## BRAKES - TECH TIPS

## BRAKE JOB CRITICAL-REVIEW COMPONENTS

## Slack Adjusters

- Verify the retaining bolt or snap ring is correctly secured in the camshaft
- Check slack adjuster gear torque - use a lb-inch torque wrench and turn adjusting nut counterclockwise
- For Meritor-style ASAs, if the torque value is less than 45 lb -inch as you rotate gear, slack adjuster is operating correctly
- If the torque value exceeds 45 lb -inch as you rotate gear, replace slack adjuster

- For Haldex-style ASAs, replace the slack adjuster if the torque is less than 13 ft -lbs
- For other manufacturers, refer to the appropriate OE manual for instructions


## Shoes/Linings

- Measure lining wear. Linings must have a greater than $1 / 4$ inch thickness at the center of the brake lining. Inspect for cracks, separation from the brake shoe table, and loose rivets
- Always use new brake shoe hardware - rollers, roller retainers, anchor pins, retainer springs and return pins



## Brake Drums

- The maximum allowable brake drum diameter is stamped or cast into the outer edge of the drum. Place a brake drum diameter gauge inside the drum. Take several measurements within 90 degrees of each other at the open and closed edges of the drum's friction surface
- If wear exceeds 0.120 inch, replace the brake drum
- If a brake drum is out-of-round, replace the drum



## Brake Chamber

- Check brake chamber for looseness or damage
- Ensure retaining nuts are tightened to specification

- Verify push rod is exiting the chamber at a 90 degree angle and it returns completely after each brake application
- Verify chamber size (20, 24, 30, etc.) and the chamber type - either standard or long stroke - are the same on each side of axle
- Inspect the chamber bracket for cracks and damage
- Verify the caging bolt, nut and washer are installed, and the caging bolt cover is secure

CAM BRAKE TORQUE SPECIFICATIONS

## Camshafts

- Before removal of the automatic slack adjuster and camshaft, verify that cam-to-bushing radial free play is within spec
- Check the camshaft for cracks, wear or corrosion. Check the cam head bearing journals and splines. Replace worn or damaged camshafts. Install new bushings and seals whenever you install a new camshaft

- The bushing wears in one direction; it is important to rotate the camshaft in all directions when checking for radial free play
- If radial free play is less than 0.030 inch (0.76 mm) - do not replace bushing and seals
- If radial free play is more than 0.030 inch ( 0.76 mm ) - replace bushings and seals


