CRAWLER EXCAVATOR

SERVICE MANUAL

R250LC-3

HYUNDAI

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4. WEIGHT

1) R250-3, R250LC-3

Item	R250-3		R250LC-3	
	kg	lb	kg	lb
Upperstructure assembly	9410	20750	←	
Main frame weld assembly	1940	4280	←	
Engine assembly	438	966	←	
Main pump assembly	120	265	←	
Main control valve assembly	193	425	←	
Swing motor assembly	325	716	←	
Hydraulic oil tank assembly	258	550	←	
Fuel tank assembly	120	265	←	
Counterweight	4100	9040	←	
Cab assembly	275	610	←	
Lower chassis assembly	9050	19950	9750	21495
Track frame weld assembly	2965	6540	3165	6980
Swing bearing	346	763	←	
Travel motor assembly	275	606	←	
Turning joint	50	110	←	
Track recoil spring and idler	311	686	←	
Idler	168	370	←	
Carrier roller	21	46	←	
Track roller	38	84	←	
Track-chain assembly(600mm standard triple grouser shoe)	1450	3195	1510	3330
Front attachment assembly(5.85m boom, 3.05m arm, 1.08m³ PCSA heaped bucket)	5140	11330	←	
5.85m boom assembly	1965	4330	←	
3.05m arm assembly	975	2150	←	
1.08m³ PCSA heaped bucket	860	1896	←	
Boom cylinder assembly	225	496	←	
Arm cylinder assembly	300	661	←	
Bucket cylinder assembly	200	441	←	
Bucket control link assembly	180	397	←	

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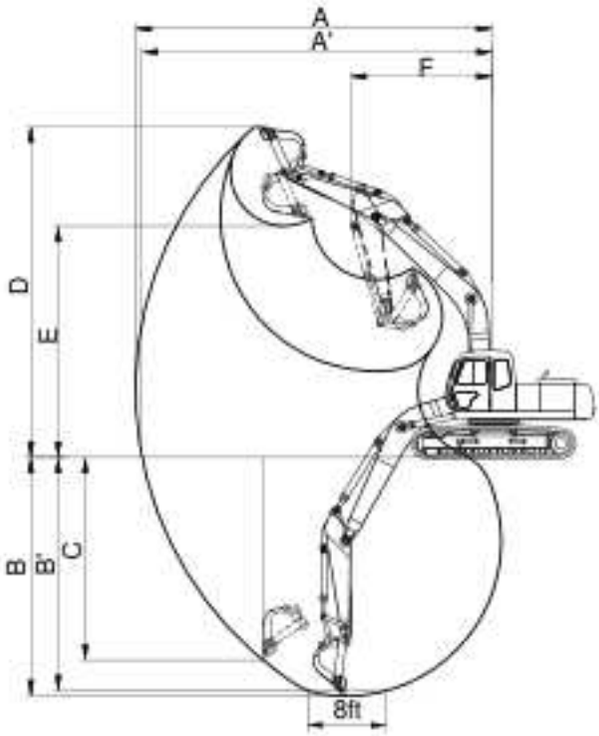
2) R250NLC-3

Item	R250NLC-3	
	kg	lb
Upperstructure assembly	9410	20750
Main frame weld assembly	1940	4280
Engine assembly	438	966
Main pump assembly	120	265
Main control valve assembly	193	425
Swing motor assembly	325	716
Hydraulic oil tank assembly	258	550
Fuel tank assembly	120	265
Counterweight	4100	9040
Cab assembly	275	610
Lower chassis assembly	9650	21275
Track frame weld assembly	3075	6780
Swing bearing	346	763
Travel motor assembly	275	606
Turning joint	50	110
Track recoil spring and idler	311	686
Idler	168	370
Carrier roller	21	46
Track roller	38	84
Track-chain assembly(600mm standard triple grouser shoe)	1450	3195
Front attachment assembly(5.85m boom, 3.05m arm, 1.08m³ PCSA heaped bucket)	5140	11330
5.85m boom assembly	1965	4330
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Boom cylinder assembly	225	496
Arm cylinder assembly	300	661
Bucket cylinder assembly	200	441
Bucket control link assembly	180	397

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3. WORKING RANGE

1) 5.85m(19' 2") BOOM



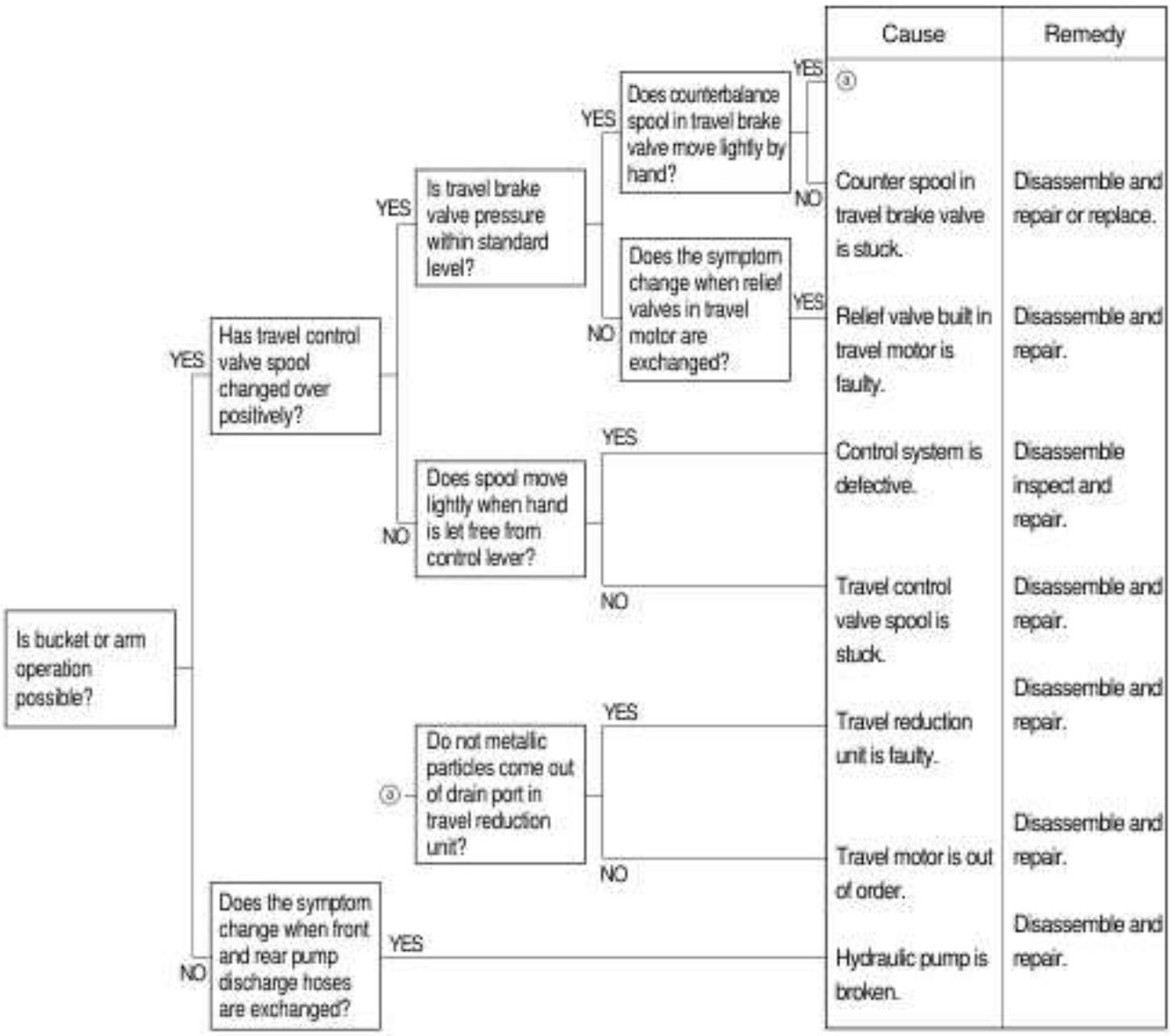
Description		2.10m(6' 11") Arm	2.50m(8' 2") Arm	3.05m(10' 0") Arm	3.60m(11' 10") Arm
Max digging reach	A	9620mm (31' 7")	9930mm (32' 7")	10390mm (34' 1")	10910mm (35'10")
Max digging reach on ground	A'	9430mm (30'11")	9750mm (32' 0")	10220mm (33' 6")	10745mm (35' 3")
Max digging depth	B	6050mm (19'10")	6450mm (21' 2")	7000mm (23' 0")	7550mm (24' 9")
Max digging depth (8ft level)	B'	5840mm (19' 2")	6270mm (20' 7")	6800mm (22' 4")	7400mm (24' 3")
Max vertical wall digging depth	C	5730mm (18'10")	5900mm (19' 4")	6220mm (20' 5")	6810mm (22' 4")
Max digging height	D	9570mm (31' 5")	9610mm (31' 6")	9700mm (31'10")	9960mm (32' 8")
Max dumping height	E	6440mm (21' 2")	6520mm (21' 5")	6640mm (21' 9")	6900mm (22' 8")
Min swing radius	F	4250mm (13'11")	4060mm (13' 4")	3980mm (13' 1")	3970mm (13' 0")
Bucket digging force	SAE	152 [166] kN	152 [166] kN	152 [166] kN	152 [166] kN
		15500 [17000] kgf	15500 [17000] kgf	15500 [17000] kgf	15500 [17000] kgf
		34200 [37400] lbf	34200 [37400] lbf	34200 [37400] lbf	34200 [37400] lbf
	ISO	173 [189] kN	173 [189] kN	173 [189] kN	173 [189] kN
		17600 [19300] kgf	17600 [19300] kgf	17600 [19300] kgf	17600 [19300] kgf
		38800 [42400] lbf	38800 [42400] lbf	38800 [42400] lbf	38800 [42400] lbf
Arm crowd force	SAE	154 [168] kN	131 [143] kN	112 [123] kN	100 [109] kN
		15700 [17200] kgf	13400 [14700] kgf	11400 [12500] kgf	10200 [11200] kgf
		34600 [37800] lbf	29500 [32300] lbf	25100 [27500] lbf	22500 [24600] lbf
	ISO	161 [176] kN	136 [149] kN	116 [127] kN	103 [113] kN
		16400 [17900] kgf	13900 [15200] kgf	11850 [13000] kgf	10500 [11500] kgf
		36200 [39600] lbf	30640 [33500] lbf	26120 [28600] lbf	23100 [25300] lbf

[ ] : Power boost

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5. TRAVEL SYSTEM

1) TRAVEL DOES NOT FUNCTION AT ALL ON ONE SIDE



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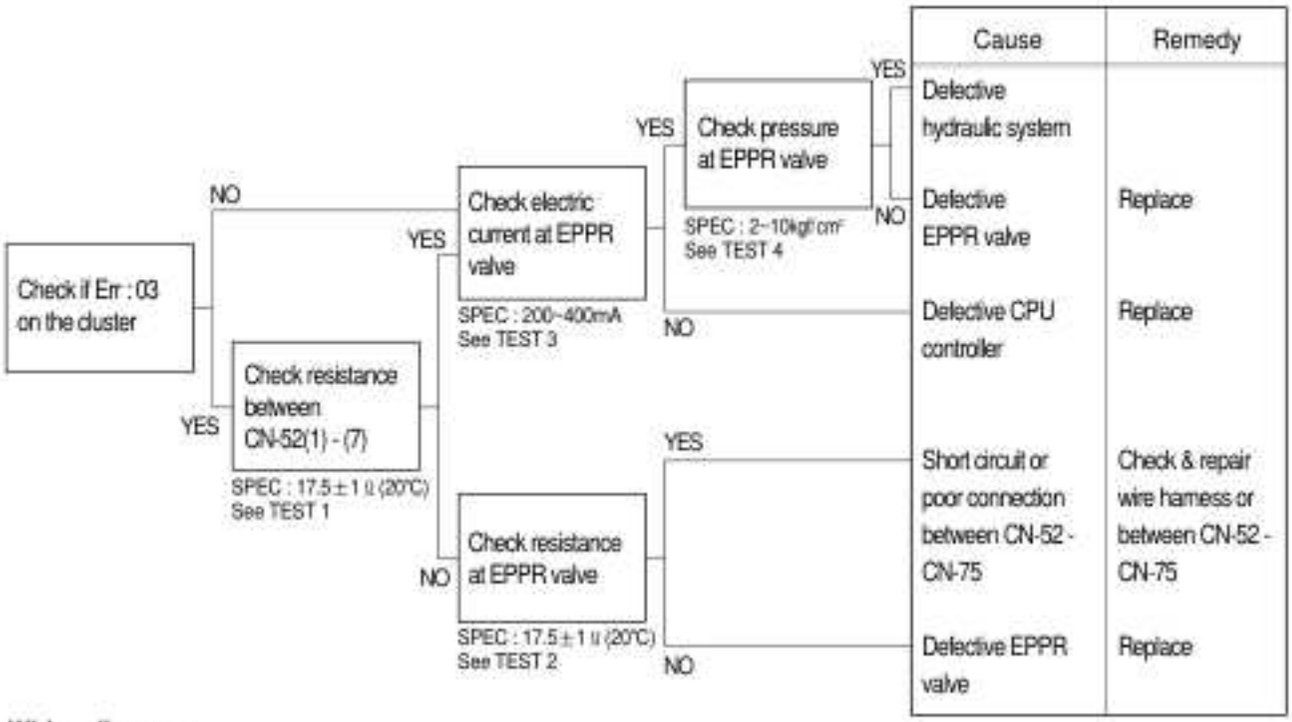
1. ALL ACTUATORS SPEED ARE SLOW

※ Boom, Arm, Bucket, Swing and travel speed are slow, but engine speed is good.

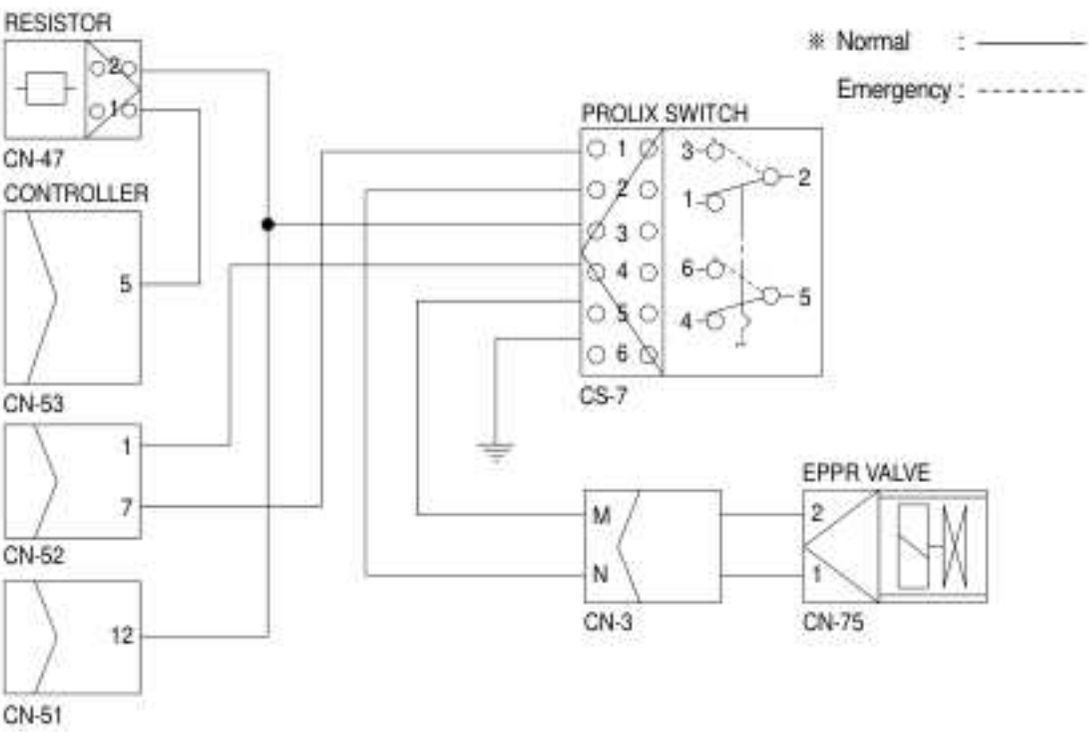
※ Spec : H-mode 2450 ± 50rpm S-mode 2250 ± 50rpm
L-mode 2250 ± 50rpm F-mode 1750 ± 50rpm

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

1) INSPECTION PROCEDURE

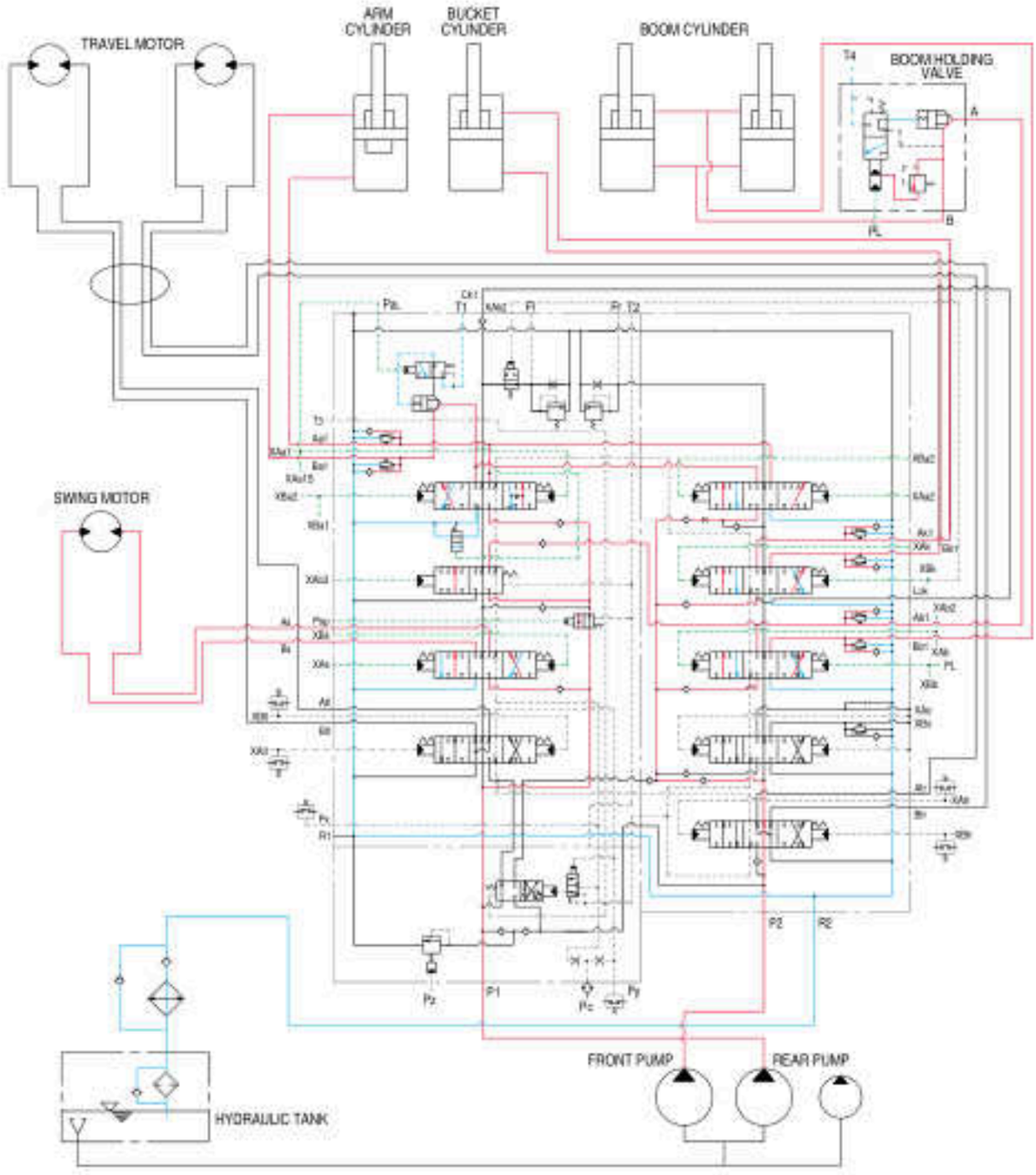


Wiring diagram



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5. COMBINED SWING, BOOM, ARM & BUCKET OPERATION



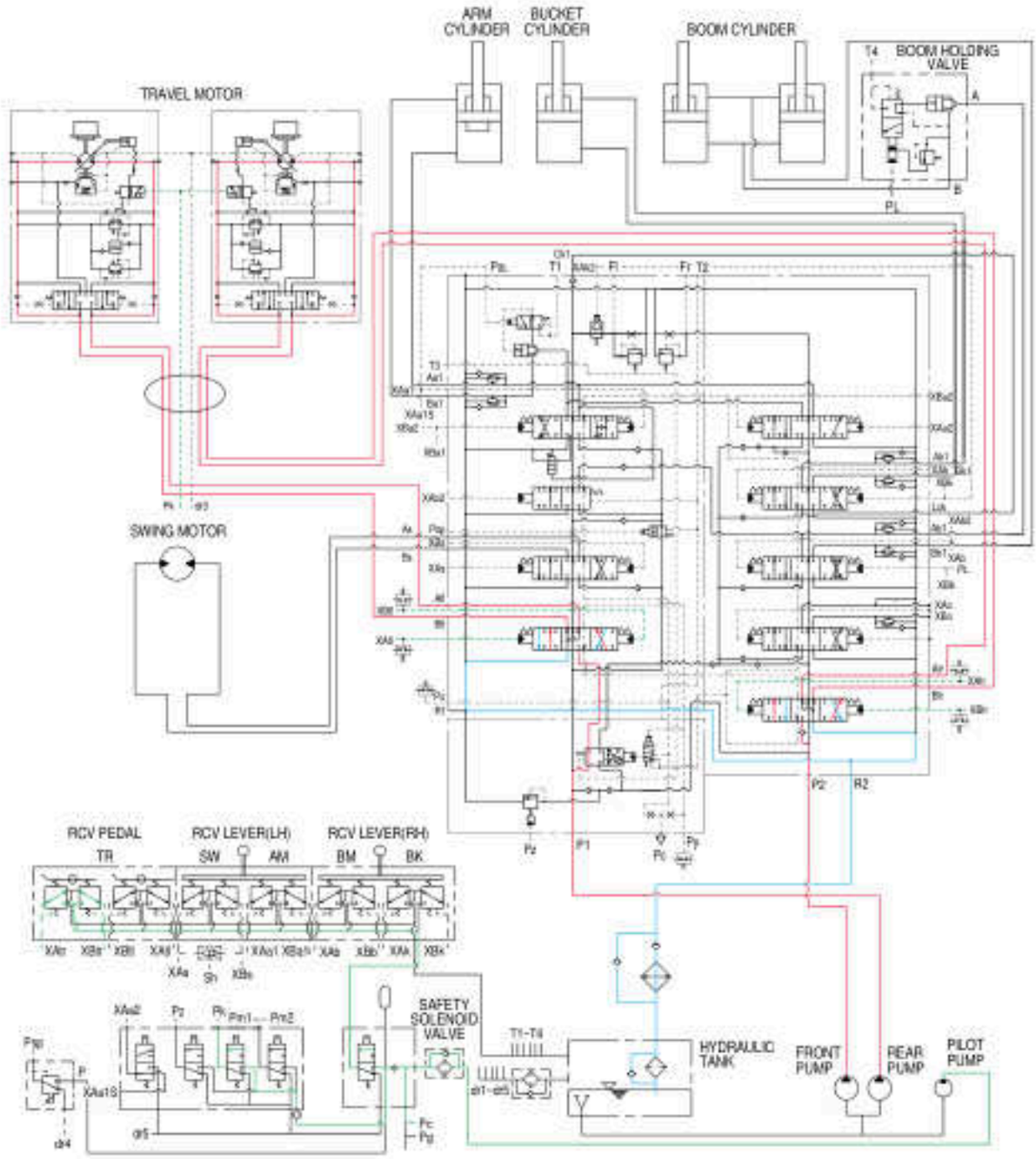
When the swing, boom, arm and bucket functions are operated, simultaneously each spool in the main control valve is moved to the functional position by the pilot oil pressure from the remote control valve.

The oil from the rear pump flows into the swing motor, boom cylinders and arm cylinder through the swing spool, boom 2 spool, arm 1 spool, and the parallel and confluence oil passage in the left control valve. The oil from the front pump flows into the boom cylinders, arm cylinder and bucket cylinder through the boom 1 spool, arm 2 spool, bucket spool and the parallel and confluence oil passage in the right control valve.

The superstructure swings and the boom, arm and bucket are operated.

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8. TRAVEL OPERATION



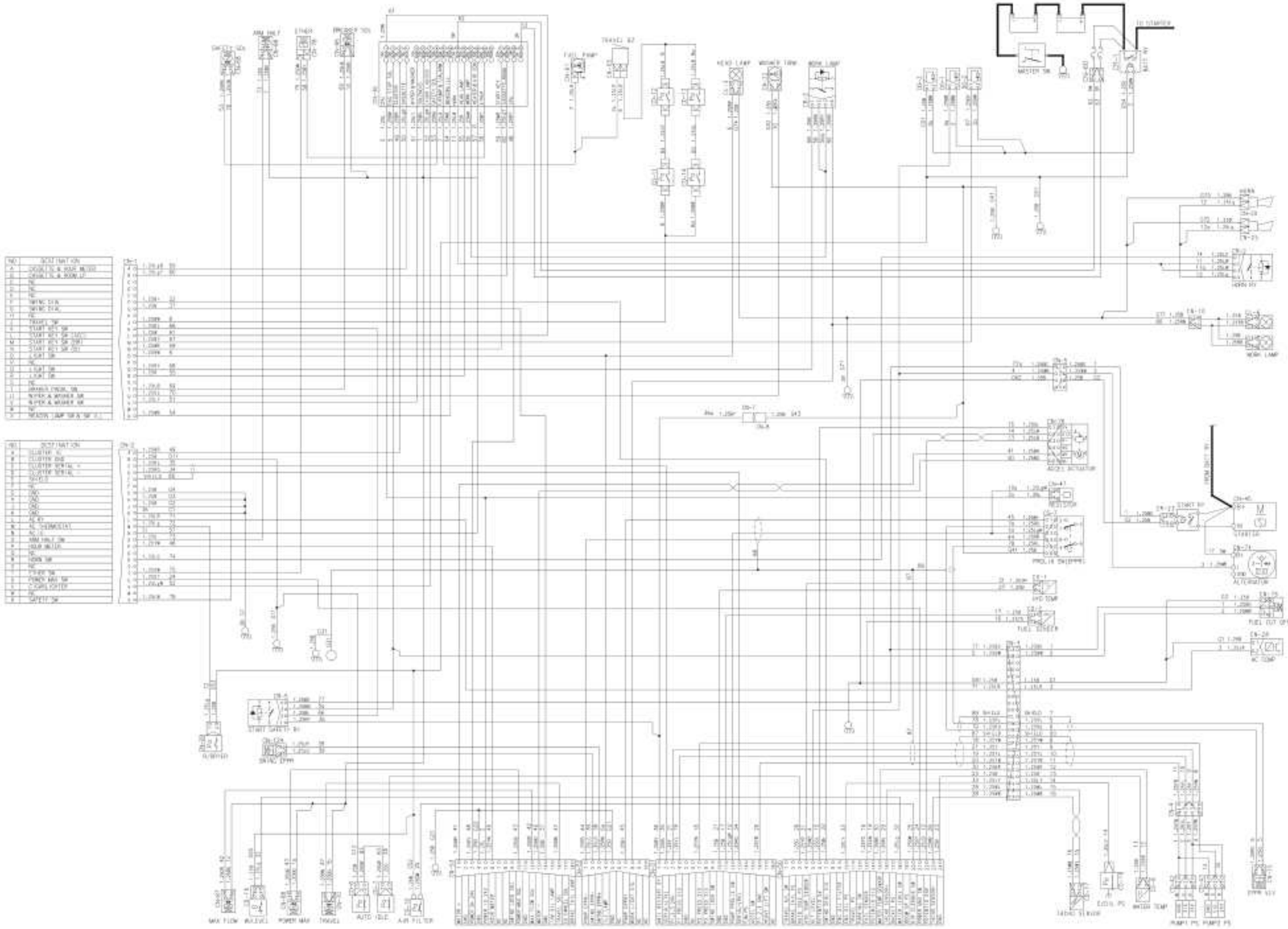
When the travel levers are pushed forward or reverse position, the travel spools in the main control valve are moved to the forward or reverse travel position by the pilot oil pressure from the remote control valve.

The oil from the both pumps flows into the main control valve and then goes to the both travel motors through the turning joint.

The oil returned from both travel motors returns to the hydraulic oil tank through the turning joint and the travel spools in the main control valve.

When this happens, the machine moves to the forward or reverse.

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