CRAWLER EXCAVATOR

SERVICE MANUAL

HX330A L, HX350A L

HYUNDAI

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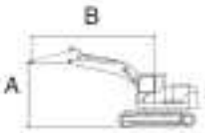
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Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HX330A HW HX350A HW	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		6450	3200	6000	600	-	-	-	-	-

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



Lift-point height (A)		Lift-point radius (B)										At max. reach		
		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		9.0 m (29.5 ft)		Capacity		Reach
														m (ft)
9.0 m (29.5 ft)	kg											*6000	*6000	6.70
	lb											*13230	*13230	(22.0)
7.5 m (24.6 ft)	kg							*7510	*7510			*5560	*5560	7.94
	lb							*16560	*16560			*12260	*12260	(26.1)
6.0 m (19.7 ft)	kg							*7990	7890			*5420	*5420	8.75
	lb							*17610	17390			*11950	*11950	(28.7)
4.5 m (14.8 ft)	kg			*12700	*12700	*10010	*10010	*8710	7660	*7170	5750	*5480	*5480	9.24
	lb			*28000	*28000	*22070	*22070	*19200	16890	*15810	12680	*12080	*12080	(30.3)
3.0 m (9.8 ft)	kg			*16230	15690	*11720	10240	*9600	7390	7820	5620	*5710	5200	9.47
	lb			*35780	34590	*25840	22580	*21160	16290	17240	12390	*12590	11460	(31.1)
1.5 m (4.9 ft)	kg			*16720	14910	*13140	9810	10080	7150	7690	5500	*6160	5120	9.45
	lb			*36860	32870	*28970	21630	22220	15760	16950	12130	*13580	11290	(31.0)
0.0 m (0.0 ft)	kg			*17930	14620	13870	9550	9900	6980	7610	5430	*6900	5280	9.18
	lb			*39530	32230	30580	21050	21830	15390	16780	11970	*15210	11640	(30.1)
-1.5 m (-4.9 ft)	kg	*11980	*11980	*18840	14600	13770	9460	9840	6920			8050	5730	8.65
	lb	*26410	*26410	*41540	32190	30360	20860	21690	15260			17750	12630	(28.4)
-3.0 m (-9.8 ft)	kg	*18980	*18980	*17420	14760	*13180	9530	9930	7010			9440	6690	7.78
	lb	*41840	*41840	*38400	32540	*29060	21010	21890	15450			20810	14750	(25.5)
-4.5 m (-14.8 ft)	kg	*19660	*19660	*14570	*14570	*10820	9810					*9650	8880	6.46
	lb	*43340	*43340	*32120	*32120	*23850	21630					*21270	19580	(21.2)

Note 1. Lifting capacity are based on ISO 10567.

2. Lifting capacity of the HX series does not exceed 75% of tipping load with the machine on firm, level ground or 87% of full hydraulic capacity.
3. The Lift-point is bucket pivot mounting pin on the arm (without bucket mass).
4. *Indicates load limited by hydraulic capacity.

※ Lifting capacities are based upon a standard machine conditions.
Lifting capacities will vary with different work tools, ground conditions and attachments.
The difference between the weight of a work tool attachment must be subtracted.
Consult your HD Hyundai Construction Equipment dealer regarding the lifting capacities for specific work tools and attachments.
Failure to comply to the rated load can cause possible personal injury or property damage.
Make adjustments to the rated load as necessory for non-standard configurations.

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Fault code J1939 SPN J1939 FMI	Item	Description
294 441 4	Auxiliary temperature sensor input 1 circuit	Voltage below normal, or shorted to low source
297 1388 3	Auxiliary pressure sensor input 2 circuit	Voltage above normal, or shorted to high source
298 1388 4	Auxiliary pressure sensor input 2 circuit	Voltage below normal, or shorted to low source
322 651 5	Injector solenoid driver cylinder 1 circuit	Current below normal or open circuit
323 655 5	Injector solenoid driver cylinder 5 circuit	Current below normal or open circuit
324 653 5	Injector solenoid driver cylinder 3 circuit	Current below normal or open circuit
325 656 5	Injector solenoid driver cylinder 6 circuit	Current below normal or open circuit
331 652 5	Injector solenoid driver cylinder 2 circuit	Current below normal or open circuit
332 654 5	Injector solenoid driver cylinder 4 circuit	Current below normal or open circuit
334 110 2	Engine coolant temperature	Data erratic, intermittent or incorrect
343 629 12	Engine control module warning internal hardware failure	Bad intelligent device or component
349 191 16	Transmission output shaft speed	Data valid but above normal operating range - moderately severe level
351 3597 12	Injector power supply	Bad intelligent device or component
352 3509 4	Sensor supply 1 circuit	Voltage below normal, or shorted to low source
386 3509 3	Sensor supply 1 circuit	Voltage above normal, or shorted to high source
415 100 1	Engine oil rifle pressure	Data valid but below normal operational range - most severe level

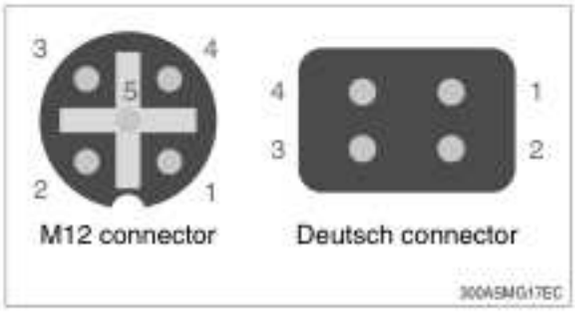
※ Some fault codes are not applied to this machine.

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⑤ If the connector is not loosened, remove the harness and check for damage.

a. Harness connector pin map (required to check pin number)

Signal	Pin number	
	M12 connector	Deutsch connector
CAN shield	1	-
Vcc : 24V	2	1
GND	3	2
CAN High	4	3
CAN Low	5	4



b. Check for damage using a multimeter.

- Conduct an energization test for each pin between both ends of the harness connector.
- Perform a short circuit test between each pin of the connector.

※ In the case of short circuit, it may occur intermittently due to changes in the posture of the attachment, so short circuit tests are required for various postures.

※ If damage to the harness is confirmed, replace the harness.

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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).



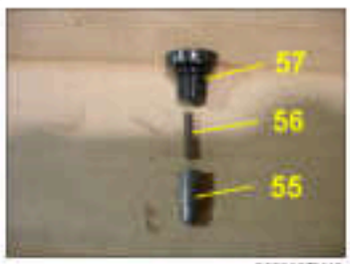
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4. REASSEMBLING TRAVEL MOTOR

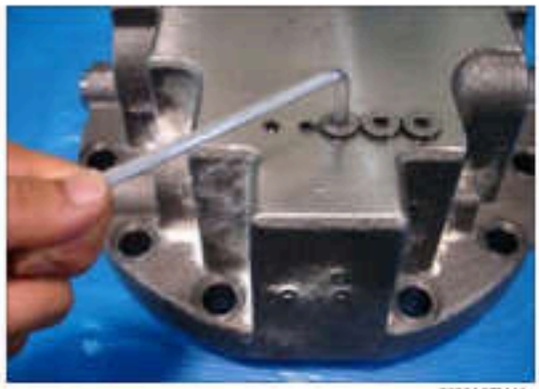
1) ASSEMBLING

- REAR COVER ASSY

(1) Assemble check valve (55), spring (56) into rear cover (34) and then assemble plug (57) using L-wrench.



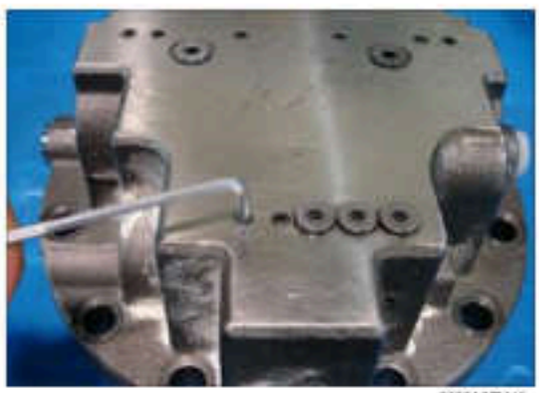
2609A8TM40


2609A8TM41

(2) Apply loctite #242 on the NPTF 1/16 plug (2) and then assemble 12-NPTF 1/16 Plug (2) into rear cover(34).



2609A8TM42


2609A8TM43

(3) Assemble spool (47), parallel pin (50), spring seat (49) and spring (51) into rear cover (34) in regular sequence and then assemble plug (48) and connector (52).



2609A8TM44


2609A8TM45


2609A8TM46

(4) Assemble relief valve (42, 2EA) into rear cover (34).



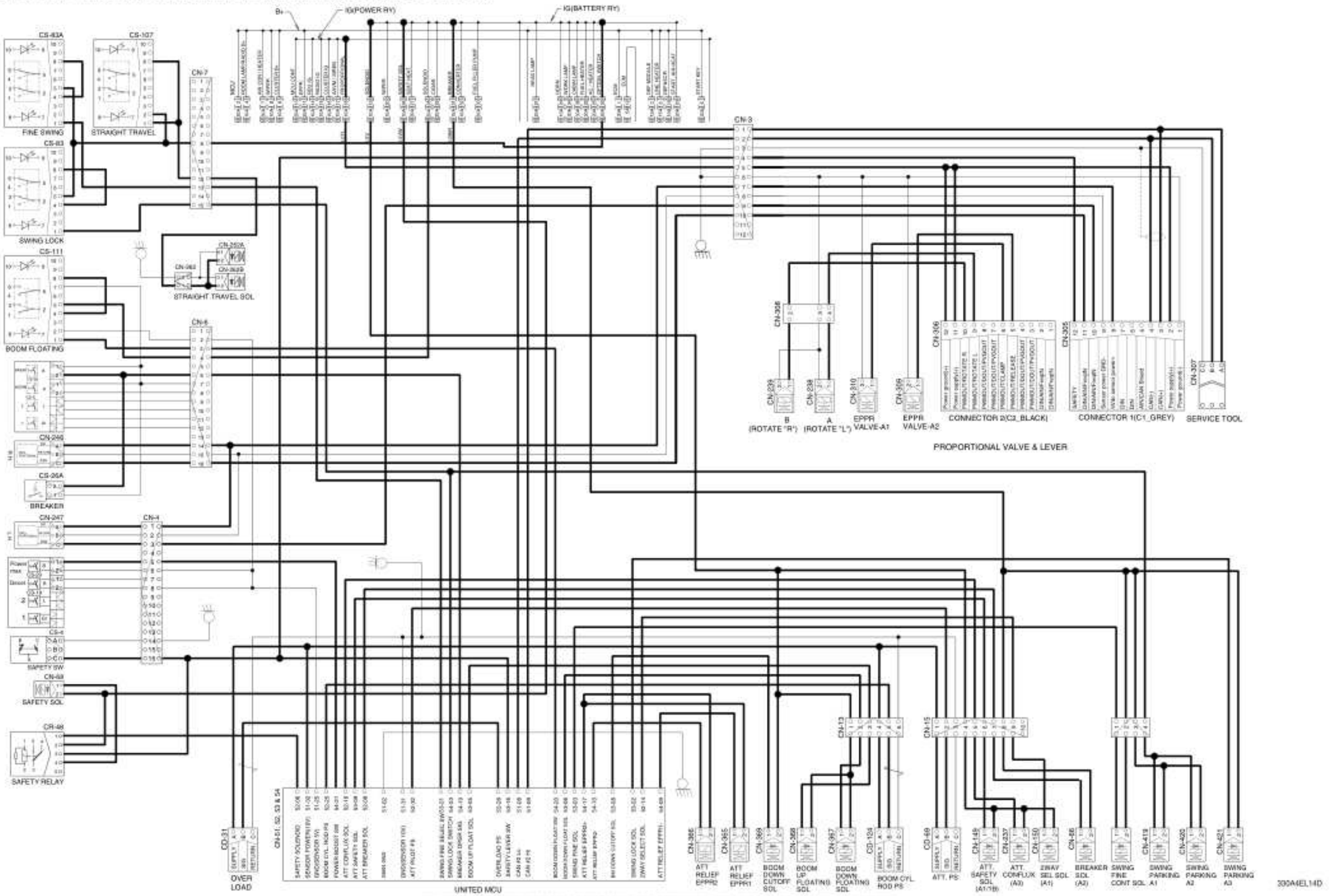
2609A8TM47


2609A8TM48


2609A8TM49

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ELECTRIC CIRCUIT FOR HYDRAULIC (2/2, MACHINE SERIAL NO. : #0083-)



※ The circuit diagram may differ from the equipment, so please check before a repair.

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