

Service Instructions for 87,X00* Series Solenoid Lever and Pinion Kit

All Self-Adjusting Brakes

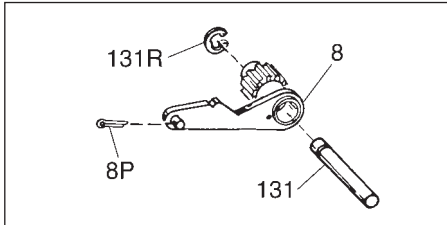


Figure 1

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, LLC, 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

Item No.	Description of Parts Included in Kit	Qty. per Kit
8	Solenoid lever and pinion assembly	1
8P	Cotter pin	1
131	Pivot pin (solenoid lever)	1
131R	Retaining ring (pivot pin)	1
131B	Nyliner bearing (pivot pin)	2

airborne. Collect the dust in a container, such as a bag, which can be sealed off.

6. Maintenance shall 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.

Note: 87,700 brake only. This coupler brake must use kit 5-96-7371-00 only.

Instructions

1. Remove housing.

Note: Before replacing solenoid lever and pinion, inspect lever arm sector gear for wear. If worn, replace lever arm assembly

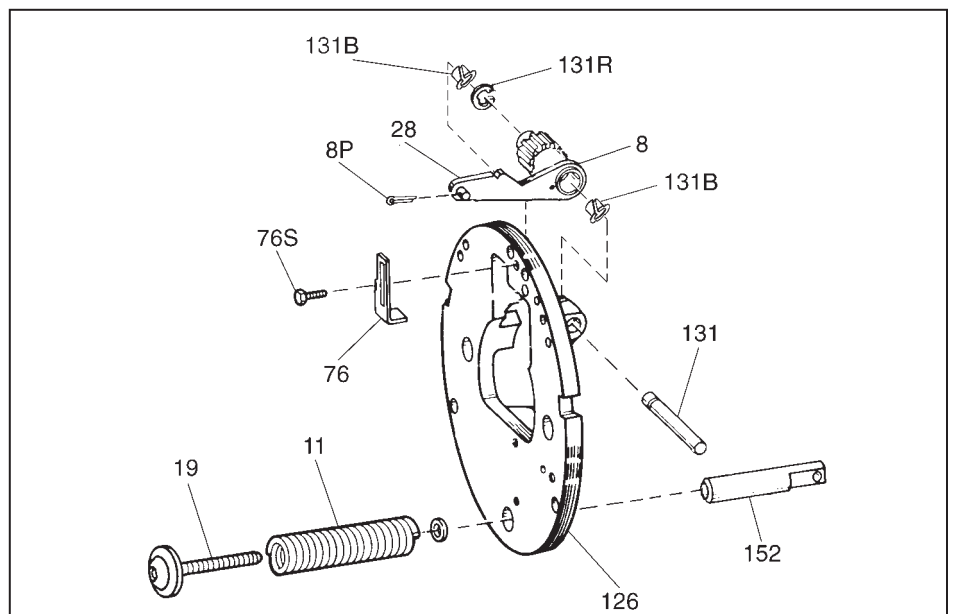


Figure 2

with lever arm kit.

2. Relieve the support plate pressure spring compression by unscrewing pressure spring bolt (19) from spring tube (152). Pressure spring (11) will be relaxed before pressure spring bolt is completely unscrewed. Do *not* remove the bolt.
3. Disconnect coil leads. Remove three support plate mounting screws, lock washers and support plate assembly (126).
4. Remove cotter pin (8P) from solenoid lever (28). Remove retaining ring (131R) from pivot pin (131). Push pivot pin out to free affected solenoid lever and pinion assembly (8). Discard old spacers (if used) and pivot pin.

CAUTION! Wrap spring sleeve is not to be rotated. Assembly is calibrated and ready for installation. Rotation of wrap spring sleeve may cause damage to assembly.

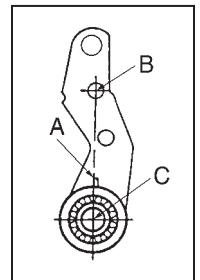


Figure 3

Reference: New wrap spring tang should be aligned with the centerline of the upper hole in the lever arm.

5. Insert new pivot pin (131) into the new solenoid lever and pinion assembly (8) making sure that the two Nyliner bearings (131B) are in place. (Insert the pivot pin as shown in figure 2, so that the retaining ring groove is to the toothed end of the pinion when the pin is in its final operating position)

NOTE: The wrap spring stop (item 76) is always positioned above the tang of the wrap spring on the lever arm assembly (item 8). Be sure that the solenoid link fits over the link pin on the solenoid lever arm.

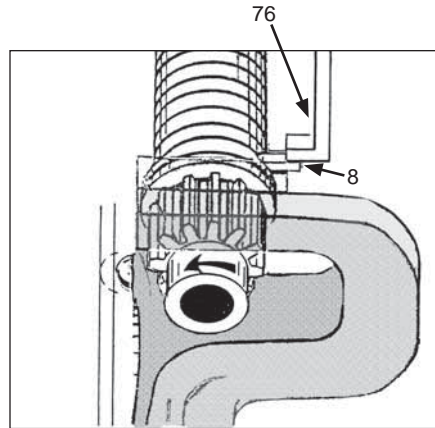


Figure 4

6. Replace retaining ring (131R) and cotter pin (8P) using new material furnished.
7. Remount support plate assembly to brake, tighten screws to 75-78 lb-in. Be sure that assembly is mounted with solenoid in vertical position (plunger above frame when brake is in horizontal position).
8. Tighten pressure spring bolt until fully seated against pressure spring tube. Do not overtighten. Torque to a maximum of 100 lb-in.
9. 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 operating solenoid air gap is 13/16" to 15/16".
10. Reconnect coil leads.
11. Replace housing, screws and manual release knob in the reverse order of the appropriate point in Step 1.
12. **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.



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