



7350 Series Bottom Mount Parallel Shaft Drive Package

Installation, Maintenance & Parts Manual



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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’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 components.

- | | |
|---|-----------------------|
| 1 | Conveyor |
| 2 | Cover |
| 3 | Driven Pulley |
| 4 | Timing Belt |
| 5 | Drive Pulley |
| 6 | Gearmotor |
| 7 | Timing Belt Tensioner |
| 8 | Mounting Bracket |

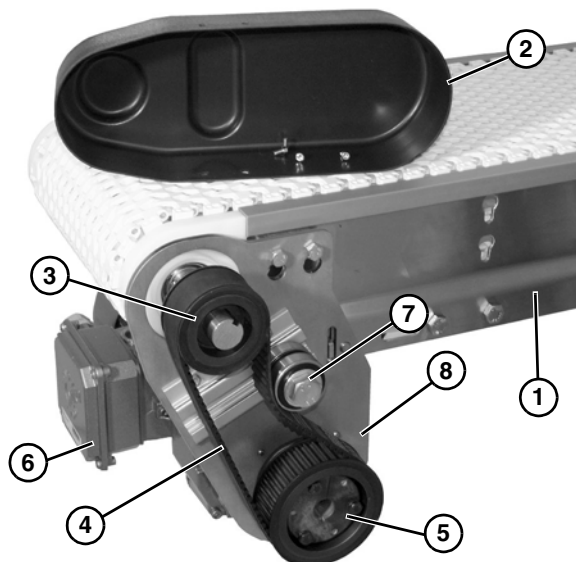


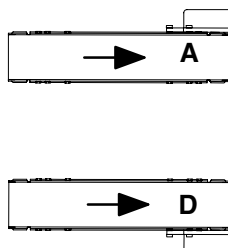
Figure 1

Specifications

Gearmotor Mounting Package Models:

735 M B P S A 28 28

Language Drive Type Gearmotor Type Gearmotor Size Drive Position Gearmotor Sprocket Conveyor Sprocket



Specifications

Table 1: Gearmotor Specifications

Item	Fixed Speed	Variable Speed
Output Power	0.16 hp (0.12 kW), 0.25 hp (0.19 kW), 0.50 hp (0.37 kW), 0.75 hp (0.56 kW), 1.00 hp (0.75 kW)	
Input Voltage	230 / 460 V.A.C. 3 Phase	
Input Frequency	60 Hz	6 - 60 Hz
Gearmotor Ratios	6:1, 8:1, 10:1, 13:1, 20:1, 34:1, 54:1, 81:1	
Motor Type	Totally Enclosed, Non-ventilated, Fan Cooled	

Table 2: Fixed Speed Gearmotors

Part Number	Belt Speed		RPM	HP	kW	Volts	Phase	FLA	in-lbs	N-m
	Ft/min	M/min								
74M081PS423FN	21	6.4	21	0.16	0.12	230/460	3	.88 / .44	483	55
74M054PS423FN	31	9.4	31	0.25	0.19	230/460	3	1.12 / 0.56	507	57
74M034PS423FN	50	15.2	50	0.50	0.37	230/460	3	1.90 / 0.95	633	72
74M020PS423FN	84	25.6	84	0.75	0.56	230/460	3	2.70 / 1.35	563	64
74M013PS423FN	122	37.2	122	1.00	0.75	230/460	3	3.66 / 1.83	517	58
74M010PS423FN	170	51.8	170	1.00	0.75	230/460	3	3.66 / 1.83	374	42
74M008PS423FN	190	57.9	190	1.00	0.75	230/460	3	3.66 / 1.83	333	38
74M006PS423FN	258	78.6	258	1.00	0.75	230/460	3	3.66 / 1.83	246	28

Table 3: Variable Speed Gearmotors

Part Number	Belt Speed		RPM		HP	kW	Volts	FLA	in-lbs	N-m
	Ft/min	M/min	Min	Max						
74M081PS423EN	21	6.4	4.2	21	0.16	0.12	230	.88	483	55
74M054PS423EN	31	9.4	6.2	31	0.25	0.19	230	1.12	507	57
74M034PS423EN	50	15.2	10	50	0.50	0.37	230	1.90	633	72
74M020PS423EN	84	25.6	16.8	84	0.75	0.56	230	2.70	563	64
74M013PS423EN	122	37.2	24.4	122	1.00	0.75	230	3.66	517	58
74M010PS423EN	170	51.8	34	170	1.00	0.75	230	3.66	374	42
74M008PS423EN	190	57.9	38	190	1.00	0.75	230	3.66	333	38
74M006PS423EN	258	78.6	51.6	258	1.00	0.75	230	3.66	246	28

NOTE

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

Installation

Required Tools

- 5/16" wrench
- 4 mm wrench
- 13 mm wrench
- 14 mm wrench
- Large flat head screwdriver
- Torque wrench

Bottom Mount Parallel Shaft Drive Package

⚠ WARNING



SEVERE HAZARD!
LOCK OUT POWER before removing guards or performing maintenance. Exposed moving parts can cause serious injury.

Typical components (**Figure 2**).

- | | |
|---|---------------------------------|
| 1 | Bottom Mount Assembly |
| 2 | Drive Pulley |
| 3 | Cover |
| 4 | M4 Hex Head Screws (4x) |
| 5 | Driven Pulley |
| 6 | M8 x 35 mm Hex Head Screws (2x) |
| 7 | Timing Belt |
| 8 | Tensioner |

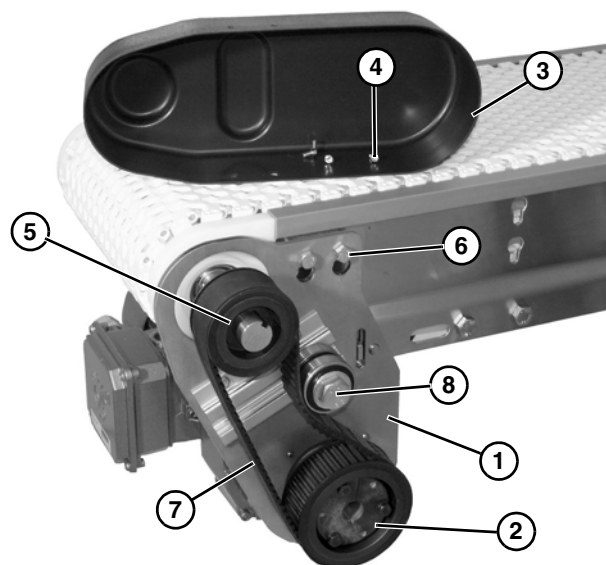


Figure 2

1. Locate drive output shaft (**Figure 3, item 1**). Remove top two existing bolts securing headplate (**Figure 3, item 2**) to conveyor frame.

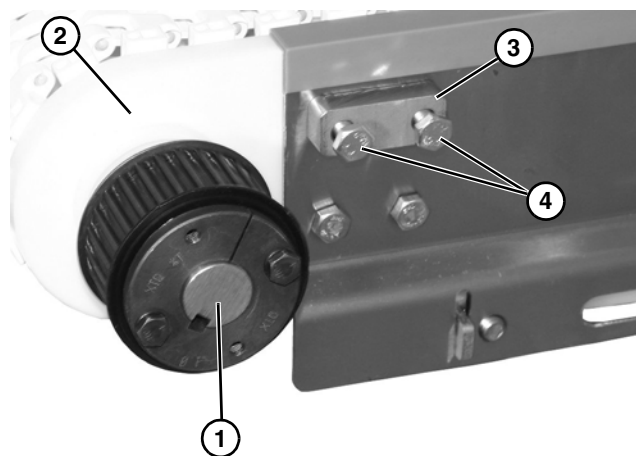


Figure 3

2. Install spacer (**Figure 3, item 3**) and two longer bolts provided (**Figure 3, item 4**) into conveyor frame and headplate. Leave bolts loose with enough space to slide on mounting assembly.

3. Attach bottom mount assembly (**Figure 4, item 1**) with the two bolts (**Figure 4, item 2**).

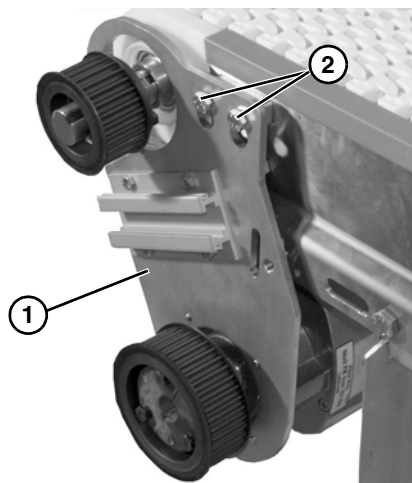


Figure 4

4. Insert bolt (**Figure 5, item 1**) through backside of conveyor into threaded hole in mounting bracket (**Figure 5, item 2**).

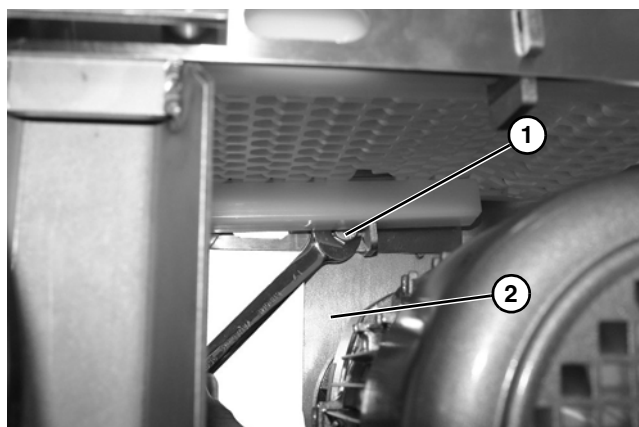


Figure 5

⚠ WARNING
<p>Drive shaft keyway may be sharp. HANDLE WITH CARE.</p>

5. Install key (**Figure 6, item 1**).

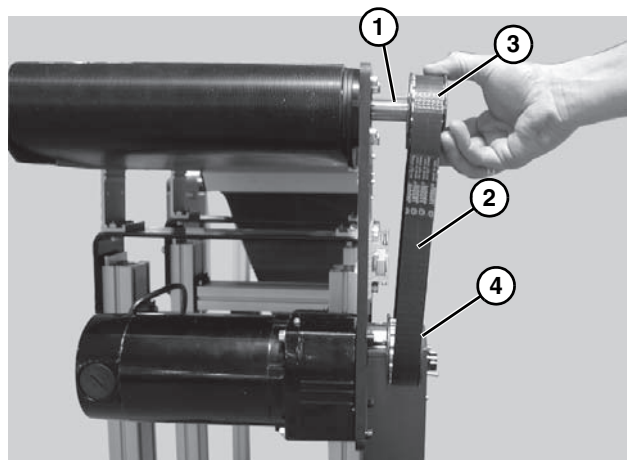


Figure 6

6. Wrap timing belt (**Figure 6, item 2**) around driven pulley (**Figure 6, item 3**) and drive pulley (**Figure 6, item 4**). Install driven pulley onto conveyor shaft.
7. Using a straight edge (**Figure 7, item 1**), align driven pulley (**Figure 7, item 2**) with drive pulley (**Figure 7, item 3**).

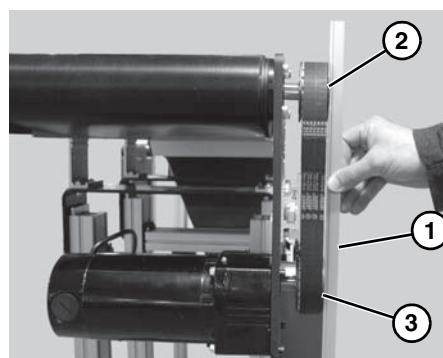


Figure 7

8. Tighten driven pulley taper-lock screws (**Figure 8, item 1**).

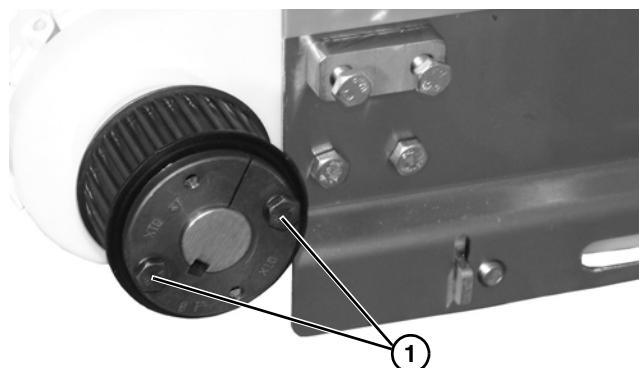


Figure 8

Installation

9. Tension timing belt to obtain 1/8" (3 mm) deflection for 6 lb (3 Kg) of force at timing belt mid-point (**Figure 9, item 1**). Tighten tensioner screw (**Figure 9, item 2**) to 110 in-lb (12 Nm).

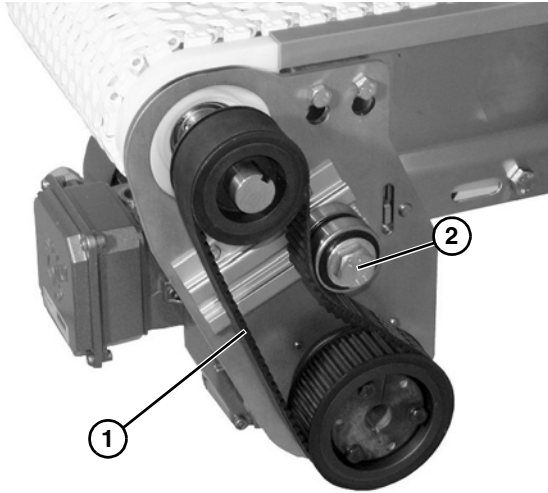


Figure 9

10. Install cover (**Figure 10, item 1**) with four (4) screws (**Figure 10, item 2**). Tighten screws to 35 in-lb (4 Nm).

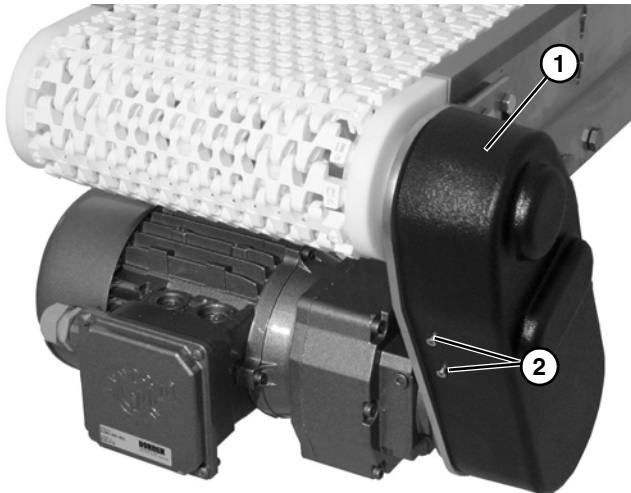


Figure 10

Preventive Maintenance and Adjustment

Required Tools

- 5/16" wrench
- 4 mm wrench
- 13 mm wrench
- 14 mm wrench
- Large flat head screwdriver
- Torque wrench

Timing Belt Tensioning

⚠ WARNING



Exposed moving parts can cause severe injury.

LOCK OUT POWER before removing guards or performing maintenance.

1. Remove four screws (Figure 11, item 1) and remove cover (Figure 11, item 2).

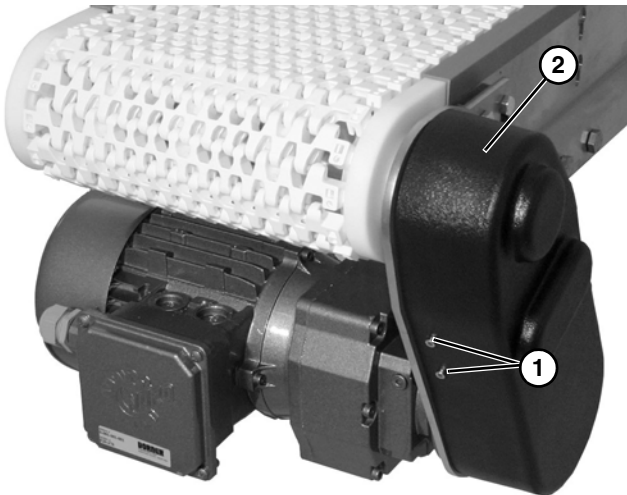


Figure 11

2. Loosen tensioner (Figure 12, item 1).

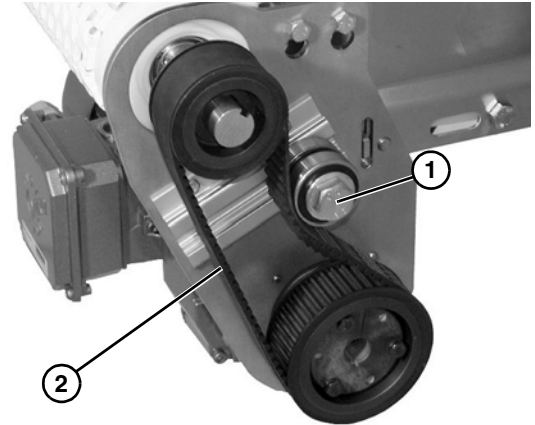


Figure 12

3. Tension timing belt to obtain 1/8" (3 mm) deflection for 6 lb (3 Kg) of force at timing belt mid-point (Figure 12, item 2). Tighten tensioner screw (Figure 12, item 1) to 110 in-lb (12 Nm).
4. Install cover (Figure 11, item 2) with four screws (Figure 11, item 1).

Timing Belt Replacement

⚠ WARNING



Exposed moving parts can cause severe injury.

LOCK OUT POWER before removing guards or performing maintenance.

1. Remove four screws (Figure 13, item 1) and remove cover (Figure 13, item 2).

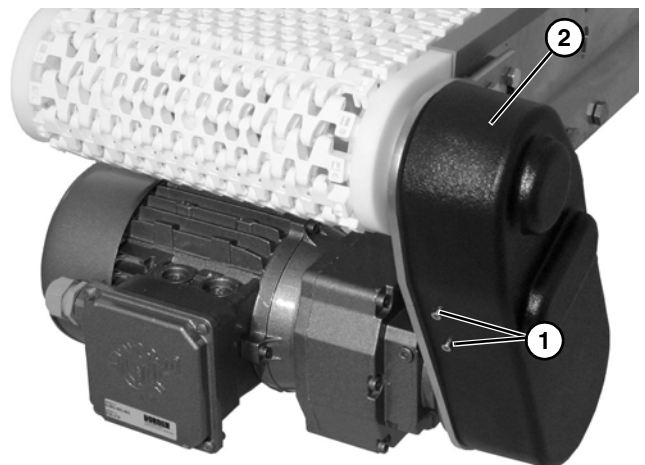


Figure 13

Preventive Maintenance and Adjustment

2. Loosen tensioner (**Figure 14, item 1**).

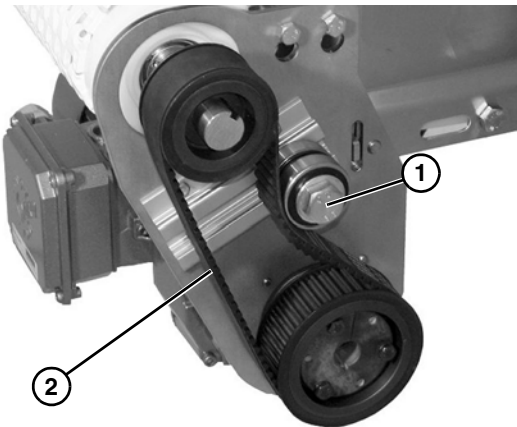


Figure 14

3. Remove timing belt (**Figure 15, item 1**).

NOTE

*If timing belt does not slide over pulley flange, loosen driven pulley taper-lock screws (**Figure 15, item 2**) and remove pulley with belt (**Figure 15, item 1**). For re-installation, see steps 7 thru 9 beginning on page 7.*

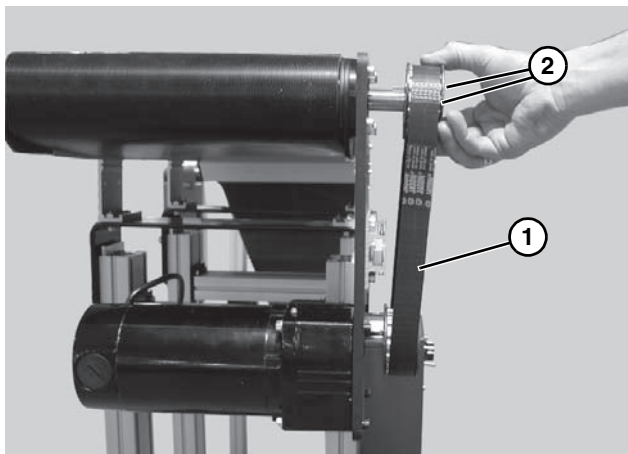


Figure 15

4. Install new timing belt.
5. Tension timing belt to obtain 1/8" (3 mm) deflection for 6 lb (3 Kg) of force at timing belt mid-point (**Figure 14, item 2**). Tighten tensioner screw (**Figure 14, item 1**) to 110 in-lb (12 Nm).

6. Install cover (**Figure 16, item 1**) with four screws (**Figure 16, item 2**). Tighten screws to 35 in-lb (4 Nm).

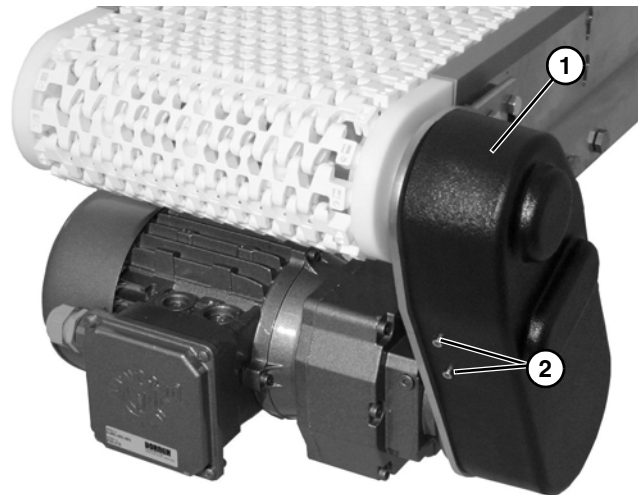


Figure 16

Drive or Driven Pulley Replacement

⚠ WARNING



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

1. Complete steps 1 through 3 of "Timing Belt Replacement" section on page 9.

Preventive Maintenance and Adjustment

2. Remove taper-lock screws (**Figure 17, item 1**). Insert one of taper lock screws in remaining hole (**Figure 17, item 2**). Tighten screw until pulley is loose. Remove pulley and taper hub assembly.

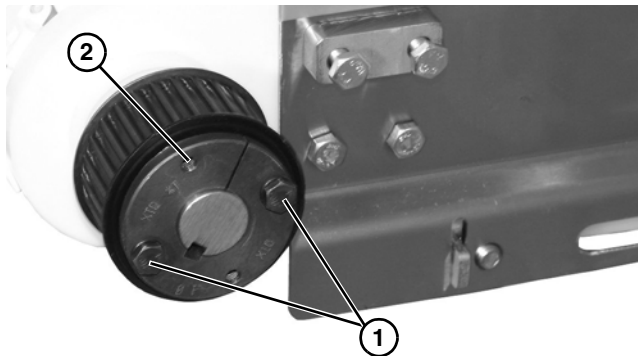



Figure 17

3. To reassemble see steps 5 through 10 of “Installation” section beginning on page 7.

Motor Replacement

⚠ WARNING

SEVERE HAZARD! LOCK OUT POWER before removing guards or performing maintenance. Exposed moving parts can cause serious injury.

⚠ WARNING

BURN HAZARD! DO NOT TOUCH the motor while operating, or shortly after being turned off. Motors may be HOT and can cause serious burn injuries.

⚠ DANGER

ELECTRICAL HAZARD! LOCK OUT POWER BEFORE WIRING. Exposure to high voltage current can cause death or serious injury.

1. Loosen terminal box screws (**Figure 18, item 1**) and remove cover (**Figure 18, item 2**).

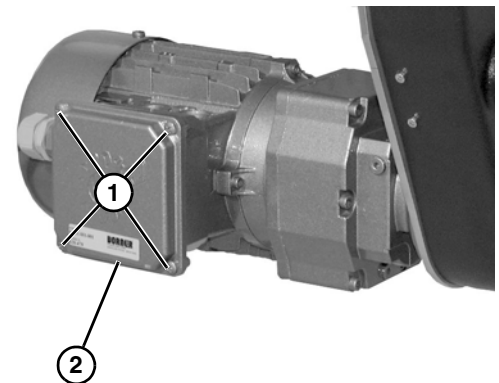



Figure 18

2. Refer to the wiring diagram on the inside of the junction box cover.
3. Loosen the wire nuts and disconnect the wires.
4. Loosen the cord grip and remove the cord.

⚠ WARNING

CRUSH HAZARD! <ul style="list-style-type: none"> • SUPPORT MOTOR PRIOR TO LOOSENING THE BOLTS • Loosening motor bolts may cause it to drop down, causing serious injury.

5. Remove the drive pulley. See steps 1 and 2 of “Drive or Driven Pulley Replacement” section on page 10.

Preventive Maintenance and Adjustment

6. Remove eight (8) bolts (**Figure 19, item 1**). Detach motor (**Figure 19, item 2**) from the mounting plate (**Figure 19, item 3**). Retain motor output shaft key (**Figure 19, item 4**).

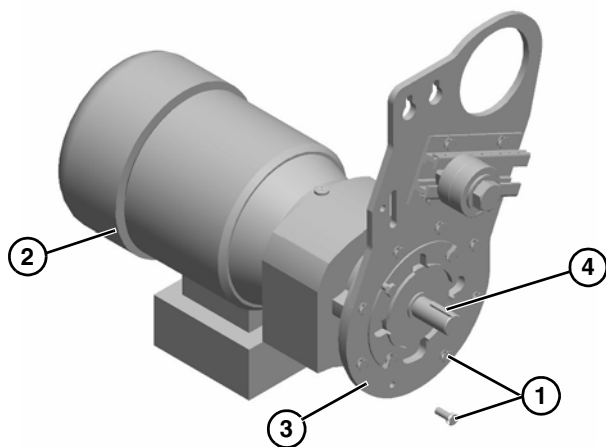


Figure 19

7. Remove four (4) bolts (**Figure 20, item 1**). Detach mounting plates (**Figure 20, item 2**) from motor. Install new motor.

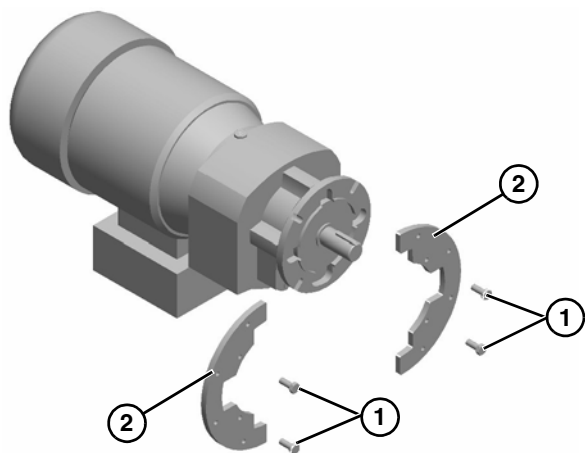



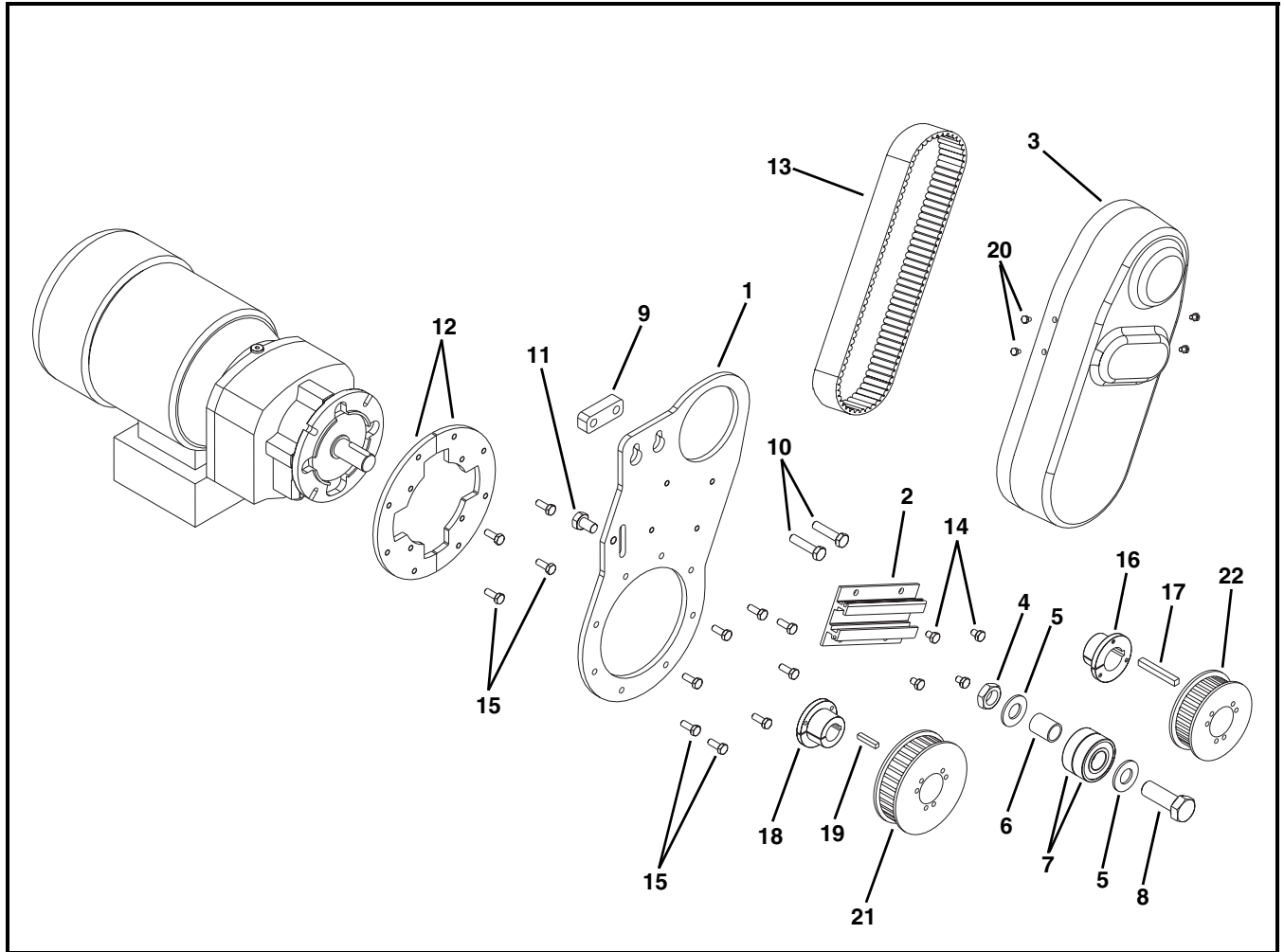
Figure 20

8. Re-install the drive pulley, reverse step 2 of “Drive or Driven Pulley Replacement” section on page 11.
9. Complete steps 6 through 10 of “Installation” section beginning on page 7.
10. Rewire the motor and attach the box cover.

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.

Bottom Mount Parallel Drive Package

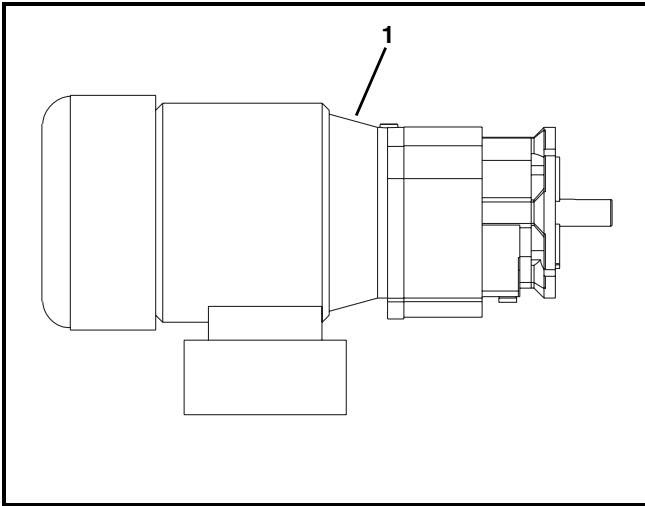


Item	Part Number	Description
1	532229	Mounting Plate
2	301076	Slide Tensioner
3	532227	Drive Cover
4	991610MSS	Hex Nut
5	911-013	Washer
6	801-124	Bearing
7	802-126	Ball Bearing
8	961645M	Hex Head Cap Screw M16-2.00 x 45 mm
9	532231	Spacer
10	960835MSS	Hex Head Cap Screw M8-1.25 x 35 mm
11	961016MSS	Hex Head Cap Screw M10-1.50 x 16 mm
12	532247	Mount Plate

Item	Part Number	Description
13	814-144	Timing Belt for 30:30 Pulley Ratio
	814-143	Timing Belt for 36:30 Pulley Ratio
14	960608MSS	Hex Head Cap Screw M6-1.00 x 8 mm
15	960616MSS	Hex Head Cap Screw M6-1.00 x 16mm
16	532235	Bushing
17	912-110SS	Square Key
18	532236	Bushing
19	912-080SS	Square Key
20	960406MSS	Hex Head Cap Screw M4-0.70 x 6mm
21	532234-30	Drive Pulley 30T
	532234-36	Drive Pulley 36T
22	532234-30	Driven Pulley 30T

Service Parts

Parallel Shaft Gearmotors



Item	Part Number	Description
1	74M081PS423FN	Motor, 0.16 hp (0.12Kw), 81:1, 230-460 Volts, 60 Hz, 3 Phase
	74M054PS423FN	Motor, 0.25 hp (0.19Kw), 54:1, 230-460 Volts, 60 Hz, 3 Phase
	74M034PS423FN	Motor, 0.50 hp (0.37Kw), 34:1, 230-460 Volts, 60 Hz, 3 Phase
	74M020PS423FN	Motor, 0.75 hp (0.56Kw), 20:1, 230-460 Volts, 60 Hz, 3 Phase
	74M013PS423FN	Motor, 1.00 hp (0.75Kw), 13:1, 230-460 Volts, 60 Hz, 3 Phase
	74M010PS423FN	Motor, 1.00 hp (0.75Kw), 10:1, 230-460 Volts, 60 Hz, 3 Phase
	74M008PS423FN	Motor, 1.00 hp (0.75Kw), 8:1, 230-460 Volts, 60 Hz, 3 Phase
	74M006PS423FN	Motor, 1.00 hp (0.75Kw), 6:1, 230-460 Volts, 60 Hz, 3 Phase
	74M081PS423EN	Motor, 0.16 hp (0.12Kw), 81:1, 230 Volts, 60 Hz
	74M054PS423EN	Motor, 0.25 hp (0.19Kw), 54:1, 230 Volts, 60 Hz
	74M034PS423EN	Motor, 0.50 hp (0.37Kw), 34:1, 230 Volts, 60 Hz
	74M020PS423EN	Motor, 0.75 hp (0.56Kw), 20:1, 230 Volts, 60 Hz
	74M013PS423EN	Motor, 1.00 hp (0.75Kw), 13:1, 230 Volts, 60 Hz
	74M010PS423EN	Motor, 1.00 hp (0.75Kw), 10:1, 230 Volts, 60 Hz
	74M008PS423EN	Motor, 1.00 hp (0.75Kw), 8:1, 230 Volts, 60 Hz
	74M006PS423EN	Motor, 1.00 hp (0.75Kw), 6:1, 230 Volts, 60 Hz

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.

A representative will discuss action to be taken on the returned items and provide a Returned Goods Authorization number for reference.

There will be a return charge on all new undamaged items returned for credit where Dorner was not at fault. Dorner is not responsible for return freight on such items.

Conveyors and conveyor accessories

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

Parts

Standard stock parts	30%
MPB, 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 Technical Sales, Catalog Sales and Service Teams 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. 2009

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