

John Deere 644K 4WD Loader w.Engines 6068HDW80, 6068HDW83 Service Repair Technical Manual (TM10695)

**E18ZS Excavator
Operation and Test**

(PIN: WNCE018A_
_D016000—)



JOHN HARE



COLLECTION

**OPERATION & TEST TECHNICAL MANUAL
E18ZS Excavator (PIN: WNCE018A__D016000—)**

TM14361X19 01DEC18 (ENGLISH)

For complete service information also see:

E185ZS Excavator omt474367x19
E18ZS Excavator Repair TM14362X19



John Deere Tianjin
Construction Works

Covers: 644K,642443)

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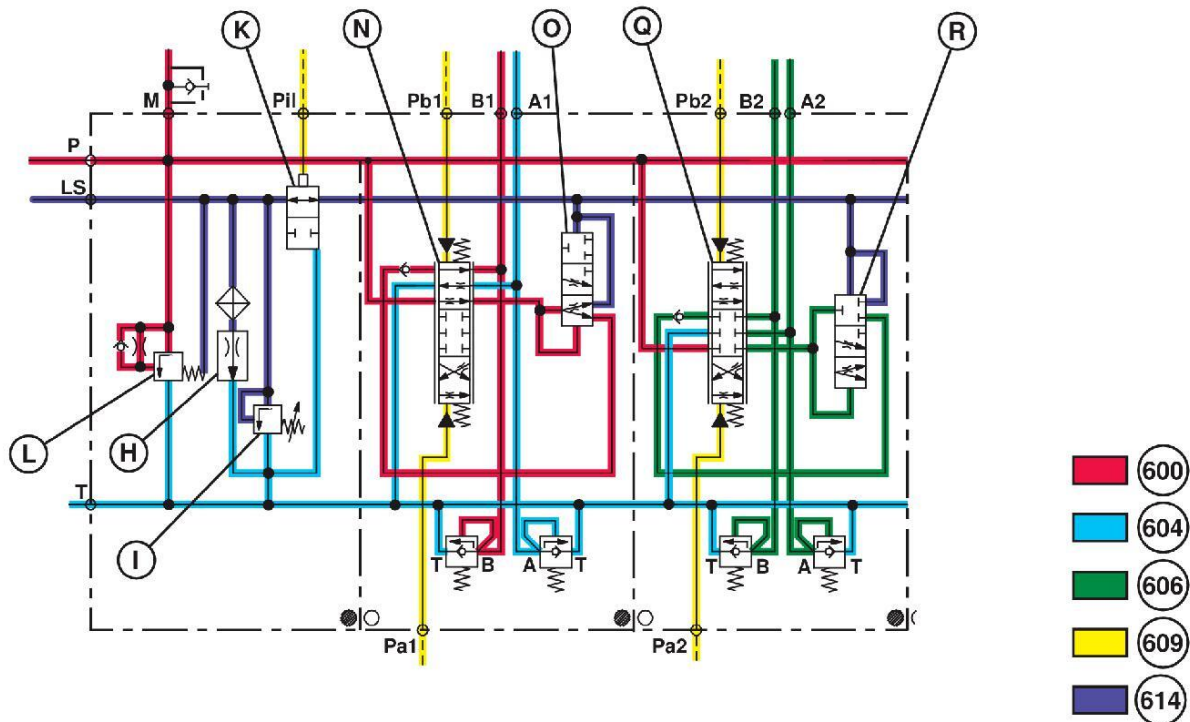
This service manual contains important information for the maintenance, troubleshooting and servicing of the **John Deere 644K 4WD Loader w.Engines 6068HDW80, 6068HDW83 Service Repair Technical Manual (TM10695)**

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
- Serial Number Location
- Engine Specifications
- Engine Diagnostics
- Engine Tests and Adjustments
- Engine Repair
- Power Train
- Transmission
- Axles
- Differential
- PTO
- Hydraulic System
- Electrical System
- Electrical Tests and Diagnostics
- Wiring Diagram / Schematic
- Ignition and Charging
- Steering
- Brakes
- Wheels
- Operator's Platform
- Body Panels
- Disassembly and Assembly
- Diagnostics, Tests and Adjustments
- Troubleshooting
- 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.



YN1271058-UN: Load Sense Schematic

LEGEND:

- H-Flow Control Valve**
- I-Pressure Limiting Valve**
- K-Safety Valve**
- L-Unload Valve**
- N-Boom Spool Valve**

- O-Signal Replication Valve**
- Q-Arm Spool Valve**
- R-Signal Replication Valve**
- 600-High-Pressure Oil**
- 604-Return Oil**

- 606-Trapped Oil**
- 609-Pilot Control Oil**
- 614-Load Sense Oil**

For example, when the boom is operating, pilot oil flows through the pilot solenoid valve to the safety valve (K). Safety valve is opened and connected in the upper position. Boom spool valve (N) moves downward and the hydraulic oil flows through the boom spool valve to the signal replication valve (O). Signal replication valve is a proportional valve. Hydraulic oil moves the signal replication valve upwards. Signal replication valve is opened. Hydraulic oil enters the load sense oil line upwards and returns to the spool valve downward. After flowing through the spool valve twice, hydraulic oil enters the boom cylinder. The boom begins to operate and the load sense signal is formed

Safety Valve:The safety valve is controlled by the pilot solenoid valve. If the safety valve is not open, the load sense oil line is shutoff. The end of the load sense oil line is also shutoff so the hydraulic oil cannot flow through any signal replication valves. All signal replication valves cannot move. Even if the spool valve is opened, the hydraulic oil cannot flow through the spool valve twice. All operations will stop.

Unload Valve:Load sense pressure acts on the unload valve. Under the action of the spring force and the load sense pressure, the valve closes quickly. The main hydraulic oil line pressure increases rapidly. The relief pressure of unload valve also increases. Unload valve acts as a main relief valve at this time.

Flow Control Valve:Flow control valve is connected in parallel in the load sense oil line to release pulse.

Pressure Limiting Valve:The pressure limiting valve limits the pressure of the load sense. By limiting the pressure of the load sense, it limits the opening pressure of the unload valve when there is a load.

Hydraulic Oil Distribution



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for your reading.
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to get more information.