CRAWLER EXCAVATOR

SERVICE MANUAL

R290LC-7

HYUNDAI

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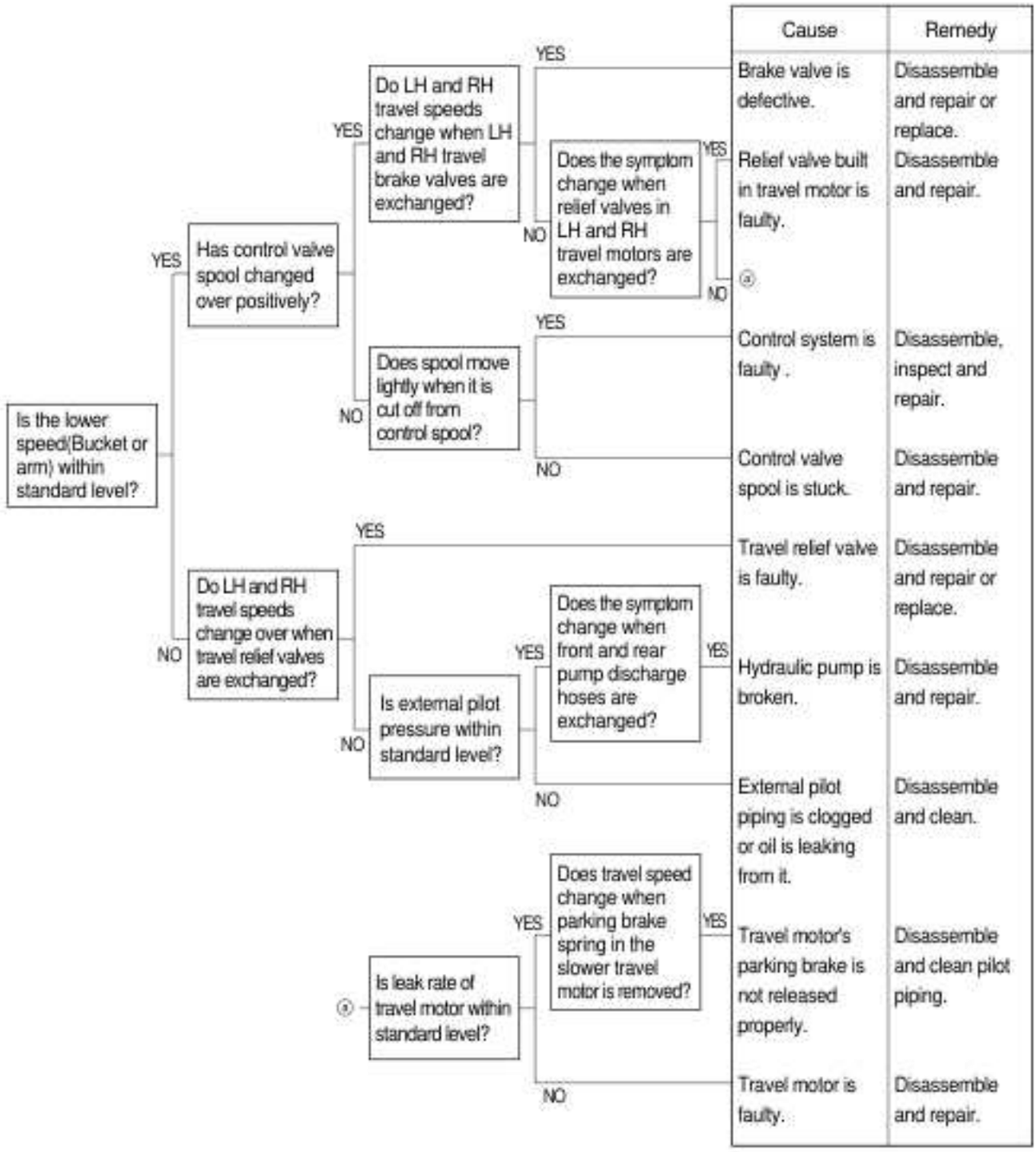
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2) SPEED ON ONE SIDE FALLS AND THE MACHINE CURVES

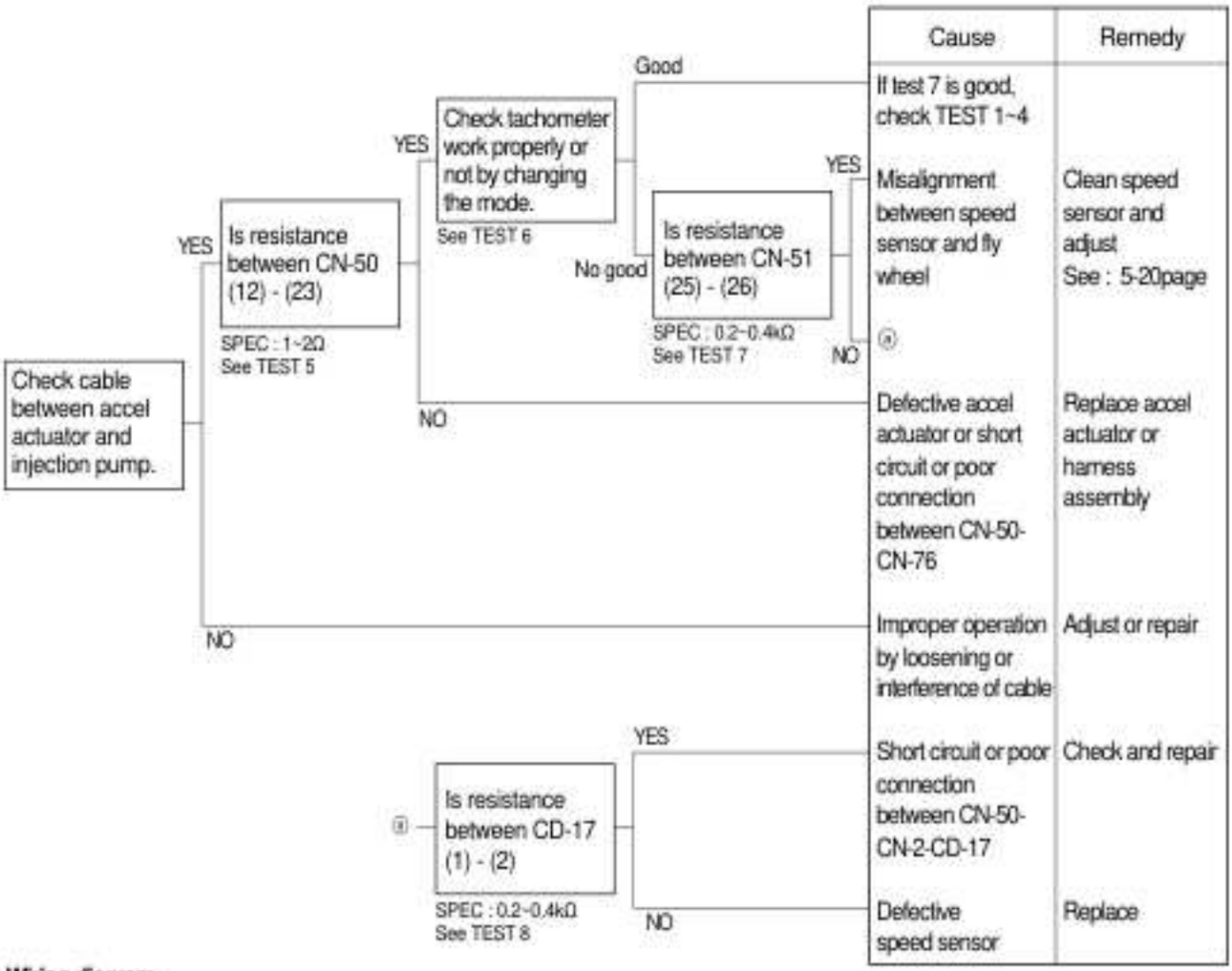


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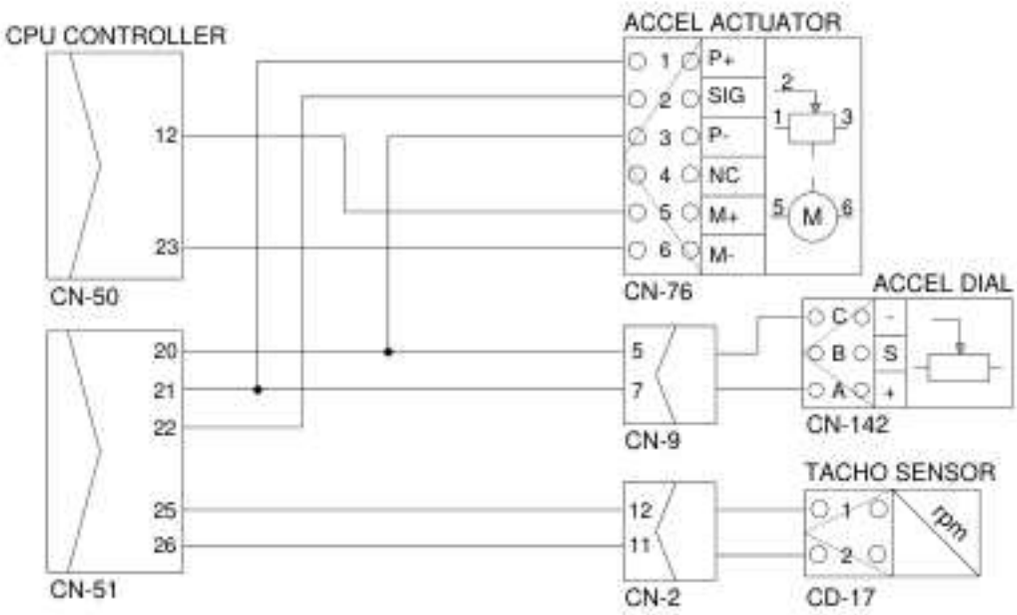
2. ENGINE SPEED IS SLOW AT ALL MODE

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

1) INSPECTION PROCEDURE



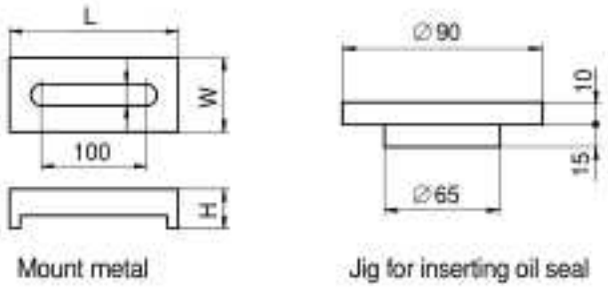
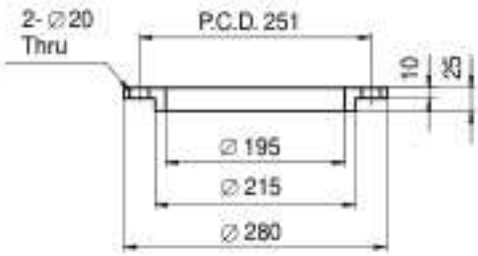
Wiring diagram



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2) TOOLS AND TIGHTENING TORQUE

(1) Tools

Description	Specification
Hexagon key	Width across flat 5, 6, 10, 14mm
Spanner	Width across flat 19, 27, 32, 35mm
Snap ring prier	For shaft Ø 45
Snap ring prier	For bore Ø 32~Ø 80
Plastic hammer	-
Screw driver	Minus(-), medium size, 2 pieces
Torque wrench	0~33kgf· m(0~238.7lbf· ft)
Gear(Bearing) puller	Work size : Dia 75 × Width 45 can be handled
Mount metal(2 pieces) Jig for inserting oil seal	 Mount metal Jig for inserting oil seal
Jig for inserting brake piston	 Jig for inserting brake piston
Others	Seal tape, kerosene, grease, hydraulic oil, compressed air, waists etc.

(2) Tightening torque

Item	Part name	Size	Torque		Wrench size	
			Kgf· m	lbf· ft	in	mm
10	Hexagon socket head bolt	M 8	2	14.5	0.24	6
14	Hexagon socket head bolt	M12	8	57.9	0.4	10
32	Hexagon socket head bolt	M18	33	239	0.55	14
40	Overload relief valve	ORV-240L6	10~12	72.3~86.8	1.26	32
41	Hexagon socket head bolt	M 8	2	14.5	0.24	6
42	Hexagon socket head bolt	M12	8	57.9	0.4	10
43	Plug	PF 1/4	2.5~3	18.1~21.7	0.25	6.35

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(28)Assemble piston ring(30), piston ring 252(30) and 278(31) into brake piston(29).



(29)Assemble brake piston into shaft casing.

※ Be careful of the direction of assembling brake piston.



(30)Assemble brake spring(32).

※ Quantity : Spring-10pieces, Holes-11pieces

※ Do not assemble on the top of brake piston.



(31)Insert O-ring(69), after fastening orifice screw(4) with standard torque.

· Quantity and size : (4)2 pieces-ø 1.0
(56)1pieces-ø 1.5

· Tightening torque : 7kgf · m (50.63lbf · ft)



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(8) Negative control relief valve

① Remove plug(551).
- Hexagon wrench : 12mm



② Remove poppet(611), spring(621) and damping rod(631).



(9) Swing logic valve and check valve

① Loosen hexagon socket head bolts(251) and remove logic valve(251) and take check valve(254).

② Remove plug(551) or (552) and take out poppet(511) or (515, 516) and spring (521) or (523).
- Hexagon wrench : 6, 12mm

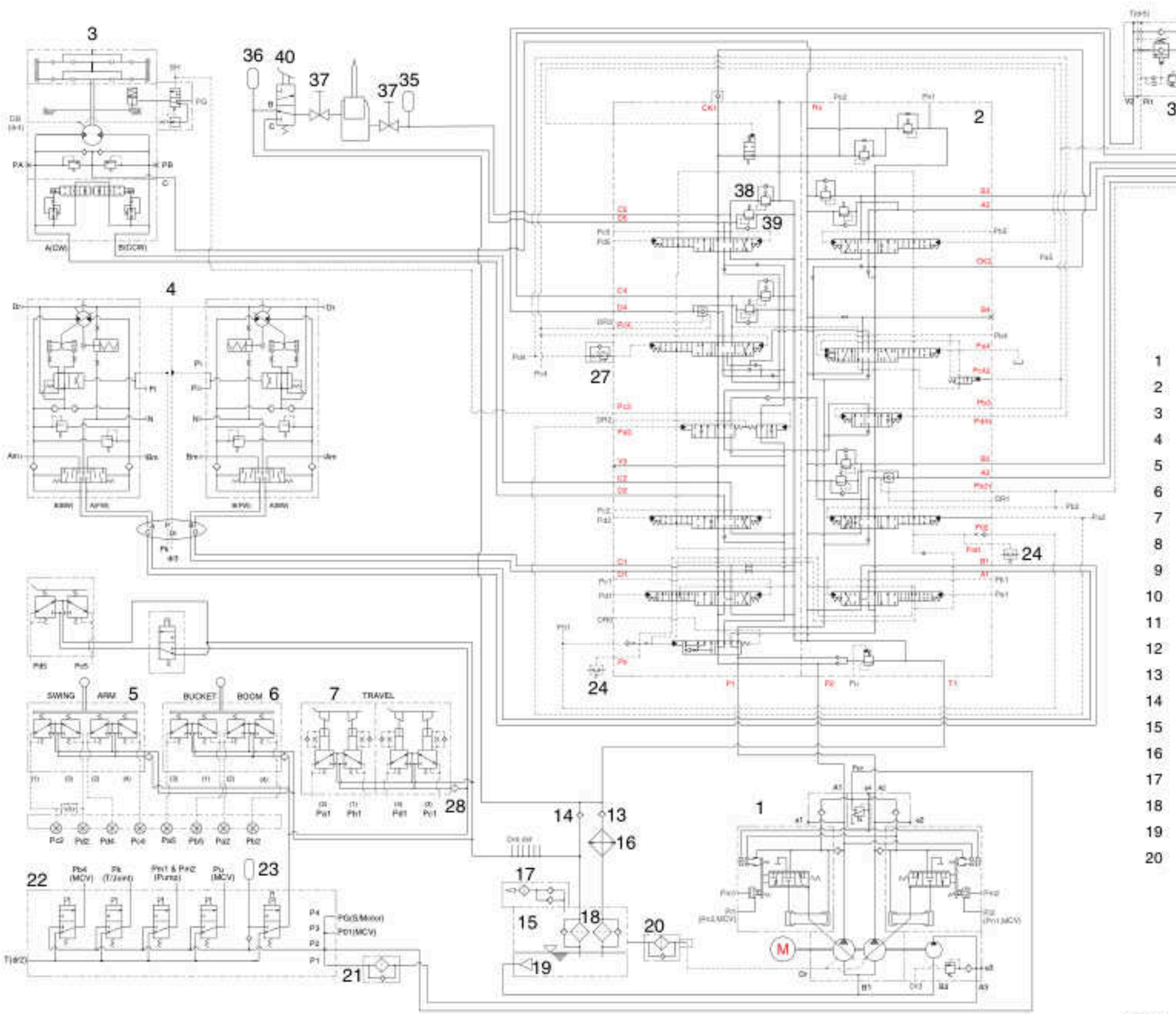


(10) Boom priority valve

Loosen hexagon socket head bolts(104) and remove boom priority valve(104).
- Hexagon wrench : 10mm

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GROUP 1 HYDRAULIC CIRCUIT(#1177-)



1	Main pump	21	Line filter
2	Main control valve	22	Solenoid valve
3	Swing motor	23	Accumulator
4	Travel motor	24	Pressure switch
5	RCV lever(LH)	25	Shuttle valve
6	RCV lever(RH)	26	Last guard filter
7	Rcv pedal	27	Rcv pedal
8	Boom cylinder(LH)	28	Shockless valve
9	Boom cylinder(RH)	29	Solenoid valve
10	Arm cylinder	30	Safety valve
11	Bucket cylinder	31	Safety valve
12	Turning joint	32	Press switch
13	Check valve	33	Shut off valve
14	Check valve	34	Pedal
15	Hydraulic tank	35	Accumulator
16	Oil cooler	36	Accumulator
17	Air breather	37	Stop valve
18	Bypass valve	38	Port relief valve
19	Return element	39	Port relief valve
20	Strainer	40	Selector valve

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