

1-081-X00 & 1-082-X00 Series Re-setting the self adjust lever arm position

Important

Please read these instructions carefully before installing, operating, or servicing your Stearns brake. Failure to comply with these instructions could cause injury to personnel and/or damage to property if the brake is installed or operated incorrectly. For definition of limited warranty/liability, contact Rexnord Industries, LLC, Stearns Division, 5150 S International Dr, Cudahy, WI 53110, (414) 272-1100.

Caution

1. Installation and servicing must be made in compliance with all local safety codes including Occupational Safety and Health Act (OSHA). All wiring and electrical connections must comply with the National Electric Code (NEC) and local electric codes in effect.
2. Do not install the brake in atmospheres containing explosive gases or dusts.
3. To prevent an electrical hazard, disconnect power source before working on the

brake. If power disconnect point is out of sight, lock disconnect in the off position and tag to prevent accidental application of power.

4. Make certain power source conforms to the requirements specified on the brake nameplate.
5. Be careful when touching the exterior of an operating brake. Allow sufficient time for brake to cool before disassembly. Surfaces may be hot enough to be painful or cause injury.
6. Do not operate brake with housing removed. All moving parts should be guarded.
7. Installation and servicing should be performed only by qualified personnel familiar with the construction and operation of the brake.
8. For proper performance and operation, only genuine Stearns parts should be used for repairs and replacements.
9. After usage, the brake interior will contain burnt and degraded friction material dust. This dust

must be removed before servicing or adjusting the brake.

DO NOT BLOW OFF DUST using an air hose. It is important to avoid dispersing dust into the air or inhaling it, as this may be dangerous to your health.

- a) Wear a filtered mask or a respirator while removing dust from the inside of a brake.
- b) Use a vacuum cleaner or a soft brush to remove dust from the brake. When brushing, avoid causing the dust to become airborne. Collect the dust in a container, such as a bag, which can be sealed off.

Re-setting the lever arm position

Warning! Any mechanism or load held in position by the brake should be secured to prevent possible injury to personnel or damage to equipment before any disassembly of the brake is attempted or before the manual release knob or lever is operated on the brake.

Use this sheet with the 1-081-x000 and 1-082-x00 series service booklets which can be found at www.stearns.rexnord.com.

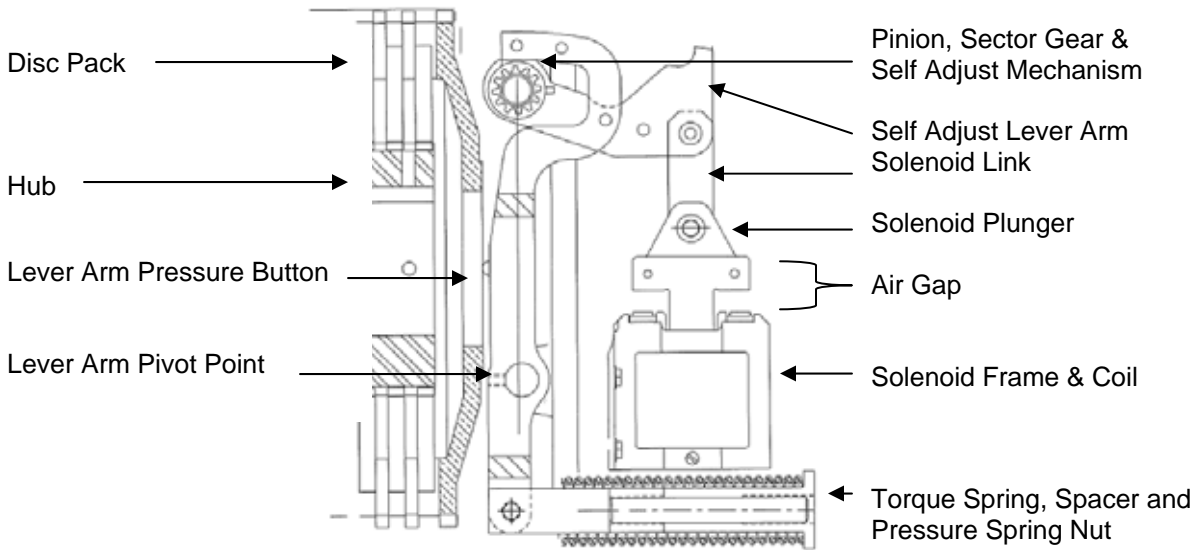
The solenoid plunger must be restrained in the solenoid frame (Picture A) before unbolting the support plate from the endplate. Otherwise, the lever arm will rapidly move along the sector gear with a rapid snap action and the support plate will not re-mount to the brake and disc pack problems may occur.



Picture A: Cable strap holds the plunger into the solenoid frame of a new brake.

The manual release can also be pulled out to engage the solenoid lever arm and move the plunger into the frame.

The lever arm is located as shown in the diagram with a new disc pack in place. (Diagram, Picture B & C). The lever arm will angle forward into the support plate as the lever arm moves along the sector gear as the disc pack wears.



Picture B & C: The correct position of sector gear to pinion with a new disc pack.

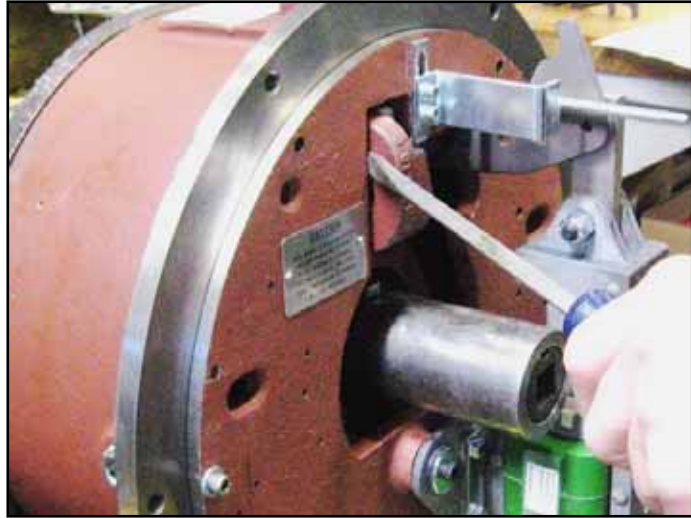


On older brakes, check for notching or wear in the sector gear and pinion that could cause binding.

Re-setting the Lever Arm when installing a new disc pack or unplanned movement occurs:

Method one: Remove the spring tension while the support plate is bolted to the endplate with the disc pack in place. Remove the support plate. Reposition the lever arm with the sector gear at the free end as shown in Picture B and C. Push the plunger into the solenoid frame. Bind the plunger into the solenoid frame with a cable tie (Picture A), or by locking the manual release into place. Return the support plate assembly to the endplate with the disc pack in place. Tighten the nut and pressure spring until fully compressing the torque spring to the spring spacer. Remove the cable tie strap holding the plunger into the solenoid frame. Manually push the plunger into the coil and solenoid, and then allow the plunger to snap out under spring force. Repeat. Check air gap and correct if needed using the brake installation sheet as a guide.

Method two: The support plate assembly is bolted to the endplate with the disc pack in place. Use a screw-driver as a lever at the edges of the lever arm to pry the lever arm outward from the disc pack (Pictures E, F & G).



Picture E: Use the screwdriver as a lever.

Apply a prying force to the lever arm while applying hand force to push the plunger downward into the solenoid (Picture F). Keep the lever force in place and allow the spring to draw the solenoid plunger out of the solenoid (pictures G). Repeat in a jacking motion. Continue to reposition the lever arm while moving the plunger in and out of the solenoid frame until the lever arm is in the position shown in Picture B, C & Sketch page two.



Picture F (plunger down)



Picture G (plunger up):

Check air gap and correct if needed using the brake installation sheet as a guide.

Apply power to the coil and re-confirm air gap.



Reliable brakes through design, manufacture and support.

Prior e-letter tech sheets are posted on the Stearns website: www.stearns.rexnord.com