

DTNA Solutions > Service Solutions > Western Star
> SS 770 WST 47X/49X Dual Power Steering Gear Orific...

SS 770 WST 47X/49X Dual Power Steering Gear Orifice Fittings

Applicable Vehicles

Western Star 47X, 48X, 49X vehicles configured with dual power steering gears.

Symptoms

Western Star 47X/48X/49X vehicles with dual power steering gears include orifice fittings within the power steering hydraulic fluid circuit.

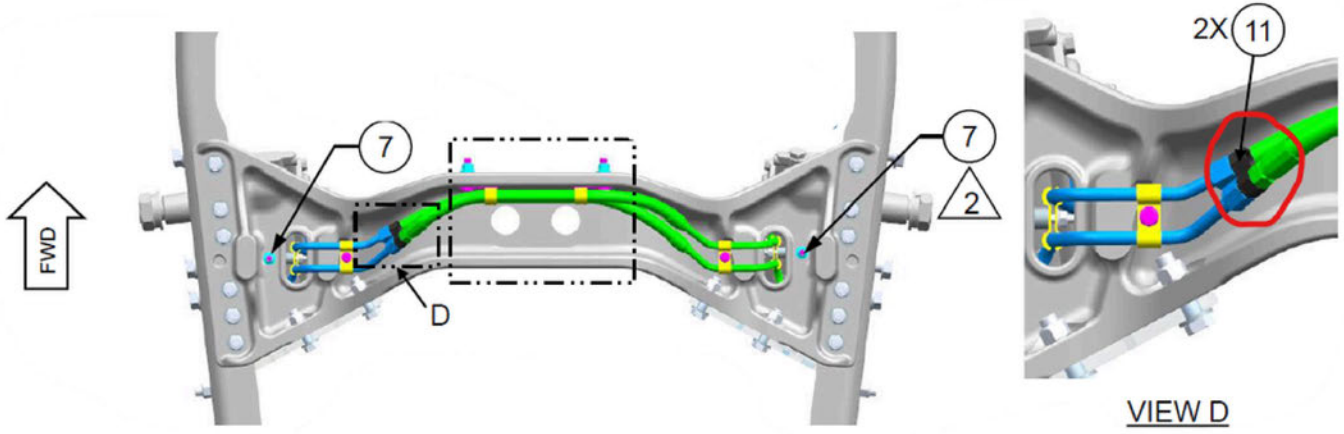
For vehicles fitted with orifice fittings, the following symptoms may be observed:

- Steering effort increase when increasing speed of steering input
- Slower rate of steering wheel return-to-center from near full lock
- Most noticeable at low vehicle speed

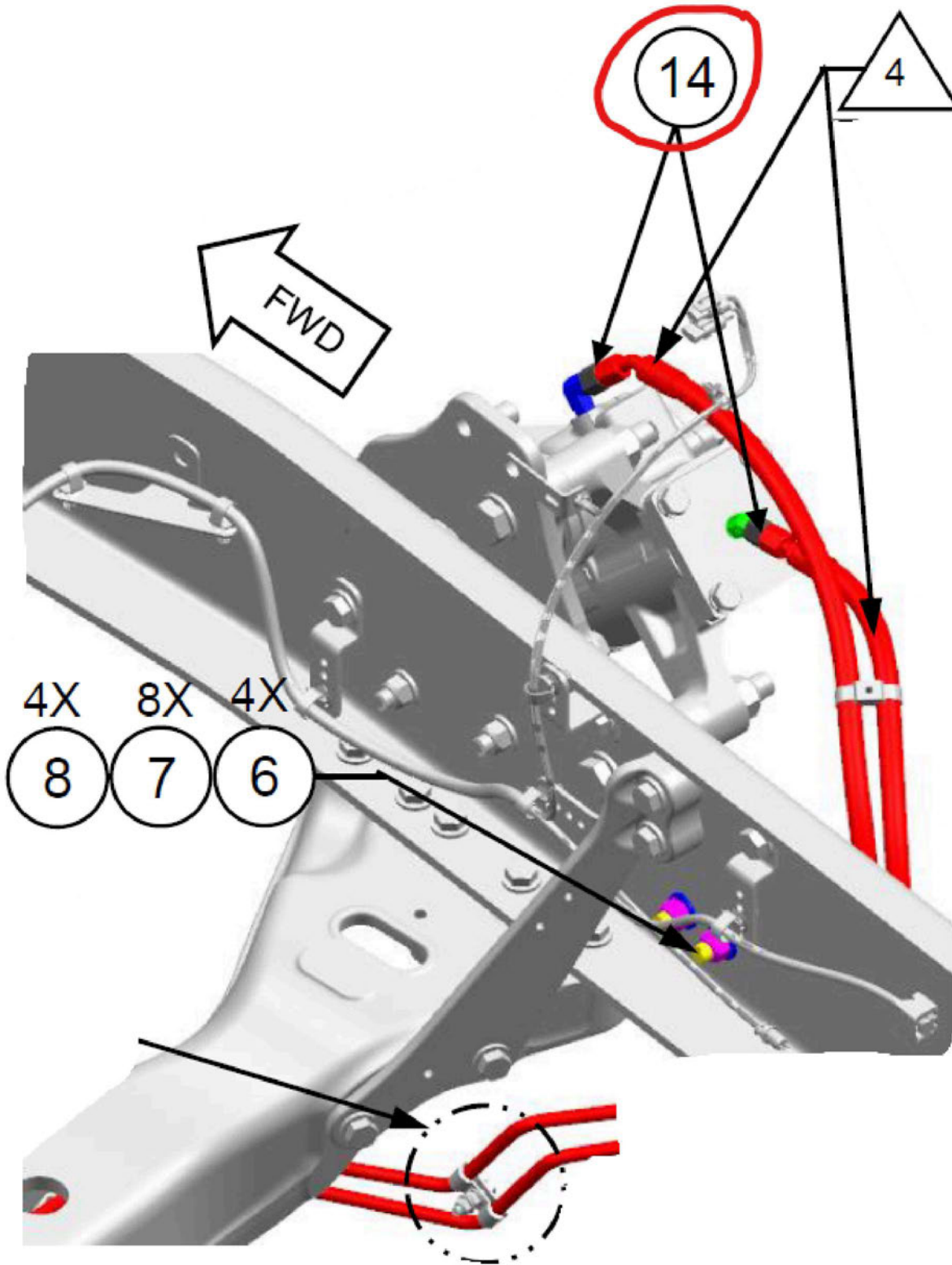
For vehicles without orifice fittings installed in the power steering fluid circuit, the following symptoms may be observed:

- Noticeable steering vibration, hydraulic "shudder", or auxiliary steering gear noise/vibration when static steering the vehicle. See attached video file as reference.

The location of the orifice fittings can be identified by the diagrams below. Set Forward Axle vehicles have the fittings installed below the front engine cross member. Set Back Axle vehicles have the fittings installed at the auxiliary steering gear.



Set Forward Axle Configuration



Set Back Axle Configuration

Issue

Due to variations in steering gear hydraulic assist, tolerance stack-up of steering components and/or flowrate of power steering fluid between main and auxiliary steering gears, the above-mentioned symptoms can be displayed on some vehicles.

An incorrect diagnosis of the reported issue can lead to unnecessary replacement of steering components (steering gears, pumps, coolers) and extended labor hours to resolve the issue.

Solution

As the reported symptoms are dealt with on a vehicle-to-vehicle basis depending on application and the specific symptom reported, this Service Solution serves as a troubleshooting guide to resolve the reported issue.

The attached troubleshooting flowchart shows the relevant path to isolate the reported issue and provides suggested solutions.

Relevant orifice fitting part numbers are:

23-14535-000 CONN-37 FLARE,3/4-16,.094"ORFC

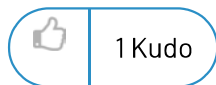
23-14535-001 CONN-37 FLARE,3/4-16,.047"ORFC

Labels :



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