

STEMCO Automatic Brake Adjuster Inspection

No Automatic Brake Adjuster can compensate for braking system deficiencies. The brake system should be in good operating condition and be well maintained. Excessive push rod 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 specifications is to measure the push rod stroke. STEMCO supports TMC’s recommendation of inspecting the ABA and air chamber performance every month, 8,000 miles or 300 operating hours, whichever comes first. When performing any type of maintenance or inspection on a vehicle, proper precautions must be taken to avoid serious injury. Always chock the vehicle’s wheels and cage the spring brakes during all inspection and maintenance activities.

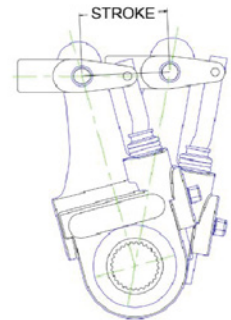
The only time the ABA should be manually adjusted is during installation and reline. Constant manual adjustment of the ABA is a dangerous practice and may lead to reduced internal component life, or other more serious consequences. The STEMCO Crewson ABA unit must be installed with the appropriate STEMCO Crewson clevis and template. **Installation video link (<https://youtu.be/qyENm8jz63k>)**

Push Rod Power Stroke Measurement

Measure the power stroke (the difference between when the brake is released and when it is fully applied) at 90 psi application pressure.

The distance must be less than or equal to the Legal Stroke Limit in the chart below:

CHAMBER TYPES	LEGAL STROKE LIMIT
9, 12	Less than or equal to 1-3/8"
16, 20, 24	Less than or equal to 1- 3/4"
30	Less than or equal to 2"
36	Less than or equal to 2-1/4"
LONG STROKE CHAMBER	LEGAL STROKE LIMIT
16, 20	Less than or equal to 2"
24 (3" MAX)	Less than or equal to 2-1/2"
30	Less than or equal to 2-1/2"



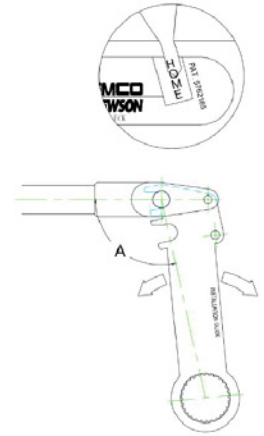
Free Stroke

Free stroke is the distance the slack arm moves in order to make the brake shoes contact the drum with no air pressure applied. Move the slack arm with a small pry bar and measure the movement distance. This distance should be 3/8" to 5/8". If the free stroke is greater than 5/8", check the foundation brake components.

Repair and replace as needed. If both the Power Stroke and Free Stroke tests confirm the ABA is operating properly, no further action is necessary. Otherwise, proceed to the ABA Setup Verification.

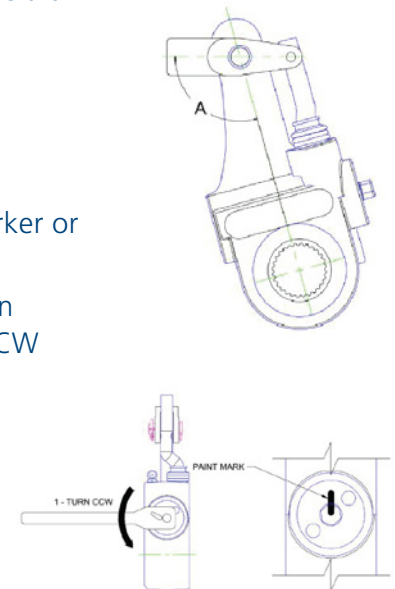
Verify ABA Set-up

1. If the ABA has the AutoCheck pointer installed, the ABA is set-up correctly if the tip of the pointer is located within the white HOME box of the ABA label when the brakes are fully released. If the tip of the pointer is within the HOME area, proceed to the ABA Function Test. Otherwise go to Step 2.
2. Select the correct Installation Template for the spline size and armhold locations. (**Reference Part Numbers MC8502S and MC8503S**)
3. Fit the Installation Template over the S-cam and put the 1/2" pin into the clevis.
4. Swing the template to engage the 1/2" pin.
5. Rotate the clevis CW or CCW on Push Rod until the 1/4" pin holes in clevis and template line up and the 1/4" pin slides easily through both the template and clevis.
6. The template now indicates the correct set-up angle "A".
7. Remove the template and 1/2" pin. Install ABA onto the S-cam and turn the hex nut CW until the 1/2" and 1/4" holes line up with the clevis.
8. Install and secure the clevis pins. Turn hex nut CW until the shoes contact the drum.
9. Back off the Hex nut 1/2 turn CCW to complete the set-up.



ABA Function Test

1. Back off the brake adjustment (1) turn in the CCW direction.
2. Place a mark across the adjuster hex and ABA using chalk, paint marker or other suitable marking device as shown.
3. Apply and fully release the brakes and observe if the 7/16" hex rotates in the CW direction. The 7/16" hex should rotate in small amounts in the CW direction and will stop rotating after the brake adjustment cycle has completed. Apply and release the brakes until the 7/16" hex stops rotating. Re-measure Push Rod Power Stroke. If the Push Rod Power Stroke is within the Maximum Legal Stroke limit and the ABA passes the Free Stroke and ABA Function Test, the ABA is operating properly and no further testing of the ABA is necessary.
4. If the ABA fails any of these tests, contact the STEMCO Warranty Center at warranty@stemco.com or (903) 248-2980 to file a claim.



For STEMCO's maintenance recommendations please see Tech Tip 0053, STEMCO Crewson Preventative Maintenance.