

John Deere 755K Crawler Loader Operation & Test Technical Manual - TM14324X19

755K Crawler Loader Diagnostic

(PIN: 1T0755KX__F339207—)



JOHN HARE



COLLECTION

OPERATION & TEST TECHNICAL MANUAL 755K Crawler Loader (PIN: 1T0755KX__F339207—)

TM14324X19 30NOV19 (ENGLISH)

For complete service information also see:

PowerTech 6068 OEM Diesel Engines (Final Tier 4/Stage IV platform) Level 33 ECU.....	ctm120019
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JDLink™ (MTG) 4G LTE Technical Manual.....	tm143019
Hydraulic Cylinders.....	9519



Worldwide Construction and
Forestry Division

Covers: 755K,1T0755KX__,_F339207 (7 icons)

Type: Service Manual

Language: English

Pages: 730

Format: PDF

Features: Bookmarked, searchable, printable

Compatibility: Windows/Mac/Tablet/Mobile

This service manual contains important information for the maintenance, troubleshooting and servicing of the **John Deere 755K Crawler Loader Operation & Test Technical Manual - TM14324X19**

In this manual you will find detailed specifications, illustrations, schematics, diagrams and step-by-step procedures to properly service and diagnose the machine to the manufacturer's standards.

Contents:

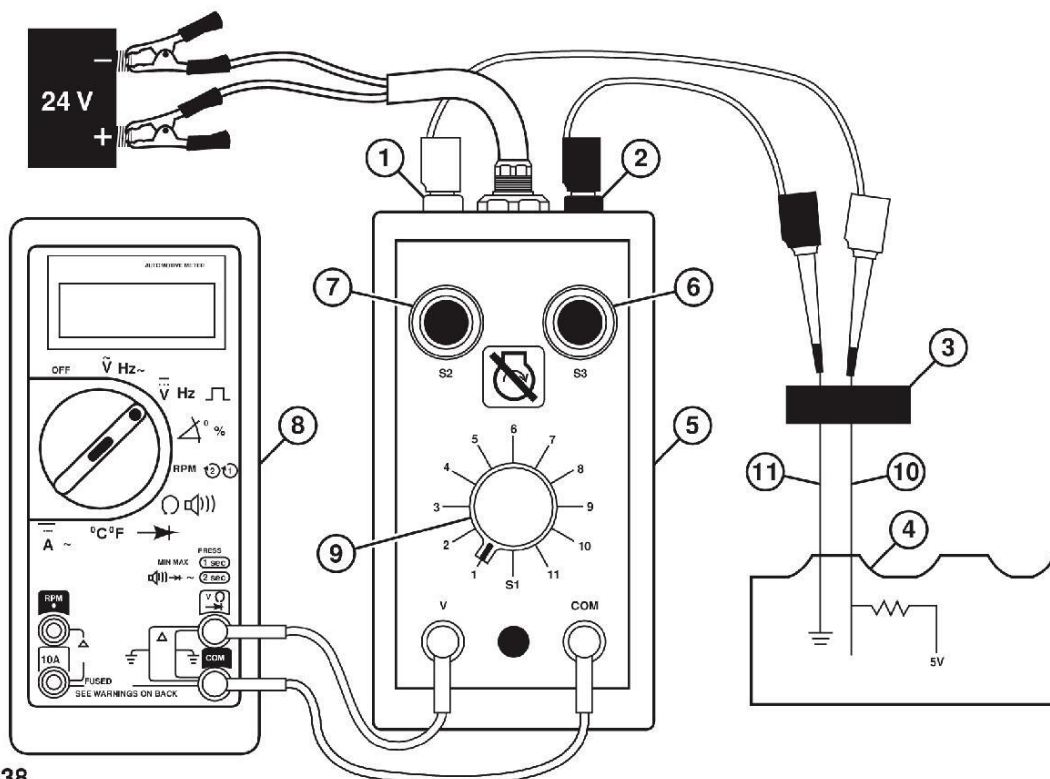
- General Information
- Specifications
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- and much more...

Please note this manual is in **downloadable PDF format only**. If you have any questions about this product or would like to request sample pages, please contact us and reference the product name or SKU.

Two Wire Sensor Circuit Check—Out of Range Low

This condition can be caused by:

- Signal wire short to ground
- Sensor malfunction



TX1137638

TX1137638-UN: Two Wire Test Box Setup

LEGEND:

- 1-Terminal A (yellow)
- 2-Terminal B (blue)
- 3-Sensor Harness Connector
- 4-Control Unit

- 5-JDG10273 Diagnostic Test Box
- 6-S3 Switch
- 7-S2 Switch
- 8-Digital Multimeter

- 9-S1 Switch
- 10-Signal Wire
- 11-Ground Wire

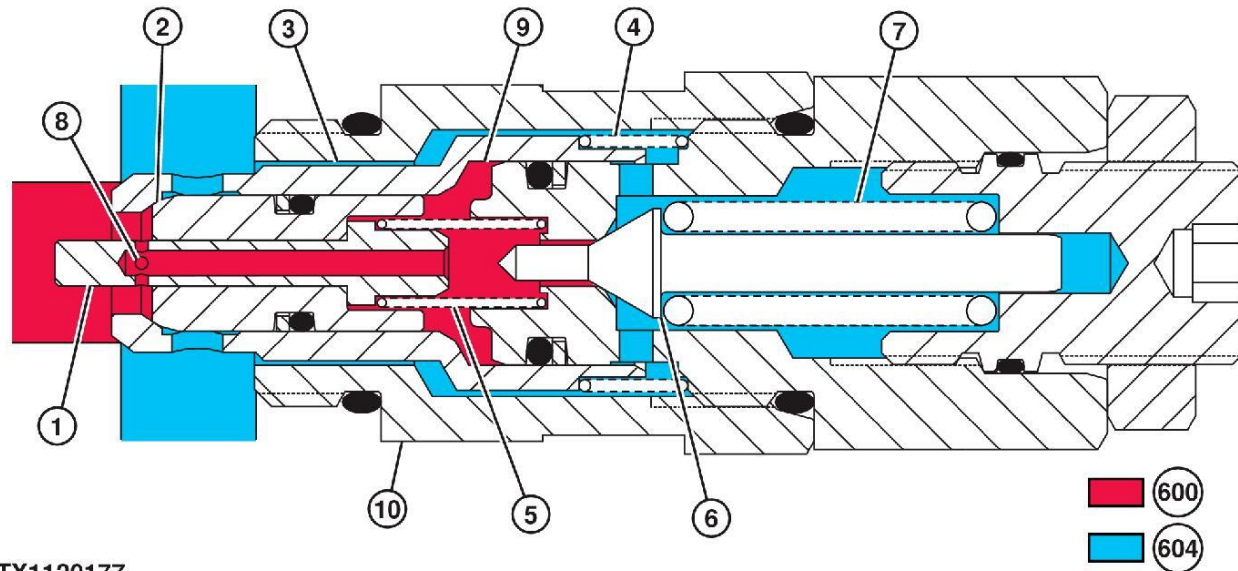
1. [Perform Setup and Functional Test.](#) (Group 9015-17.)
2. Disconnect sensor.
3. Using wire leads and flex probe kit, connect JDG10273 Diagnostic Test Box (5) to terminals of sensor harness connector (3) as follows:
 - Test box V terminal to digital multimeter (8) V+ terminal
 - Test box COM terminal to digital multimeter COM terminal
 - Test box terminal A (1) to sensor harness connector signal wire terminal
 - Test box terminal B (2) to sensor harness connector ground wire terminal
4. Connect Service ADVISOR™. [See Service ADVISOR™ Connection Procedure.](#) (Group 9015-15.)
5. View appropriate Service ADVISOR™ reading as indicated by diagnostic procedure.
6. Set digital multimeter to measure voltage.
7. Set S1 switch (9) on test box to number as indicated by diagnostic procedure.
8. Compare voltage on digital multimeter to Service ADVISOR™ reading.

Result	Condition	Action
voltages match (within 0.2 volts).	Sensor malfunction.	Replace sensor.
Digital multimeter is less by 0.2 volts.	Signal wire is short to ground.	Repair signal wire.

Service ADVISOR is a trademark of Deere & Company

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Circuit Relief Valve With Anticavitation Operation



TX1120177

TX1120177-JN: Circuit Relief With Anticavitation

LEGEND:

1-Piston

2-Main Poppet

3-Anticavitation Poppet

4-Anticavitation Spring

5-Main Spring

6-Pilot Poppet

7-Pilot Spring

8-Orifice

9-Cavity

10-Relief Body

600-High-Pressure Oil

604-Return Oil

The circuit relief valves protect the boom raise, bucket dump, bucket curl, ripper raise and lower, and multipurpose bucket open and close circuits. The valves are adjustable, with anticavitation operation.

The relief valve setting is controlled by the pilot spring (7) holding the pilot poppet (6) on its seat. The setting is adjustable by loosening the lock nut and rotating the adjustment cap clockwise to increase or counterclockwise to decrease the pressure setting.

In normal operation, high-pressure oil (600) at less than the relief valve setting flows through the orifice (8) in the piston (1) into the cavity (9), then behind the anticavitation poppet (3) and main poppet (2). This high-pressure oil (600) and the springs hold the main poppet (2) and the anticavitation poppet (3) closed, because the effective areas of the poppets on the cavity side are greater than on the work port side.

In relief operation, high-pressure oil (600) overcomes the pilot poppet (6), and oil flows from the pressurized port, through the orifice (8), into the cavity (9), past the pilot poppet (6), to the tank, through a path between the relief body (10) and the anticavitation poppet (3). The pressure drop through the orifice (8) causes a pressure difference across the piston (1), which causes the piston to move against the main spring (5) until it rests on the pilot poppet (6). This movement shuts off the orifice (8) and further reduces the pressure in the cavity (9). When the pressure difference is large enough to overcome the pressure holding the main poppet (2) on its seat, oil is allowed to flow from the work port to the return port.

During anticavitation operation, the high-pressure oil (600) in the work port and the cavity (9) is less than the pressure in the return port. This pressure difference overcomes the pressure holding the anticavitation poppet (3) on its seat, and oil is allowed to flow from the return port to the work port to prevent cavitation.

For more information on the hydraulic circuit, [see Hydraulic System Schematic](#). (Group 9025-10.)

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Thank you very much
for your reading.
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to get more information.