

DTC C0543

Circuit Description

When the engine is ON, the rear wheel steering control module monitors the position of the front and rear wheels. When the system is commanding a rear wheel angle and, due to mechanical binding, the rear actuator does not achieve the desired position a servo error fault is generated, thus setting a DTC C0543.

DTC Descriptor

This diagnostic procedure supports the following DTC:

DTC C0543 Rear Steering Motor Position Error

Conditions for Running the DTC

- The engine is ON.
- The vehicle speed must be greater than 5 km/h (3 mph).

Conditions for Setting the DTC

Comparison of commanded rear position to actual is greater than 3 degrees.

Action Taken When the DTC Sets

- The Service 4 Wheel Steer indicator in IPC will be displayed.
- The code is displayed on the scan tool as DTC C0543.
- The output command to the motor is zeroed and the motor drive circuits are disabled using commands to open the power relay and close the motor shorting relay.
- The rear wheels are returned to the default centered position.

Conditions for Clearing the DTC

- The conditions for setting the DTC are not currently present.
- The rear Wheel steering control module receives clear code command from the scan tool.
- The history DTC clears after 100 malfunction free ignition cycles.

Diagnostic Aids

Inspect for objects or damage that may restrict movement of the rear wheels, or damage to the rear wheel steering gear.

Test Description

The numbers below refer to the step numbers on the diagnostic table.

2: This step begins the procedure that will allow the technician to determine the components responsible for setting DTC C0543.

3: This step will help determine if there are objects caught in the rear wheels.

DTC C0543

Step	Action	Yes	No
Schematic Reference: <u>Rear Wheel Steering Schematics</u> Connector End View Reference: <u>Rear Wheel Steering Connector End Views</u>			
1	Did you perform the Diagnostic System Check - Vehicle?	Go to Step 2	Go to Diagnostic System Check - Vehicle in Vehicle DTC Information
2	<ol style="list-style-type: none">1. Install a scan tool.2. Turn the ignition switch to the ON position, with the engine ON.3. With a scan tool, select the Display DTC function. Does the scan tool display DTC C0543?	Go to Step 3	Go to Diagnostic Aids
3	<ol style="list-style-type: none">1. Turn the ignition switch to the OFF position.2. Inspect the rear wheels for objects that may cause obstruction and remove. Did you find and correct the condition?	Go to Step 4	Go to Diagnostic Aids
4	<ol style="list-style-type: none">1. Turn the ignition switch to the ON position, with the engine ON.2. Use a scan tool in order to clear the DTC.3. Operate the vehicle within the Conditions for Running the DTC as specified in the supporting text. Does the DTC reset?	Go to Step 3	System OK