SERVICE MANUAL

LOADALL (ROUGH TERRAIN VARIABLE REACH TRUCK)
531-70, 535-95, 541-70

EN - 9813/9050 - ISSUE 1 - 01/2018

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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09 - Description

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12 - Pulley

Remove and Install

Special Tools

Description	Part No.	Qty.
Torque Wrench (10-100Nm)	993/70111	1

Before Removal

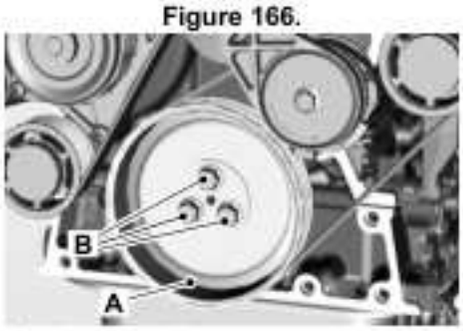
This procedure requires service parts. Make sure you have obtained the correct service parts before you start, refer to the Parts Catalogue.

1. Make the machine safe.
   Refer to: PIL 01-03.
2. Make sure that the engine is safe to work on. If the engine has been running, let it cool before you start the service work.
3. Get access to the engine.
4. Remove the drive belt.
   Refer to: PIL 15-18-03.

Remove

1. Remove the fixing bolts and withdraw the pulley from the crankshaft.

Figure 166.



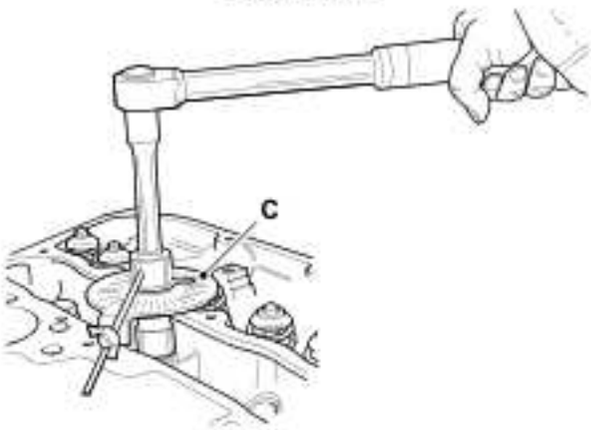
A Crankshaft pulley
B Fixing bolts (x3)

2. The bolts must not be reused. Discard the bolts.

Install

1. The installation procedure is the opposite of the removal procedure. Additionally do the following steps.
2. Make sure that all items are clean and free from damage and corrosion.
3. Replace the fixing bolts. Tighten the bolts in two stages to the correct torque value.
   Special Tool: Torque Wrench (10-100Nm) (Qty.: 1)
4. The bolts are tightened using a torque and angle method.
   Refer to: PIL 72-00-00.

Figure 167.



C Angle gauge (obtain locally)

After Replacement

1. Install the drive belt.
   Refer to: PIL 15-18-03.

Table 66.

Item	Torque Value (Nm)	Torque Angle (Degrees)
B (1st stage)	75N·m	
B (Final stage)		90°

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50 - Schematic Circuit

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Introduction

A schematic wiring diagram is a simplified pictorial representation of the machines hydraulic circuit. It shows the components of the circuit as simplified hydraulic symbols, and the connections between the different components. The schematic diagram is used to troubleshoot problems and to make sure that all the connections have been made and that everything is present. Detailed schematics for individual systems are given in the relevant PIL section.

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Technical Data

Dimensions

Figure 1238.

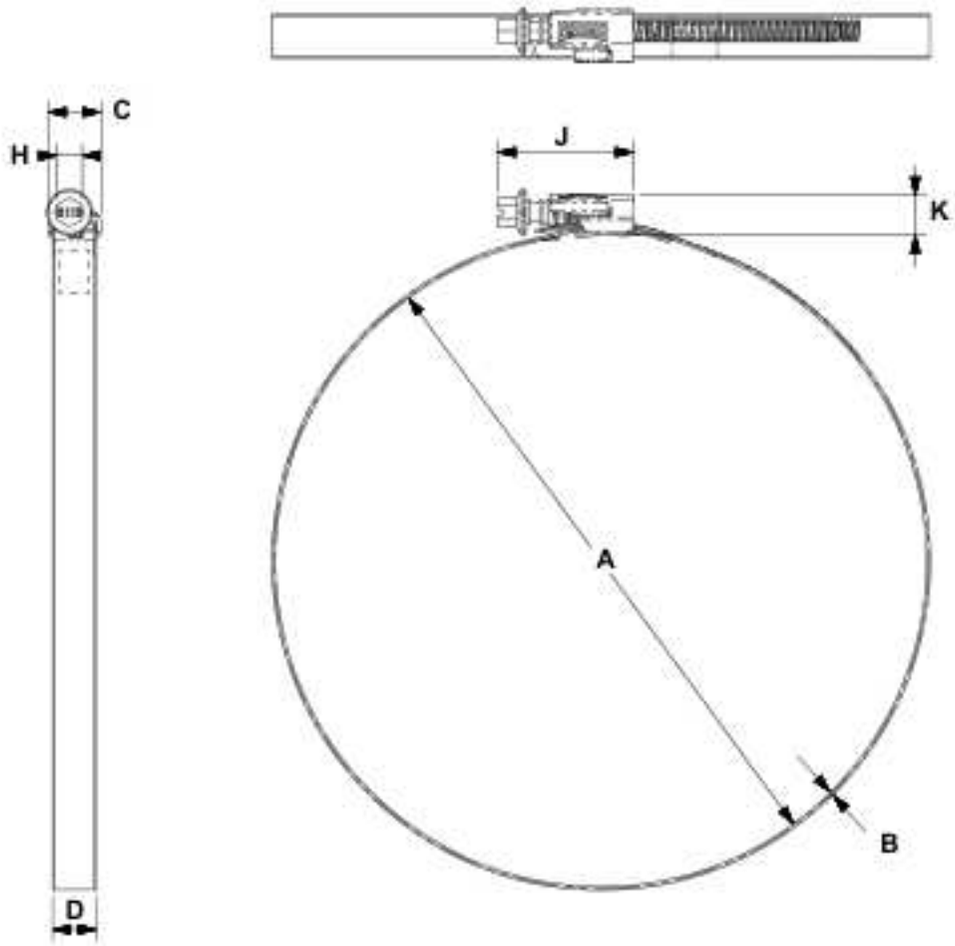


Table 582.

A Clamping range	B Band thick-ness	C Housing width	D Band width	H Hex size across flats	J Bolt and housing length	K Bolt and housing overall height
Standard worm drive clips and spring assisted worm drive clips						
8–16mm	0.7mm	13mm	9mm	7mm	21mm	11mm
12–22mm					21mm	
16–27mm up to 60–80mm	0.8mm	14.6mm	12mm		30mm	12.5mm
70–90mm up to 160–180mm					36mm	

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60 - Pilot Pressure Supply Main

Remove and Install

Remove

1. This procedure applies to servo pilot pressure valves installed from machine serial number 2472234 onwards.
2. Make the machine safe.
   Refer to: PIL 01-03.
3. Remove the cab side panel. Refer to Figure 726.

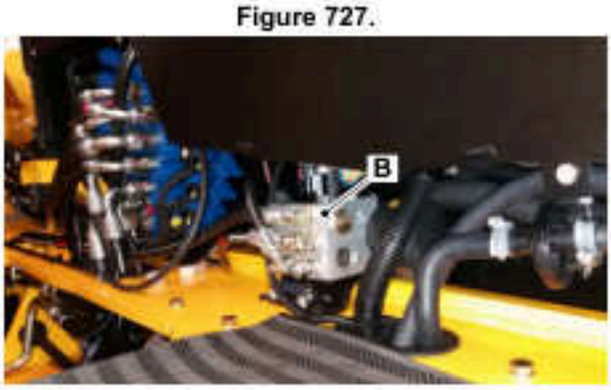
Figure 726.



A Cab side panel

4. Identify the servo pilot pressure valve under the cab. Refer to Figure 727.

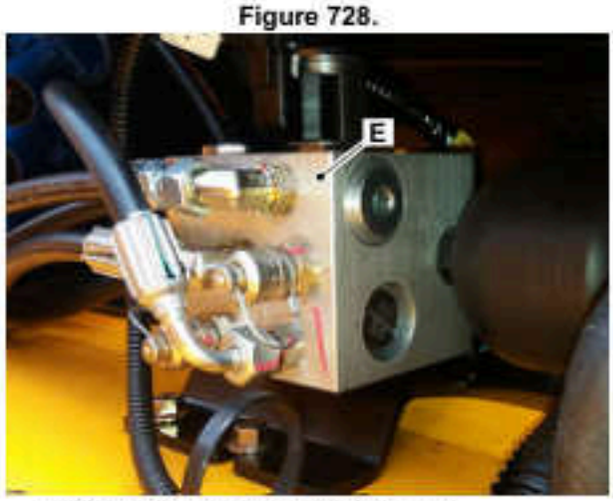
Figure 727.



B Servo pilot pressure valve

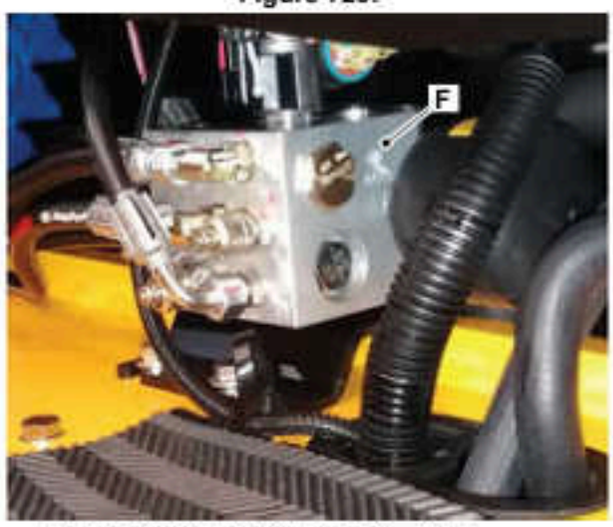
5. Discharge the hydraulic pressure .
   Refer to: PIL 30.
6. Refer to Refer to Figure 728. and Refer to Figure 729. for old and new servo pilot pressure valves.

Figure 728.



E Servo pilot pressure valve - Old

Figure 729.

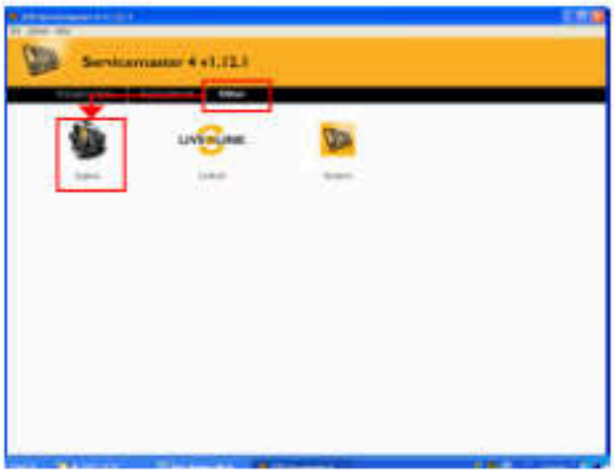


F Servo pilot pressure valve - New

7. Unscrew and remove the filter cartridge. Be aware that there could be some residual hydraulic pressure. Refer to Figure 730.

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Figure 1101.



3. Make sure that the correct DLA is selected in the chooser. Click on Utilities, DLA Setup. The DLA Chooser window opens. Check the button to match to the Current Device. Click Apply.

4. Select the required machine range.

Figure 1102.



5. The Flashloader tool will then open.

Figure 1103.



Using Flashloader

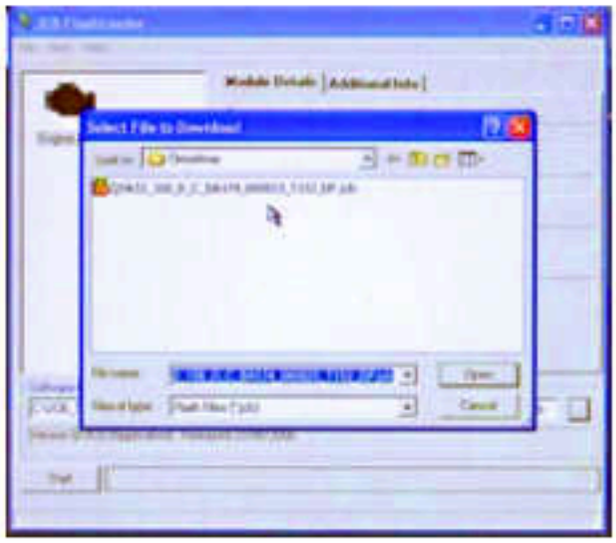
Important: Do not turn off the ignition or isolate the system by accidentally engaging the operators seat isolation switch when using the flashloader. This will interrupt the flash signal to the ECM and will irreparably damage the ECM.

1. Make sure that the machine ignition switch is set to ON but do not start the engine.

2. Click on the ECM icon.

3. Click on the Browse button and select the correct data file. Click Open.

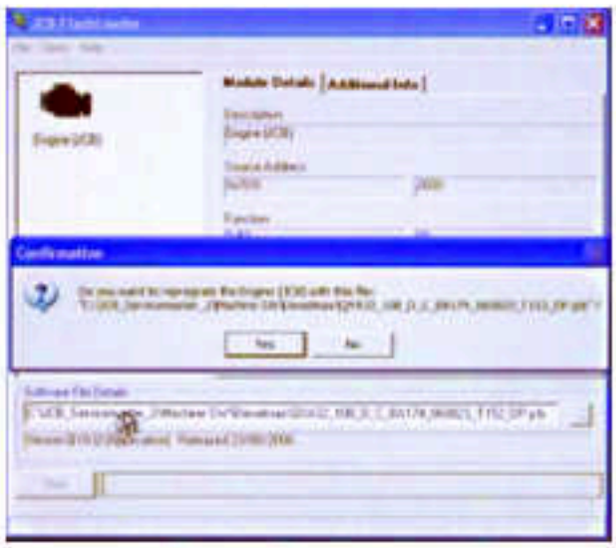
Figure 1104.



4. Click on the Start button. A confirmation window will appear. Click on the Yes to start the reprogramming of the ECM. The progress bar is displayed.

5. When the programming is complete switch the machine ignition to the OFF position. Important: Re-flashing the ECM changes the base programme. Re-flashing the ECM does not configure the machine settings such as fuel injector calibration codes, and other machine specific options.

Figure 1105.



6. Before starting the engine make sure that the machine setup data is correct. You must check that all other relevant machine settings are correctly configured. Use the setup software tool.

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