

## Automatic Slack Adjuster

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### Historical Perspective

- ArvinMeritor introduced its first automatic slack adjuster (ASA) in 1975 to meet truck operators' needs for automatic adjustment of foundation air brakes.
- Significant design advancements, including reduced weight and enhanced brake adjustments, introduced in 1993.
- Introduced a new ASA design with a pressed-in and sealed actuator boot in 1998. This design maximizes durability and can significantly reduce the likelihood of accidental damage to the boot.

### Product Features/Benefits

- Simple, durable design offers the lightest weight ASA on the market.
- "Handed" and "unhanded" versions fit various packaging requirements.
- Pressed-in and sealed actuator boot for maximum durability.
- Pull pawl eliminates the need to remove pawl during manual brake adjustments.
- As a safety precaution, the manual adjusting nut cannot be inadvertently backed off.
- Threaded grease fittings for easy serviceability.

- Lubrication holes and groove help eliminate corrosion and seizing up, and result in easier service.

### How ASAs work

**Actuation phase:** When the brakes are actuated, the air chamber pushrod moves beyond the predetermined optimum stroke length. The change in geometry between the chamber pushrod and slack lever arm raises the slack adjuster actuator rod.

The piston then contacts the retaining ring, which lifts the actuator. The actuator has spiral serrations on it which jump over the serration on the pawl only if the adjustment is necessary. The components remain in this position until the start of the return stroke.

**Adjustment phase:** The returning movement of the air chamber pushrod and slack lever arm on brake release forces the ASA piston, and then the actuator downward. Contact between the pawl and actuator teeth causes the actuator to rotate.

The rotation of the actuator in its downward travel causes the gear to rotate. The gear rotates the camshaft (cam brake) or powershaft (air disc brake) so that proper brake adjustment is maintained.

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### **Applications**

- Meritor brand ASAs are designed for a variety of commercial vehicle applications. They are available for steer, drive and trailer axles.

### **Manufacturing and Aftermarket Availability**

- Produced at ArvinMeritor's Manning, S.C. manufacturing facility.
- Marketed through North American OEM truck dealers and independent warehouse distributors. Aftermarket parts and kits are available through ArvinMeritor's Commercial Vehicle parts distribution centers in Florence, Ky., and Brampton, Ontario.

- Always replace Meritor components with Meritor genuine spec-level replacement parts to ensure that proper specifications, performance and quality standards are met.

**For more information on ArvinMeritor or Meritor® ASAs, contact:**

**Chuck Yeager at 248/435-1112 or  
chuck.yeager@arvinmeritor.com**