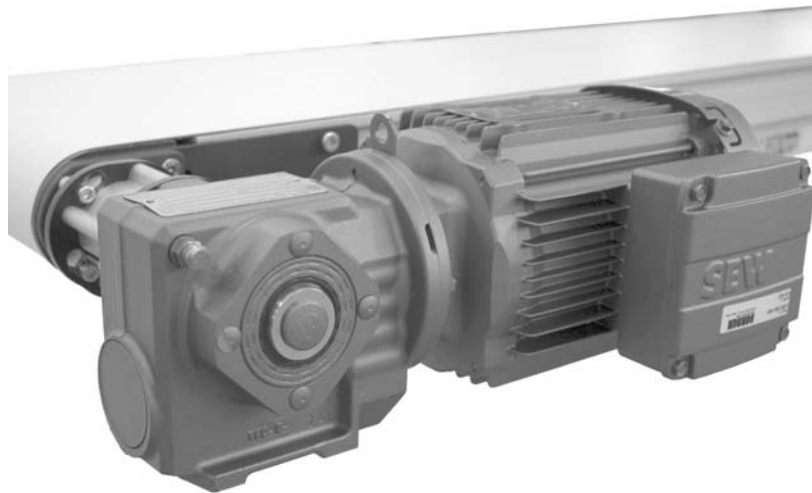




3200, 5200, & 5300 Series Side Mount Drive Package for Standard Load SEW 60 Hz Gearmotors

Installation, Maintenance & Parts Manual



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Table of Contents

| | | | |
|--|---|---|----|
| Table of Contents | 2 | Table 5: Belt Speeds for 5200 and 5300 Variable Speed 90° | |
| Introduction | 2 | 60 Hz Gearmotors | 5 |
| Warnings - General Safety | 3 | Installation..... | 6 |
| Product Description | 4 | Required Tools | 6 |
| Specifications | 4 | Mounting | 6 |
| Gearmotor Mounting Package Models:..... | 4 | Motor Wiring..... | 7 |
| Table 1: Gearmotor Specifications | 5 | Preventive Maintenance and Adjustment | 8 |
| Table 2: Belt Speeds for 3200 Fixed Speed 90° | | Required Tools | 8 |
| 60 Hz Gearmotors | 5 | Gear Motor Replacement | 8 |
| Table 3: Belt Speeds for 3200 Variable Speed 90° | | Service Parts..... | 10 |
| 60 Hz Gearmotors | 5 | Side Mount Drive Package for 90° SEW Gearmotors ... | 10 |
| Table 4: Belt Speeds for 5200 and 5300 Fixed Speed 90° | | 90° Industrial Gearmotors | 11 |
| 60 Hz Gearmotors | 5 | Return Policy..... | 12 |

Introduction

| |
|------------------|
| IMPORTANT |
|------------------|

| |
|---|
| <i>Some illustrations may show guards removed. DO NOT operate equipment without guards.</i> |
|---|

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 |

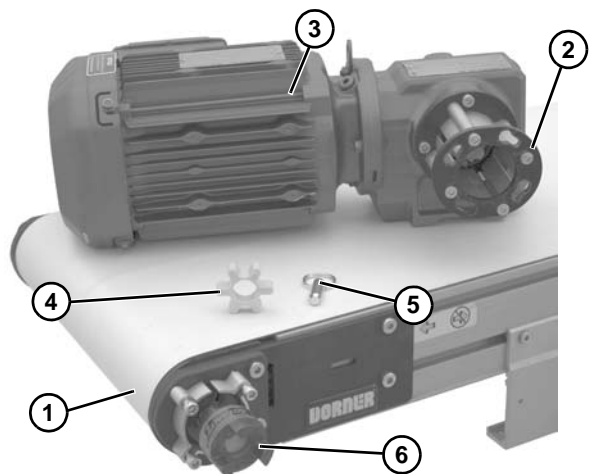


Figure 1

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

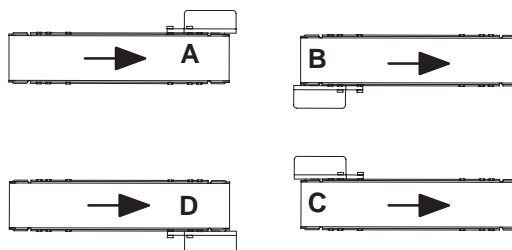


Table 1: Gearmotor Specifications

| | 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**).

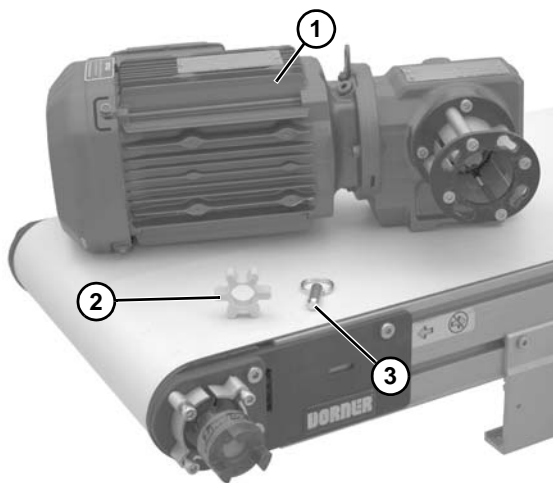


Figure 2

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

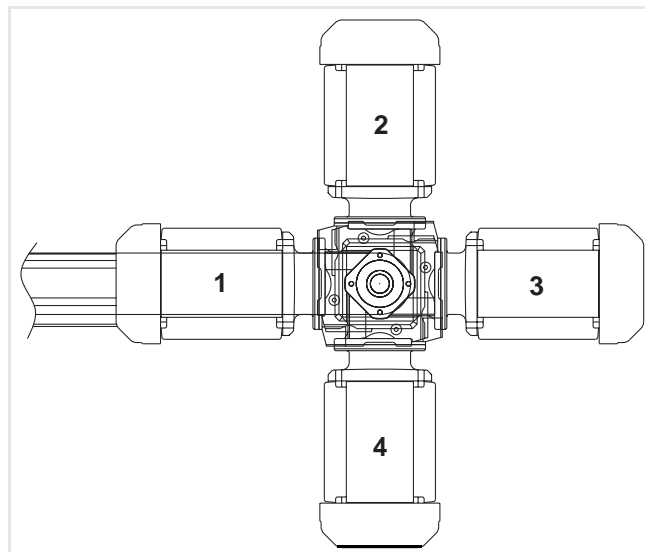


Figure 3

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

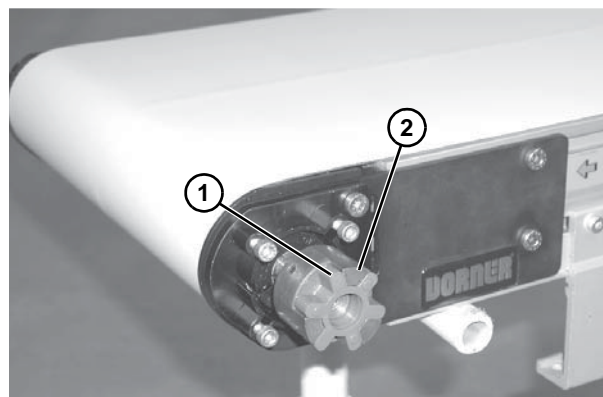


Figure 4

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

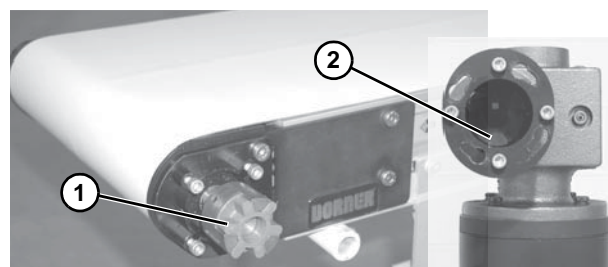


Figure 5

- 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.

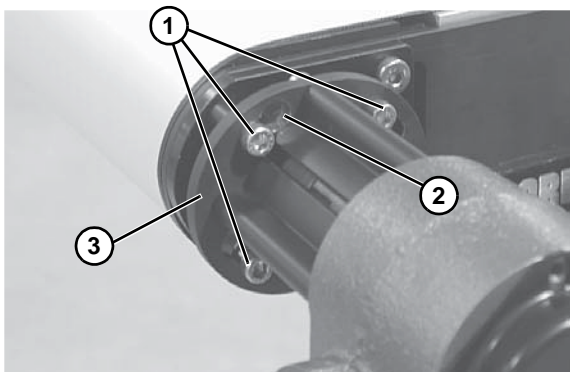


Figure 6

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

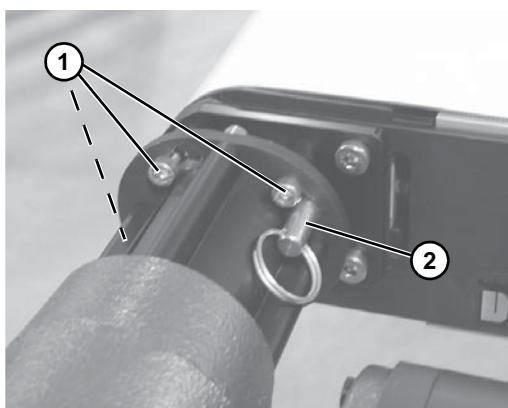


Figure 7

Motor Wiring

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

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

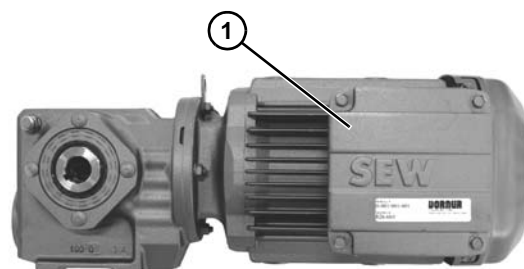


Figure 8

- 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.

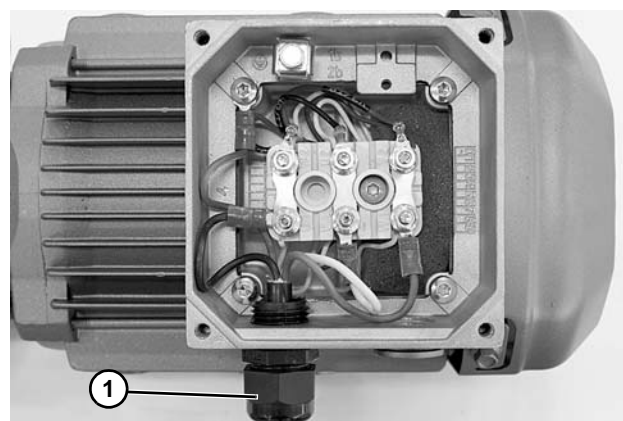


Figure 10

- 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.

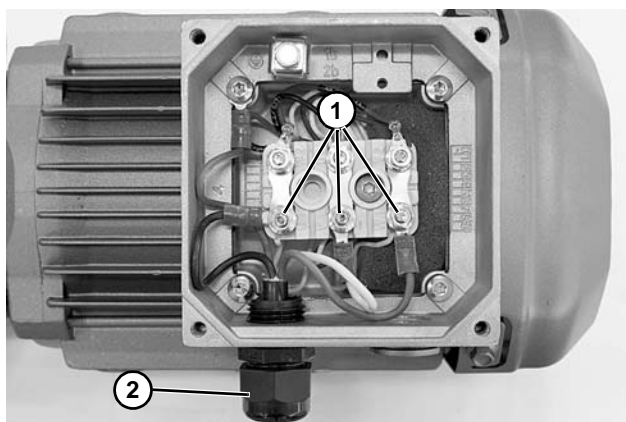


Figure 11

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.

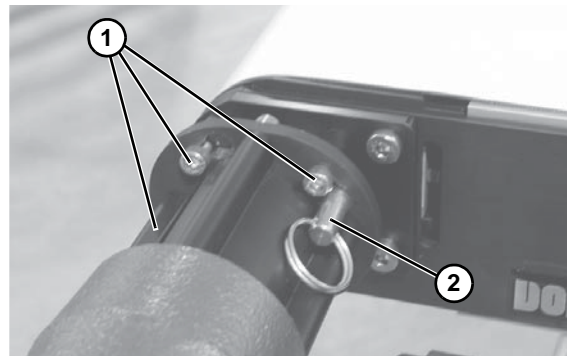


Figure 12

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).

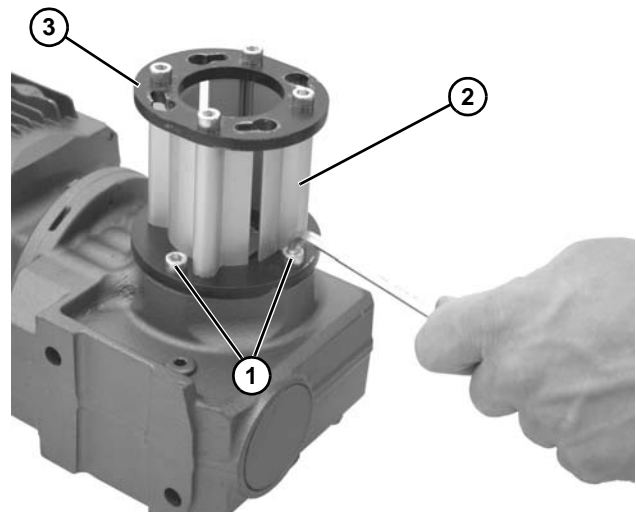


Figure 13

Preventive Maintenance and Adjustment

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

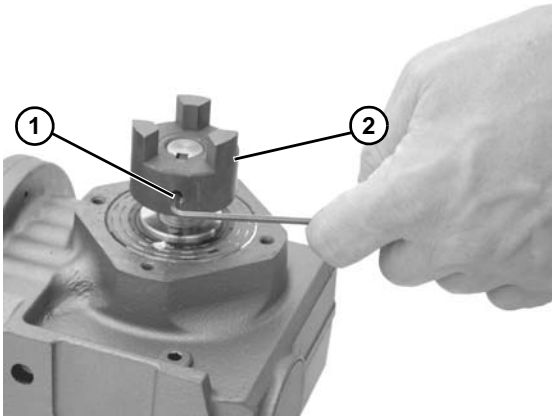


Figure 14

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

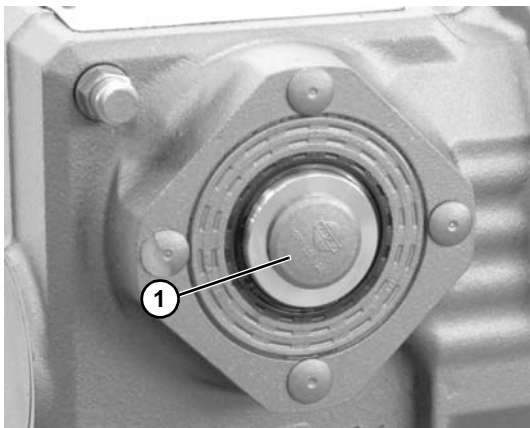


Figure 15

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

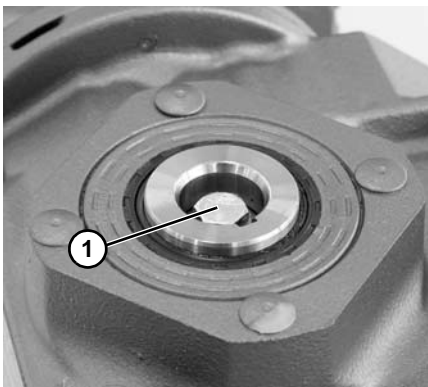


Figure 16

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).

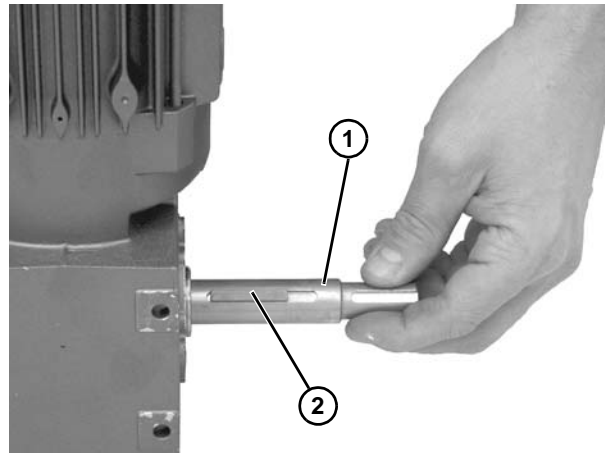


Figure 17

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).

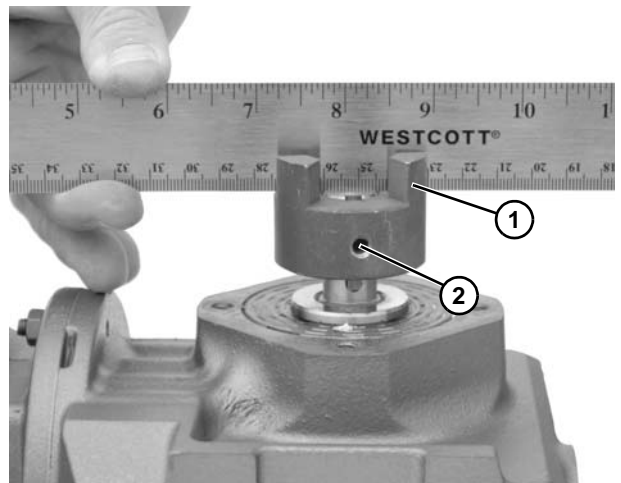



Figure 18

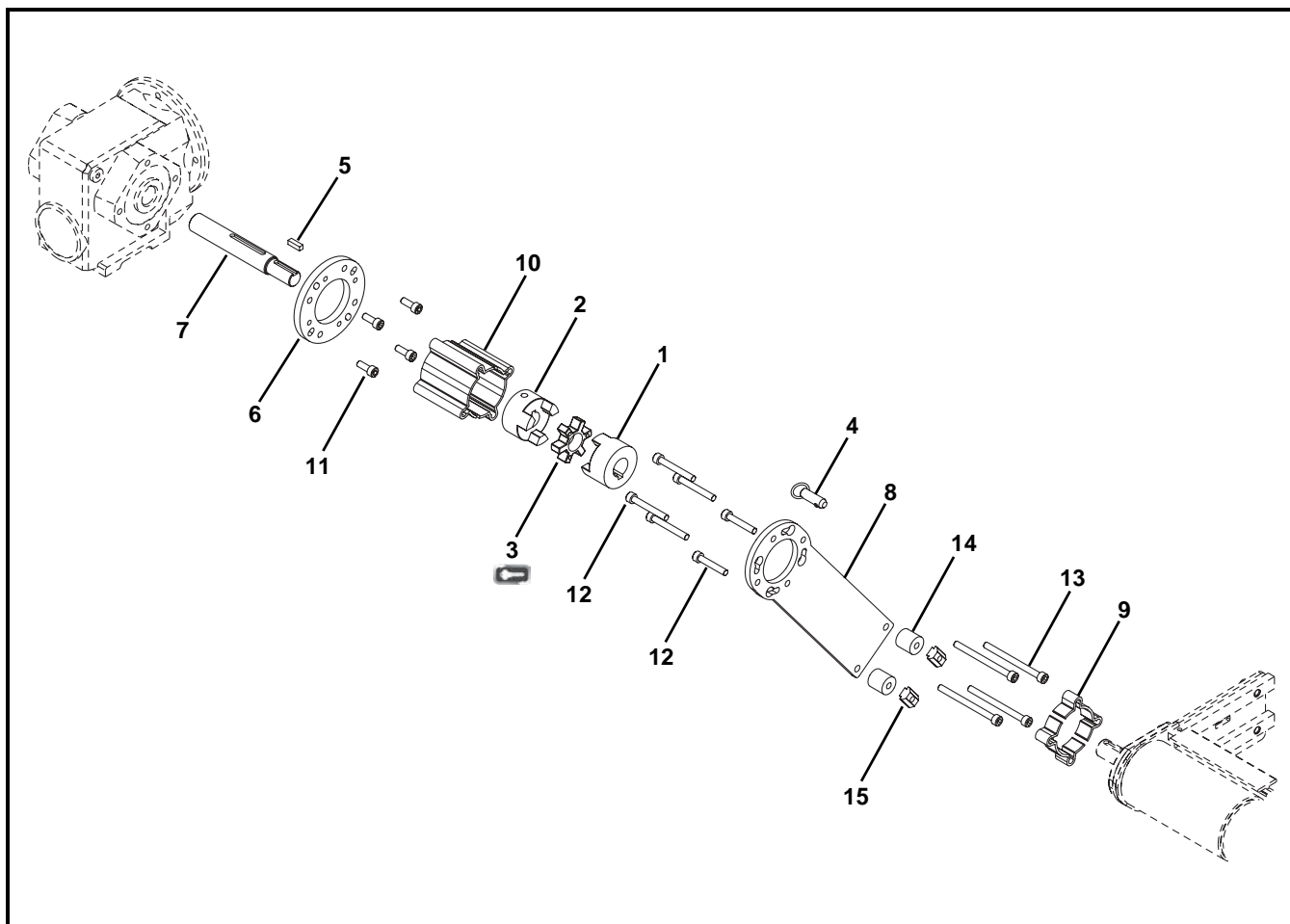
12. Install gearmotor coupling guard (**Figure 13, item 2**) and mounting ring (**Figure 13, item 3**) to gearmotor, and tighten screws (**Figure 13, item 1**) to 110 in-lb (12 N-m).
13. Complete steps 2 through 5 of “Mounting” section beginning on page 6.


Service Parts

Side Mount Drive Package for 90° SEW Gearmotors

NOTE

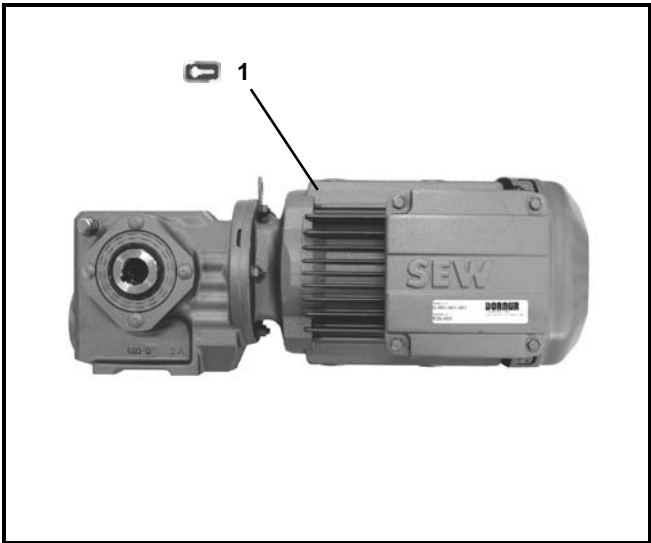
For replacement parts other than those shown in this section, contact an authorized Dorner Service Center or the factory. Key Service Parts and Kits are identified by the Performance Parts Kits logo . Dorner recommends keeping these parts on hand.




| 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 | 350184 | 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.

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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