

ATRO

ENGINEERED SYSTEMS

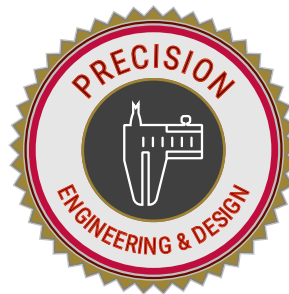
PREVENTIVE MAINTENANCE: Driveline



6 Bolte Lane • St. Clair, Missouri 63077

(800) 325-6114

www.atrobushing.com



**WITH ATRO BEHIND YOU,
DRIVE FORWARD**

OCTOBER 2019

Did You KNOW?

Faulty torque rods can negatively affect the driveline ...

There are 3 main types of Torque Rods:

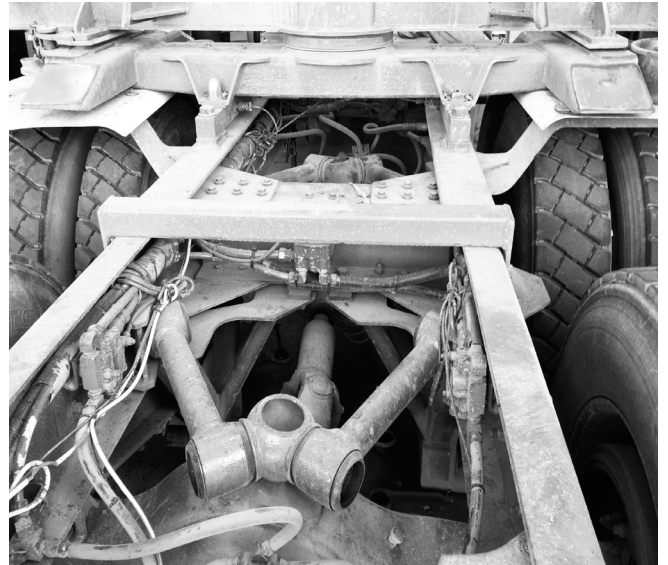
- Longitudinal
- Transverse
- V-Rods



IMPORTANT:

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.

When trucks experience premature failure of driveline components such as carrier bearings, pinion seals, or vibration in the driveline, there is a good chance that these parts themselves may not be the primary cause of the failures. In many cases, another suspension component is the root cause of the failure so a deeper look is necessary. There may also be other clues such as erratic tire wear or clunking noises that can point to a worn suspension bushing or in particular, worn torque rods.



Did You KNOW?

70% of Heavy Duty Trucks on the road are misaligned?¹

This means, 70% of drivelines are experiencing some effects of misalignment.



Torque Rod Failure can be easy to diagnose.

Usually just a visual check is necessary. However, in some cases it may be necessary to perform a dry park check, or use a pry bar to determine if over 1/8" play/movement is present at the rod eye.

¹ Source: <http://www4.hunter.com/alignment/hd/995T-2.pdf>

Visual Clues it is time to replace the Torque Rod

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.



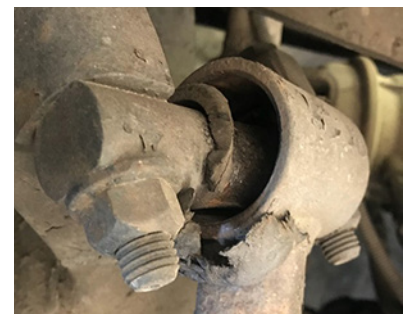
BUSHING EXTRUSION OR DEFORMATION

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



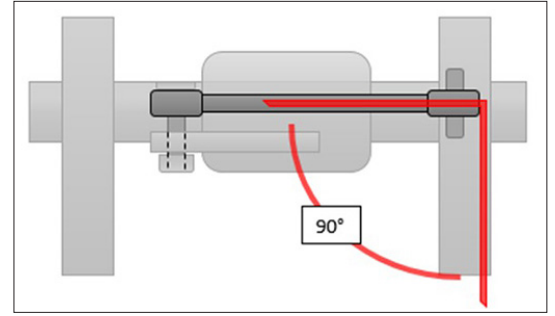
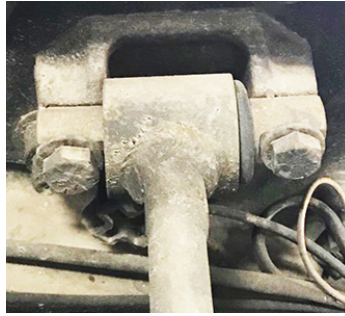
CATASTROPHIC FAILURE

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.



ATRO has Carrier Bearing Assemblies

CR00-67121 (Series 1710) • CR00-67825 (Series 1810)

COMPONENT	FEATURES	BENEFITS
Slotted Insulator	ATRO's proprietary, high quality polyurethane	Longer Life Reduced Vibration Resistant to Chemicals (oil, fuel, road salt, solvents, etc.)
Sealed Bearing	Permanent, double seal	Keeps contamination out Permanently lubricated
Bearing Dust Shield	Zinc electroplating Sealed bearing	Corrosion Resistant Protection from road debris
Steel Bracket	10 gauge steel Zinc Electroplating	Strength & Durability Corrosion Resistant

