CRAWLER EXCAVATOR

SERVICE MANUAL

HX300A L

HYUNDAI

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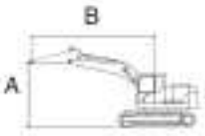
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Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HX300A HW	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		6245	3750	6500	700	-	-	-	-	-

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



Lift-point height (A)		Lift-point radius (B)												At max. reach		
		1.5 m (4.9 ft)		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													*4450	*4450	7.10
	lb													*9810	*9810	(23.3)
7.5 m (24.6 ft)	kg									*5420	*5420			*4170	*4170	8.27
	lb									*11950	*11950			*9190	*9190	(27.1)
6.0 m (19.7 ft)	kg									*5690	*5690	*4240	*4240	*4090	*4090	9.03
	lb									*12540	*12540	*9350	*9350	*9020	*9020	(29.6)
4.5 m (14.8 ft)	kg							*7010	*7010	*6340	*6340	*5970	5840	*4150	*4150	9.50
	lb							*15450	*15450	*13980	*13980	*13160	12870	*9150	*9150	(31.2)
3.0 m (9.8 ft)	kg					*11450	*11450	*8550	*8550	*7190	*7190	*6480	5700	*4350	*4350	9.71
	lb					*25240	*25240	*18850	*18850	*15850	*15850	*14290	12570	*9590	*9590	(31.9)
1.5 m (4.9 ft)	kg					*14040	*14040	*10000	9950	*8040	7240	*6950	5570	*4700	*4700	9.68
	lb					*30950	*30950	*22050	21940	*17730	15960	*15320	12280	*10360	*10360	(31.8)
0.0 m (0.0 ft)	kg			*7330	*7330	*15460	14740	*11050	9640	*8710	7060	*7310	5470	*5280	5140	9.41
	lb			*16160	*16160	*34080	32500	*24360	21250	*19200	15540	*16120	12060	*11640	11330	(30.9)
-1.5 m (-4.9 ft)	kg	*7640	*7640	*11160	*11160	*15840	14590	*11540	9490	*9040	6950			*6270	5540	8.88
	lb	*16840	*16840	*24600	*24600	*34920	32170	*25440	20920	*19930	15320			*13820	12210	(29.1)
-3.0 m (-9.8 ft)	kg	*11650	*11650	*16240	*16240	*15340	14660	*11360	9500	*8800	6970			*8020	6380	8.03
	lb	*25680	*25680	*35800	*35800	*33820	32320	*25040	20940	*19400	15370			*17680	14070	(26.3)
-4.5 m (-14.8 ft)	kg	*16730	*16730	*19660	*19660	*13720	*13720	*10140	9680					*8670	8260	6.74
	lb	*36880	*36880	*43340	*43340	*30250	*30250	*22350	21340					*19110	18210	(22.1)

Note 1. Lifting capacity are based on ISO 10567.

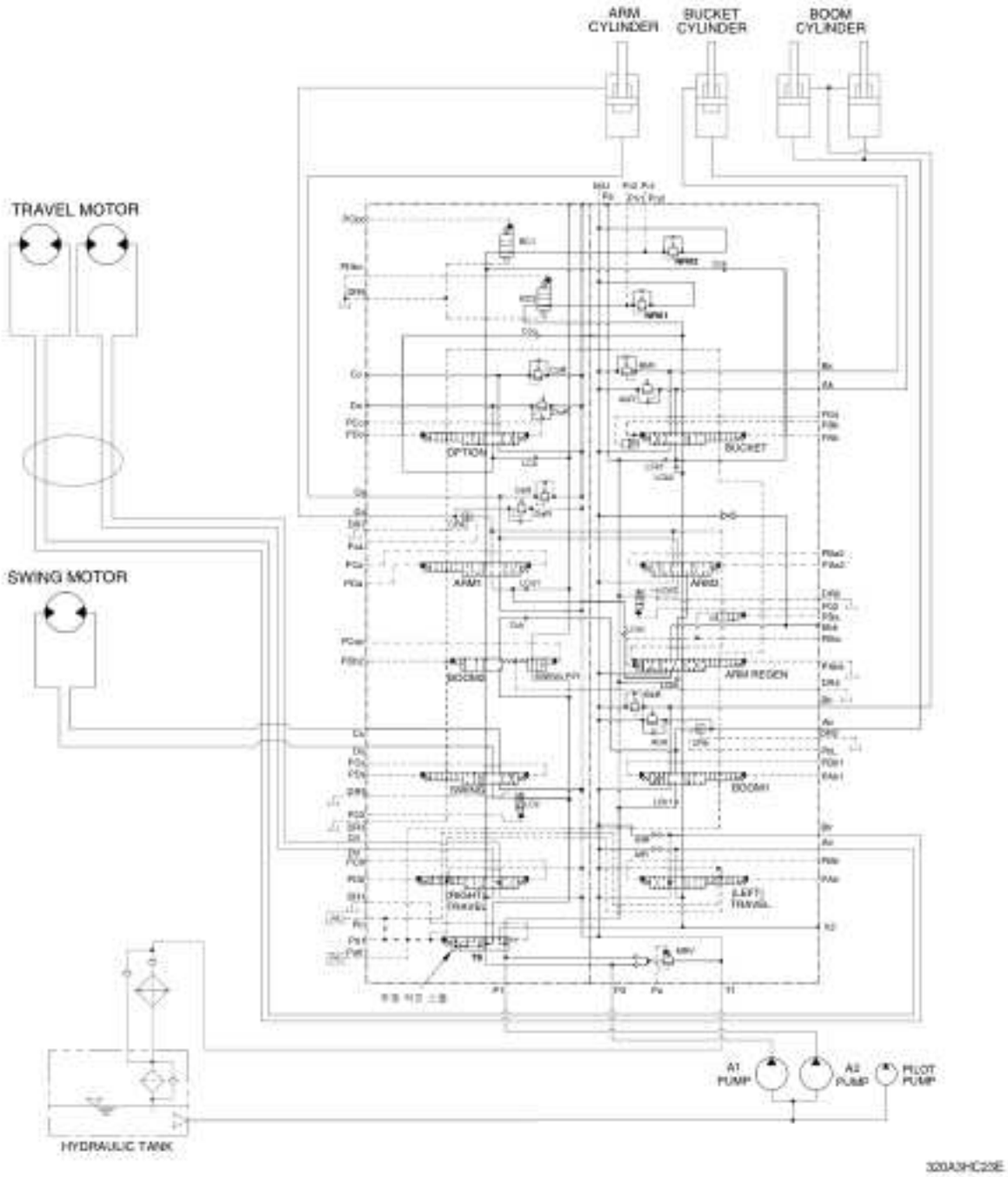
2. Lifting capacity of the HX series does not exceed 75% of tipping load with the machine on firm, level ground or 87% of full hydraulic capacity.
3. The Lift-point is bucket pivot mounting pin on the arm (without bucket mass).
4. *Indicates load limited by hydraulic capacity.

※ 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 with your local HD Hyundai Construction Equipment dealer regarding the lifting capacities for specific work tools and attachments.

⚠ Failure to comply to the rated load can cause serious injury, death, or property damage. Make adjustments to the rated load as necessory for non-standard configurations.

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7. COMBINED ARM AND TRAVEL OPERATION



When the arm and travel functions are operated, simultaneously the arm spools and travel spools in the main control valve are moved to the functional position by the pilot oil pressure (PCa, PDa, PAa2, PBa2, PAtr, PBtr, PCtl, PDtl) from the remote control valve and the straight travel spool is pushed to the right by the oil pressure from pilot pump.

The oil from the A1 pump flows into the travel motors through the RH travel spool of the left control valve and the LH travel spool of the right control valve via the straight travel spool.

The oil from the A2 pump flows into the arm cylinders through the arm 1 spool and arm 2 spool via the parallel and confluence oil passage. When the pressure of the travel motors is lower than the pressure of the arm cylinder, some oil from the A2 pump flows into the travel motors through the check valve and orifice in the straight travel spool. This prevents the rapid slowdown of the travel.

The arm is operated and the machine travels straight.

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

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4. ENGINE FAULT CODE

Fault code J1939 SPN J1939 FMI	Item	Description
111 629 12	Engine control module critical internal failure	Bad intelligent device or component
122 102 3	Intake manifold 1 pressure sensor circuit	Voltage above normal, or shorted to high source
123 102 4	Intake manifold 1 pressure sensor circuit	Voltage below normal, or shorted to low source
133 974 3	Remote accelerator pedal or lever position sensor 1 circuit	Voltage above normal, or shorted to high source
134 974 4	Remote accelerator pedal or lever position sensor 1 circuit	Voltage below normal, or shorted to low source
135 100 3	Engine oil rifle pressure 1 sensor circuit	Voltage above normal, or shorted to high source
141 100 4	Engine oil rifle pressure 1 sensor circuit	Voltage below normal, or shorted to low source
143 100 18	Engine oil rifle pressure	Data valid but below normal operating range - moderately severe level
144 110 3	Engine coolant temperature 1 sensor circuit	Voltage above normal, or shorted to high source
145 110 4	Engine coolant temperature 1 sensor circuit	Voltage below normal, or shorted to low source
146 110 16	Engine coolant temperature	Data valid but above normal operating range - moderately severe level
147 91 1	Accelerator pedal or lever position 1 sensor circuit frequency	Data valid but below normal operating range
148 91 0	Accelerator pedal or lever position sensor 1	Data valid but above normal operational range - most severe level
151 110 0	Engine coolant temperature	Data valid but above normal operational range - most severe level
153 105 3	Intake manifold 1 temperature sensor circuit	Voltage above normal, or shorted to high source
154 105 4	Intake manifold 1 temperature sensor circuit	Voltage below normal, or shorted to low source

※ Some fault codes are not applied to this machine.

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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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③ Disassemble drive shaft sub assy by using the press machine.

※ The drive shaft sub assy fall all together, so becareful when removing it.



④ Disassemble sph. roller bearing (3), cover (7), oil seal (30), and sleeve (28) from the drive shaft (2).

※ Do not reuse oil seal (30).

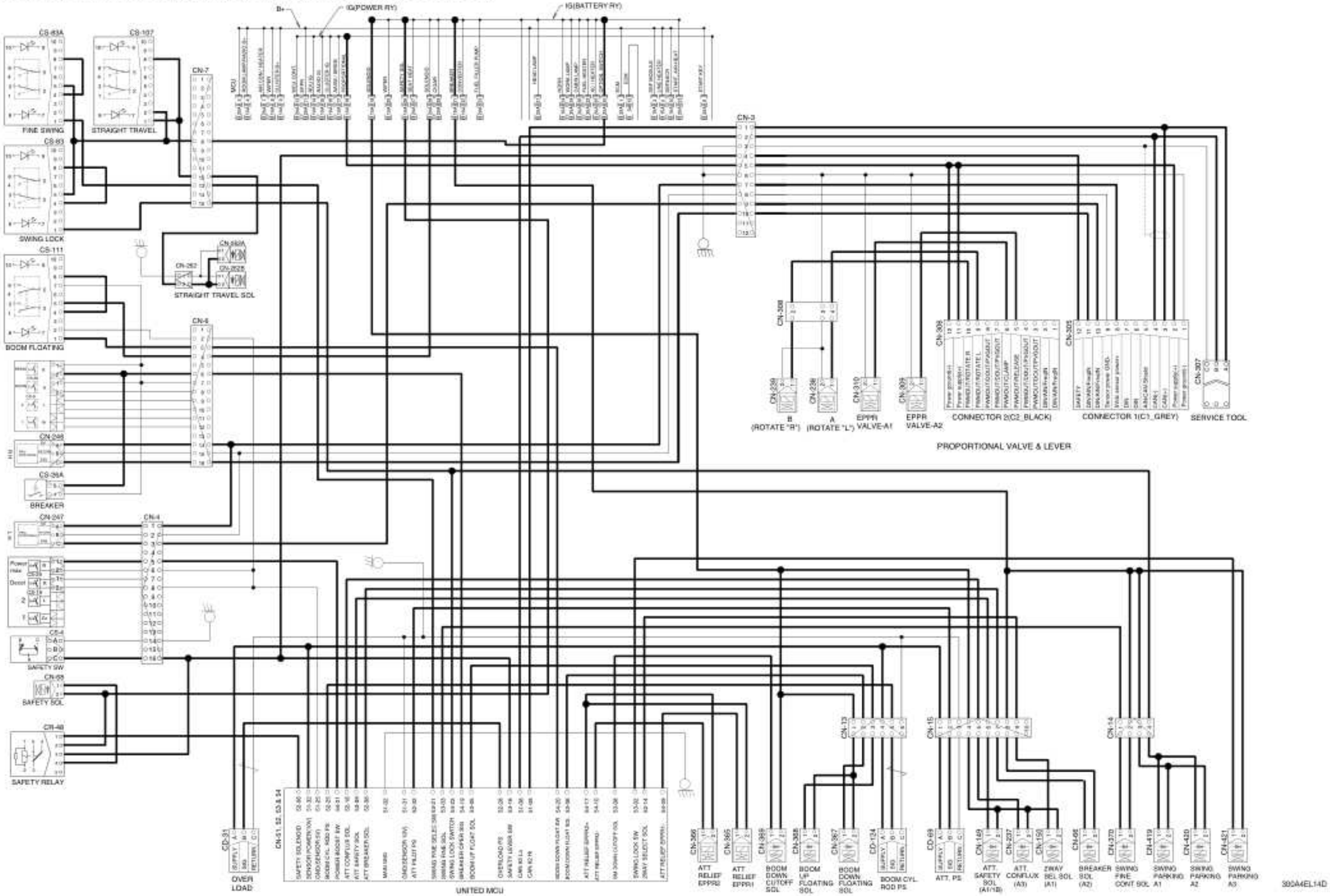


(8) Separate sph. roller bearing (4) from casing (9) by using the press machine.



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ELECTRIC CIRCUIT FOR HYDRAULIC (2/2, MACHINE SERIAL NO. : #0656-)



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

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