

TRW Automotive Commercial Steering Systems

Service Procedure # COL-189

Steer Angle Sensor Service Procedure

May 2008

NOTE Take appropriate safety measures before beginning this procedure.

NOTE This service procedure applies to TRW Global Columns with the Bendix steer angle sensor.

NOTE Whenever maintenance or repair work is performed to the steering mechanism, linkage, steering gear, adjustment of the wheel track, or if the steering angle sensor is replaced, a recalibration of the Steering Angle Sensor must be performed.

Tools Required

- Phillips Head Screw Driver
- 5/8 Wrench
- 11/16 Wrench

Steering Angle Sensor Assembly Procedure

1. Remove Shrouds as required to access the universal joint in the middle of the steering column.
2. Disconnect the wiring harness to the Steer Angle sensor by depressing the side tabs and pulling up on the connector. Fig 1
3. Remove the Universal Joint bolt using a 5/8" wrench and an 11/16" wrench. Remove nut and bolt and discard. Fig. 2
4. Remove U-joint from shaft taking care not to damage splines. Fig. 3
5. Remove 3 screws holding the Steer Angle sensor in place. Fig 4
6. Slide the Steer Angle sensor down the shaft and remove. Note the orientation of the steer angle drive tab to the keyway on the shaft.
7. Install the new Steer Angle Sensor by locating the tab on the inside ring of the sensor. This tab is driven by the keyway slot in the lower shaft. Fig 5

This TRW Commercial Steering Systems' service procedure has been written to help you repair commercial vehicles more efficiently. This procedure should not replace your manuals; you should use them together. These materials are intended for use by properly trained, professional mechanics, NOT "Do-it-yourselfers". You should not try to diagnose or repair steering problems unless you have been trained, and have the right equipment, tools and know-how to perform the work correctly and safely.



Figure 1



Figure 2



Figure 3

⚠ WARNING Improper assembly can cause the tab on the inside ring of the Steer Angle Sensor to disengage from the keyway in the lower column shaft. This disengagement can cause the Stability System to malfunction resulting in loss of vehicle control.

8. Orient the new sensor making sure the connector is pointing up (away from the U-joint) and the tab is aligned with the keyway slot of the shaft
9. Slide on the new sensor and install new screws and loctite (provided) into the three mounting holes. Install screws to 10 in-lbs.
10. Reconnect the wiring harness connector. Make sure the connector is fully installed and locked.
11. Reinstall the universal joint taking care not to damage the sensor.
12. Install the new U-joint bolt and nut provided. Torque to 30-35 lb-ft.
13. Recalibrate steer angle sensor per manufacturers instructions/ software.

⚠ WARNING If the Steering Angle Sensor is not recalibrated, the Yaw Control system will not function properly, which could result in a loss of control of your vehicle.

14. Reinstall shrouding per manufacturers instructions.

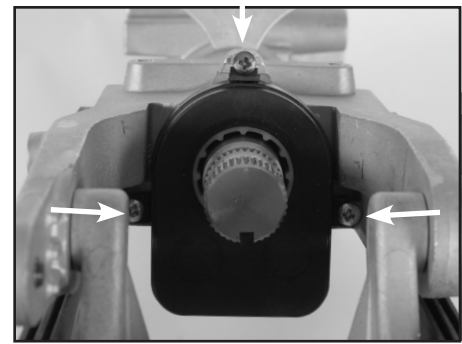


Figure 4

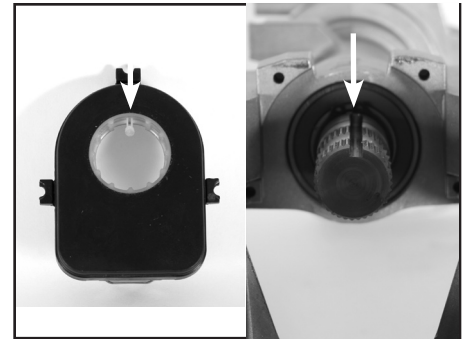


Figure 5

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