CRAWLER EXCAVATOR

SERVICE MANUAL

HX235A LCR

HYUNDAI

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4. WEIGHT

Item	HX235A LCR	
	kg	lb
Upperstructure assembly		
· Main frame weld assembly	2060	4540
· Engine assembly	580	1280
· Aftertreatment assy	70	150
· Main pump assembly	140	310
· Main control valve assembly	230	510
· Swing motor assembly	180	400
· Fuel&HYD Tank Assy	430	950
· Counterweight	5300	11680
· Cab assembly	480	1060
Lower chassis assembly		
· Track frame weld assembly	2590	5710
· Swing bearing	441	970
· Travel motor assembly (2EA)	610	1340
· Turning joint	60	130
· Sprocket (2EA)	112	250
· Track recoil spring (2EA)	283	620
· Idler (2EA)	308	680
· Upper roller (4EA)	82	180
· Lower roller (16EA)	675	1490
· Dozer blade (600mm T/C base)	930	2050
· Track-chain assembly (600 mm triple grouser shoe) (2EA)	2894	5980
· Track-chain assembly (700 mm triple grouser shoe) (2EA)	3178	7020
· Track-chain assembly (800 mm triple grouser shoe) (2EA)	3460	7650
Front attachment assembly		
· 5.70 m boom assembly	1530	3370
· 2.90 m arm assembly	760	1680
· 0.80 m³ SAE heaped bucket	820	1810
· 4.70 m boom assembly	1400	3090
· 2pc boom assembly	1920	4230
· 2.00 m arm assembly	600	1320
· 2.40 m arm assembly	670	1480
· Boom cylinder assembly (2EA)	400	880
· Arm cylinder assembly	270	600
· Bucket cylinder assembly	160	350
· Bucket control linkage total	200	440

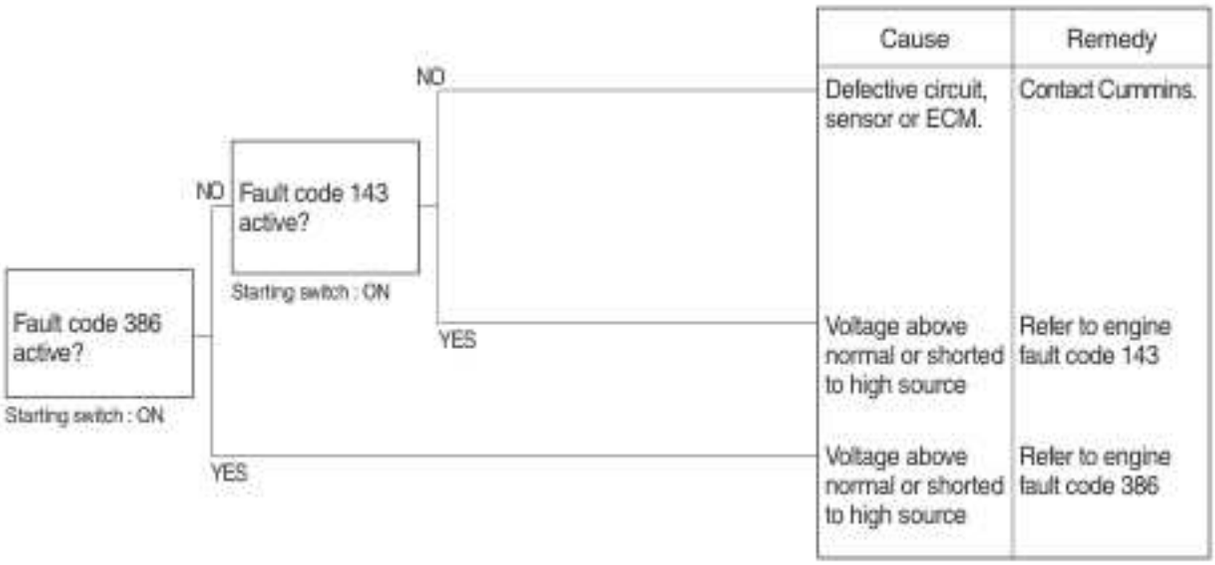
※ This information is different with operating and transportation weight because it is not including harness pipe oil fuel so on.

※ Refer to Transportation for actual weight information and Specifications for operating weight.

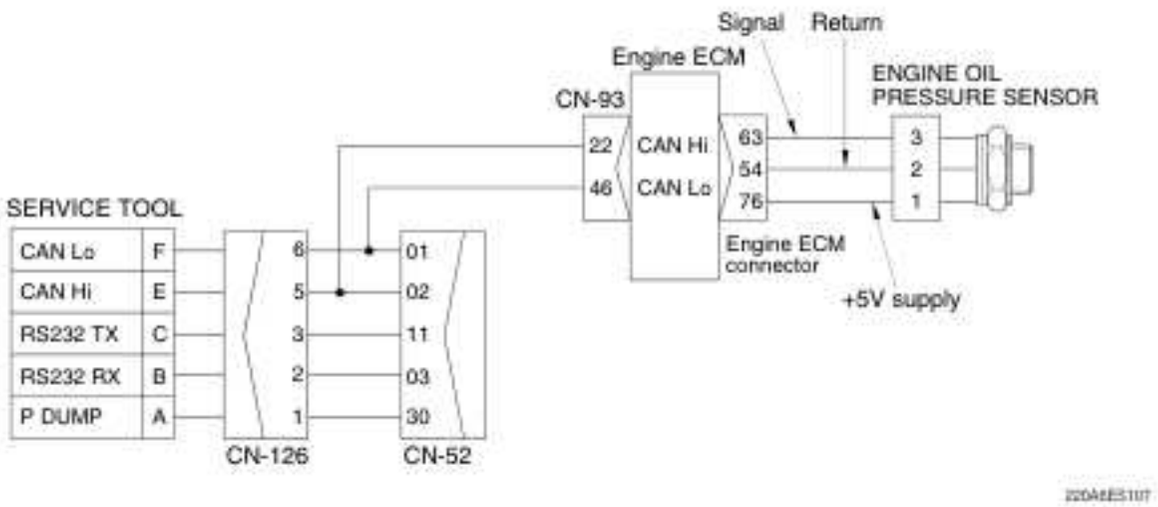
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6. WHEN ENGINE OIL PRESSURE WARNING LAMP LIGHTS UP (engine is started)

- Before disconnecting the connector, always turn the starting switch OFF.
- Before carrying out below procedure, check all the related connectors are properly inserted.
- After checking, insert the disconnected connectors again immediately unless otherwise specified.



Cause	Remedy
Defective circuit, sensor or ECM.	Contact Cummins.
Voltage above normal or shorted to high source	Refer to engine fault code 143
Voltage above normal or shorted to high source	Refer to engine fault code 386



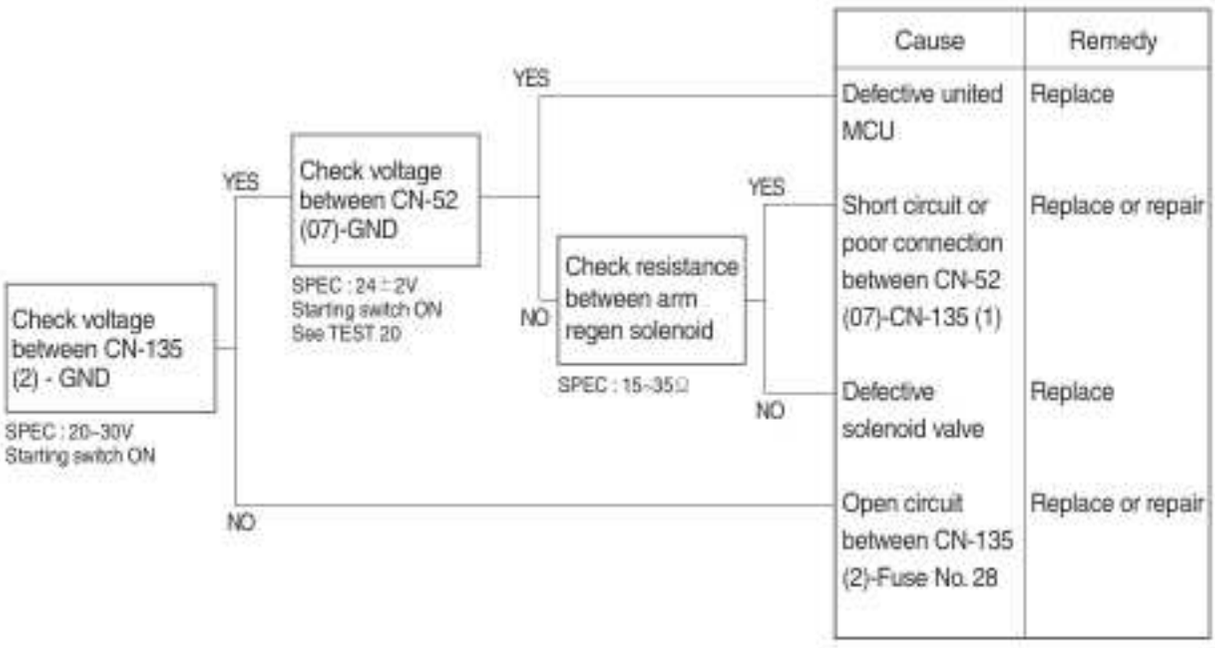
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15. MALFUNCTION OF ARM REGENERATION SOLENOID

- Fault code : HCESPN 170, FMI 4 or 6

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

1) INSPECTION PROCEDURE



Wiring diagram



22DM4MS27

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3) ASSEMBLING PINION GEAR SUB ASSY

(1) Prepare drive shaft pinion gear vertical with ground.

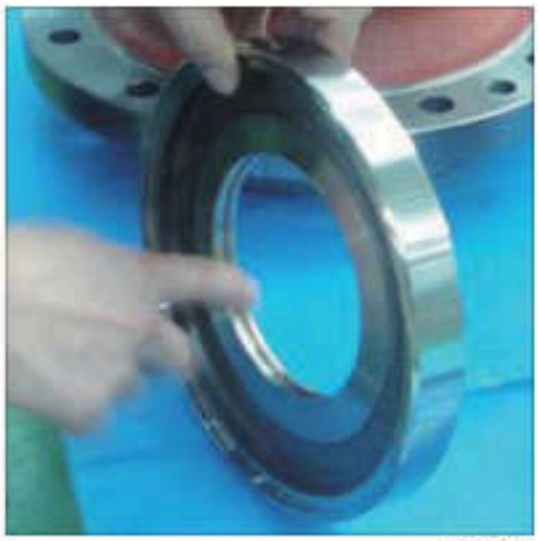


2209A03M21

(2) Fully apply grease (albania EP02) to O-ring groove of sleeve.

※ Be sure to maintain it vertical with ground when assembling it.

(3) Put O-ring into O-ring groove of sleeve. Fully apply grease on O-ring.



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(4) Assemble taper bearing and sleeve into drive shaft using press jig.
Use special jig for pressing. Leave no space between sleeve and taper bearing.



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(3) Check whether the can gateway function abnormality.

① Check CAN data of attachment sensor line.

a. Disconnect the Deutsch 4-pin connector near the laser catcher and connect a CAN data collector (PCAN, CANoe, etc.)

b. Check whether the CAN ID data in the table below is being output.

c. If it is output at a period of 20 ms, suspect a malfunction of the CAN gateway itself.



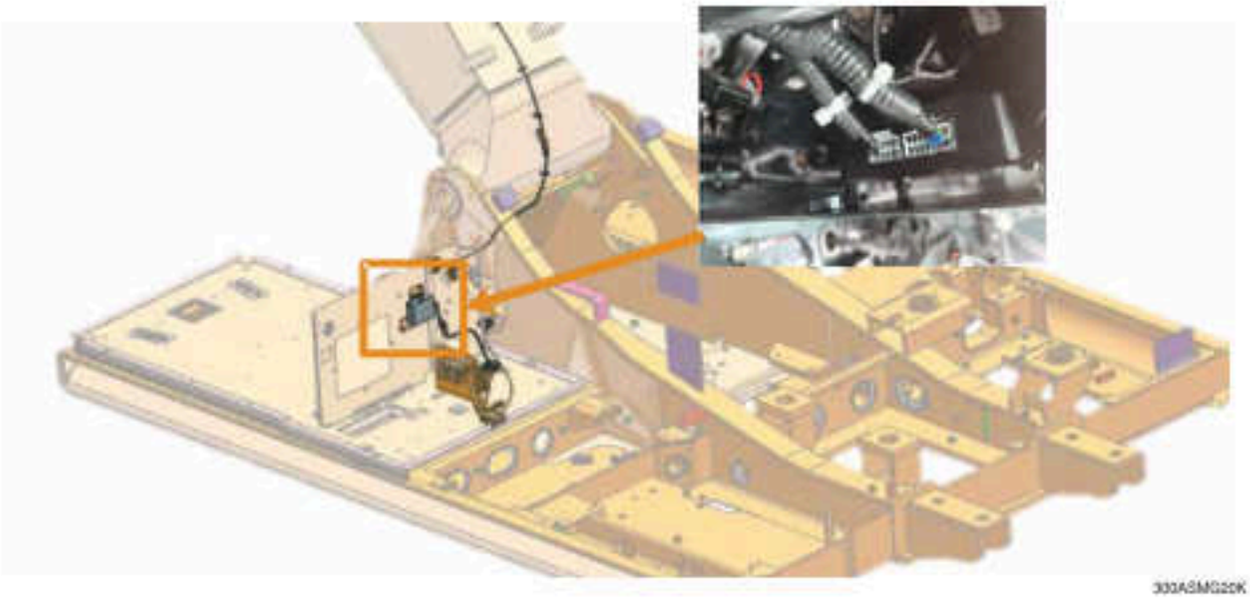
300ASMG19EC

※ CAN ID matching information for each sensor

Sensor	CAN ID
Boom sensor	0x18F029C1
Arm sensor	0x18F029C2
Bucket sensor	0x18F029C3
Body sensor	0x18F029C4

② Mounting location of CAN gateway

It is located near the RMCU at the bottom behind the seat in the cab.

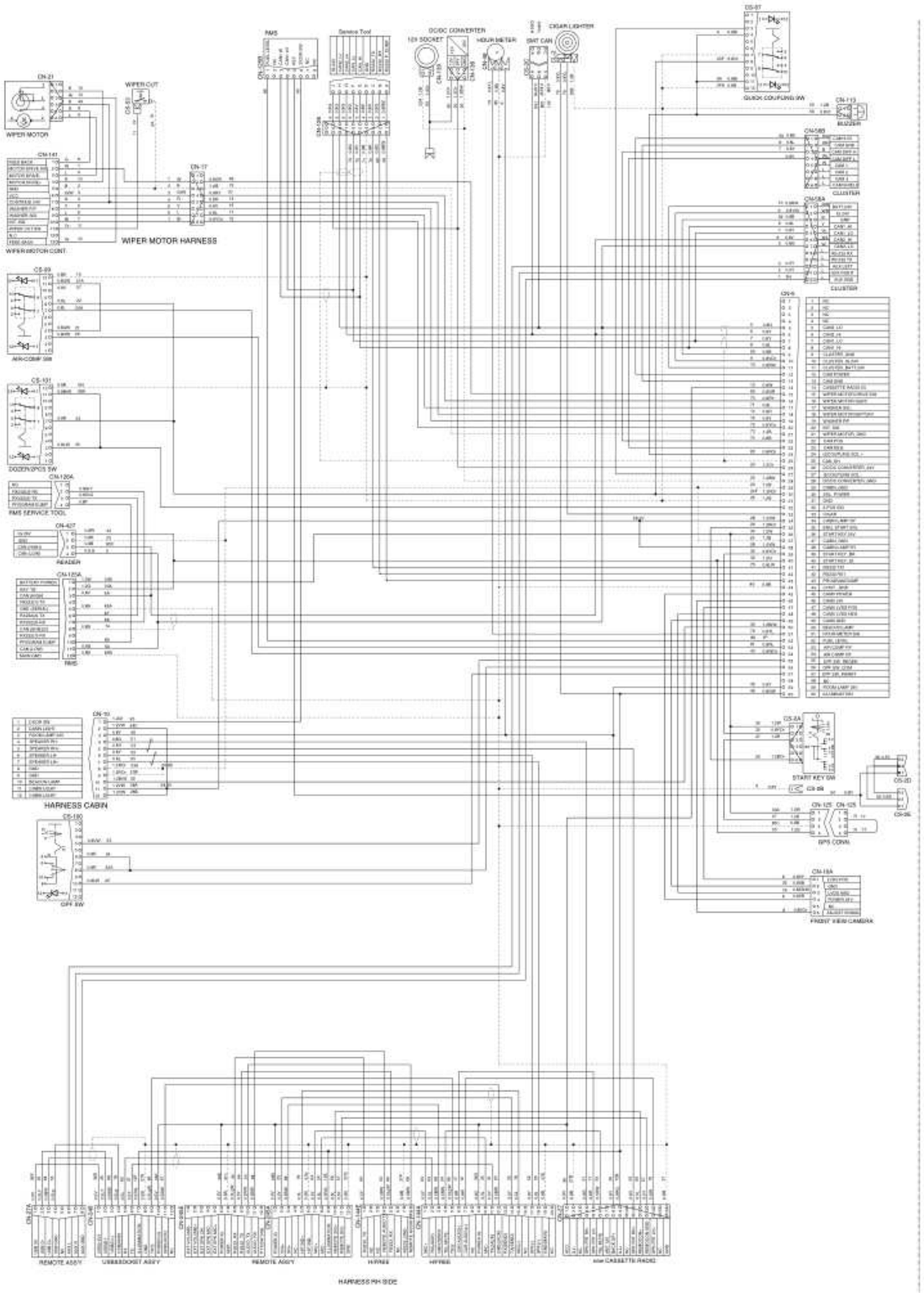


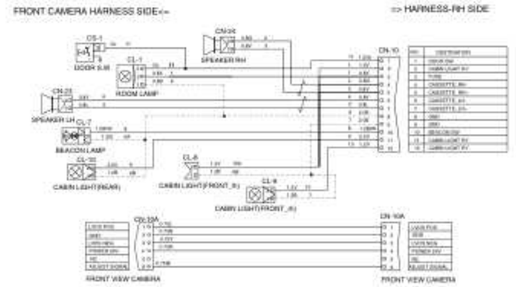
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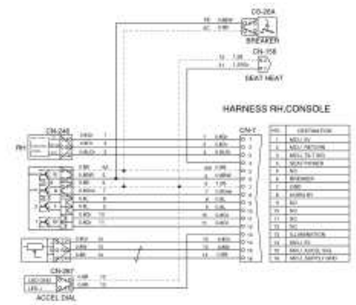
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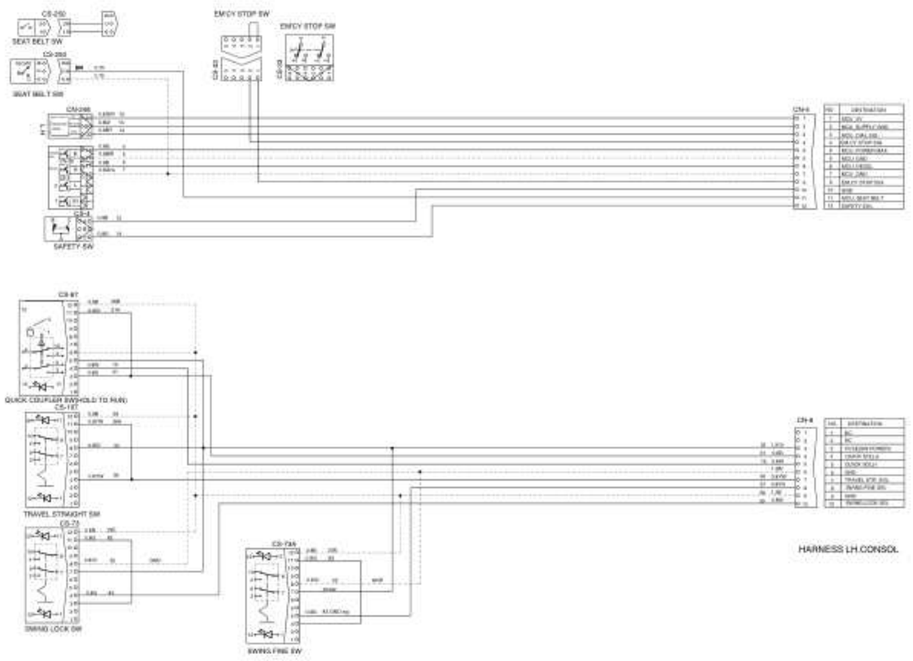
· ELECTRICAL CIRCUIT (2/3)

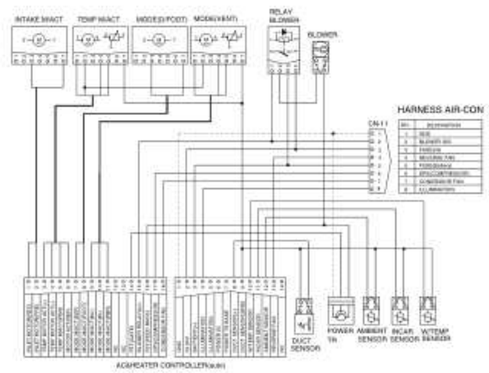
- MACHINE SERIAL NO. : -#0004











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