CRAWLER EXCAVATOR

SERVICE MANUAL

HX85A

HYUNDAI

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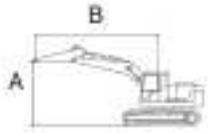
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Type		Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outtriger	
2 PCS BOOM	ANGLE BLADE	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		3917	2100	1150	450	-	Up	-	-	-

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



Load point height		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		At max. reach		
								Capacity		Reach
										m (ft)
6.0 m	kg			*2110	1760			1980	1640	4.68
(19.7 ft)	lb			*4650	3880			4370	3620	(15.3)
4.5 m	kg			*1990	1790			1300	1080	5.99
(14.8 ft)	lb			*4390	3950			2870	2380	(19.6)
3.0 m	kg			2050	1690	1280	1060	1070	890	6.64
(9.8 ft)	lb			4520	3730	2820	2340	2360	1960	(21.8)
1.5 m	kg			1900	1550	1230	1010	1000	820	6.86
(4.9 ft)	lb			4190	3420	2710	2230	2200	1810	(22.5)
Ground	kg			1800	1450	1190	970	1020	840	6.69
Line	lb			3970	3200	2620	2140	2250	1850	(22.0)
-1.5 m	kg	*3350	2640	1780	1440	1200	980	1170	960	6.10
(-4.9 ft)	lb	*7390	5820	3920	3170	2650	2160	2580	2120	(20.0)
-3.0 m	kg	*1670	*1670	*1100	*1100			*750	*750	4.90
(-9.8 ft)	lb	*3680	*3680	*2430	*2430			*1650	*1650	(16.1)

※ Note

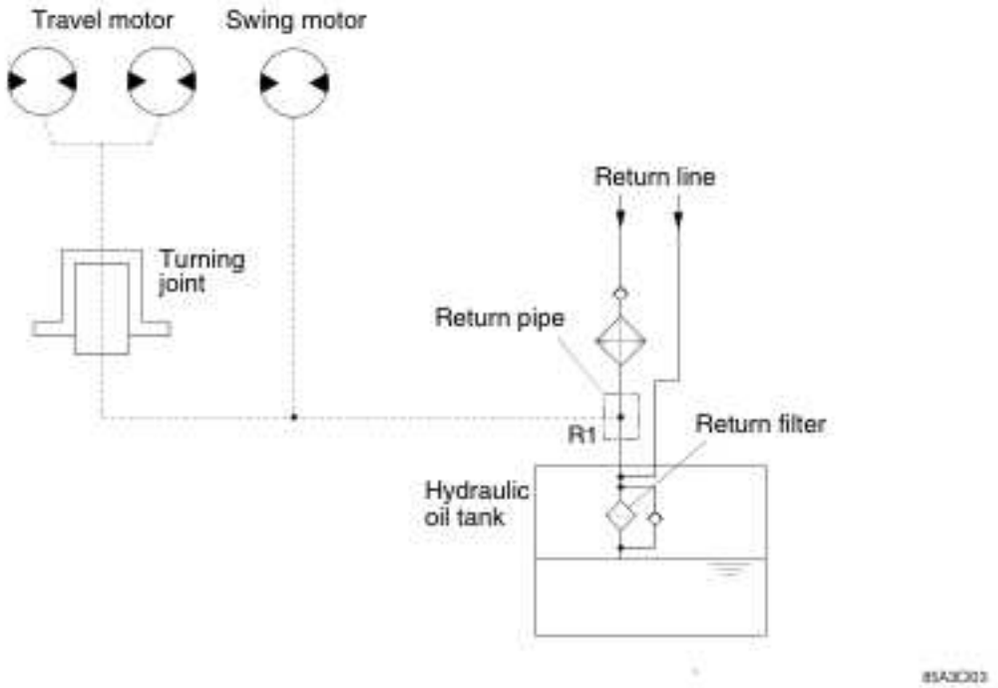
1. Lifting capacity are based on ISO 10567.
2. Lifting capacity of the HX series does not exceed 75% of tipping load with the machine on firm, level ground or 87% of full hydraulic capacity.
3. The lift-point is bucket pivot mounting pin on the arm (without bucket mass).
4. *indicates load limited by 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 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 necessary for non-standard configurations.

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3. DRAIN CIRCUIT



Besides internal leaks from the motors and main pump, the oil for lubrication circulates.

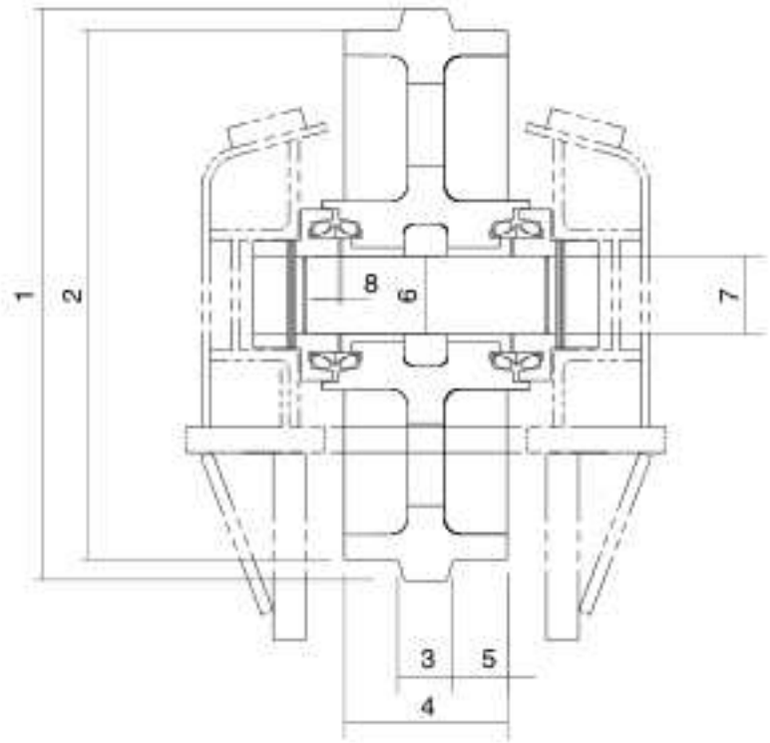
1) TRAVEL MOTOR DRAIN CIRCUIT
   Oil leaked from the right and left travel motors comes out of the drain ports provided in the respective motor casing and join with each other. These oils pass through the turning joint and return to the hydraulic tank after being filtered by return filter.

2) SWING MOTOR DRAIN CIRCUIT
   Oil leaked from the swing motor returns to the hydraulic tank passing through return filter with oil drained from the travel circuit .

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

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3) IDLER



85A7WS03

Unit : mm

No.	Check item	Criteria				Remedy
1	Outside diameter of protrusion	Standard size		Repair limit		Rebuild or replace
		Ø440		-		
2	Outside diameter of tread	Ø410		Ø400		
3	Width of protrusion	40		-		
4	Total width	100		-		
5	Width of tread	30		35		
6	Clearance between shaft and bushing	Standard size & Tolerance		Standard clearance	Clearance limit	Replace bushing
		Shaft	Bushing			
		Ø60 0 -0.03	Ø60.3 +0.08 +0.03	0.33–0.41	2.0	
7	Clearance between shaft and support	Ø60 0 -0.03	Ø60 +0.07 +0.03	0.03–0.1	1.2	Replace
8	Side clearance of idler (both side)	Standard clearance		Clearance limit		Replace bushing
		0.2–0.5		2.0		

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(13) Parking brake removal

⚠ The abrupt injection of compressed air could cause the piston (112) to pop out. To ensure your safety, arrange protective cover over the piston (112).

① Remove the piston (112) from the spindle (2) by injecting compressed air into the access hole for parking brake arranged on the spindle (2).



85A7TM37

② Remove the O-rings (135), (139) from the piston (112).

※ Do not reuse O-rings (135), (139).



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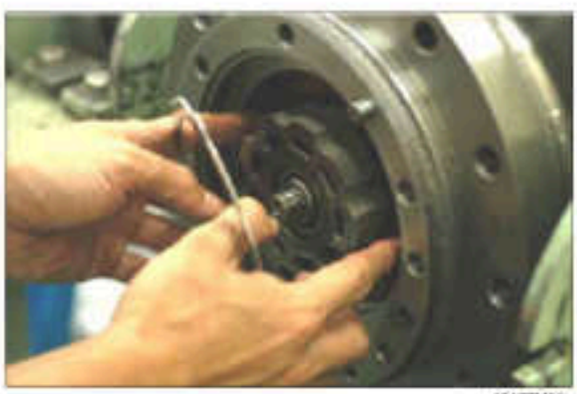
(14) Hydraulic motor disassembly

※ When turning the traveling unit, place an oil container just below the traveling unit to catch the oil.

① Turn the traveling unit 90 degrees.

② Drain hydraulic oil from the traveling unit.

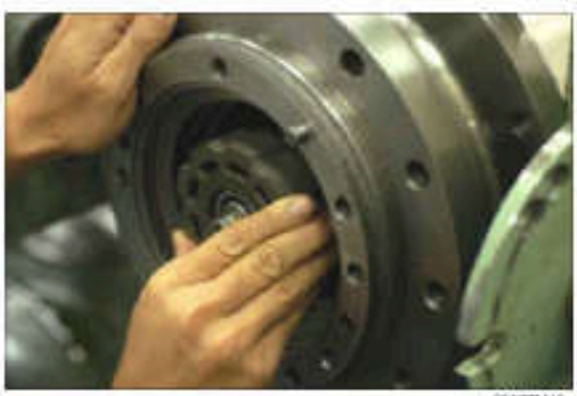
③ Remove the mating plates (116) (4pcs) and the friction plates (115) (3pcs).



85A7TM39

④ Hold the cylinder block (104) by hand, turn alternately 2 or 3 times, and cut off shoes (106) adhered on the swash plate (103).

※ When removing the cylinder block (104) from the spindle (2) without turning 2 or 3 times, the shoes (106) remain adhered on the swash plate (103), and parts (piston, shoe and etc.) mounted into the cylinder block (104) will come off fall into the spindle (2).



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(15) Sun gear 1 (4) assembly

① Install the sun gear 1 (4) into the shaft (102) meshing with the planetary gears 1. At this time, install the steel ball (41) into the sun gear 1 (4).

※ When installing the steel ball (41), apply lithium grease to the steel ball (41) to prevent it from falling down from the sun gear 1 (4).



(16) Cover assembly

① Install the O-ring (35) into the O-ring groove of the cover (13).

※ Apply lithium grease to the O-ring (35).

② Install the cover (13) into the hub (1).



※ When installing the cover (13) into the hub (1), tapping evenly the outer circumferen-ce of the cover (13) with a plastic hammer. Be careful not to install the cover (13) forcibly by striking strongly with the hammer. Otherwise the O-ring (35) is damaged resulting in oil leakage.

③ Install the ring (45) in the ring groove of hub (1).

※ Make sure that the ring (45) end gap is not at the notch of the hub (1).

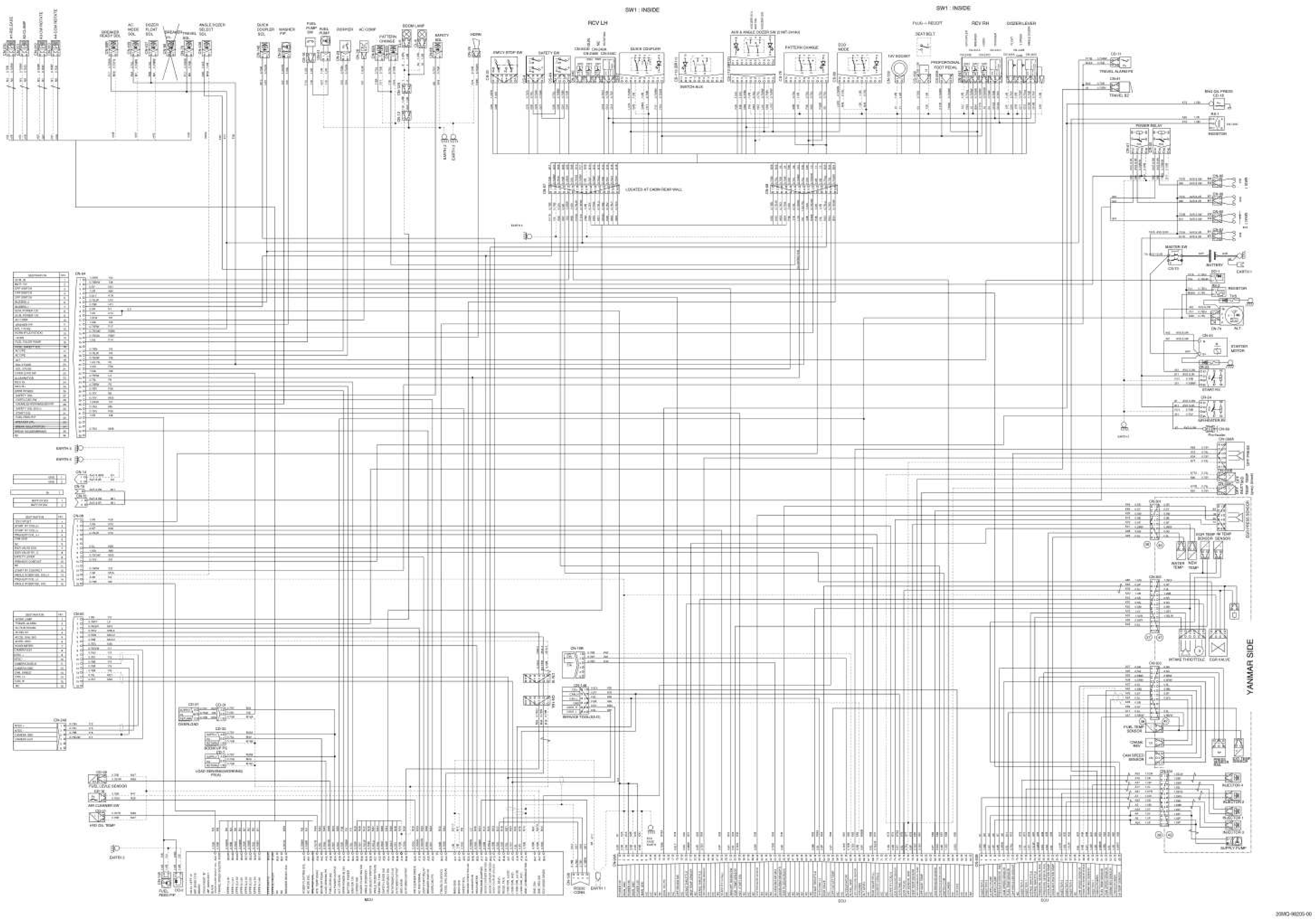


④ Add 1.1 liters of lubricating oil into the hub (1).



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- MACHINE SERIAL NO. : #0279-



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