John Deere 4555, 4560, 4755, 4760, 4955, 4960 Tractors Diagnosis and Tests Service Manual (tm1461)

4555, 4755, 4955
and
4560, 4760, 4960
Tractors
Operation and Test

For com also see:
4555-4955 and 4
Repair . . . . . .
6076 Engines. . . . . .
Radial Piston Pumps . .
Engine Accessories CTM11
MFWD Axles 1100 Series CTM17

John Deere Waterloo Works
TM1461 (21MAY01)
LITHO IN U.S.A.
ENGLISH

Covers: 4555,4560,4755,4760,4955,4960

Type: Service Manual
Language: English
Pages: 1000
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 4555, 4560, 4755, 4760, 4955, 4960 Tractors Diagnosis and Tests Service Manual (tm1461)**

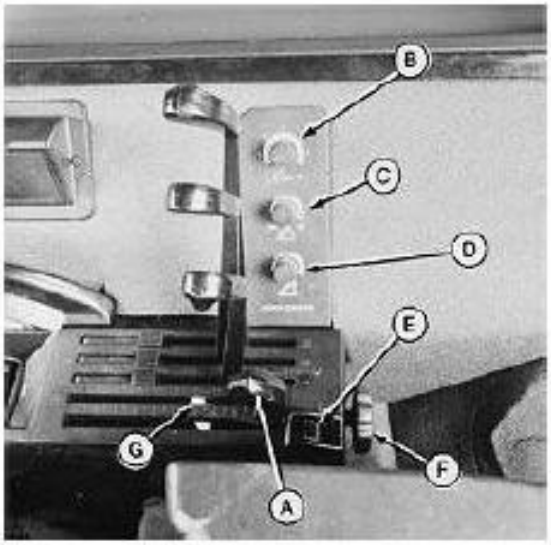
In this manual you will find detailed specifications, illustrations, schematics, diagrams and step-by-step procedures to properly service and diagnose the machine to the manufacturer's standards.

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.

(I) Additional hitch operational checks at 1200 rpm:



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A—Hitch Control Lever
B—Load/Depth Control
C—Rate-of-Drop Control
D—Raise Limit Control
E—Raise/Lower Rocker Switch
F—Hitch Control Lever Stop Adjust Knob
G—Hitch Control Lever Mechanical Stop

1. With hitch fully down, move raise/lower rocker switch (E) to up position.

-Hitch should raise full up.

-Raise limit knob should limit raise to about half up at full CCW and allow a full raise at full CW.

2. With hitch full up move rate-of-drop knob (C) full CCW.

3. Move raise/lower rocker switch (E) to lower position.

-Hitch may not lower without a load.

-Turning rate-of-drop knob (C) CW should increase hitch drop rate.

-Turning rate-of-drop knob (C) CCW should decrease drop rate.

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4. Optional:

With load/depth knob full CW, move hitch control lever rearward to slightly raise hitch.

Using a 60-80 cm (2-3 ft) pry bar between draft arm and transmission case forward of right-hand axle housing, pry down on draft arm.

-Hitch should raise slightly with a down pressure and return to starting height when pressure is released.

5. Operate external raise/lower switch at rear left-hand fender to verify switch will slowly raise and lower hitch.

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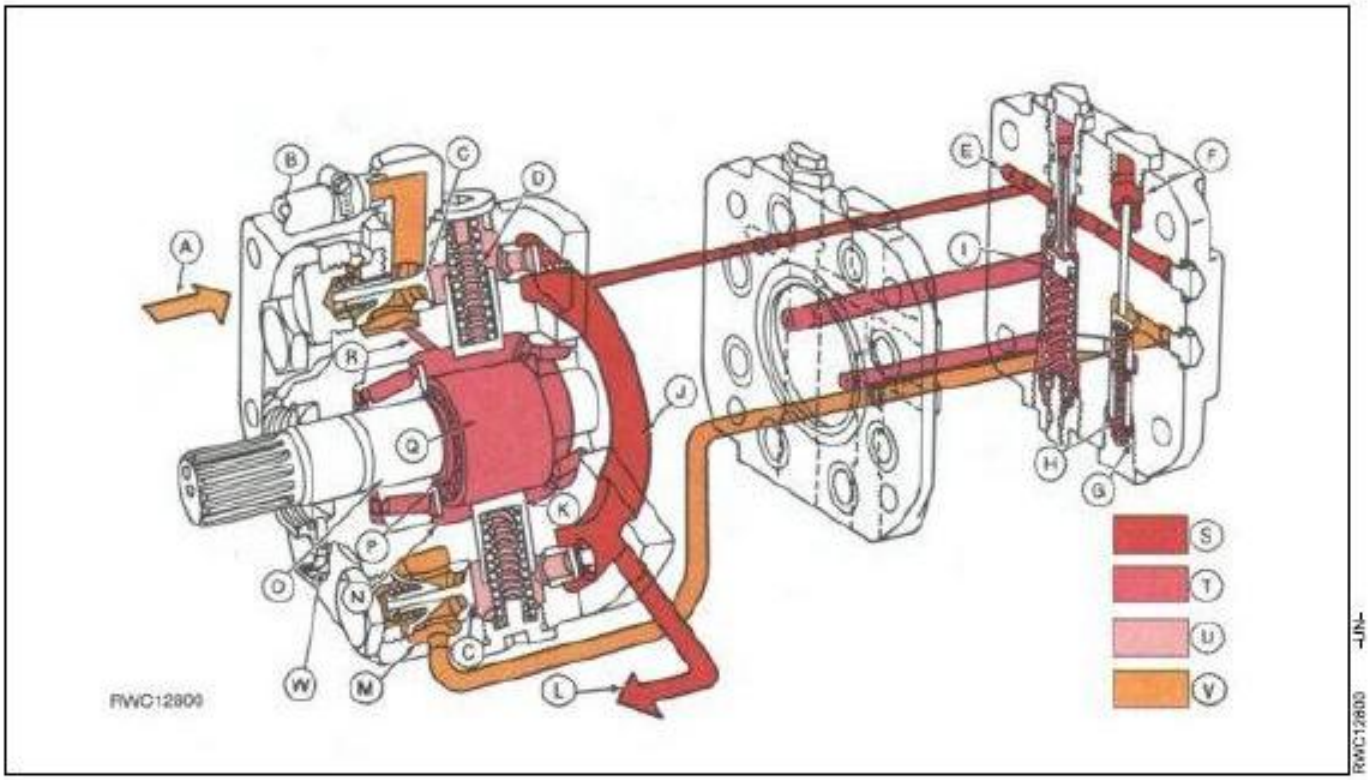
MAIN HYDRAULIC PUMP OPERATION



A—From Reservoir
B—From Oil Cooler
C—Inlet Valves
D—Spring
E—Crankcase Outlet Valve
F—Outlet Valve Upper Chamber
G—Spring
H—Outlet Valve Lower Chamber
I—Stroke Control Valve
J—Outlet Gallery
K—Pistons
L—High Pressure Oil Outlet
M—Inlet Gallery
N—Crankcase
O—Drive Shaft
P—Eccentric Cam
Q—Race
R—Bleed Orifice
S—High Pressure Oil
T—Crankcase Pressure Oil
U—Piston Chamber Pressure Oil
V—Charge Pressure Oil
W—Seal Drain Line

Hydraulic Pump In Standby

Oil cooler (B) and/or hydraulic reservoir (A) supply charge oil to main pump. Annular inlet gallery (M) allows oil to surround each of eight inlet valves (C). Within the pump crankcase (N), pump drive shaft (O) and eccentric cam (P) rotate, moving race (Q). Eight pistons (K) extend into crankcase.

When there is no demand for oil, pump is on standby and no oil is being pumped. Pressure in outlet gallery (J) remains at 17 500 kPa (175 bar) (2550 psi). Pressure oil from outlet gallery flows into the upper chamber (F) and holds crankcase valve closed against spring (G). Increased pressure opens stroke control valve (I) and oil is admitted to crankcase.

This increased volume of oil holds pistons outward from race against spring (D) pressure.Pistons are now stationary and pump no oil.

A bleed orifice (R) in pump housing allows a small amount of oil to leak from crankcase to inlet gallery. When crankcase pressure lowers, pump goes back into stroke to make up oil loss. This occurs several times a minute to maintain a small flow which cools and lubricates pump components.

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