

# John Deere 859M (SN. F293917-, L343918-) Feller Bunchers (Open-Loop) Diagnostic Manual (TM14087X19)

644K 4WD Loaders with  
Engines 6068HDW80 (T3),  
6068HDW83 (S2) Repair



## REPAIR TECHNICAL MANUAL

**4WD Loaders models 644K (PIN:1DW644KZ\*\*C642444-658217;  
1DW644KZ\*\*D642444-658217)**

TM12108 22 FEB 16 (ENGLISH)

### For complete service information also see:

644K 4WD Loader (SN. 642444-658217) with Engine 6068HDW80 (T3),  
6068HDW83 (S2) TM12106

JDLink (MTG) Technical Manual TM114519

Alternators and Starter Motors CTM77

TM1V1200 - 1400

PowerTech 4045,  
Denso High Pressure Comm

120 Series Hydraulic Cylinder

185 Series Hydraulic Cylinders

120 Series Hydraulic Cylinders

125 Series Hydraulic Cylinders

PowerTech 4.5L & 6.8L Diesel Engines Tier 1/Stage I, Tier 2/Stage II, Tier 3/Stage

IIIA, Tier 3/Stage IIA Tier 3/Stage III, (Base Engine)

CTM114919  
CTM114319  
CTM109319  
CTM104

PDF



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TM12108

Covers: 859M,1T0859MX\_ ,\_F293917,1T0859MX\_ ,\_L343918

**Type:** Service Manual

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**Compatibility:** Windows/Mac/Tablet/Mobile

This service manual contains important information for the maintenance, troubleshooting and servicing of the **John Deere 859M (SN. F293917-, L343918-) Feller Bunchers (Open-Loop) Diagnostic Manual (TM14087X19)**

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.

## Secondary Steering Valve Remove and Install—If Equipped

[1] - Prepare machine for service. [See Park and Prepare for Service Safely](#). (Group 0001.)

[2] -



### CAUTION:

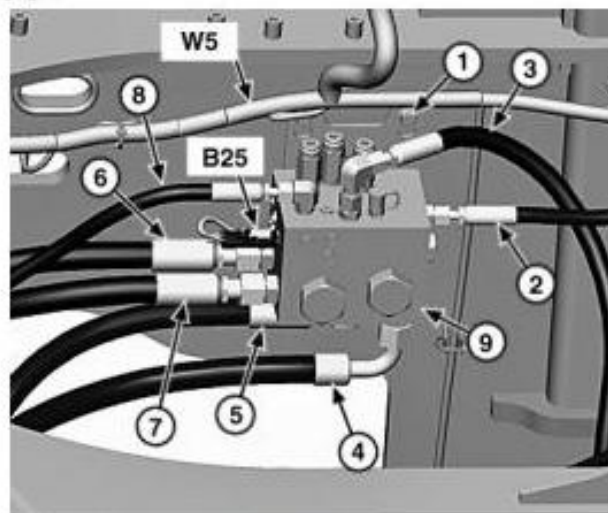
**To avoid injury from escaping fluid under pressure, stop engine and relieve the pressure in the system before disconnecting or connecting hydraulic or other lines. Tighten all connections before applying pressure.**

Relieve hydraulic system pressure. [See Hydraulic System Pressure and Accumulators Discharge](#). (Group 9025-25.)

[3] - Turn battery disconnect switch to the OFF position or remove battery negative (-) cable.

[4] - Apply vacuum to or drain hydraulic reservoir. If draining hydraulic reservoir, [See Drain, Flush, and Refill Hydraulic System Oil](#). (Operator's Manual.)

[5] -



### LEGEND:

- 1 Cap Screw (3 used)
- 2 Secondary Steering Valve-to-Hydraulic Reservoir Line
- 3 Secondary Steering Valve-to-Secondary Steering Pump Line
- 4 Joystick Steering Valve-to-Secondary Steering Valve Line (if equipped)
- 5 Secondary Steering Valve-to-Hydraulic Pump Manifold Line (joystick steering)
- 6 Secondary Steering Valve-to-Hydraulic Pump Manifold Line (orbital steering)
- 7 Secondary Steering Valve-to-Orbital Steering Valve Line
- 8 Secondary Steering Valve-to-Hydraulic Pump Manifold Load Sense Line
- 9 Secondary Steering Valve
- B25 Steering System Pressure Switch
- W5 Engine Frame Harness

### Secondary Steering Valve Plumbing

Tag and disconnect hydraulic lines (2–8). Close all openings using caps and plugs.

[6] - Disconnect steering system pressure switch (B25) electrical connector from engine frame harness (W5).

[7] - Remove secondary steering valve (9).

[8] - Repair or replace as necessary.

[9] - Install secondary steering valve.

[10] - Connect steering system pressure switch (B25) electrical connector. [See Engine Frame Harness \(W5\) Component Location](#). (Group 9015-10.)

[11] - Connect hydraulic lines. [See Steering and Hydraulic Cooling Fan Circuit Component Location](#). (Group 9025-15.)

[12] - Remove vacuum or fill hydraulic reservoir. [See Drain, Flush, and Refill Hydraulic System Oil](#). (Operator's Manual.)

[13] - Turn battery disconnect switch to the ON position or install battery negative (-) cable.



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