


# John Deere R450 Self-Propelled Hay and Forage Windrower Diagnostic & Tests Service Manual (TM108719)

Compact Utility Tractor  
4120, 4320 (With Cab)  
Diagnostic and Repair




**TECHNICAL MANUAL**

Compact Utility models 4120 PIN (SN. 610001 -)  
and 4320 PIN (SN. 620001 -)

TM105319 20 SEP 13 (ENGLISH)

For complete service information also see:  
POWERTECH 2.4 L & 3.0 L Diesel Engines

CTM301

**PDF**  **DOWNLOAD** 

John Deere Agriculture  
Printed by Belgreen



TM105319

Covers: R450

**Type:** Service Manual

**Language:** English

**Pages:** 1393

**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 R450 Self-Propelled Hay and Forage Windrower Diagnostic & Tests Service Manual (TM108719)**

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
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- 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...

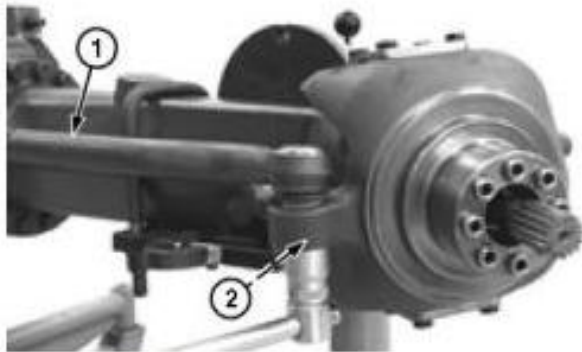
Please note this manual is in **downloadable PDF format only**. If you have any questions about this product or would like to request sample pages, please contact us and reference the product name or SKU.

**Wheel Hub Studs**

Remove and inspect wheel hub studs (7). Replace as necessary.

**Tie Rods Remove**

[1] -

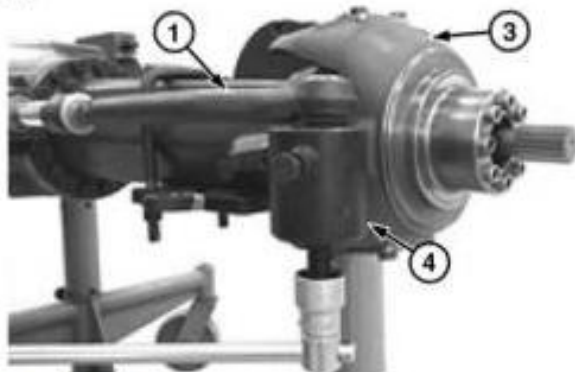
**LEGEND:**

- |   |          |
|---|----------|
| 1 | Tie Rod  |
| 2 | Lock Nut |

**Self-Locking Nut**

Remove lock nut (2) from tie rod (1).

[2] -

**LEGEND:**

- |   |                             |
|---|-----------------------------|
| 1 | Tie Rod                     |
| 3 | Knuckle Housing             |
| 4 | Tie Rod End Separating Tool |

**Tie Rod Out of Knuckle Housing**

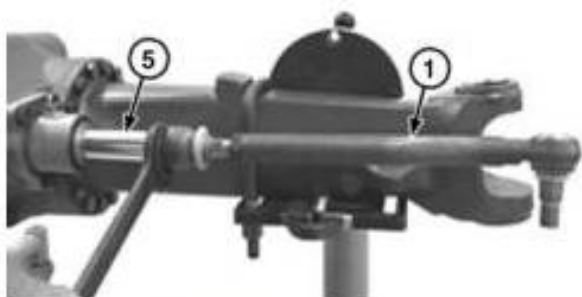
Remove tie rod (1) from knuckle housing (3) with tie rod end separating tool (4).

Tie Rod End Separating Tool

JDG10799

For separating tie rod end.

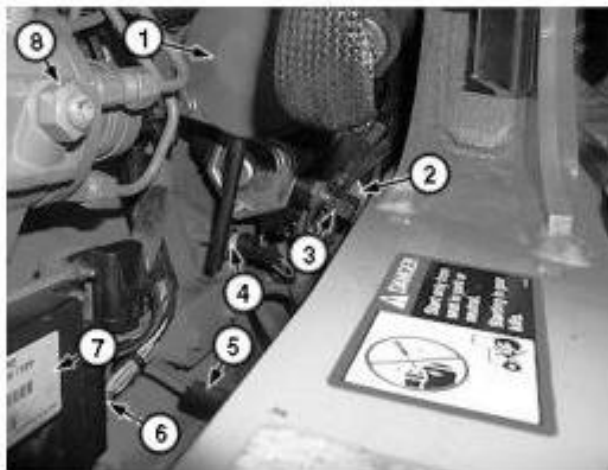
[3] -

**LEGEND:**

- |   |                              |
|---|------------------------------|
| 1 | Tie Rod                      |
| 5 | Steering Cylinder Piston Rod |

**Tie Rod From Piston Rod Removal**

Remove tie rod (1) from steering cylinder piston rod (5).

**LEGEND:**

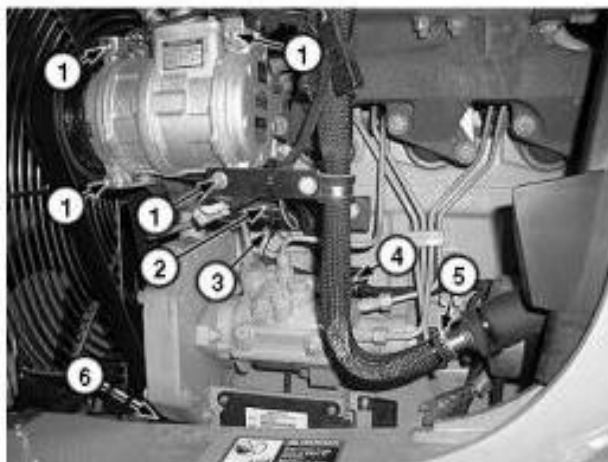
- 1 Starter Motor
- 2 Ground Strap-to-Starter Motor
- 3 Power Cables-to-Starter Motor
- 4 Engine Oil Pressure Switch Connector
- 5 Engine Control Unit (ECU) Unswitched Battery Power Connector
- 6 Engine Control Unit (ECU) Connector
- 7 Engine Control Unit (ECU)
- 8 Fuel Injection Pump

**Starter Motor**

Connect items (2 and 3).

[19] - Plug in connectors (4, 5 and 6).

[20] -

**LEGEND:**

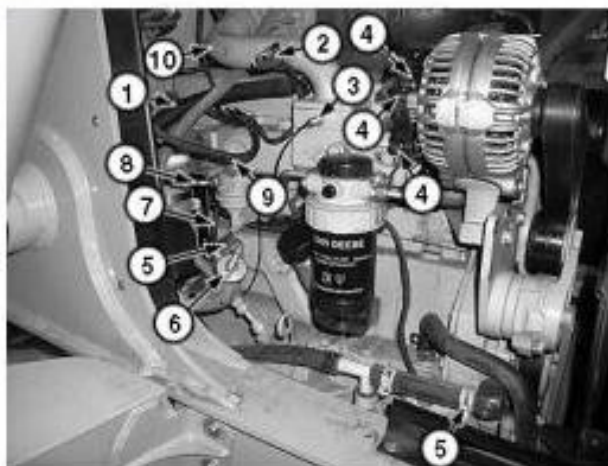
- 1 Air Conditioner Compressor Cap Screw (4 used)
- 2 Air Conditioner Compressor-to-Engine Wire Harness Connector (2 used)
- 3 Coolant Temperature Sensor Connector
- 4 Fuel Temperature Sensor Connector
- 5 Fuel Injection Pump Solenoid Connector
- 6 Crankshaft Position Sensor Connector

**Left Side of Engine**

Plug in connectors (3, 4, 5 and 6).

[21] - If equipped with air conditioning, connect air conditioner compressor-to-engine wire harness connectors (2).

[22] -

**LEGEND:**

- 1 Vent Hose
- 2 Air Intake Sensor Wire Connector
- 3 Starting Aid Hose (optional)
- 4 Alternator Connector (3 used)
- 5 Heater Hose (2 used)
- 6 Transmission Oil Fill Tube
- 7 Starting Aid Wire Connector (optional)
- 8 Fuel Hose
- 9 Engine Wire Harness
- 10 Air Intake Tube



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