

ATRO

ENGINEERED SYSTEMS

FAILED TORQUE ROD GUIDE

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CORROSION

This can be caused by a chemical attack such as acid wash or road treatments.



BUSHING WINDUP

This is a condition that is caused when the clocking of the bushing is not correct. It can be seen in rotational cracks at the end of the bushings. While not technically failed, it is an indicator that failure is approaching.



TORN ELASTOMER

This can be caused by overextension beyond the articulation capabilities or repeated shock to the bushing.



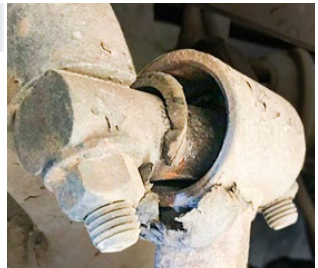
BUSHING EXTRUSION OR DEFORMATION

This can be caused by exceeding the rating of the suspension or contaminants that cause an "oil soaked" condition.



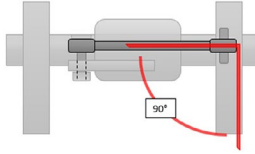
CATASTROPHIC FAILURE

This is usually caused by one of the other issues going unnoticed to the point the elastomer deteriorates completely.



BUSHING WALKOUT

This can be caused when the transverse rod is not perpendicular to the frame rail.



BENT OR BROKEN RODS

This is typically caused by overloading the suspension or impact such as hitting a curb.



DAMAGED GREASE SEALS

This condition is caused by impact with a foreign object such as road debris or a fifth wheel latch hook.



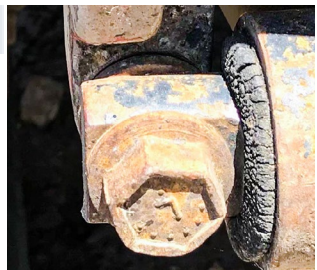
DAMAGED STRADDLE PINS

This can be caused by hardware tightness, misalignment, or impact to the rod.



DRY ROT

This is caused by age, heat, UV rays, temperature extremes, ozone, oxidation, and lack of use. It is evident by cracks in what otherwise appears to be a good bushing. This is a sign that the material has been compromised and should be replaced.



INDUSTRY BEST TORQUE RODS

BENEFITS OF ATRO TORQUE RODS & ROTATING BUSHINGS

BETTER MATERIAL: Polyurethane

Stronger Material: Greater Tensile and Tear Strength

Chemically Resistant: Impervious against Oil, Grease, Brine, Cleaning Solvents, Hydraulic Fluids and Diesel Fuel

BETTER CONSTRUCTION:

- Forged rod eyes
- Stronger mechanical v-groove weld

BETTER DESIGN: Rotating Inner Pin

- Eliminates bushing wind-up
- Reduced stress on key components
- Reduces inventory of complete torque rods; exact bushing angle not important
- Rotation allows for easier installation



Small Eye Torque Rods: OE vs. ATRO



Did You Know?

A torque rod's primary function is to control the longitudinal and lateral movement of the axles. When in good condition, the torque rods limit axle roll and ensure that the driveline maintains the optimal alignment angles recommended by the manufacturer.

- Movement at the rod eye of greater than 1/8" is a sign of a failed torque rod
- A bad torque rod is a CSA 7 point violation
- 70% of all steer tire wear originates from the drive axle
- A minor suspension mis-alignment can drastically reduce the mileage on the truck's tires as well as fuel mileage

ATRO TORQUE RODS TO FIT YOUR EVERY NEED

- Large Eye Torque Rods • Small Eye Torque Rods • Two-Piece Torque Rods
- V-Rods • Custom Rods