

# TECHNICAL BULLETIN

**ATRO PARTS**  
ENGINEERED | DURABLE | RELIABLE  
MANUFACTURED IN ST. CLAIR, MISSOURI | U.S.A.

## ATRO'S ALL MAKES TORQUE RODS

### WHY TORQUE RODS ARE CRITICAL ON CONCRETE MIXERS

#### Torque rods have multiple purposes in truck and trailer suspensions:

- Restrain rotation of the axle housing during acceleration and braking
- Locate the axle and maintain alignment
- Control driveline angle
- Absorb leaning and cornering forces

#### Concrete Mixer Impact:

In a concrete mixer application the drum rotates clockwise (as viewed from the rear) and this rotation shifts the load upwards and to the left side of the drum. This shift of load along with the high center of gravity built into the mixer design can contribute to rollovers when the truck is making right turns. Loose or worn torque rod bushings will reduce the torque rod's ability to absorb the cornering forces and can contribute to the rollover possibility. For this reason it is very important to routinely check the torque rod bushings for movement. This can be done by prying against the bushing or simply rocking the truck forward and backward while observing the bushings. Any movement greater than 1/8" should be addressed by replacing or re-bushing the torque rod.

#### Worn Torque Rods:

- Contribute to mixer roll-over
- Affect driveline angles & U-Joint wear
- Contribute to misalignment & tire wear
- Contribute to ring & pinion failure
- Can cause leaking transmission & differential seals

#### ATRO All Makes Torque Rod Solutions:

- Replacement Bushings
- Two-piece weldable torque rods
- Complete OEM replacement torque rods including Terex Advance Mixer Rods
  - ✓ Advance Mixer #17149 replaced by ATRO TR99-41149
  - ✓ Advance Mixer #19388 replaced by ATRO TR99-41388
  - ✓ Advance Mixer #19428 replaced by ATRO TR99-41428

**NOTE:** Use [Torque-Rod.com](http://Torque-Rod.com) to identify any rod.

#### ATRO Torque Rod Bushings:

- Polyurethane material is more durable than rubber
- Polyurethane material is impervious to chemical attack (includes acidic cleaning solvents)
- Feature rotating pins that automatically "zero out" to ride height and allow easier installation
- Rotating pins allow for multiple OEM rod replacements with one rod



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