SERVICE MANUAL

LOADER
406, 407, 409

EN - 9813/3100 - ISSUE 4 - 04/2018

This manual contains original instructions, verified by the manufacturer (or their authorized representative).

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Foreword

The Operator's Manual

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You and others can be killed or seriously injured if you operate or maintain the machine without first studying the Operator's Manual. You must understand and follow the instructions in the Operator's Manual. If you do not understand anything, ask your employer or JCB dealer to explain it.

Do not operate the machine without an Operator's Manual, or if there is anything on the machine you do not understand.

Treat the Operator's Manual as part of the machine. Keep it clean and in good condition. Replace the Operator's Manual immediately if it is lost, damaged or becomes unreadable.

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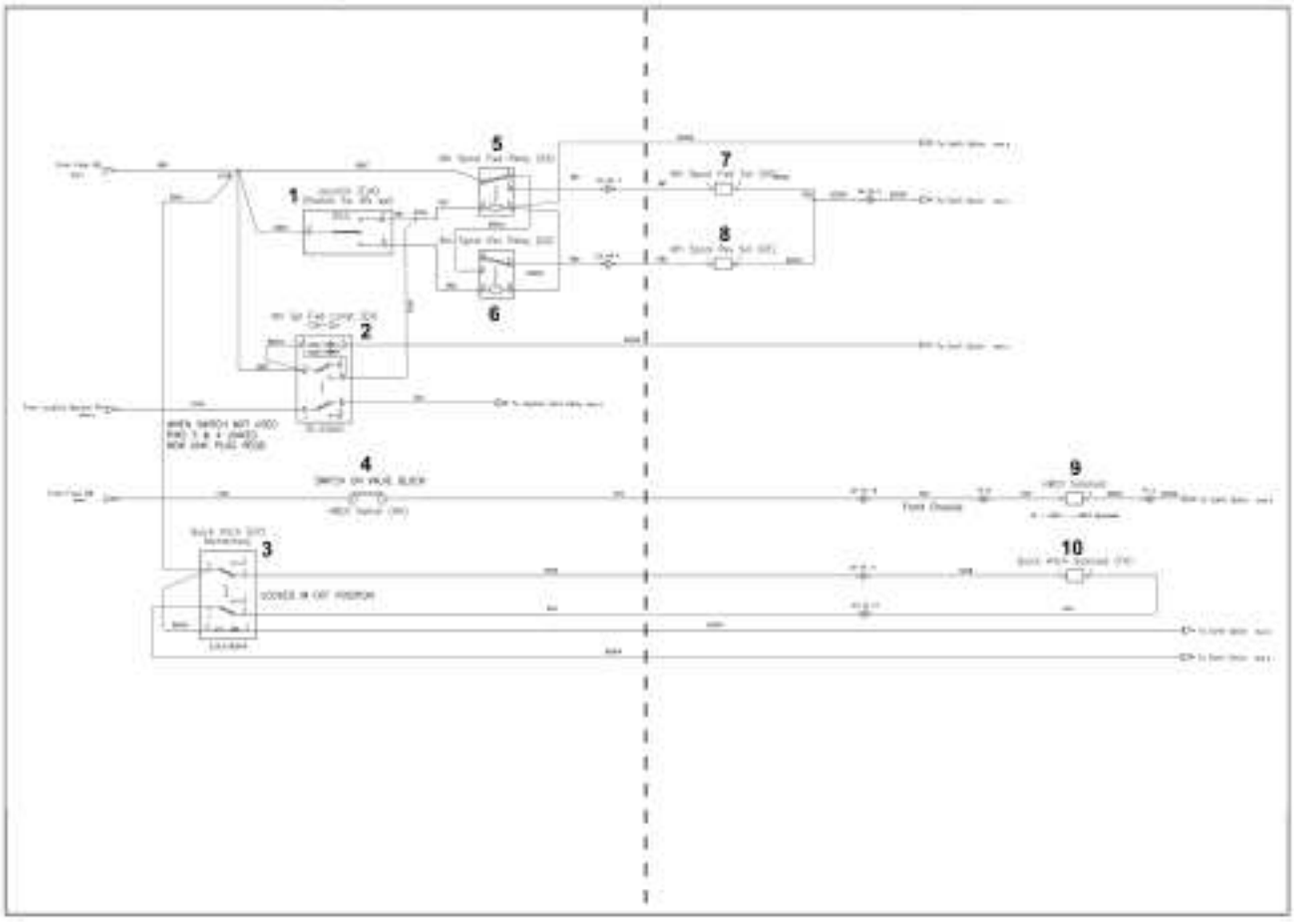
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Fault Code log

The fault code log can be read on the instrument panel LCD (Liquid Crystal Display). Alternatively use the JCB Servicemaster diagnostics tool.

Read the fault code log on the instrument panel LCD via the service menu. Use JCB Servicemaster and a laptop computer connected to machine CANbus to see the codes.

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Technical Data

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(For: 406 [T3])

Table 250.

Description	Data
Transmission pump	
Displacement	40 cc/RPM (Revolutions Per Minute)
Charge pressure setting	25 –28 bar (362.3 – 405.8 psi) @ 2800 RPM
Charge pump displacement	8 cc/RPM
High pressure settings	420 bar (6,086.9 psi)
Transmission motor	
Type	Bent axis, variable piston motor
Displacement	80 cc/RPM
High pressure settings	420 bar (6,086.9 psi)
Main hydraulic pump	
Type	Fixed displacement
Displacement	23 cc/RPM
Pump flow	65 L/min @ 2830 RPM
Maximum continuous pressure	230 bar (3,333.3 psi)
Fan pump	
Type	Fixed displacement
Displacement	5 cc/RPM
Pump flow	14 L/min @ 2830 RPM
Fan motor	
Type	Fixed displacement
Maximum fan speed	1650RPM @ 60 °C (139.9 °F) oil temperature
Lift arm control valve block	
Type	Sectional
Maximum flow	60 L/min
Service operated - Section 1[1]	Auxiliary 2
Service operated - Section 2[1]	Lift arm - lower
Service operated - Section 3[1]	Crowd - dump
Service operated - Section 4[1]	Auxiliary 1
PRV (Pressure Relief Valve) operating pressures	
MRV (Main Relief Valve)	230 bar (3,333.3 psi)
ARV (Auxiliary Relief Valve) - Crowd ram head end	150 bar (2,173.9 psi)
ARV - Crowd ram rod end	240 bar (3,478.2 psi)
ARV - Lift arm ram	300 bar (4,347.8 psi)
Steer relief valve	170 bar (2,463.8 psi)
Shock relief valve	225 bar (3,260.9 psi)
Capacities	
Hydraulic system pressure	250 bar (3,623.2 psi)

(1) (Viewed from the Inlet section. Right to Left as viewed on the machine.

Table 251. Cylinder rams

Description	Bore diameter	Rod diameter	Stroke length
Crowd ram	100 mm	50 mm	436 mm
Lift arm ram	100 mm	60 mm	611 mm
Steer ram	70 mm	30 mm	274 mm

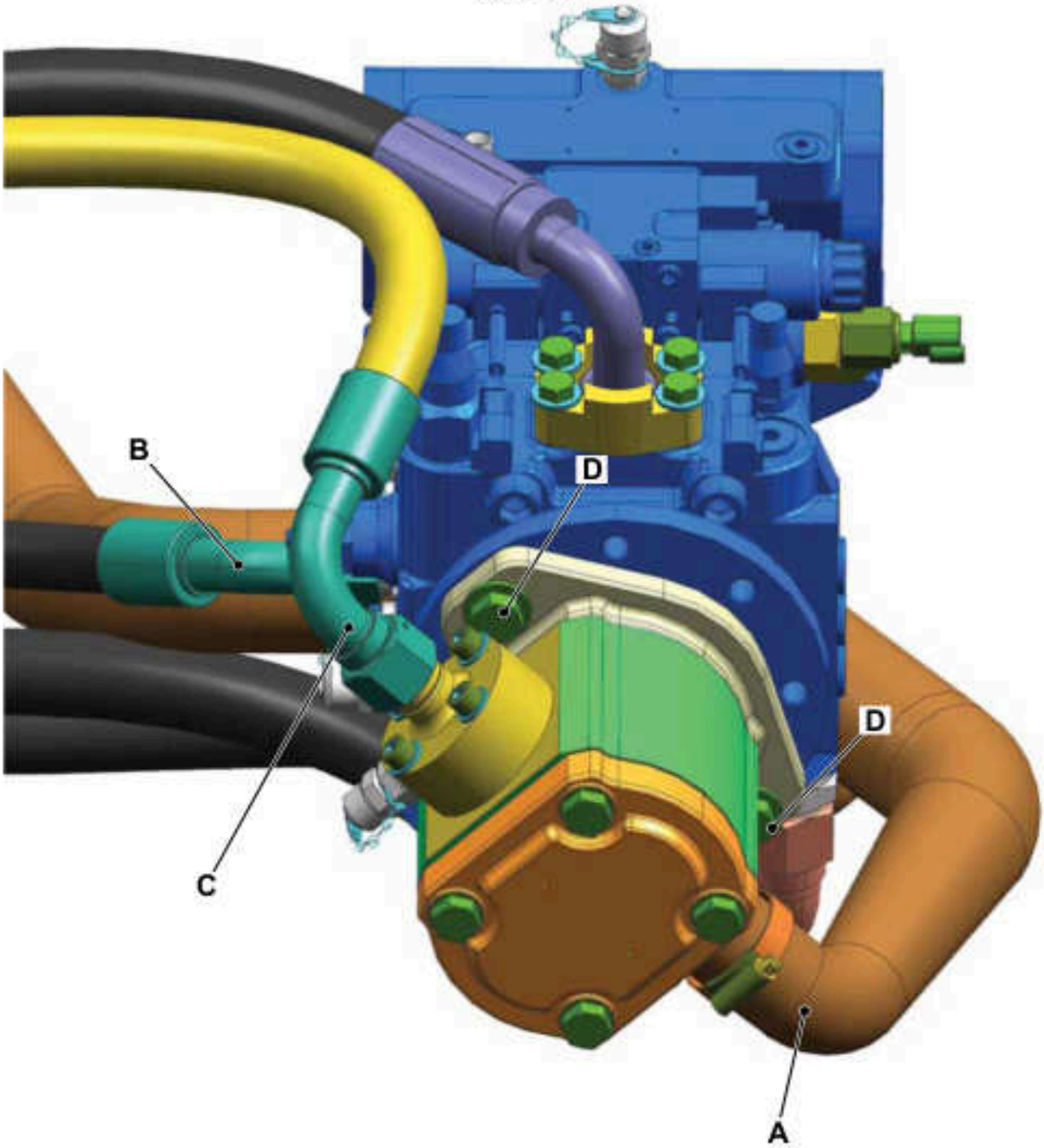
(For: 407 [T4F])

Table 252.

Description	Data
Transmission pump	
Displacement	40 cc/RPM
Charge pressure setting	25 –28 bar (362.3 – 405.8 psi) @ 2350 RPM
Charge pump displacement	8 cc/RPM
High pressure settings	420 bar (6,086.9 psi)
Transmission motor	
Type	Bent axis, variable piston motor
Displacement	80 cc/RPM
High pressure settings	420 bar (6,086.9 psi)
Main hydraulic pump	

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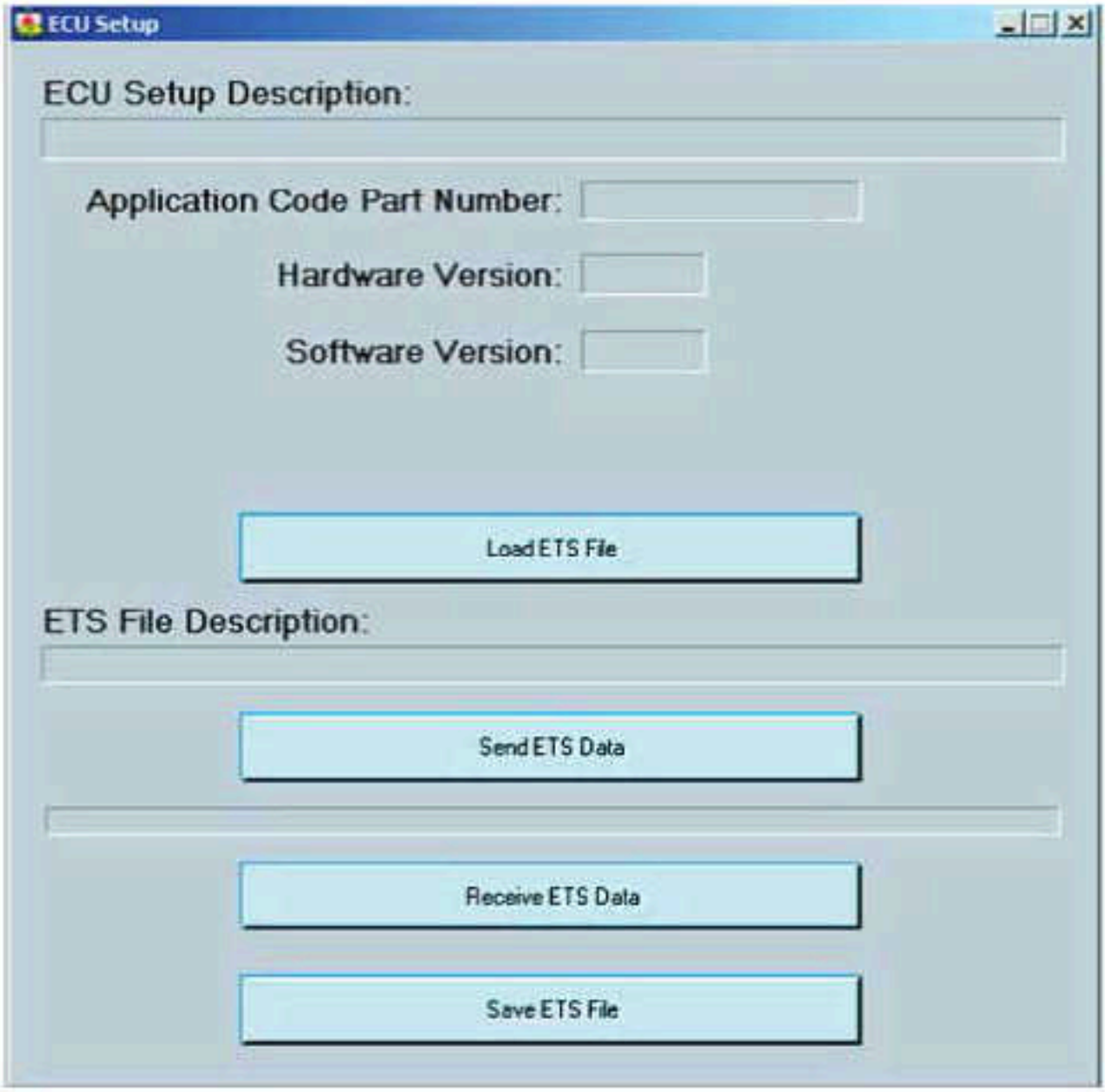
Figure 974.



A Suction hose
B Hydraulic pipe 1
C Hydraulic pipe 2
D Bolts

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Figure 1149.



ETS Function

The ETS function provides a means of loading and uploading gearbox ECU software setup files between the ECU and the computer. On earlier versions of servicemaster a separate program was required to perform this function. This is now incorporated within shiftmaster diagnostics 2.3. The setup files have a file name extension of ets.

- Load ETS File: A revision to the gearbox ECU software file may be supplied by JCB for installation on particular ECU models. Store the file on the computer which is to be connected to the gearbox ECU. The shiftmaster diagnostic program needs to open this file and obtain the software version and other applicable information to make sure it is compatible with the ECU connected to the computer.
- Send ETS Data: This allows the computer to send a software setup file to the gearbox ECU.
- Receive ETS Data: This reads the existing setup file from the gearbox ECU.
- Save ETS File: This saves the data received from the ECU onto the computer.

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