

Document Title: Electrical system, description	Function Group: 300	Information Type: Service Information	Date: 24/06/2025
Profile:			

Electrical system, description

The electrical system consists of three major circuits: the voltage circuit, the monitoring circuit and the control circuit.

- The functions of the main power circuit include: Starting of the engine, charging of the battery and lighting functions. The main power supply circuit works with 12 Volt.
- The monitoring circuit provides information on the operating state of the machine gathered by numerous sensors and switches.
- For easier trouble shooting all connections on wiring looms are numbered.
- Slow-blowing fuses protect the electrical components in the main power supply circuit.



Do not disconnect electrical plug connections while the engine is running. This may cause damage to engine, I-ECU, sensors or other components.

Wiring diagram

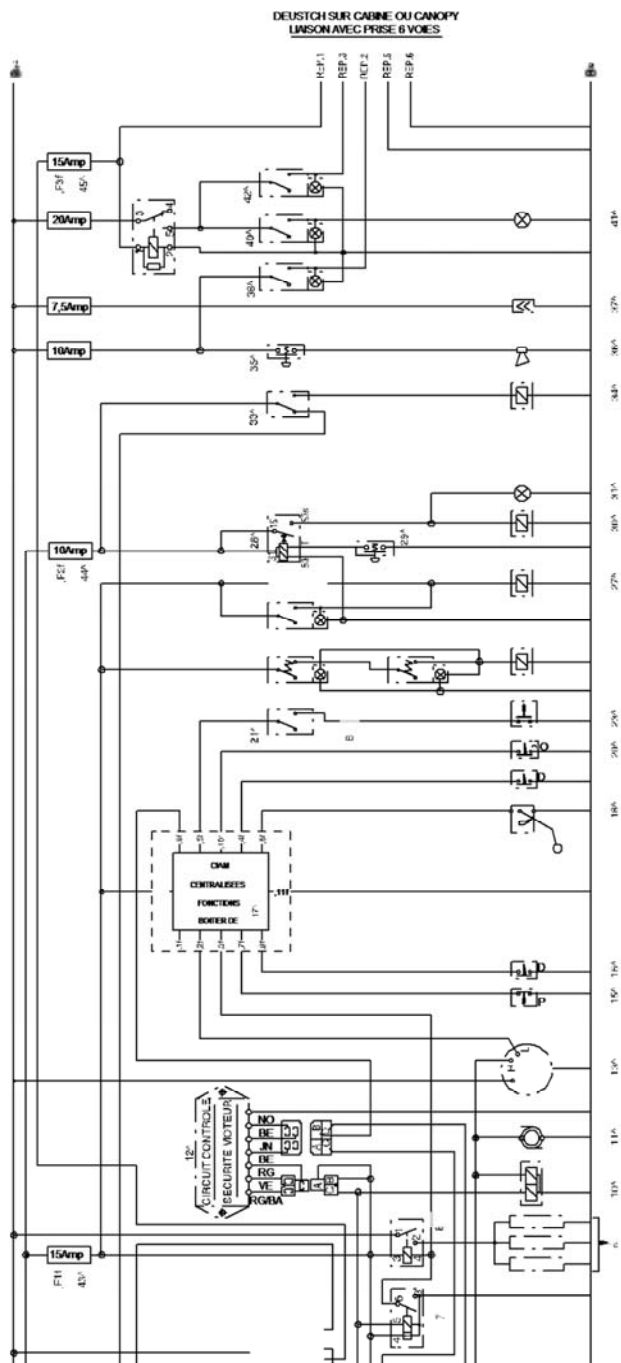


Figure 1

- 20 THERMOSWITCH, COOLANT
- 19 PRESSURE DIFFERENTIAL SWITCH, HYDRAULIC OIL FILTER
- 18 FUEL LEVEL SENSOR
- 17 CENTRAL FUNCTION BOX (CIAM)
- 16 PRESSURE DIFFERENTIAL SWITCH, AIR FILTER
- 15 ENGINE OIL PRESSURE SWITCH
- 14
- 13 GENERATOR
- 12 SAFETY BOX, ENGINE
- 1" ELECTRICAL FUEL PUMP
- 10 MAGNETIC SWITCH, CONTROL OPENING OF INJECTION PUMP (START AND HOLD)

9f	GLOW PLUGS, ENGINE
8f	POWER RELAY, PREHEATING OF ENGINE
7f	DELAY RELAY, PREHEATING OF ENGINE
6f	MICRO-RELAY, ENGINE SAFETY
5f	SAFETY RELAY, STARTER
4f	IGNITION SWITCH, ENGINE (MERIT)
3f	STARTER
2f	BATTERY SWITCH
1f	BATTERY
38	SWITCH FOR FLASHING BEACON ON CAB OR WEATHER ROOF
37	SOCKET
36	WARNING HORN
35	SWITCH, WARNING BUZZER
34	SAFETY SOLENOID VALVE, HYDRAULICS
33	SWITCH FOR SAFETY SOLENOID VALVE, HYDRAULICS
32	
31	CONTROL LIGHT, BOOM OFFSET
30	ELECTRICAL VALVE SLEWING / OFFSET
29	SWITCH BISTABLE RELAY (FOR ELECTRICAL VALVE SLEWING 7 OFFSET)
28	BISTABLE RELAY FOR ELECTRICAL VALVE SLEWING 7 OFFSET
27	TWO-STAGE ELECTRICAL VALVE
26b	2. SWITCH, TRIGGERING TWO-STAGE ELECTRICAL VALVE FOR BUCKET
26	SWITCH, TRIGGERING TWO-STAGE ELECTRICAL VALVE
25	ELECTRICAL VALVE FOR ATTACHMENT CARRIER
24b	SWITCH TRIGGERING OF ELECTRICAL VALVE FOR ATTACHMENT CARRIER
24	SWITCH TRIGGERING OF ELECTRICAL VALVE FOR ATTACHMENT CARRIER
23	OVERLOAD PRESSURE SWITCH (BOOMA CYLINDER)
22	
21	SWITCH DIASABLE PROTECTION DURING WORK
48	F6F FUSE SUPPLY FOR SOCKET
47	F5F FUSE SUPPLY FOR FLASHING BEACON AND WARNING HORN
46	F4F FUSE SUPPLY OF LIGHTING RELAY
45	F3F FUSE CABIN ACCESSORIES + LIGHTING RELAY
44	F2F FUSE SUPPLY ELECTRICAL VALVE FOR SLEWING / OFFSET + ELECTRICAL VALVE FOR HYDRAULICS
43	F1F FUSE SUPPLY FOR ALL FUNCTIONS THERMOSWITCH ENGINE + SAFETY + TWO-STAGE ELECTRICAL VALVE + ELECTRICAL VALVE FOR ATTACHMENT CARRIER
42	LIGHT SWITCH FOR CABIN (FRONT AND REAR)
41	HEADLIGHTS ON BOOM (OPTION)
40	SWITCH FOR HEADLIGHTS ON BOOM (OPTION)
39	MICRO-RELAY SUPPLY FOR HEADLIGHTS ON CABIN AND BOOM