

STEMCO ABA FIELD INSPECTION PROCEDURES

IMPORTANT Before performing service on equipment, make sure the equipment is parked on a level surface and the wheels are chocked and cannot move. Some of the tests below involve moving parts and excessive noise from air releasing. Maintain a safe distance from moving components and wear appropriate personal protective equipment.

STEP 1

Check Power Stroke at 90-100 psi.

Shop air pressure should be regulated to 90-100 psi when testing ABA power stroke. Truck air should be bled down to 90-100 psi. 2.0" Maximum for type 30 chamber. 2.5" Maximum for type 30 long stroke chamber. Standard stroke chambers have round ports. Long stroke chambers have either: square ports, a trapezoidal ID tag, or markings on the chamber body or clamp band indicating long stroke chamber. (See Photo A)



STEP 2

Check Free Stroke

Should be between 3/8"-5/8". If less than 3/8", check ABA set-up and pre-adjustment. If greater than 5/8": check clevis pins, clevis pin holes, and armhole bushings for wear, s-cam binding or loose bushings, weak or broken air chamber return spring, push rod binding on housing, air not exhausting, broken or weak shoe return springs, or the ABA. (See Photo B)



STEP 3

Check ABA Installation/Set-up

The tip of the AutoCheck pointer should be located within the "HOME" location when the brakes are fully released. (See Photo C)



STEP 3 (CONTINUED)

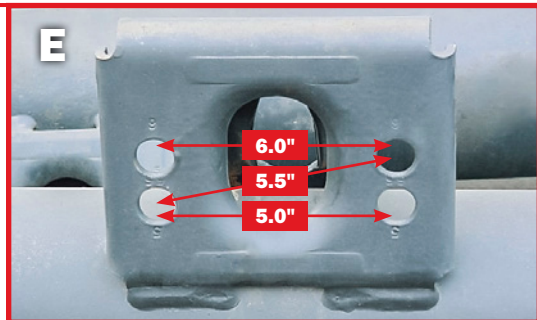
If the pointer tip is not in the HOME location, use the appropriate STEMCO Installation template to properly set up the ABA. (See Photo D)



STEP 4

Match Replacement ABA Arm Hole Spacing

Many, but not all, air chamber mounting brackets use the mounting configuration shown in the photo. Be sure to match replacement ABA arm hole spacing with what was originally specified by the OEM. Putting chamber bolts in the holes shown is the length of the Brake Adjuster (See Photo E)



STEP 5

Use a feeler gauge to check for a minimum clearance of .005" between s-cam washers and ABA. Also check that washers are located to position the ABA centered to the air chamber and that there is adequate clearance between the ABA and other components. (See Photo F)

S-cam washers that are too tight won't allow the ABA to function and adjust properly. Check s-cam washers for expansion due to rust. Remove washer(s) as needed to obtain minimum clearance.



STEP 6

Check ABA Function

Back-off the ABA adjustment by rotating the 7/16" hex (1) turn CCW. Place a mark on the hex and end cap or place cut off tool over 7/16" hex. Apply and fully release the brakes 10-15 times using 50-100 psi air pressure and check for CW hex rotation. If the hex does not rotate, replace ABA. Re-check that the ABA power stroke is below the maximum stroke limit after the ABA stops making adjustments. (See Photo G)

If the ABA does not pass the function test or if the power stroke is over the maximum limit (2" for a type 30 chamber) after the proper ABA installation has been verified, the ABA should be removed and returned to STEMCO for warranty consideration.

