WHEELED EXCAVATOR

SERVICE MANUAL

HW150A CR

HYUNDAI

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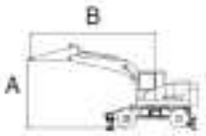
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Model	Type	Boom	Arm	Counterweight	Shoe	Wheel	Dozer		Outrigger	
HW150A CR	MONO BOOM	Length [mm]	Length [mm]	weight [kg]	width [mm]	width [mm]	Front	Rear	Front	Rear
		4600	2600	3250	-	500	-	Up	-	-

· : 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)		Capacity		Reach
												m (ft)
7.5 m (24.6 ft)	kg									*2670	*2670	4.43
	lb									*5890	*5890	(14.5)
6.0 m (19.7 ft)	kg									*2230	*2230	5.92
	lb									*4920	*4920	(19.4)
4.5 m (14.8 ft)	kg					*4190	3900	*3770	2480	*2100	2030	6.76
	lb					*9240	8600	*8310	5470	*4630	4480	(22.2)
3.0 m (9.8 ft)	kg			*7640	6690	*5230	3660	4210	2390	*2120	1800	7.18
	lb			*16840	14750	*11530	8070	9280	5270	*4670	3970	(23.5)
1.5 m (4.9 ft)	kg			*5810	*5810	6310	3410	4080	2280	*2250	1720	7.26
	lb			*12810	*12810	13910	7520	8990	5030	*4960	3790	(23.8)
0.0 m (0.0 ft)	kg			*6390	5780	6130	3250	3990	2200	*2540	1780	7.01
	lb			*14090	12740	13510	7170	8800	4850	*5600	3920	(23.0)
-1.5 m (-4.9 ft)	kg	*5220	*5220	*10050	5780	6070	3200	3970	2180	*3130	2010	6.40
	lb	*11510	*11510	*22160	12740	13380	7050	8750	4810	*6900	4430	(21.0)
-3.0 m (-9.8 ft)	kg	*9280	*9280	*8470	5910	*5700	3270			*4400	2650	5.30
	lb	*20460	*20460	*18670	13030	*12570	7210			*9700	5840	(17.4)

Note 1. Lifting capacity are based on ISO 10567.

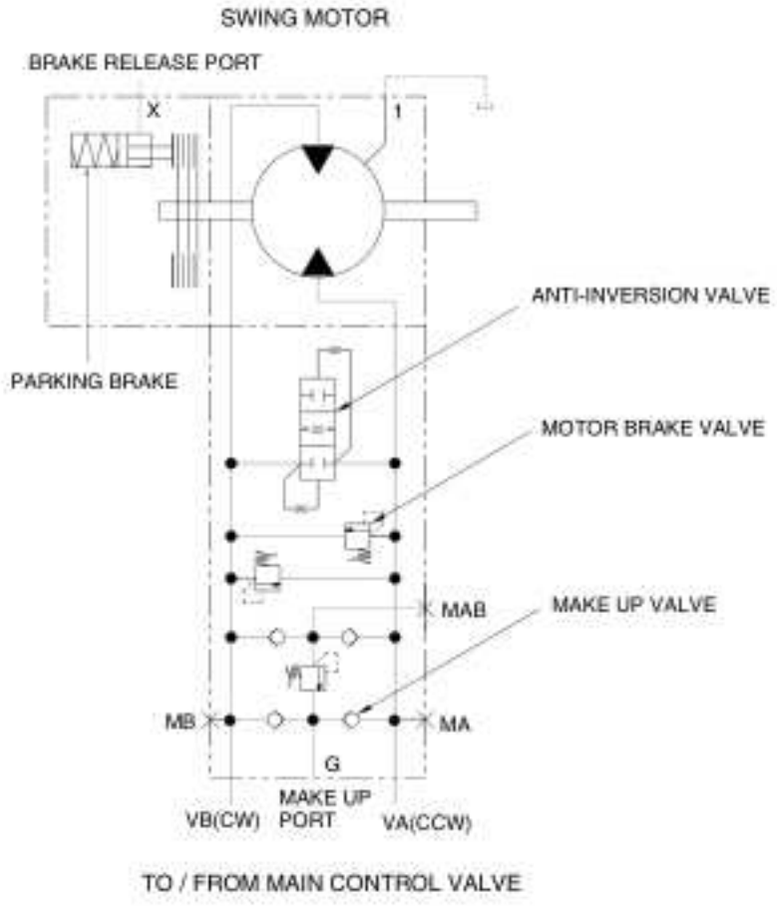
2. Lifting capacity of the HX series does not exceed 75% of tipping load with the machine on firm, level ground or 87% of full hydraulic capacity.
3. The Lift-point is bucket pivot mounting pin on the arm (without bucket mass).
4. *Indicates load limited by hydraulic capacity.

※ 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 surious injury, death, or property damage. Make adjustments to the rated load as necessory for non-standard configurations.

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SWING CIRCUIT OPERATION



1) MOTOR BRAKE VALVE

Motor brake valve for the swing motor limits to cushion the starting and stopping pressure of swing operation and controls the swing motor operating pressure to 270 kgf/cm² (3840 psi).

2) MAKE UP VALVE

The make up valves prevent cavitation by supplying return oil to the vacuum side of the motor.

3) PARKING BRAKE

This is function as a parking brake only when the swing control lever and arm in control lever are not operated.

PARKING BRAKE "OFF" OPERATION

When any of the swing or arm in control lever is tilted, the swing brake solenoid valve is energized by the MCU that senses the swing pilot oil pressure.

The discharged oil from brake pump flows to swing motor X port through the swing brake solenoid valve. This pressure is applied to swing parking brake piston, thus the brake is released.

PARKING BRAKE "ON" OPERATION

When the swing and arm in control levers are set in the neutral position, the swing brake solenoid valve is de-energized, oil in the swing parking brake chamber is drained through the the swing brake solenoid valve, thus the brake is applied by spring force.

4) ANTI-INVERSION VALVE

This anti-inversion valve absorbs shocks produced as swing motion stops and reduced oscillation cause by swing motion.

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

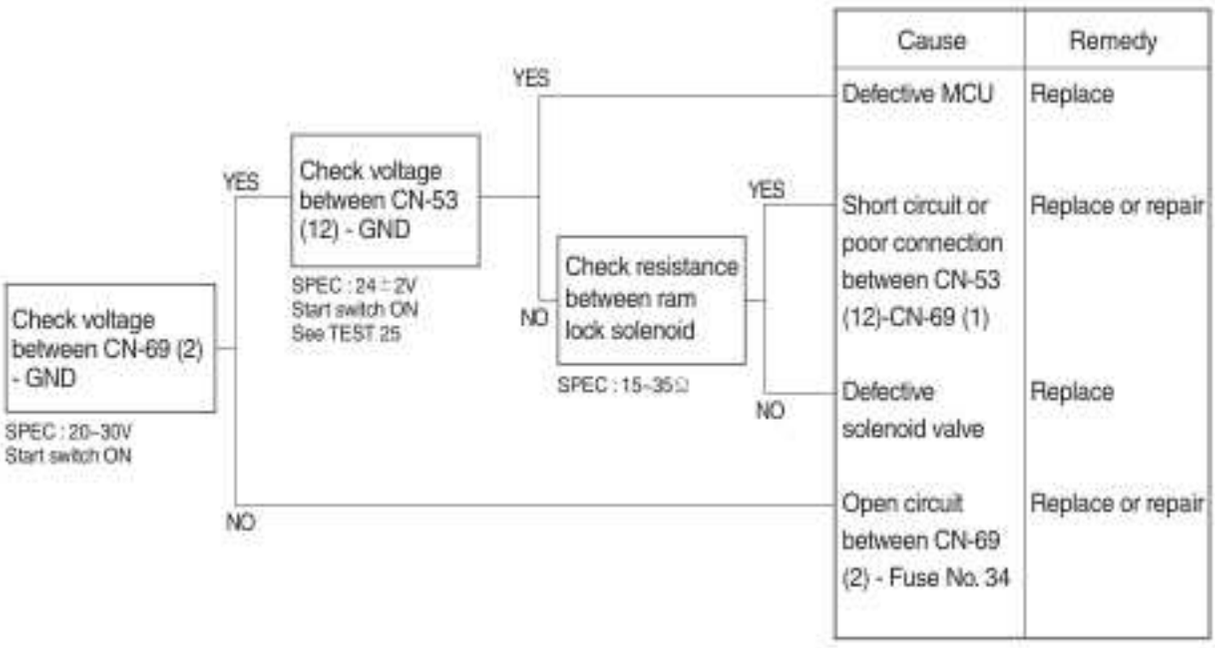
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16. MALFUNCTION OF RAM LOCK SOLENOID

- Fault code : HCESPN 525, FMI 4 or 6

※ Before carrying out below procedure, check all the related connectors are properly inserted.

1) INSPECTION PROCEDURE



Wiring diagram



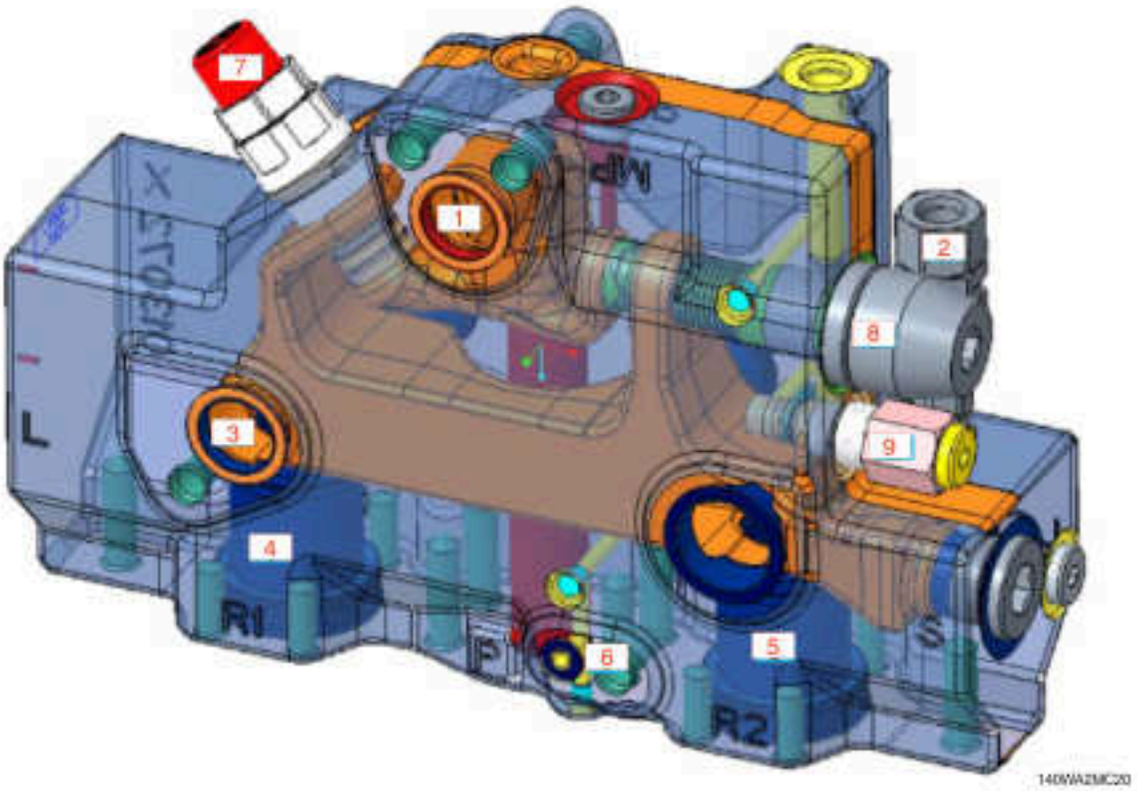
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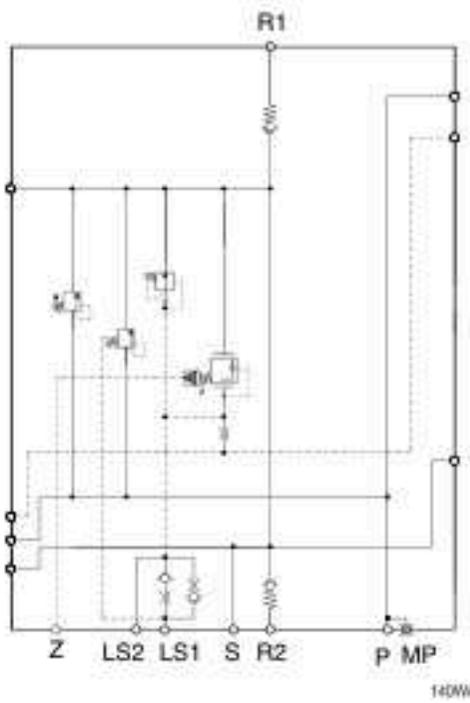
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4. FUNCTION

1) INLET SECTION

(1) Structure

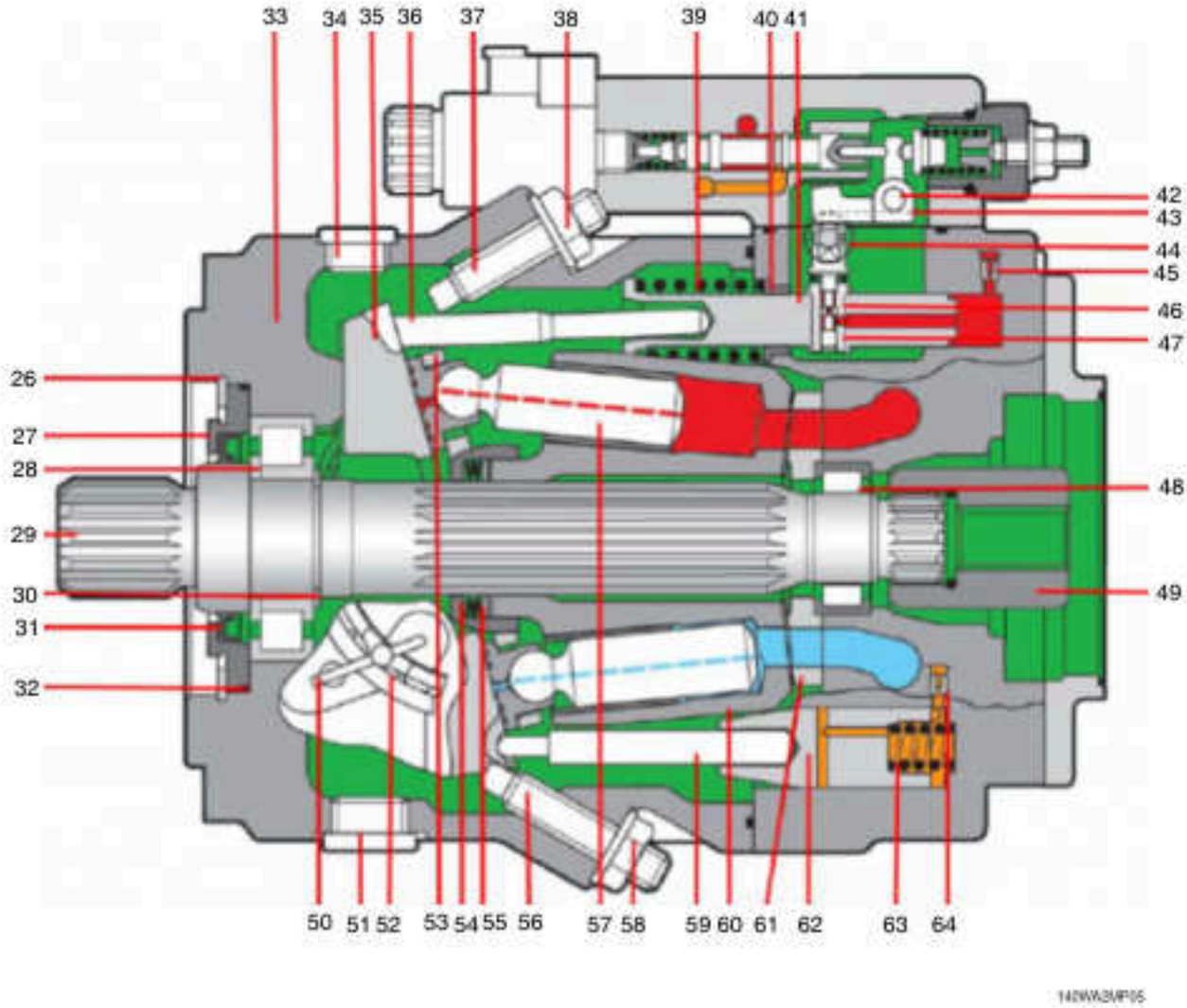




1 Pump channel (P)
2 2 stage LS pressure relief valve
3 Tank channel
4 Tank port (R1, cooler)
5 Tank port (R2)
6 LS channel
7 Primary relief valve
8 Unloading valve
9 LS drain valve

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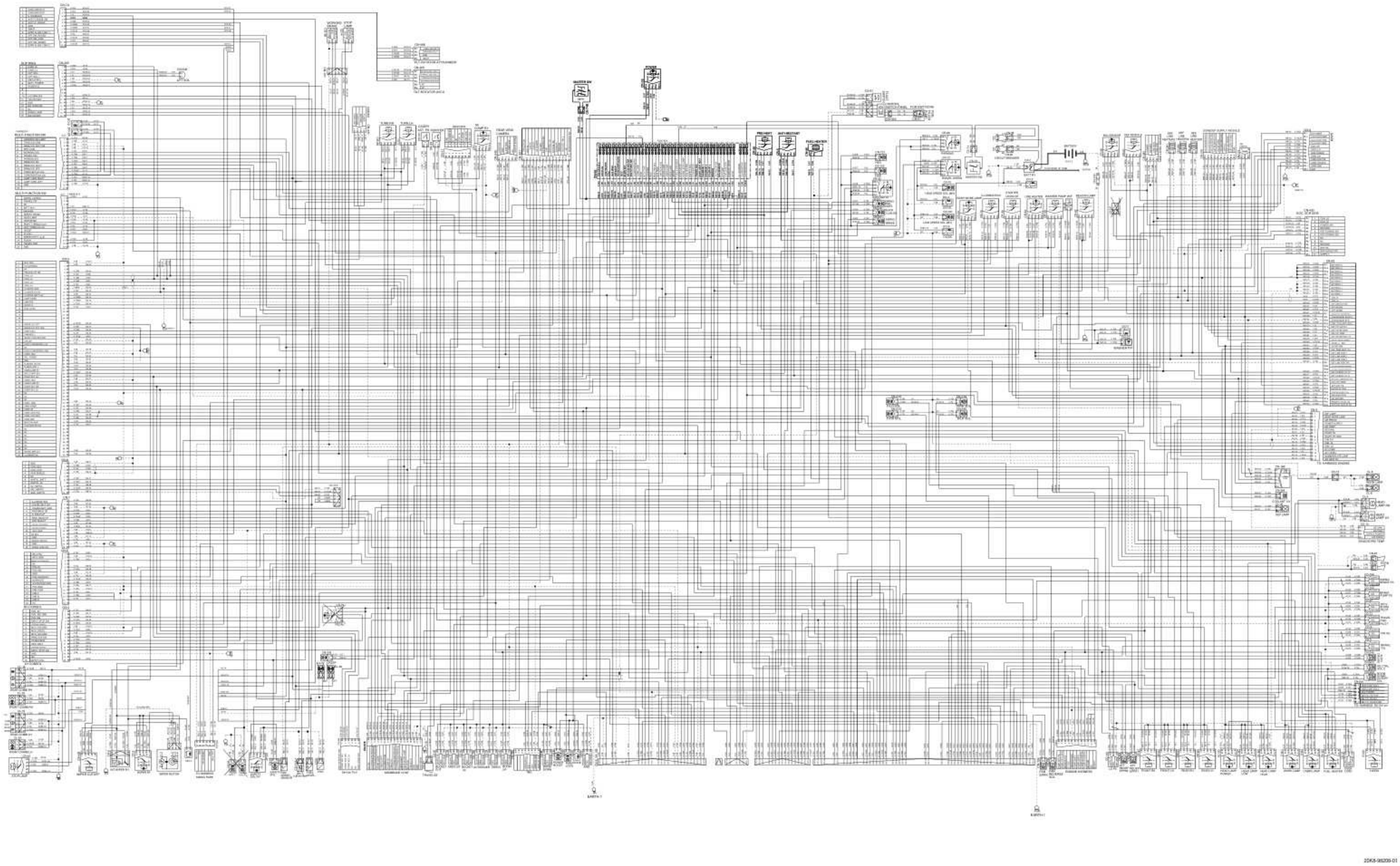
STRUCTURE (2/2)



26	Snap ring	39	Spring	52	Cage pair
27	Locking ring	40	Bushing	53	Retaining plate
28	Cylinderical roller bearing	41	Adjusting bushing small	54	Retaining ball
29	Drive shaft	42	Bolt	55	Cup spring stack
30	Snap ring	43	Angle lever	56	Adjusting screw
31	Shaft seal ring	44	Measuring roll	57	Piston pad
32	O-ring	45	Orifice	58	Sealing nut
33	Housing	46	Measuring bushing	59	Adjusting rod big
34	Screw plug	47	Measuring piston	60	Cylinder
35	Cradle	48	Cylinderical roller bearing	61	Control plate
36	Adjusting rod small	49	Coupling hub	62	Adjusting bushing big
37	Adjusting screw	50	Wire	63	Spring
38	Sealing nut	51	Screw plug	64	Orifice

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· ELECTRICAL CIRCUIT (1/3)



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