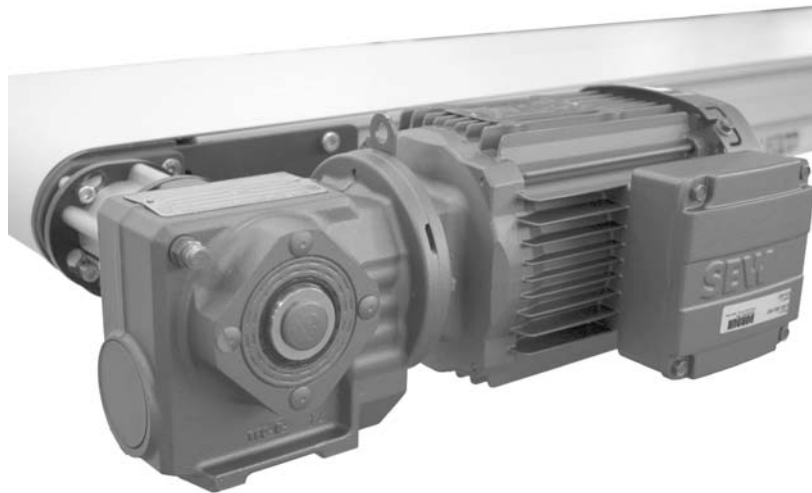




# **3200, 5200, & 5300 Series Side Mount Drive Package for Standard Load SEW 60 Hz Gearmotors**

**Installation, Maintenance & Parts Manual**



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## Introduction

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<b>IMPORTANT</b>
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<i>Some illustrations may show guards removed. DO NOT operate equipment without guards.</i>
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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 3200 Series conveyors are covered by patent numbers 5156260, 5156261, 5203447, 5265714, 6871737, 6910571, 6971509, and patent applications in other countries.

Dorner LPZ Series conveyors are covered by patent numbers 5156260, 5156261, 5203447, 5265714, 5875883 and patent applications in other countries.

Dorner 5200 Series conveyors have patents pending.

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**

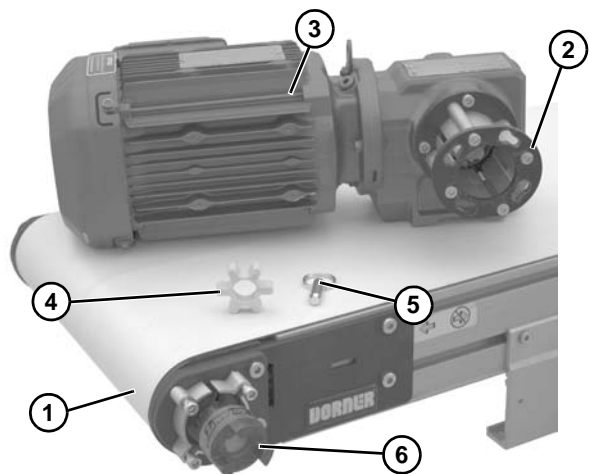


Dorner cannot control the physical installation and application of conveyors. Taking protective measures is the responsibility of the user.  
**When conveyors are used in conjunction with other equipment or as part of a multiple conveyor system, CHECK FOR POTENTIAL PINCH POINTS and other mechanical hazards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

# Product Description

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

- |   |                            |
|---|----------------------------|
| 1 | Conveyor                   |
| 2 | Gearmotor Mounting Package |
| 3 | Gearmotor Assembly         |
| 4 | Spider Web Bushing         |
| 5 | Anti-Rotation Pin          |
| 6 | Coupling Half              |



**Figure 1**

## Specifications

### Gearmotor Mounting Package Models:

Example:

32 M S W S A

Mount Position = A, B, C or D  
(see detail to the right)

Gearmotor Type: S = Standard Load

Output Shaft Type = SEW

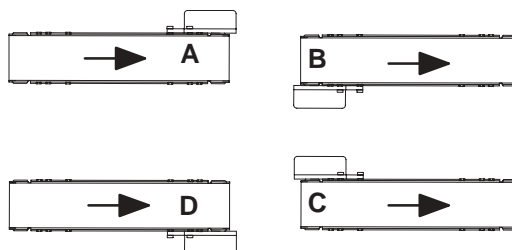
Mount Style = Side Mount

Language Code = U.S. English

Product Series: 32 = 3200 Series

52 = 5200 Series

53 = 5300 Series



## Table 1: Gearmotor Specifications

	Three Phase			VFD Vari Speed		
Output Power	0.5 Hp (0.37 kW)	0.75 Hp (0.56 kW)	1 Hp (0.75 kW)	0.5 Hp (0.37 kW)	0.75 Hp (0.56 kW)	1 Hp (0.75 kW)
Input Voltage	230/460			230/460		
Input Frequency	60 Hz			10 to 60 Hz		
Input Current	1.84/0.92	2.50/1.25	2.90/1.44	1.84/0.92	2.50/1.25	2.90/1.44
RPM	47	134	264	8 to 47	22 to 134	44 to 264
Ratio	37.7:1	13.4:1	6.8:1	37.7:1	13.4:1	6.8:1
Motor Frame	IEC71	IEC71	IEC80	IEC71	IEC71	IEC80
Motor Type	IP54 Totally Enclosed Fan Cooled			IP54 Totally Enclosed Fan Cooled		

## Table 2: Belt Speeds for 3200 Fixed Speed 90° 60 Hz Gearmotors

Part Number	RPM	In-lb	N-m	Ft/min	M/min
32M038WS423EN	47	548	61.9	36.5	11.1
32M013WS423EN	134	327	37.0	102.5	31.3
32M007WS423EN	264	221	25.0	201.9	61.6

## Table 3: Belt Speeds for 3200 Variable Speed 90° 60 Hz Gearmotors

Part Number	RPM	In-lb	N-m	Ft/min (max)	Ft/min (min)	M/min (max)	M/min (min)
32M038WS423EN	47	548	61.9	36.5	6.1	11.1	1.9
32M013WS423EN	134	327	37.0	102.5	17.1	31.3	5.2
32M007WS423EN	264	221	25.0	201.9	33.7	61.6	10.3

## Table 4: Belt Speeds for 5200 and 5300 Fixed Speed 90° 60 Hz Gearmotors

Part Number	RPM	In-lb	N-m	Ft/min	M/min
32M038WS423EN	47	548	61.9	47	14.3
32M013WS423EN	134	327	37.0	134	40.9
32M007WS423EN	264	221	25.0	264	80.5

## Table 5: Belt Speeds for 5200 and 5300 Variable Speed 90° 60 Hz Gearmotors

Part Number	RPM	In-lb	N-m	Ft/min (max)	Ft/min (min)	M/min (max)	M/min (min)
32M038WS423EN	47	548	61.9	47	7.8	14.3	2.4
32M013WS423EN	134	327	37.0	134	22.3	40.9	6.8
32M007WS423EN	264	221	25.0	264	44.0	80.5	13.4

### NOTE

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

# Installation

## Required Tools

- Hex key wrenches:  
2 mm, 2.5 mm, 3 mm, 5 mm
- Torque wrench

## Mounting

### ⚠ WARNING

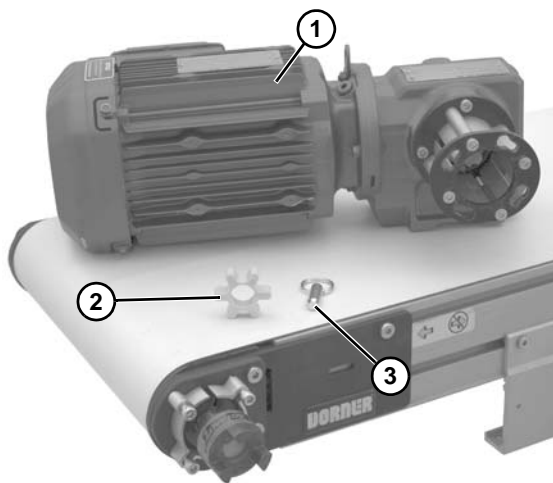


Exposed moving parts can cause severe injury.  
**LOCK OUT POWER** before removing guards or performing maintenance.

### Installation Component List:

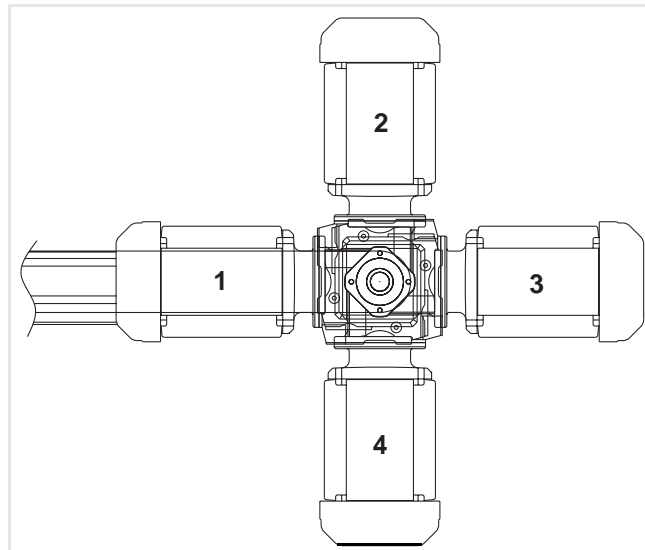
- |   |                    |
|---|--------------------|
| 1 | Gearmotor Assembly |
| 2 | Spider Web Bushing |
| 3 | Anti-rotation pin  |

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



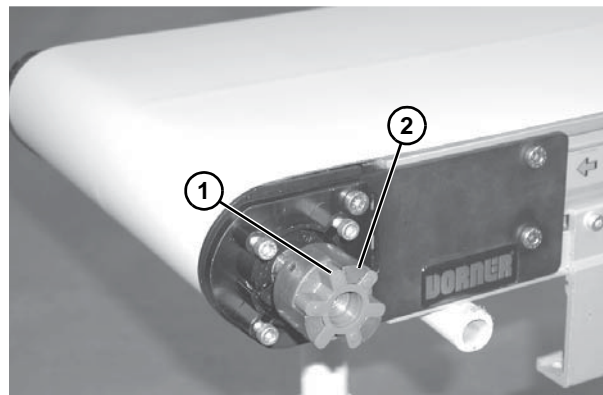
**Figure 2**

NOTE
<i>Gearmotor may be operated in positions 1, 2, 3 or 4 (<b>Figure 3</b>).</i>



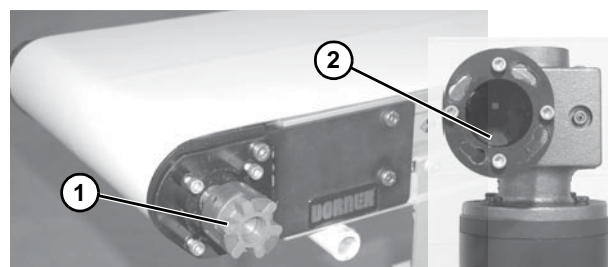
**Figure 3**

2. Install spider bushing (**Figure 4**, item 1) in three jaw coupling (**Figure 4**, item 2).



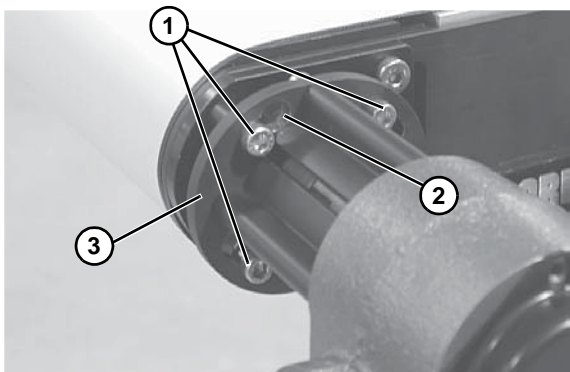
**Figure 4**

3. Rotate conveyor belt and attached conveyor coupling (**Figure 5**, item 1) to align with gearmotor coupling (**Figure 5**, item 2).



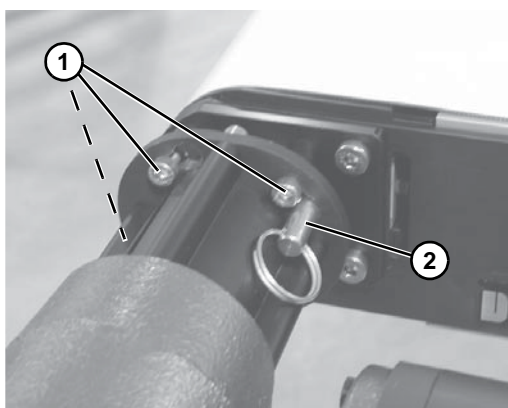
**Figure 5**

- Slide mounting screws (**Figure 6, item 1**) through slots (**Figure 6, item 2**) in gearmotor bracket (**Figure 6, item 3**). Rotate gearmotor assembly into desired position.



**Figure 6**

- Tighten screws (**Figure 7, item 1**) to 146 in-lbs (16.5 N-m) and install anti rotation pin (**Figure 7, item 2**).

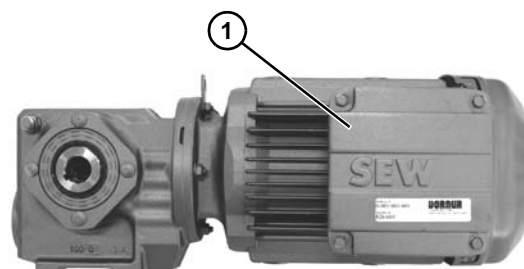


**Figure 7**

## Motor Wiring

<b>⚠ DANGER</b>
<p><b>Hazardous voltage will cause severe injury or death.</b></p> <p><b>LOCK OUT POWER BEFORE WIRING.</b></p>
<b>NOTE</b>
<p><i>Lug terminals are recommended for wiring connections.</i></p>

- Remove cover (**Figure 8, item 1**).



**Figure 8**

- To determine wiring configuration, refer to the inside of the motor cover (**Figure 9**).

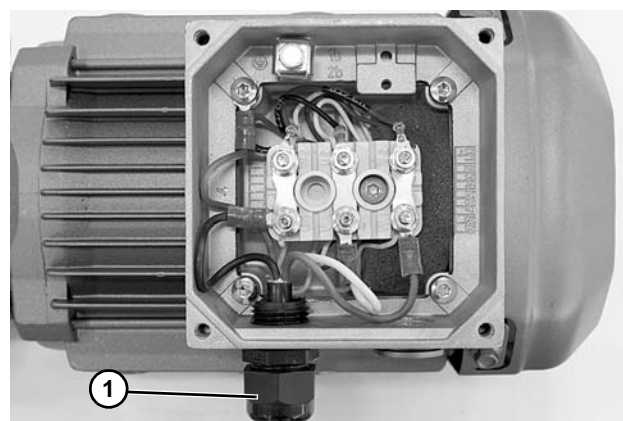
### NOTE

*Image of wiring diagram for reference only. See inside motor cover for motor specific instructions.*



**Figure 9**

- Install cord grip and power cord (**Figure 10, item 1**) mount to terminal box as required.



**Figure 10**

- Connect wires.
- Close cover.



# Preventive Maintenance and Adjustment

## Required Tools

- Hex-key wrenches:  
2 mm, 2.5 mm, 3 mm, 5 mm
- Adjustable wrench (for hexagon head screws)
- Straight edge
- Torque wrench

## Gear Motor 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 and remove terminal box cover.
2. Record wire colors on terminals 1, 2 and 3 (Figure 11, item 1). Loosen terminals and remove wires.

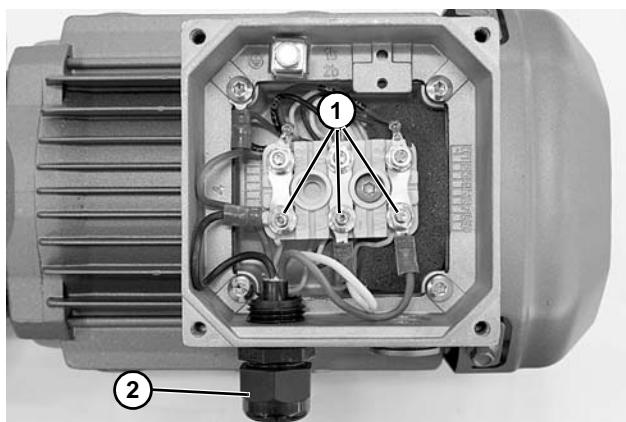


Figure 11

3. Loosen cord grip (Figure 11, item 2) and remove power cord.

### ⚠ WARNING

Gearmotor can rotate and fall off, causing injury.  
**Support the gearmotor prior to removing anti rotation pin.**

4. Loosen the four (4) coupling lock screws (Figure 12, item 1), remove anti rotation pin (Figure 12, item 2). Rotate and remove gearmotor assembly.

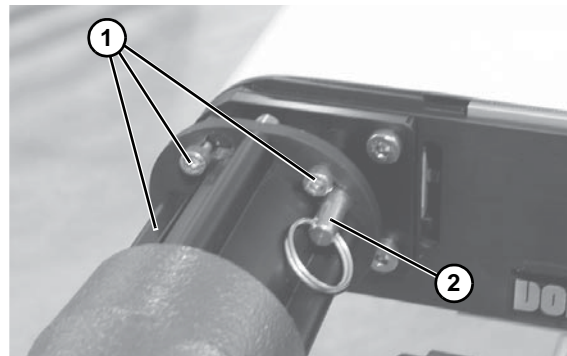


Figure 12

5. Remove the four (4) gearmotor coupling guard screws (Figure 13, item 1) and remove the gearmotor coupling guard (Figure 13, item 2) and mounting ring (Figure 13, item 3).

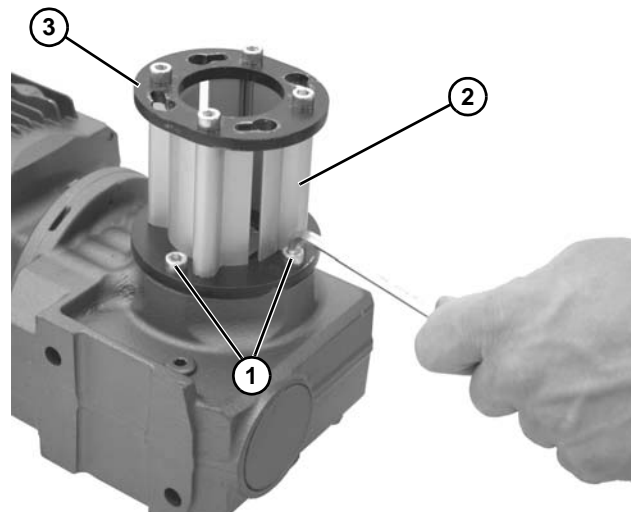


Figure 13

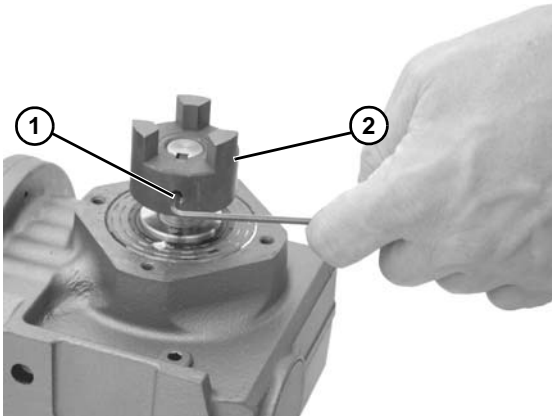


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# Preventive Maintenance and Adjustment

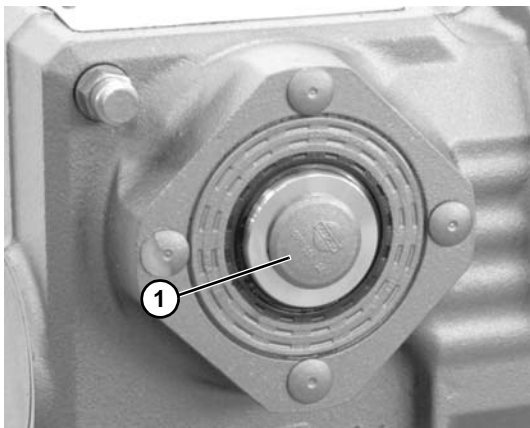
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6. Loosen set screw (**Figure 14, item 1**) and remove 3 jaw coupling (**Figure 14, item 2**).



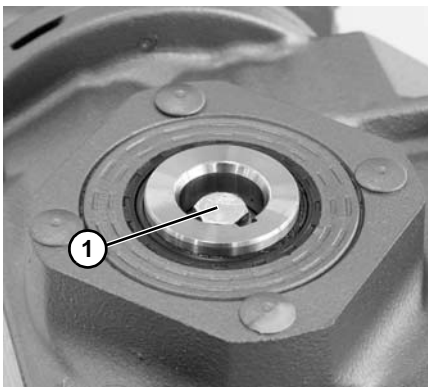
**Figure 14**

7. Remove snap in cover (**Figure 15, item 1**) on opposite side of gearhead.



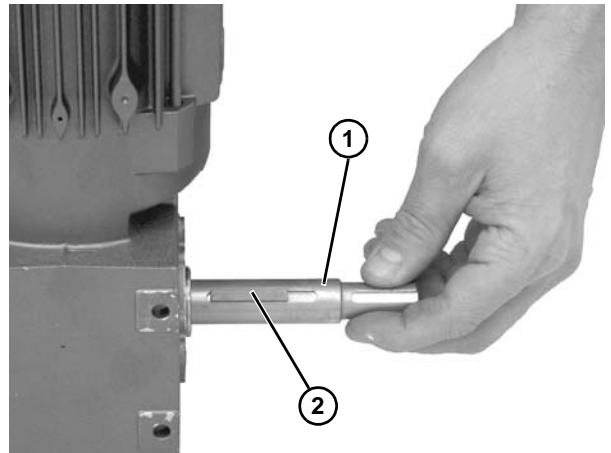
**Figure 15**

8. Remove shaft mounting bolt (**Figure 16, item 1**) and remove shaft.



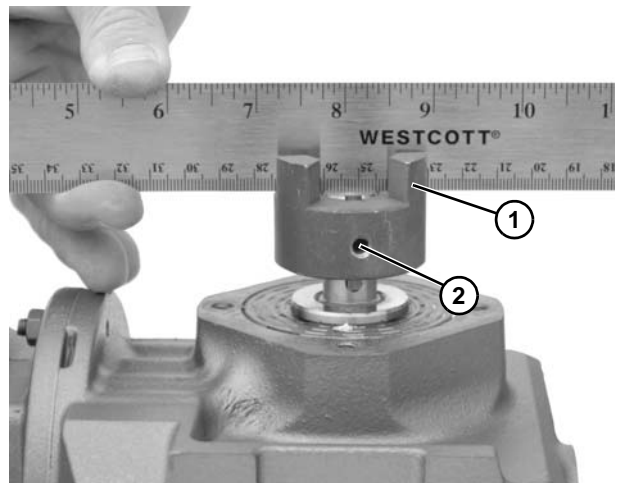
**Figure 16**

9. Insert the new shaft (**Figure 17, item 1**) and key (**Figure 17, item 2**) into new gear reducer. Tighten screw (**Figure 16, item 1**) to 35 in-lb (4 N-m).



**Figure 17**

10. Snap on cover (**Figure 15, item 1**).  
11. Install 3 jaw coupling (**Figure 18, item 1**) so that the shaft is even with the coupling, and tighten set screw (**Figure 18, item 2**) to 45 in-lbs (5 N-m).




**Figure 18**

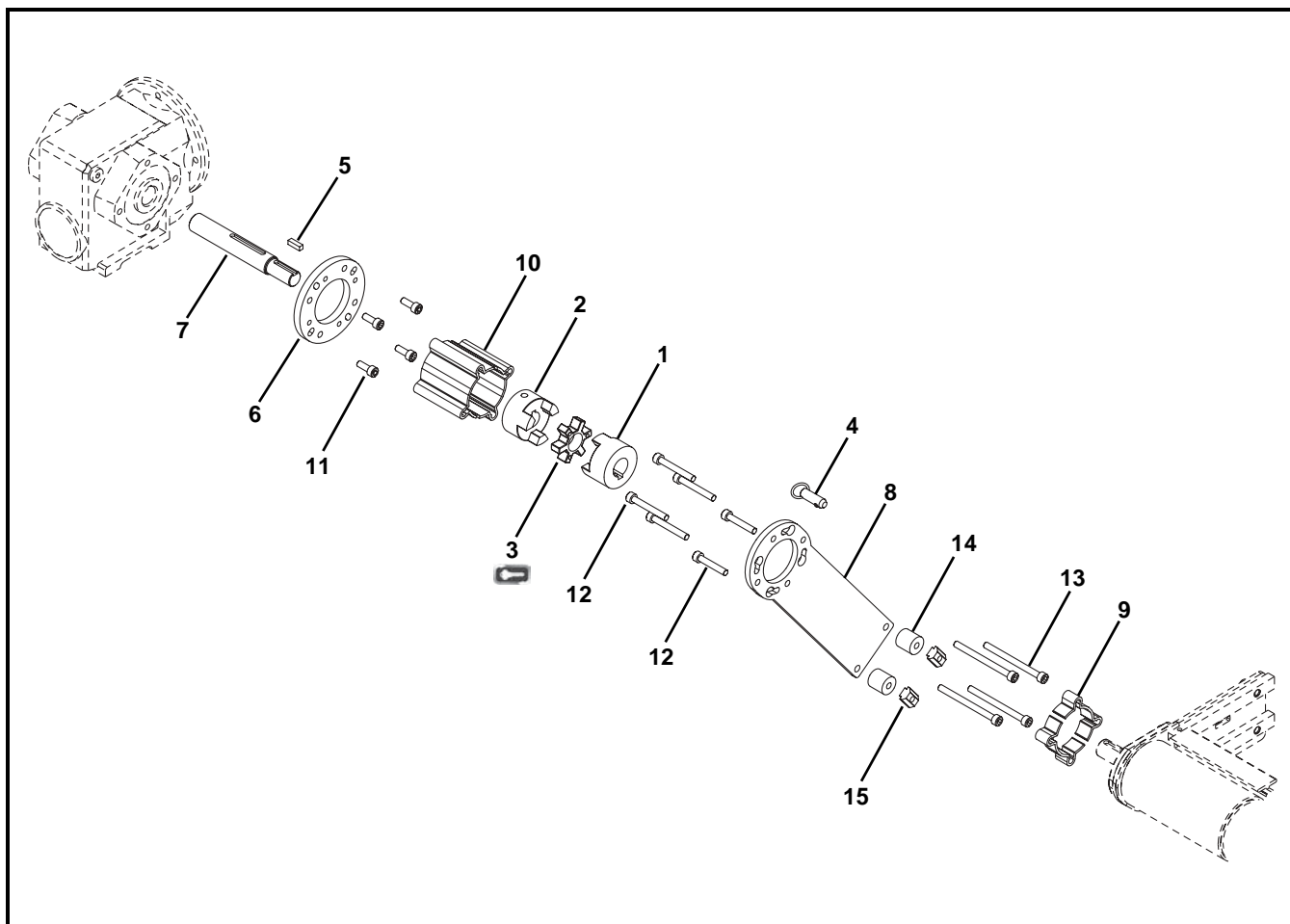
12. Install gearmotor coupling guard (**Figure 13, item 2**) and mounting ring (**Figure 13, item 3**) to gearmotor, and tighten screws (**Figure 13, item 1**) to 110 in-lb (12 N-m).  
13. Complete steps 2 through 5 of “Mounting” section beginning on page 6.


# Service Parts

## Side Mount Drive Package for 90° SEW Gearmotors

### 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.




Item	Part Number	Description
1	807-1140	3 Jaw Coupling, 20 mm
2	807-1141	3 Jaw Coupling, 5/8"
3 	807-1143	3 Jaw Rubber Spider
4	807-1169	Quick Release Pin
5	912-078	Square Key
6	201681	Mounting Ring
7	201692	Output Shaft

Item	Part Number	Description
8	351084	Mounting Plate
9	301092	Short Drive Guard (Qty. 2)
10	301093	Long Drive Guard (Qty. 2)
11	920616M	Socket Head Screw, M6 - 1.00 x 16 mm
12	920635M	Socket Head Screw, M6 - 1.00 x 35 mm
13	920680M	Socket Head Screw, M6 - 1.00 x 80 mm
14	351085	Spacer
15	639971M	Drop-In Tee Bar

**90° Industrial Gearmotors**



Item	Part Number	Description
1 	32M038WS423EN	Gearmotor, 0.80 Hp (0.37 Kw), 230/460 Volts, 37.7:1
	32M013WS423EN	Gearmotor, 0.75 Hp (0.56 Kw), 230/460 Volts, 13.4:1
	32M007WS423EN	Gearmotor, 1.00 Hp (0.75 Kw), 230/460 Volts, 6.8:1

# 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.

	Product Type								
	Standard Products								Engineered to order parts
Product Line	Conveyors	Gearmotors & Mounting Packages	Support Stands	Accessories	Spare Parts (non-belt)	Spare Belts - Standard Flat Fabric	Spare Belts - Cleated & Specialty Fabric	Spare Belts - Plastic Chain	All equipment and parts
1100	30% return fee for all products except: 50% return fee for conveyors with modular belt, cleated belt or specialty belts						non-returnable		case-by-case
2200									
2200 Modular Belt									
2200 Precision Move									
2300									
2300 Modular Belt									
3200									
3200 LPZ									
3200 Precision Move									
4100									
5200									
5300									
6200									
Controls									
7200 / 7300	50% return fee for all products								
7350	non-returnable								
7360									
7400									
7600									

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

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