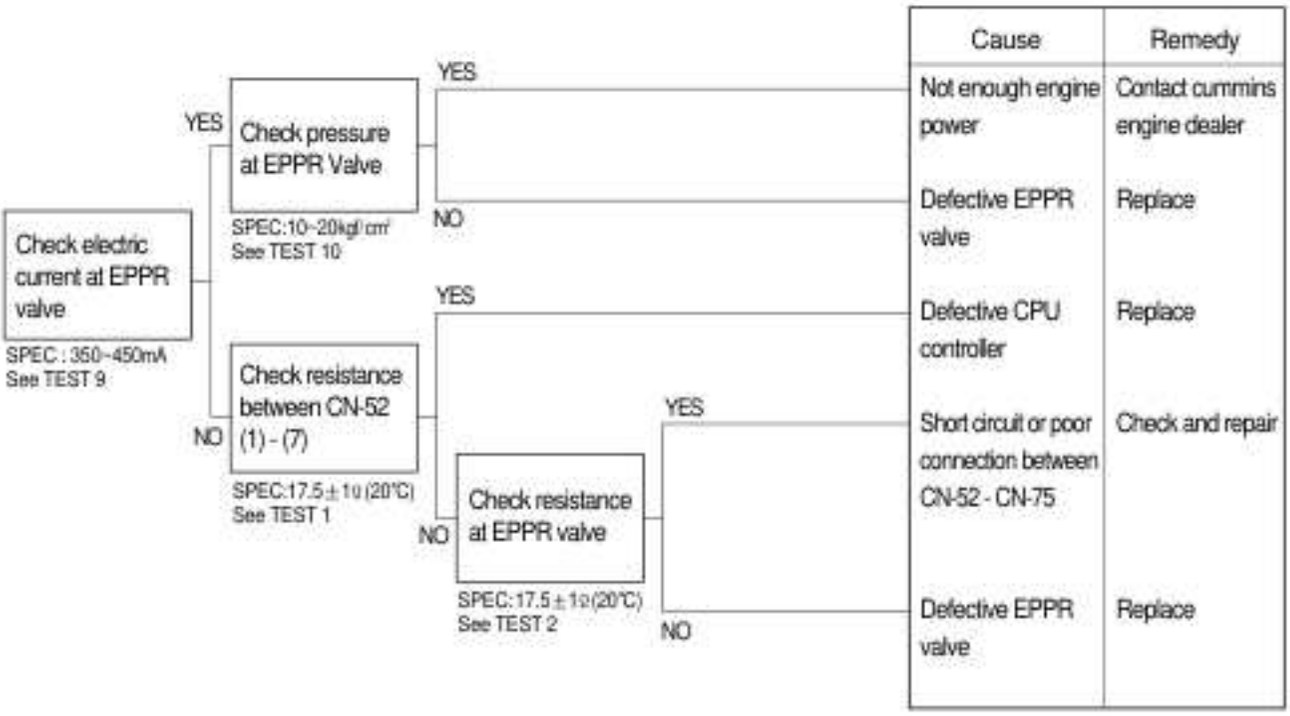


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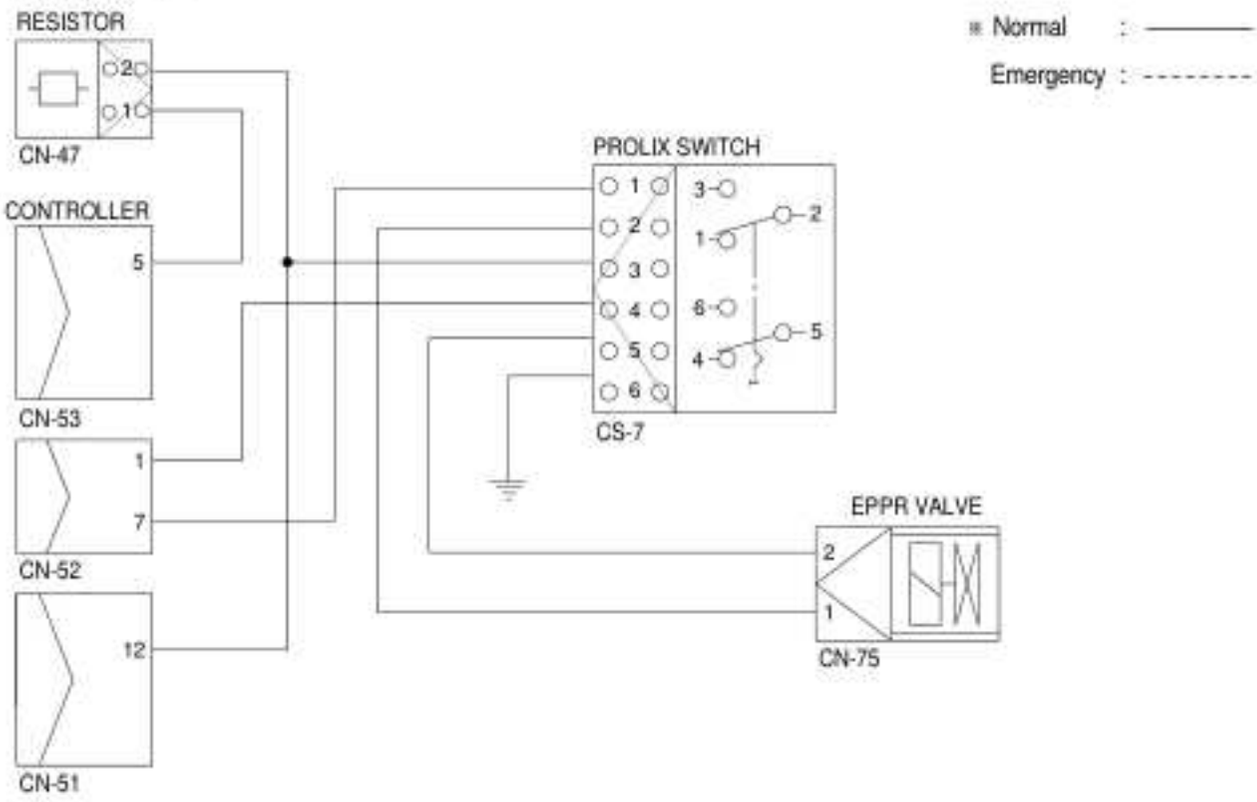
3. ENGINE STALL

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

1) INSPECTION PROCEDURE

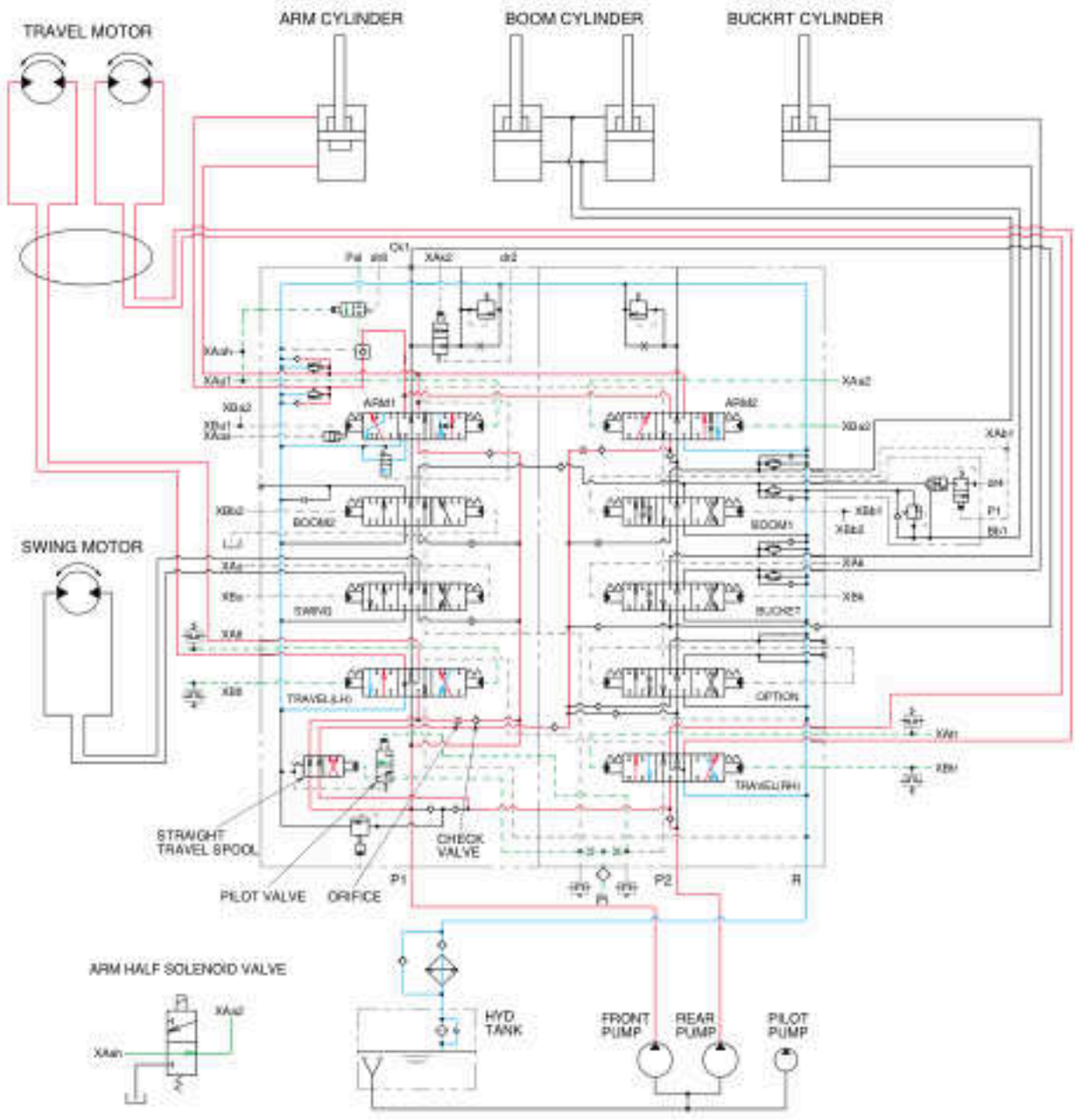


Wiring diagram



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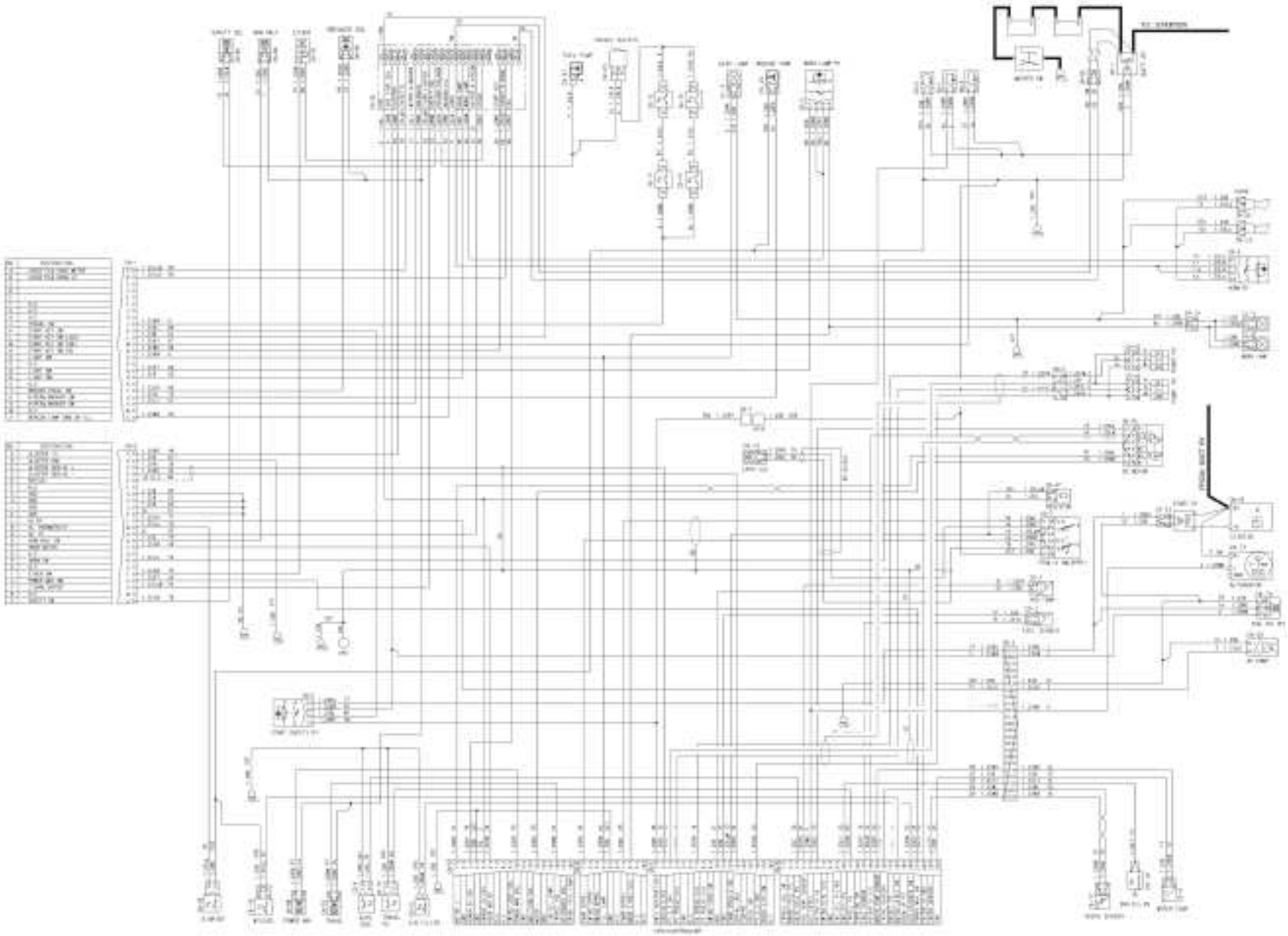
8. COMBINED ARM AND TRAVEL OPERATION



When the arm and travel functions are operated, simultaneously the arm spools and travel spools in the main control valve are moved to the functional position by the pilot oil pressure from the remote control valve and the spool of pilot valve is pushed to the downward by the pilot oil pressure from the pilot pump. At the same time, the straight travel spool is pushed to the left by the oil through the pilot valve for straight travel. The oil from the rear pump flows into the arm cylinders through the arm 1 spool and arm 2 spool via the parallel and confluence oil passage. The oil from the front pump flows into the travel motors through the RH travel spool of the right control valve and the LH travel spool of the left control valve via the straight travel spool.

Check valve the pressure in the travel circuit can be high while the arm pressure is low. When the travel circuit pressure drops lower than arm pressure, as when traveling downhill, arm priority and smoothness are maintained because of the orifice. In either case, the machine will continue to travel straight.

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