Genie®
A TEREX COMPANY

Service Manual

	Serial number range
GTH-5519 *Perkins Tier III*	From serial n.: 19388 To serial n.: 24471
GTH-5519 *Deutz Tier III*	From serial n.: 19006 To serial n.: 25040

Part No. 57.0009.0415

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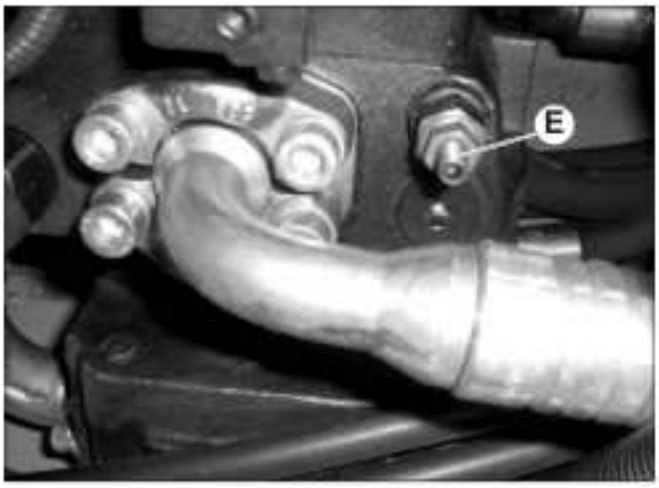
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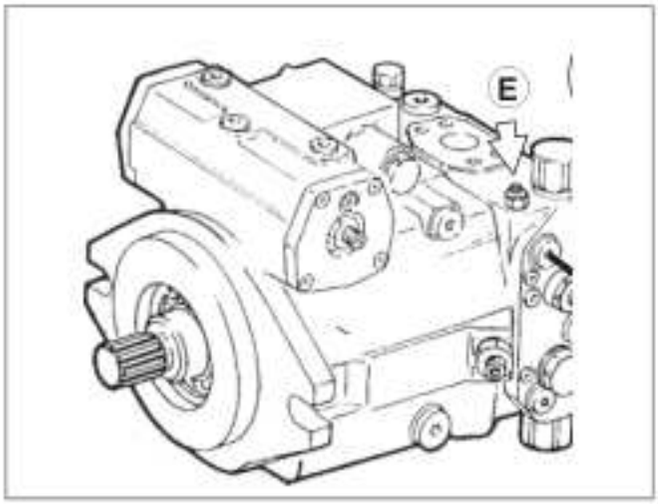
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3.1 CALIBRATION OF THE MAXIMUM PRESSURE

Do this operation with extreme caution. The proper functioning of pump and transmission depends on this calibration.

- Set the forward-neutral-reverse selector to the forward position.
- Run the engine at maximum speed and check the high-pressure value on the manometer **TP2**. If this value is less than 6235 psi, increase the pressure to 6235 psi by means of the pressure cut-off valve **E**.
- Remove the manometers and test the machine.





4. CALIBRATING THE POWER STEERING

- Fit a coupling complete with mini-socket **Z** in the position shown in **annex 1**.
- Fit a 0-3620 psi pressure gauge to the mini-socket **Z**.
- Select the front axle steering mode.
- Move the steering cylinder to stroke end and make sure the value of the power steering **A** is 2465 psi. If the value is less, tighten valve **X**; if the value is greater, loosen the valve.

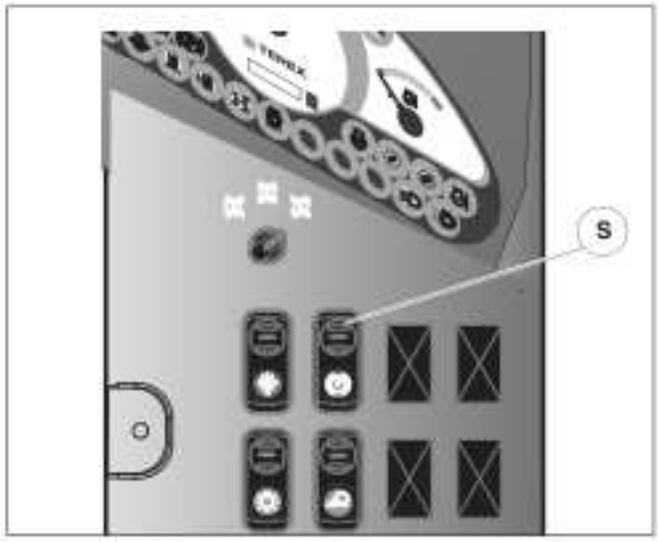
  Note: To gain access to valve **X**, remove the protection cap (see **annex 1**).

5. NEGATIVE BRAKE PRESSURE

- Connect a 0-868 psi manometer to the mini-socket **TP4**.
- Start the engine and unlock the brake by operating the relevant button **S** in the driving place.
- The pressure gauge shall display a value of 362 psi approx. given by the supercharge of the drive pump.

6. SERVICE BRAKE PRESSURE

- Connect a 3626 psi manometer to the mini-socket **TP5**.
- Step down on the brake pump pedal.
- The working pressure is about 1160 psi and is given by the force exerted on the pedal.



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Problems-Causes-Solutions

5.1 INTRODUCTION



- *Maintenance inspections shall be completed by a person trained and qualified on the maintenance of this machine.*
- *Immediately tag and remove from service a damaged or malfunctioning machine.*
- *Repair any damage or malfunction before operating machine.*
- *Unless otherwise specified, perform each procedure with the machine in the following configuration:*
  - *machine parked on a flat level surface;*
  - *boom in the stowed position;*
  - *key switch in the OFF position with the key removed.*



Before troubleshooting:

- *Read, understand and obey the safety rules and operating instructions printed in the Operator Manual of the machine.*
- *Be sure that all necessary tools are available and ready for use.*
- *Read each appropriate flow chart thoroughly.*
- *Pay special attention to the following warnings:*

DANGER

Crushing hazard. When testing or replacing any hydraulic component, always support the structure and secure it from movement.

WARNING

Electrocution hazard. Contact with electrically charged circuits may result in death or serious injry. Remove all rings, watches and other jewerly.

WARNING

Spraying hydraulic oil can penetrate and burn skin; loosen hydraulic connections very slowly to allow the oil pressure to dissipate gradually. Do not allow oil to squirt or spray.

CAUTION

Perform all troubleshooting on a firm level surface.

CAUTION

Two person will be required to safely perform some troubleshooting procedures.

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6.4.1 Wiring diagrams - Component description

1	2	3	4	5

PART LEGEND

Item	Description	Sh
	Air filter clogged switch	
	Engine oil pressure transducer	
	Back-up horn	
	Fuel level gauge	
	Hydraulic oil temperature switch	
	Parking brake low pressure switch	
	Rear wheels aligned sensor	
	Hydraulic oil temperature switch	
	Hydraulic oil filter clogged switch	
	Buzzer	
	Coolant thermistor	
	Work spotlight	
	Flashing beacon	
	Cabin ceiling light	
	Work spotlight	
	Rear left road light	
	License plate light	
	Rear right road light	
	Front right road light	
	Front left road light	
	10A FUSE - Warning light	
	10A FUSE - High beam	
	10A FUSE - Low beam	
	10A FUSE - Horn	
	10A FUSE - Road/plastic switch	
	5A FUSE - Position light front right and rear left	
	5A FUSE - Position light front left and rear right	
	10A FUSE - Optional	
	10A FUSE - Steering mode valve	
	5A FUSE - Optional	
	20A FUSE - Heater fan switch	
	10A FUSE - Forward-reverse switch	
	10A FUSE - Spotlights work	
	10A FUSE - Rear wheels aligned sensor	
	10A FUSE - Flashing beacon right	
	10A FUSE - Stop light	
	10A FUSE - Road light	
	10A FUSE - Optional	
	10A FUSE - Windscreen washer motor	
	10A FUSE - ECO Multipurpose instruments	
	20A FUSE - Fan	
	50A FUSE - Main fuse electric system power	
	150A FUSE - Main fuse glow plugs	
	Battery	
	Alternator	
	Relay fog beam	
	Relay low beam	
	Relay horn	
	Relay optional	
	Relay hydraulic low pressure switch parking brake	
	Relay transmission reverse mode	
	Relay transmission forward mode	
	Relay starter enabling switch	
	Timer	
	Preheating glow plugs	
	Relay start engine	
	Timer enabling exhaust gas system switch	
	Relay fans air conditioning	
	Relay air conditioning compressor	
	Starter engine	
	Heating fan	
	Windscreen washer pump	
	Air conditioning	
	Windscreen washer motor	
	Lift cutting	
	Air conditioning fan motor	
	Air conditioning fan motor	
	Main gauges cluster	
	Glow plugs	
	Parking brake switch	
	Continuous flow enabling switch	
	Switch light	
	Work spotlight switch	
	Fan switch	
	Air condition switch	
	Windscreen washer pump switch	
	Steering selector	
	Manoeuvre stop light	
	Lift bypass key	
	Start-up panel	
	Road light switch	
	Forward-reverse switch	
	Warning switch	

Item	Description	Sh
	Power air condition compressor plug	
	Steering unit plug	
	Transmission reverse mode solenoid valve	
	Transmission forward mode solenoid valve	
	Additional fuel solenoid valve	
	Engine stop solenoid	
	Fork Up/Down solenoid valve	
	Attachment lock/unlock solenoid valve	
	Continuous flow solenoid valve "B"	
	Continuous flow solenoid valve "A"	
	Parking brake solenoid valve	
	Four wheels steering solenoid valve	
	Dual steering solenoid valve	
	Plug-in Connector 9 way - Relay card	
	Plug-in Connector - Coolant thermistor	
	Plug-in Connector 3 way - Air conditioning motor	
	Plug-in Connector - Air conditioning fan motor	
	Plug-in Connector - Heating fan	
	Plug-in Connector - Windscreen washer pump	
	Plug-in Connector - Transmission forward mode solenoid valve	
	Plug-in Connector - Air conditioning compressor	
	Plug-in Connector - Air conditioning compressor	
	Plug-in Connector 2 way - Power from battery	
	Plug-in Connector 16 way - Power to engine	
	Plug-in Connector - Stop light pressure switch	
	Plug-in Connector - Stop light pressure switch	
	Plug-in Connector - Air conditioning fan motor	
	Plug-in Connector 21 way - In-Out relay card	
	Plug-in Connector - Joystick	
	Plug-in Connector 3 way - In-Out relay card	
	Plug-in Connector - Windscreen washer motor	
	Plug-in Connector - ECO Multipurpose instruments	
	Plug-in Connector 10 way - In-Out relay card	
	Plug-in Connector 11 way - In-Out relay card	
	Plug-in Connector 3 way - Diode	
	Plug-in Connector 11 way - Relay card	
	Plug-in Connector - Stop engine	
	Plug-in Connector - Spotlights work beam	
	Plug-in Connector - Rear left road light	
	Plug-in Connector - Back-up horn	
	Plug-in Connector 5 way - In-Out relay card	
	Plug-in Connector - Transmission reverse mode solenoid valve	
	Plug-in Connector - Windscreen cabin roof	
	Plug-in Connector - Windscreen rear cabin	
	Plug-in Connector - Fuel level gauge	
	Plug-in Connector - Fuel level gauge	
	Plug-in Connector - Rear right road light	
	Plug-in Connector - Rear wheels aligned sensor	
	Plug-in Connector - Parking brake solenoid valve	
	Plug-in Connector 21 way - In-Out relay card	
	Plug-in Connector - Four wheels steering solenoid valve	
	Plug-in Connector - Dual steering solenoid valve	
	Plug-in Connector - Front right road light	
	Plug-in Connector - Front left road light	
	Plug-in Connector - Road light switch	
	Plug-in Connector - Forward-reverse switch	
	Plug-in Connector - Emergency switch	
	Plug-in Connector 10 way - In-Out relay card	
	Plug-in Connector - Steering unit bridge	
	Plug-in Connector - Steering unit	
	Plug-in Connector 3 way - In-Out relay card	

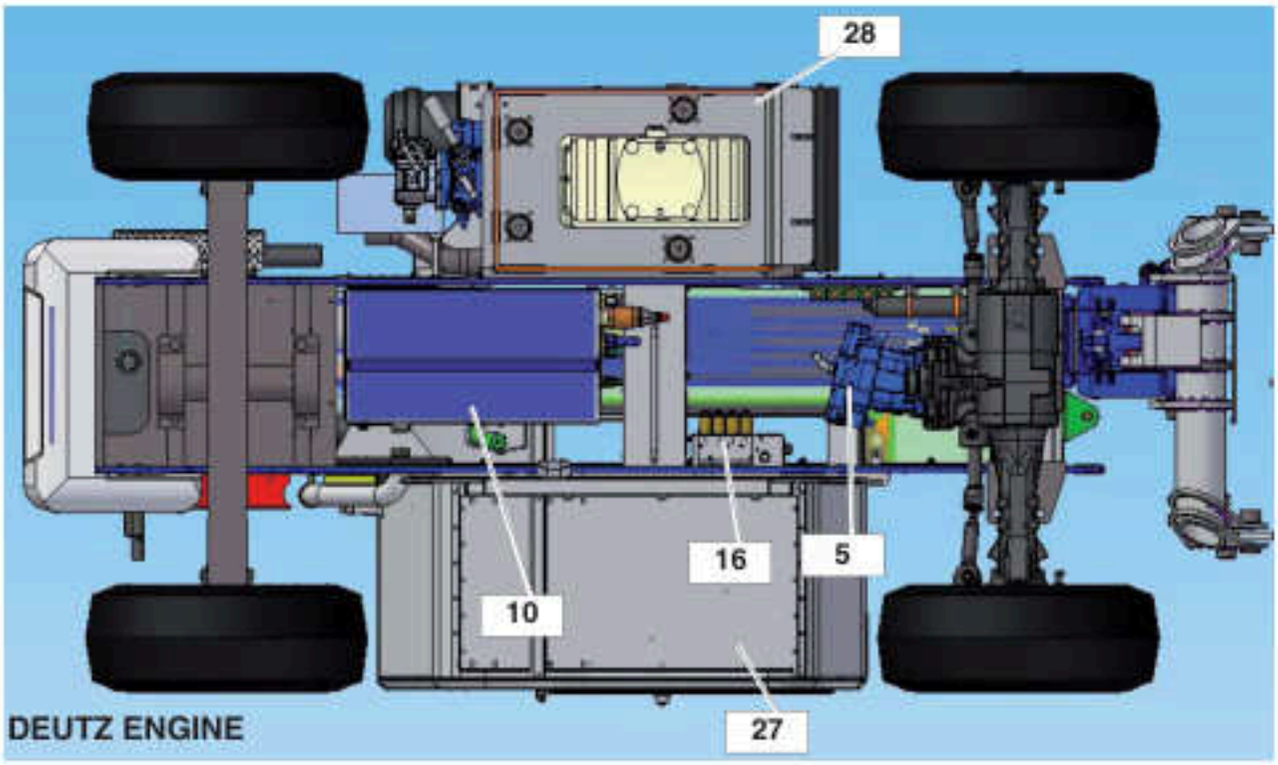
COLOR WIRE LEGEND

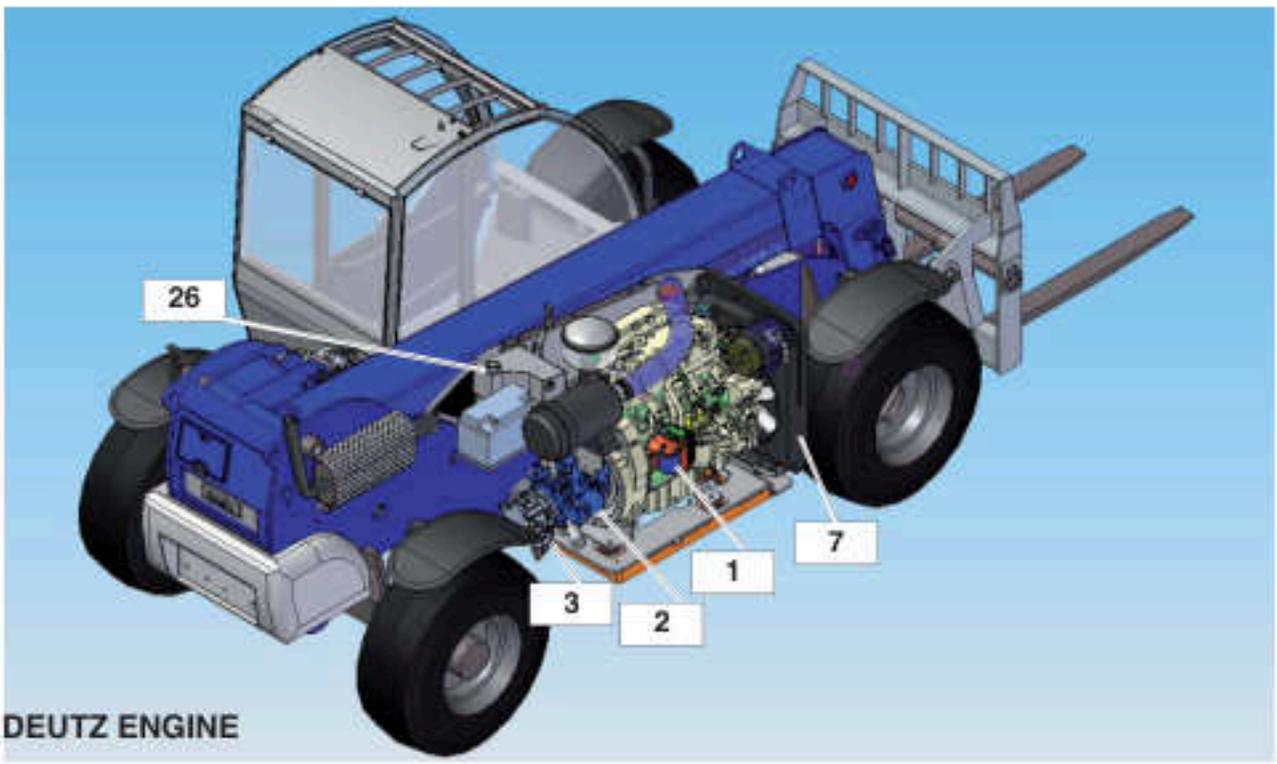
A	LIGHT BLUE
B	WHITE
C	ORANGE
D	YELLOW
H	GREY
L	BLUE
M	BROWN
N	BLACK
R	RED
S	PINK
V	GREEN
Z	PURPLE

REMARK: Two colored wires are indicated through a combination of the aforesaid letters as follows:
G/V= YELLOW/GREEN (crosswise colouring)
G-V= YELLOW-GREEN (lengthwise colouring)

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SCHEMES



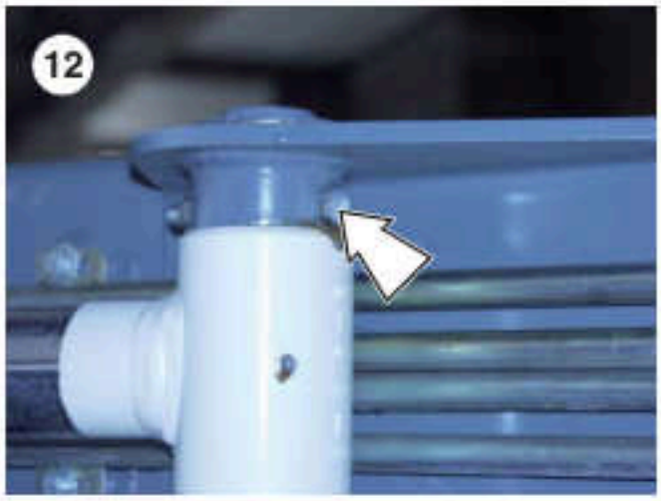


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TABLE 001

Operation: **Cylinder disassembly** **Boom raising cylinder**	Table: **001** **GTH5519 GTH 5519-S**

12 Remove the screw which fixes the rod pin to the boom using two 0,74 in wrenches



13 Knock out and extract the pin using a plug of soft material (aluminium, copper, wood, etc.)

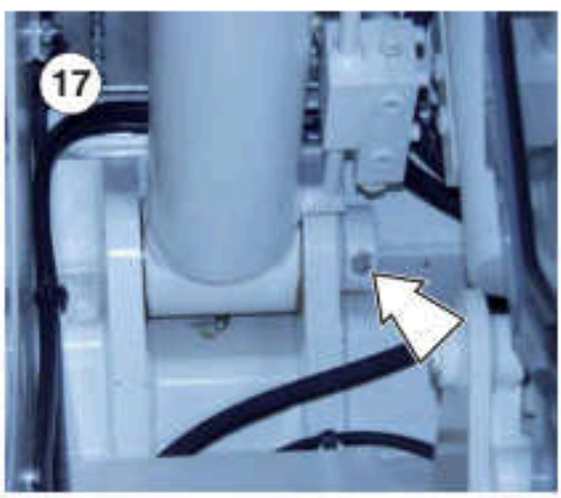
14 Put two wooden plugs, each 3,93 in high, on the oil cylinder to support the raising cylinder

15 Lower the boom until the cylinder rests on the supporting plugs previously positioned

16 Untie the sling fixing the cylinder to the boom, then raise the boom with the bridge crane to go on working



17 Remove the screw which fixes the bottom-side pin of the cylinder using two 0,74 in wrenches



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