

# John Deere 190GW Wheeled Excavator Operation & Test Technical Manual (TM14307X19)

## 190GW Wheeled Excavator Diagnostic

(PIN: 1FF190GW\_\_F052002—)



JOHN HARE



COLLECTION

### OPERATION & TEST TECHNICAL MANUAL

#### 190GW Wheeled Excavator

(PIN: 1FF190GW\_\_F052002—)

TM14307X19 01DEC18 (ENGLISH)

For complete service information also see:

190GW Wheeled Excavator Repair \_\_\_\_\_ TM14306X19



Worldwide Construction and  
Forestry Division

**Covers:** 190GW,1FF190GW\_\_,\_F052002 (7 icons)

**Type:** Service Manual

**Language:** English

**Pages:** 874

**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 190GW Wheeled Excavator Operation & Test Technical Manual (TM14307X19)**

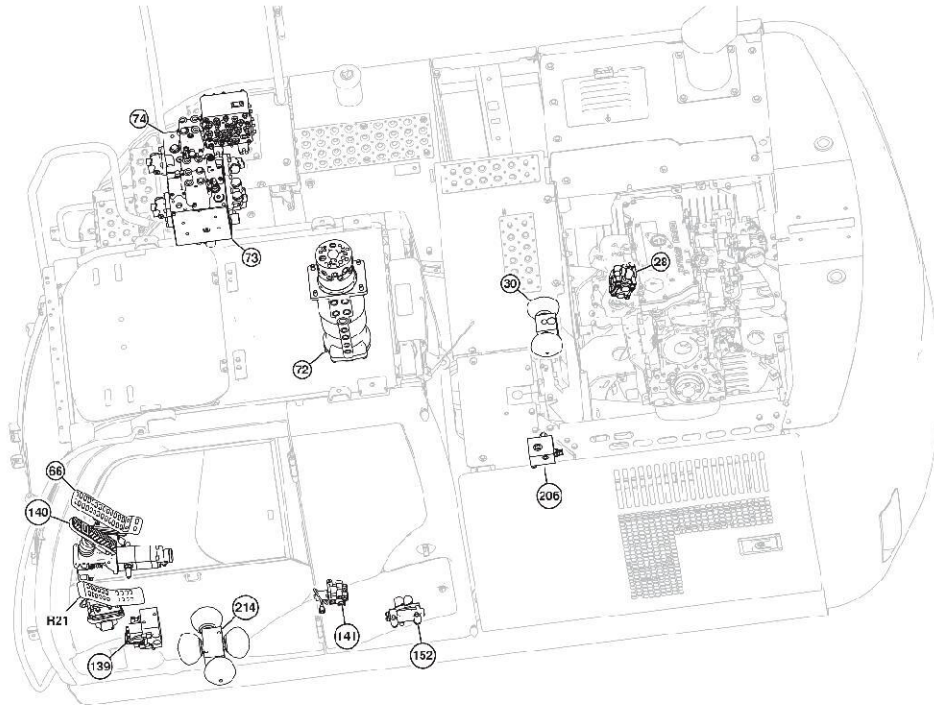
In this manual you will find detailed specifications, illustrations, schematics, diagrams and step-by-step procedures to properly service and diagnose the machine to the manufacturer's standards.

### **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.

## Service Brake System and Axle Lock System Component Location

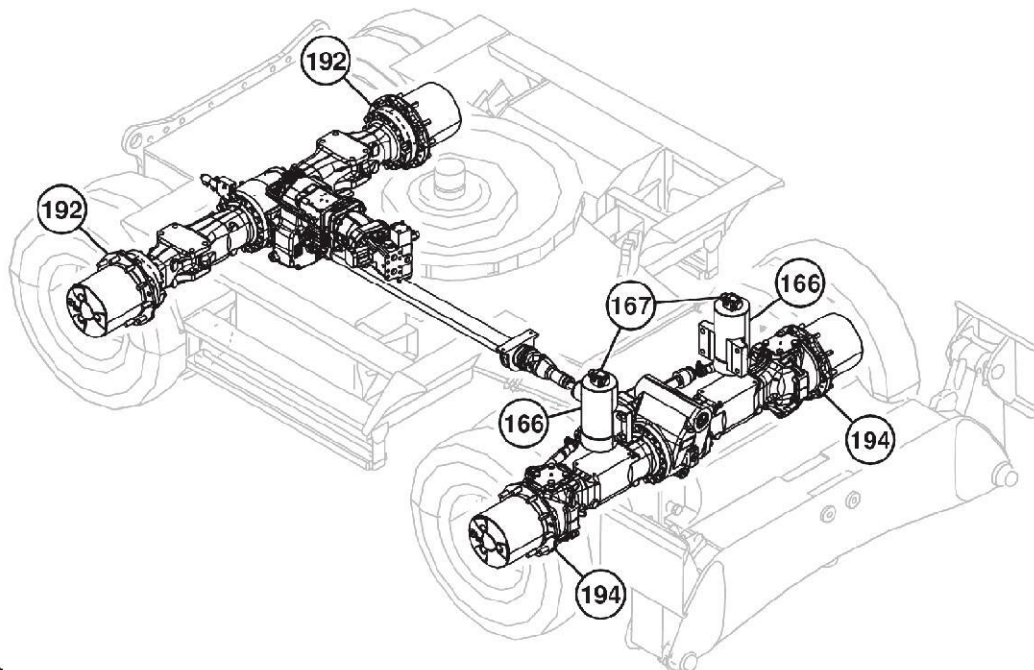


TX1176743

TX1176743-UN: Service Brake and Axle Lock Component Location—Upperstructure

**LEGEND:**

- |                                    |                                 |  |
|------------------------------------|---------------------------------|--|
| 28-Pilot Pump                      | 74-Left Control Valve (5-spool) | 152-Axle Lock and Work Brake Solenoid Valve Manifold |
| 30-Pilot Pressure Regulating Valve | 139-Travel Shockless Valve      | 206-Accumulator Charging Valve                       |
| 66-Travel Speed Change Valve       | 140-Brake Valve                 | 214-Brake Accumulator Manifold                       |
| 72-Center Joint                    | 141-Pilot Shutoff Valve         | R21-Attachment Pedal                                 |
| 73-Right Control Valve (4-spool)   |                                 |  |



TX1175909

TX1175909-UN: Service Brake and Axle Lock Component Location—Undercarriage

**LEGEND:**

- |   |                               |
|---|-------------------------------|
| 166-Axle Lock Cylinder (2 used)             | 192-Rear Disk Brake (2 used)  |
| 167-Axle Lock Cylinder Check Valve (2 used) | 194-Front Disk Brake (2 used) |

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### Brake Accumulator Pressure Test

SPECIFICATIONS	
Hydraulic Oil Temperature	45—55°C 110—130°F
Engine Speed	Fast Idle
Work Mode Switch Position	Bucket Mode
Power Mode Switch Position	P (standard) Mode
Auto-Idle Switch Position	OFF
Park Brake and Axle Lock Switch Position	OFF
Brake Accumulator Pressure	14—16 MPa 14 000—16 000 kPa 140—160 bar 2031—2321 psi

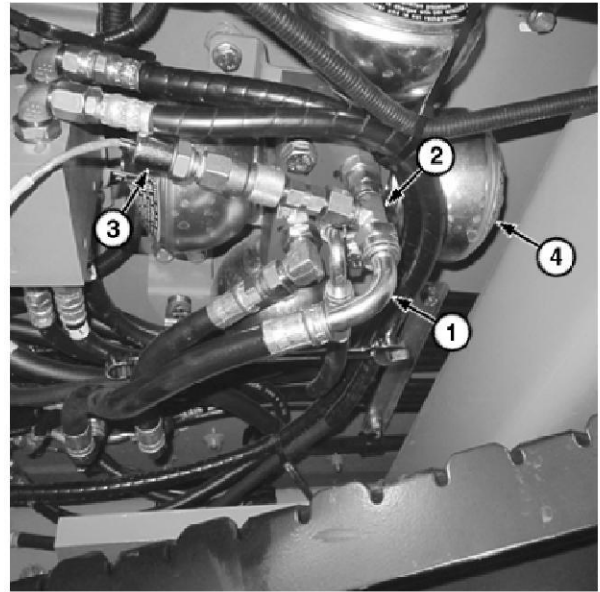
SERVICE EQUIPMENT AND TOOLS
Adapter Tee (9/16-20 F Sw 37° x 7/16-20 M 37° x 7/16-20 M 37°)
JT02162 Transducer 35 000 kPa (350 bar) (5000 psi)
JT02156A Digital Pressure/Temperature Analyzer
Gauge 35 000 kPa (350 bar) (5000 psi)



- CAUTION:**  
Prevent possible machine damage. Air in brake system can cause machine brake system to become inoperable. Brake system must be bled anytime the system has been opened, such as when a hydraulic brake line is disconnected or the oil tank becomes empty.

Release hydraulic oil tank pressure by pushing pressure release button on top of hydraulic oil tank. [See Hydraulic Oil Tank Pressure Release Procedure.](#) (Group 9025-25.)

- Press and release brake pedal 40—50 times to reduce accumulated pressure left in the brake system.
- Remove panel under cab.



4. TX1172311A-UN: Brake Accumulator Pressure Test Locator

- LEGEND:**  
**1-Brake Hose**  
**2-Tee**  
**3-JT02162 Transducer**  
**4-Brake Accumulator (4 used)**

Remove brake hose (1) and install tee (2).

- Install JT02156A Digital Pressure/Temperature Analyzer and JT02162 Transducer (3) or 35 000 kPa (350 bar) (5000 psi) gauge. [See JT02156A Digital Pressure and Temperature Analyzer Kit Installation.](#) (Group 9025-25.)
- Bleed air from brake system. [See Brake Bleeding Procedure.](#) (Group 9020-20.)
- Warm hydraulic oil to specification. [See Hydraulic Oil Warm-Up Procedure.](#) (Group 9025-25.)

- Operate machine at specification.

Item	Measurement	Specification
Hydraulic Oil	Temperature	45—55°C 110—130°F
Engine	Speed	Fast Idle
Work Mode Switch	Position	Bucket Mode
Power Mode Switch	Position	P (standard) Mode
Auto-Idle Switch	Position	OFF
Park Brake and Axle Lock Switch	Position	OFF

- Depress brake pedal slowly several times. Record the maximum pressure reading.

Item	Measurement	Specification
Brake Accumulator	Pressure	14—16 MPa 14 000—16 000 kPa 140—160 bar 2031—2321 psi

- Repeat test three times and compare to specification.
- Remove test equipment.
- Bleed air from brake system. [See Brake Bleeding Procedure.](#) (Group 9020-20.)

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