

# 80 Series Troubleshooting

## WARNING

Brake performance and features must be carefully matched to the requirements of the application.

Consideration must be given to torque requirements, especially where an overhauling condition exists, as well as thermal capacity, ambient temperature, atmospheric explosion hazards, type of enclosure and any other unusual conditions.

Improper selection and installation of a brake and/or lack of maintenance may cause brake failure which could result in damage to property and/or injury to personnel.

If injury to personnel could be caused by brake failure, additional means must be provided to insure safety of personnel.

Do not operate manual release or energize brake coil before installation, in order to preserve prealignment of rotating discs for ease of installation.

## TROUBLE SHOOTING

### A. IF BRAKE DOES NOT RELEASE:

1. Check brake visually for broken or damaged parts.
2. Check for broken leadwire or bad electrical connection.
3. Check for correct voltage. Line voltage must correspond to the voltage for which the brake coils are connected. If the line voltage is more than 10% below the voltage for which the brake coils are connected, the magnet will not pull in, causing the coils to burn out within minutes. If the line voltage is more than 10% above the voltage for which the brake coils are connected, the coils will overheat and burn out.
4. Check for burned-out coils (coils may be charred or burned).
5. Check for excessive magnet gap. (See WEAR ADJUSTMENT.)
6. Check for failure of power supply to brake.

### B. IF BRAKE DOES NOT STOP:

1. Check brake visually for broken or damaged parts.
2. Make certain hub has not shifted position on the motor shaft and that all rotating discs are fully engaged on the hub.
3. Check that the manual release is in the normal position.
4. Check disc wear. (See WEAR ADJUSTMENT.)

### C. IF BRAKE CHATTERS OR HUMS:

1. See that magnet faces are clean. To remove dirt, insert a clean sheet of paper between magnet faces and energize brake. Move paper around between faces to dislodge dirt, then remove paper.
2. Check for low voltage. Magnet will not pull in, and coils will burn out if line voltage is beyond 10% below the voltage the brake coils are connected for.
3. See that magnet faces are parallel within tolerance. Readjust magnet gap to "A" min. (See WEAR ADJUSTMENT.)
4. Check if shading coil (33) is cracked, broken or out of position (single phase only).

### D. IF MANUAL RELEASE DOES NOT WORK:

1. Check for broken or damaged parts.
2. Check return spring (8). Brake will not reset automatically if this spring is broken.
3. Check quantity of shim washers (11) under release stop screws. (See MANUAL RELEASE ASSEMBLY.)

## WEAR ADJUSTMENT

Magnet gap "A" increases as friction discs wear. When gap approaches "A" max., adjust gap to "A" min. dimension by turning nuts (14 and 19). Magnet gap can vary from nominal  $\pm .005$  between corners. After setting gap, readjust torque spring length "H".

**CAUTION: MAGNET GAP MUST NOT EXCEED "A" MAXIMUM.**

### 2 - POST

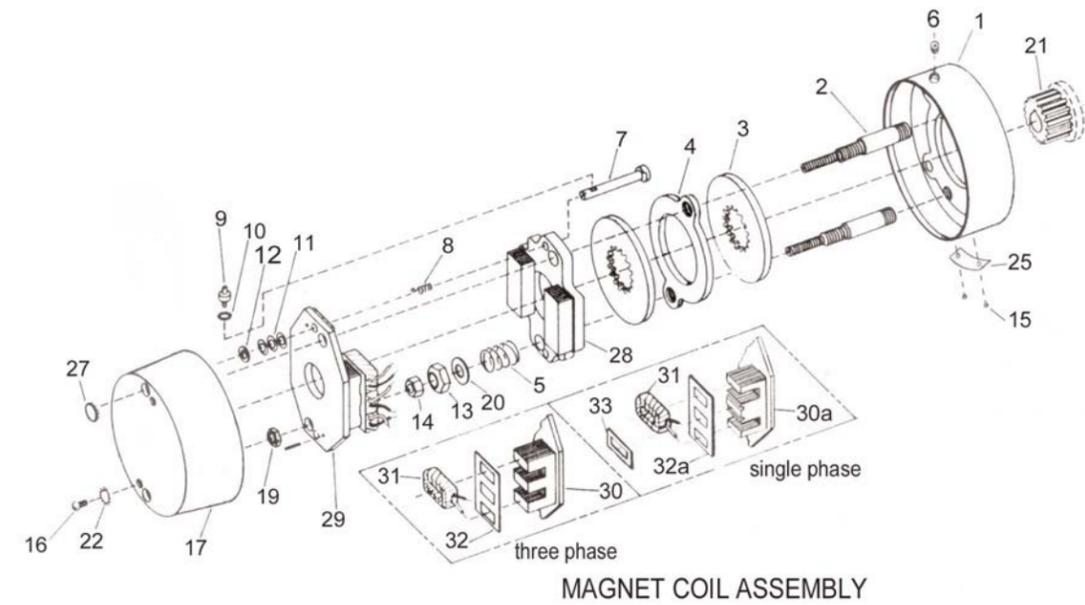
Torque lb.ft.	A Air Gap		H spring length
	Max	Min	
25	.065	.040	1.28
35	.065	.040	1.28
50	.065	.040	1.28
70	.065	.040	1.28
75	.070	.040	1.28
105	.070	.040	1.28
125	.080	.050	1.37
175	.080	.050	1.28

### 4 - POST

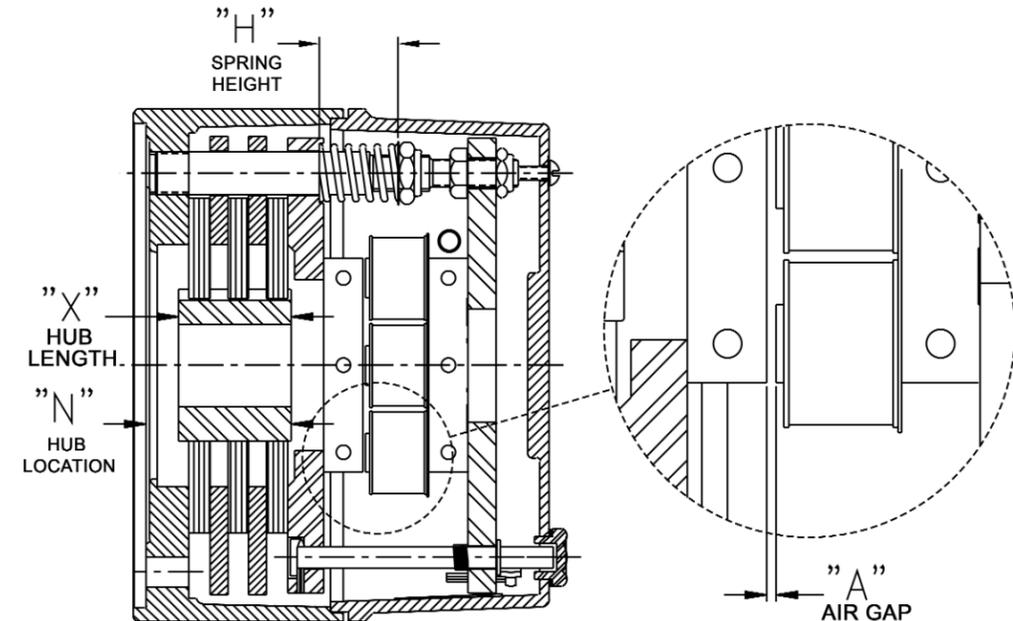
Torque lb.ft.	A Air Gap		H spring length
	Max	Min	
25	.065	.035	1.31
35	.065	.035	1.31
50	.065	.035	1.31
70	.065	.035	1.31
75	.070	.040	1.31
105	.070	.040	1.31
125	.080	.050	1.43
175	.080	.050	1.31

## MANUAL RELEASE ASSEMBLY

When assembling a standard manual release mechanism, add only enough shim washers (11) to obtain proper release action. Too many shim washers will prevent automatic reset when electrical power is applied. Too few washers will prevent the motor shaft from turning freely. Replace stop screws (9). Wind each torsion spring (8) approximately 1/4 turn and hook spring loop over pin.



2-POST NEMA 2 Exploded View Shown



Air Gap / Wear Adjust Setting