FORKLIFT

SERVICE MANUAL

180D-7E

HYUNDAI

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SECTION 8 MAST

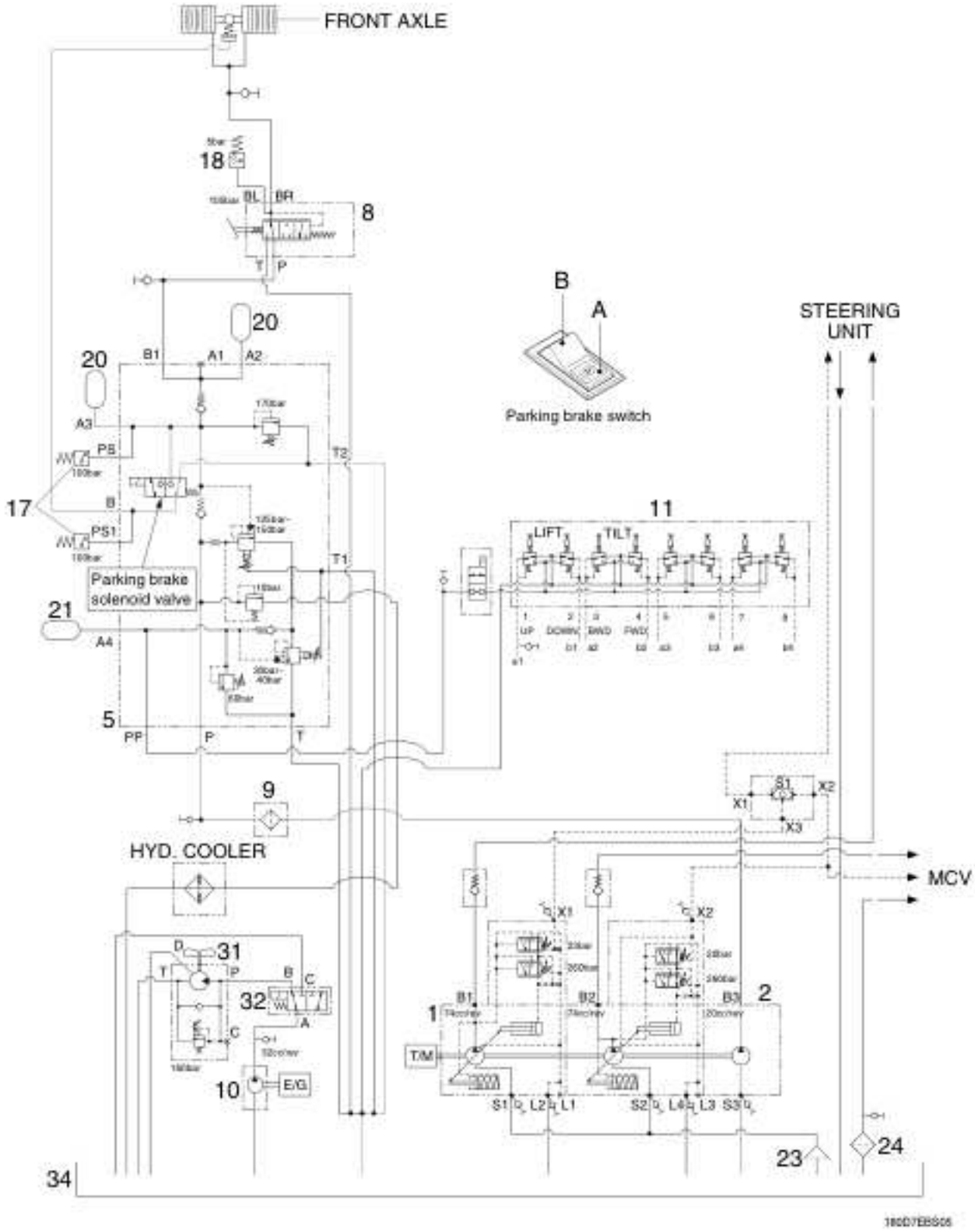
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Fault code (Hex)	Meaning of the fault code possible reason for fault detection	Reaction of the TCU	Possible steps to repair
BB	**Slippage at converter lockup clutch** TCU calculates a differential speed at closed converter lockup clutch. If this calculated value is out of range, TCU interprets this as slipping clutch - Low pressure at converter lockup clutch - Low main pressure - Wrong signal at engine speed sensor - Wrong signal at turbine speed sensor - Wrong size of the sensor gap - Clutch is defective	-	· Check pressure at converter lockup clutch · Check main pressure in the system · Check sensor gap at engine speed sensor · Check sensor gap at turbine speed sensor · Check signal at engine speed sensor · Check signal at turbine speed sensor · Replace clutch
BD	**S.C. to ground at engine brake 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 - Engine brake solenoid has an internal defect - Connector pin is contacted to vehicle ground	No reaction OP mode : Normal	· Check the cable from TCU to engine brake solenoid · Check the connectors from engine brake solenoid to TCU · Check the resistance* of engine brake solenoid * See page 3-36
BE	**S.C. to battery voltage at engine brake** TCU detected a wrong voltage at the output pin, that looks like a S.C. to battery voltage - Cable is defective and is contacted to battery voltage - Engine brake solenoid has an internal defect - Connector pin is contacted to battery voltage	No reaction OP mode : Normal	· Check the cable from TCU to the engine brake solenoid · Check the connectors from engine brake solenoid to TCU · Check the resistance* of engine brake solenoid * See page 3-36
BF	**O.C. at engine brake** 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 - Engine brake solenoid has an internal defect - Connector has no connection to TCU	No reaction OP mode : Normal	· Check the cable from TCU to the engine brake solenoid · Check the connectors from engine brake solenoid to TCU · Check the resistance* of engine brake solenoid * See page 3-36

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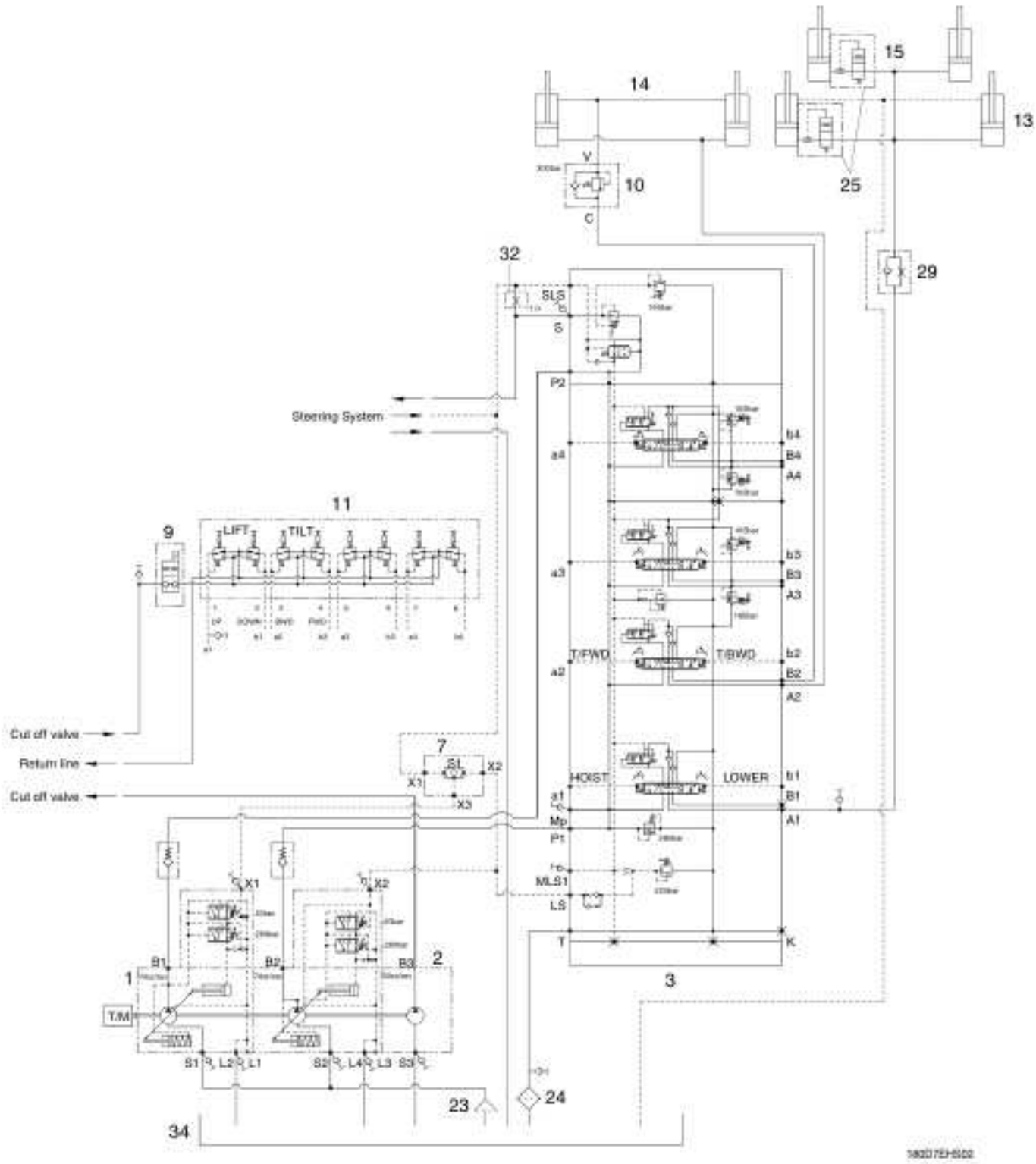
4) PARKING BRAKE OPERATED



When the parking brake switch is pressed A position, the solenoid valve is deenergized and the valve open the drain port.
At the same time, the hydraulic oil in the parking brake return to the tank through the solenoid valve.
When the piston rod is returned by the force of the spring, the parking brake is applied.

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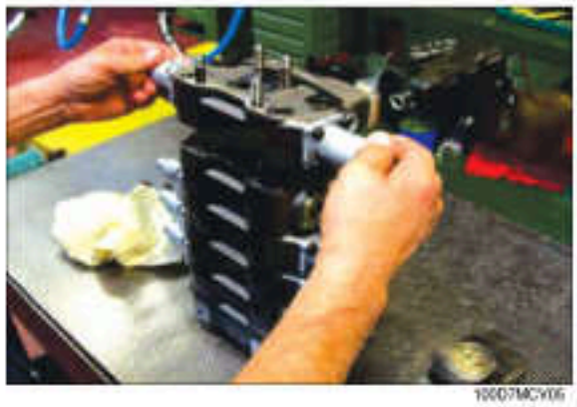
3. WORK EQUIPMENT HYDRAULIC CIRCUIT



1	Main pump	11	Remote control valve	25	Down safety valve
2	Auxiliary pump	13	Lift cylinder	29	Down control valve
3	Main control valve	14	Tilt cylinder	32	Orifice
7	Shuttle valve	15	Free lift cylinder	34	Hydraulic oil tank
9	OPSS solenoid valve	23	Strainer		
10	Tilt lock valve	24	Return filter		

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Locate new or repaired working section in right position according to the order of functions.

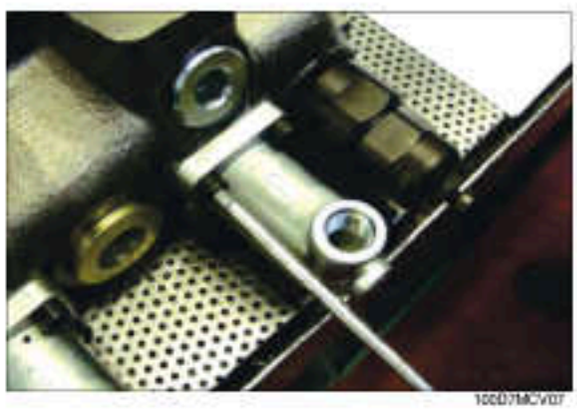


Tighten four nuts (M17) in a crisscross pattern with proper assembling torque of 4.3kgf · m(31lbf · ft).

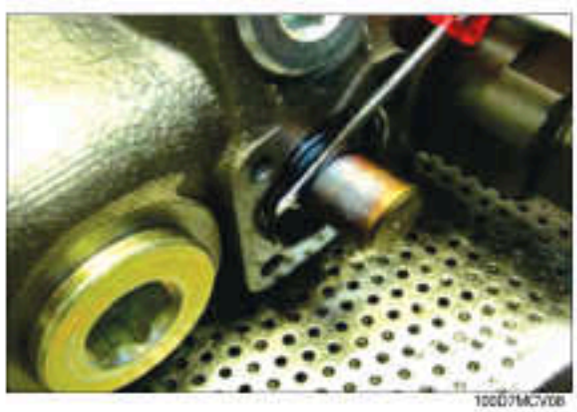


(2) **Replacing spool & control kit**

Loosen 4 screws holding aluminum kits to the body with 5mm wrench.

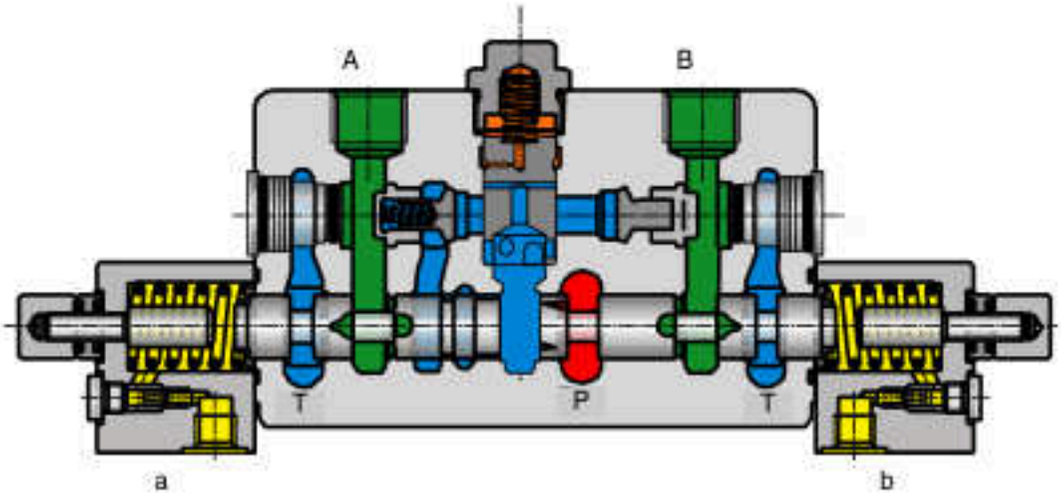


Take off all components and O-ring, valve inside, with attention not to give any damage to it.
Don't use anything with sharp edge.



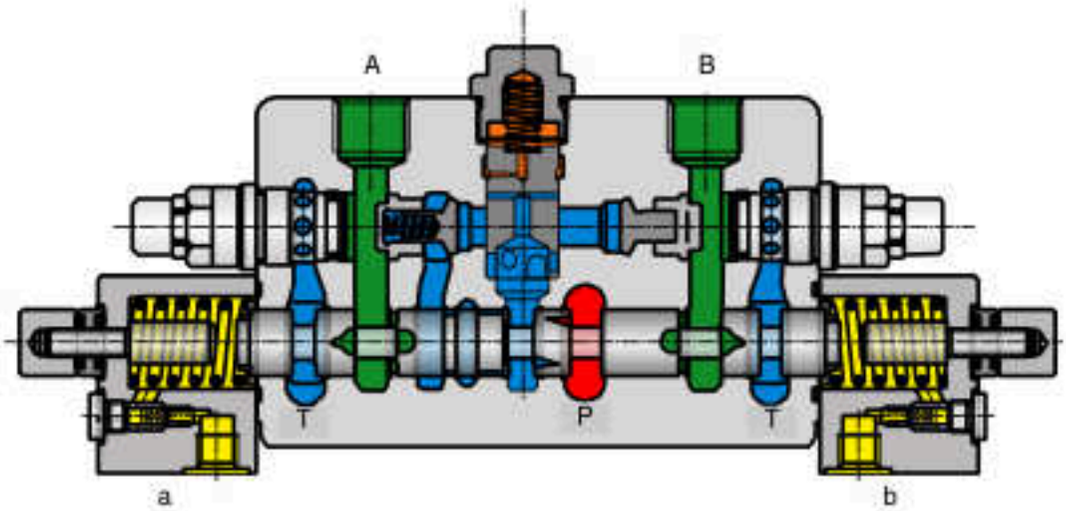
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2) LIFT & TILT SECTION



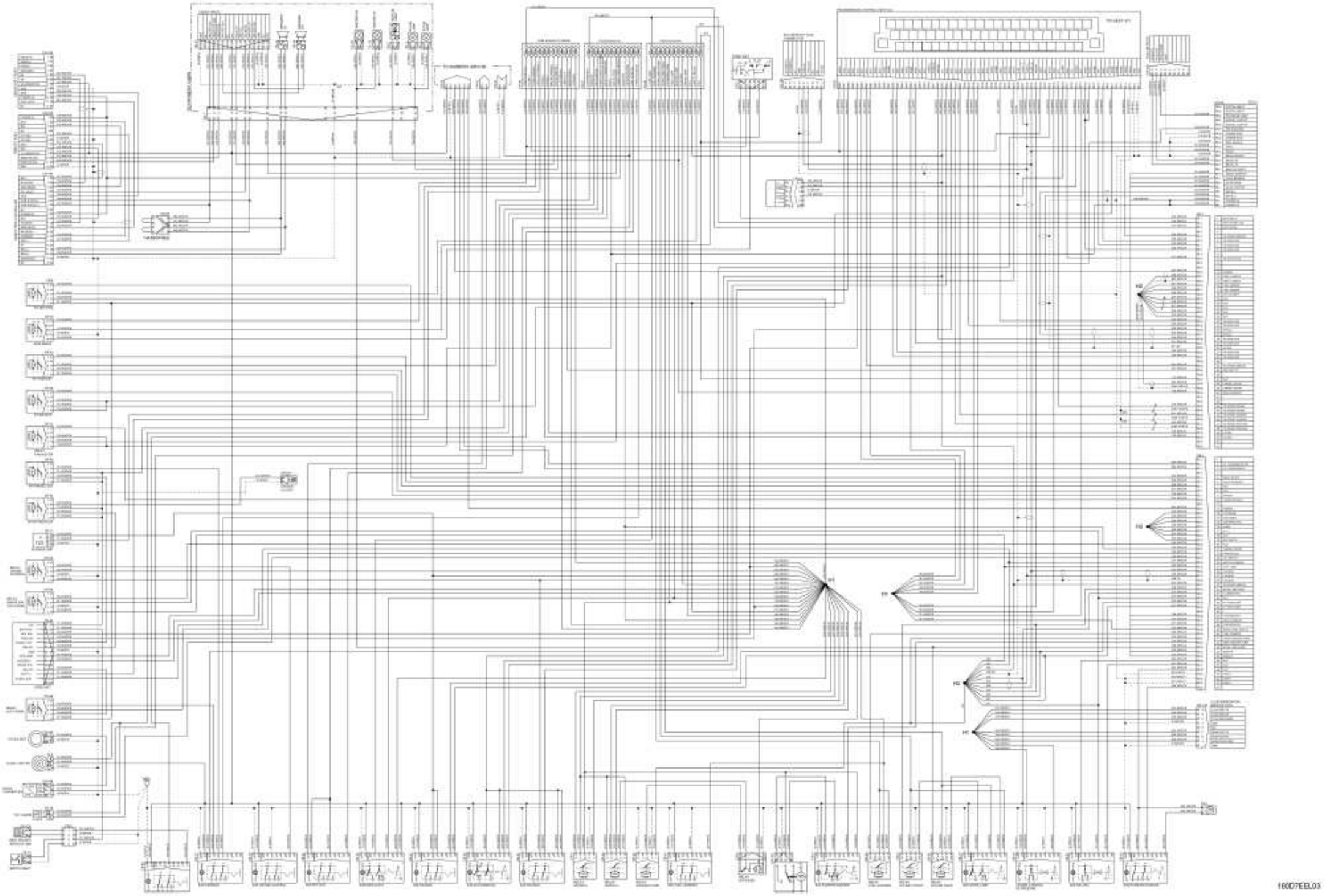
180D7EMCV12

3) AUXILIARY SECTION



180D7EMCV13

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