A TEREX COMPANY

Service Manual

	Serial number range
GTH-4017 EX	From serial n.: 19296
GTH-4514 EX	From serial n.: 19286
GTH-4013 EX	From serial n.: 19266

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TECHNICAL SPECIFICATION

2.21 HYDRAULIC SETTINGS

1. PRELIMINARY OPERATIONS

Check that the engine idle is set at 950 rpm and that the engine maximum speed is set at 2300 rpm for GTH 4017 EX and at 2200 rpm for GTH 4514EX, GTH 4013EX.

Warm up the hydraulic oil to 60°C by keeping one of the elements of the boom main valve to full stroke under pressure.
To reach this temperature in a faster way, cover the oil core of the radiator with a carton in the case of a wateroil combined cooler.

2. CALIBRATING THE BOOM MAIN VALVE

Lift the boom and put the ring on the lift cylinder rod. Open the rear carter and locate the main valve. Find the mini-socket **2** (see **annex 1**) and fit a 0-400 bar manometer. Using the joystick, with the engine running at maximum speed, keep the lifting boom cylinder to full stroke and set the valve **A** at **280 bar**.
To check the safety valves **B** (see **annex 1**) proceed as follows:

- Increase the pressure of valve **A** of the main valve to **300 bar** moving the one of the cylinders to end of stroke.
- With the engine running at maximum speed, tilt the forks to one direction by means of the joystick and act on one of the two valves **B** until reaching a pressure of **290 bar**. Adjust the second valve **B** by pitching the forks back.
- When both fork inclination valves have been calibrated, reset the pressure control valve **A** to **280 bar** by adjusting the adjustment screw.

To check the set of the extension boom safety valve (see annex 1), proceed as follow:

- With the engine running at maximum speed, extend the boom to end of stroke maintaining the position.
- Set the valve **T** at **200 bar** for GTH 4514EX - GTH 4017EX.
- Set the valve **T** at **230 bar** for GTH 4013EX.

CAUTION

For safety reasons, do not hold the cylinder to end of stroke and do not let the engine run at max speed for more than 5 seconds.

3. CHECK CALIBRATING HYDROSTATIC TRANSMISSION (ANNEX 3)

Do the calibration of the hydrostatic transmission with the hydraulic oil at 60°C.

- Connect a 0-60 bar manometer to the mini-socket **TP3** to read the boost pressure (see **annex 3**).
- Connect a 0-60 bar manometer to the mini-socket **TP2** to read high pressure (see **annex 3**).

WARNING

During this operation, the operator has to be on the side of the machine.

- Hold the selector to neutral position and make sure the maximum speed of the engine does not exceed 2350 giri/min. The engine must run at a idle speed of 950 rpm. Otherwise, adjust the minimum speed.
- Read the boost pressure on manometer **TP3** and ensure it is about 24 bar with the engine running at idle speed.
  The boost pressure has not a fixed value but varies from pump to pump. (from 20 to 29 bar)
- Hold the machine blocked using the brake pedal, disconnecting the incing electrical connection located on the service brake under the cab.
- Set the forward-neutral-reverse selector to the forward position.
- Run the engine at maximum speed.
- Check the high-pressure value on the manometer **TP2** is 425 bar. (**annex 3**)

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PROBLEMS-CAUSES-SOLUTIONS

5.2 ABOUT THIS SECTION

The tables on the following pages should be used to find and rectify problems that can occur when using the machine.

Prepare adequate tools, and especially a voltmeter and a pressure gauge to carry out the checks explained on next pages.

The initials of the electrical and hydraulic parts indicated in the following tables are given to help you find such parts on the schemes and diagrams in chapter 6.

The tables should be read as follows:

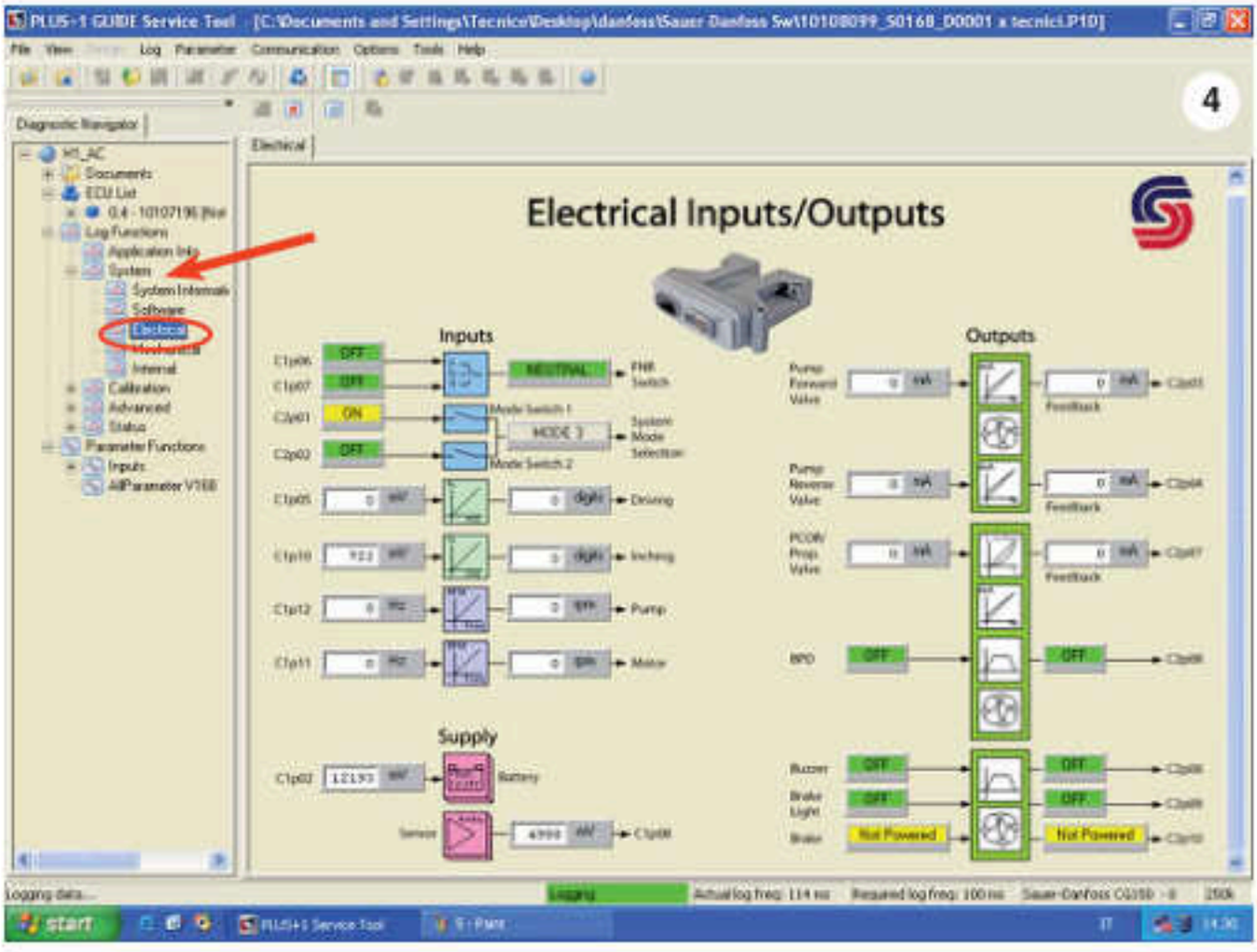
- once you have identified the problem, search this problem in the "**problems**" column;
- analyse the possible causes explained in the "**causes**" column;
- proceed with the check or replacement according to the instructions provided in the "**solutions**" column;
- check that the machine runs well;
- if the problem cannot be eliminated, check again all indications in the "**causes**" column and proceed accordingly.

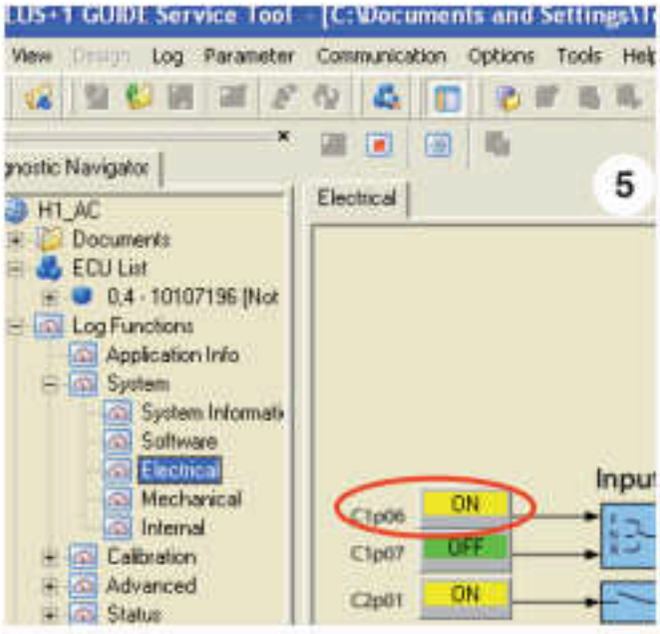
⚠CAUTION

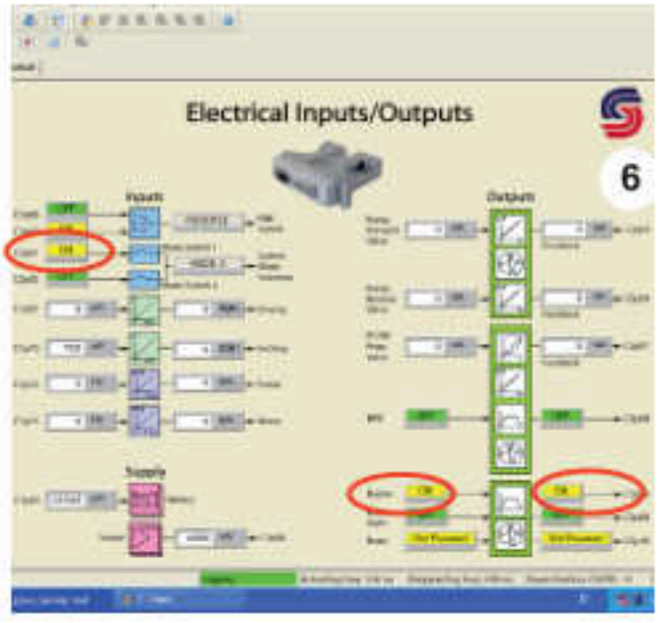
For any further information, contact the GENIE Service Centre.

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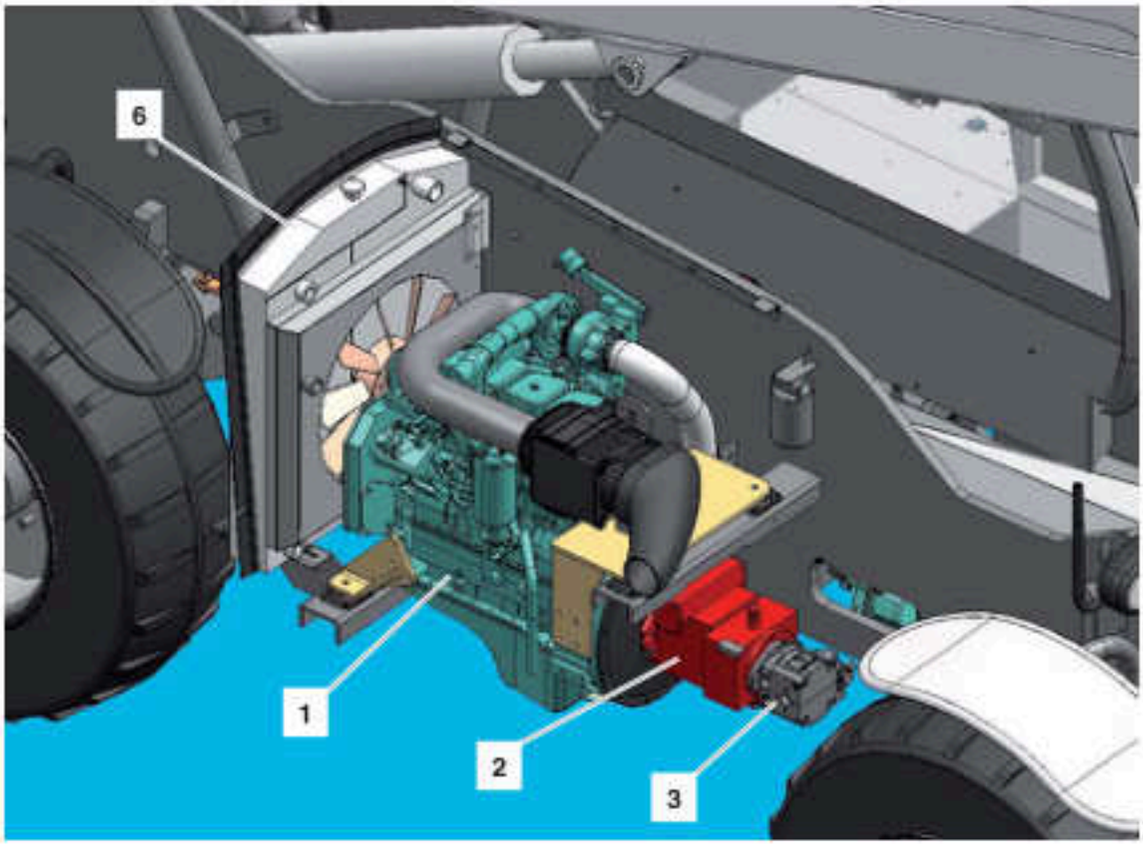
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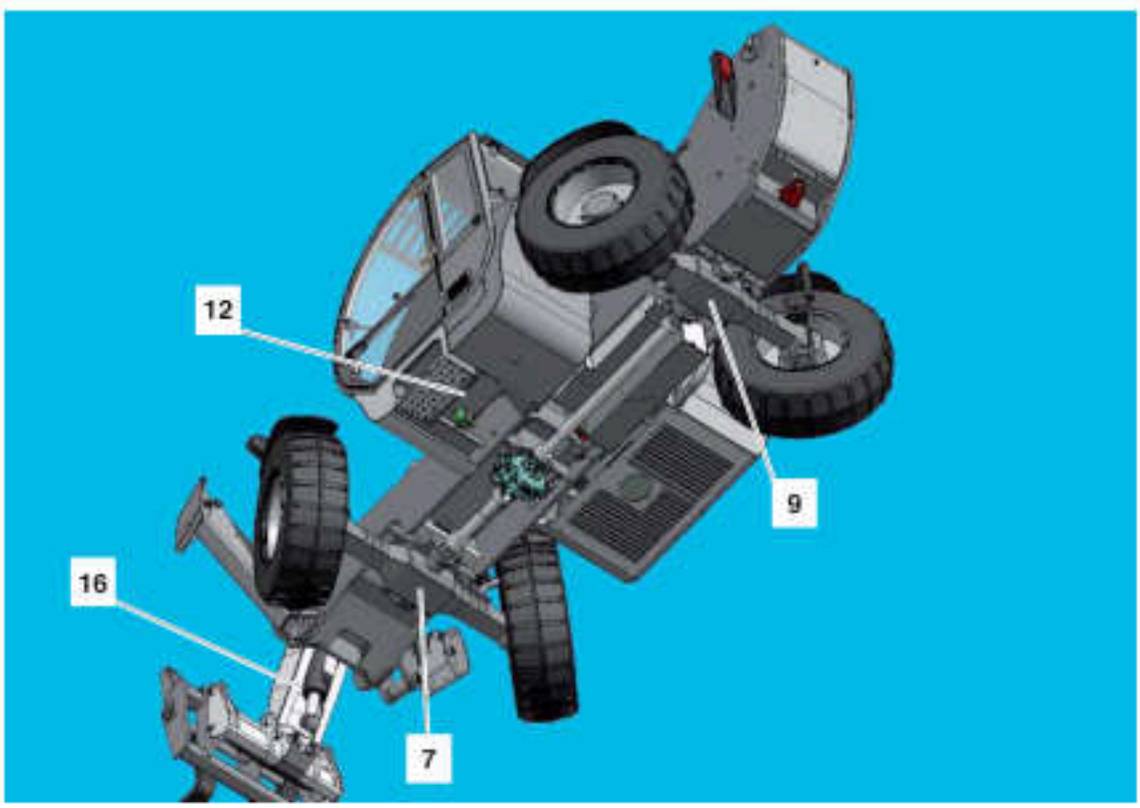






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