CRAWLER EXCAVATOR

SERVICE MANUAL

HX27AZ

HYUNDAI

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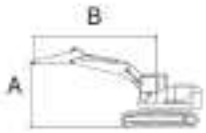
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Model	Type	Boom	Arm	Counterweight	Steel shoe	Wheel	Dozer		Outtriger	
HX27AZ	Canopy	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		2030	1120	270	300	-	Down	-	-	-

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



Load point height (A)		Load radius (B)												At max. reach		
		1.0 m (3.3 ft)		1.5 m (4.9 ft)		2.0 m (6.6 ft)		2.5 m (8.2 ft)		3.0 m (9.8 ft)		3.5 m (11.5 ft)		Capacity		Reach
																m (ft)
3.5 m (11.5 ft)	kg													*740	700	2.55
	lb													*1630	1540	(8.4)
3.0 m (9.8 ft)	kg									*690	540			*710	510	3.12
	lb									*1520	1190			*1570	1120	(10.2)
2.5 m (8.2 ft)	kg									*680	540			*670	420	3.48
	lb									*1500	1190			*1480	930	(11.4)
2.0m (6.6 ft)	kg							*800	710	*740	530	*710	420	*660	380	3.71
	lb							*1760	1570	*1630	1170	*1570	930	*1460	840	(12.2)
1.5m (4.9 ft)	kg							*1020	680	*850	520	*760	410	*670	350	3.84
	lb							*2250	1500	*1870	1150	*1680	900	*1480	770	(12.6)
1.0m (3.3 ft)	kg							*1240	660	*960	500	*820	400	*700	340	3.89
	lb							*2730	1460	*2120	1100	*1810	880	*1540	750	(12.8)
0.5m (1.6 ft)	kg							*1390	640	*1050	490	*860	390	*760	340	3.85
	lb							*3060	1410	*2310	1080	*1900	860	*1680	750	(12.6)
0.0m (0.0 ft)	kg					*1580	880	*1440	620	*1090	480	*880	390	*800	360	3.73
	lb					*3480	1940	*3170	1370	*2400	1060	*1940	860	*1760	790	(12.2)
-0.5m (-1.6 ft)	kg	*1180	*1180	*1400	*1400	*1940	880	*1400	620	*1070	480	*820	390	*820	390	3.50
	lb	*2600	*2600	*3090	*3090	*4280	1940	*3090	1370	*2360	1060	*1810	860	*1810	860	(11.5)
-1.0m (-3.3 ft)	kg	*1730	*1730	*2150	1480	*1700	890	*1250	630	*940	480			*840	450	3.16
	lb	*3810	*3810	*4740	3260	*3750	1960	*2760	1390	*2070	1060			*1850	990	(10.4)
-1.5m (-4.9 ft)	kg			*1840	1510	*1280	900	*920	640					*830	600	2.61
	lb			*4060	3330	*2820	1980	*2030	1410					*1830	1320	(8.6)

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.

※ Please be aware of the local regulations and instructions for lifting operations.

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

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3. CHARGING CIRCUIT

When the start motor is activated and the engine is started, the operator releases the start switch to the ON position.

Charging current generated by operating the alternator flows into the battery.

The current also flows from alternator to each electrical component and controller through the fuse box.

1) OPERATING FLOW

(1) Warning flow

Alternator terminal [CN-74 (1)] → I/conn [CN-5 (13)] → Cluster [CN-56 (8)]
→ Cluster warning lamp ON

(2) Charging flow

Alternator terminal [CN-74 (B^+)] → Start motor [CN-45 (B^+)] → Master switch [CS-74L]
→ Battery [+] terminal
→ Maxi fuse [CN-60] → Fuse box [No. 1, 3]
→ Power relay [CR-35 (30) → (87)] → Fuse box [No. 4–12]

2) CHECK POINT

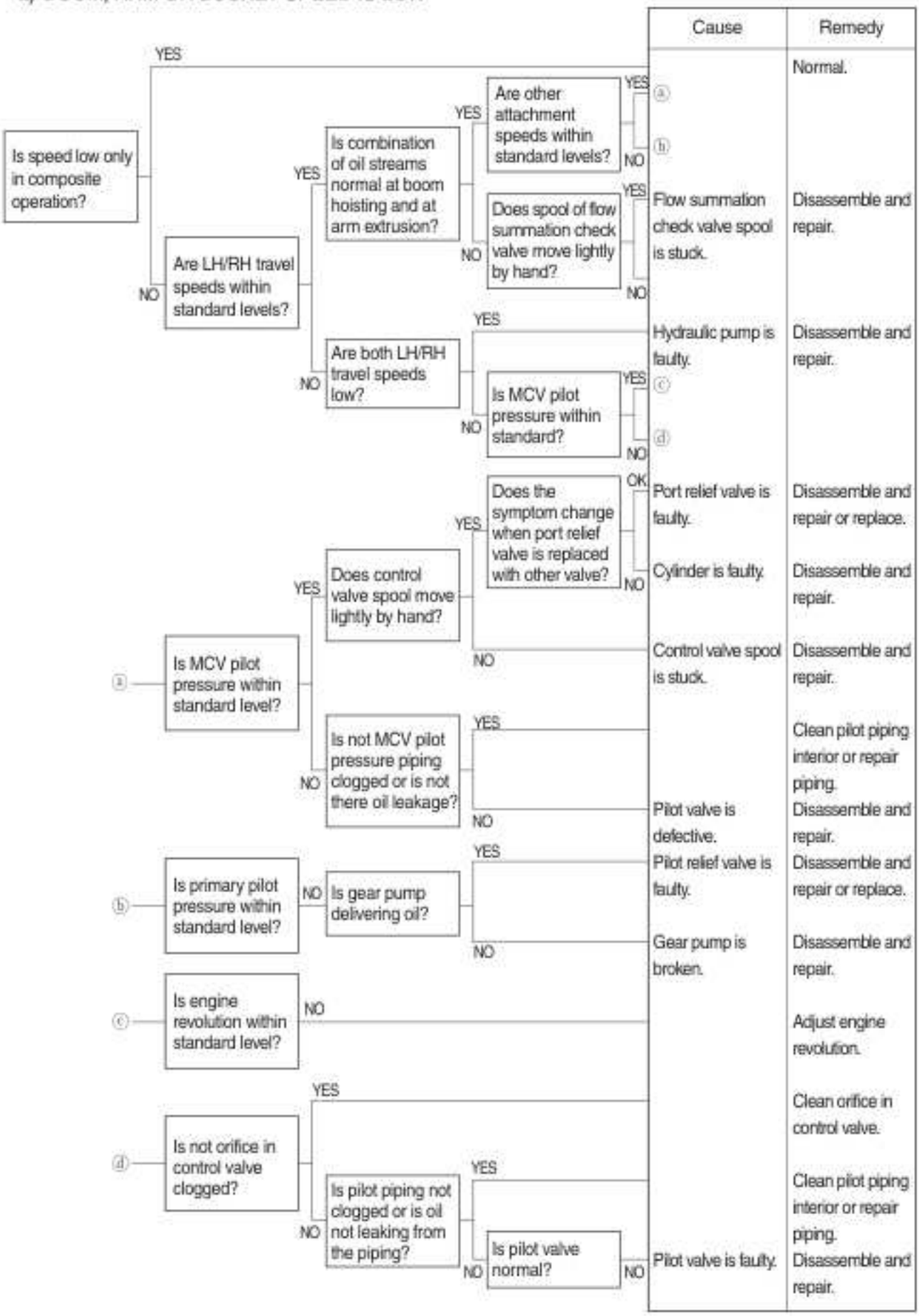
Engine	Start switch	Check point	Voltage
Operating	ON	① - GND (Battery voltage) ② - GND (Alternator B^+ terminal) ③ - GND (Cluster)	10–12.5 V

※ GND : Ground

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

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2) BOOM, ARM OR BUCKET SPEED IS LOW



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(13) Assemble the swash plate.

※ Assemble the swash plate and push rod along the contact surface, and make sure that the push rod is not pressed.

※ Direction of assembly: clockwise.



(14) Assemble the hex nut.

※ Direction of assembly: clockwise.



(15) Assemble the hex nut with the torque wrench.

- Tightening torque : 8kgf·m (57.9 lbf·ft)

※ Direction of assembly of upper torque wrench: clockwise.



(16) Assemble the inner boots.

※ Insert the boots between the plate and body.



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(16) Place the ring (128) over the pre-load collars.



(17) Place the carrier 1 assembly into the body (101) align spline of carrier to the pinion shaft (104).



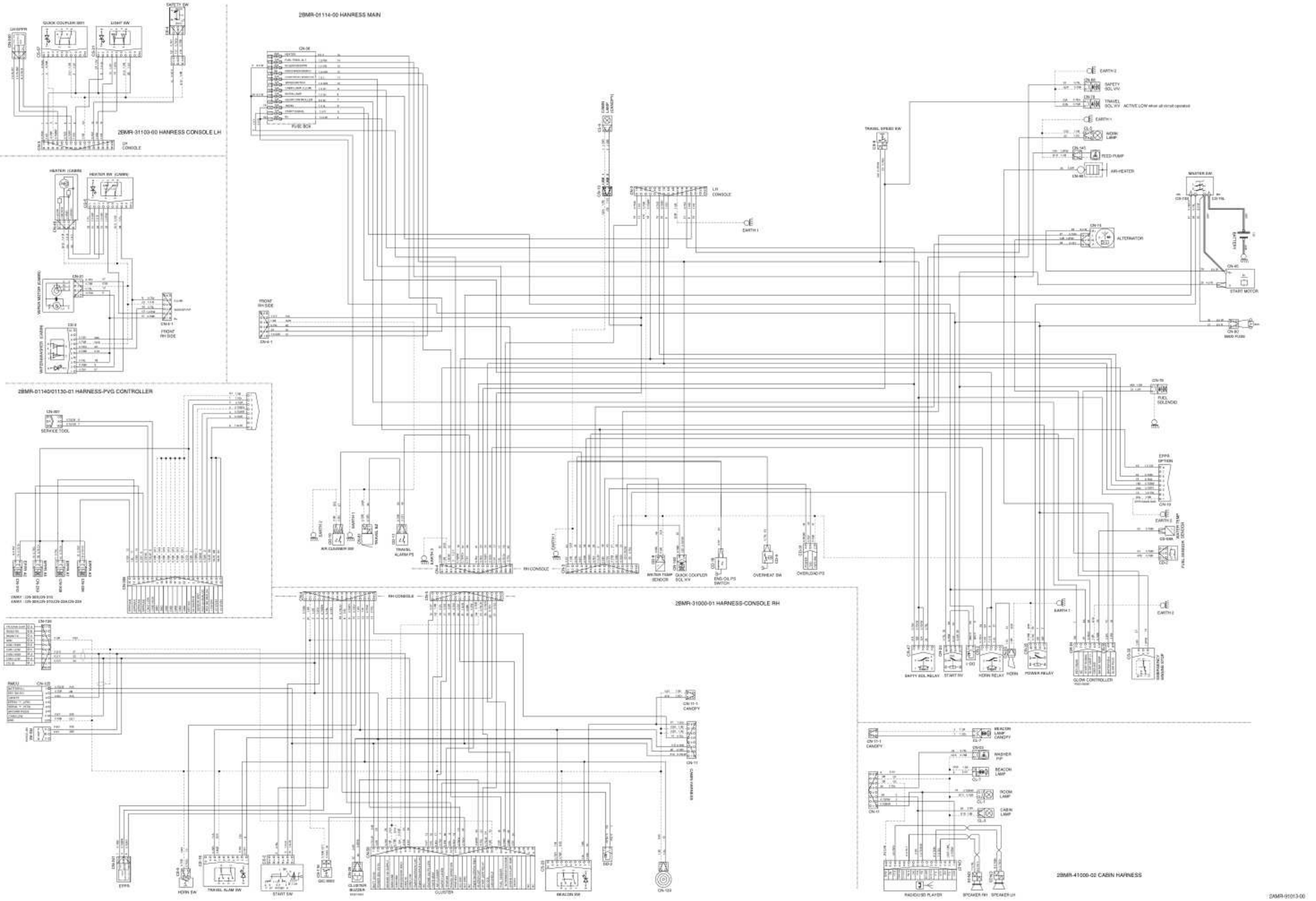
(18) Place the carrier 2 assembly into the body (101) align spline of S1 gear to the b1 gear.



(19) Place the S2 gear (109) into the carrier 2 assembly.



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