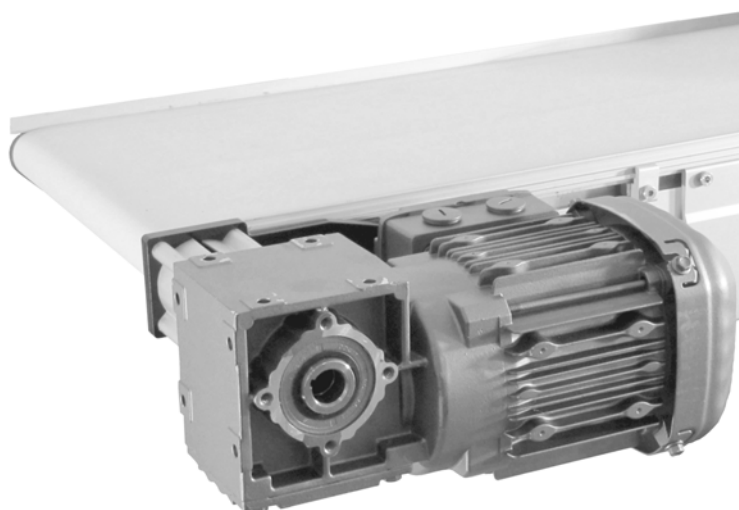




# **2200 and 2300 Series Side Mount Drive Package for SEW 60 Hz Gearmotors**

**Installation, Maintenance & Parts Manual**



DORNER MFG. CORP.  
P.O. Box 20 • 975 Cottonwood Ave.  
Hartland, WI 53029-0020 USA

INSIDE THE USA  
TEL: 1-800-397-8664  
FAX: 1-800-369-2440

OUTSIDE THE USA  
TEL: 262-367-7600  
FAX: 262-367-5827

For other service manuals visit our website at:  
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## Introduction

### IMPORTANT

*Some illustrations may show guards removed. DO NOT operate equipment without guards.*


Upon receipt of shipment:

- Compare shipment with packing slip. Contact factory regarding discrepancies.
- Inspect packages for shipping damage. Contact carrier regarding damage.
- Accessories may be shipped loose. See accessory instructions for installation.

Dorner 2200 Series conveyors are covered by patent number 5174435 and corresponding patents and patent applications in other countries.

Dorner’s Limited Warranty applies.

Dorner reserves the right to make changes at any time without notice or obligation.

Dorner has convenient, pre-configured kits of Key Service Parts for all conveyor products. These time saving kits are easy to order, designed for fast installation, and guarantee you will have what you need when you need it. Key Parts and Kits are marked in the Service Parts section of this manual with the Performance Parts Kits logo .

## Warnings – General Safety

### WARNING

The safety alert symbol, black triangle with white exclamation, is used to alert you to potential personal injury hazards.

### DANGER



Climbing, sitting, walking or riding on conveyor will cause severe injury.  
**KEEP OFF CONVEYORS.**

### DANGER



**Do NOT OPERATE CONVEYORS IN AN EXPLOSIVE ENVIRONMENT.**

### WARNING



Exposed moving parts can cause severe injury.  
**LOCK OUT POWER** before removing guards or performing maintenance.

### WARNING



Gearmotors may be **HOT**.  
**DO NOT TOUCH** Gearmotors.

### WARNING



Exposed moving parts can cause severe injury.  
**REPLACE ALL GUARDS BEFORE RUNNING CONVEYOR.**

### WARNING



Dorner cannot control the physical installation and application of conveyors. Taking protective measures is the responsibility of the user.  
When conveyors are used in conjunction with other equipment or as part of a multiple conveyor system, **CHECK FOR POTENTIAL PINCH POINTS** and other mechanical hazards before system start-up.

### WARNING



**MPB Series Conveyors** are not reversible. Reversing creates pinch points which can cause severe injury.  
**DO NOT REVERSE MPB SERIES CONVEYORS.**

# Product Description

Refer to **Figure 1** for typical conveyor components.

- |   |                  |
|---|------------------|
| 1 | Conveyor         |
| 2 | Mounting Bracket |
| 3 | Gearmotor        |
| 4 | Spacer (2x)      |

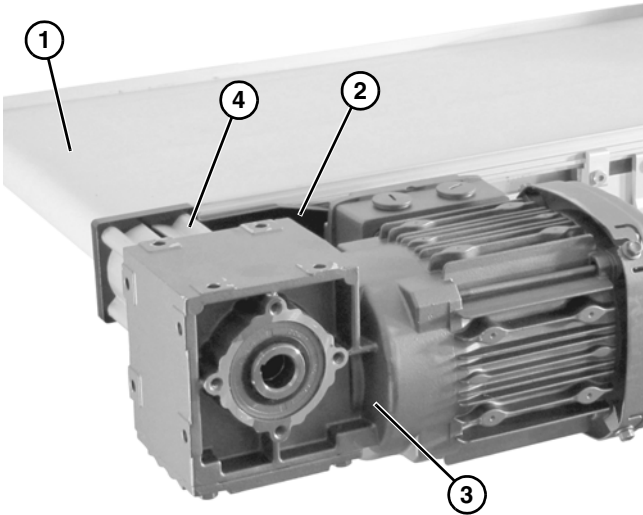


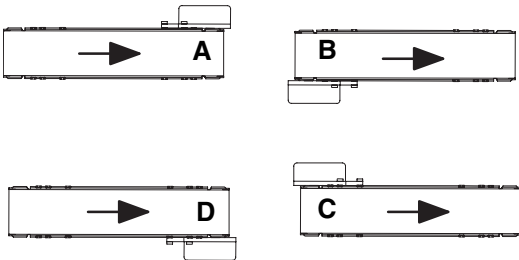
Figure 1

# Specifications

## Gearmotor Mounting Package Models:

Example:

- 22 M S W S W W A
- 22 = 2200 and 2300 Series Conveyors
  - Language Code = U.S. English
  - Mount Style = Side Mount
  - Output Shaft Type = SEW
  - Gearmotor Type = Standard Load, Industrial
  - Conveyor Width Reference\*
  - Mount Position = A, B, C or D (see detail to the right)



\* See Ordering and Specifications Catalog for details.

## Table 1: Gearmotor Specifications

	Three Phase			VFD Vari Speed		
Output Power	0.25 Hp (0.19 Kw)	0.33 hp (0.25 kW)	0.5 Hp (0.37 kW)	0.25 Hp (0.19 Kw)	0.33 hp (0.25 kW)	0.5 Hp (0.37 kW)
Input Voltage	230/460			230/460		
Input Frequency	60 Hz			10 to 60 Hz		
Input Current	0.89/0.44	1.24/0.62	1.84/0.92	0.89/0.44	1.24/0.62	1.84/0.92
RPM	46	109	219	8 to 46	18 to 109	37 to 219
Ratio	39:1	16.5:1	8.2:1	39:1	16.5:1	8.2:1
Motor Frame	IEC71			IEC71		
Motor Type	IP54 Totally Enclosed Fan Cooled			IP54 Totally Enclosed Fan Cooled		

## Table 2: Belt Speeds for Fixed Speed SEW Gearmotors

Part Number	RPM	In lb	N-m	Ft/min	M/min
22M039WS423EN	46	203	22.9	16.2	4.9
22M017WS423EN	109	159	18.0	38.2	11.6
22M008WS423EN	219	132	14.9	76.8	23.4

## Table 3: Belt Speeds for Variable Speed SEW VFD Gearmotors

Part Number	RPM	In-lb	N-m	Ft/min (max)	Ft/min (min)	M/min (max)	M/min (min)
22M039WS423EN	8 to 46	203	22.9	16.2	2.7	4.9	0.8
22M017WS423EN	18 to 109	159	18.0	38.2	6.4	11.6	1.9
22M008WS423EN	37 to 219	132	14.9	76.8	12.8	23.4	3.9

### NOTE

*For belt speed other than those listed, contact factory for details.*

# Installation

## Required Tools

- Hex key wrenches:  
3 mm, 5 mm
- Large flat-blade screwdriver
- Torque wrench

## Mounting

### ⚠ WARNING

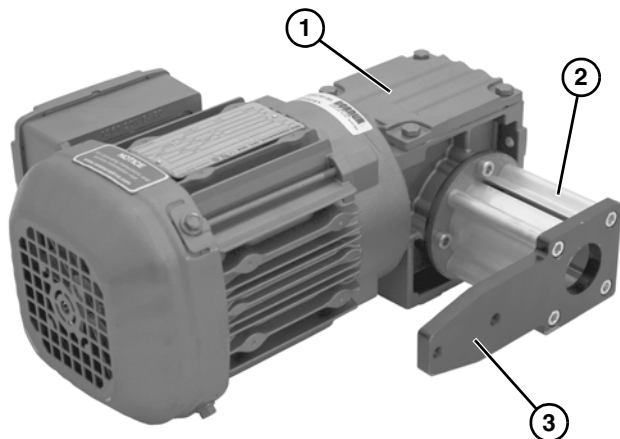


Exposed moving parts can cause severe injury.  
**LOCK OUT POWER** before removing guards or performing maintenance.

### Installation Component List:

- |   |                  |
|---|------------------|
| 1 | Drive Assembly   |
| 2 | Spacer (2x)      |
| 3 | Mounting Bracket |

1. Typical components (**Figure 2**)



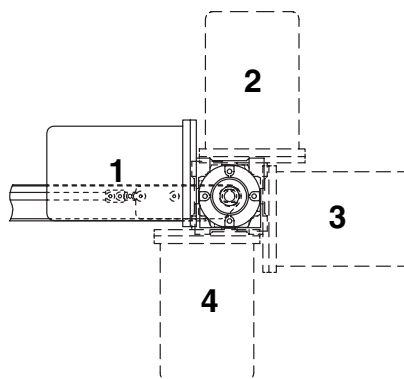
**Figure 2**

### NOTE

Flat belt mounting package shown above (**Figure 2**), cleated belt mounting package similar.

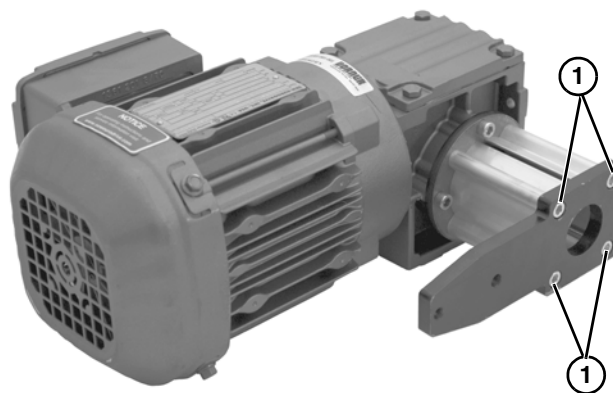
### NOTE

Gearmotor may be operated in positions 1, 2, 3 or 4 (**Figure 3**).



**Figure 3**

2. If required, change gearmotor position by removing four (4) screws (**Figure 4, item 1**). Rotate gearmotor to other position (**Figure 3**) and replace screws. Tighten to 100 in-lb (12 N-m).



**Figure 4**

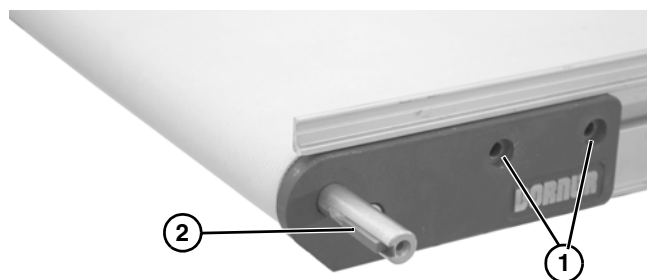
### For 2200 and 2300 Conveyors

### ⚠ WARNING



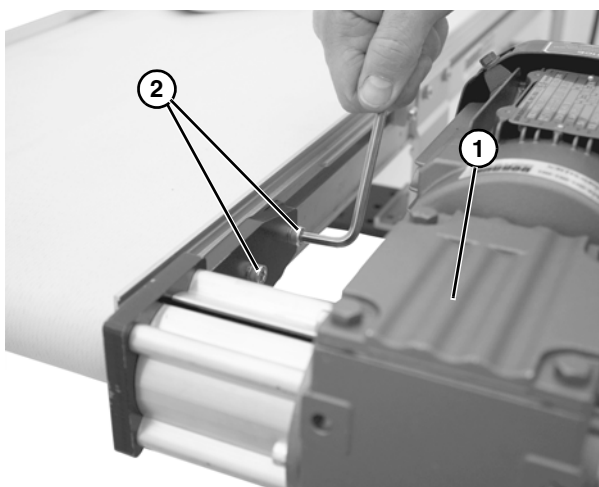
Drive shaft keyway may be sharp.  
**HANDLE WITH CARE.**

1. Locate drive output shaft. Remove two screws (**Figure 5, item 1**).



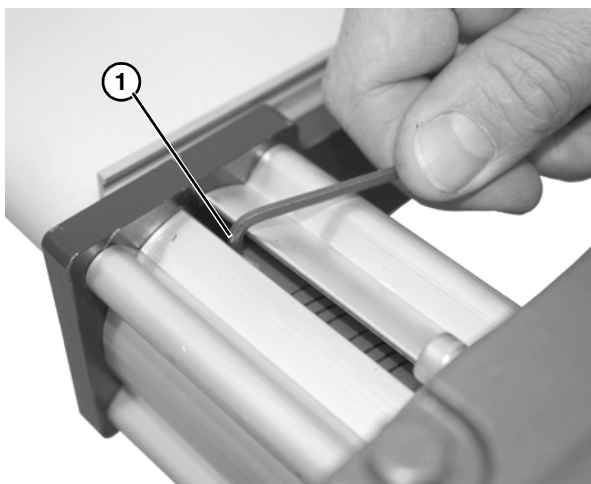
**Figure 5**

2. Install key (**Figure 5, item 2**) and rotate conveyor belt until key is facing towards end of conveyor.
3. Attach side drive assembly (**Figure 6, item 1**) with screws (**Figure 6, item 2**). Tighten to 80 in-lb (9 N-m).



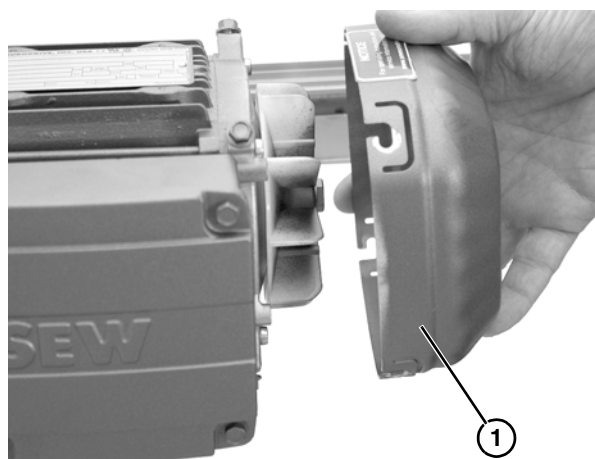
**Figure 6**

4. Tighten set screw on shaft coupling, access through slot (**Figure 7, item 1**).



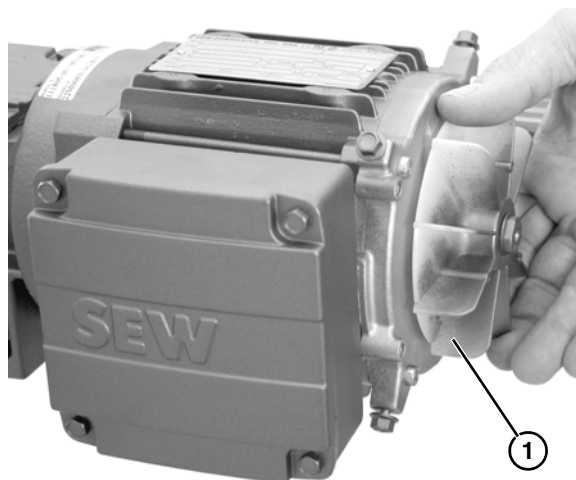
**Figure 7**

5. Remove motor fan cover (**Figure 8, item 1**).



**Figure 8**

6. Rotate fan (**Figure 9, item 1**) by hand until second set screw lines up with slot. A 90 degree shaft move is required.




**Figure 9**

7. Tighten second set screw, access through slot (**Figure 7, item 1**).
8. Re-install fan cover.

# Installation

## Motor Wiring

**⚠ DANGER**



Hazardous voltage will cause severe injury or death.  
LOCK OUT POWER BEFORE WIRING.

**NOTE**

*Lug terminals are recommended for wiring connections.*

1. Remove cover (Figure 10, item 1).

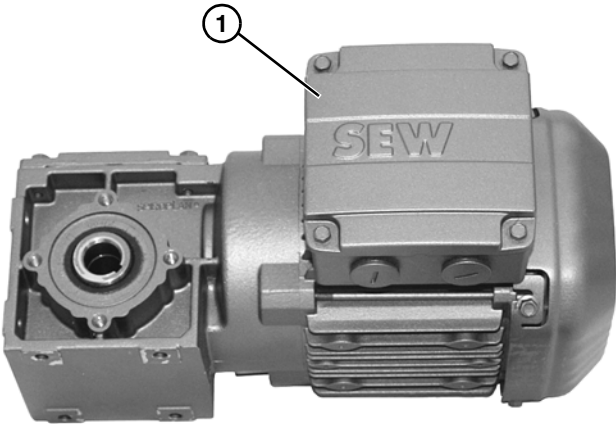


Figure 10

2. Determine wiring configuration (Figure 11).

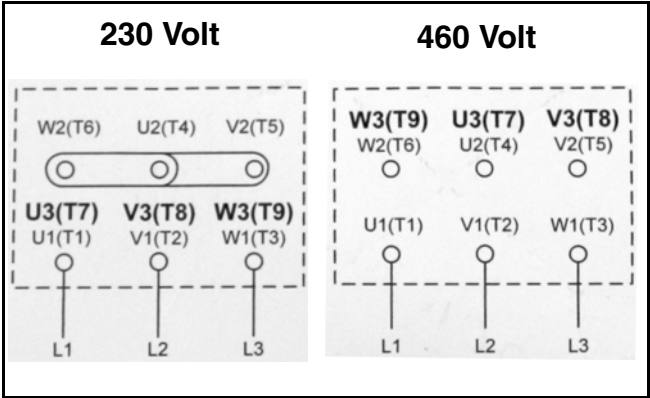


Figure 11

3. Install cord grip and power cord (Figure 12, item 1) mount to terminal box as required.

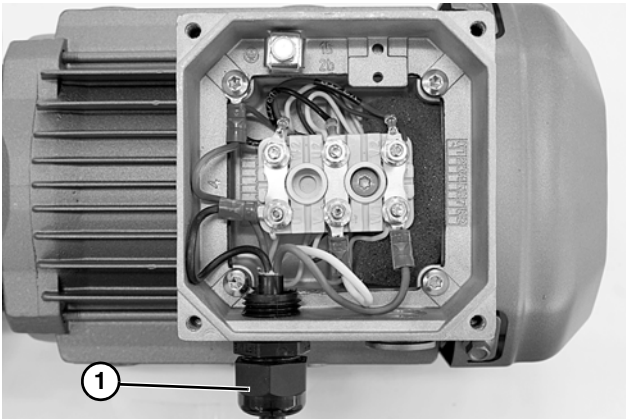


Figure 12

4. Connect wires.  
5. Close cover.



# Preventive Maintenance and Adjustment

## Required Tools

- Hex key wrenches:  
2.5 mm, 3 mm, 5 mm
- Large flat-blade screwdriver
- Adjustable wrench (for hexagon head screws)
- External snap ring pliers
- Torque wrench

## Gearmotor Replacement

### ⚠ WARNING



Exposed moving parts can cause severe injury.

**LOCK OUT POWER** before removing guards or performing maintenance.

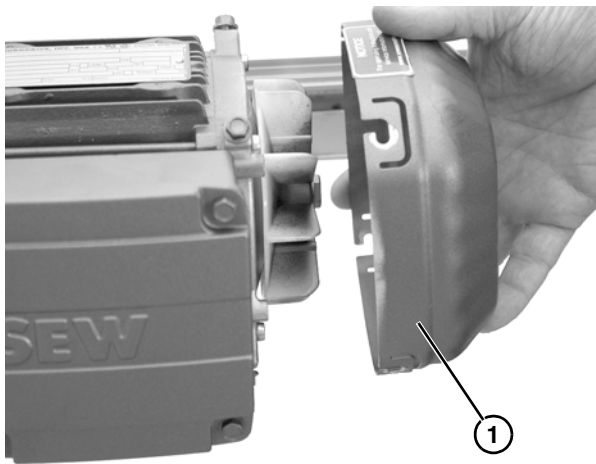
### ⚠ DANGER



Hazardous voltage will cause severe injury or death.

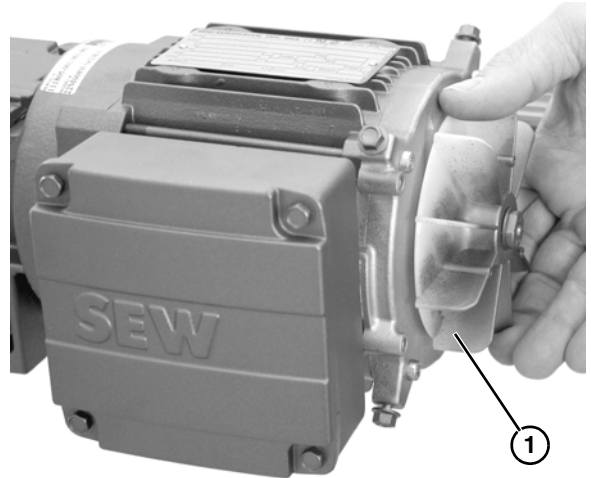
**LOCK OUT POWER BEFORE WIRING.**

1. Disconnect power. Remove terminal box cover and wires.
2. Remove motor fan cover (**Figure 13, item 1**).



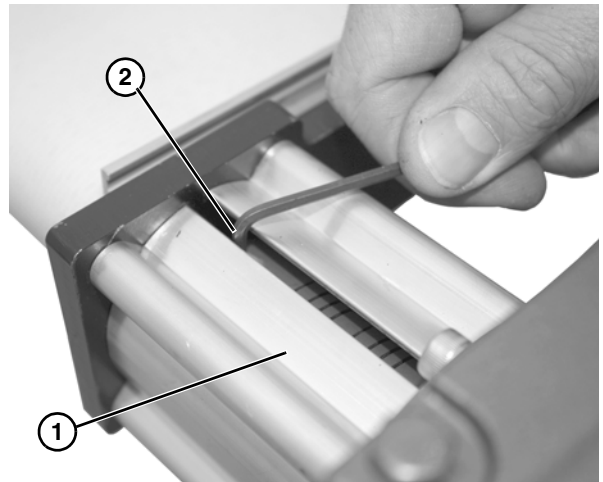
**Figure 13**

3. Rotate fan (**Figure 14, item 1**) by hand until set screw is visible through slot in spacer (**Figure 15, item 1**).



**Figure 14**

4. Loosen set screw on gearhead shaft (**Figure 15, item 2**).



**Figure 15**

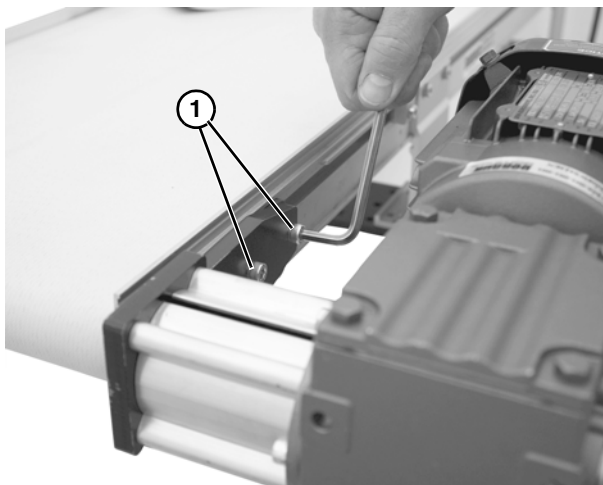
5. Rotate fan again for second set screw located 90 degree's from the first. Loosen set screw.

---

## Preventive Maintenance and Adjustment

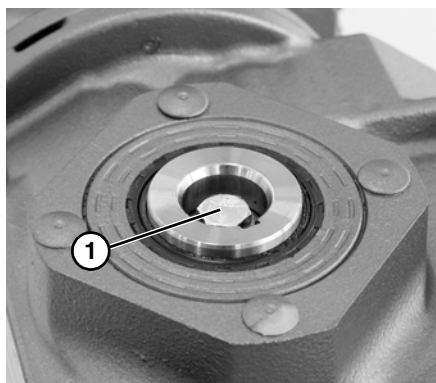
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6. Remove mounting screws (**Figure 16, item 1**) and remove gearmotor.



**Figure 16**


7. Remove shaft mounting bolt (**Figure 17, item 1**) and remove shaft.



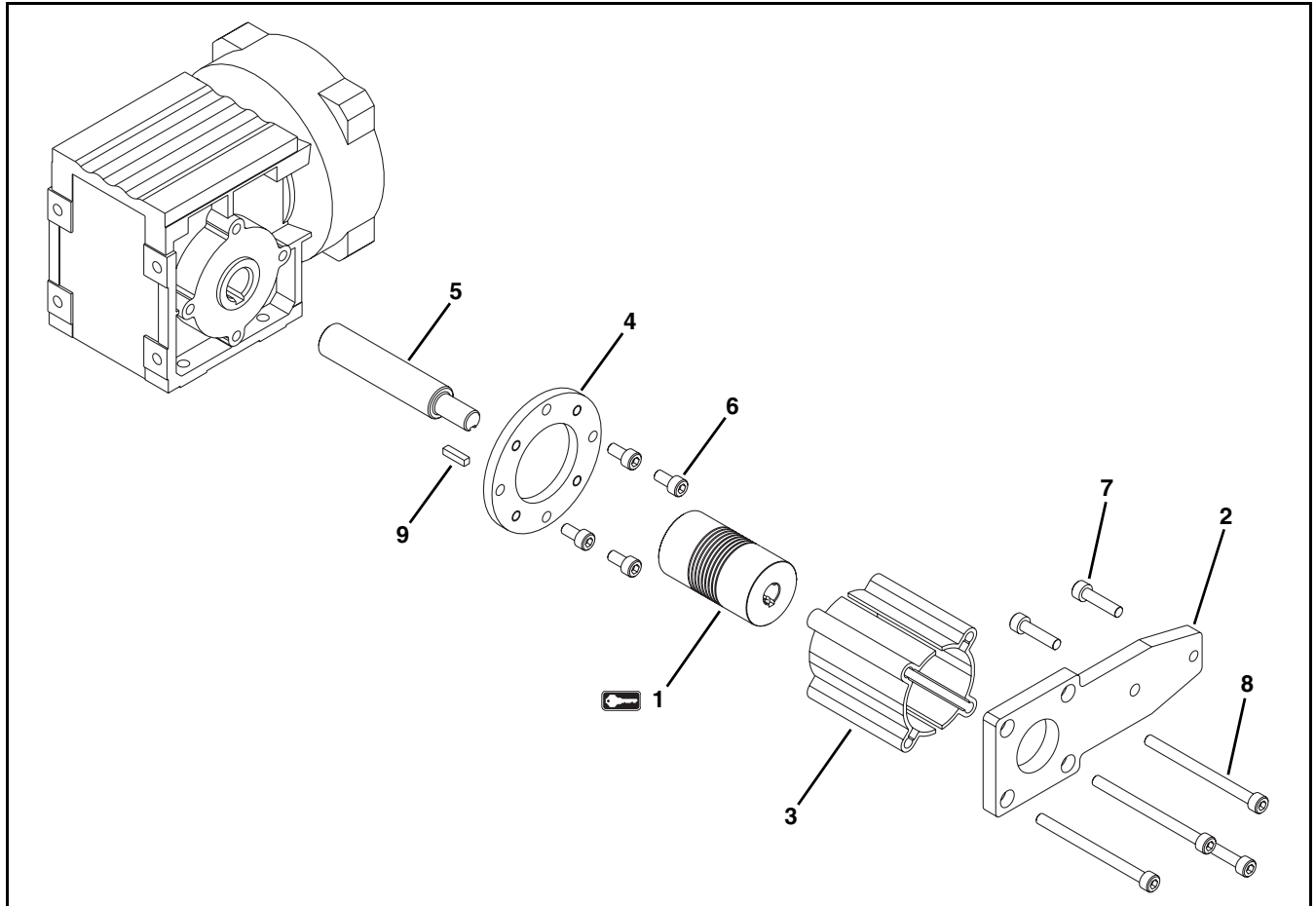
**Figure 17**


8. Repeat in reverse order to install new gearmotor.

## NOTE

For replacement parts other than those shown in this section, contact an authorized Dorner Service Center or the factory. Key Service Parts and Kits are identified by the Performance Parts Kits logo . Dorner recommends keeping these parts on hand.

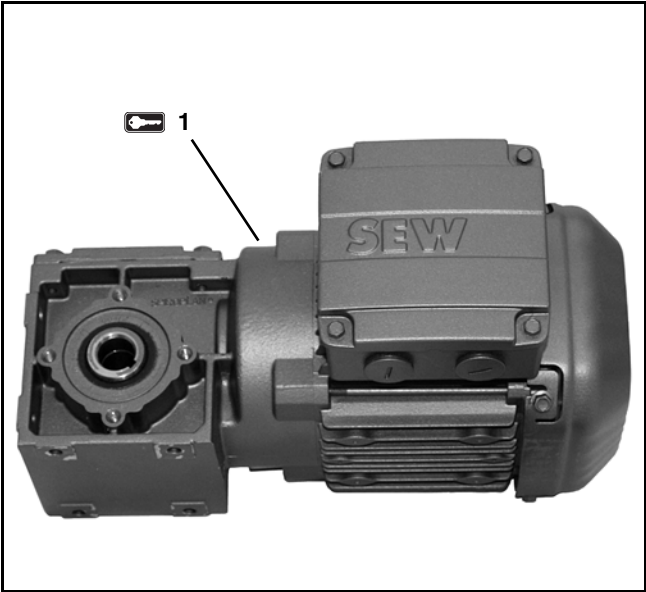
## Side Mount Drive Package for SEW 60 Hz Gearmotors




Item	Part Number	Description
1 	807-995	Flex Coupling
2	201561	Side Drive Plate
3	201672	Side Drive Spacer Guard (qty. 2)
4	201673	Mounting Ring
5	201674	Output Shaft
6	920612M	Socket Head Screw M6 - 1.00 x 12 mm
7	920625M	Socket Head Screw M6 - 1.00 x 25 mm
8	920680M	Socket Head Screw M6 - 1.00 x 80 mm
9	980416M	Square Key

# Service Parts

## Gearmotor



Item	Part No.	Part Description
1 	22M039WS423EN	Gearmotor, 0.25 Hp (0.19 Kw), 230/460 Volts, 60 Hz, 39:1
	22M017WS423EN	Gearmotor, 0.33 Hp (0.25 Kw), 230/460 Volts, 60 Hz, 16.5:1
	22M008WS423EN	Gearmotor, 0.50 Hp (0.37 Kw), 230/460 Volts, 60 Hz, 8.2:1



# Return Policy

Returns must have prior written factory authorization or they will not be accepted. Items that are returned to Dorner without authorization will not be credited nor returned to the original sender. When calling for authorization, please have the following information ready for the Dorner factory representative or your local distributor:

1. Name and address of customer.
2. Dorner part number(s) of item(s) being returned.
3. Reason for return.
4. Customer's original order number used when ordering the item(s).
5. Dorner or distributor invoice number (if available, part serial number).

A representative will discuss action to be taken on the returned items and provide a Returned Goods Authorization (RMA) number for reference. RMA will automatically close 30 days after being issued. To get credit, items must be new and undamaged. There will be a return charge on all items returned for credit, where Dorner was not at fault. It is the customer's responsibility to prevent damage during return shipping. Damaged or modified items will not be accepted. The customer is responsible for return freight.

## Conveyors and conveyor accessories

Standard catalog conveyors	30%
MPB, 7200, 7300 Series, cleated and specialty belt	50%
AquaGard & AquaPruf Series conveyors	non-returnable items
Engineered to order products	case by case
Drives and accessories	30%
Sanitary stand supports	non-returnable items

## Parts

Standard stock parts	30%
Plastic chain, cleated and specialty belts	non-returnable items

Returns will not be accepted after 60 days from original invoice date. The return charge covers inspection, cleaning, disassembly, disposal and reissuing of components to inventory. If a replacement is needed prior to evaluation of returned item, a purchase order must be issued. Credit (if any) is issued only after return and evaluation is complete.

Dorner has representatives throughout the world. Contact Dorner for the name of your local representative. Our Customer Service Team will gladly help with your questions on Dorner products.

For a copy of Dorner's Warranty, contact factory, distributor, service center or visit our website at [www.dorner.com](http://www.dorner.com).

For replacement parts, contact an authorized Dorner Service Center or the factory.



Dorner Mfg. Corp. reserves the right to change or discontinue products without notice. All products and services are covered in accordance with our standard warranty. All rights reserved. © Dorner Mfg. Corp. 2010

## DORNER MFG. CORP.

975 Cottonwood Ave., PO Box 20  
Hartland, WI 53029-0020 USA  
TEL 1-800-397-8664 (USA)  
FAX 1-800-369-2440 (USA)  
Internet: [www.dorner.com](http://www.dorner.com)

Outside the USA:  
TEL 1-262-367-7600  
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