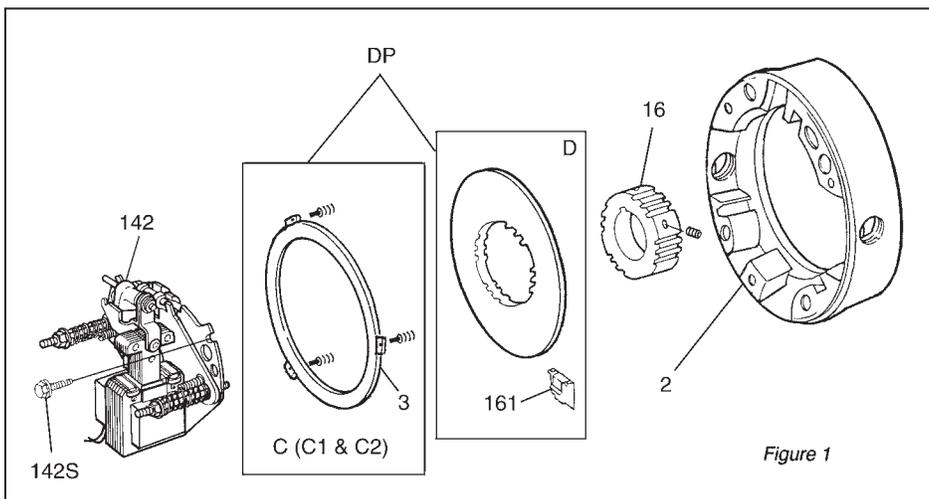


Service Instructions for Disc Kits Series 56,X00 Disc Brakes



Item No.	Kit Number and Description of Parts	Qty. per Kit
D	Friction Disc Kit (5-66-8462-00)	
4	Friction Disc	1
161	Stabilizing Spring	2
C	Stationary Disc Kit (1 disc) (5-66-8354-00)	
3	Stationary Disc	1
C1	Stationary Disc Kit (2 disc) (5-66-8355-00)	
3	Stationary Disc Assembly	2
C2	Stationary Disc Kit (3 disc vertical) (5-66-8356-00)	
3	Stationary Disc Assembly	3
DP	Disc Pack Kit	
	5-66-8601-00 (1 disc)	
	5-66-8602-00 (2 disc)	
	5-66-8603-00 (3 disc horizontal)	
	5-66-8604-00 (3 disc vertical)	
3	Stationary Disc(s) Assembly	1, 2 or 3
4	Friction Disc(s)	1, 2 or 3
161	Stabilizing Springs	2

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 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 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.

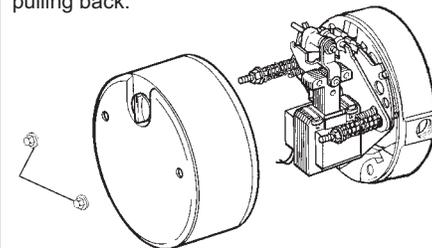
Warning! Any mechanism or load held in position by the brake should be secured to prevent possible injury to personnel or damage to equipment before any disassembly of the brake is attempted or before the manual release knob is operated on the brake.

Instructions

1. To remove housing, follow instructions listed under each individual brake series in Figure 2. For NEMA 4 and 4X enclosures, remove three housing nuts and sealing washers.

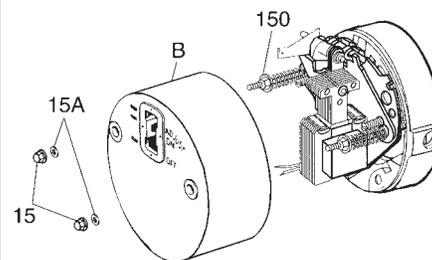
56,000, 56,400 and 56,500 Series

NEMA 2 Standard Enclosure: Remove two housing nuts (15) by unscrewing from housing studs (150), remove housing (B) by pulling back.



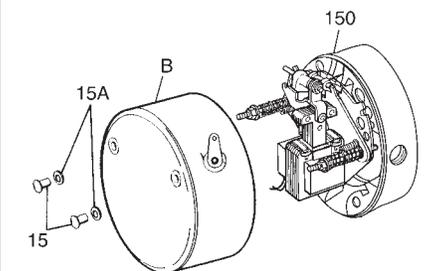
56,100 and 56,600 Series

NEMA 2 Standard Enclosure: Remove two housing nuts (15) and washers (15A) by unscrewing from housing studs (150), remove housing (B) by pulling back.



56,200 Series

NEMA 2 Standard Enclosure: Remove two housing nuts (15) and washers (15A) by unscrewing from housing studs (150), remove housing (B) by pulling back.



56,300 Series

NEMA 1 Standard Enclosure: Remove two housing nuts (15) and washers (15A) by unscrewing from housing studs (150), remove housing (B) by pulling back.

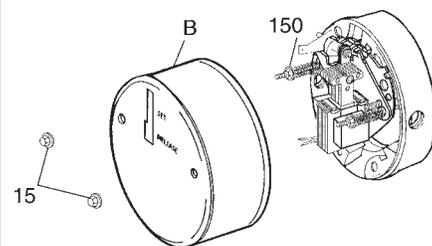


Figure 2 (continued on back side)

56,700 Series

- Remove housing (7) by unscrewing nuts from the four mounting studs (128) that protrude through the reducer flange.
- Grasp the coupler brake and motor as a unit and pull free from the reducer.
- Pull housing from the mounting studs (128). These studs are threaded into the motor C-face and should remain in place.

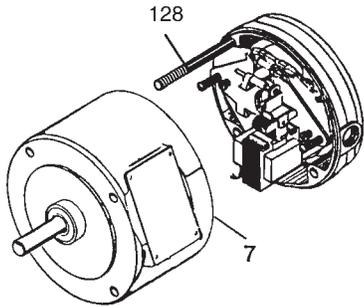


Figure 2 (continued from front side)

- Disconnect coil lead wires and remove support plate assembly (142) by unscrewing and removing three screws (142S).

- Installation Procedures.** Disc pack components are now accessible. Follow procedures for the specific brake torque ratings listed below.

A) 1-1/2 and 6 lb-ft universal mount and 20 and 25 lb-ft horizontal mount. When replacing any of these components, be certain to reassemble new friction disc(s) and stationary disc(s) in the same order, being sure all slide freely without binding. Separator springs are not required on these brake applications. Stationary discs must be inserted with the indent marking outward from the motor. See Figure 3A.

1-1/2, 3, 6 lb-ft Universal 20, 25 lb-ft Horizontal

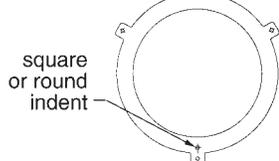


Figure 3A

B) 10-15 lb-ft universal mount. Reassemble disc pack by installing a friction disc, stationary disc (spring side first) second friction disc and second stationary disc (spring side first). See Figure 3B.

C) 20-25 lb-ft vertical mounting. Above motor orientation, install first friction disc followed by the stationary disc with the copper springs; second friction disc; stationary disc with silver springs, followed by the third friction disc then the final stationary disc with the blue springs. See Figure 3C.

2 Friction Disc - Any Orientation

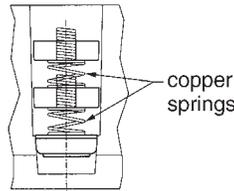


Figure 3B

For vertical below orientation reverse the order of the stationary from the vertical above procedures. See Figure 3C.

3 Friction Disc

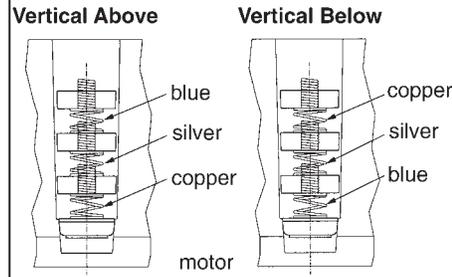


Figure 3C

Note 1: Always insert the stationary disc with the spring side toward the motor

Note 2: Check that new friction disc(s) slide freely on hub (16). It may be necessary to file area of disc contacting hub to be sure the disc(s) slide freely when reassembling.

Note 3: When replacing friction disc(s), turn both wear adjust screws (10) two full turns counterclockwise prior to replacing support plate assembly. Check to be sure wear adjust screws are of equal height. Measure from inboard side of support plate with depth micrometer. Turn one screw to obtain equal height.

Note 4: Certain multiple friction disc model numbers require a single stabilizer clip (161) added to each friction disc. If your particular brake model has this clip on the discs, as received, it must be replaced whenever the friction disc is replaced. Single friction disc brakes always require two stabilizer clips located 90° from each other.

- Remount support plate assembly to the brake drawing the screws down evenly. Torque to 55 in-lbs. Be sure that the assembly is mounted so that the solenoid is upright (plunger above the frame) when the brake is horizontally mounted including ceiling or horizontally wall mounted.
- 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

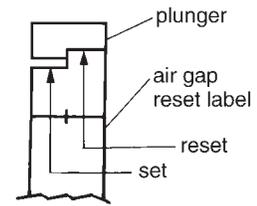


Figure 4

Table 1: Solenoid Air Gap Measurement

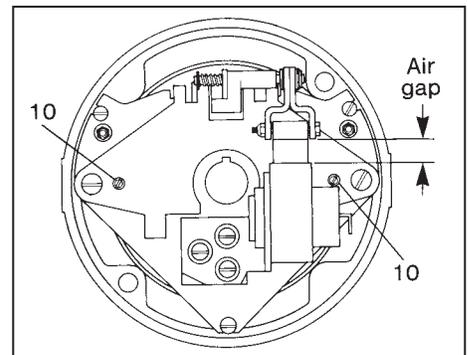
Nominal Static Torque (lb-ft)	56,X00 Series
1.5, 3 & 6	3/8"
10 & 15	7/16"
20 & 25	1/2"

plunger into solenoid frame to the point where spring pressure is felt, before measuring solenoid air gap.

Adjustment is necessary when the ground plunger surface is behind the "reset" level of the label. To check air gap, view the ground plunger surface position directly behind the air gap reset label. See Figure 4.

Air gap can be set to Table 1 measurement as alternate to visual method.

- The solenoid air gap may be decreased by turning both wear adjustment screws (10) equal amounts clockwise, approximately 1/8 turn, until appropriate solenoid gap is attained. See Figure 5. To increase gap, turn screws counter-clockwise equal amounts.



- Reconnect solenoid coil leads.
- Replace housing and housing nuts in reverse order of the appropriate point in Step 1.
- 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.