# SERVICE MANUAL

DUMPER
**10TFT, 9TFT, 9TST**

EN - 9813/5350 - ISSUE 2 - 01/2018

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

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# Foreword

## The Operator's Manual

⚠

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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# Technical Data

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(For: 9TFT)

**Table 133. Transmission**

| | |
|---|---|
| Transmission | Synchro Shuttle |
| Make | International Transmissions LTD (ITL) |
| Model | SS620 |
| Dry weight | 157kg |
| Torque converter stall ratio | 2.2:1 |
| Pump pressure | 13.5–15.5bar (195.7–224.6psi) |
| Clutch pressure | 12.5–15.5bar (181.2–224.6psi) |
| Torque converter safety valve pressure | 6.5–7.5bar (94.2–108.7psi) |
| Lubrication pressure | 0.5–2.5bar (7.2–36.2psi) |

**Table 134. Capacity**

| System | Temperatures | Viscocity | Specification | Capacity | Notes |
|---|---|---|---|---|---|
| ITL Synchro Shuttle Transmission | ALL | 10W | Shell Spirax S4 CX 10W | 13L | Check oil level with engine running at idle. Clean suction strainer at oil change. |

**Table 135. Converter Pressures**

| Converter pressures (in neutral) | | bar (psi) |
|---|---|---|
| Converter in at 50°C (121.9°F) | 1000 rpm | 2.4–3.4 (34.8–49.3) |
| | 2000 rpm | 5.2–6.5 (75.4–94.2) |
| Converter in at 100°C (211.9°F) | 1000 rpm | 1.3–2 (18.8–29.0) |
| | 2000 rpm | 5.2–5.9 (75.4–85.5) |
| Converter out at 50°C (121.9°F) | 1000 rpm | 1–1.7 (14.5–24.6) |
| | 2000 rpm | 6.5bar (94.2psi) Max |
| Converter out at 100°C (211.9°F) | 1000 rpm | 0.3–0.6 (4.3–8.7) |
| | 2000 rpm | 1–1.7 (14.5–24.6) |
| Converter inlet relief valve pressure (max) | | 6.5bar (94.2psi) |

**Table 136. Lubrication Pressures**

| Lubrication pressures (in neutral) | | bar (psi) |
|---|---|---|
| At 50°C (121.9°F) | 1000 rpm | 0.2–0.3bar (2.9–4.3psi) |
| | 2000 rpm | 0.4–0.7bar (5.8–10.1psi) |
| At 100°C (211.9°F) | 1000 rpm | 0.1–0.2bar (1.4–2.9psi) |
| | 2000 rpm | 0.3–0.6bar (4.3–8.7psi) |

**Table 137. Main Line Pressure**

| Main line pressure (in neutral) | | bar (psi) |
|---|---|---|
| At 50°C (121.9°F) | 1000 rpm | 9.3–10.3bar (134.8–149.3psi) |
| | 2000 rpm | 10.7–11.7bar (155.1–169.6psi) |
| | Full engine revs | 11–12.4bar (159.4–179.7psi) |



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## Check (Condition)

Examine the electrical circuits regularly for:

- Damaged connectors.
- Loose connections.
- Chafing on the wiring harnesses.
- Corrosion.
- Missing insulation.
- Incorrect routing of the wiring harnesses.

Do not use the machine if one or more of these faults are found. You must make sure that the electrical circuit is repaired immediately.

## Check (Operation)

Make sure that all the electrical equipment listed below operate correctly.

- Switches
- Warning lights
- Beacon
- Alarms
- Horn
- Wipers
- Hourmeter
- Battery
- Lights

All defective equipment must be repaired before the machine is used.



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## 90 - Fault Codes

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# Introduction

Should faults occur related to an ECU (Electronic Control Unit) or devices connected to it, the electronic system will generate the applicable fault codes. A complete list of fault codes is stored within the applicable Servicemaster tools set.

### Fault Code Structure

The structure of fault codes, otherwise known as DTC (Diagnostic Trouble Code)'s has been standardised to a 7 digit code for all on and off-highway machine and vehicle applications. The standard (referred to as J2012) requires all fault codes to conform to the following structure.

- 1st character - defines the system on the vehicle (e.g. P = Powertrain, C= Chassis, U = Network).
- 2nd and 3rd characters - defines the sub-system (e.g. transmission, CAN (Controller Area Network) network, brakes etc).
- 4th and 5th characters - specifies the particular component, circuit or fault (e.g. starter relay).
- 6th and 7th characters - referred to as the 'Failure Type Byte' (FTB) which indicates the particular failure (e.g. 11 = short circuit to ground). See FTB Numbers below for a full list.

Some specific fault codes are defined by international standard, while other codes may be defined by individual vehicle manufacturers.

### Fault Code Display Systems

Depending on the machine specification fault codes recorded by the engine ECU can be accessed and displayed in several ways:

### CAN Enabled Display

The machine may be equipped with a CAN enabled display. Such a display will be capable of displaying all recorded codes, for example P0047. All logged codes will be displayed. The operator may also have a facility to erase the fault code log. See the applicable machine documentation for further information.

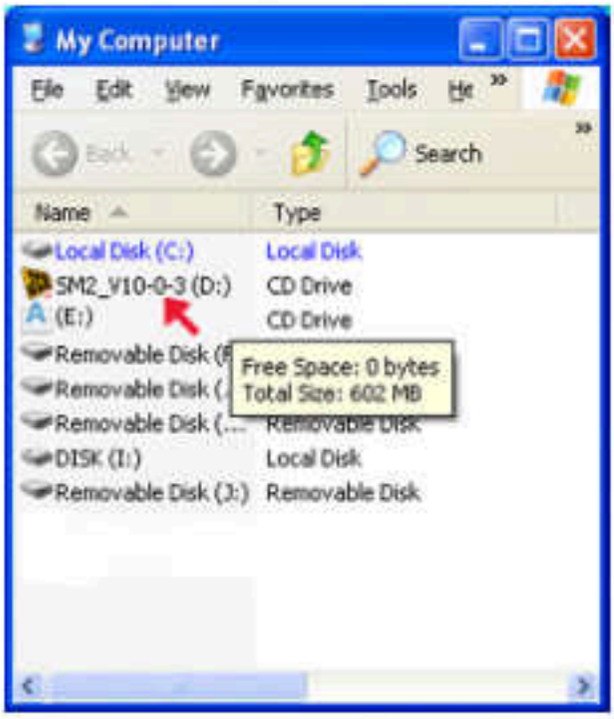
### CAN BUS Connected Computer

Fault codes logged can be accessed via a suitable laptop computer running the applicable diagnostics software, JCB 444 Engine Diagnostics for example. The computer must be connected to the machine CAN BUS socket using a DLA (Data Link Adaptor). Once connected all recorded codes can be displayed. The engineer also has a facility to erase the fault code log.



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Figure 737.




4. Select and open the "Setup.exe" application.
5. A new window "JCB Servicemaster Setup" will appear on the screen.
   5.1. Click the "Install V10.0.3" option to start the setup application. Refer to Figure 738.

Figure 738.




6. A new window "Select Setup Language" will appear on the screen. Refer to Figure 739.
   6.1. Use the drop down option to select the suitable language.
   6.2. Click the "OK" option to confirm selected language.

Figure 739.




7. A warning message window will appear on the screen. Refer to Figure 740.
   7.1. Click the "OK" option.

Figure 740.



8. A new window "JCB Servicemaster Installation Wizard" will appear on the screen. Refer to Figure 741.
   8.1. Click the "Next" option to proceed.

Figure 741.

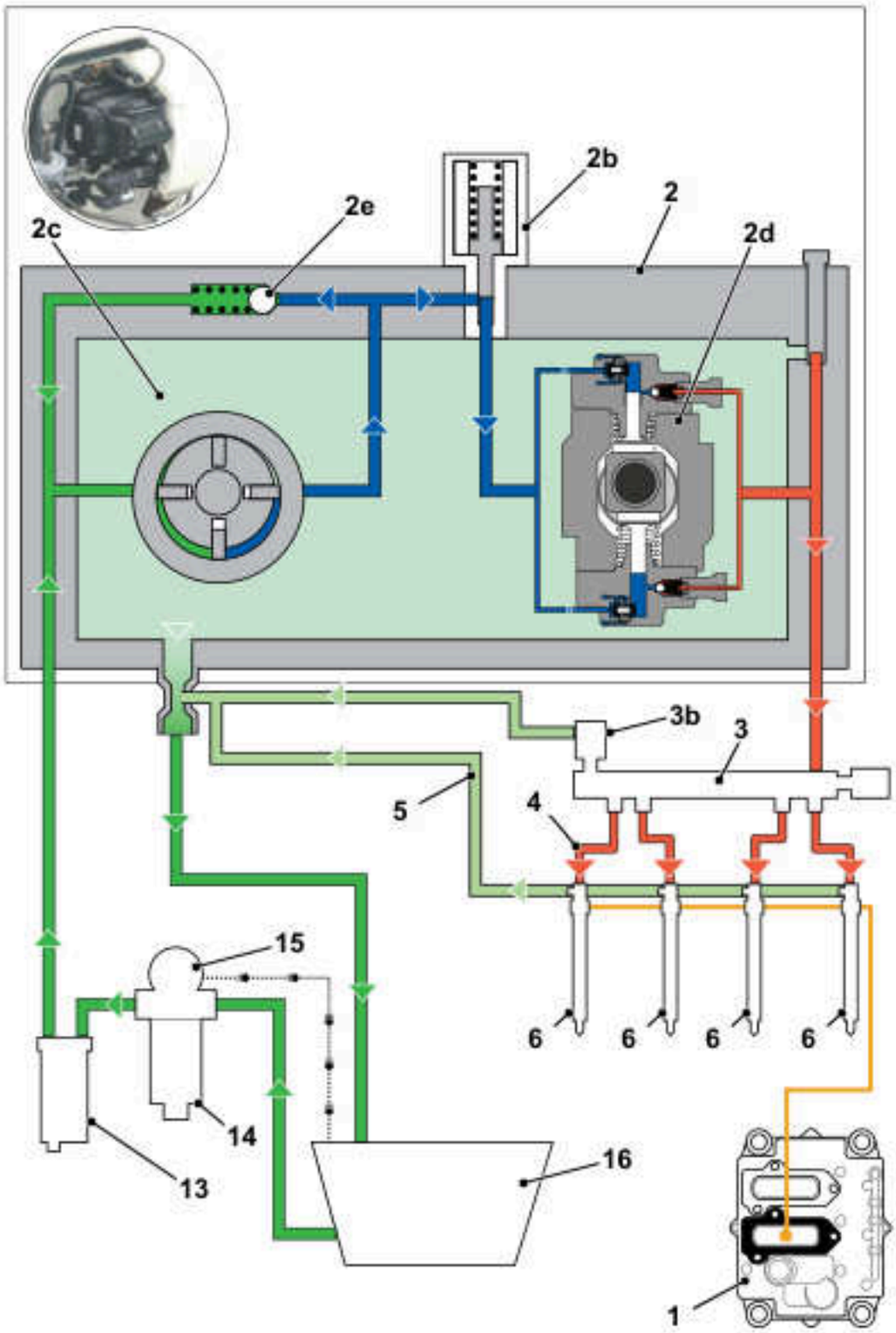



9. Put "User Name" and "Organization" details into the "Customer Registration" screen. Refer to Figure 742.
   9.1. Click the "Next" option when you inserted details.



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Figure 243.




1 ECM
2b IMV
2 Fuel high pressure pump
2c Fuel high pressure pump (transfer section)



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