

60 Series
NEMA C Face
Coupler Brake
Instructions

Leeson Catalog Nos. 175131.00, 175132.00, 175153.00, 175154.00, 175970.00, and 175971.00

Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage!

Retain instructions for future reference.

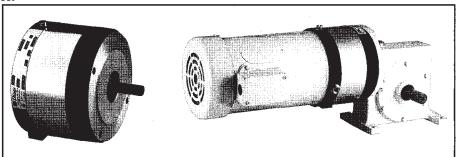
### DESCRIPTION

Magnetic disc brakes Models 175131.00, 175153.00, and 175970.00 are used on 56C face motors and speed reducers.

Models 175132.00, 175154.00, and 175971.00 are used on 56C, 143TC, and 145TC face motors and speed reducers. They can be mounted between a motor and a speed reducer, coupling them.

NOTE: These brakes are not intended for accurate positioning applications. They are designed for applications that require rapid stopping and holding power such as conveyors, door openers, etc.

WARNING: DO NOT INSTALL OR USE THESE BRAKES IN AN EXPLOSIVE ATMOSPHERE.



Dings Model No.	Leeson Catalog No.	Brake Coil Rating Voltage-Phase-Hertz	Brake Bore "X"	NEMA Motor Frame Size
6-61003-5111-X1DD	175131.00	110/208-220V-1ph-50Hz 115/208-230V-1ph-60Hz	5/8"	56C
6-61003-5111-Z1DD	175970.00	208/230-460V-1ph-60Hz	5/8"	56C
6-61003-5111-P1DD	175153.00	575V-1ph-60Hz	5/8"	56C
6-62006-5111-X1FD	175132.00	110/208-220V-1ph-50Hz 115/208-230V-1ph-60Hz	7/8"*	56C,143TC,145TC
6-62006-5111-Z1FD	175971.00	208/230-460V-1ph-60Hz	7/8"*	56C,143TC,145TC
6-62006-5111-P1FD	175154.00	575V-1ph-60Hz	7/8"*	56C,143TC,145TC

# **DIMENSIONS**

<sup>\*</sup>includes 7/8" OD x 5/8" ID bushing

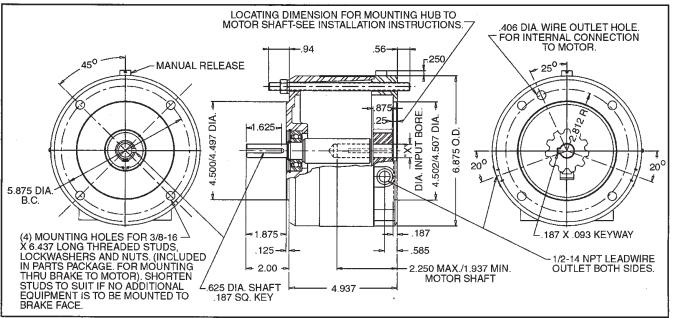


Figure 1

### **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.

### UNPACKING

When unpacking the brake, inspect it carefully for damage that may have occurred during transit.

# GENERAL SAFETY INFORMATION

NOTE: These brakes are not intended for accurate positioning applications. They are designed for applications that require rapid stopping and holding power, such as on conveyors, door openers, etc.

- For applications with high inertia-type loads or rapid cycling, the thermal capacity of the brake must be considered.
- 2. Observe all local electrical and safety codes, as well as the National Electrical Code (NEC) and the Occupational Safety and Health Act (OSHA).
- 3. Brake motors and brake gearmotors must be securely and adequately grounded. This can be accomplished by wiring with a grounded metal-clad raceway system, by using a separate ground wire connected to the bare metal of the motor frame, or other suitable means. Refer to NEC Article 250 (Grounding) for additional information. All wiring should be done by a qualified electrician.
- 4. Always disconnect power before working on or near a brake motor, a brake gearmotor, or its connected load. If the power disconnect point is out of sight, lock it in the open position and tag it to prevent unexpected application of power.
- 5. When working on the brake, be sure the load is completely removed, secured or blocked to prevent injury or property damage.
- 6. Provide guarding for all moving parts.
- 7. Be careful when touching the exterior of an operating motor, gearmotor or brake. It may be hot enough to cause injury or to be painful. This condition is normal for modern motors, which operate at higher temperatures when running at rated load and voltage.
- 8. Protect all electrical lead wires and power cables against contact with sharp objects or moving parts.
- Do not kink electrical lead wires and power cables, and never allow them to touch oil, grease, hot surfaces or chemicals.

# **INSTALLATION**

CAUTION: To preserve pre-alignment of rotating discs for ease of installation, do not operate manual release or energize brake coil before installation.

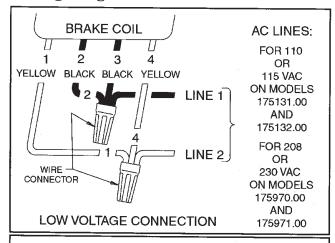
NOTE: Brakes may be mounted in all positions. The rotating disc(s) life decreases when mounted in positions other than horizontal. Life could decrease up to 20% depending upon model, loading and position.

Number in parentheses refer to parts illustrated in Figs. 3, 4, 6, 7 and 8.

# Placing Brake on Motor C Face

- 1. Mount hub (22) over key on motor shaft 1/4" from the motor mounting face as shown in Fig. 1. Part number on hub to face away from motor. Use 3/16" square key furnished for all models when adapter sleeve (32) is not used. Use 3/16" x 5/16" key furnished for Models 175132.00, 175154.00, and 175971.00 when adapter sleeve (32) is used. Key must extend to, and be flush with, end of motor shaft. Tighten both setscrews in hub with 8 to 10 lb. ft. torque.
- 2. Remove adapter housing (7). You may have to remove wrap cover (9) and tap lightly with a soft mallet in the openings in the side of the adapter housing. Place the brake assembly onto the motor C face, engaging hub splines into brake disc splines.
  - The release should be located at the top.
- 3. Screw in four 3/8-16 threaded rods (28) through bracket (1) into motor C face (approx. 9/16" engagement or 9 turns). Bring coil lead wires out of conduit hole before installing the adapter housing. Align adapter housing (7) with four threaded rods. NOTE: Arrow head on adapter housing should be in line with manual release knob (15); see Fig. 8.
  - Slide adapter housing onto threaded rods. turning output shaft (8) so that the keyway in the brake shaft lines up with the key in the motor shaft. Make sure adapter housing seats against the bracket (1).
  - Tap adapter housing in place lightly. If excessive force is required, the key may have to be filed.
- 4. If additional equipment is to be used, such as a gear reducer, install a key into the brake shaft extension.
  - Slide equipment onto threaded rods, aligning key in the brake shaft with keyway in the additional equipment.
  - Fasten with lockwashers (29) and nuts (30).
- 5. If no additional equipment is used, fasten adapter housing (7) with items (29) and (30). The threaded rods may be cut off to suit the application.

# Wiring Diagrams



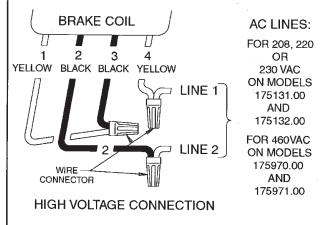


Figure 2

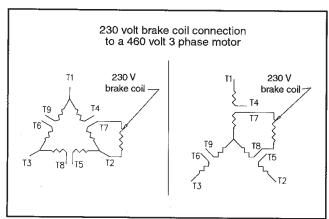


Figure 2A

# Connection of Coil Leads

After securing the brake to the motor, connect coil leads for proper voltage per wiring diagram. (Fig. 2 shows dual voltage coil). Incorrect connection can result in brake failure. CAUTION: The voltage supplied to the coil must match the voltage that the coils are connected for, or the coils will burn out.

Single voltage coil (for Models 175153.00 and 175154.00): Connect brake coil leads to any two line leads (single or three phase) of same voltage and frequency as brake.

# Dual voltage coil (For Models 175131.00, 175132.00, 175970.00 and 175971.00):

Connect leads 2 and 4 to any two motor line leads (single or three phase) of same voltage as brake. Connect leads 1 and 3 as shown for voltage desired. Brake must be energized with motor.

### NOTES:

- 1. Models 175131.00 and 175132.00 with 230 volt brake coils may be connected to a 460 volt 3 phase motor as shown in Fig. 2A. The lead wires on the brake coil must be connected for "high voltage connection" (230 volts) as shown in Fig. 2.
- When using a variable frequency drive to power the motor, the brake must have a separate power source. CAUTION: Brakes may engage unexpectedly, or be damaged, if powered by a variable frequency drive.

# **OPERATION**

These brakes are spring set devices with an electrical (magnet) release. They contain a rotating friction disc that is driven by a hub mounted on the motor shaft. When energized, the magnet compresses the torque springs, removing the force pressing the stationary disc and friction disc together. This permits free rotation of the shaft. WARNING: Observe proper safety precautions in applications where a brake failure would allow the load to move in such a manner as to injure personnel. KEEP PERSONNEL AWAY FROM LOAD AREAS.

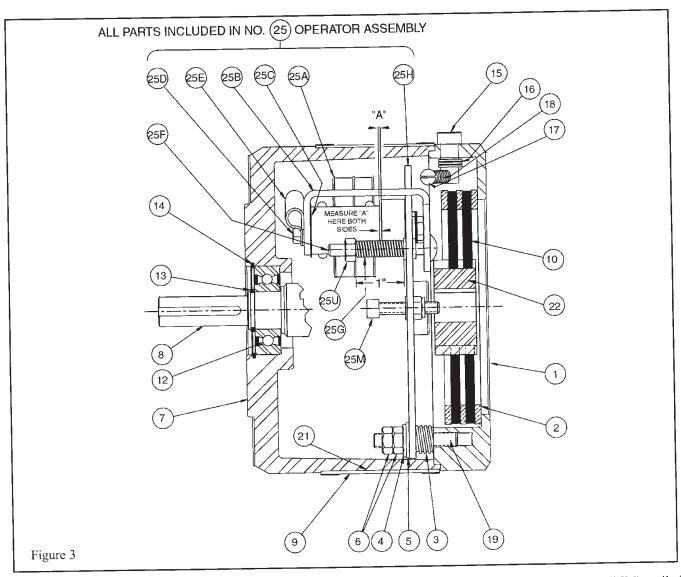
If brake torque rating is higher than motor full-load torque rating, use brake rating rather than motor rating when selecting other drive components.

Take the following precautions when operating the brake:

- 1. Do not operate the brake at higher than nominal static torque capacity.
- For applications with high inertia-type loads or rapid cycling, the thermal capacity of the brake must be considered.
- 3. High start-stop rates may damage motor. Consult motor manufacturer if high cycling rates are expected.
- 4. Be sure power supply conforms to electrical rating of brake.

# Manual Release

The brake is equipped with a manual release. Turn the release knob (15) clockwise to stop position to release the brake. The brake will remain released until the release knob is turned counterclockwise (approx. 65°) or until the brake coil is energized, automatically resetting the brake.



# **MAINTENANCE**

Caution: Before attempting to service or remove any components, make certain that the power is disconnected and that the load is completely removed, secured or blocked to prevent injury or property damage.

# Wear Adjustment

Caution: Load to be removed or blocked. Brake may be inoperative during this procedure.

Before air gap "A" reaches .100", adjustment is required. Any delay in adjusting the magnet air gap will result in eventual loss of torque.

Refer to Figs. 3 and 4.

- 1. To adjust, remove cover (9) to expose adjusting screws (25M) and magnet air gap "A".
- 2. Measure air gap "A" using 3/8" to 1/2" wide feeler gauge as shown in Fig. 4. (Measure at center of magnet.)

- 3. Turn two square head adjusting screws (25M) until air gap "A" measures:
  - .045/.050 for Models 175131.00, 175153.00, and 175970.00.
  - .050/.055 for Models 175132.00, 175154.00, and 175971.00

Air gap should be the same on both sides.

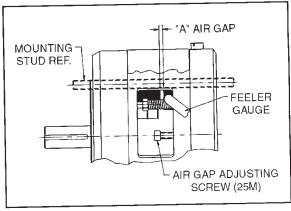


Figure 4

# Torque Adjustment

Caution: Load to be removed or blocked. Brake may be inoperative during this procedure.

The magnetic disc brake is factory set for rated static torque. The brake can be adjusted to reduce torque which increases stopping time. Do not attempt to adjust brake for higher torque, as this will cause premature coil burnout.

### Refer to Figure 3.

- 1. To adjust, remove cover (9) to expose torque locknuts (25U) which are above torque springs (25G).
- To increase stopping time and reduce torque, turn two torque locknuts (25U) counterclockwise, increasing spring length. Each full turn reduces torque approximately 8%.

# Friction Disc Replacement

Caution: Load to be removed or blocked. Brake will be inoperative during this procedure.

When total wear on a rotating friction disc (10) reaches 1/16", replace disc referring to Figs. 3 and 8:

### Removing operator assembly

- 1. Disconnect power.
- 2. Remove any equipment mounted on the brake C face, such as a gear reducer, by removing nuts (30) and lockwashers (29). If no equipment is mounted on brake C face, remove nuts (30) and lockwashers (29).
- 3. Remove adapter housing (7) which includes shaft (8).
- 4. Remove operator assembly (25) by removing screws (11) and pivot stud (19). Item 19 has a hex socket in end of stud for removal.

NOTE: Do not loosen nuts (6) on pivot stud (19), or "Pivot Stud Adjustment" on page 6 to quiet the magnet will have to be made again.

### 5. Replacing the friction disc

Remove worn rotating discs (10) and stationary discs (2). Replace worn discs and install new discs in the same order. Install stabilizer clip (23), if furnished, on rotating discs prior to installing.

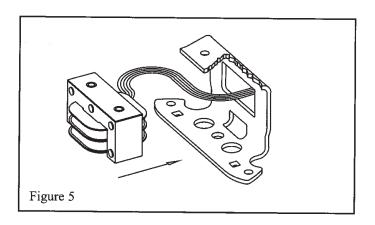
# 6. Re-assembly of operator assembly (25)

Turn two screws (25M) counterclockwise five turns. Place operator assembly onto brake bracket (1) and install two screws (11). Replace compression spring (3), bushing (5), washer (6), and pivot stud (19) which has the two nuts (6) in place. Tighten firmly.

- 7. Readjust magnet air gap "A" as described under "Wear Adjustment" on page 4.
- Check manual release operation before completing installation. Adjust per "Manual Release Adjustment" on page 7 if required.

### 9. Completing installation

Reassemble as described under "Installation" on page 2.



# Magnet Assembly Replacement

Caution: Load to be removed or blocked. Brake will be inoperative during this procedure.

Refer to Figs. 3, 5 and 8.

- 1. Disconnect power supply.
- Remove adapter assembly as described under "Friction Disc Replacement" at left.
- 3. Remove two capscrews (25D), wire clamps (25E), magnet assembly (25A) and shock mount (25C).
- Replace shock mount and magnet, feeding coil wires through hole in back of bracket (25B) as shown in Fig. 5.
   Use Loctite on screws (25D). Tighten mounting screws with 55 to 60 lb. in. torque.
- 5. Set air gap "A" as described under "Wear Adjustment" on page 4.
- 6. Energize coil. Magnet should be quiet; if not, refer to "Pivot Stud Adjustment" on page 6.
- Check manual release. If it does not operate properly, adjust as outlined under "Manual Release Adjustment" on page 6.
- 8. Reassemble as described under "Friction Disc Replacement" and "Installation" on page 2.

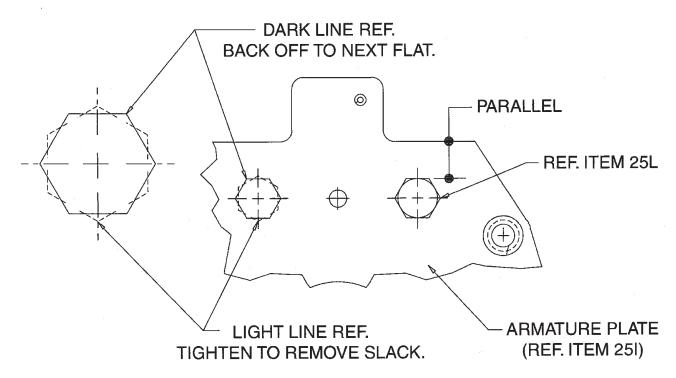


Figure 6

# Armature Replacement

Caution: Load to be removed or blocked. Brake will be inoperative during this procedure.

Refer to Figs. 3, 6 and 8.

If you replace the magnet assembly, it may be necessary to replace the armature (25J). If it is badly deformed, it will be difficult to make the magnet quiet.

- 1. To replace, remove operator assembly (25) from brake. See "Friction Disc Replacement Steps 1-4."
  - Remove nuts (25U), springs (25G), and carriage bolts (25F). This will allow the armature plate to be removed from magnet bracket.
- Remove screws (25S), lockwasher (25R), locking plate (25Q), two screws (25L), spacers (25N), and armature (25J). Inspect these parts and shock mount (25P). If worn, replace them also.
- Put armature in place (ground side up) and install spacers (25N) and screws (25L).
   NOTE: Screws (25L) should be tightened to remove slack only. Then back off, counterclockwise on screw so that the next flat on screw is parallel with edge of the armature plate (25I). See Fig. 6.
   Install locking plate (25Q), screw (25S), and lockwasher (25R). Tighten screw with 30 lb. in. torque.
- Reassemble to magnet bracket (25B) using items (25U), (25G), and (25F). Reassemble operator assembly to brake bracket. Set magnet air gap "A" and set torque springs (25G) to 1" as shown in Fig. 3.

# Pivot Stud Adjustment

Caution: Load to be removed or blocked. Brake will be inoperative during this procedure.

Refer to Figs. 3 and 8.

This adjustment is made at the factory and may be required when replacing the magnet assembly (25A) or the armature (25J).

The purpose is to adjust the height of the armature plate (25I) so that when the magnet (25A) is energized, the armature (25J) is parallel with it. This is required so that the magnet will be quiet.

NOTE: Adapter housing (7) must be removed to make this adjustment.

- 1. To adjust: Hold the nut (6) which is adjacent to washer (4) and loosen the other nut (6) and remove it from the stud.
- 2. Energize the magnet and slowly tighten remaining nut (6) counterclockwise until the magnet becomes noisy. Turn magnet on and off several times until you find the position where the magnet first becomes quiet.
  At this point turn nut (6) 1/3 turn (two flats) in a clockwise position. Hold nut in this position and turn magnet on and off to make sure the magnet does not become noisy.
- 3. Holding this nut in place, screw on other nut and tighten it against the nut you are holding. Tighten firmly.
- 4. Operate the manual release. If the release does not operate properly, see "Manual Release Adjustment" on next page.

# Manual Release Assembly

Refer to Fig. 7.

- 1. Adapter housing (7) must be removed to replace manual release assembly. Remove adapter housing (7) per "Friction Disc Replacement Steps 1-4" on page 5.
- 2. Place shaft of release knob (15) through hole in bracket (1).
- 3. Slide return spring (16) over shaft; straight leg of spring should enter shaft first with leg in the position shown.
- Slip spring (18) over screw (17) and install in tapped hole in release shaft. Screw in until it stops. Make sure spring (16) is not caught under spring (18).
- 5. Engage bent end of spring (16) over spring (18) as shown. Pull it over with a needle-nose pliers or screwdriver.
- 6. Adjust release per "Manual Release Adjustment" section at right.
- 7. Reassemble per "Installation" on page 2.

Manual Release Adjustment

Caution: Load to be removed or blocked. Brake will be inoperative during this procedure.

Refer to Figs. 3, 7 and 8.

The manual release (15) may require adjustment after replacing the operator assembly (25), magnet (25A), or armature (25J). It also may be required if adjustments are made on the pivot stud nuts (6).

The release is working properly if:

- a) You turn release knob (15) clockwise to stop and the brake is released;
- b) The release knob returns to its normal position automatically when power is applied to the magnet.

NOTE: Adapter housing (7) must be removed to make this adjustment.

- 1. To adjust: Set air gap "A" as described under "Wear Adjustment" on page 4.
- 2. If the brake does not release, turn adjusting screw (17) counterclockwise 1/4 turn and try again.
- 3. If the release knob (15) does not return to its normal position automatically, turn screw (17) clockwise 1/4 turn and try again.

NOTE: You may have to repeat Steps 2 or 3 to get the release to operate properly.

It is important that the release knob returns to its normal position automatically when power is applied to the magnet.

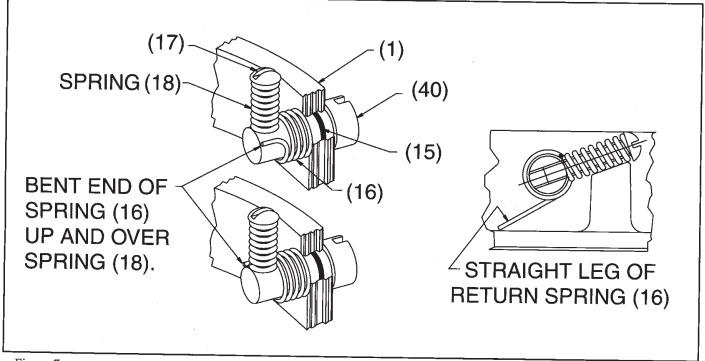
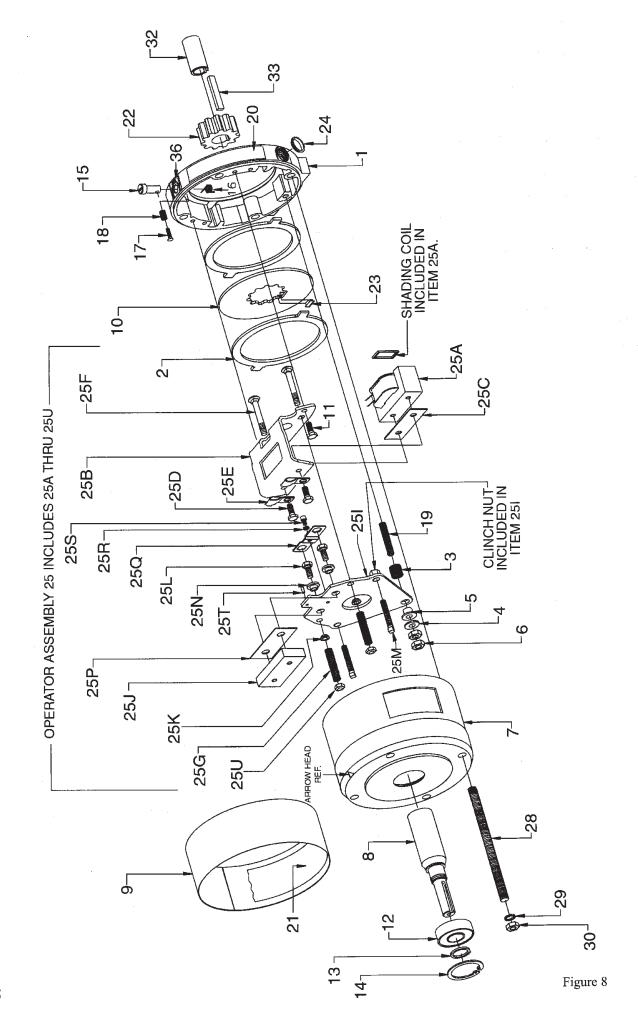


Figure 7



# REPLACEMENT PARTS LIST

L					ŀ
No.	Description	Part Number	Č	Item	
-	Bracket	L060252-003	-	25.	╀
7	Stationary disc	H060147-001	*	25E	_
ω.	Compression spring	G060821-001	1	25F	_
4	Plain brass washer	W004003-024	_	25G	⊬
5	Nylon bushing	G060820-001		25H	_
9	Hex nut 5/16-18 thread	W003002-002E	2		
7	Adapter housing	L060251-002	-		_
∞	Shaft 5/8" bore x 5/8" extension dia.	K060366-001	-		_
	Models 175131.00, 175153.00				_
	and 175970.00				
	Shaft 7/8" bore x 5/8" extension dia,	K060379-001	-	25I	-
	and 175971.00			255	~ ~
6	Wrap-around cover	K060462-001	-	251	للسز پ
10	Splined rotating friction disc	H060157-003	*	25M	_
11	Hex. Hd. Capscrew 1/4-20 x 1/2 lg.	W001008-001E	2	25N	~
12	Double seal ball bearing	W009001 001		25P	₹,
CI	T. T	W00600/-001		752	
15	Truarc retaining ring Release knob	W006002-001		25R	00 0
91	Release return spring	G060797-001	-	252 75T	7
17	Release adjustment screw	W001002-056C	-	25U	
18	Release adjustment lock spring	G060795-001		26	Щ
19	Pivot stud	W002005-303A	1		2
20	Nameplate	K060438-001	-		
21	Instruction label	K060510-001	_	27	Ξ
77	175152 00 2-4 175070 00	K.060107-032	_	•••	_
	1/2155.00, atla 1/59/0.00   Splined hub 7/8" bore Models 175132-00	K060107-228	-	- c	
	175154.00, and 175971.00	077-1010000	-	97	1
23	Stabilizer clip for rotating friction disc	H060466-001	*	30	) I
24	Wire outlet cap plug	W008003-001	-	31	
25	Operator assembly: includes "A" through "U"				7
	(not shown as assembly)	000 00 00 00 00 E	,	32	<u>m</u>
	Models 1/5151.00, 1/5153.00, and 175970.00	K.060463-002	<b>-</b>	33	×
	Models 175132.00, 175154.00,	K060463-003	1	35	4 🗵
	and 175971.00			36	
25A	Magnet assembly Models 175131 00 and 175132 00	H060540 003		,	վ ′
	(110/208-220V 50Hz-115/208-230V 60Hz)	700-01-00011	-		≧ "
	Models 175970.00 and 175971.00	H060640-004	_		2
	Models 175153.00 and 175154.00 (575V 60Hz)	H060548-004	_		
25B	Magnet mounting bracket	H060544-001	* +		
2.57 C 7	IMAGINEL SHOCK INOUTH	5060813-001	_		

Item			
No.	Description	Part Number	Qty.
25D	Hex. Hd. Capscrew 1/4-20 x 5/8 lg. Grade 5	W001007-0002E	2
25E	Cable clamp	W021003-001	7
25F	Carriage bolts 1/4-20	G060803-001	7
25G	Torque spring (silver) 3 & 6 lb. ft.	G060792-001	2
25H	Armature plate assembly: includes "I" thru "T"		
	(not shown as an assembly)		
	Models 175131.00, 175153.00	H060541-001	_
	and 175970.00		
	Models 175132.00, 175154.00	H060541-002	1
	and 175971.00		
25I	Armature plate	H060545-003	1
25J	Armature lamination assembly	G060788-001	-
25K	Nyliner bushing	W013005-001	7
25L	Hex. Hd. Capscrew 1/4-20 x 5/8 lg. Grade 5	W001007-002E	2
25M	Wear adjustment screw sq. hd.	W002003-001	2
25N	Armature spacer	G060798-002	2
25P	Armature shock mount	G060808-003	_
250	Locking plate	G060812-001	_
25R	Split spring lockwasher #8	W004006-003	
25S	Soc. Hd. Capscrew #8-32 x 1/4" lg.	W001013-201	П
25T	Roll pin 5/32" dia. X 3/8" lg.	W005003-098	1
25U	Locknut 1/4-20	W003013-001	2
26	Hardware bag includes 28 thru 31		_
	Models 175131.00, 175153.00	H060237-079	
į	and 175970.00		
/7	Hardware bag includes 28 thru 33		
	Models 1/5132.00, 1/5154.00 and 175971.00	H060237-080	-
28	Threaded rod 3/8-16 UNC x 6,437" 1g.	W012001-001	4
29	Lockwashers, 3/8 split spring	W004006-008	4
30	Hex nut 3/8-16 UNC thread	W003002-003	4
31	OIPM BK 4670:		
	Leeson NEMA C Face Coupler Brake instructions	G060884-001	
32	Bore reducing bushing	H060456-001	
33	Key, rectangular 3/16" x 5/16" x 1-13/16" lg.	W007003-022	T
34	Key attaching label (not shown)	G060648-001	-
35	Key, 3/16" square (not shown)	W007001-017	_
36	Release label	G060859-001	

Models 175131.00, 175153.00, and 175970.00 have *one* rotating friction disc and *one* stabilizer clip.

Models 175132.00, 175154.00, and 175971.00 have *two* rotating friction discs and *two* stabilizer clips.

The number of stationary discs is one more than the number of rotating friction discs.

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
Brake does not release	Broken or damaged parts	1. Replace.
	2. Wrong voltage	2. Check for correct voltage. Voltage must correspond to that listed on brake nameplate. If the voltage is more than 10% below the nameplate voltage, the magnet may not pull in.
	3. Burned out coil	3. Replace magnet assembly (25A).
	Incorrect wiring connections or broken wires	Find the connection or wiring fault.     Correct or repair as required.
Brake does not stop	Broken or damaged parts	1. Replace.
properly	2. Worn friction disc	2. Replace disc if worn to 1/8" thickness. If disc replacement is not required, adjust air gap. (Refer to "Wear Adjustment" section.)
	Hub positioned incorrectly     (models with two-piece shaft and hub     only)	3. Locate hub (22) and key (33), if required. (Refer to "Installation" section.)
	4. Brake is manually released	Determine if manual release is in normal position.
Brake chatters or hums	1. Dirty magnet faces	To remove dirt, insert a clean sheet of paper between faces and energize brake. Move paper around between faces to dislodge dirt, then remove paper.
	Magnet faces are not parallel in closed position	2. See "Pivot Stud Adjustment" section.
	3. Loose or broken shading coil	3. Replace magnet assembly (25A).
	4. Wrong voltage supply	4. Check for low voltage.
Manual release does not work	Broken or damaged parts     Improper setting	Replace     See "Manual Release Adjustment"
		section.

### **SPECIFICATIONS**

Model	Nominal Static Torque Rating	Use on Motor Frames	WK² (lb. ft.²)
175131.00 175153.00 175970.00	3 lb. ft.	56C face motors and speed reducers	.0061
175132.00 175154.00 175971.00	6 lb. ft.	56C, 143TC, 145TC face motors and speed reducers	.0100

**Duty Cycle:** Continuous

Maximum Ambient Temperature: 40°C. Maximum Input Speed: 3600 RPM Thermal Capacity: 6 HPS/mins.

Enclosure Construction: Aluminum with steel wrap cover

Certification: CSA General Purpose

**Electrical Lead Length:** 

**Electrical Data:** 

Models 175131.00 & 175132.00 Rated for operation on single phase 115/208-230V, 60Hz and on 110/208-220V, 50Hz						
Voltage	Allowable Amps Amps					
110	50	85-113	.20	2.02		
115	115 60 102-135 .23 2.31					
208 50 170-226 .10 1.07						
208 60 204-270 .13 1.28						
220 50 170-226 .10 1.01						
230	60	204-270	.11	1.16		

	Models 175153.00 & 175154.00 Rated for operation on single phase 575V, 60Hz ± 10% voltage					
Voltage	Voltage Hz Allowable Amps Amps Voltage Range Holding Inrush					
575	60	518-633	.05	0.46		

Models 175970.00 & 175971.00 Rated for operation on single phase 208/230-460V, 60Hz						
Voltage	Voltage Hz Voltage Range Holding Inrush					
208 60 202-262 .13 1.28						
230 60 202-262 .11 1.16						
460						

# **ORDERING INFORMATION**

Replacement parts can be purchased from your local distributor or from Dings Co. at the address and phone number shown on the last page. The name of the Dings distributor or sales representative in your area can be obtained by calling the Dings Co. or online at www.dingsco.com.

# For replacement parts, please furnish this data with your order:

- Brake model number
- Description (refer to Parts List)
- If ordering a hub, specify bore diameter and keyway dimensions
- If ordering electrical parts, specify voltage and frequency

# For a replacement brake, please furnish this data with your order:

- Brake model number
- Voltage and frequency
- Hub bore and keyway dimensions
- Mounting horizontal or vertical. If vertical, specify whether above or below motor. If brake includes foot mounting bracket or adapter, specify.

### WARRANTY

Seller warrants products manufactured by it and supplied hereunder to be free from defects in materials and workmanship under normal use and proper maintenance for a period of twelve months from date of shipment. If within such period any such products shall be proved to Seller's reasonable satisfaction to be defective, such products shall be repaired or replaced at Seller's option Seller's obligation and Buyer's exclusive remedy hereunder shall be limited to such repair and replacement and shall be conditioned upon Seller's receiving written notice of any alleged defect no later than 10 days after its discovery within the warranty period and, at Seller's option, the return of such products to Seller, f.o.b. its factory, when such return is feasible. Seller reserves the right to satisfy its warranty obligation in full by reimbursing Buyer for all payments it makes hereunder, and Buyer shall thereupon return the products to Seller. Seller shall have the right to remedy such defects. Seller makes no warranty with respect to wear or use items, such as belts, chains, sprockets, discs and coils, all which are sold strictly AS IS.

The foregoing warranties are exclusive and in lieu of all other express and implied warranties (except of title) including but not limited to implied warranties of merchantability, fitness for a particular purpose, performance, or otherwise, and in no event shall the Seller be liable for claims (based upon breach of express or implied warranty, negligence, product liability, or otherwise) for any other damages, whether direct, immediate, incidental, foreseeable, consequential, or special.

Manufactured by:

