

## Service Instructions for Hardware Kits Series 87,000 Disc Brakes

Item Number	Description of Part Included in Kit	Quantity per Kit
2T	Pipe plug - conduit hole	2
76	Wrap spring stop	1
76S	Wrap spring stop screw	2
22	Solenoid lever stop	1
142S	Support plate screw	3
142W	Support plate conical spring washer	3
142X*	Support plate, flat washer 1/4"	3
150	Housing stud	2
150W	Housing stud lock washer	2
15	Housing nut	2
146*	Release rod	1
59*	Release rod spring	1
146R*	Release spring retaining clip	1
7S	Housing grommet	1
148	Manual release knob	1

\* Note: For use with aluminum support plate only.

### 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 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.

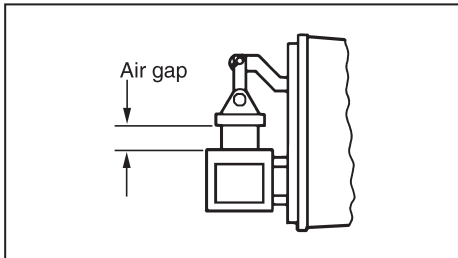
### Instructions

To replace items 2, 3, 4, 5, 7, and 8 remove manual release knob (148), two housing nuts (15) and housing (7) by pulling back.

1. If it is necessary to replace pipe plug - conduit hole (2T), there are two possible locations 180° apart.
2. To replace wrap spring stop (76) and wrap spring stop screws (76S), use the following procedure:
  - a) Remove two wrap spring stop screws (76S) and wrap spring stop (76). Discard these and replace with new items.
  - b) The position of the wrap spring stop (76) determines the solenoid air gap setting. The correct solenoid air gap setting is 13/16" to 15/16". The tang of wrap spring must be below the wrap spring stop (76).
  - c) To increase the solenoid air gap that is measured between the

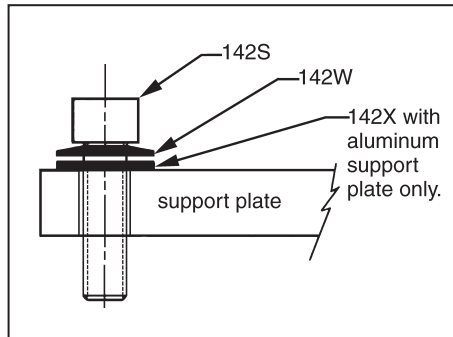
mating surfaces of the solenoid plunger (29) and the solenoid frame, loosen screws (76S), raise wrap spring stop (76) slightly. Be sure to retighten screws (76S). Manually lift solenoid plunger to maximum travel and release. Depress plunger and allow to snap out. Repeat several times, then check air gap. (For vertically mounted brakes, it is necessary to push solenoid plunger into solenoid frame to the point where spring pressure is felt before measuring air gap.)

d) To decrease the solenoid air gap, lower the wrap spring stop (76) and follow the same procedure outlined in (c).



3. To replace the solenoid lever stop (22), pry the worn stop out of the support plate assembly (142) from the side opposite of the solenoid. Insert the new solenoid lever stop (22) from the solenoid side of the support plate assembly. With flat side toward solenoid, drive it in until the flange of solenoid lever stop (22) is seated.

4. Replace the support plate screw (142S) and support plate conical spring washer (142W) as required. Flat washer (142X) used under the conical spring washer only with aluminum support plate. See figure directly below. Torque screws to 75-78 lb-in.



5. Replace the housing stud (150) and housing stud lock washer (150W) as required.

6. Replace the housing nut (15) as required.

7. To replace the release rod (146), release spring (59) and retainer (146R), use the following procedure:

a) Depress the solenoid plunger and secure it to the solenoid frame by wiring or a similar restraining method.

b) Disconnect the lead wires from the solenoid coil and remove three support plate screws (142S) and support plate conical spring washers (142W). Hold the support

plate assembly in place while doing this, then grasp and remove the support plate assembly.

c) Remove retaining lip (146R) with pliers and the release spring (59). Pull old release rod (146) from the support plate assembly and replace with new one. Replace old release spring with new one and secure it with the new push-on retaining clip (146R).

d) Reassemble this support plate assembly to the brake (see Item 4), remove the solenoid tie-down wire, check air gap per 2b and 2c or 2d replace housing, housing nuts (15) and manual release knob (148).

8. To replace the housing grommet (7S), remove old grommet, discard and push in new grommet.

9. Replace the manual release knob (148) if broken or damaged.

10. **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.**