

DBA 8080.6

 **Warning**

Forward this manual to the person responsible for Installation, Operation and Maintenance of the product described herein. Without access to this information, faulty Installation, Operation or Maintenance may result in personal injury or equipment damage.

Installation and Adjustment of the Disc Centering Option used in Airflex[®] DBA Brake Assemblies

Vertical Swing Motor Applications

(This Manual is a supplement to Airflex Manual DBA 8080)

 **Caution:**

Use Only Genuine Airflex[®] Replacement Parts

The Airflex Division of Eaton Corporation recommends the use of genuine Airflex replacement parts. The use of non-genuine Airflex replacement parts could result in substandard product performance, and may void your Eaton warranty. For optimum performance, contact Airflex:

In the U.S.A. and Canada: **(800) 233-5890**
Outside the U.S.A. and Canada: **(216) 281-2211**



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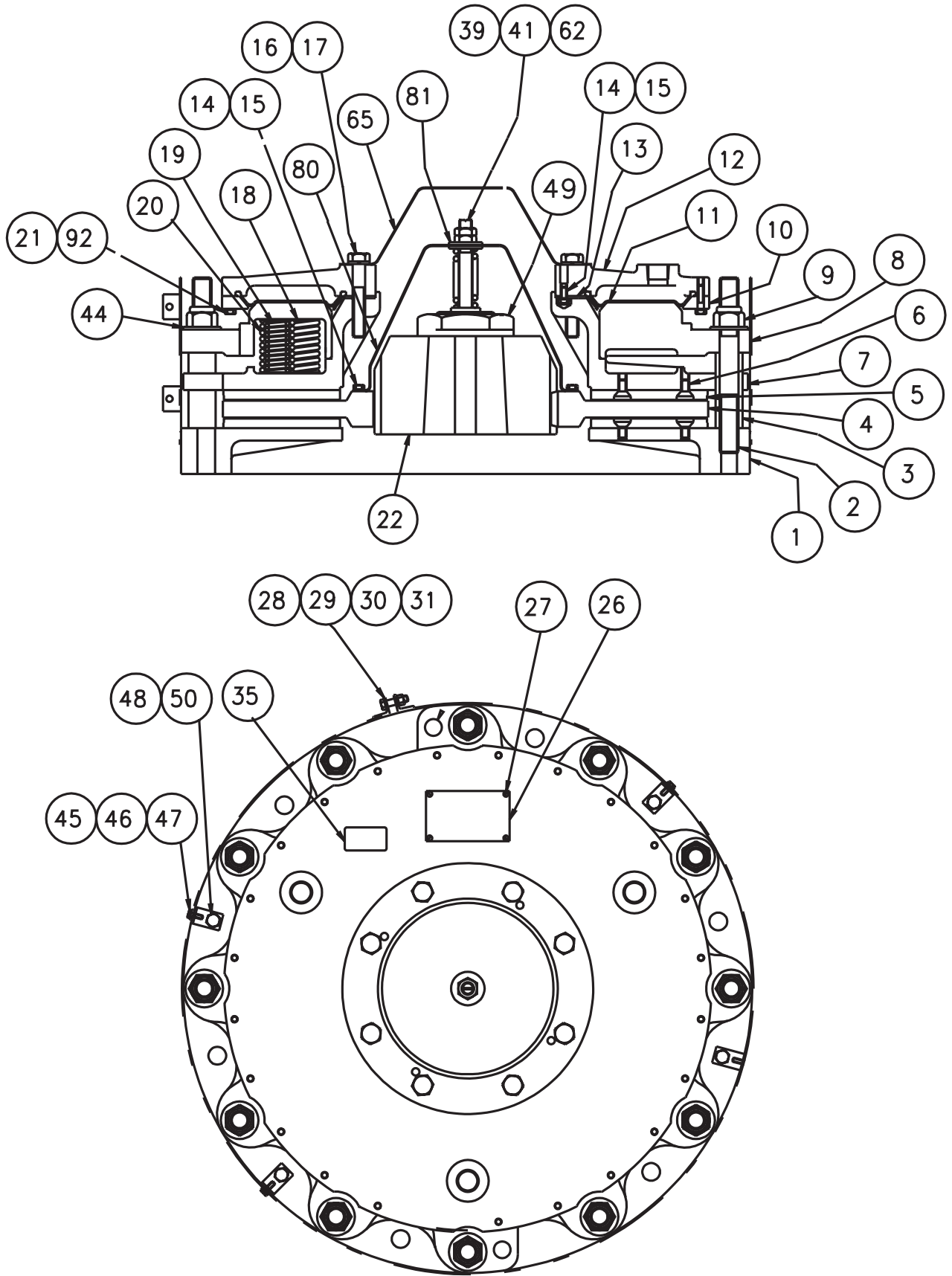


Figure 1


Table 1

| Item | Description | 117 DBA (146148CF) | | 117 DBA (146148CG) | |
|------|-----------------------|--------------------|------|--------------------|------|
| | | Part Number | Qty. | Part Number | Qty. |
| 1 | Mounting Flange | 510282 | 1 | 510282 | 1 |
| 2 | Stud | 307261-01 | 6 | 307261-01 | 6 |
| 3 | Clamp Tube | 306542--03 | 6 | 306542--03 | 6 |
| 4 | Disc | 413295 | 1 | 413295 | 1 |
| 5 | Friction Disc | 414686 | 2 | 414686 | 2 |
| 6 | Flat Head Screw | 000294x0405 | 18 | 000294x0405 | 18 |
| 7 | Pressure Plate | 510284 | 1 | 510284 | 1 |
| 8 | Spring Housing | 510286 | 1 | 510286 | 1 |
| 9 | Lock Nut | 000110x0073 | 6 | 000110x0073 | 6 |
| 10 | Outer Clamp Ring | 413647 | 1 | 413647 | 1 |
| 11 | Diaphragm | 413648-02 | 1 | 413648-02 | 1 |
| 12 | End Plate | 510712 | 1 | 510712 | 1 |
| 13 | Inner Clamp Ring | 306944-02 | 1 | 306944-02 | 1 |
| 14 | Hex Head Screw | 000001x0205 | 7 | 000001x0205 | 7 |
| 15 | Inner Clamp Ring | 000068x0007 | 25 | 000068x0007 | 25 |
| 16 | Hex Head Screw | 000001x0615 | 6 | 000001x0615 | 6 |
| 17 | Lockwasher | 000068x0019 | 6 | 000068x0019 | 6 |
| 18 | Spring Retainer Plate | 306624 | 18 | 306624 | 18 |
| 19 | Inner Spring | 306625 | 27 | 306625 | 27 |
| 20 | Outer Spring | ----- | - | ----- | - |
| 21 | Hex Head Screw | 000001x0208 | 18 | 000001x0208 | 18 |
| 22 | Gear | 413054 | 1 | 413054 | 1 |
| 26 | Name Plate | 307007-01 | 1 | 307007-01 | 1 |
| 27 | Self Tapping Screw | 000153x0644 | 4 | 000153x0644 | 4 |
| 28 | Shield | 510296 | 1 | 510296 | 1 |
| 29 | Hex Head Screw | 000001x0209 | 2 | 000001x0209 | 2 |
| 30 | Lockwasher | 000068x0007 | 2 | 000068x0007 | 2 |
| 31 | Hex Nut | 000045x0008 | 2 | 000045x0008 | 2 |
| 35 | Warning Decal | 203627 | 1 | 203627 | 1 |
| 39 | Spring | 000071x0106 | 1 | 000071x0106 | 1 |
| 41 | Hex Jam Nut | 000061x0009 | 2 | 000061x0009 | 2 |
| 44 | Flat Washer | 000153x0641 | 6 | 000153x0641 | 6 |
| 45 | Bracket | 203700 | 2 | 203700 | 2 |
| 46 | Hex Head Screw | 000001x0005 | 2 | 000001x0005 | 2 |
| 47 | Flat Washer | 000067x0002 | 2 | 000067x0002 | 2 |
| 48 | Lockwasher | 000068x0014 | 2 | 000068x0014 | 2 |
| 49 | Hex Nut | 306993-01 | 1 | 306993-02 | 1 |
| 50 | Hex Head Screw | 000001x0405 | 2 | 000001x0405 | 2 |
| 62 | Centering Plug | 307171-02 | 1 | 307171-01 | 1 |
| 65 | Guard | 414168 | 1 | 414168 | 1 |
| 80 | Disc Centering Cone | 414407 | 1 | 414407 | 1 |
| 81 | Flat Washer | 000067x0033 | 2 | 000067x0033 | 2 |
| 92 | Flat Washer | ----- | - | ----- | - |

Table 1 (continued)

| Item | Description | 129 DBA (146162CT) | | 129 DBA (146162DR) | |
|------|-----------------------|--------------------|-----|--------------------|-----|
| | | Part Number | Qty | Part Number | Qty |
| 1 | Mounting Flange | 414624 | 1 | 414245 | 1 |
| 2 | Stud | 307261-02 | 12 | 307261-02 | 12 |
| 3 | Clamp Tube | 306542-05 | 12 | 306542-05 | 12 |
| 4 | Disc | 413579 | 1 | 413579 | 1 |
| 5 | Friction Disc | 414665 | 2 | 414665 | 2 |
| 6 | Flat Head Screw | 000294x0407 | 72 | 000294x0407 | 72 |
| 7 | Pressure Plate | 510619 | 1 | 510619 | 1 |
| 8 | Spring Housing | 510616 | 1 | 510616 | 1 |
| 9 | Lock Nut | 000110x0073 | 12 | 000110x0073 | 12 |
| 10 | Outer Clamp Ring | 414922 | 8 | 414922 | 8 |
| 11 | Diaphragm | 407517-02 | 1 | 407517-02 | 1 |
| 12 | End Plate | 413581 | 1 | 413581 | 1 |
| 13 | Inner Clamp Ring | 407684-02 | 1 | 407684-02 | 1 |
| 14 | Hex Head Screw | 000001x0205 | 4 | 000001x0205 | 10 |
| 15 | Inner Clamp Ring | 000068x0007 | 4 | 000068x0007 | 10 |
| 16 | Hex Head Screw | 203806 | 8 | 203806 | 8 |
| 17 | Lockwasher | 000068x0025 | 8 | 000068x0025 | 8 |
| 18 | Spring Retainer Plate | 413583 | 24 | 413583 | 24 |
| 19 | Inner Spring | 307044 | 30 | 307044 | 24 |
| 20 | Outer Spring | 307045 | 30 | 307045 | 24 |
| 21 | Hex Head Screw | 000001x0209 | 24 | 000001x0209 | 24 |
| 22 | Gear | 413801 | 1 | 413801 | 1 |
| 26 | Name Plate | 307052-01 | 1 | 306626-10 | 1 |
| 27 | Self Tapping Screw | 000153x0644 | 4 | 000153x0644 | 4 |
| 28 | Shield | 413827 | 1 | 413827 | 1 |
| 29 | Hex Head Screw | 000001x0209 | 2 | 000001x0209 | 2 |
| 30 | Lockwasher | 000068x0007 | 2 | 000068x0007 | 2 |
| 31 | Hex Nut | 000045x0008 | 2 | 000045x0008 | 2 |
| 35 | Warning Decal | 203627 | 1 | 203627 | 1 |
| 39 | Spring | 000071x0106 | 1 | 000071x0106 | 1 |
| 41 | Hex Jam Nut | 000061x0009 | 2 | 000061x0009 | 2 |
| 44 | Flat Washer | 000153x0641 | 12 | 000153x0641 | 12 |
| 45 | Bracket | 203700 | 4 | 203700 | 4 |
| 46 | Hex Head Screw | 000001x0005 | 4 | 000001x0005 | 4 |
| 47 | Flat Washer | 000067x0002 | 4 | 000067x0002 | 4 |
| 48 | Lockwasher | 000068x0014 | 4 | 000068x0014 | 4 |
| 49 | Hex Nut | ----- | -- | ----- | -- |
| 50 | Hex Head Screw | 000001x0405 | 4 | 000001x0405 | 4 |
| 62 | Centering Plug | 307171-02 | 1 | 307171-02 | 1 |
| 65 | Guard | 414177 | 1 | 414177 | 1 |
| 80 | Disc Centering Cone | 414176 | 1 | 414176 | 1 |
| 81 | Flat Washer | 000067x0033 | 2 | 000067x0033 | 2 |
| 92 | Flat Washer | 000067x0003 | 24 | 000067x0003 | 24 |

1.0 INTRODUCTION

Throughout this manual there are a number of **HAZARD WARNINGS** that must be read and adhered to in order to prevent possible personal injury and/or damage to the equipment. Three signal words "**DANGER**", "**WARNING**", and "**CAUTION**" are used to indicate the severity of the hazard, and are preceded by the safety alert symbol .



Danger:

Denotes the most serious injury hazard, and is used when serious injury or death **WILL** result from misuse or failure to follow specific instructions.






Warning:

Used when serious injury or death **MAY** result from misuse or failure to follow specific instructions.



Caution:

Used when injury or product/equipment damage may result from misuse or failure to follow specific instructions.

It is the responsibility and the duty of all personnel involved in the installation, operation and maintenance of the equipment on which this device is used to fully understand the  **Danger:**,  **Warning:** and  **Caution:** procedures by which hazards are to be avoided.

1.1 Description

- 1.1.1 The Cone Style Disc Centering option, used on vertically mounted DBA brakes, was designed to prevent the disc from dragging while rotating in the released position.

1.2 How It Works

- 1.2.1 The disc centering cone (80) is mounted to the top face of the disc (4). When the brake is released, the spring (39) raises the cone and disc off of the mounting flange (1) friction surface and centers the disc between the mounting flange and pressure plate (7) friction discs (5).

- 1.2.2 The brake disc position can be easily adjusted by removing the guard (65) and adjusting the jam nuts (41).

2.0 INSTALLATION



Warning:

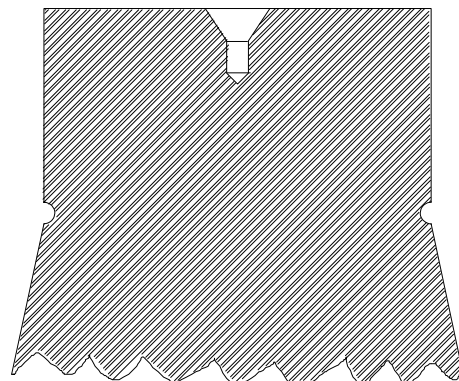
Only qualified personnel should install, adjust or repair these units. Faulty workmanship will result in unreasonable exposure to hazardous conditions or personal injury.



Caution:

Read these instructions and the instructions in DBA 8080 thoroughly and review until you fully understand the installation sequence before proceeding with the work described in this section. Failure to follow these instructions will result in unreasonable exposure to hazardous conditions or personal injury.

- 2.1.1 Install the gear in accordance with DBA 8080.
- 2.1.2 Clean any dirt, debris, paint, ect. from the countersink hole in the end of the motor shaft (See Figure 2). The centering plug (62) must fit securely into the countersink during installation.
- 2.1.3 Lubricate the gear and disc spline with a light coat of Molub-Alloy[®] O.G. Heavy grease.
- 2.1.4 Remove only the two screws (16) and lock-washers (17) that fasten the guard (65) to the end plate (12).



Figure



Caution:

Removal of all screws will result in releasing the end plate exposing the diaphragm.

- 2.1.5 Remove the guard and re-install the screws and lockwashers. Torque the screws to 50 ft. lb.. on the 117 DBA and to 150 ft. lb.. on the 129 DBA (lubed).
- 2.1.6 Lower the brake into position over the gear, making sure the centering plug (62) engages into the countersink in the end of the motorshaft. and the center stud.
- 2.1.7 Secure the brake to the motor with appropriate fasteners. Torque to values in table 2.
- 2.1.8 Adjust disc centering device by adjusting jam nut (41) to obtain 0.060" gap between nut and flat washer (81).
- 2.1.9 Install the air piping and apply air pressure to verify that the gaps on each side of the discard equal (above and below). Adjust the jam nuts, if required to center the disc between the friction discs.



Caution:

Maximum applied air pressure is 120 psi.

- 2.1.10 Operate the brake to insure the disc is not dragging. Adjust as required.

Note: When performing maintenance specified in DBA 8080 you must install the cone (80) using screws (14) and washers (15) and torque to 20 ft. lb. before installing disc (5).

| Table 2 | | |
|----------------|--------------|--------------|
| Model | Screw Size | Torque |
| 17 DBA | 3/4"-10 gr.8 | 150 ft. lbs. |
| 29 DBA | 1"-8 gr. 8 | 660 ft.lbs. |

3.0 ORDERING INFORMATION/ TECHNICAL ASSISTANCE

3.1 Equipment Reference

- 3.1.1 In any correspondence regarding Airflex Equipment, refer to the information on the product nameplate and call or write:

Eaton Corporation
 Airflex Division
 9919 Clinton Road
 Cleveland, Ohio 44144
 Tel.: (216) 281-2211
 Toll free: 800/233-5890
 Fax: (216) 281-3890

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EATON PRODUCT WARRANTY

Subject to the conditions stated herein, Eaton Corporation warrants to the Purchaser that each new Airflex Product manufactured by Eaton will be free from failures caused by defects in material and workmanship, and will deliver its rated capacity, for a period of twelve (12) months from the date of shipment to Purchaser, provided such Product is properly installed, properly maintained, operated under normal conditions and with competent supervision. Warranty claims shall be made in writing and the part or parts shall, if requested by Airflex Division, be returned prepaid to the Airflex Division for inspection. Upon a determination that a defect exists, Eaton shall thereupon correct any defect, at its option either by repairing any defective part or parts or by making available at Eaton's plant a repaired or replacement part. This warranty does not extend to normal wear parts or components of the Product, such as friction material and friction surfaces.

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