A TEREX COMPANY

Service and Repair Manual

Serial Number Range

GTH-1256 *(Deutz Tier 4 Final)*

From GTH12M-301

This manual includes:
Repair procedures
Fault Codes
Electrical and Hydraulic
Schematics

For detailed maintenance procedures, Refer to the appropriate Maintenance Manual for your machine.

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Specifications

Machine Specifications

Fluid capacities	
Fuel tank	47.6 gallons 180 liters
Hydraulic tank	48.1 gallons 182 liters
Hydraulic system (including tank)	76.6 gallons 290 liters

For operational specifications, refer to the Operator's Manual.

Tires and wheels	
Tire size	17.5 x 25
Tire ply rating	22
Weight, rough terrain tire (air filled)	427 lbs 194 kg
Weight, rough terrain tire (foam filled)	1275 lbs 578 kg
Tire pressure (models with air-filled tires)	87 psi 6 bar
Lug nut torque	465 ft-lbs 630 Nm
Lug pattern	10 x 13.189
Wheel diameter	53 in 135 cm
Wheel width	18 in 46.5 cm

Continuous improvement of our products is a Genie policy. Product specifications are subject to change without notice.

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FAULT CODES

Diagnostic Display

When the engine Electronic Control Module (ECM) detects an abnormal operating condition, a fault code is immediately stored in the ECM memory. The presence of faults is indicated by the word "SERVICE" (replacing GENIE) on the LCD display which is located on the gauge cluster in the operator's compartment.
The gauge cluster also includes two warning lights.
They are an amber colored light which signals an abnormal engine condition which should be corrected as soon as possible and a red colored light which signals an engine condition which requires the operator to shut down the engine as soon as possible.
The ECM will, in some cases, automatically shut down the engine when the red light is displayed.

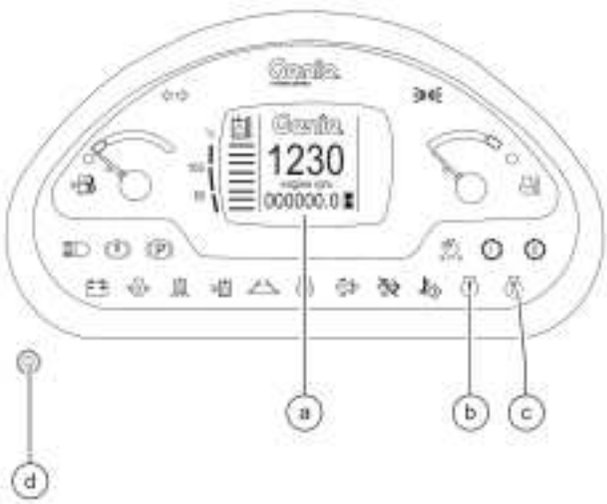
Active Fault Codes
To make the active fault codes visible, start the engine, press the diagnostic button "d" and hold it pressed for at least 5 seconds.
To quit the active fault codes page, press the diagnostic button "d" and hold it pressed for at least 5 seconds.

Active Codes vs Stored Codes
Active fault codes, indicating an engine condition or conditions which have not been corrected, are signaled on the LCD display by the word "SERVICE" replacing "GENIE".

Stored fault codes are the cumulative history of fault codes which the ECM has detected. These fault codes may be recalled by service personnel at a later time even if the condition which caused the engine fault has ceased to exist.

Note: Additional hardware will be necessary to access stored codes.

Decoding Fault Codes
The Suspect Parameter Number (SPN) and the Failure Mode Identifier (FMI), when combined, are the basis for an engine fault code. The SPN number indicates the affected component; the FMI number reveals the type of failure that has occurred. Comparing the combination of numbers to the fault code chart on the following pages will help to determine the exact engine fault and a corrective course of action. For additional information, refer to the engine operator's manual which came with your machine.



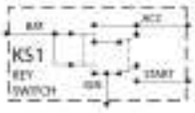
Gauge Cluster

a LCD screen
b amber warning light
c stop engine light
d diagnostic button

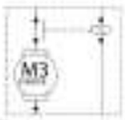
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Electrical and Hydraulic Symbols Legend

Electrical Schematic Symbols



Key switch



Engine start


Control relay



Alternator


Fuse


Circuit breaker


Horn or Alarm

Light


Valve coil


Valve coil with diode


Switch

Diode


Proximity switch


Limit switch


Temperature switch


Fuel level sender


Battery


Pressure switch

Hydraulic Schematic Symbols


Pressure switch


Hydraulic cylinder


Axle

Orifice

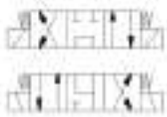

Adjustable orifice


Filter


Check valve

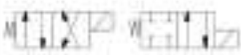

Flow regulator


Relief valve

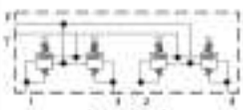

3 position 4 way solenoid valve

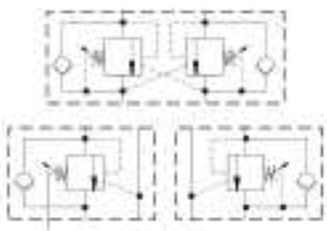

2 position 3 way directional valve


3 position 4 way proportional directional valve


2 position 4 way solenoid valve


2 position 2 way solenoid valve


Joystick


Counterbalance valve

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How to Replace the Boom Retract Chains

Note: Perform this procedure on a firm, level surface with the wheels chocked.

1 Start the engine and allow the engine to idle.

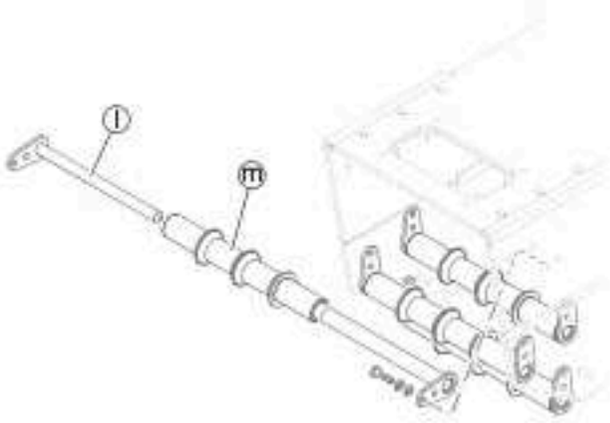
2 Raise the boom to a horizontal position.

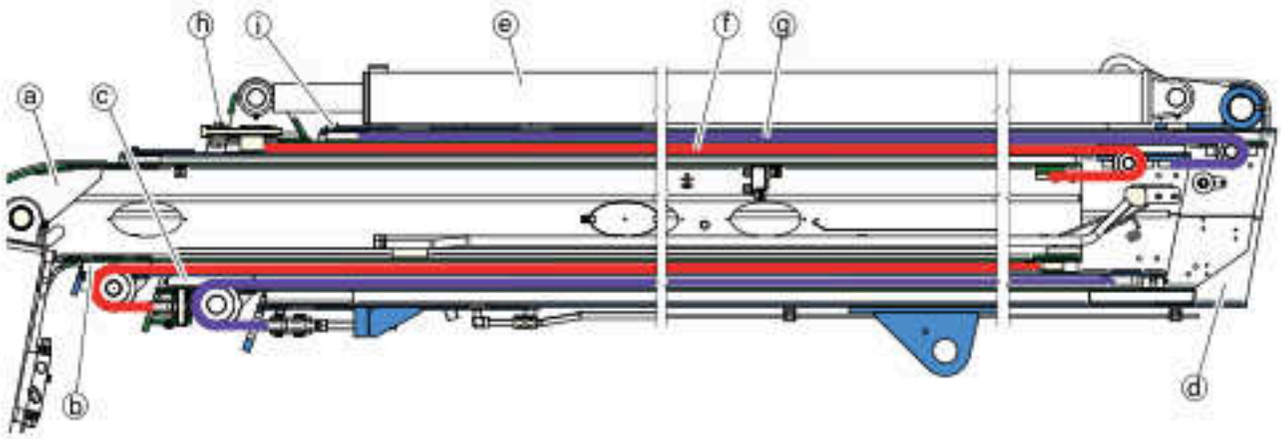
3 Fully retract the boom.

4 Turn the machine off and remove the key from the key switch.

5 At the pivot end of the boom, remove pins "l" and pulleys "m".

6 Remove the upper screws securing the upper chains "f" - "g".



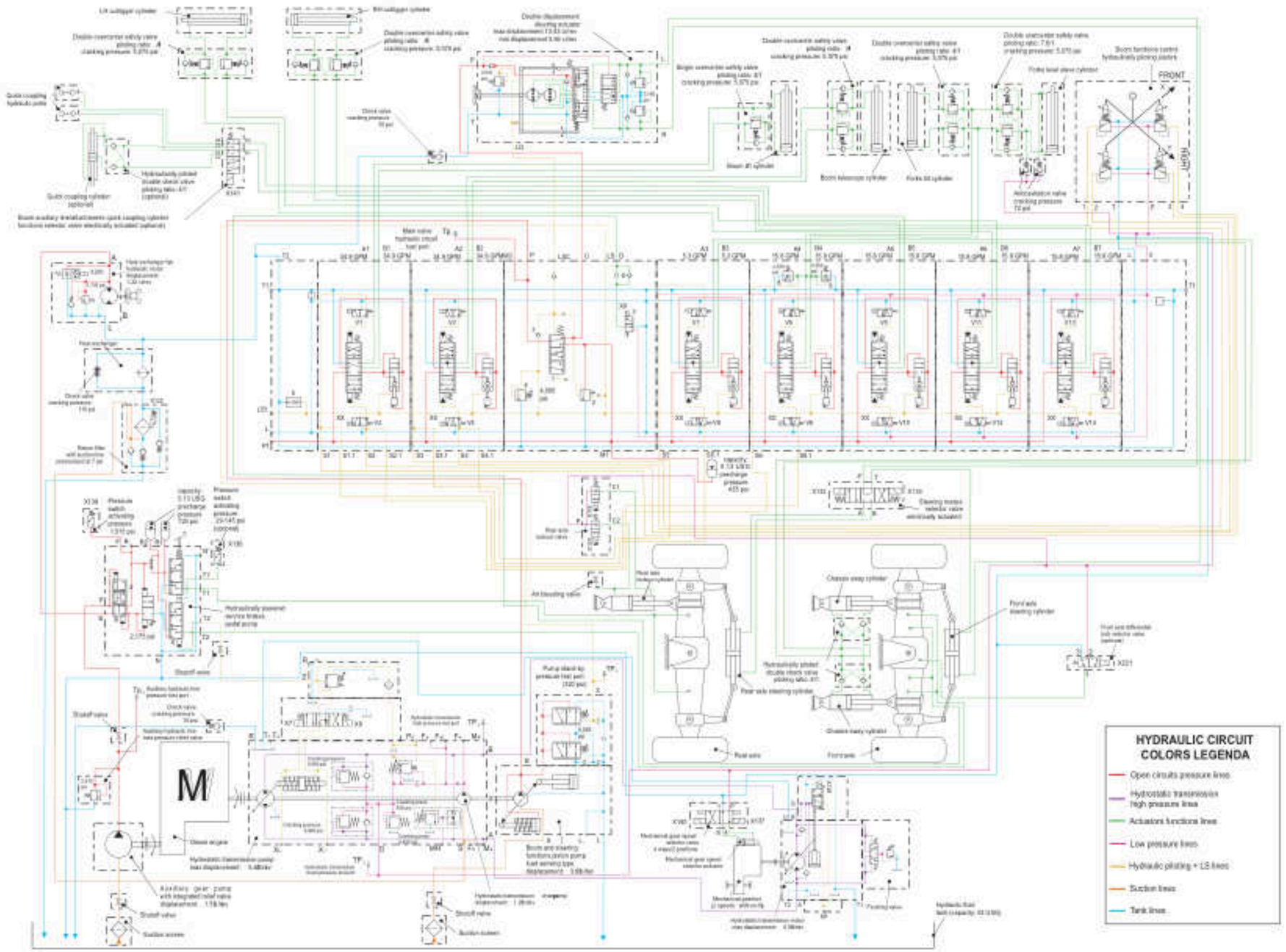


a boom tube number 1
b boom tube number 2
c boom tube number 3
d boom tube number 4
e extend cylinder
f retract chain tube number 1
g retract chain tube number 2
h tube number 1 retract chain tensioner
i tube number 2 retract chain tensioner

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Hydraulic Schematic - Deutz Engine

Deutz engine - Sheet 2 of 2



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