CRAWLER EXCAVATOR

SERVICE MANUAL

HX140LC

HYUNDAI

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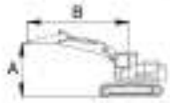
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Unit : mm

Model	Boom Type	Boom Length	Arm Length	Counterweight Weight (kg)	Shoe Width	Dozer Front	Dozer Rear	Outrigger Front	Outrigger Rear
HX140 LC	2pcs	4939	2100	2300	600	-	-	-	-

· : Rating over-front · : Rating over-side or 360 degree

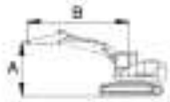


Lift-point height (A)		Lift-point radius (B) 3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		At max. reach Capacity		Reach
												m (ft)
7.5m	kg									*4380	*4380	3.77
24.6ft	lb									*9660	*9660	(12.4)
6.0m	kg			*3810	*3810					*4110	3160	5.50
19.7ft	lb			*8400	*8400					*9060	6970	(18.0)
4.5m	kg	*5010	*5010	*4260	*4260	4030	2740			3580	2430	6.44
14.8ft	lb	*11050	*11050	*9390	*9390	8880	6040			7890	5360	(21.1)
3.0m	kg			*5340	4050	3940	2660			3150	2120	6.93
9.8ft	lb			*11770	8930	8690	5860			6940	4670	(22.7)
1.5m	kg			5900	3810	3830	2550			3000	2010	7.07
4.9ft	lb			13010	8400	8440	5620			6610	4430	(23.2)
0.0m	kg			5740	3670	3750	2480			3090	2060	6.88
0.0ft	lb			12650	8090	8270	5470			6810	4540	(22.6)
-1.5m	kg	*9240	6730	5710	3640	3740	2470			3480	2310	6.33
-4.9ft	lb	*20370	14840	12590	8020	8250	5450			7670	5090	(20.8)
-3.0m	kg			5800	3720							
-9.8ft	lb			12790	8200							

Unit : mm

Model	Boom Type	Boom Length	Arm Length	Counterweight Weight (kg)	Shoe Width	Dozer Front	Dozer Rear	Outrigger Front	Outrigger Rear
HX140 LC	2pcs	4939	1900	2300	600	Down	-	-	-

· : Rating over-front · : Rating over-side or 360 degree



Lift-point height (A)		Lift-point radius (B) 3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		At max. reach Capacity		Reach
												m (ft)
7.5m	kg									*4720	*4720	3.42
24.6ft	lb									*10410	*10410	(11.2)
6.0m	kg			*4060	*4060					*4310	3820	5.27
19.7ft	lb			*8950	*8950					*9500	8420	(17.3)
4.5m	kg	*5420	*5420	*4480	*4480	*4240	3100			*3980	2900	6.24
14.8ft	lb	*11950	*11950	*9880	*9880	*9350	6830			*8770	6390	(20.5)
3.0m	kg			*5550	4600	*4550	3020			*3940	2530	6.75
9.8ft	lb			*12240	10140	*10030	6660			*8690	5580	(22.1)
1.5m	kg			*6670	4360	*5030	2930			*4110	2400	6.89
4.9ft	lb			*14700	9610	*11090	6460			*9060	5290	(22.6)
0.0m	kg			*7270	4240	*5360	2850			*4560	2470	6.70
0.0ft	lb			*16030	9350	*11820	6310			*10050	5450	(22.0)
-1.5m	kg	*9520	7930	*7220	4220	*5210	2870			*5030	2790	6.13
-4.9ft	lb	*20990	17480	*15920	9300	*11490	6330			*11090	6150	(20.1)
-3.0m	kg											
-9.8ft	lb											

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MACHINE ERROR CODES TABLE

DTC		Diagnostic Criteria	Application		
HCESPN	FMI		G	C	W
101	3	10 seconds continuous, Hydraulic Oil Temp. Measurement Voltage > 3.8V	●		
	4	10 seconds continuous, Hydraulic Oil Temp. Measurement Voltage < 0.3V	●		
	(Results / Symptoms) 1. Monitor – Hydraulic oil temperature display failure 2. Control Function – Fan revolutions control failure (Checking list) 1. CD-1 (#2)- CN-51 (#16) Checking Open/Short 2. CD-1 (#1)- CN-51 (#24, #25) Checking Open/Short				
105	0	10 seconds continuous, Working Press. Sensor Measurement Voltage > 5.2V	●		
	1	10 seconds continuous, 0.3V≤ Working Press. Sensor Measurement Voltage < 0.8V	●		
	4	10 seconds continuous, Working Press. Sensor Measurement Voltage < 0.3V	●		
	(Results / Symptoms) 1. Monitor – Working Press. display failure 2. Control Function – Auto Idle operation failure, Engine variable horse power control operation failure (Checking list) 1. CD-7 (#B) – CN-52 (#19) Checking Open/Short 2. CD-7 (#A) – CN-51 (#32) Checking Open/Short 3. CD-7 (#C) – CN-51 (#31) Checking Open/Short				
108	0	10 seconds continuous, Travel Oil Press. Sensor Measurement Voltage > 5.2V		●	
	1	10 seconds continuous, 0.3V ≤ Travel Oil Press. Sensor Measurement Voltage < 0.8V	●		
	4	10 seconds continuous, Travel Oil Press. Sensor Measurement Voltage < 0.3V	●		
	(Results / Symptoms) 1. Monitor – Travel Oil Press. display failure 2. Control Function – Auto Idle operation failure, Engine variable horse power control operation failure, IPC operation failure, Driving alarm operation failure (Checking list) 1. CD-6 (#B) – CN-52 (#27) Checking Open/Short 2. CD-6 (#A) – CN-51 (#32) Checking Open/Short 3. CD-6 (#C) – CN-51 (#31) Checking Open/Short				

※ Some error codes are not applied to this machine.

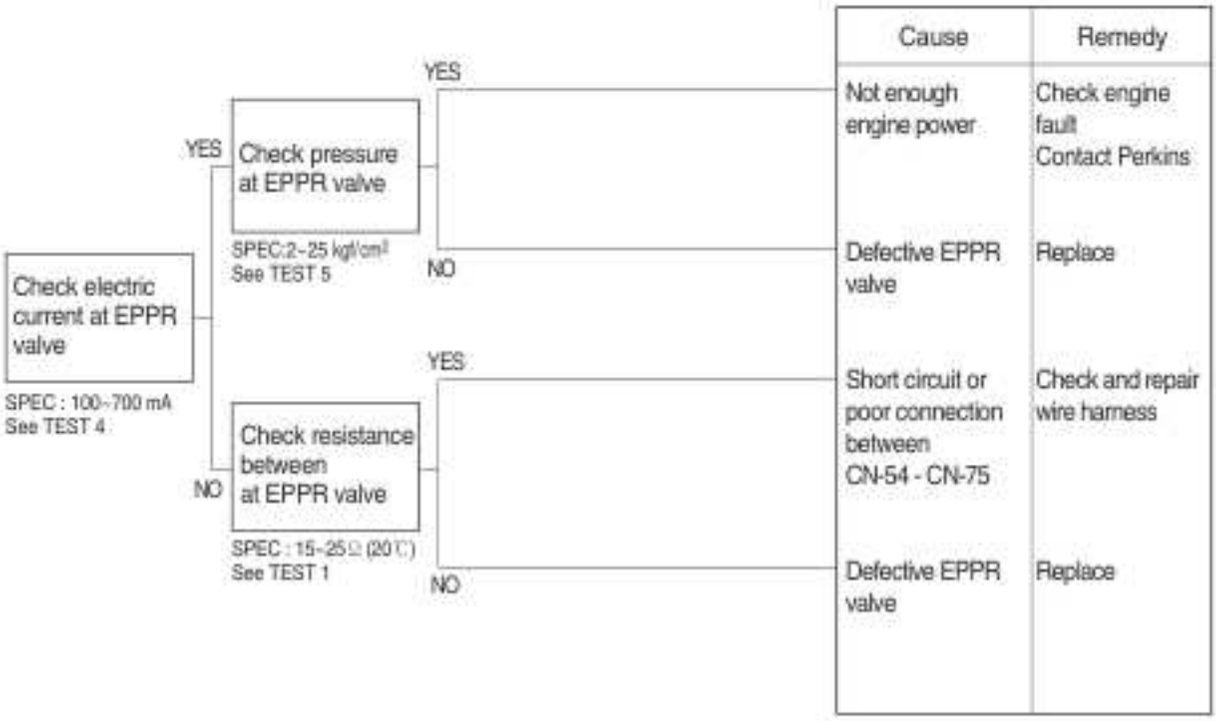
G : General C : Crawler Type W : Wheel Type

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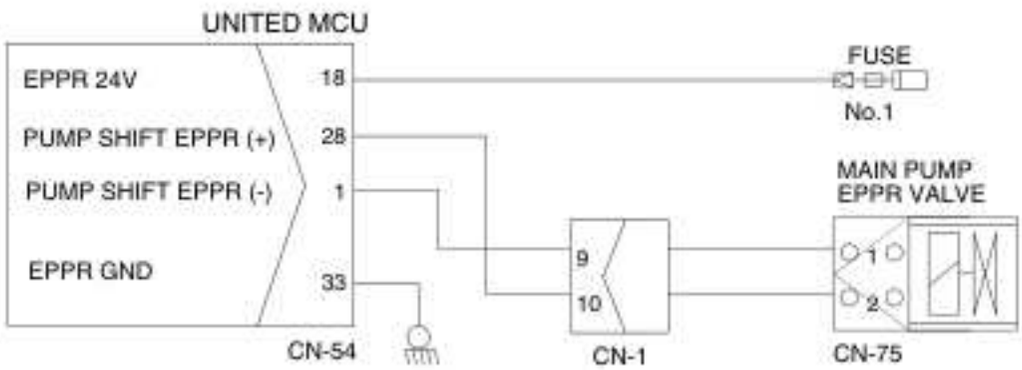
2. ENGINE STALL

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

1) INSPECTION PROCEDURE



Wiring diagram



140LC6M501

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■ Disassemble cylinder sub.

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





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





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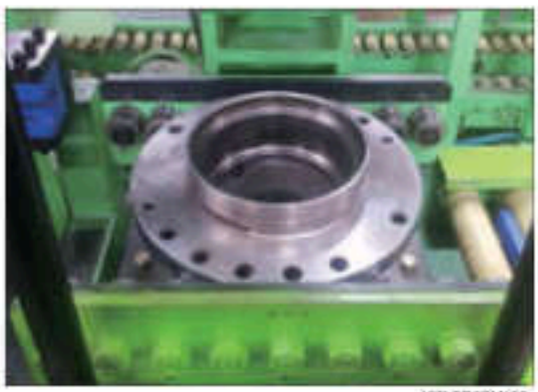
(19) Shrink fit taper roller bearing (3) on drive shaft, complete drive shaft sub assembly.



125LCR8SM102

Casing assembly

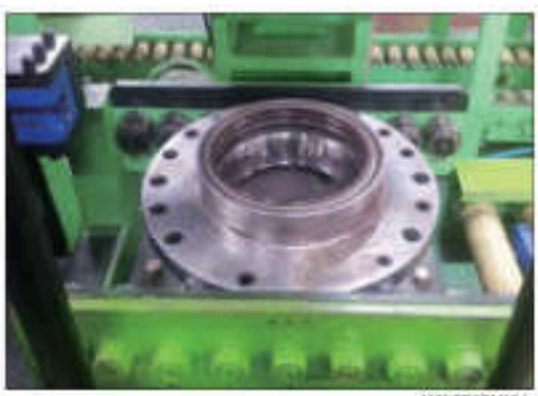
(20) Press outer ring of the taper roller bearing in the casing (8) by using the jig.



125LCR8SM103

(21) Press in oil seal (27) by using the jig.

※ Be careful of the direction of the assembly.



125LCR8SM104

(22) Assemble drive shaft sub assembly.

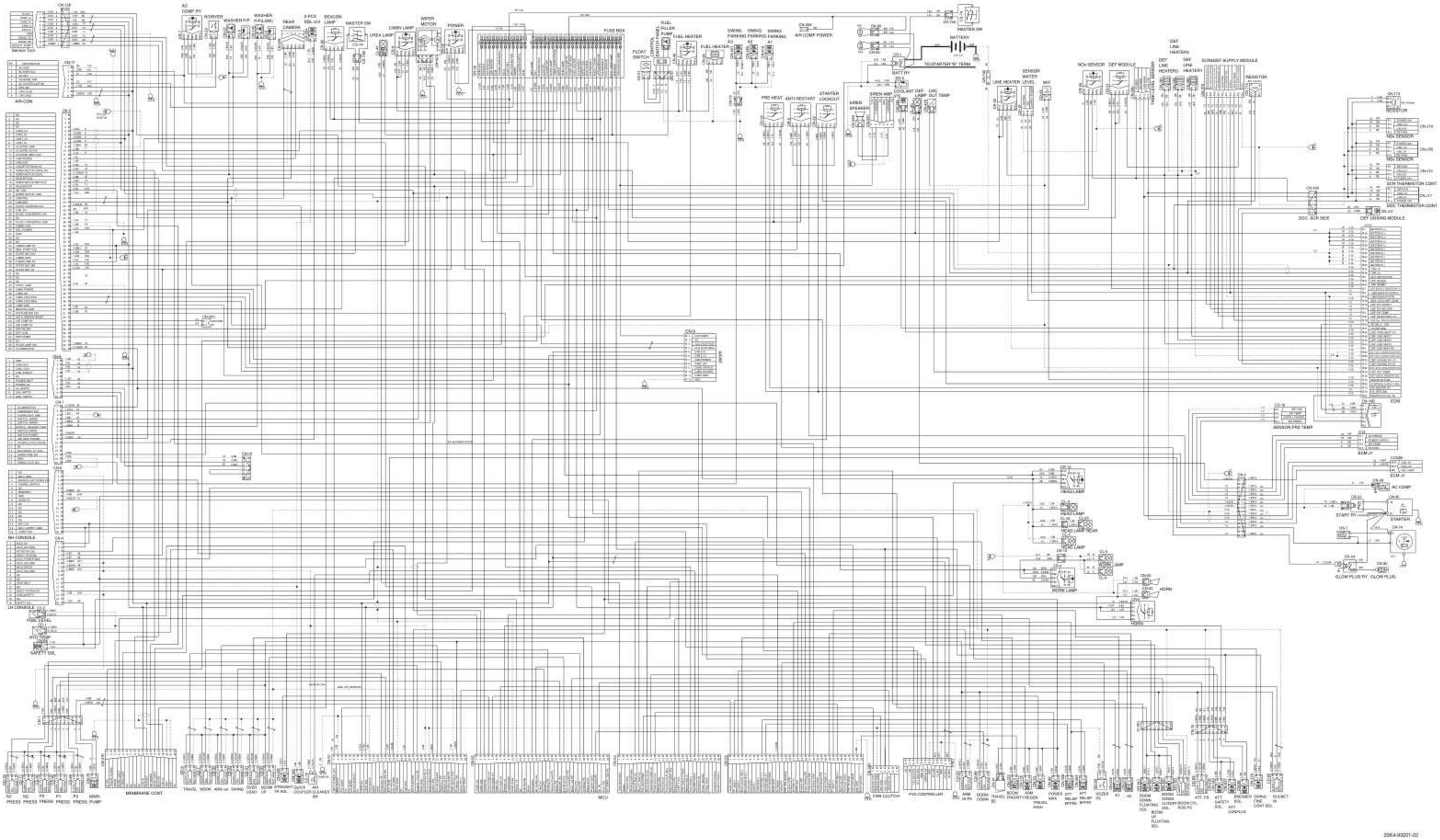
※ Be careful of damage of oil seal.



125LCR8SM105

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· ELECTRICAL CIRCUIT (1/3)



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