

### Prior to Installation

1. Chock the vehicle wheels (Block all the wheels to prevent the vehicle from rolling and avoid injury).
2. Check all foundation brakes. Brake adjusters cannot compensate for problems with foundation brakes. Replace any worn cam bushings, pins, rollers and brake shoes, or broken return springs.
3. Fully Cage the spring brake by following the manufacturer's recommended procedures.
4. **CAUTION:** Some mechanical caging devices do not fully cage the spring brake. Motor Wheel® recommends using air at 90 – 100 psi to fully cage the brake spring.

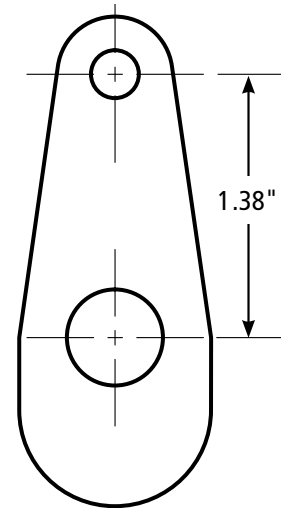
### ABA INSTALLATION

(For installations using a welded clevis with 1.30" clevis pin spacing, begin at Step 6)

1. Remove the existing brake adjuster and clevis. Keep the existing mounting hardware. Do not remove the clevis jam nut.
2. Thread the Motor Wheel clevis on to the pushrod and install the 1/2" clevis pin into the clevis. Do not tighten jam nut. (SEE PHOTO A)

**NOTE: Do not use the old clevis or a competitor's clevis. In order to guarantee proper set up, you must use the new Motor Wheel clevis and template provided in the kit.**

3. Slide the installation template over the S-cam spline, swing the template into the clevis until the appropriate slot totally engages the 1/2" clevis pin. (SEE PHOTO B)
4. Once the template has been swung into place, install the 1/4" clevis pin. If the 1/4" clevis pin does not slide freely into the clevis and template, remove the template from the clevis. Follow these instructions: (SEE PHOTO C)
  - If the 1/4" template hole sits below the 1/4" clevis hole, rotate the clevis CW until the holes align.
  - If the 1/4" template hole sits above the 1/4" clevis hole, rotate the clevis CCW until the holes align.
  - If the pushrod threads extend through the clevis more than 1/16", remove clevis and cut rod to length.
  - A minimum of 1/2" of pushrod engagement in the clevis body is required. If this is not the case, install a new pushrod and cut rod to length, or use a Motor Wheel extended clevis.
  - When installing a new chamber or pushrod, use Motor Wheel's pushrod tool (Part # MC8530S), to accurately cut the pushrod to the correct length. (SEE PHOTO D)
  - Remove template and both clevis pins.
5. Tighten jam nut to 50 ft-lbs torque minimum.



Threaded Clevis Pin Spacing

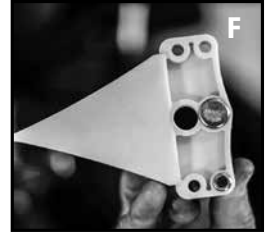


# Automatic Brake Adjuster Installation Procedures



## INSTALL THE ABA ONTO THE S-CAM

6. Apply anti-seize onto the S-cam splines. Install the ABA onto the s-cam along with the appropriate s-cam washer(s) on each side of the ABA so that the ABA is centered to the air chamber pushrod and so the axial end-play of the ABA is a minimum of 0.005" after the snap ring is installed. Install the snap ring. (SEE PHOTO E)
  7. Use a 7/16" wrench, manually rotate the adjuster shaft CW until the ABA arm holes align with the clevis holes.
  8. If your adjuster is equipped with AUTO-CHECK stroke indicator, do the following:
    - A. Insert the 1/2" clevis pin into the AUTO-CHECK pointer hole. Be sure to use the correct set of holes in the pointer for the ABA you are installing. The clevis pin's head should face the front of "Auto-Check". (SEE PHOTO F)
    - B. AUTO-CHECK pointer is non-handed and can be installed on either the right or left side of the ABA. The AUTO-CHECK pointer is designed to face the center of the vehicle.
    - C. Now insert the 1/4" clevis pin with the AUTO-CHECK pointer into the clevis and install your cotter pins.
  9. If your adjuster is not equipped with AUTO-CHECK simply install the pins.
  10. Use a 7/16" wrench, manually rotate the adjuster CW until the brake linings contact the drum. Now back off 1/2 turn CCW to set the clearance. (SEE PHOTO G)
- WARNING: If you apply the brakes before this step, you will cause damage to the ABA.**
11. Uncage the spring brake.
  12. Build up the vehicle air pressure to 90-100 psi.
  13. The AUTO-CHECK pointer will now point to the HOME location on the housing. (SEE PHOTO H)
    - If it does not point to the HOME position, remove the ABA and reinstall (see page 1 #3).
  14. Measure the distance from the air chamber to the center of the 1/2" pin. Fully apply the brakes with 90-100 psi air pressure and re-measure the distance to the 1/2" pin. (SEE PHOTO I)
  15. The stroke (difference of these two measurements) must be less than those in the chart below. (SEE PHOTO J)
  16. Fully apply and release the brakes several times to check for adequate clearance to all the adjacent components.



## Maintenance

The ABA should be greased every 6 months or 50,000 miles using a quality NLGI #2 Moly EP Multi Purpose grease as part of the regular equipment maintenance schedule. Refer to Motor Wheel Tech Tip #53 for more detailed maintenance instructions.

STANDARD STROKE		LONG STROKE	
CHAMBER SIZE	ADJUSTER STROKE	CHAMBER SIZE	ADJUSTER STROKE
6	1-1/4 or less	16	2 or less
9	1-3/8 or less	20	2 or less
12	1-3/8 or less	24	2 or less
16	1-3/4 or less	(below 3" max stroke)	2 or less
20	1-3/4 or less	24	2-1/2 or less
24	1-3/4 or less	(3" max stroke version)	2-1/2 or less
30	2 or less	30	2-1/2 or less
36	2-1/4 or less		

## WARNING

Excessive pushrod stroke or tight running brakes indicates that there is a problem with the foundation brake components, the ABA installation, or the ABA. The proper way of checking an ABA to see if it is working within specs is to measure the pushrod stroke. The only time the ABA should be manually adjusted is during installation or at reline. Constant manual adjustment of the ABA is a dangerous practice and may lead to reduced internal component life, or have other more serious consequences.

*Actual product performance may vary depending upon vehicle configuration, operation, service and other factors. All applications must comply with applicable specifications from Motor Wheel and the respective vehicle manufacturer. Contact Motor Wheel for additional details regarding specifications, applications, capacities, and operation, service and maintenance instructions.*

Contact Motor Wheel at 855.743.3733 for additional information.



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