CRAWLER EXCAVATOR

# SERVICE MANUAL

## *HX35A Z*

HYUNDAI

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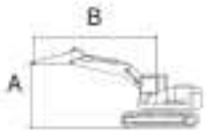

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| Model | Type | Boom | Arm | Counterweight | Steel shoe | Wheel | Dozer | | Outtriger | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Length [mm] | Length [mm] | weight [kg] | width [mm] | width [mm] | Front | Rear | Front | Rear |
| HX35A Z | Canopy | 2400 | 1300 | 410 | 300 | - | Down | - | - | - |

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




| Load point height (A) | | Load radius (B) | | | | | | At max. reach | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 2.0 m (6.6 ft) | | 3.0 m (9.8 ft) | | 4.0 m (13.1 ft) | | Capacity | | Reach |
| | | | | | | | | | | m (ft) |
| 4.0 m (13.1 ft) | kg | | | | | | | *960 | 880 | 2.99 |
| | lb | | | | | | | *2120 | 1940 | (9.8) |
| 3.5 m (11.5 ft) | kg | | | | | | | *880 | 660 | 3.58 |
| | lb | | | | | | | *1940 | 1460 | (11.8) |
| 3.0 m (9.8 ft) | kg | | | | | | | *850 | 560 | 3.98 |
| | lb | | | | | | | *1870 | 1230 | (13.1) |
| 2.5 m (8.2 ft) | kg | | | *930 | 880 | *840 | 550 | *830 | 500 | 4.26 |
| | lb | | | *2050 | 1940 | *1850 | 1210 | *1830 | 1100 | (14.0) |
| 2.0 m (6.6 ft) | kg | | | *1070 | 850 | *870 | 550 | *830 | 460 | 4.44 |
| | lb | | | *2360 | 1870 | *1920 | 1210 | *1830 | 1010 | (14.6) |
| 1.5 m (4.9 ft) | kg | | | *1240 | 830 | *910 | 540 | *830 | 440 | 4.54 |
| | lb | | | *2730 | 1830 | *2010 | 1190 | *1830 | 970 | (14.9) |
| 1.0 m (3.3 ft) | kg | | | *1400 | 800 | *960 | 530 | *830 | 430 | 4.58 |
| | lb | | | *3090 | 1760 | *2120 | 1170 | *1830 | 950 | (15.0) |
| 0.5 m (1.6 ft) | kg | | | *1490 | 780 | *990 | 520 | *830 | 430 | 4.54 |
| | lb | | | *3280 | 1720 | *2180 | 1150 | *1830 | 950 | (14.9) |
| Ground Line | kg | | | *1510 | 770 | *990 | 510 | *830 | 450 | 4.43 |
| | lb | | | *3330 | 1700 | *2180 | 1120 | *1830 | 990 | (14.5) |
| -0.5 m (-1.6 ft) | kg | *1770 | 1450 | *1460 | 760 | *940 | 510 | *830 | 470 | 4.24 |
| | lb | *3900 | 3200 | *3220 | 1680 | *2070 | 1120 | *1830 | 1040 | (13.9) |
| -1.0 m (-3.3 ft) | kg | *2190 | 1460 | *1330 | 770 | | | *810 | 520 | 3.96 |
| | lb | *4830 | 3220 | *2930 | 1700 | | | *1790 | 1150 | (13.0) |
| -1.5 m (-4.9 ft) | kg | *1760 | 1480 | *1090 | 780 | | | *770 | 610 | 3.55 |
| | lb | *3880 | 3260 | *2400 | 1720 | | | *1700 | 1340 | (11.7) |
| -2.0 m (-6.6 ft) | kg | *1100 | *1100 | | | | | *640 | *640 | 2.94 |
| | lb | *2430 | *2430 | | | | | *1410 | *1410 | (9.6) |

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.

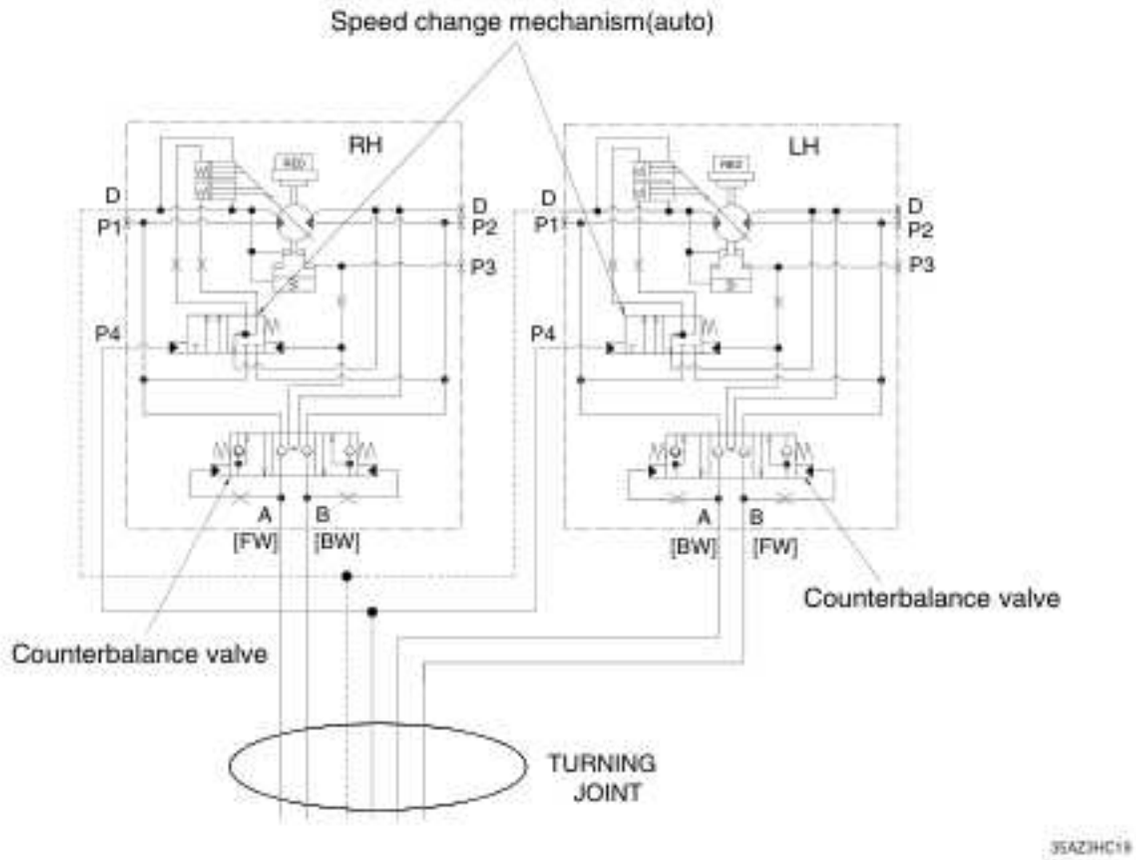
※ Please be aware of the local regulations and instructions for lifting operations.

⚠ 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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## TRAVEL CIRCUIT OPERATION




Valves are provided on travel motors to offer the following functions.

1) COUNTERBALANCE VALVE
When stopping the motor of slope descending, this valve to prevent the motor over run.

2) SPEED CHANGE MECHANISM (auto)
Auto two speed control mechanism consists of two spools and spring. This valve automatically changes motor displacement in portion to motor pressure

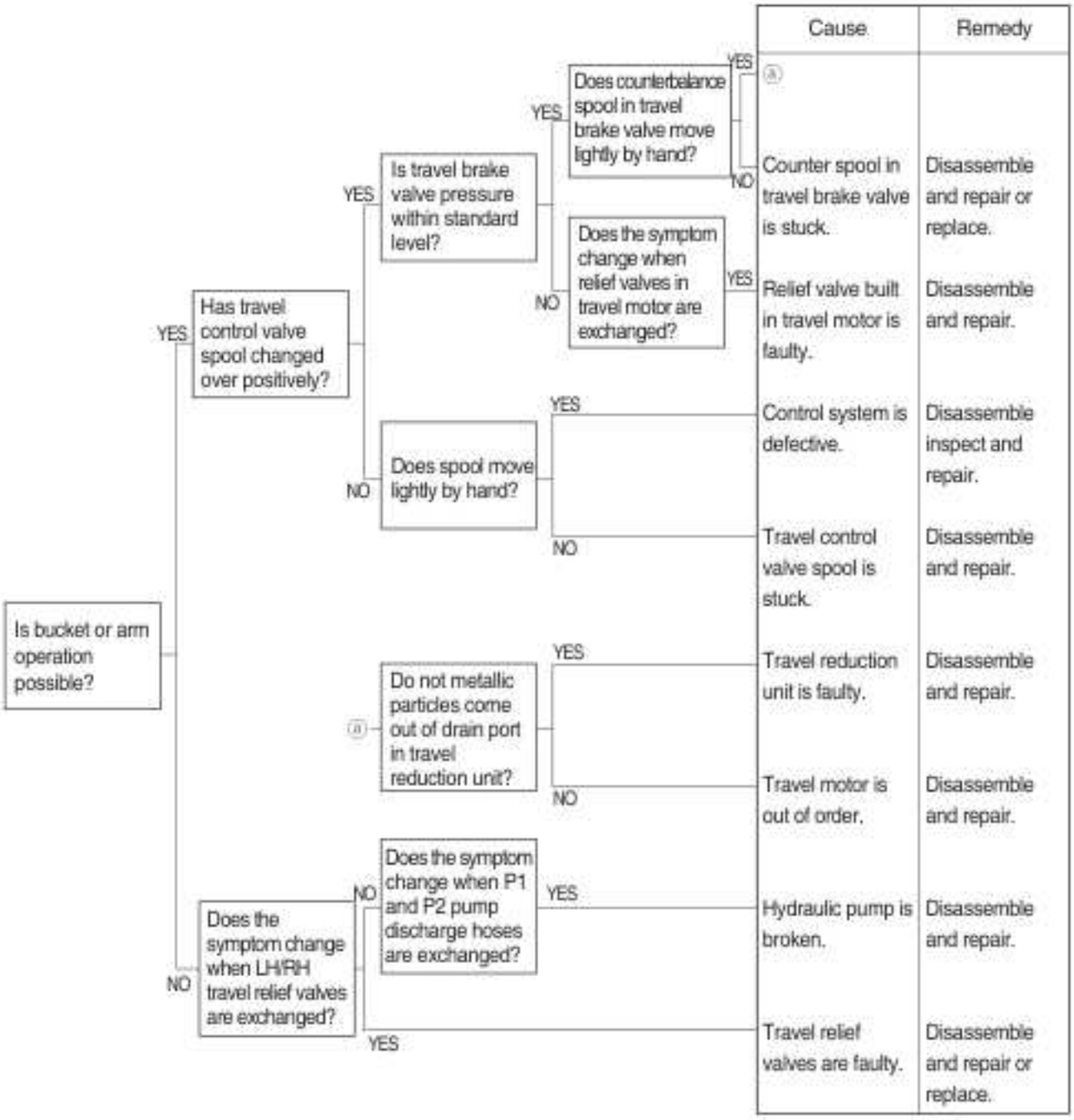
※ The circuit diagram may differ from the equipment, so please check before a repair.



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## 5. TRAVEL SYSTEM

### 1) TRAVEL DOES NOT FUNCTION AT ALL ON ONE SIDE






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(4) Fit the O-ring (214) into the plug (221).



(5) Fit the seal (213) into the plug (211).

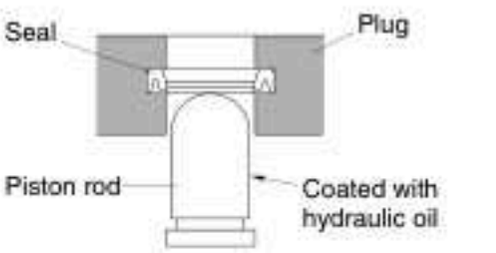
※ Fit the lip of the seal (213) as shown right.



(6) Fit the push-rod (212) into the plug (211).

※ Apply hydraulic oil to the surface of the push rod.





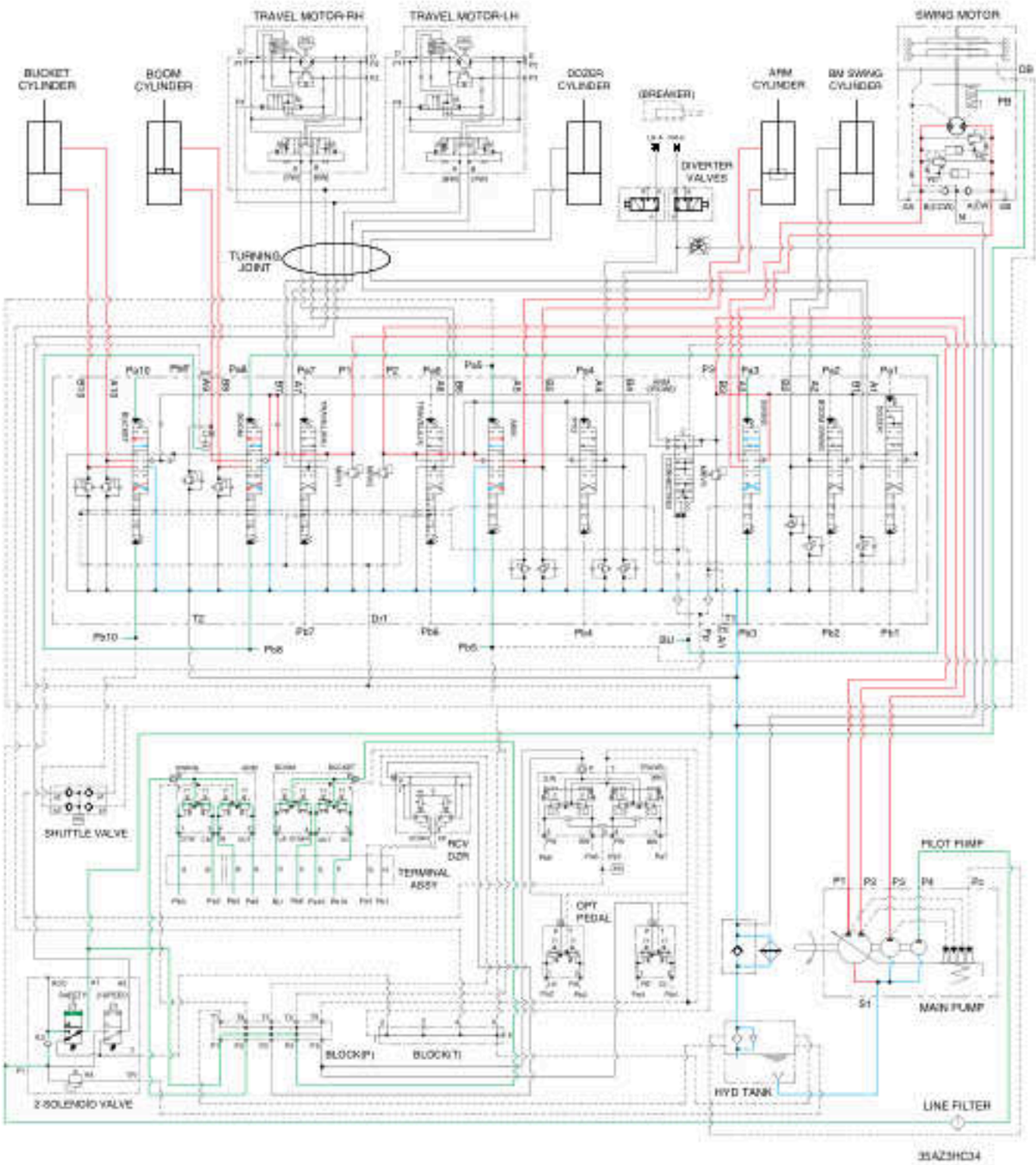

Push rod, plug & seals





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## 5. COMBINED SWING, BOOM, ARM AND BUCKET OPERATION




When the swing, boom, arm and bucket functions are operated, simultaneously each spool in the main control valve is moved to the functional position by the pilot oil pressure (Pa3, Pb3, BU, Pb8, Pb5, Pa5, Pb10, Pa10) from the remote control valve.

The oil from the P2 pump flows into the arm cylinder through, arm spool.

The oil from the P1 pump flows into the boom cylinders and bucket cylinder through the boom spool, bucket spool.

The oil from the P3 pump flows into the swing motor through the swing spool.

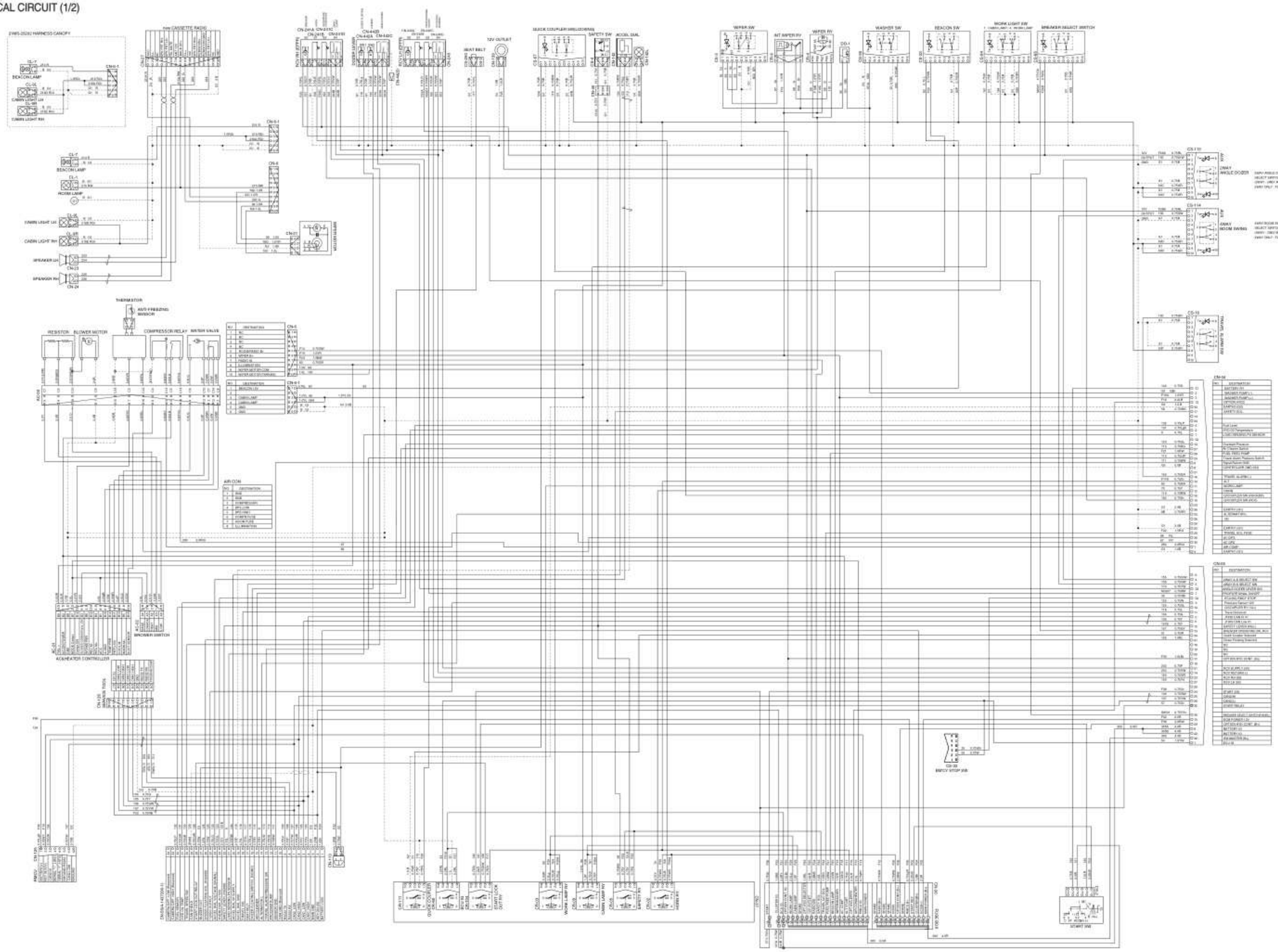
The superstructure swings and the boom, arm and bucket are operated.

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



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· ELECTRICAL CIRCUIT (1/2)






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