SERVICE MANUAL

EXCAVATOR
67C-1

EN - 9813/3450 - ISSUE 2 - 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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Technical Data

Table 156. Auxiliary Circuit

Low flow	25 L/min
High flow at 2300 RPM (Revolutions Per Minute)	90 L/min

Table 157. Control Valve

Type	Nine, ten or eleven spool depending on machine options

Table 158. Relief Valve Settings

MRV (Main Relief Valve)	250 bar (3,623.2 psi)
Boom/Dipper/Bucket/Dozer/Swing	280 bar (4,058.0 psi)
Aux	190 bar (2,753.6 psi)

Table 159. Hydraulic Cylinders

Type	Double acting with screwed end caps and hardened steel bearing bushes. Boom and dipper rams are fully end damped.

Table 160. Filtration

Main return line	
Suction filter	125 micron
Return filter	10 micron

Table 161. Controls

Excavator	All servo lever operated to ISO (International Organization for Standardization) control pattern. Selectable SAE (Society of Automotive Engineers) control pattern optional.
Tracks	Individually servo operated by foot pedal or hand lever
Speed selection	Servo operated via a button on the dozer lever
Auxiliary	Electro hydraulic servo operated via a button or rocker on the joystick
Swing	Electro hydraulic servo operated via a button or rocker on the joystick
Control isolation	Full control isolation (excluding warm up procedure). Dual isolation via pod position and switch in side panel
Engine speed	Electronically controlled via rotary knob
Engine stop	Ignition key operated
Dozer	Electro hydraulic servo operated via a hand lever

Table 162. Service Capacities

Hydraulic System	92.5 L
Hydraulic Tank	57.2 L

Table 163. Slew Motor

Relief Valve	
Cracking Pressure	167 bar (2,420.3 psi) at 1 L/min
Speed Control Pressure	226 bar (3,275.4 psi) at 70 L/min
Displacement	43.4 cm3 per revolutions
Gear Ratio	1:20.9
Parking Brake Release Pressure	4.9 bar (71.0 psi)

Table 164. Excavator End

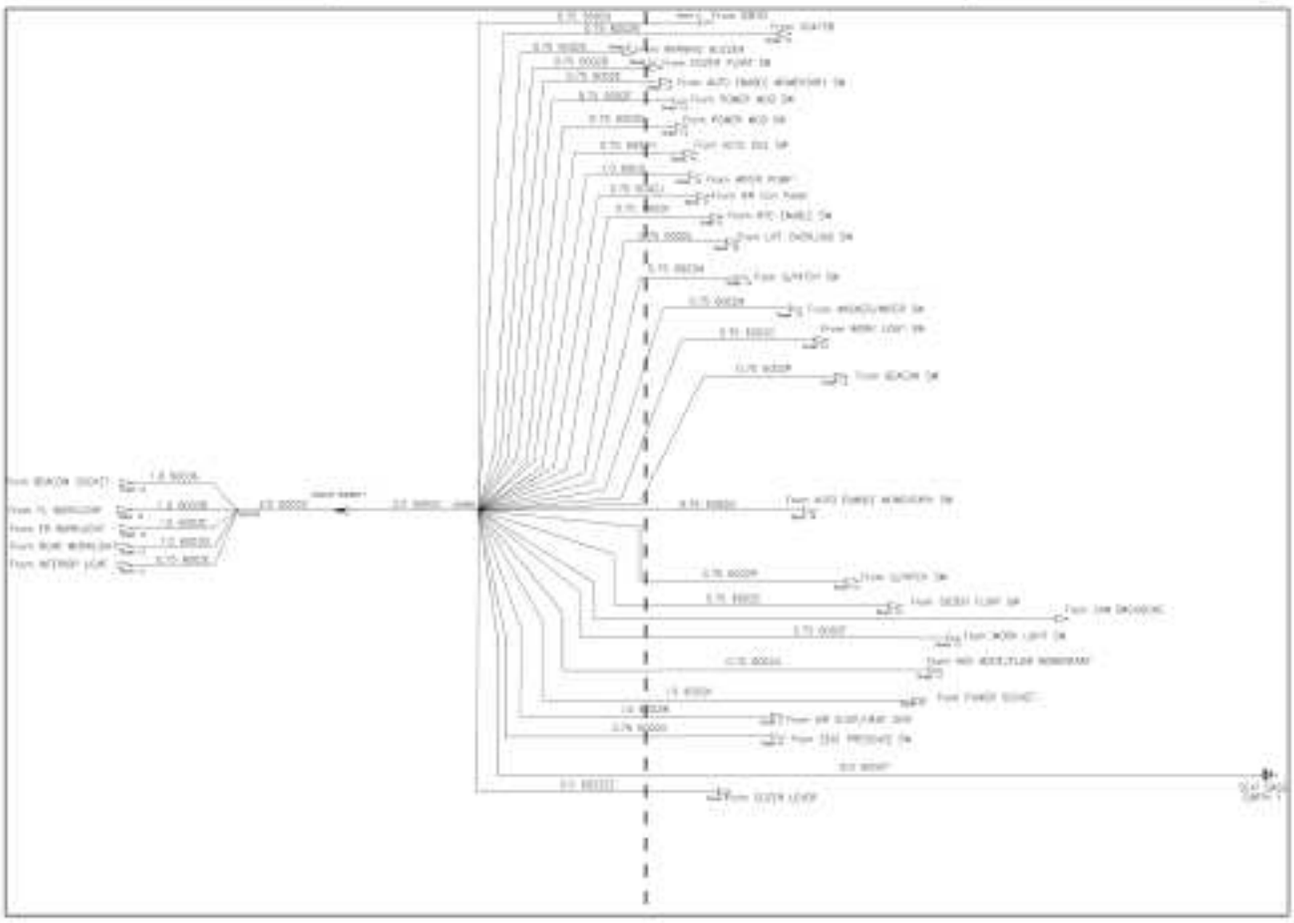
Mono boom
Cast tipping link
Boom up end damped, dipper out end damped
Swing end damped both directions

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Figure 831. Earths - Cab Roof and Seat Base - 334/T9599-2 (Sheet 16 of 17)

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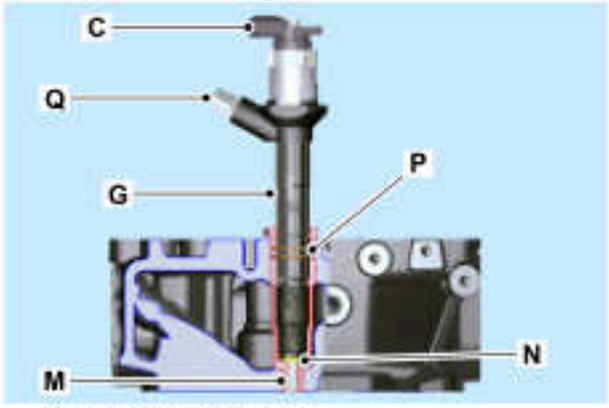


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Fault Code	Description	Warning display colour	Severity
B166A	Circuit Open - Dozer 4/6 Way Changeover Solenoid - OUTPUT_OPEN_LOAD	Error Code + Amber MIL	Service
B166B	Circuit Short To Ground - OUTPUT_SHORT_CCT	Error Code + Amber MIL	Service
B166C	Circuit Open - Seat Sw Relay - OUTPUT_OPEN_LOAD	Error Code + Amber MIL	Service
B166D	Circuit Short To Ground - OUTPUT_SHORT_CCT	Error Code + Amber MIL	Service
B166E	Circuit Open - Unused Output - OUTPUT_OPEN_LOAD	Error Code + Amber MIL	Service
B166F	Circuit Short To Ground - OUTPUT_SHORT_CCT	Error Code + Amber MIL	Service
B1670	Circuit Open - Unused Output - OUTPUT_OPEN_LOAD	Error Code + Amber MIL	Service
B1671	Circuit Short To Ground - OUTPUT_SHORT_CCT	Error Code + Amber MIL	Service
B1672	Circuit Open - Servo isolation Solenoid LS - OUTPUT_OPEN_LOAD	Error Code + Amber MIL	Service
B1673	Circuit Current Above Threshold - OUTPUT_OVER_CURRENT	Error Code + Amber MIL	Service
B1674	Circuit Open - Dozer solenoids 3&4 LS - OUTPUT_OPEN_LOAD	Error Code + Amber MIL	Service
B1675	Circuit Current Above Threshold - OUTPUT_OVER_CURRENT	Error Code + Amber MIL	Service
B1676	Circuit Open - LF Aux 'EP' Solenoid A&B LS - OUTPUT_OPEN_LOAD	Error Code + Amber MIL	Service
B1677	Circuit Current Above Threshold - OUTPUT_OVER_CURRENT	Error Code + Amber MIL	Service
B1678	Circuit Open - Reserved Unused Output - OUTPUT_OPEN_LOAD	Error Code + Amber MIL	Service
B1679	Circuit Current Above Threshold - OUTPUT_OVER_CURRENT	Error Code + Amber MIL	Service
B167A	Circuit Short To Ground - Dozer Float acknowledge switch contacts shorted together or to ground	Error Code + Amber MIL	Service
P0016	Signal Plausibility Failure - Crankshaft and Camshaft synchronous error		Critical
P0076	Circuit Voltage Below Threshold - Intake throttle position signal too low		Service

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Figure 433.

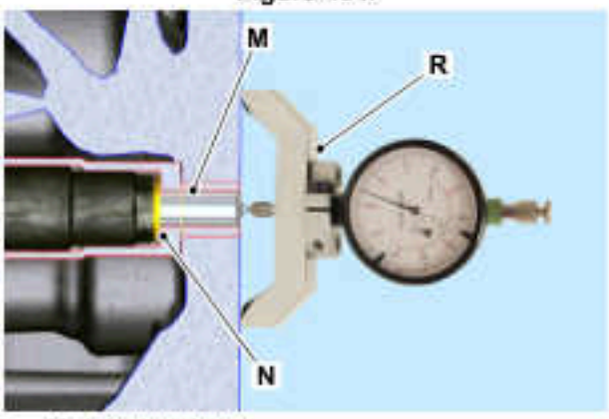


C Electrical connector
G Electronic injector
M Injector sleeve
N Gasket
P Gasket
Q High pressure pipe inlet

6. Make sure that you clamp the sleeve to the correct torque value.
7. Make sure that you put the injector into the sleeve.
8. Make sure that the injector is installed in the correct orientation, with the bleed-off port facing the right hand side (exhaust manifold) of the engine.
9. Make sure that you use a dial gauge to check that the projection of the electronic injector sleeve must be in the specified range.

   Length/Dimension/Distance: 1.68 –2.42 mm
   Special Tool: Tool for protrusion of pistons, injectors and glow plugs (Qty.: 1)

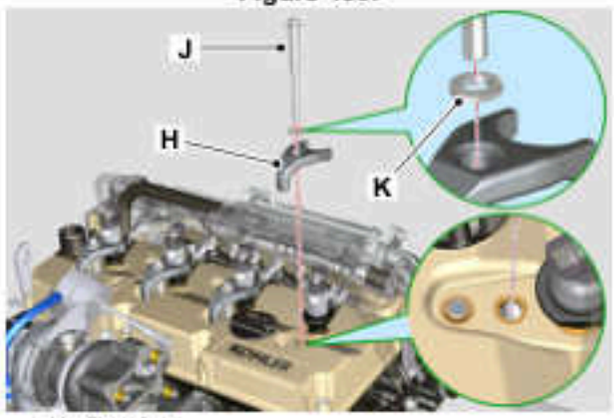
Figure 434.



M Injector sleeve
N Gasket
R Dial gauge

10. Install the rocker arm pin fixing screw.
11. Position the electronic injector fixing bracket and secure it with a screw and washer.

Figure 435.



H Bracket
J Screw
K Washer

12. Tighten the injector fixing bracket screw to the correct torque value.
13. Attach the fuel return pipe fitting to the injector head.
14. Connect the electrical connector.

Note: If the injector projection does not fall into the specified range then replace the gasket, on the base of the injector sleeve and repeat the inspection.

After Installation

1. Replace the rocker cover.
   Refer to: PIL 15-42-06.
2. Renew the high pressure fuel pipes.
   Refer to: PIL 18-96-03.
3. Start the engine and check for fuel leaks.

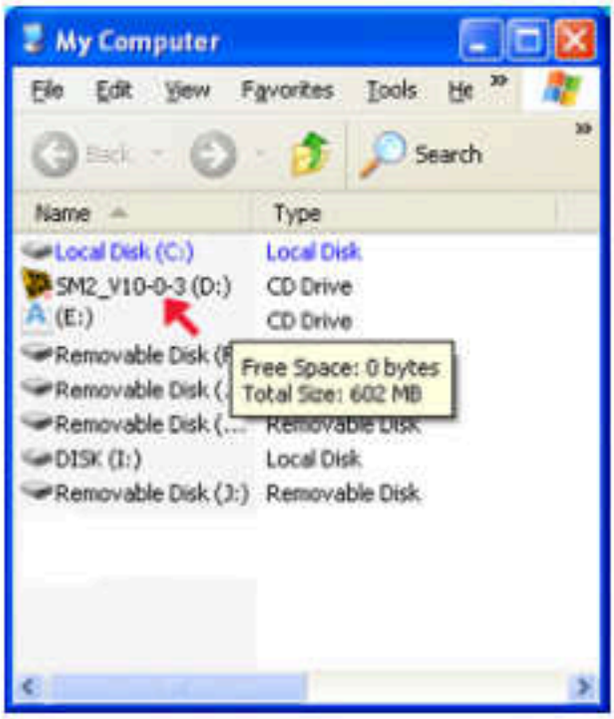
Table 118. Torque Values

Item	Nm
M	30
J	20

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3. Select and open the "SM2_V10-0-3 (D:)" CD drive to explore its contents. Refer to Figure 1013.

Figure 1013.



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 1014.

Figure 1014.



6. A new window "Select Setup Language" will appear on the screen. Refer to Figure 1015.

   6.1. Use the drop down option to select the suitable language.

   6.2. Click the "OK" option to confirm selected language.

Figure 1015.



7. A warning message window will appear on the screen. Refer to Figure 1016.

   7.1. Click the "OK" option.

Figure 1016.



8. A new window "JCB Servicemaster Installation Wizard" will appear on the screen. Refer to Figure 1017.

   8.1. Click the "Next" option to proceed.

Figure 1017.



9. Put "User Name" and "Organisation" details into the "Customer Registration" screen. Refer to Figure 1018.

   9.1. Click the "Next" option when you inserted details.

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