



3200, 5200 & 5300 Series Bottom Mount 90° Drive Package for Standard Load Gearmotors

Installation, Maintenance & Parts Manual



Featuring: **eDrive™** Technology

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:
www.dorner.com/service_manuals.asp

Table of Contents

Introduction	2	Installation.....	8
Warnings - General Safety	3	Required Tools	8
Product Description	4	Mounting	8
Specifications	5	Preventive Maintenance and Adjustment	11
Gearmotor Mounting Package Models:.....	5	Required Tools	11
Table 1: Gearmotor Specifications	5	Timing Belt Tensioning.....	11
U.S. Version	5	Timing Belt Replacement.....	11
CE Version	5	Drive or Driven Pulley Replacement	12
Table 2: Belt Speeds for Fixed Speed 90° Gearmotors ...	6	Gear Reducer Replacement	12
U.S. Version (60 Hz Gearmotors).....	6	Motor Replacement	14
CE Version (50 Hz Gearmotors).....	6	Service Parts.....	16
Table 3: Belt Speeds for Variable Speed 90° DC Gearmotors	7	Bottom Mount Drive Package for	
U.S. Version	7	90° Industrial Gearmotors	16
CE Version	7	90° Industrial Gearmotors	18
Table 4: Belt Speeds for		U.S. Version.....	18
Fixed Speed 90° VFD Gearmotors	7	CE Version.....	19
		Return Policy.....	20

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 components.

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

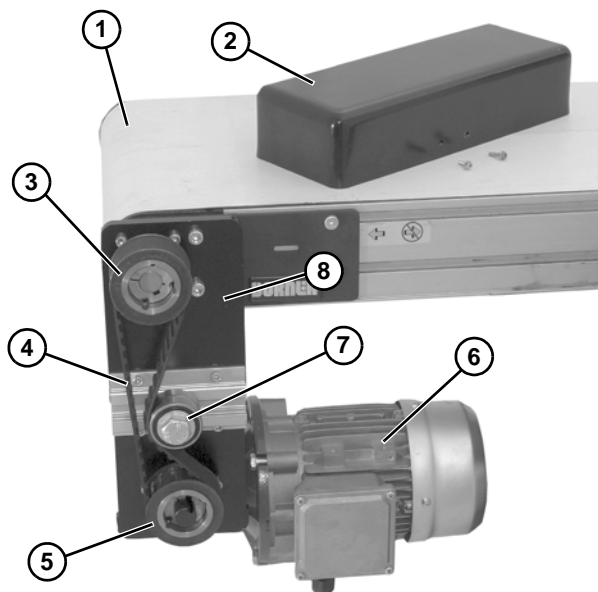


Figure 1

NOTE

The 90° industrial gearhead changed configuration in 2011. See below for configuration details.



Mount Packages with Old Style Gearmotors prior to June 2011

Figure 2



Mount Packages with e-Drive Gearmotors

Figure 3

Gearmotor Mounting Package Models:

Example:

32 M B H S A - 16 16

- Driven Pulley (see Table 2, 3 & 4)
- Drive Pulley (see Table 2, 3 & 4)
- Belt Type (- = flat belt, A through J = cleated belt)
- Mount Position = A, B, C or D (see detail to the right)
- Gearmotor Type: S = Standard Load
K = Indexing / VFD
- Output Shaft Type: E = e-Drive Gearmotors
H = Old Style Gearmotors (Prior to June 2011)
- Mount Style = Bottom Mount
- Language Code: M = U.S. English
U = CE English
- Product Series: 32 = 3200 Series
52 = 5200 Series

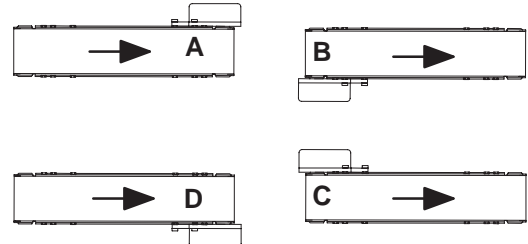


Table 1: Gearmotor Specifications

U.S. Version

Item	Standard Load Gearmotor			
	Single-Phase	Three Phase	VFD Variable Speed	DC Variable Speed
Output Power	0.5 hp (0.37 kw)			
Input Voltage	115 VAC	208 – 230/460 VAC	230 VAC	90VDC
Input Frequency	60Hz		10 – 60Hz	N/A
Input Current (Amperes)	7.4	2.1 – 2/1	1.6	5.0
Gearmotor Ratios	5:1, 10:1, 20:1			
Frame Size	NEMA 56C			
Motor Type	Totally enclosed, Fan cooled			

CE Version

Item	Standard Load Gearmotor		
	Single Phase	Three Phase	VFD Variable Speed
Output Power	0.37 kW		
Input Voltage	230 VAC	230/400 VAC	230 VAC
Input Frequency	50 Hz		25 to 63 Hz
Input Current	2.6 Amperes	2.1/1.2 Amperes	2.1 Amperes
Gearmotor Ratios	5:1, 10:1, 20:1		
Protection Rating	IP55		
Frame Size	IEC 71 B5		

Specifications

Table 2: Belt Speeds for Fixed Speed 90° Gearmotors

U.S. Version (60 Hz Gearmotors)

Light Load Gearmotors				Standard Load Gearmotors				Belt Speed		Drive Pulley	Driven Pulley
Part Number	RPM	In-lb	N-m	Part Number	RPM	In-lb	N-m	Ft/min	M/min		
32M060EL4(vp)FN	29	226	25.5	32M060ES4(vp)FN	29	226	25.5	23	7.0	16	16
32M040EL4(vp)FN	43	237	26.8	32M040ES4(vp)FN	43	247	27.9	34	10.4	16	16
32M040EL4(vp)FN	43	237	26.8	32M040ES4(vp)FN	43	247	27.9	52	15.8	24	16
32M020EL4(vp)FN	86	142	16	32M020ES4(vp)FN	86	248	27.9	69	21.0	16	16
32M020EL4(vp)FN	86	142	16	32M020ES4(vp)FN	86	248	27.9	103	31.4	24	16
32M010EL4(vp)FN	173	78	8.8	32M010ES4(vp)FN	173	156	17.6	137	41.8	16	16
32M010EL4(vp)FN	173	78	8.8	32M010ES4(vp)FN	173	156	17.6	172	52.4	20	16
32M010EL4(vp)FN	173	78	8.8	32M010ES4(vp)FN	173	156	17.6	206	62.8	24	16
N/A	N/A	N/A	N/A	32M005ES4(vp)FN	345	81	9.1	275	83.8	16	16
N/A	N/A	N/A	N/A	32M005ES4(vp)FN	345	81	9.1	343	104.5	20	16
N/A	N/A	N/A	N/A	32M005ES4(vp)FN	345	81	9.1	412	125.6	24	16

(vp) = voltage and phase

23 = 208 – 230/460 V, 3-phase

11 = 115 V, 1-phase

CE Version (50 Hz Gearmotors)

Light Load Gearmotors			Standard Load Gearmotors			Belt Speed M/min
Part Number	RPM	N-m	Part Number	RPM	N-m	
62Z060ES4(vp)FN	23	26.4	32Z060ES4(vp)FN	23	26.8	5.8
62Z040ES4(vp)FN	35	28.9	32Z040ES4(vp)FN	35	29.4	8.5
62Z020ES4(vp)FN	70	19.4	32Z020ES4(vp)FN	70	29.9	17.1
62Z010ES4(vp)FN	140	10.7	32Z010ES4(vp)FN	140	21.5	33.8
62Z005ES4(vp)FN	280	5.6	32Z005ES4(vp)FN	280	11.2	68.0

(vp) = voltage and phase

21 = 230 V, 1-phase

23 = 230 V, 3-phase

43 = 400 V, 3-phase

Specifications

Table 3: Belt Speeds for Variable Speed 90° DC Gearmotors

U.S. Version

Light Load Gearmotors				Standard Load Gearmotors				Belt Speed		Drive Pulley	Driven Pulley
Part Number	RPM	In-lb	N-m	Part Number	RPM	In-lb	N-m	Ft/min	M/min		
32M060ELD3DEN	42	198	22.4	32M060ESD9DEN	42	198	22.4	4.0 – 33	1.2 – 10	16	16
32M040ELD3DEN	63	163	18.4	32M040ESD9DEN	63	215	24.3	6.0 – 50	1.8 – 15	16	16
32M040ELD3DEN	63	163	18.4	32M040ESD9DEN	63	215	24.3	9.0 – 75	2.7 – 23	24	16
32M020ELD3DEN	125	98	11.1	32M020ESD9DEN	125	196	22.1	12 – 100	3.6 – 30	16	16
32M020ELD3DEN	125	98	11.1	32M020ESD9DEN	125	196	22.1	18 – 150	5.5 – 45	24	16
32M010ELD3DEN	250	54	6.1	32M010ESD9DEN	250	108	12.2	24 – 200	7.3 – 61	16	16
32M010ELD3DEN	250	54	6.1	32M010ESD9DEN	250	108	12.2	30 – 250	9.1 – 76	20	16
32M010ELD3DEN	250	54	6.1	32M010ESD9DEN	250	108	12.2	36 – 300	11 – 92	24	16

CE Version

Light Load Gearmotors			Standard Load Gearmotors			Belt Speed M/min
Part Number	RPM	N-m	Part Number	RPM	N-m	
62Z060HS423EN	23	26.4	32Z060ES423EN	23	26.8	2.8 - 7.1
62Z040HS423EN	35	28.9	32Z040ES423EN	35	29.4	4.2 - 11
62Z020HS423EN	70	19.4	32Z020ES423EN	70	29.9	8.5 - 21
62Z010HS423EN	140	10.7	32Z010ES423EN	140	21.5	17 - 43
62Z005HS423EN	280	5.6	32Z005ES423EN	280	11.2	34 - 86

Table 4: Belt Speeds for Fixed Speed 90° VFD Gearmotors

Standard Load Gearmotors				Belt Speed		Drive Pulley	Driven Pulley
Part Number	RPM	In-lb	N-m	Ft/min	M/min		
32M060ES423EN	29	226	25.5	2.3 – 22.9	0.7 – 7.0	16	16
32M040ES423EN	43	247	27.9	3.4 – 34.3	1.0 – 10.5	16	16
32M040ES423EN	43	247	27.9	5.1 – 51.5	1.6 – 15.7	24	16
32M020ES423EN	86	248	27.9	6.9 – 68.6	2.1 – 20.9	16	16
32M020ES423EN	86	248	27.9	10.3 – 103.0	3.1 – 31.4	24	16
32M010ES423EN	173	156	17.6	13.7 – 137.3	4.2 – 41.9	16	16
32M010ES423EN	173	156	17.6	17.2 – 171.6	5.2 – 52.3	20	16
32M010ES423EN	173	156	17.6	20.6 – 205.9	6.3 – 62.8	24	16
32M005ES423EN	345	81	9.1	27.5 – 274.6	8.4 – 83.7	16	16
32M005ES423EN	345	81	9.1	34.3 – 343.2	10.5 – 104.6	20	16
32M005ES423EN	345	81	9.1	41.2 – 411.9	12.6 – 125.6	24	16

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
- Straight edge
- Torque wrench


Mounting

⚠ WARNING



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

⚠ WARNING



For Cleated Belt Conveyors, Gearmotors must be mounted as shown in Figure 4. Failure to do so creates pinch points which can cause severe injury.

NOTE

Gearmotor position on Flat Belt conveyor shown below left, **Figure 4**. Gearmotor position on Cleated Belt conveyor shown below right, **Figure 4**.

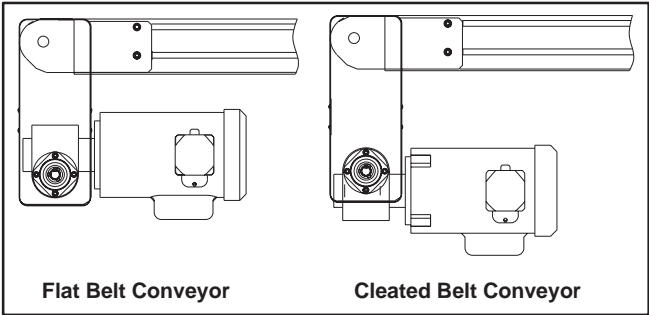


Figure 4

Installation Component List:

1	Bottom Mount Assembly
2	Drive Pulley
3	Cover
4	M4 Socket Head Screws (4x)
5	Driven Pulley
6	Output Shaft
7	Bearing Cover
8	Spacer
9	Timing Belt

1. Typical components (**Figure 5**).

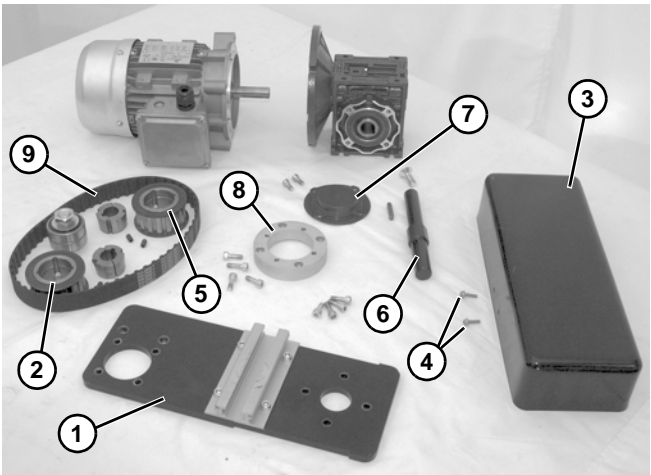


Figure 5

NOTE

Gearmotor may be operated in positions 1, 3 or 4 (**Figure 6**).

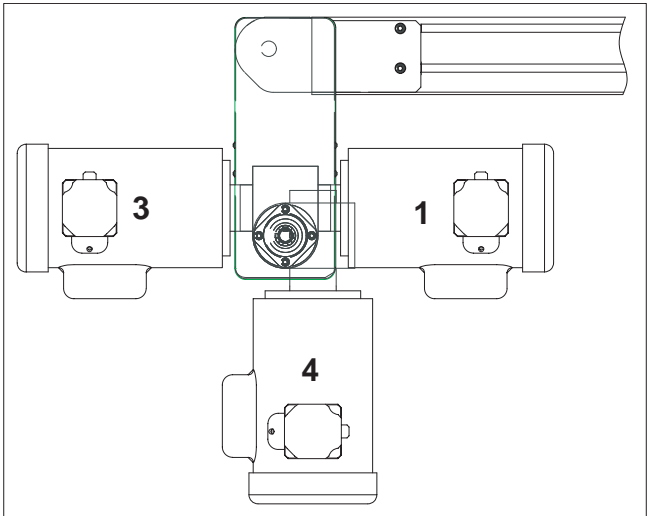


Figure 6

- If required, change gearmotor position by removing four (4) screws (**Figure 7, item 1**). Rotate gearmotor to other position and replace screws (**Figure 7, item 1**). Tighten to 110 in-lb (12 Nm).

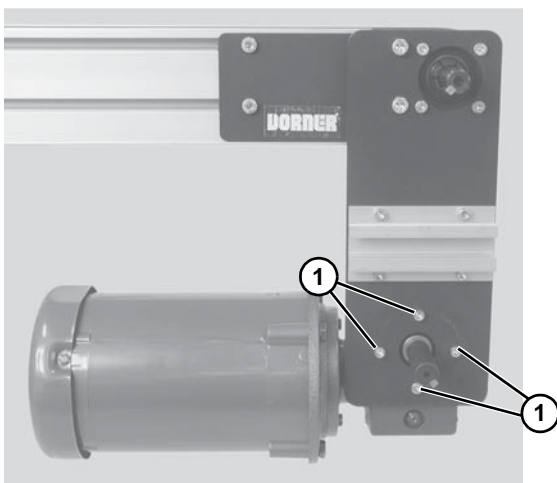


Figure 7

- Locate drive output shaft (**Figure 8, item 1**). Remove two (2) M8 screws (**Figure 8, item 2**) and four (4) M6 screws (**Figure 8, item 3**) and discard.

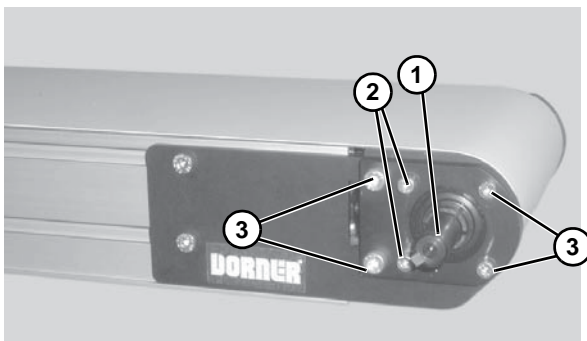


Figure 8

- Attach mount assembly (**Figure 9, item 1**) with two (2) M8 screws (**Figure 9, item 2**) and four (4) M6 screws (**Figure 9, item 3**). Tighten M6 screws to 146 in-lbs (16.5 N-m) and M8 screws to 288 in-lbs (32.5 N-m).

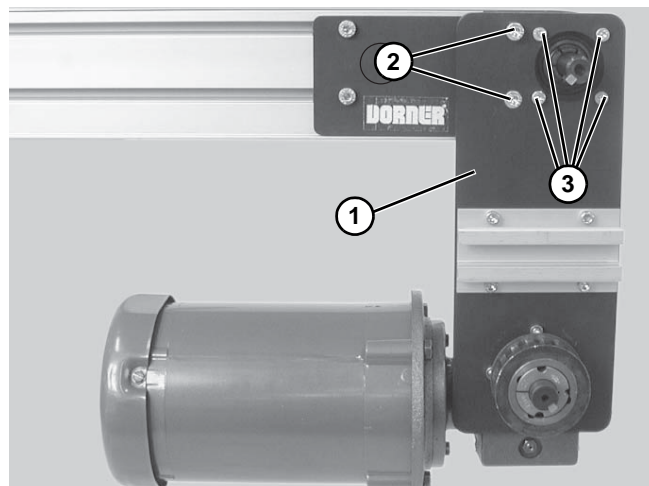


Figure 9

⚠ WARNING



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

- Install key (**Figure 10, item 1**).

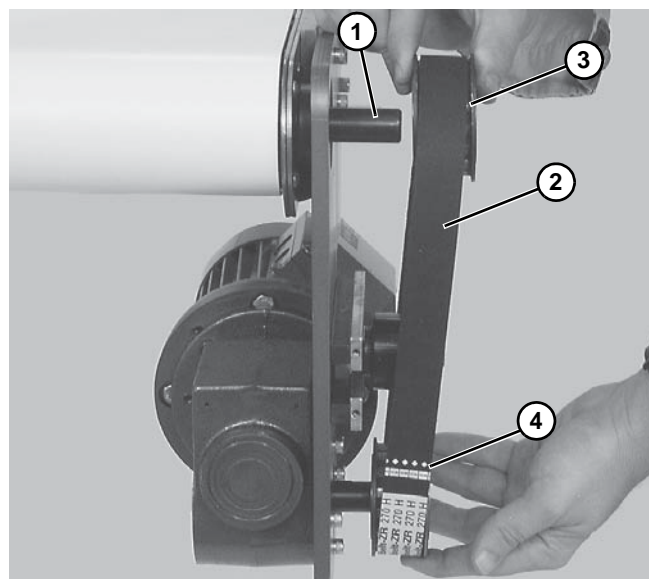


Figure 10

- Wrap timing belt (**Figure 10, item 2**) around driven pulley (**Figure 10, item 3**) and drive pulley (**Figure 10, item 4**). Install driven pulley onto conveyor shaft.

Installation

7. Using a straight edge (**Figure 11, item 1**), align driven pulley (**Figure 11, item 1**) with drive pulley (**Figure 11, item 1**).

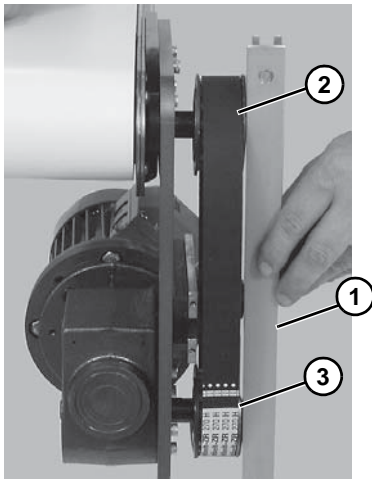


Figure 11

8. Tighten driven pulley taper-lock screws (**Figure 12, item 1**).

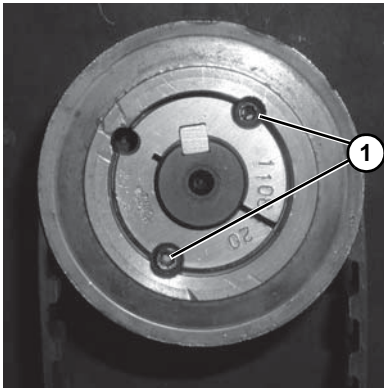


Figure 12

9. Depending on conveyor belt travel (direction A or B), locate timing belt tensioner (**Figure 13, item 1**) as shown. Tension timing belt to obtain 1/8" (3 mm) deflection for 6 lb (3 Kg) of force at timing belt mid-point (**Figure 13, item 2**). Tighten tensioner screw to 110 in-lb (12 Nm).

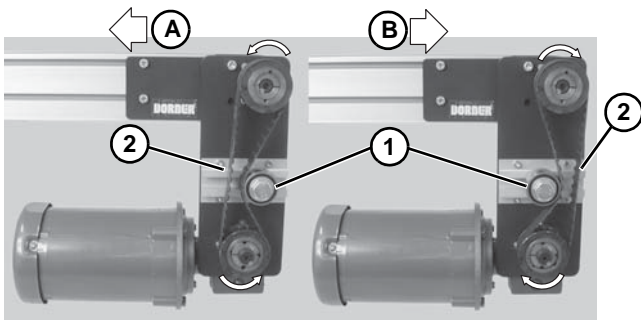


Figure 13

10. Install cover (**Figure 14, item 1**) with four (4) screws (**Figure 14, item 2**). Tighten screws to 35 in-lb (4 Nm).

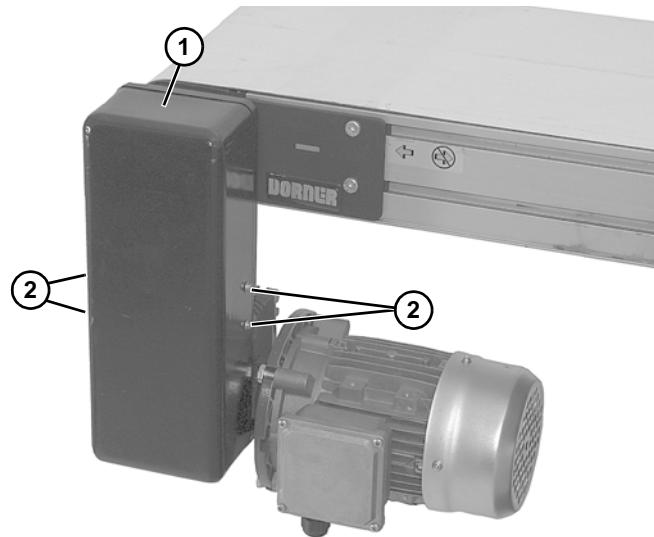



Figure 14

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

Timing Belt Tensioning

⚠ WARNING

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

1. Remove four (4) screws (**Figure 14, item 2**) and remove cover (**Figure 14, item 1**).
2. Loosen tensioner (**Figure 15, item 1**).

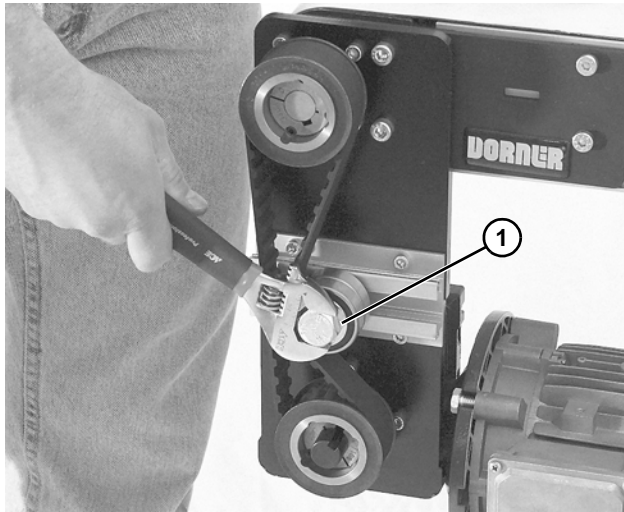



Figure 15

3. Depending on conveyor belt travel (direction A or B), locate timing belt tensioner (**Figure 13, item 1**) as shown. Tension timing belt to obtain 1/8" (3 mm) deflection for 6 lb (3 Kg) of force at timing belt mid-point (**Figure 13, item 2**). Tighten tensioner screw to 110 in-lb (12 Nm).
4. Install cover (**Figure 14, item 1**) with four (4) screws (**Figure 14, item 2**). Tighten screws to 35 in-lb (4 Nm).

Timing Belt Replacement

⚠ WARNING

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

1. Remove four (4) screws (**Figure 14, item 2**) and remove cover (**Figure 14, item 1**).
2. Loosen tensioner (**Figure 15, item 1**).
3. Remove timing belt (**Figure 16, item 1**).

NOTE
<i>If timing belt does not slide over pulley flange, loosen driven pulley taper-lock screws (Figure 16, item 2) and remove pulley with belt (Figure 16, item 1). For re-installation, see steps 6 thru 8 on beginning on page 9.</i>

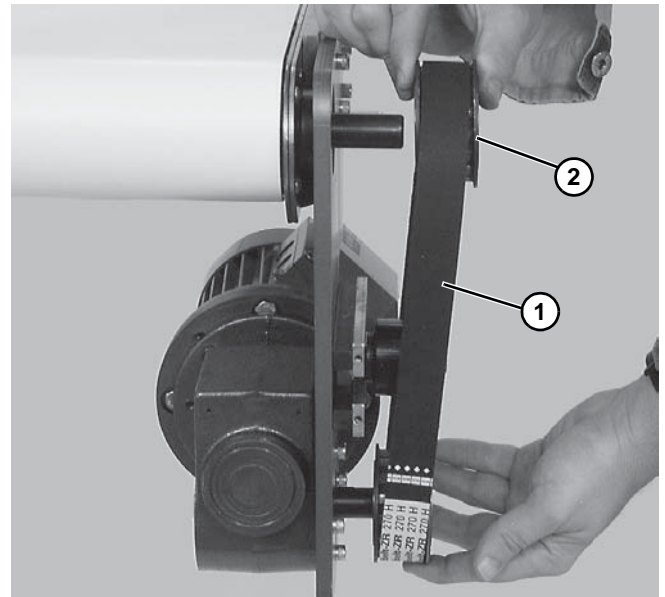


Figure 16

4. Install new timing belt.
5. Depending on conveyor belt travel (direction A or B), locate timing belt tensioner (**Figure 13, item 1**) as shown. Tension timing belt to obtain 1/8" (3 mm) deflection for 6 lb (3 Kg) of force at timing belt mid-point (**Figure 13, item 2**). Tighten tensioner screw to 110 in-lb (12 Nm).
6. Install cover (**Figure 14, item 1**) with four (4) screws (**Figure 14, item 2**). Tighten screws to 35 in-lb (4 Nm).

Preventive Maintenance and Adjustment

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 11.
2. Remove taper-lock screws (**Figure 17, item 1**). Insert one (1) of taper lock screws in remaining hole (**Figure 17, item 2**). Tighten screw until pulley is loose. Remove pulley and taper hub assembly.

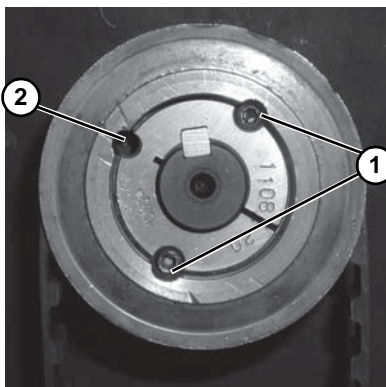


Figure 17

NOTE

*If drive pulley (**Figure 19, item 1**) is replaced, wrap timing belt around drive pulley and complete step 3.*

3. Complete steps 6 through 9 of “Installation” section beginning on page 9.

Gear Reducer Replacement

⚠ WARNING



Exposed moving parts can cause severe injury.

LOCK OUT POWER before removing guards or performing maintenance.

1. Remove four (4) screws (**Figure 14, item 2**) and remove cover (**Figure 14, item 1**).
2. Loosen tensioner (**Figure 15, item 1**).
3. Loosen taper-lock screws (**Figure 18, item 1**) and remove drive pulley: Insert one (1) of taper lock screws in remaining hole (**Figure 18, item 2**). Tighten screw until pulley is loose.

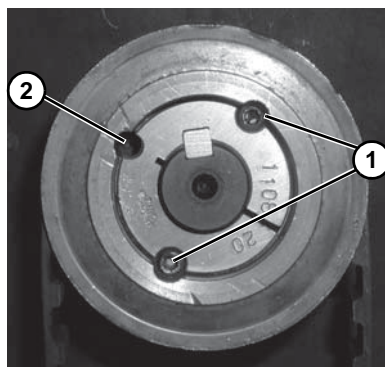


Figure 18

4. Remove pulley (**Figure 19, item 1**), taper hub assembly (**Figure 19, item 2**), and timing belt (**Figure 19, item 3**).

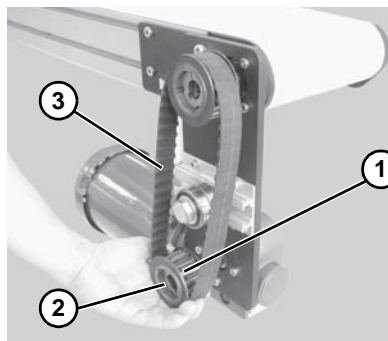


Figure 19

Preventive Maintenance and Adjustment

5. Remove four (4) gear reducer mounting screws (**Figure 20, item 1**). Remove gearmotor.

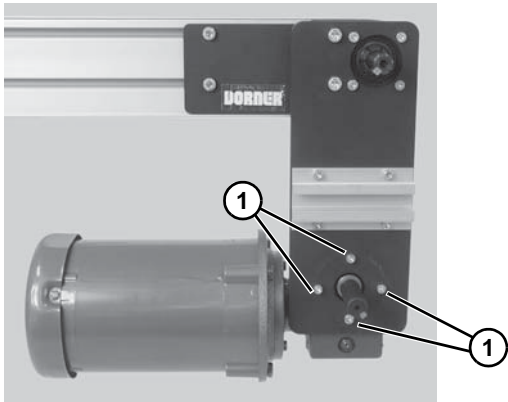


Figure 20

6. Remove four screws (**Figure 21, item 1**). Detach motor (**Figure 21, item 2**) from gear reducer (**Figure 21, item 3**). Retain shaft key (**Figure 21, item 4**).

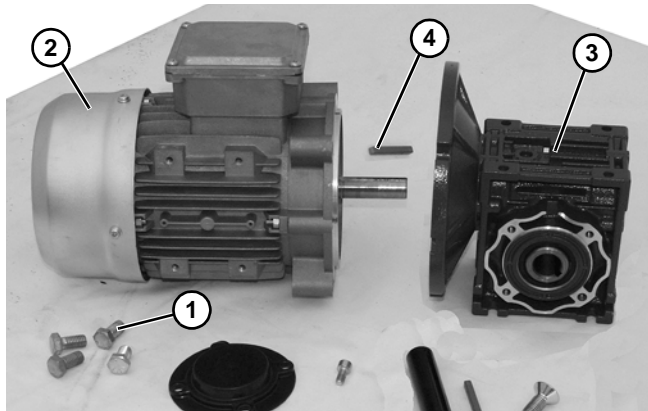


Figure 21

7. Remove two (2) screws (**Figure 22, item 1**) and detach output shaft cover (**Figure 22, item 2**).

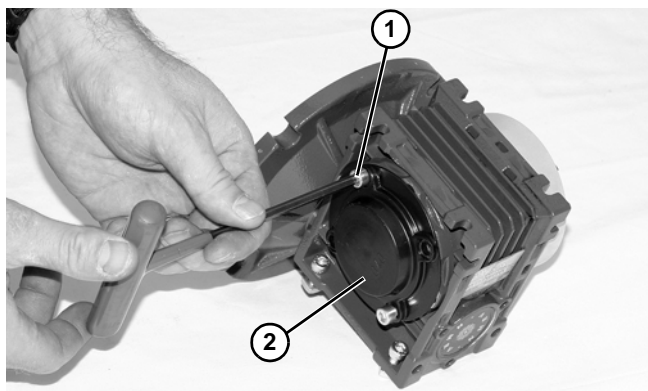


Figure 22

8. Hold the driveshaft with a wrench (**Figure 23, item 1**) as shown to keep shaft from turning, while removing screw (**Figure 23, item 2**) with hex wrench (**Figure 23, item 3**).

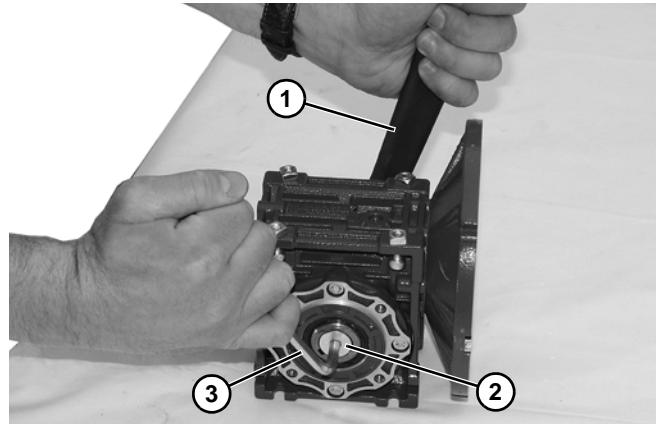


Figure 23

NOTE

Output shaft (**Figure 23, item 1**) is held in Gear Reducer with a tapered press fit. Removal may require use of an arbor press.

9. Remove driveshaft (**Figure 24, item 1**) and key (**Figure 24, item 2**).

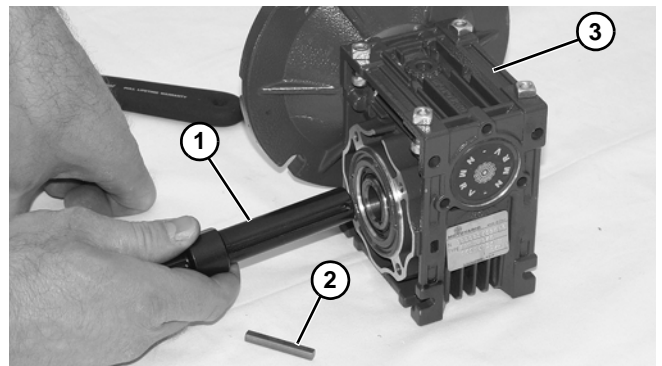


Figure 24

10. Replace gear reducer (**Figure 24, item 3**).
11. Apply anti-seize (**Figure 25, item 1**) to shaft.

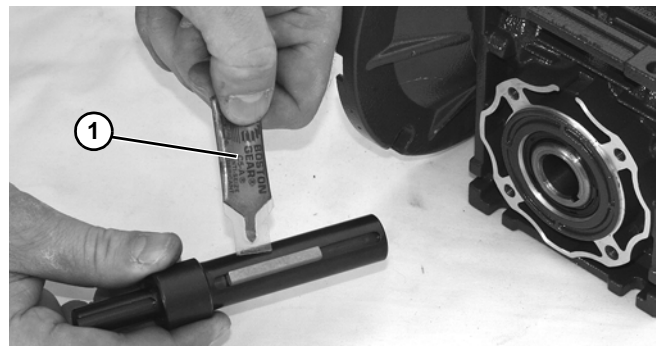


Figure 25

Preventive Maintenance and Adjustment

12. Replace the original shaft components into new gear reducer (**Figure 24**).

IMPORTANT

Be extremely careful when coupling motor to gear reducer. Avoid misalignment and forcing the connection causing possible permanent gear reducer seal damage.

13. Apply anti-seize to motor shaft before assembling to gearbox. With key (**Figure 21, item 4**) in keyway, slide motor (**Figure 21, item 2**) and gear reducer (**Figure 21, item 3**) together. Install screws (**Figure 21, item 1**) and tighten.
14. Hold the driveshaft with a wrench (**Figure 23, item 1**) as shown to keep shaft from turning, while installing screw (**Figure 23, item 2**) with hex wrench (**Figure 23, item 3**) Tighten screw to 350 in-lb (39.5 Nm).

NOTE

*Gearmotor position on Flat Belt conveyor shown below left, **Figure 26**. Gearmotor position on Cleated Belt conveyor shown below right, **Figure 26**.*

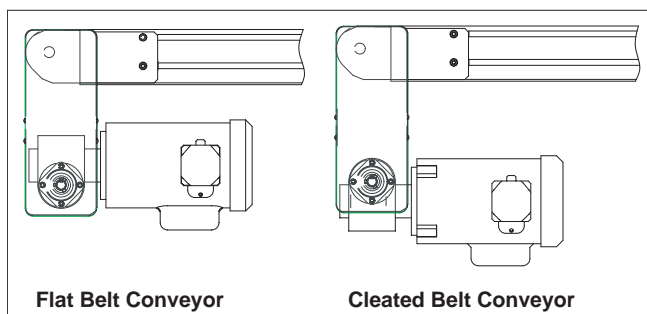


Figure 26

15. Install gearmotor to mounting bracket and tighten screws (**Figure 20, item 1**) to 110 in-lb (12 Nm).

NOTE

*Drive pulley (**Figure 19, item 1**) is removed. Wrap timing belt around drive pulley and complete step 15.*

16. Complete steps 6 through 10 of "Installation" section beginning on page 9.

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. For single phase motor, unplug power cord from outlet.
2. For three phase and VFD variable speed motor:
 - a. Loosen terminal box screws (**Figure 27, item 1**) and remove cover (**Figure 27, item 2**).

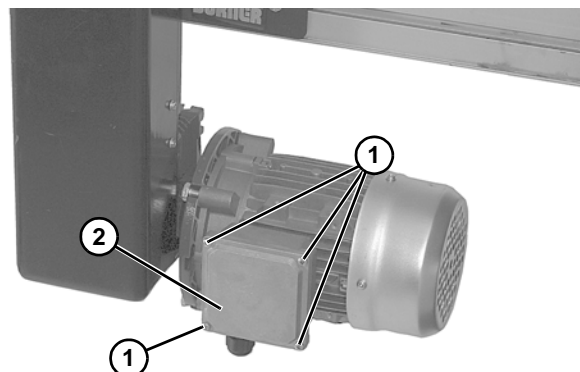


Figure 27

- b. Record wire colors on terminals 1, 2 and 3. Loosen wire nuts and remove wires 1, 2 and 3.
 - c. Loosen cord grip and remove cord.
3. For DC variable speed motor, unplug motor cord at disconnect (**Figure 28, item 1**).

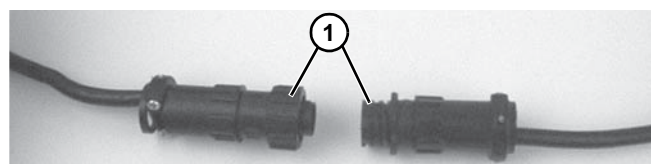


Figure 28

Preventive Maintenance and Adjustment

4. Remove four (4) screws (**Figure 29, item 1**). Detach motor (**Figure 29, item 2**) from gear reducer (**Figure 29, item 3**). Retain motor output shaft key.

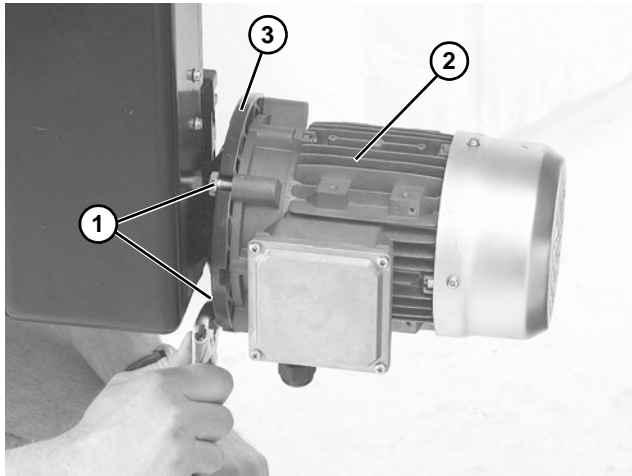


Figure 29

IMPORTANT
<i>Be extremely careful when coupling motor to gear reducer. Avoid misalignment and forcing the connection causing possible permanent gear reducer seal damage.</i>

5. Apply anti-seize to motor shaft before assembling to gearbox. With key (**Figure 30, item 1**) in keyway, slide motor (**Figure 30, item 2**) and gear reducer together. Install screws and tighten.

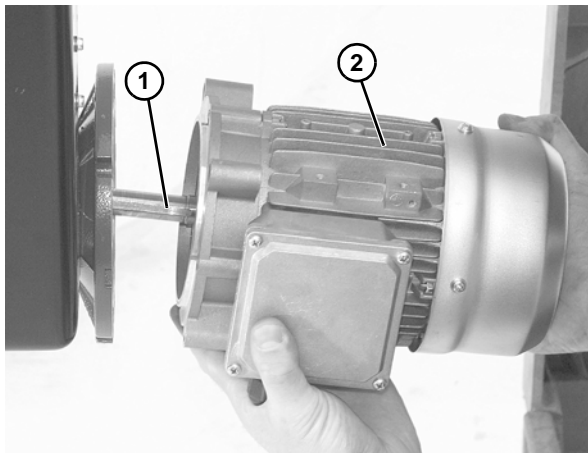



Figure 30

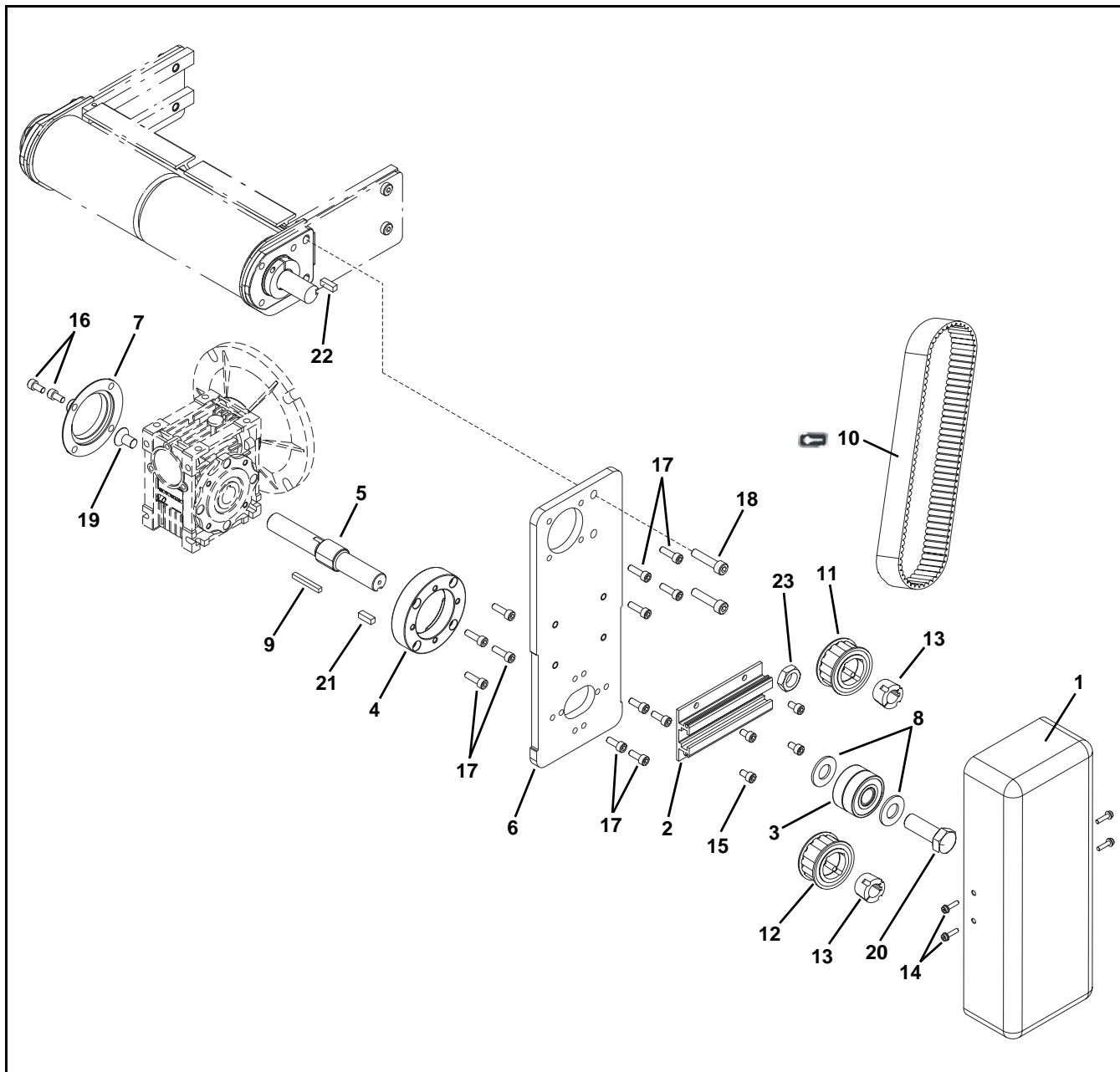
6. Replace wiring:
 - For a single phase motor, reverse step 1 on page 14.
 - For a three phase or VFD variable speed motor, reverse step 2 on page 14.
 - For a DC variable speed motor, reverse step 3 on page 14.

Service Parts

NOTE

For replacement parts other than those shown on this page, 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 Drive Package for 90° Industrial Gearmotors

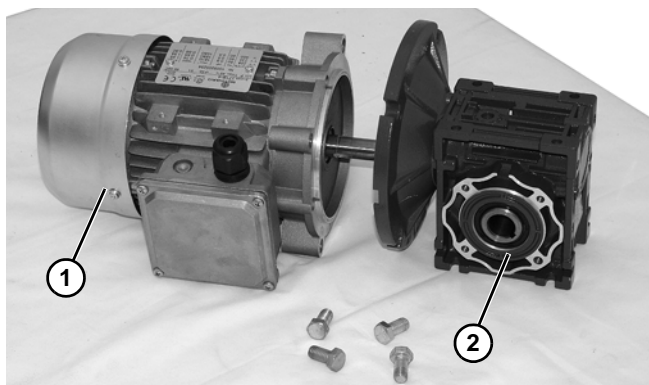




Item	Part Number	Description
1	300871	Drive Cover
2	301076	Drive Tensioner Slide
3	301153	Tensioner Bearing Assembly
4	350115	Adapter Ring
5	350117	Drive Shaft (for E-Drive 56 C Face Gearmotors)
	350133	Drive Shaft (for E-Drive IEC 63B5 and IEC 71B5 Gearmotors)
6	350123	Mounting Plate
7	807-2016	Drive-Bearing Shaft Cover
8	911-013	Flat Washer
9	912-084	Square Key, 0.188" x 1.50" (for E-Drive 56 C Face Gearmotors)
	980636M	Square Key, 6 mm x 36 mm (for E-Drive IEC 63B5 and IEC 71B5 Gearmotors)
10	814-125	Timing Belt, 1.0" W x 25.5" L
	814-059	Timing Belt, 1.0" W x 27.0" L
	814-060	Timing Belt, 1.0" W x 28.0" L
	814-079	Timing Belt, 1.0" W x 30.0" L
11	811-133	Driven Pulley, 14 Tooth, Taper Lock TL1108
	811-126	Driven Pulley, 16 Tooth, Taper Lock TL1108
12	811-133	Drive Pulley, 14 Tooth, Taper Lock TL1108
	811-126	Drive Pulley, 16 Tooth, Taper Lock TL1108
	811-127	Drive Pulley, 18 Tooth, Taper Lock TL1210
	811-135	Drive Pulley, 20 Tooth, Taper Lock TL1210
	811-136	Drive Pulley, 22 Tooth, Taper Lock TL1610
	811-137	Drive Pulley, 24 Tooth, Taper Lock TL1610
13	811-288	Taper Lock Bushing, 20 mm, TL1108
	811-289	Taper Lock Bushing, 20 mm, TL1210
	811-290	Taper Lock Bushing, 20 mm, TL1610
14	920483M	Flanged Socket Head Screw, M4 x 16 mm
15	920608M	Socket Head Screw, M6-1.00 x 8 mm
16	920612M	Socket Head Screw, M6-1.00 x 12 mm
17	920620M	Socket Head Screw, M6-1.00 x 20 mm
18	920835M	Socket Head Screw, M8-1.25 x 35 mm
19	931018M	Flat Screw, M10 - .50 x 18 mm
20	961645M	Hex Head Cap Screw, M16 - 2.00 x 45 mm
21	980018M	Square Key, 6 mm x 18 mm
22	980632M	Square Key, 6 mm x 32 mm
23	991610M	Hex Nut

Service Parts

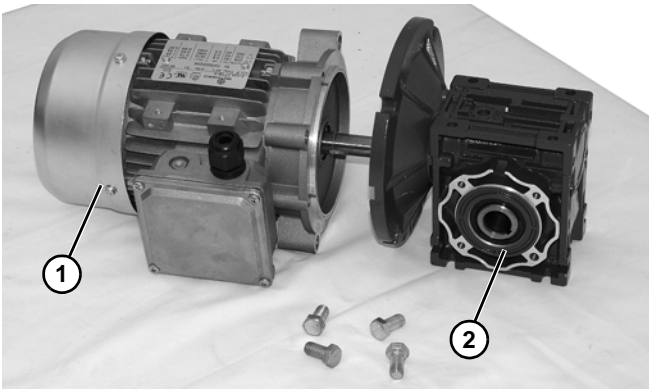
90° Industrial Gearmotors

U.S. Version



Item	Part No.	Description
1 	62MES411FN	Motor, 0.25hp (0.19Kw), 115/230 Volts, 60 Hz, 1-Phase
	62MES423FN	Motor, 0.25hp (0.19Kw), 208-230/460 Volts, 60 Hz, 3-Phase
	22MSD3DEN	Motor, 0.25hp (0.19Kw), 130 VDC
	62MEH411FN	Motor, 0.5hp (0.37Kw), 115/230 Volts, 60Hz, 1-Phase
	32MES423FN	Motor, 0.5hp (0.37Kw) 208-230/460 Volts, 60Hz, 3 Phase
	62MHD9DEN	Motor, 0.5hp (0.37Kw), 90 VDC
	32MES423EN	Motor, 0.5hp (0.37Kw), 230 Volts, 3 Phase Inverter Duty
	32MHD9DEN	Motor, 0.75 hp, (0.56Kw), 90 VDC
2 	32M005EL	Gear Reducer, 5:1, NEMA 42CZ
	32M010EL	Gear Reducer, 10:1, NEMA 42CZ
	32M020EL	Gear Reducer, 20:1, NEMA 42CZ
	32M040EL	Gear Reducer, 40:1, NEMA 42CZ
	32M060EL	Gear Reducer, 60:1, NEMA 42CZ
	32M005ES	Gear Reducer, 5:1, NEMA 56C
	32M010ES	Gear Reducer, 10:1, NEMA 56C
	32M020ES	Gear Reducer, 20:1, NEMA 56C
	32M040ES	Gear Reducer, 40:1, NEMA 56C
	32M060ES	Gear Reducer, 60:1, NEMA 56C
	32M010EH	Gear Reducer, 10:1, NEMA 140 TC

CE Version



Item	Part No.	Description
1	826-281	Motor, 0.19 kW 230 Volts, 1400 RPM 50 Hz, 1-Phase
	826-282	Motor, 0.37 kW 230 Volts, 1400 RPM 50 Hz, 1-Phase
	826-284	Motor, 0.19 kW 230/400 Volts, 1400 RPM 50 Hz, 3-Phase
	826-285	Motor, 0.37 kW 230/400 Volts, 1400 RPM 50 Hz, 3-Phase
2	62Z005ES	Gear Reducer, 5:1, 63 B5
	62Z010ES	Gear Reducer, 10:1, 63 B5
	62Z020ES	Gear Reducer, 20:1, 63 B5
	62Z040ES	Gear Reducer, 40:1, 63 B5
	62Z060ES	Gear Reducer, 60:1, 63 B5
	32Z005ES	Gear Reducer, 5:1, 71 B5
	32Z010ES	Gear Reducer, 10:1, 71 B5
	32Z020ES	Gear Reducer, 20:1, 71 B5

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.

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. 2011

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

Outside the USA:
TEL 1-262-367-7600
FAX 1-262-367-5827