WHEELED EXCAVATOR

SERVICE MANUAL

R55-7A

HYUNDAI

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7) REMOTE CONTROL VALVE

Item		Specification
Type		Pressure reducing type
Operating pressure	Minimum	5kgf/cm²(71psi)
	Maximum	20kgf/cm²(284psi)
Single operation stroke	Lever	6.5/8.5mm(0.26/0.33in)

8) CYLINDER

Item		Specification
Boom cylinder	Bore dia × Rod dia × Stroke	ø 110 × ø 65 × 715mm
	Cushion	Extend only
Arm cylinder	Bore dia × Rod dia × Stroke	ø 90 × ø 55 × 850mm
	Cushion	Extend and retract
Bucket cylinder	Bore dia × Rod dia × Stroke	ø 80 × ø 50 × 660mm
	Cushion	-

※ Discoloration of cylinder rod can occur when the friction reduction additive of lubrication oil spreads on the rod surface.

※ Discoloration does not cause any harmful effect on the cylinder performance.

9) SHOE

Item	Width	Ground pressure	Link quantity	Overall width
R55-7A	400mm(16")	0.33kgf/cm²(4.69psi)	40	1900mm(6' 3")

10) BUCKET

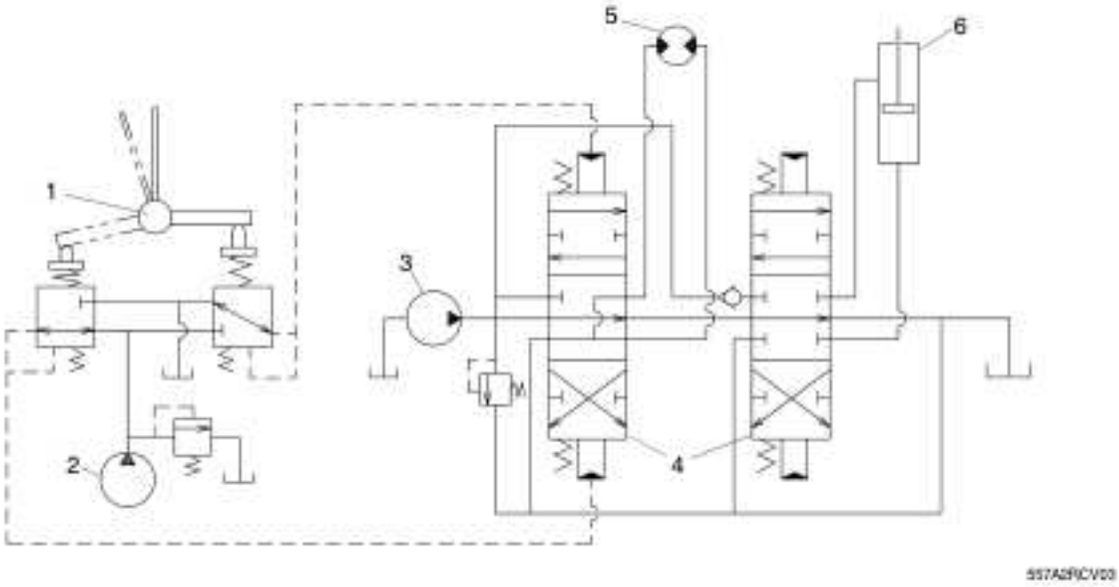
Item		Capacity		Tooth quantity	Width	
		SAE heaped	CECE heaped		Without side cutter	With side cutter
R55-7A	STD	0.18m³(0.24yd³)	0.15m³(0.20yd³)	5	705mm(27.8")	770mm(30.3")
	OPT	0.07m³(0.09yd³)	0.06m³(0.08yd³)	3	315mm(12.4")	360mm(14.2")

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3) OPERATION

The operation of the pilot valve will be described on the basis of the hydraulic circuit diagram shown below and the attached operation explanation drawing.

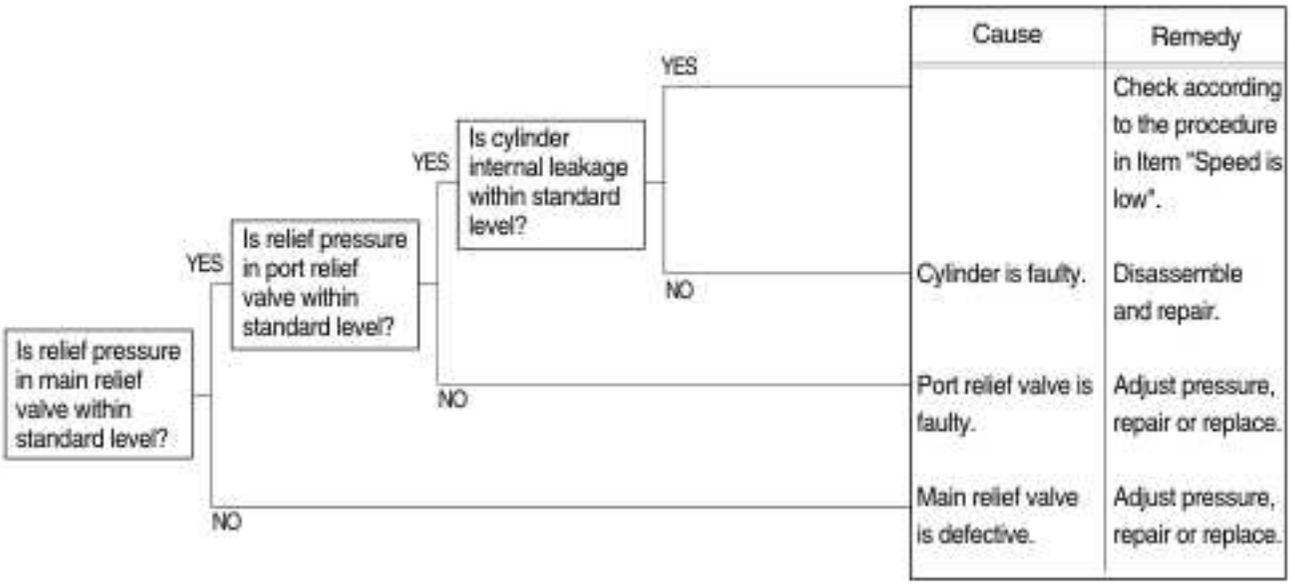
The diagram shown below is the typical application example of the pilot valve.



1	Pilot valve	3	Main pump	5	Hydraulic motor
2	Pilot pump	4	Main control valve	6	Hydraulic cylinder

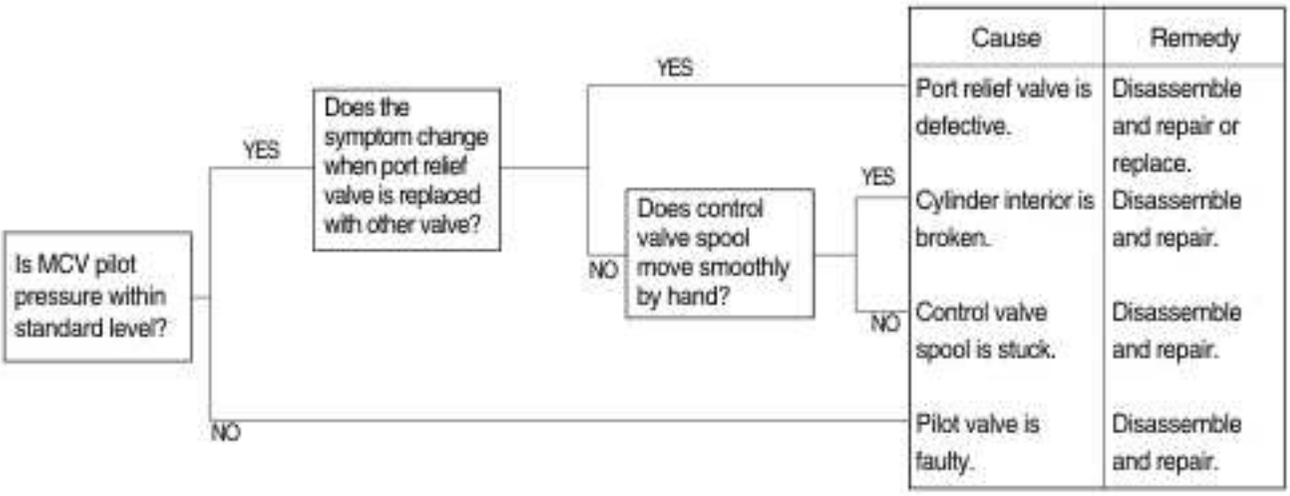
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4) BOOM, ARM OR BUCKET POWER IS WEAK



Cause	Remedy
	Check according to the procedure in Item "Speed is low".
Cylinder is faulty.	Disassemble and repair.
Port relief valve is faulty.	Adjust pressure, repair or replace.
Main relief valve is defective.	Adjust pressure, repair or replace.

5) ONLY BUCKET OPERATION IS TOTALLY IMPOSSIBLE



Cause	Remedy
Port relief valve is defective.	Disassemble and repair or replace.
Cylinder interior is broken.	Disassemble and repair.
Control valve spool is stuck.	Disassemble and repair.
Pilot valve is faulty.	Disassemble and repair.

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(5) Assembling the shaft

① Fit the shaft into the bearing(With the bearing in the bottom) by using the press machine and jig. If the press is not available, use the jig in the similar manner and drive the shaft into the bearing by knocking with a plastic hammer.



R55NM7HP53

② Install the C-type stop ring to fix the bearing.



R55NM7HP54

③ Assembling the shaft.
Assemble the shaft into the housing.
Knock the spline end lightly with a plastic hammer and fix the bearing outer ring firmly into the housing hole.



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(6) Apply grease to the O-ring for assembling.



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⑤ Assemble the center frame sub-assemble to the gear casing sub-assembly.


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(3) Reassembling the P3 and P4 pumps

① Insert the pins (2-pieces) into the center frame.


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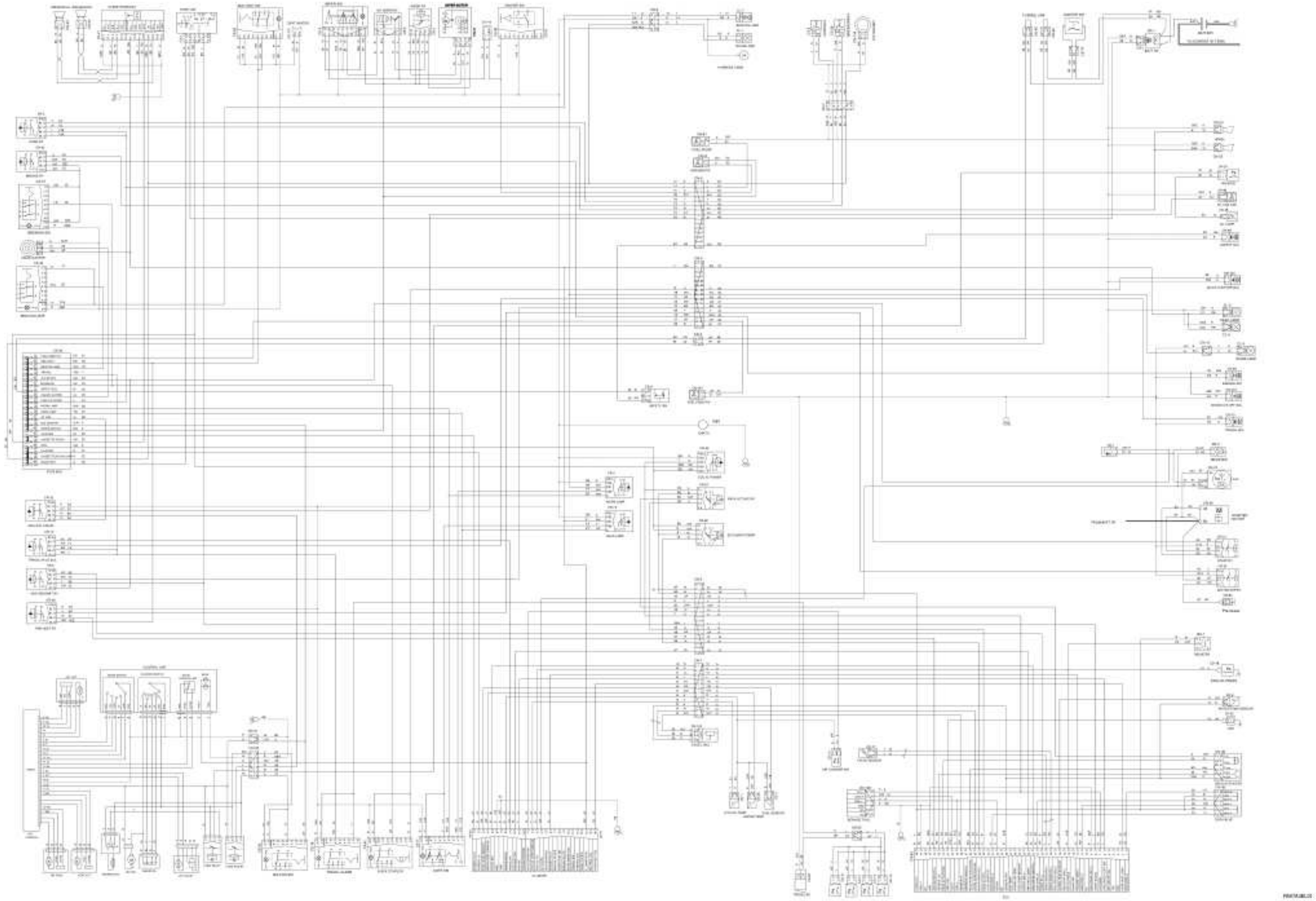
② Insert coupling to the P3 geared pump.


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③ Assemble the P3 and P4 geared pumps.


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