

## Service Instructions for No. 5 and No. 6 AC Coil Kit

### Single and Dual Voltage Coils Series 57,000; 67,000 and 77,000 Brakes

Item no.	Description of Parts Included in Kit	Quantity Per Kit
12A	No. 5 coil or no. 6 coil	1
139	Lead wire and terminal assy.	2
139S	Terminal screw	2
139W	Terminal lock washer	2
82	Plunger guide	2
84	Screw - plunger guide	2
12AN*	Wirenut	2
12AT*	Crimp terminal	2

\*Dual voltage coils 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 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.

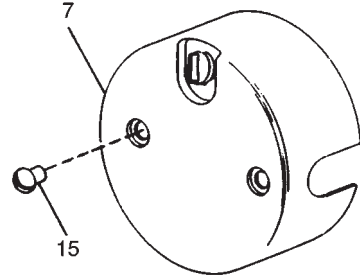
6. Maintenance should be performed only by qualified personnel familiar with the construction and operation of the brake.
7. For proper performance and operation, only genuine Stearns parts should be used for repairs and replacements.

**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

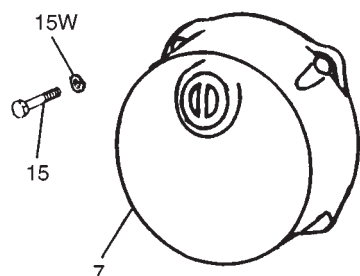
1. To remove housing, follow instructions listed under each individual brake series shown in next column, then continue with the following steps.
2. To replace the coil (12A), disconnect lead wire terminal screws (139S), lock washers (139W) and lead wires and terminal assembly (139). It is *not* necessary to remove the support plate assembly (142).
3. Remove solenoid link screw (13C), nut (13N) and lift out solenoid plunger (29).
4. Remove plunger guide screw(s) (84). Remove both plunger guides (82) by prying up on the flanges. Discard plunger guides.
5. With support plate assembly facing you,

#### 57,000 Series



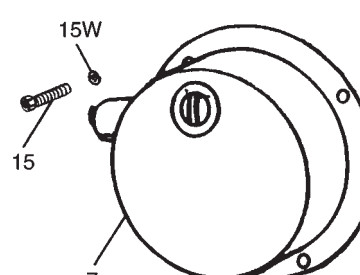
Remove two housing nuts (15), and housing (7) by pulling back.

#### 67,000 Series

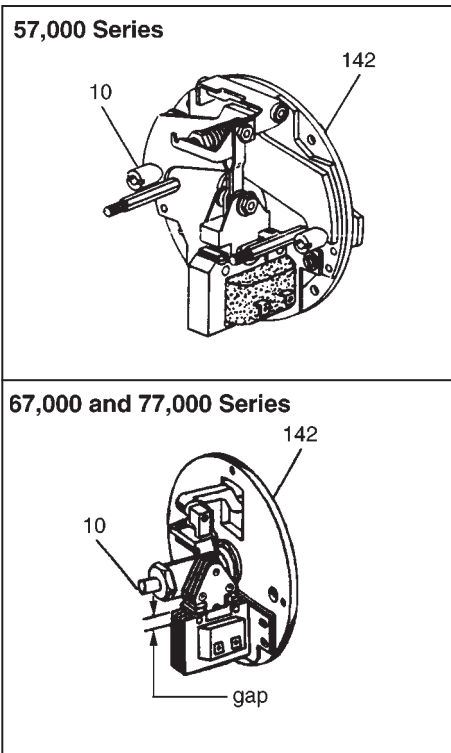


Remove four housing cap screws (15), lock washers (15W), and housing (7) by pulling back.

#### 77,000 Series



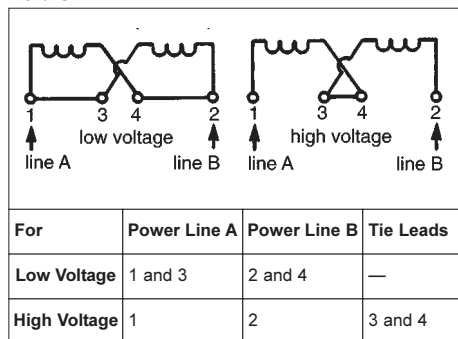
Remove four housing cap screws (15), lock washers (15W), and housing (7) by pulling back.



slide coil (12A) from solenoid frame (79). If necessary, tap coil lightly with soft hammer. If coil had burned out, be sure to remove all foreign material from the solenoid plunger (29) and solenoid frame.

6. Install new coil (12A) into solenoid frame with same relative position as old coil. Assemble new plunger guides (82) and plunger screw(s) (84).
7. Reassemble plunger into solenoid by reversing Step 3.
8. To connect dual voltage coil for *low voltage only*, use crimp terminals (12AT) to attach *black* pigtail leads to coil terminals. (Refer to wiring diagram, Table 1.)
9. To connect dual voltage coil for *high voltage only*, use wirenut (12AN) to join *black* pigtail leads. (Refer to wiring diagram, Table 1.)

Table 1



10. The new lead wire assemblies included in kit cannot be used with the Series 67,000 and 77,000. However, if on the Series 57,000 the original lead wires (139) are damaged, replace with new lead wires. New terminal screws (139S) and lock washers (139W) are also provided in kit.

Be sure to check the following when installing lead wires:

- 1) Must not be tight or pinched.
- 2) Must not make contact with friction disc.
- 3) Must not be trapped between solenoid plunger and frame.

11. 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 correct solenoid air gap measurements are shown in Table 2.

12. Solenoid gap adjustment

**57,000 Series**

When gap reaches 3/4" to 7/8" brake must be adjusted. Turn both wear adjustment nuts (10) equal amounts in a clockwise direction (one half turn at a time) until gap is 1/2" to 5/8". The screwdriver slots in both adjustment nuts must always be on the horizontal centerline (as shown) to permit full bearing of pressure contact points.

**67,000 and 77,000 Series**

Insert screwdriver and turn adjusting stud (10) clockwise or counterclockwise until proper solenoid gap is attained. (See Table, Step 11).

15. **Caution 1!** 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.

**Caution 2!** Class H coils with terminals. Do not bend lead wire crimp connection as this causes a fatigue in the metal which may break under vibration.

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

Table 2: Solenoid Air Gap Measurement (inches)

Nominal Static Torque (lb-ft)	57,000 Series	67,000 Series	77,000 Series
6	1/2-5/8	—	—
10	1/2-5/8	7/16	7/16
15	1/2-5/8	7/16	7/16
25	—	7/16	7/16
35	—	9/16	9/16
50	—	9/16	9/16
75	—	5/8	5/8

13. Reconnect coil leads.
14. Replace housing and housing nuts or bolts in reverse order of the appropriate point in Step 1.