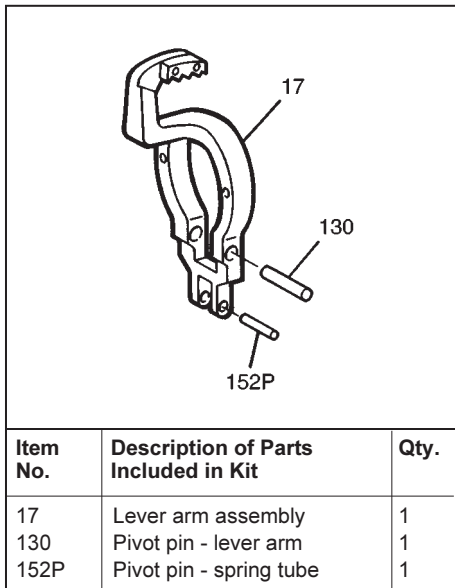


Service Instructions for Lever Arm Kit* Series 87,000; 87,100 and 87,200 Disc Brakes

*For use with aluminum support plate.



Important

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

Caution

1. Servicing shall be in compliance with applicable 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. 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.
3. Be careful when touching the exterior of an operating brake. Allow sufficient time for the brake to cool before disassembly. Surface may be hot enough to be painful or cause injury.
4. Do not operate brake with housing removed. All moving parts should be guarded.

5. 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.

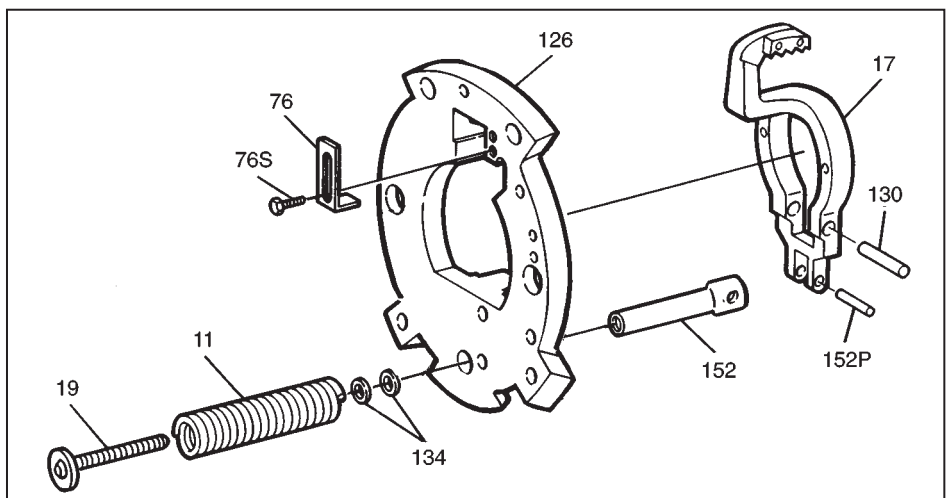
- a) Wear a filtered mask or a respirator while removing dust from the inside of a brake.
- b) Use a vacuum cleaner or a soft brush to remove dust from the brake. When brushing, avoid causing the dust to become airborne. Collect the dust in a container, such as a bag, which can be sealed off.

6. Maintenance should be performed only by qualified personnel familiar with the construction and operation of the brake.

7. For proper performance and operation, only genuine Stearns parts should be used for repairs and replacements.

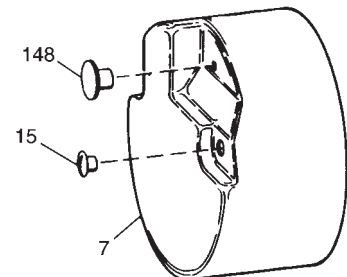
Warning! Any mechanism or load held in position by the brake should be secured to prevent possible injury to personnel or damage to equipment before any disassembly of the brake is attempted or before the manual release knob is operated on the brake.

Instructions



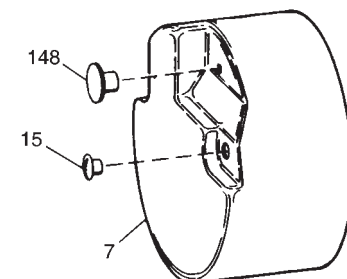
1. To remove housing, follow instructions listed below for appropriate brake series.
2. Remove pressure spring (11) by

87,000 Series



Remove manual release knob (148), two housing nuts (15) and housing (7).

87,000 Series



- a) Remove any accessories, sprockets, sheaves, etc., from brake shaft on housing side.
- b) Loosen set screw on bearing locking collar. Then using spanner wrench, loosen collar.
- c) Remove manual release knob (148), two housing nuts (15) and housing (7).

unscrewing pressure spring cap screw (19) from spring tube (152). Save spring washers (134) for later reassembly. Disconnect coil leads. Remove three support plate assembly mounting screws, lock washers and support plate assembly (126). Save all hardware. Clamp support plate assembly in bench vise.

3. Use 3/8" diameter drift to remove fluted drive pin (pivot pin 130). Drive out from the end opposite to the flutes.
4. Remove lever arm (17) and spring tube (152) as an assembly. Clamp lever arm in vise. Using 1/4" diameter drift, drive out spring pin (pivot pin 152P) and discard. Also discard used lever arm (17).
5. Clamp new lever arm (17) in vise. Reassemble to spring tube (152) using new spring pin (pivot pin 152P). Remove assembly from vise.
6. Clamp support plate assembly in vise and insert new lever arm (17) pre-assembled in Step 5 with spring tube (152). The sector gear of lever arm does not have to engage pinion at this time.
7. Insert flute pivot pin through lever arm and pivot bearing in support plate. Tap pin only slightly to seat. Swing lever arm so that its sector gear engages the self-adjust pinion. Push lever arm back and forth checking for binding of the gear teeth or excessive backlash. (Correct backlash at either end of sector gear should be .002" to .003".) If backlash is incorrect, remove lever arm (17), clamp in vise and very *slightly* bend sector gear portion to increase or decrease throat opening as required. Trial fit and repeat if necessary, following previous procedure. When the proper backlash is attained, proceed to Step 8.
8. Seat fluted drive pin (pivot pin 130) by driving it into lever arm (17) until it protrudes approximately equal amounts through lever arm.
9. Remount support plate assembly to

brake, torque screws to 90 in-lbs in aluminum endplate and to 120 in-lbs in cast iron endplate. Be sure that assembly is mounted with solenoid in vertical position (solenoid plunger above frame when brake is in horizontal position). Replace pressure spring (11), spacers (134) (if used) and pressure spring cap screw (19). Tighten pressure spring cap screw until fully seated against pressure spring washer/tube. Do not overtighten, maximum torque to be applied is 100 in-lbs.

10. Manually lift solenoid plunger to maximum travel. Depress and allow solenoid plunger to snap out several times. Measure solenoid air gap between mating surfaces of solenoid frame and solenoid plunger. (On vertically mounted brakes, it will be necessary to push solenoid plunger into solenoid frame to the point where spring pressure is felt, before measuring solenoid air gap.) The solenoid air gap measurement should be as factory set between 13/16" to 15/16".
11. The solenoid air gap may be increased by raising or decreased by lowering the wrap spring stop (76). To accomplish this, loosen two (stop) screws (76S), move wrap spring stop slightly and retighten screws. Repeat Step 10 after each change in wrap spring stop position to obtain original solenoid air gap measurement of 13/16" to 15/16".
12. Reconnect solenoid coil leads.
13. Replace housing, screws and manual release knob in the reverse order of the appropriate point in Step 1.
14. **Caution!** Do not run motor with brake in manual release position. It is intended only for emergency manual movement of the driven load, not as a substitute for full electrical release.

NOTE: For complete instructions, with troubleshooting, request sheet applicable to the series of brake that you have.

