

MERITOR® STROKE SENSING AUTOMATIC SLACK ADJUSTERS FOR THE AFTERMARKET



MERITOR



IDEAS DRIVING RESULTS

GENUINE PRODUCT PROVEN IN
HUNDREDS OF BILLIONS OF
SERVICE MILES.





ASA and clevis sold separately.

MERITOR® AUTOMATIC SLACK ADJUSTERS. KEEPING TRUCKS ON THE ROAD LONGER.

As the leading North American supplier of braking systems, Meritor understands the delicate relationship between Automatic Slack Adjusters (ASA) and foundation brakes. Our genuine Meritor ASAs have been proven in hundreds of billions of miles on the road. So when it's time to replace a vehicle's ASAs, why choose anything other than the original equipment?



UNIQUE DESIGN OFFERS OPTIMUM BRAKE PERFORMANCE.

Our unique design keeps brakes in constant adjustment while eliminating the need for frequent under-the-truck brake adjustments. With the Meritor ASA, brake maintenance costs and vehicle safety inspections are reduced while allowing for optimum brake performance.

Proven Performance Benefits.

- Keep brakes in constant adjustment
- Eliminate the need for frequent under-the-truck brake adjustments
- Reduce brake maintenance costs
- Reduce vehicle safety inspection citations
- Allow optimum brake performance

Low-Maintenance, Long-Life Design.

- No external brackets required
- Simple, durable design
- Fewer moving parts – no slip clutches to wear out
- Pull pawl eliminates need to remove pawl during manual brake adjustment
- 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 servicing
- Redesigned housing features improved pressed-in and sealed actuator boot

Specifications				
	Slack Length (Inches)	Camshaft Spline Size and Number	Clevis Configuration	Clevis Thread*
Front Steer Axles	5, 5.5 and 6	1.25 - 10 1.25 - 24 1.5 - 10 1.5 - 28	Straight or 0.625 Offset	0.5 - 20 0.625 - 18
Drive and Trailer Axles (and front steer axles with larger air chambers)	5, 5.5, 6, 6.5 and 7	1.5 - 10 1.5 - 28 1.625 - 37	Straight	0.625 - 18

* Metric threads available



Meritor Stroke Sensing ASA Warranty Coverage.

Application	Years	Mileage
Linehaul	5	500,000
General Service	3	Unlimited
Heavy Service	3	Unlimited
Off-Highway Service	3	Unlimited

Refer to publication SP-95155 for full vehicle application details.

HOW THE MERITOR AUTOMATIC SLACK ADJUSTER WORKS

An ASA is vital to optimum brake performance. The ASA adjusts the brake as it wears and helps ensure the air brake chamber can produce enough actuation force by adjusting the amount of slack, or free play, in the brake. This adjustment is critical in air brakes because with too little slack, the brake may drag and overheat. If there is too much slack, the brake may not generate enough braking effort to safely stop the vehicle. The two phases of adjustment – the Actuation Phase and the Adjustment Phase – work together to provide ideal brake adjustment in order to deliver optimum brake torque to stop the vehicle.

The Actuation Phase.

When the brakes are first actuated...

1. The air brake chamber pushrod moves the slack adjuster outward to apply the brake.
2. The change in geometry between the chamber pushrod and slack lever arm raises the slack adjuster actuator rod.
3. The internal piston contacts the retaining ring which lifts the actuator.
4. The actuator has spiral serrations on it which jump over the serration on the pawl, only if the adjustment is required.
5. The components remain in the position until the start of the return stroke.

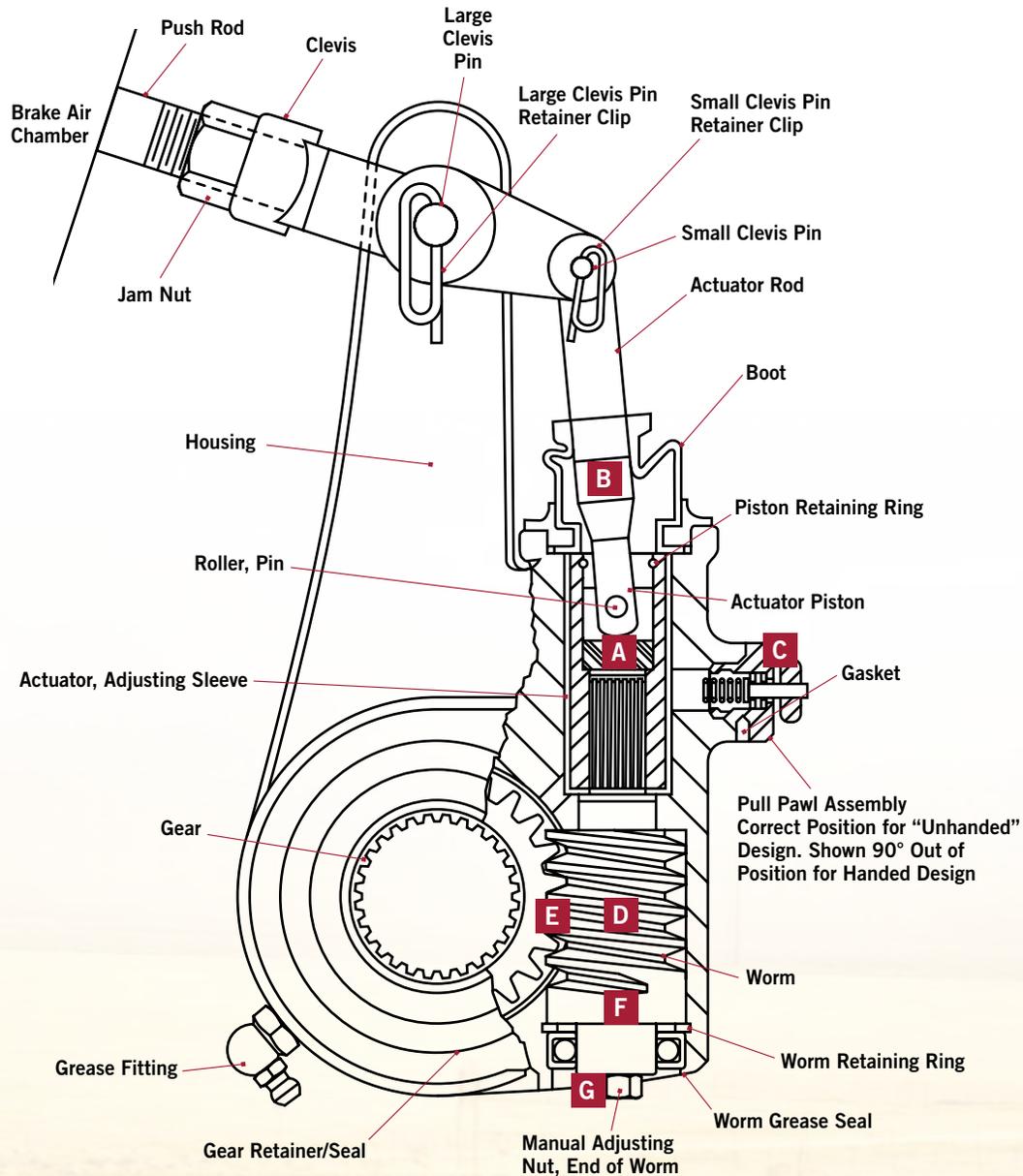
The Adjustment Phase.

1. On brake release, the returning movement of the air brake chamber pushrod and slack lever arm forces the actuator rod, ASA piston and actuator downward.
2. Contact between the pawl and actuator teeth cause the actuator to rotate.
3. The rotation of the actuator in its downward travel causes the worm gear to rotate.
4. The rotation of the worm gear causes the butress gear to rotate.
5. The butress gear rotates the camshaft so that proper brake adjustment is maintained.





AUTOMATIC SLACK ADJUSTER PARTS AND INSTALLATION



Features	Benefits
A Variety of Pistons	Adapt to unique vehicle vocations and duty cycles
B Sealed Boot	Press-in and sealed for maximum durability
C Fool-Proof Pull Pawl	Design eliminates the need to remove pawl for manual brake adjustment Built-in safety feature so brake cannot be inadvertently backed off
D High-Strength Worm Gear	Buttress type provides increased strength for longer life <ul style="list-style-type: none"> ■ Lubrication hole and groove provide lubrication to splines, helping eliminate corrosion and seizing up, and resulting in easier servicing
E Anti-Contaminant Gear Face Seals	Help decrease internal contamination and corrosion, minimizing internal torques <ul style="list-style-type: none"> ■ Eliminate sensitivity to external factors such as paint, road debris, etc., resulting in reduced internal torques
F Water-Tight Worm Seal	Worm seal prevents water from gaining access to worm gear shaft
G Safety-Enhancing Manual Adjusting Nut	As a safety precaution, manual adjusting nut cannot be inadvertently backed off

SPEC THE RIGHT MERITOR CLEVIS FOR THE APPLICATION.

Utilizing the correct Automatic Slack Adjuster (ASA) clevis is critical to maximizing brake life. The use of an incorrect clevis could result in an increase to operating costs.

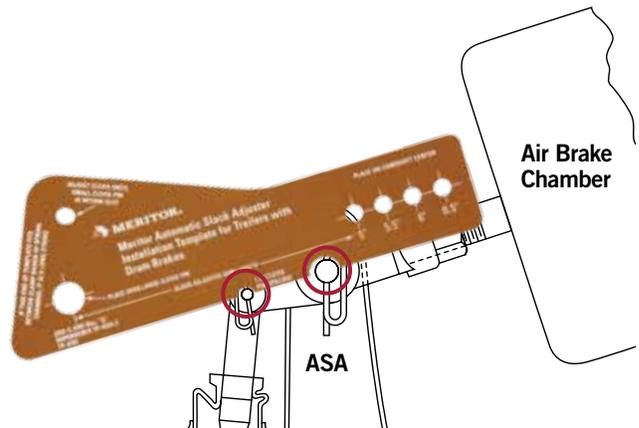


Meritor ASAs are sold in the aftermarket less clevis which allows the end user to properly spec the clevis for the intended application. Meritor manufactures clevises with pin spacings of 1.30" and 1.38" to accommodate a variety of applications. To maximize brake lining life, it is recommended to replace the clevis when the ASA is replaced.

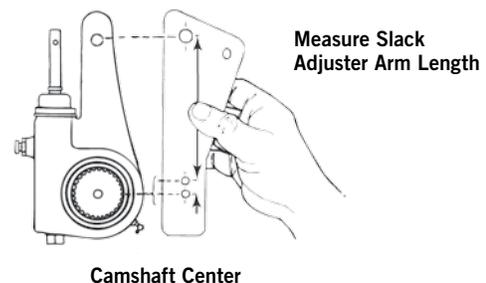
When it's time to replace the ASA, replace the clevis following the Template Method as outlined here.

Template Method for Replacing the ASA Clevis.

Measure the old clevis, or if the old clevis is not available, measure the clevis on the opposite wheel end of the axle by matching the two cutouts on the bottom of the template to the clevis holes.



1. Use the correct Meritor ASA template to measure the length of the slack adjuster¹. The marks by the holes in the small end of the template indicate the length of the slack adjuster.



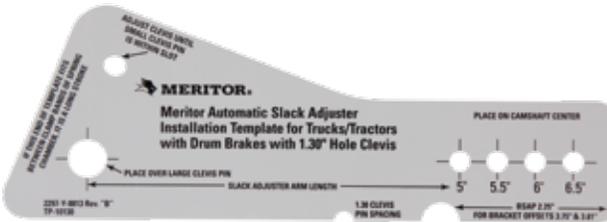
¹ The ASA templates are not interchangeable. The correct ASA template and clevis pin spacing must be used and the clevis position must be adjusted as described in the Template Method. If an incorrect combination is used and the clevis is installed in the wrong position, the slack adjuster will not adjust the brake correctly. If the slack adjuster under adjusts, stopping distances are increased. If the slack adjuster over adjusts, the linings may drag and damage the brake.



TP-4786 ASA template for trucks and tractors with drum brakes with 1.38" spacing¹



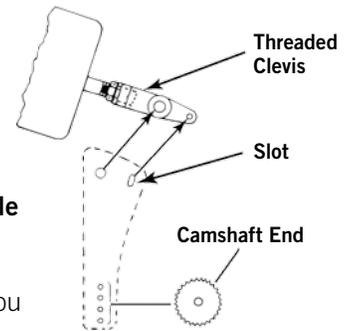
TP-4787 ASA template for trailers with drum brakes. NOTE: Trailer must always use 1.38" spacing¹



TP-10130 ASA template for trucks and tractors with drum brakes with 1.30" spacing¹

2. Install the large clevis pin through the large holes in the ASA template and the clevis.
3. Select the hole in the ASA template that matches the length of the slack adjuster. Hold that hole on the center of the camshaft.

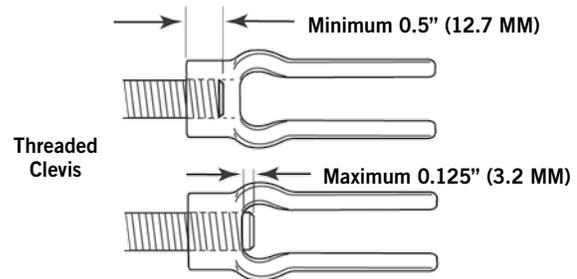
4. Look through the slot in the template to see if the small clevis hole completely aligns within the slot.



- If the small clevis hole doesn't align within the slot:

Adjust the clevis until you can see the small clevis pin hole within the slot (right).

5. Verify that the thread engagement between the clevis and push rod is 0.5" - 0.625" (12.7-15.9 mm).



6. Verify that the push rod does not extend through the clevis more than 0.125" (3.2 mm).

- If the push rod extends through the clevis more than 0.125" (3.2 mm): Cut the push rod or install a new air chamber and push rod.

7. Tighten the jam nut against the clevis to the torque specification below. 

Thread	Torque
1/2-20	20-30 lb-ft (27-41 N•m)
5/8-18	35-50 lb-ft (48-68 N•m)

NOTE: Use either the Template Method* or BSAP Method* to ensure the correct position of welded or threaded clevises on standard- or long-stroke brake chambers.

* For more information on the Template or BSAP Methods, refer to Meritor Maintenance Manual 4, *Cam Brake and Automatic Slack Adjusters*. For information on welded-clevis air brake chambers, refer to the air brake chamber manufacturer's maintenance publication.

IDEAS DRIVING RESULTS

As a world leader in providing aftermarket solutions for the global commercial vehicle and industrial markets, Meritor is committed to providing our customers with innovative aftermarket ideas that deliver the results you need to get the job done faster, better and more efficiently.

Vehicle models, brands and names depicted herein are the property of their respective owners and are not in any way associated with Meritor, Inc., or its affiliates.



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