CRAWLER EXCAVATOR

SERVICE MANUAL

R370LC-7

HYUNDAI

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4. WEIGHT

Item	R370LC-7	
	kg	lb
Upperstructure assembly	11620	25620
Main frame weld assembly	2810	6200
Engine assembly	720	1590
Main pump assembly	190	420
Main control valve assembly	250	550
Swing motor assembly	360	790
Hydraulic oil tank assembly	230	510
Fuel tank assembly	240	530
Counterweight	6500	14330
Cab assembly	310	680
Lower chassis assembly	5270	11620
Track frame weld assembly	14140	31170
Swing bearing	560	1230
Travel motor assembly	410	900
Turning joint	50	110
Track recoil spring and idler	420	930
Idler	180	400
Carrier roller	40	90
Track roller	80	180
Track-chain assembly(600mm standard triple grouser shoe)	2360	5200
Front attachment assembly(6.5m boom, 2.5m arm, 1.62m³ SAE heaped rock bucket)	8000	17640
Front attachment assembly(6.15m boom, 2.5m arm, 1.62m³ SAE heaped rock bucket)	7900	17420
Front attachment assembly(8.6m boom, 5.1m arm, 1.46m³ SAE heaped bucket)	8820	19440
6.5m boom assembly	3020	6660
6.15m boom assembly	2920	6440
8.6m boom assembly	3750	8270
2.5m arm assembly	1253	2760
3.2m arm assembly	1280	2820
5.1m arm assembly	1780	3920
1.62m³ SAE heaped rock bucket	1610	3550
1.46m³ SAE heaped bucket	1280	2820
Boom cylinder assembly	340	750
Arm cylinder assembly	460	1010
Bucket cylinder assembly	290	640
Bucket control linkage assembly	350	770

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7) REMOTE CONTROL VALVE

Item		Specification
Type		Pressure reducing type
Operating pressure	Minimum	6.5kgf/cm²(92psi)
	Maximum	26kgf/cm²(370psi)
Single operation stroke	Lever	61mm(2.4in)
	Pedal	123mm(4.84in)

8) CYLINDER

Item		Specification
Boom cylinder	Bore dia × Rod dia × Stroke	ø160 × ø110 × 1500mm
	Cushion	Extend only
Arm cylinder	Bore dia × Rod dia × Stroke	ø170 × ø120 × 1760mm
	Cushion	Extend and retract
Bucket cylinder	Bore dia × Rod dia × Stroke	ø150 × ø105 × 1295mm
	Cushion	Extend only

※ 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
R370LC-7	Standard	600mm(24")	0.66kgf/cm²(9.39psi)	51	3340mm(10' 11")
	Option	700mm(28")	0.57kgf/cm²(8.11psi)	51	3440mm(11' 3")
		750mm(30")	0.54kgf/cm²(7.68psi)	51	3490mm(11' 5")
		800mm(32")	0.50kgf/cm²(7.11psi)	51	3540mm(11' 7")
		900mm(36")	0.45kgf/cm²(6.40psi)	51	3640mm(11' 11")

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GROUP 2 HYDRAULIC AND MECHANICAL SYSTEM

1. INTRODUCTION

1) MACHINE IN GENERAL

(1) If even a minor fault is left intact and operation is continued, a fatal failure may be caused, entailing a large sum of expenses and long hours of restoration.
Therefore when even a small trouble occurs, do not rely on your intuition and experience, but look for the cause based on the troubleshooting principle and perform maintenance and adjustment to prevent major failure from occurring. Keep in mind that a fault results from a combination of different causes.

(2) The following lists up commonly occurring faults and possible causes with this machine. For the troubleshooting of the engine, refer to the coming troubleshooting and repair.

(3) When carrying out troubleshooting, do not hurry to disassemble the components.
It will become impossible to find the cause of the problem.

(4) Ask user or operator the following.
① Was there any strange thing about machine before failure occurred?
② Under what conditions did the failure occur?
③ Have any repairs been carried out before the failure?

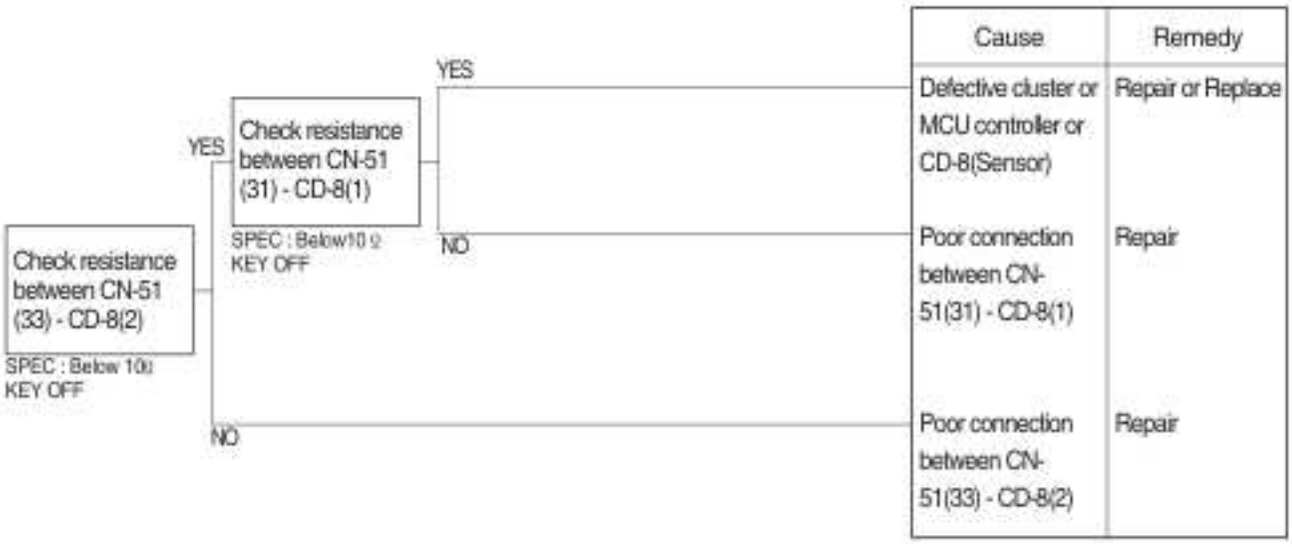
(5) Check before troubleshooting.
① Check oil and fuel level.
② Check for any external leakage of oil from components.
③ Check for loose or damage of wiring and connections.

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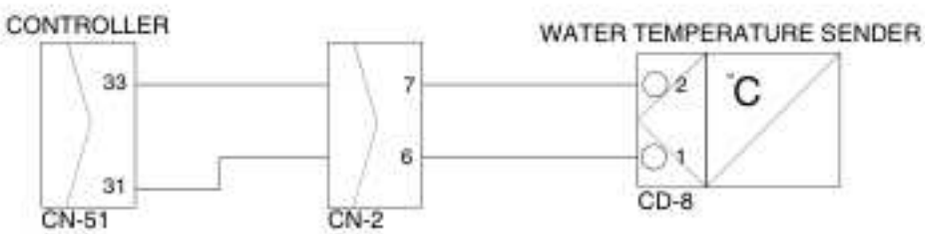
7. MALFUNCTION OF WARMING UP

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

1) INSPECTION PROCEDURE



Wiring diagram



3007EMSD4

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(8) Remove carrier 2(6), with planetary gears 2(13), sun gear 3(11), etc. fitted.

※ Use M10 eyebolt. In this case, thrust ring(26) is removed simultaneously.



(9) Disassembling of carrier 2 sub-assembly

① Push in spring pin(36), and remove pin 2(16), from carrier 2.

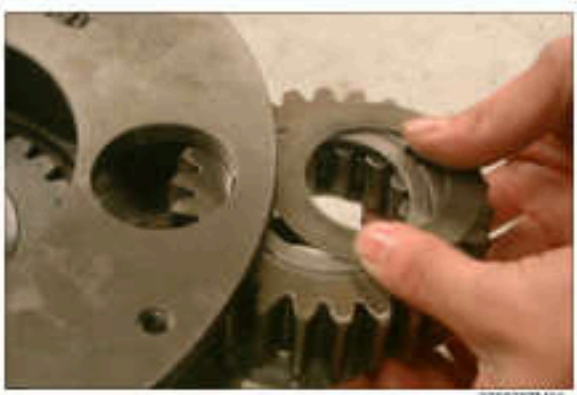
※ Carry out the following check in advance. If any abnormality should be found, carry out disassembling.

- Is there any crevice, crack or pitting on tooth surface of planetary gear?
- When turning planetary gear lightly, is there any abnormal noise or eccentric clearance? Carry out check similarly to the above for carrier 3.



② Remove side plate(20), planetary gear 2(13), and needle bearing(22) from carrier 2.

③ Remove thrust ring(26).



④ Remove snap ring(46), and remove carrier 2(6) from sun gear 3(11).

⑤ Remove thrust ring(27) from sun gear 3(11).



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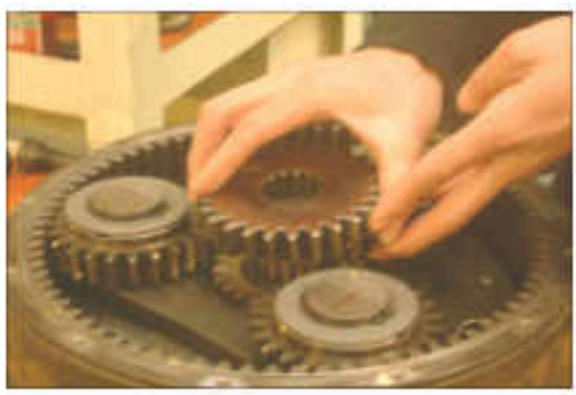
④ Put needle cage(21) into inside of planetary gear 1(12), and assemble them, holding them between side plates (18). Then fit snap ring(44) on them.



(16) Assemble carrier 1(5) sub-assembly to ring gear(1).
Paying attention to its meshing with carrier 1 sub-assembly and ring gear(1).



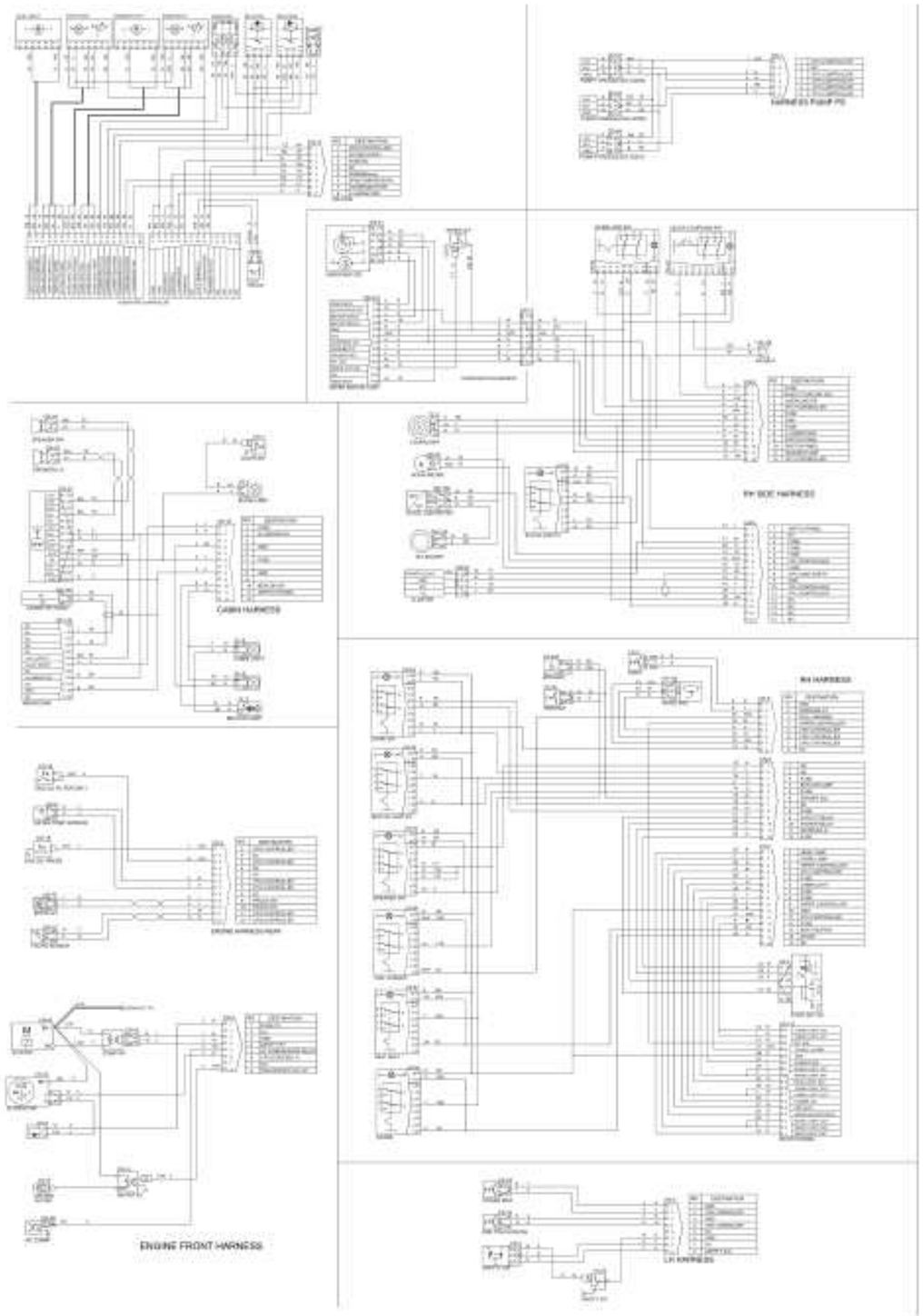
(17) Assemble sun gear 1(9) to drive shaft (101) paying attention to its meshing with sungear and drive shaft(101).

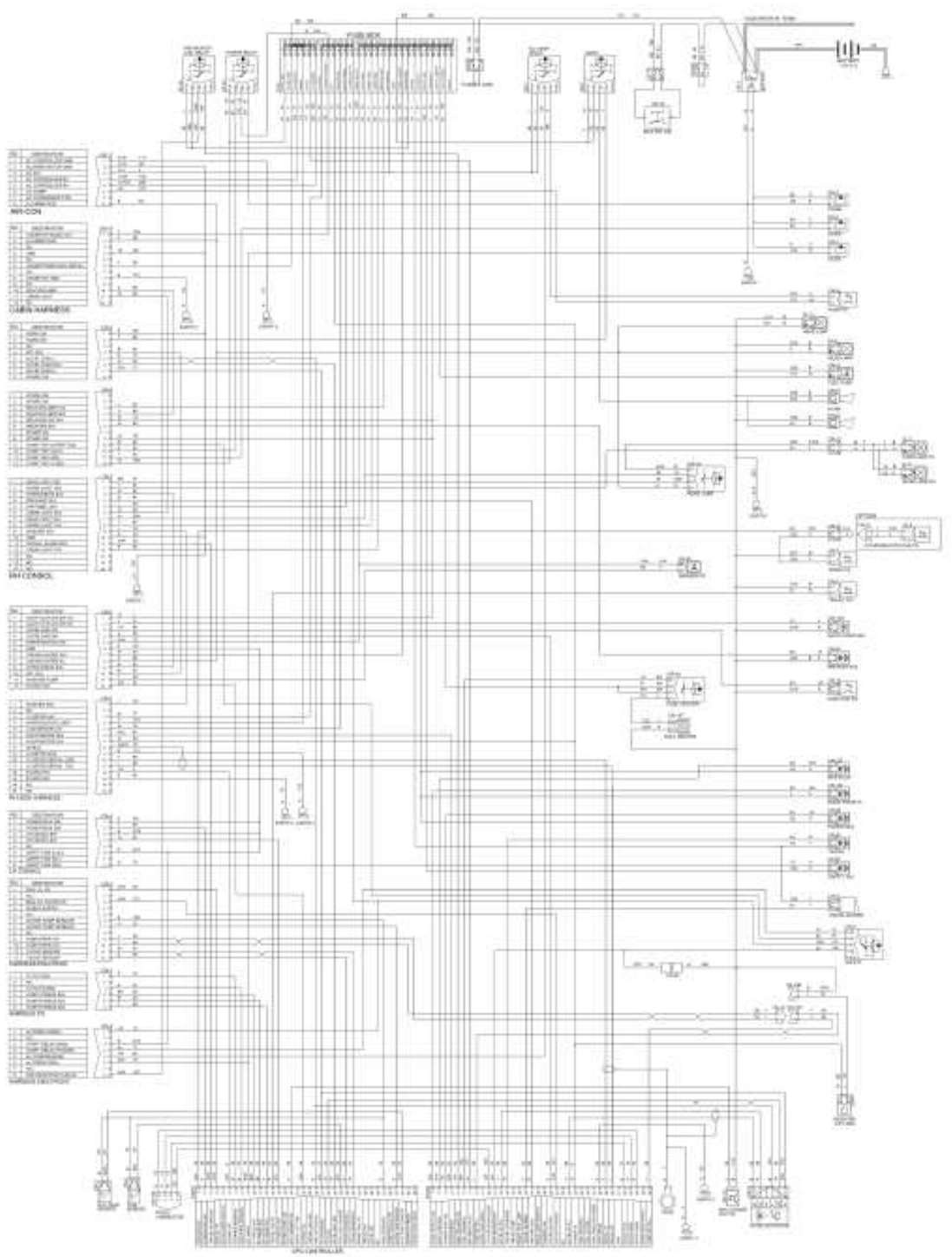


(18) Measure height "A" from sun gear 1 end face to ring gear(1) mating face with straight edge and depth gage.



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