CRAWLER EXCAVATOR

SERVICE MANUAL

R210NLC-7

HYUNDAI

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4. WEIGHT

1) MONO BOOM

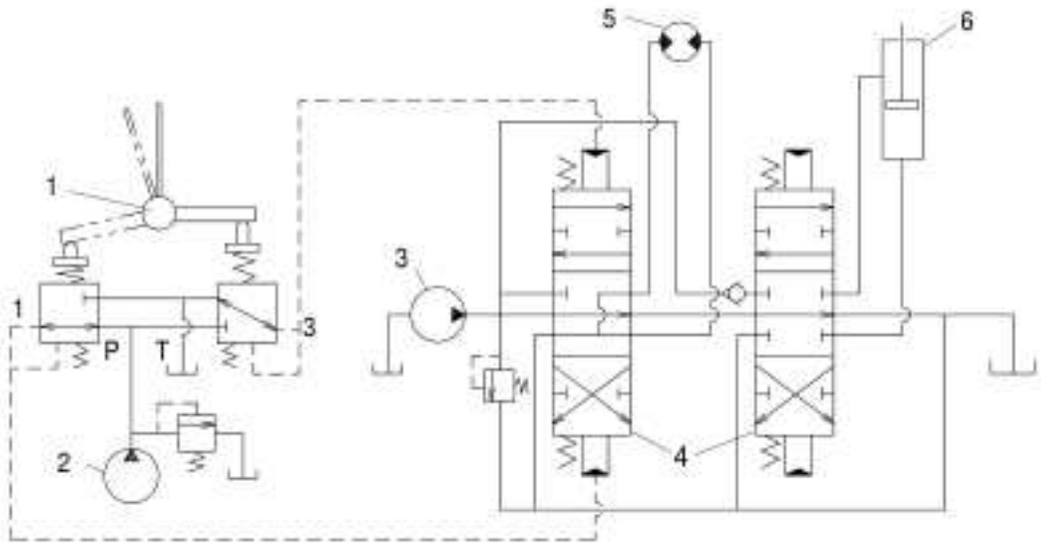
Item	R210NLC-7	
	kg	lb
Upperstructure assembly	8950	19730
Main frame weld assembly	2600	5730
Engine assembly	430	950
Engine assembly	530	1170
Main pump assembly	170	370
Main control valve assembly	200	440
Swing motor assembly	190	420
Hydraulic oil tank assembly	240	530
Fuel tank assembly	195	430
Counterweight	4700	10360
Cab assembly	310	680
Lower chassis assembly	8400	18520
Track frame weld assembly	2525	5570
Swing bearing	260	570
Travel motor assembly	305	670
Turning joint	55	120
Track recoil spring and idler	270	600
Idler	170	370
Carrier roller	20	45
Track roller	40	90
Track-chain assembly(500mm standard triple grouser shoe)	1200	2650
Front attachment assembly(5.68m boom, 2.92m arm, 0.87m³ SAE heaped bucket)	4050	8930
5.68m boom assembly	1500	3310
2.92m arm assembly	705	1550
0.87m³ SAE heaped bucket	710	1570
Boom cylinder assembly	180	400
Arm cylinder assembly	290	640
Bucket cylinder assembly	175	390
Bucket control link assembly	170	370

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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.



2-70 (210-7)

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

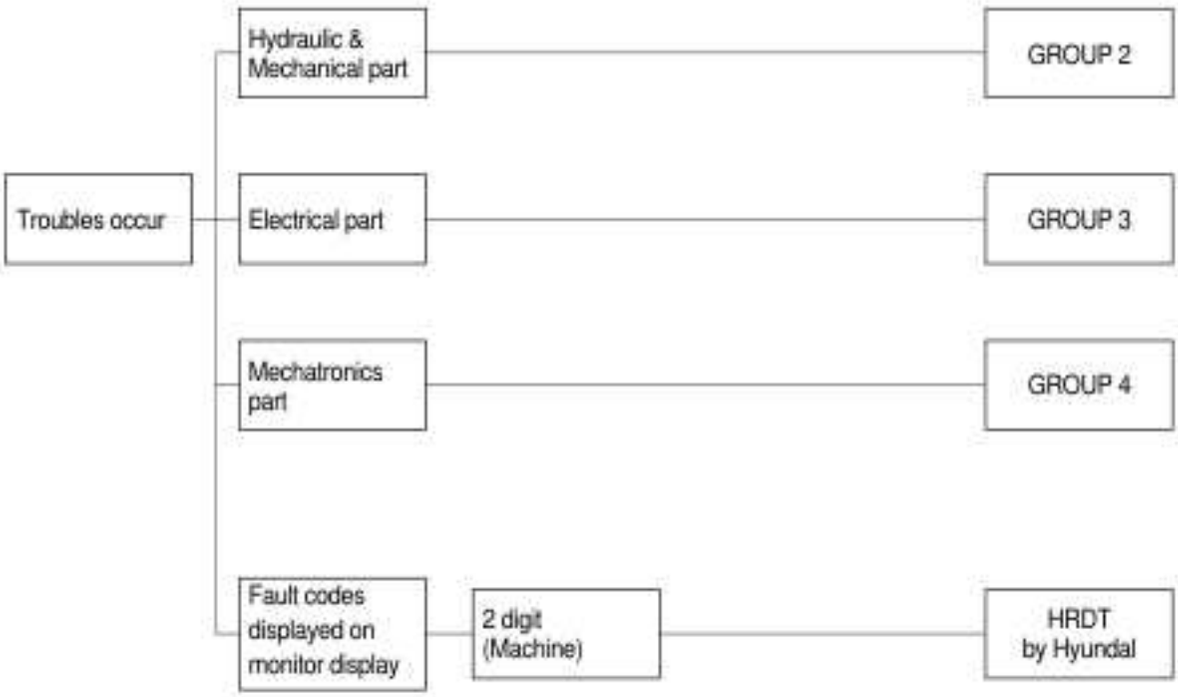
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GROUP 1 BEFORE TROUBLESHOOTING

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.



※ If fault codes are displayed on the monitor, please contact Hyundai.

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■ **Disassemble cylinder sub.**

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



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21078TM32

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



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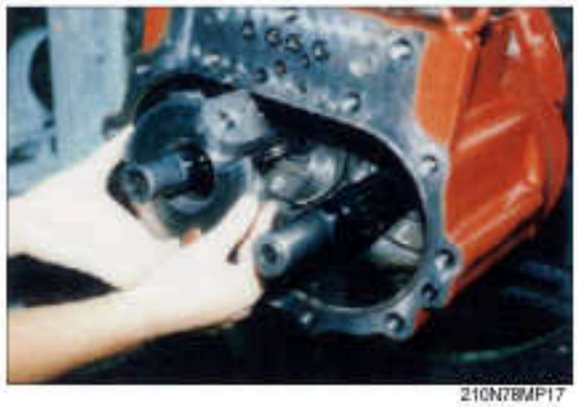


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(9) Fit tilting bush(214) of swash plate(212) to tilting pin(531) and fit swash plate to swash plate support(251) correctly.

- Take care not to mix up parts of drive shaft side with those of driven shaft side.
- Even after fitting, swash plate(212) comes off from swash plate support(251), in some cases. They do not come off easily if grease is applied to the sliding surfaces.
- Confirm with fingers of both hands that swash plate can be moved smoothly.


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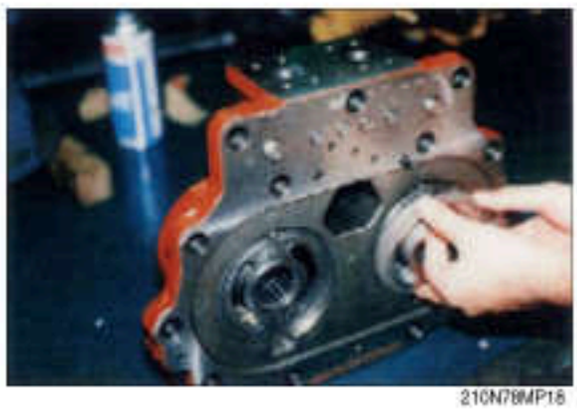
(10) Assemble piston cylinder subassembly [cylinder(141), piston subassembly(151, 152), set plate(153), spherical bush(156), cylinder spring(157)]. Fit spline phases of spherical bush and cylinder and insert piston cylinder subassembly into pump casing with respect to drive shaft(111) and driven shaft(113).

- Take care not to mix up parts of drive shaft side with those of driven shaft side.
- Confirm that swash plate(212) is not off from swash plate support(251) and from tilting pin(531), before inserting them.


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(11) Fit valve plates(313, 314) to valve cover, entering valve plate pin(885) into pin hole.

- Take care not to mistake suction/delivery directions of valve plate.
- Apply grease to matching surface in contact with valve cover(312) because valve plates(313, 314) tend to come off.

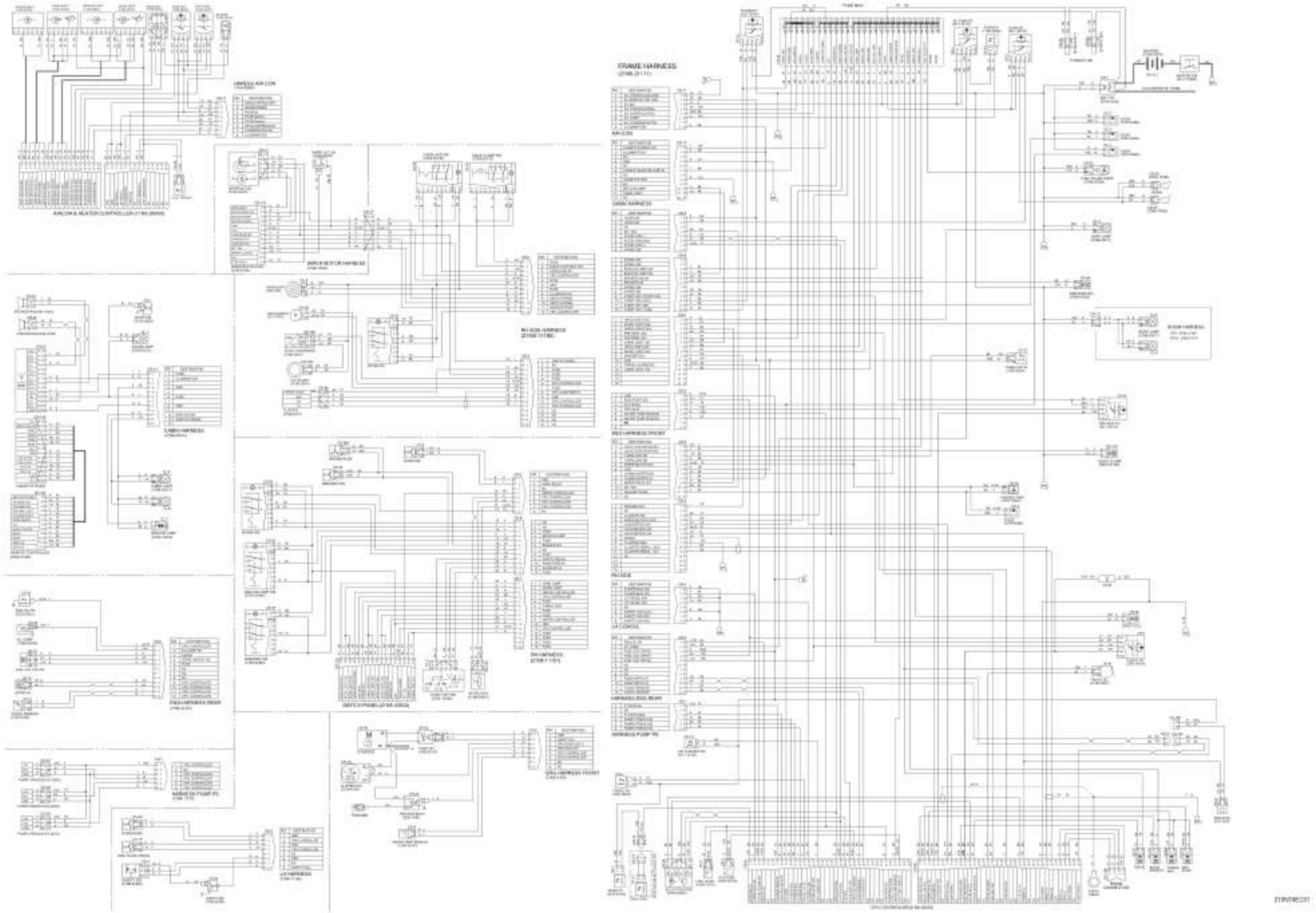

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(12) Insert check valve subassemblies(541, 543, 545) and needle bearings(124) to valve cover(312).

- Insert check valve subassemblies into valve cover in correct order.
- Since check valve subassembly tends to come off, apply grease to matching part of valve cover(312).


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