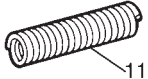


## Service Instructions for Pressure Spring Kit (Redesign) Series 87,X00 Disc Brakes

The pressure springs for the 87,X00 series brakes have been redesigned, eliminating the need for spacers required with the old spring design. Spring rates have proven to be more consistent throughout the operational life of the brake. **The new spring (without spacers) is a direct, functional, replacement for the old spring design.**



| Item No. | Description of Parts Included in Kit | Quantity per Kit |
|----------|--------------------------------------|------------------|
| 11       | Pressure spring                      | 1                |

### 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 installed 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.



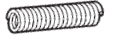





7. For proper performance and operation, only genuine Stearns parts should be used for repairs and replacements.

**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 or lever is operated on the brake.

### Instructions

1. To remove housing, follow instructions listed under each individual brake series shown in next column, then continue with the following steps.
2. Unscrew spring bolt (19) to free old spring. Discard the spacers (134). Install new spring using spring bolt (spacers not required with new springs, except

for 6 lb-ft special) Tighten spring bolt until it is firmly seated. Do not overtighten. Torque to a maximum of 8 ft-lbs.

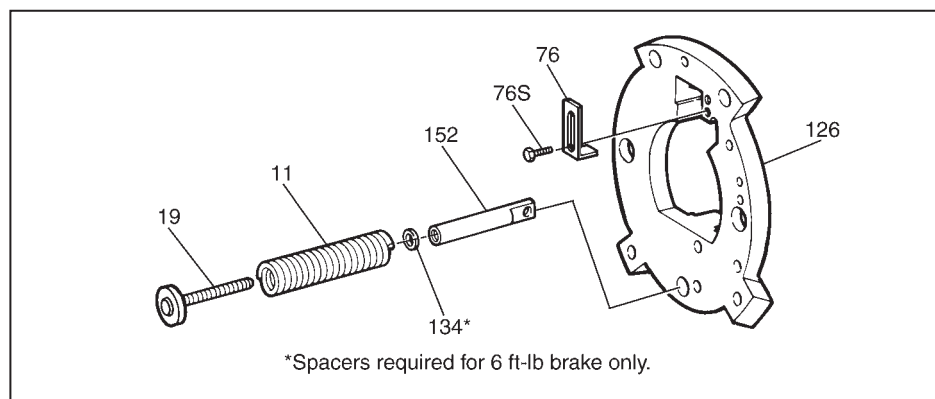
| New Spring  | Torque Rating | Old Spring  | Spacers |
|---|---------------|---|---------|
| <br>Black  | 10            | <br>Blue   | x1      |
| <br>White  | 15            | <br>Yellow | x7      |
| <br>Orange | 25, 50        | <br>Red    | x4      |
| <br>Purple | 35, 75, 105   | <br>Green  | x3      |

3. Manually lift solenoid plunger to maximum lift. Depress fully 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" (20.6mm) to 15/16" (23.8mm).

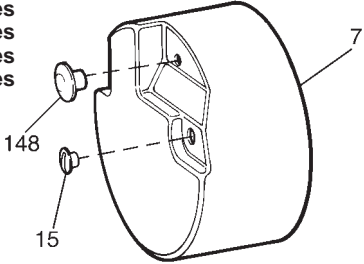
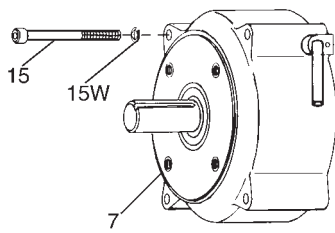
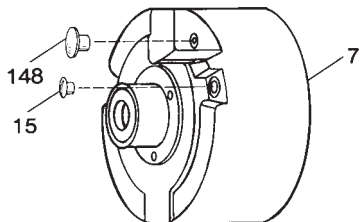
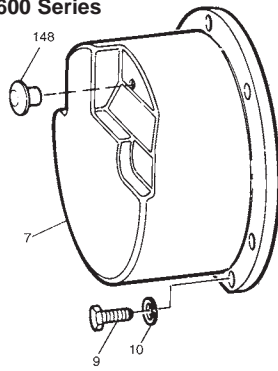
4. The solenoid air gap may be increased by raising or decreased by lowering the wrap spring stop (76). To accomplish this, loosen two stop screws (76S), move wrap spring stop slightly and retighten screws. Repeat Step 3 after each change in wrap spring stop position to obtain correct solenoid air gap measurement.

5. Replace housing, screws and manual release knob in the reverse order of the appropriate point in Step 1.

6. **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.**

|  |  |
|--|--|
| <p><b>87,000 Series<br/>87,100 Series<br/>87,400 Series<br/>87,800 Series</b></p>  <p>Remove manual release knob (148), housing nuts (15), and housing (7) by pulling back.</p>   | <p><b>87,700 Series</b></p>  <p>a) Remove the brake and motor as a unit from the gear reducer.<br/>b) Remove four housing cap screws (15), lock washers (15W), housing (7) and shaft assembly.</p> |
| <p><b>87,200 Series</b></p>  <p>a) Remove any coupling, sprocket, sheave, etc., from brake shaft on housing side.<br/>b) Loosen set screw on shaft locking collar, rotate ccw, and slide off brake shaft.<br/>c) Remove release knob (148), housing nuts (15), and slide housing (7) off brake.</p> | <p><b>87,300 Series<br/>87,600 Series</b></p>  <p>Remove manual release knob (148), six housing bolts (9) and washers (10), and housing (7) by pulling back.</p>                                  |