FORKLIFT

SERVICE MANUAL

BR

HYUNDAI

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(4) GEAR PUMP

Item	Unit	Specification
Type	-	Fixed displacement gear pump
Capacity	cc/rev	19.6
Maximum operating pressure	bar	210
Rated speed(max/min)	rpm	3000/500

(5) MAIN CONTROL VALVE

Item	Unit	Specification
Type	-	3 spool, 4 spool
Operating method	-	Mechanical
Main relief valve pressure	bar	190

(6) DRIVE UNIT

Item	Unit	Specification
Max input torque	kgf · m	2200
Max input rpm	rpm	3500
Gear ratio	-	20.9
Oil quantity	ℓ	4.4

(7) WHEELS

Item	Specification
Load / Drive / Caster	Urethane / Rubber / Rubber
Quantity(Load / Drive / Caster)	2 /1 /2
Load wheel	267 × 114
Drive wheel	382 × 142
Caster wheel	204 × 76

(8) BRAKES

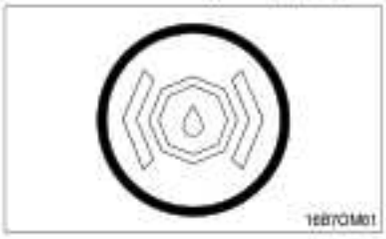
Item	Specification
Brakes(Service & Parking)	Disc brake

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2) WARNING LAMP

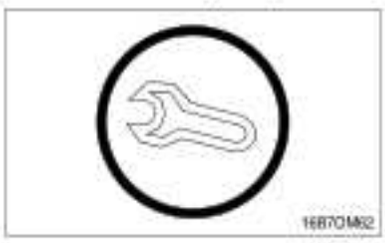
When the key switch is OFF, the display makes a general test lighting and switching OFF all the LED in sequence.

(1) Oil level warning lamp (Option)



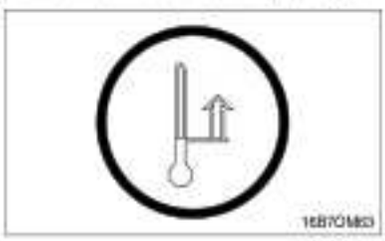
This LED lights when the measured oil level of the hydraulic circuit is under the minimum acceptable mark.
To connect the oil sensor output to the Analogue Input #1.

(2) Wrench warning lamp



This LED blinks when truck is in alarm condition.

(3) Thermometer warning lamp



This LED blinks when one truck's controller is in alarm due IMS high temperature.

※ IMS : Input motor switch

(4) Seat warning lamp



This LED lights when the operator is not on the seat.

(5) Seat belt warning lamp (Option)



(1) This LED lights to signal that the seat belt is not correctly fastened. To connect the Seat belt sensor to the Analogue Input #2.

(6) Handbrake warning lamp



(1) This LED lights when the handbrake is activated.

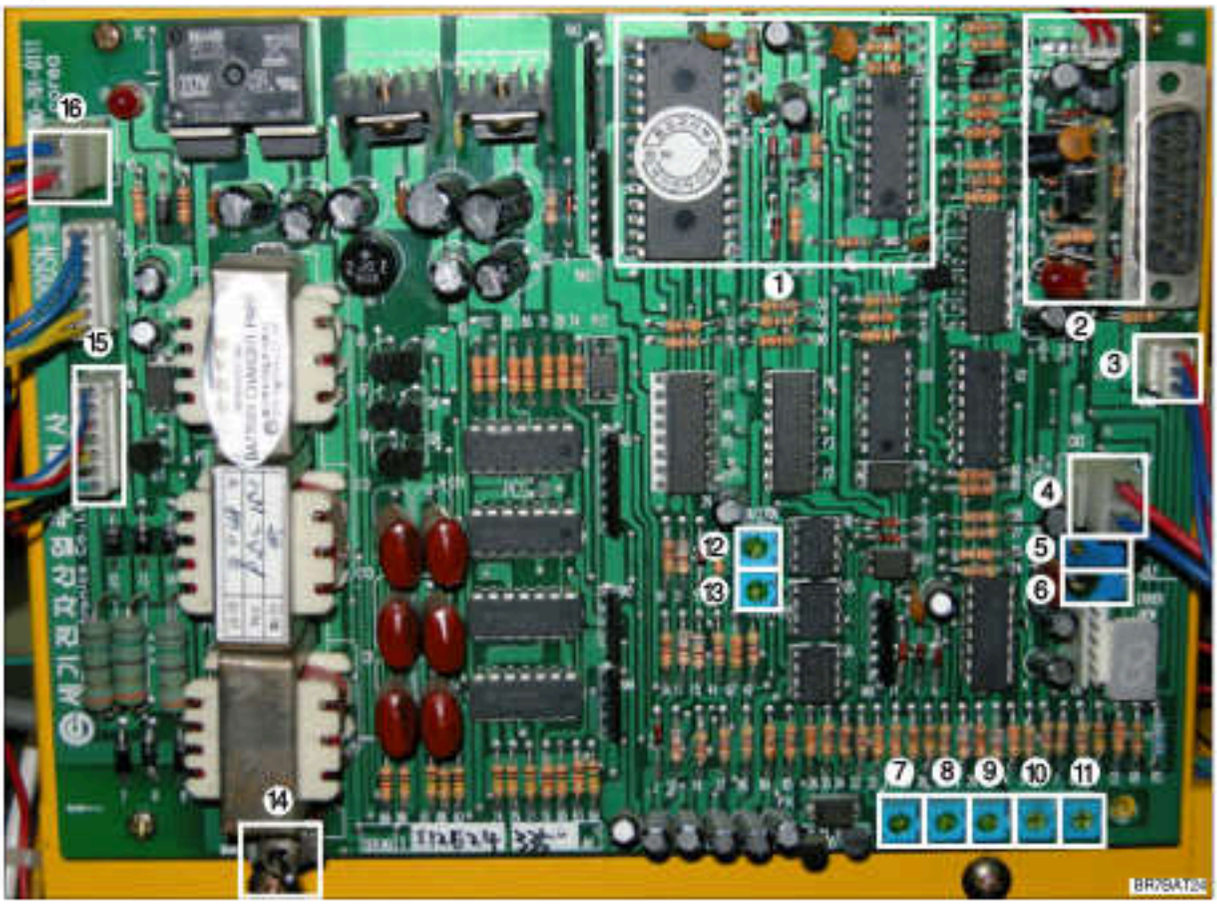
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10) DIAGNOSTIC FAULT CODES

Code	Alarm	Traction (T)	Pump (P)	Description
8	WATCHDOG	○	○	The test is made in both running and standby. It is a self-diagnosing test within the logic. If an alarm should occur, replace the logic.
13	EEPROM KO	○	○	Fault in the area of memory in which the adjustment parameters are stored; this alarm inhibits machine operation. If the defect persists when the key is switched OFF and ON again, replace the logic. If the alarm disappears, remember that the parameters stored previously have been cancelled and replaced by the default values.
17	LOGIC FAILURE #3	○		Fault in the hardware section of the logic board which manages the hardware current protection. Replace the logic board.
19	LOGIC FAILURE #1	○	○	This alarm signals that an undervoltage / overvoltage protection operation has occurred. Two possible reasons: A) A real undervoltage / overvoltage situation happened. B) Fault in the hardware section of the logic board which manages the overvoltage protection. Replace the logic card.
30	VMN LOW	○	○	The test is carried out during initial diagnosis and in standby. Possible causes: A) Problem with the motor connections or the motor power circuit; check if the 3 phases are correctly connected; check if there's a dispersion of the motor towards ground; B) Inverter failure, replace it
31	VMN HIGH	○	○	The test is carried out during initial diagnosis and in standby. Possible causes: A) Problem with the motor connections or the motor power circuit; check if the 3 phases are correctly connected; check if there's a dispersion of the motor towards ground; B) Inverter failure, replace it
38	CONTACTOR OPEN	○	○	The main contactor coil has been driven by the logic board, but the contactor does not close. Two possible reasons: A) The wires to the coil are interrupted or not well connected. B) The contact of the contactor is not properly working.
49	I=0 EVER	○	○	Traction or Pump Controller current too low.

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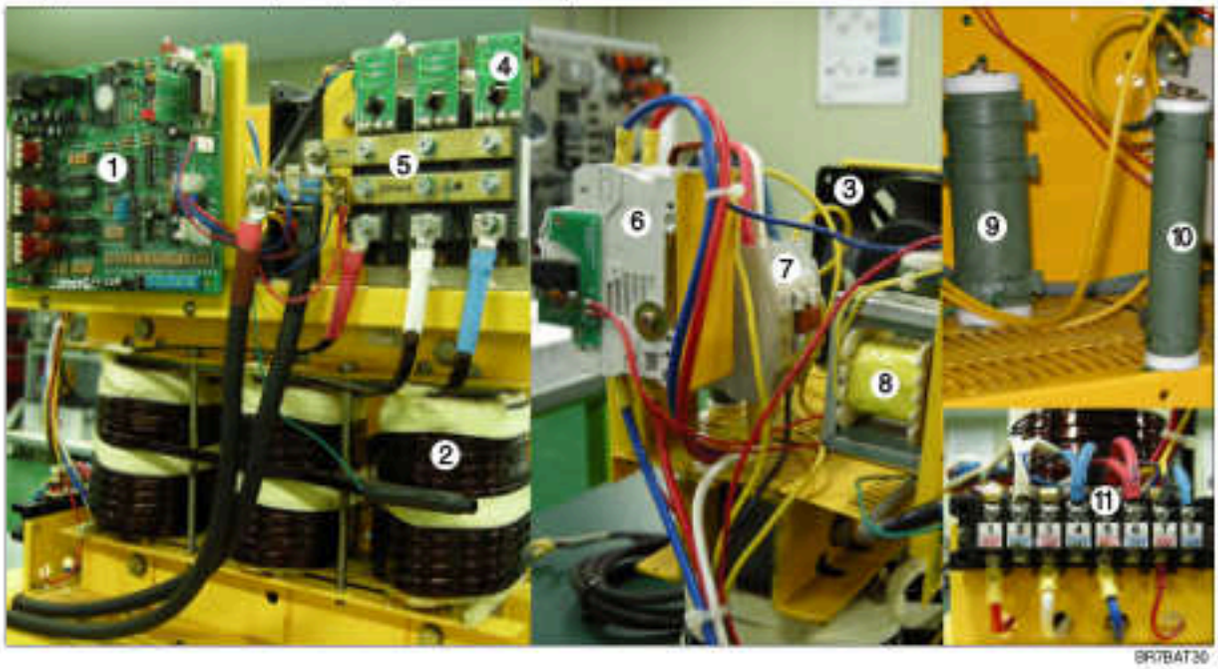
8) PCB MAJOR PARTS NAME AND LOCATION



1	Micro control unit #1	7	Over voltage	13	Set input over current
2	Micro control unit #2	8	Monitor level yellow	14	Auto/manual switch
3	CN6 voltage detect	9	Monitor level green	15	SCR control connector
4	SH current detect	10	Under current	16	CN4 RY contact point
5	Adjust charging current	11	Over current		
6	Adjust charging voltage	12	Set input over voltage		

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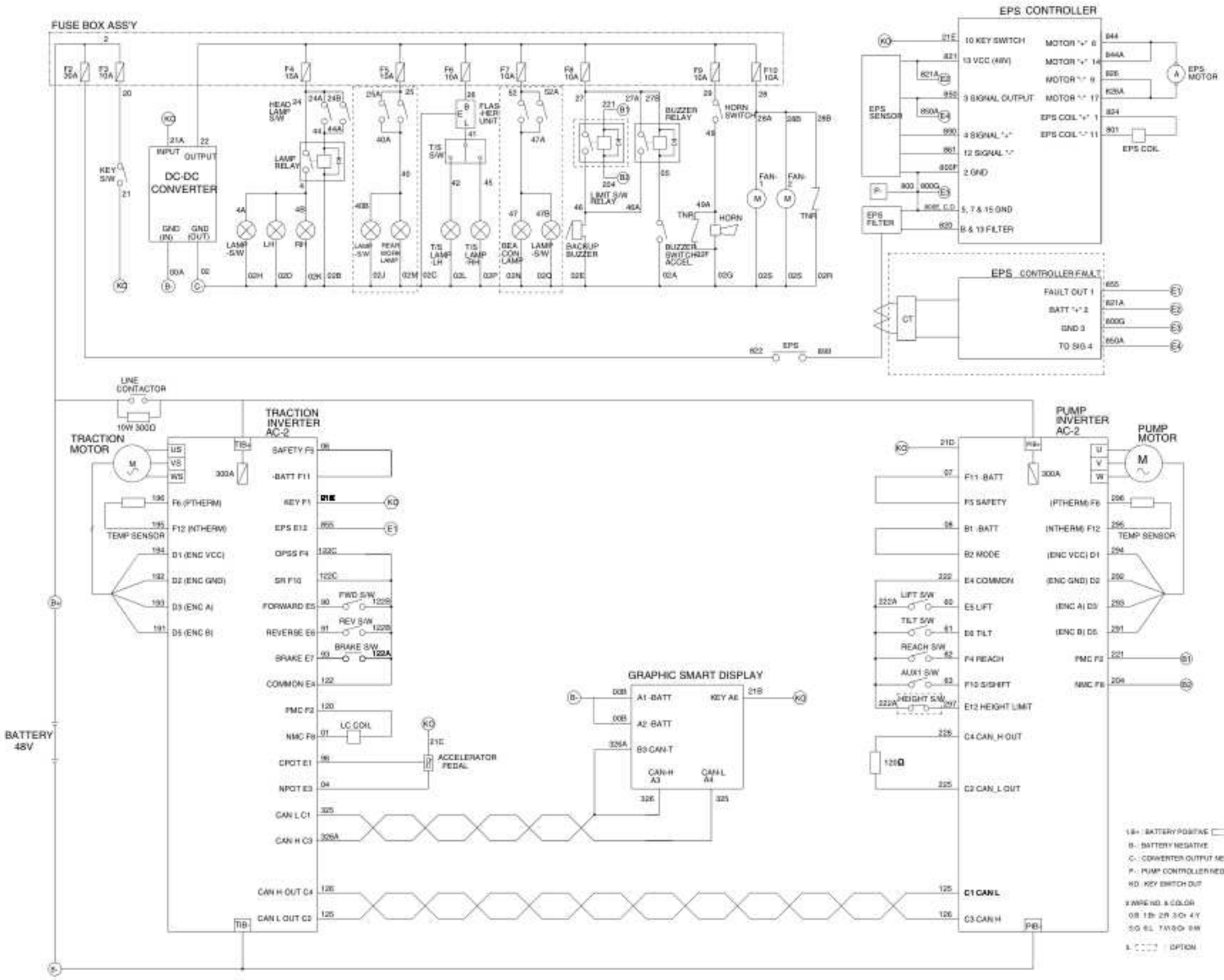
(3) Names of each part (independent items)



1	Main PCB board	5	Shunt	9	Resistance (RD)
2	Main trans (Class H)	6	NFB	10	Resistance (DR)
3	Cooling fan	7	MG S/W	11	TAP changer
4	SCR module	8	Assistant trans		

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GROUP 2 ELECTRICAL CIRCUIT



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