

# TM11744 - 744K 4WD Loader Engine 6090HDW12 (iT4)(S.N. 630720—664577)

## Orbital Steering Valve Remove and Install

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1. [Park And Prepare For Service Safely](#) . (Group 0001.)
2. 

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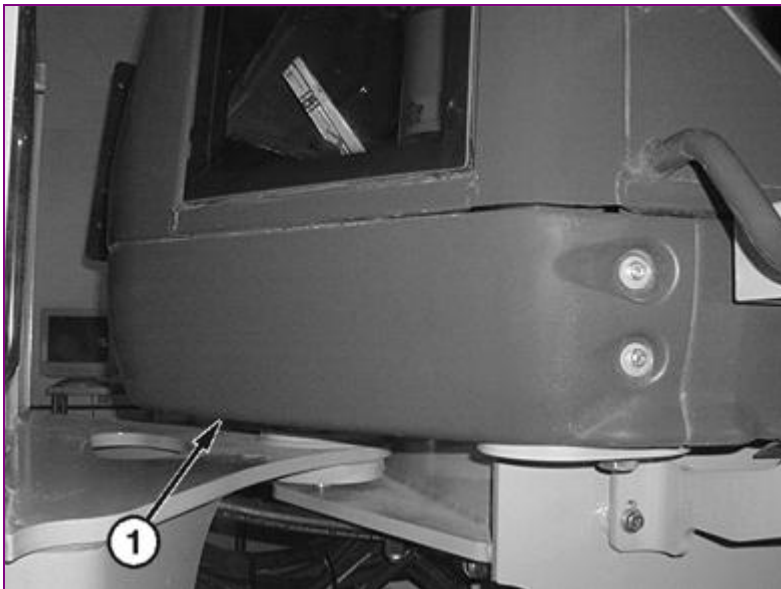
**CAUTION:**

*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.*

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

3. Turn battery disconnect switch to OFF position.
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4. TX1022021A-UN: Front Cab Panel

**LEGEND:**

1 - Front Cab Panel

Remove front cab panel (1).

5. Remove cover from steering column.
6. Pull vacuum on or drain hydraulic reservoir. [See Drain and Refill Capacities](#) . (Operator's Manual.)



7. TX1050331-UN: Orbital Steering Valve Hydraulic Lines

LEGEND:

- 2 - Hydraulic Pressure Line (port P)
- 3 - Return to Hydraulic Reservoir Line (port T)
- 4 - Load Sense Port to Joystick Steering Valve (if equipped)
- 5 - Load Sense Line to Hydraulic Pump Manifold (port LS)
- 6 - Left Turn Supply Hydraulic Line to Steering Cylinders (port L)
- 7 - Right Turn Supply Hydraulic Line to Steering Cylinders (port R)

Mark and disconnect hydraulic steering lines (2, 3, and 5—7). Close all openings using caps and plugs.

8. *NOTE:*

*Avoid dropping the orbital steering valve. Support orbital steering valve before removing.*



- TX1050300A-UN: Orbital Steering Valve Mounting Hardware

LEGEND:

- 8 - Washer (4 used)
- 9 - Cap Screw (4 used)

Support orbital steering valve and remove cap screws (9) and washers (8).

9. Remove orbital steering valve.
10. Repair or replace parts as necessary.
11. Install orbital steering valve.
12. Install washers and cap screws; finger tighten cap screws.
13. Rotate orbital steering shaft two revolutions in both clockwise and counterclockwise directions.
14. Tighten socket head cap screws to specification in a criss-cross pattern.

Item	Measurement	Specification
Orbital Steering Valve Socket Head Cap Screw	Torque	28 N·m 21 lb-ft

15. Rotate orbital steering shaft two revolutions in both clockwise and counterclockwise directions.
16. Connect orbital steering valve hydraulic lines.
17. Remove vacuum or fill hydraulic reservoir. [See Drain and Refill Capacities](#) . (Operator's Manual.)
18. Install front cab panel.
19. Install cover to steering column.
20. Remove frame articulation lock bar.
21. Turn battery disconnect switch to ON position.
22. Follow correct start-up procedure. [See Loader Start-Up Procedure \(Steering Cylinder\)](#) . (Group 0960.)