WHEEL LOADER

SERVICE MANUAL

HL757-9A

HYUNDAI

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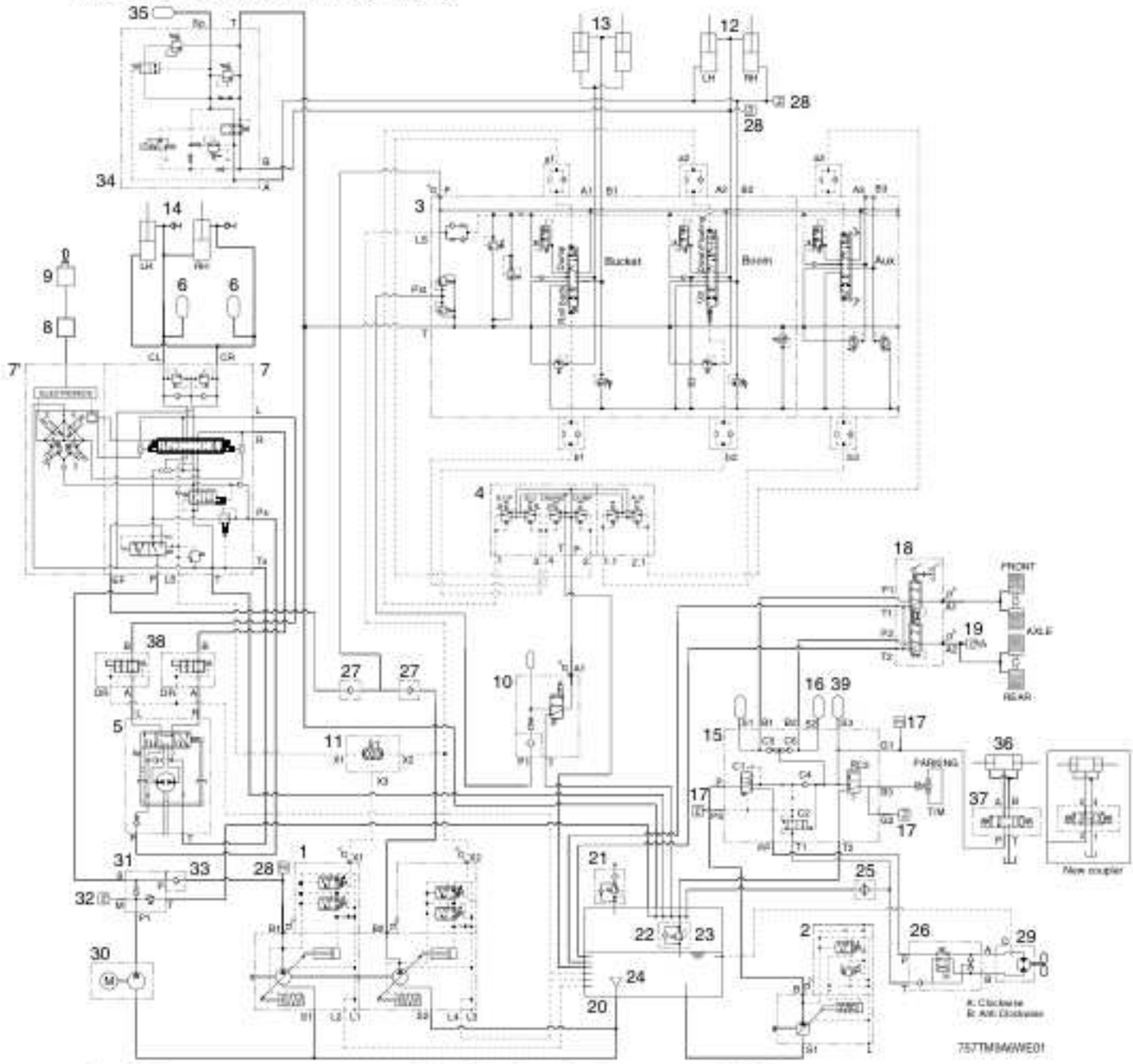
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Fault code (Hex)	Meaning of the fault code possible reason for fault detection	Reaction of the TCU	Possible steps to repair
9B	O.C. at converter lock up clutch solenoid TCU detected a wrong voltage at the output pin, that looks like a O.C. for this output pin · Cable is defective and has no connection to TCU · Converter clutch solenoid has an internal defect · Connector has no connection to TCU	Converter clutch always open, retarder not available OP mode : Normal	· Check the cable from TCU to the converter clutch solenoid · Check the connectors from converter clutch solenoid to TCU · Check the resistance* of converter clutch solenoid * See page 3-62
9C	S.C. to battery voltage at converter lock up clutch solenoid TCU detected a wrong voltage at the output pin, that looks like a S.C. to battery voltage · Cable is defective and has no contacted to battery voltage · Converter clutch solenoid has an internal defect · Connector pin is contacted to battery voltage	No reaction OP mode : Normal	· Check the cable from TCU to the converter clutch solenoid · Check the connectors from converter clutch solenoid to TCU · Check the resistance* of converter clutch solenoid * See page 3-62
A1	S.C. to ground at difflock or axle connection solenoid TCU detected a wrong voltage at the output pin, that looks like a S.C. to vehicle ground · Cable is defective and is contacted to vehicle ground · Difflock solenoid has an internal defect · Connector pin is contacted to vehicle ground	No reaction OP mode : Normal	· Check the cable from TCU to the difflock solenoid · Check the connectors from difflock solenoid to TCU · Check the resistance* of difflock solenoid * See page 3-62
A2	S.C. to battery voltage at difflock or axle connection solenoid TCU detected a wrong voltage at the output pin, that looks like a S.C. to battery voltage · Cable is defective and has no connection to battery voltage · Difflock solenoid has an internal defect · Connector pin is contacted to battery voltage	No reaction OP mode : Normal	· Check the cable from TCU to the difflock solenoid · Check the connectors from difflock solenoid to TCU · Check the resistance* of difflock solenoid * See page 3-62
A3	O.C. at difflock or axle connection solenoid TCU detected a wrong voltage at the output pin, that looks like a O.C. for this output pin · Cable is defective and has no connection to TCU · Difflock solenoid has an internal defect · Connector has no connection to TCU	No reaction OP mode : Normal	· Check the cable from TCU to the difflock solenoid · Check the connectors from difflock solenoid to TCU · Check the resistance* of difflock solenoid * See page 3-62

※ Some fault codes are not applied to this machine.

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HYDRAULIC CIRCUIT (HL757TM-9A)



1	Main pump	14	Steering cylinder	28	Pressure sensor
2	Fan & brake pump	15	Cut-off valve	29	Fan motor
3	Main control valve	16	Accumulator	30	Pump motor (opt)
4	Remote control valve	17	Pressure sensor	31	Check block (opt)
5	Steering unit	18	Brake valve	32	Pressure sensor (opt)
6	Accumulator	19	Pressure switch	33	Check valve (opt)
7	Steering valve (EHPS)	20	Hydraulic tank	34	Ride control valve (opt)
7'	Electric steering valve (opt)	21	Air breather	35	Accumulator (opt)
8	Controller (opt)	22	Return filter	36	Quick coupler cylinder (opt)
9	Joystick (opt)	23	By pass valve	37	Solenoid valve (opt)
10	Safety valve	24	Strainer	38	Stop valve (opt)
11	Shuttle valve	25	Oil cooler	39	Accumulator
12	Boom cylinder	26	Directional valve		
13	Bucket cylinder	27	Check valve		

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10. PILOT CONTROL VALVE PRESSURE TEST

- SPECIFICATION

Oil temperature	45±5°C(113±9°F)
Engine speed	Low idle
Begin metering	1/4" of lever travel
Pressure in detent :	
Boom float detent	22bar
Pressure at feel position :	
Boom power down	19~22bar
Boom raise	19~22bar
Bucket rollback	19~22bar
Bucket dump	19~22bar

- GAUGE AND TOOL

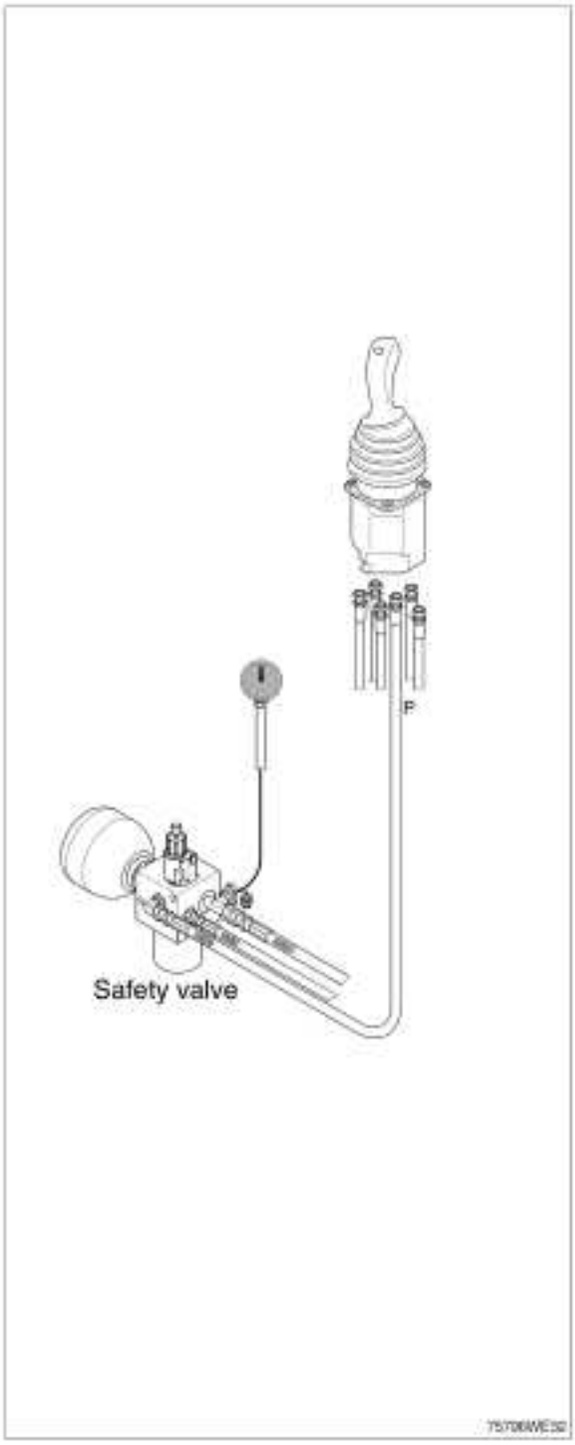
Gauge 0~7 MPa (0~70 bar, 0~1000 psi)

As the control lever is moved from neutral, the pilot pressure will suddenly jump up to approximately 5.8bar at 1/4in. travel. The pressure should then increase smoothly to the specification at the FEEL position (or 3/4 lever travel), and then jump up about 430psi as the lever is moved into detent.

This test will determine if adequate pilot pressure is available to move the loader control valve spools.

※ The FEEL position is when lever is moved to feel the ramp of the detent before lever passes into detent position.

1) Lower boom to ground.
2) Connect gauge to the pilot pressure port of function to be checked.
3) Install temperature reader (see temperature reader installation procedure in this group).
4) Heat hydraulic oil to specification (see hydraulic oil warm up procedure in this group).



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5) DISASSEMBLY AND ASSEMBLY

(1) Spool

① Loosen the bolt (2EA).

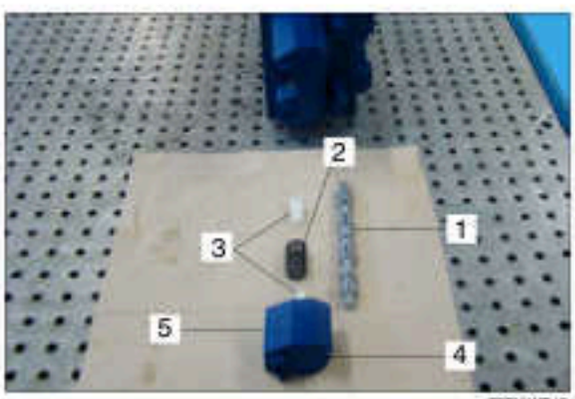
- Tool : Wrench 4 mm
- Tightening torque : 0.85 kgf · m (6.1 lbf · ft)



② Remove the cover, spring retainer, spring and spool.

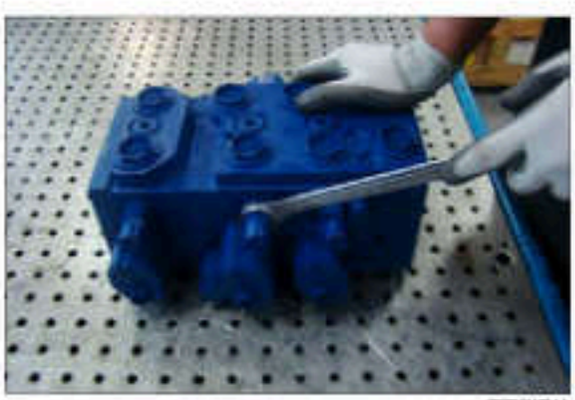


1 Spool
2 Spring
2 Spring ratainer
4 Bolt
5 Cover



(2) Port relief valve

- Tool : Spanner 24 mm



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⑤ Rear camera



- Reverse mode
  - If transmission engages the reverse gear (R1~R3), the camera mode is displayed automatically in main display.
- Active camera
  - Three cameras can be installed on the machine.
- Display order
  - Set the channel sequence of each camera.

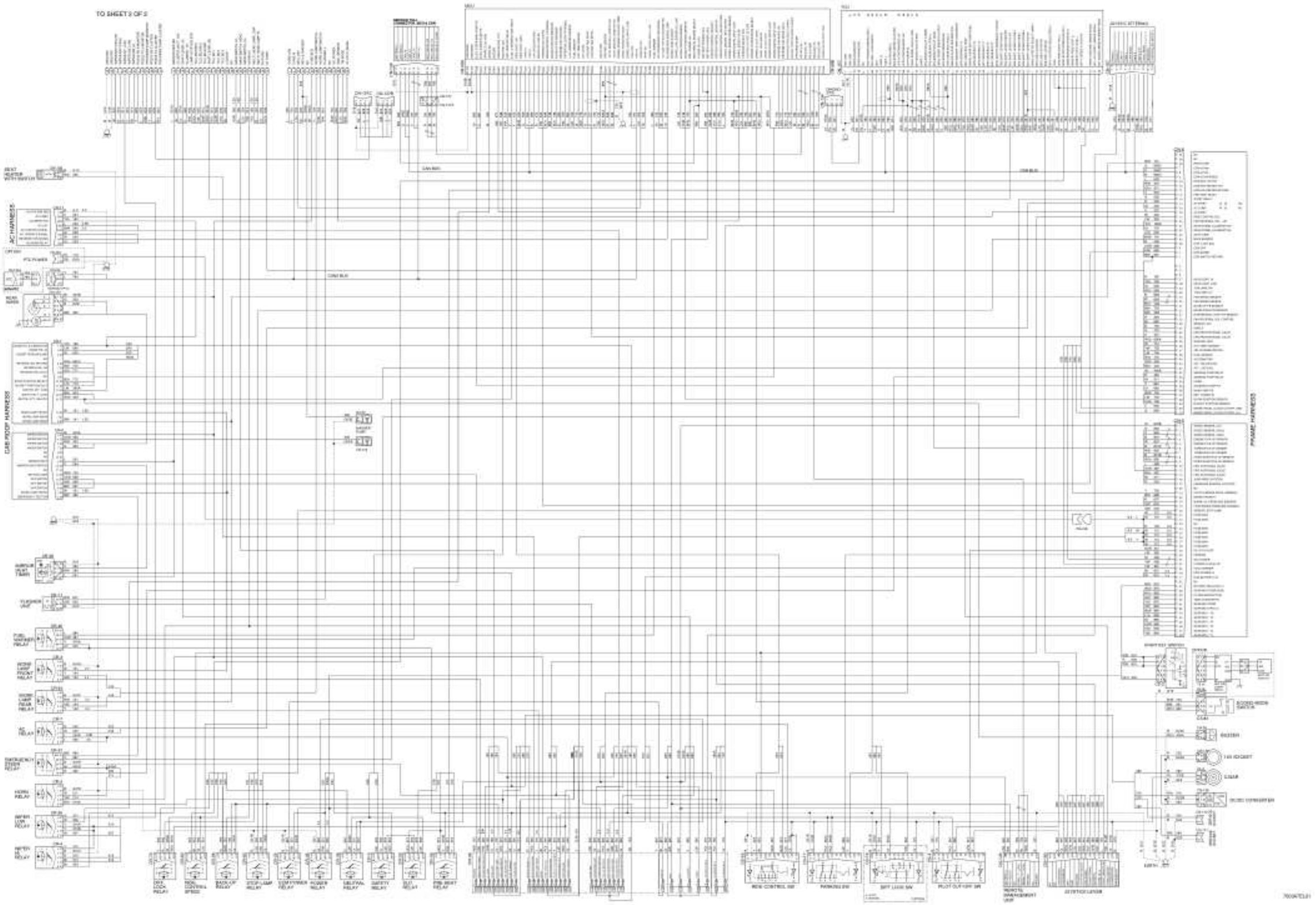
- If the camera was not equipped, this menu is not useful.
- In main display, if the ▣/**ESC** button is pushed, the first ordered display camera will be viewed.

⑥ Language



- User can select preferable language and all display are changed the selected language.
- 12 multi-language available.

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