



7350 Series Side Mount 90° 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 gearmotor assembly components.

1	Conveyor
2	Mounting Bracket
3	Motor
4	Gear Reducer

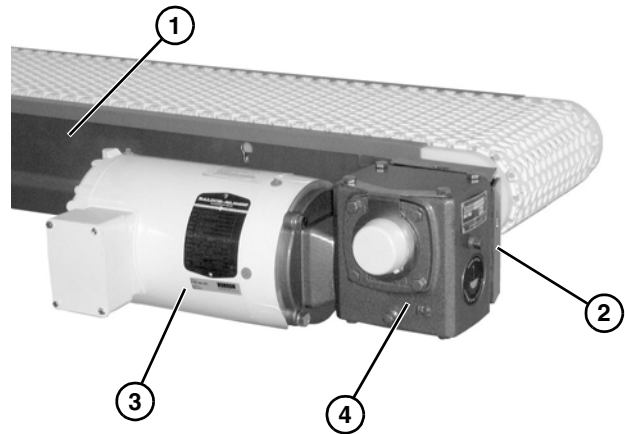
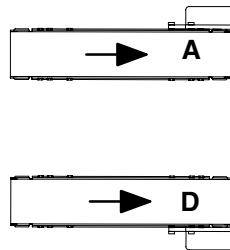
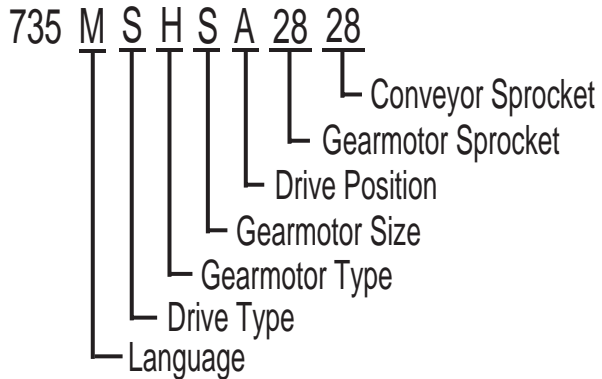


Figure 1

Specifications

Gearmotor Mounting Package Models:



Specifications

Table 1: Gearmotor Specifications

	Singe Phase	Three Phase
Output Power	0.50 hp (0.37 kW)	.50 hp (.37 kW) /1 hp (.74 KW) / 1.5 hp (1.11 kW)
Input Voltage	115 V.A.C.	208 - 230 / 460 V.A.C.
Input Frequency	60Hz	6 - 60 Hz
Motor RPM	22 - 44	22 - 233
Gearmotor Ratios	5:1, 7:1, 10:1, 15:1, 20:1, 30:1, 40:1, 60:1, 80:1	
Frame Size	NEMA 56C	
Motor Type	Totally Enclosed, Non-ventilated (Except 1.5 hp Stainless Steel Gearmotor = Totally Enclosed, Fan Cooled)	

Table 2: Belt Speeds for Fixed Speed 90° Painted Gearmotors

Part Number	Belt Speed		RPM	1 Phase			3 Phase			in-lbs	N-m
	Ft/min	M/min		HP	Kw	FLA	HP	Kw	FLA		
74M080HS4(vp)FN	22	6.7	22	0.5	0.37	6.8/3.7-3.4	0.5	0.37	1.6/0.8	356	40.2
74M060HS4(vp)FN	29	8.8	29	0.5	0.37	6.8/3.7-3.4	0.5	0.37	1.6/0.8	442	49.9
74M040HS4(vp)FN	44	13.2	44	0.5	0.37	6.8/3.7-3.4	0.5	0.37	1.6/0.8	486	54.9
74M030HS4(vp)FN	58	17.7	58	N/A	N/A	N/A	1	0.74	3.5-3.2/1.6	487	55.0
74M020HS4(vp)FN	87	26.5	87	N/A	N/A	N/A	1	0.74	3.5-3.2/1.6	407	46.0
74M015HS4(vp)FN	117	35.7	117	N/A	N/A	N/A	1	0.74	3.5-3.2/1.6	470	53.1
74M010HS4(vp)FN	175	53.3	175	N/A	N/A	N/A	1.5	1.11	4.6-4.2/2.1	442	49.9
74M007HS4(vp)FN	233	71.0	233	N/A	N/A	N/A	1.5	1.11	4.6-4.2/2.1	360	40.7

(vp) = voltage and phase

23 = 0.5 HP – 230/460 V, 3-phase

11 = 115/208-230, 1-phase

1.0 & 1.5 HP – 208-230/460 V, 3-phase

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

Part Number	Belt Speed		RPM	3 Phase				in-lbs	N-m
	Ft/min	M/min		HP	Kw	Volts	FLA		
74M080HS423EN	2 to 22	0.6 to 6.7	22	0.5	0.37	230/460	1.6/0.8	356	40.2
74M060HS423EN	3 to 29	0.9 to 8.8	29	0.5	0.37	230/460	1.6/0.8	442	49.9
74M040HS423EN	5 to 44	1.3 to 13.4	44	0.5	0.37	230/460	1.6/0.8	486	54.9
74M030HS423EN	6 to 58	2 to 17.7	58	1	0.74	208-230/460	3.5-3.2/1.6	487	55.0
74M020HS423EN	9 to 87	2.6 to 26.5	87	1	0.74	208-230/460	3.5-3.2/1.6	487	55.0
74M015HS423EN	12 to 117	3.6 to 35.7	117	1	0.74	208-230/460	3.5-3.2/1.6	470	53.1
74M010HS423EN	18 to 175	5.3 to 53.3	175	1.5	1.11	208-230/460	4.6-4.2/2.1	442	49.9
74M007HS423EN	23 to 233	7.1 to 71.0	233	1.5	1.11	208-230/460	4.6-4.2/2.1	360	40.7

Specifications

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

Part Number	Belt Speed		RPM	3 Phase				in-lbs	N-m
	Ft/min	M/min		HP	Kw	Volts	FLA		
74M080HZS423FN	22	6.7	22	0.5	0.37	230/460	1.6/0.8	356	40.2
74M060HZS423FN	29	8.8	29	0.5	0.37	230/460	1.6/0.8	442	49.9
74M040HZS423FN	44	13.4	44	0.5	0.37	230/460	1.6/0.8	486	54.9
74M030HZS423FN	58	17.7	58	1	0.74	208-230/460	3.2-3/1.5	487	55.0
74M020HZS423FN	87	26.5	87	1	0.74	208-230/460	3.2-3/1.5	407	46.0
74M015HZS423FN	117	35.7	117	1	0.74	208-230/460	3.2-3/1.5	470	53.1
74M010HZS423FN	175	53.3	175	1.5	1.11	208-230/460	5.8-5.4/2.7	442	49.9
74M007HZS423FN	233	71.0	233	1.5	1.11	208-230/460	5.8-5.4/2.7	360	40.7

Table 5: Belt Speeds for Variable Speed 90° Stainless Gearmotors

Part Number	Belt Speed		RPM	3 Phase				in-lbs	N-m
	Ft/min	M/min		HP	Kw	Volts	FLA		
74M080HZS423EN	2 to 22	0.6 to 6.7	22	0.5	0.37	230/460	1.6/0.8	356	40.2
74M060HZS423EN	3 to 29	0.9 to 8.8	29	0.5	0.37	230/460	1.6/0.8	442	49.9
74M040HZS423EN	5 to 44	1.3 to 13.4	44	0.5	0.37	230/460	1.6/0.8	486	54.9
74M030HZS423EN	6 to 58	2 to 17.7	58	1	0.74	208-230/460	3.2-3/1.5	487	55.0
74M020HZS423EN	9 to 87	2.6 to 26.5	87	1	0.74	208-230/460	3.2-3/1.5	487	55.0
74M015HZS423EN	12 to 117	3.6 to 35.7	117	1	0.74	208-230/460	3.2-3/1.5	470	53.1
74M010HZS423EN	18 to 175	5.3 to 53.3	175	1.5	1.11	208-230/460	5.3-5.4/2.7	442	49.9
74M007HZS423EN	23 to 233	7.1 to 71.0	233	1.5	1.11	208-230/460	5.3-5.4/2.7	360	40.7



NOTE

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

Required Tools

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

Side Drive Package

⚠ WARNING

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

PUNCTURE HAZARD! Handle drive shaft keyway with care. It may be sharp and could puncture the skin, causing serious injury.
NOTE
<i>Gearmotor may be operated in positions 1 or 3 (Figure 2).</i>

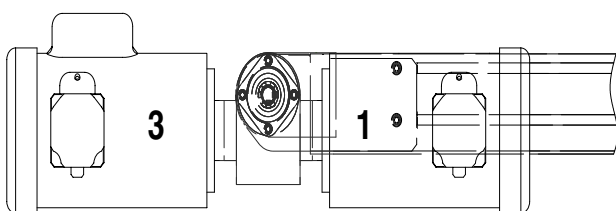


Figure 2

Typical Side Drive Package Components (Figure 3).

1	Cover
2	Hex Head Cap Screw 5/16-18 x .75" (x2)
3	Hex Head Cap Screw 5/16-18 x .50" (x2)
4	Cover Bracket
5	Support Arm
6	Mounting Bracket
7	Hex Head Cap Screw M8-1.25 x 40 mm
8	Gearmotor Assembly

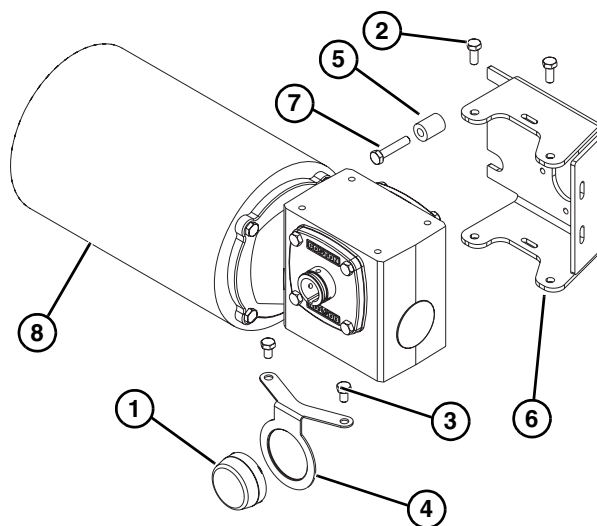


Figure 3

1. On each side of conveyor, remove upper front head plate mounting screw and install spacer (Figure 4, item 1) with longer screw (Figure 4, item 2).

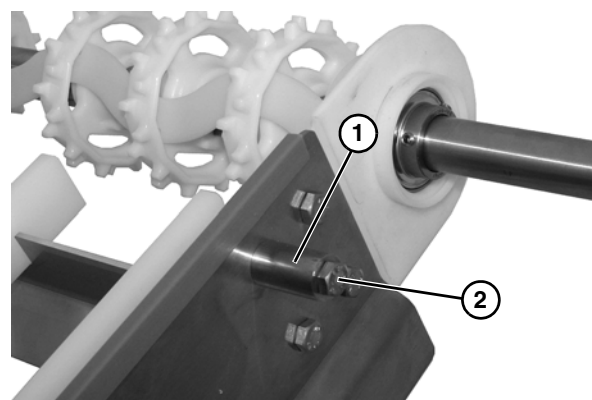


Figure 4

Installation

2. Install guard (Figure 5, item 1) onto gear reducer (Figure 5, item 2) with screws.

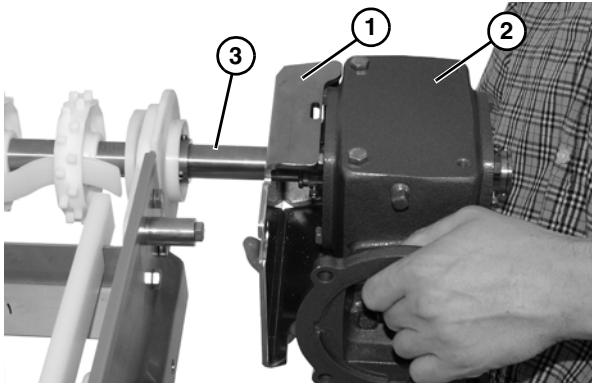


Figure 5

3. Install key onto conveyor shaft (Figure 5, item 3), and slide gear reducer assembly onto shaft.
4. Slide gear reducer guard (Figure 6, item 1) onto spacer (Figure 6, item 2) on conveyor, and tighten set screws on both bearings (Figure 6, item 3) with a hex key wrench (Figure 6, item 4).

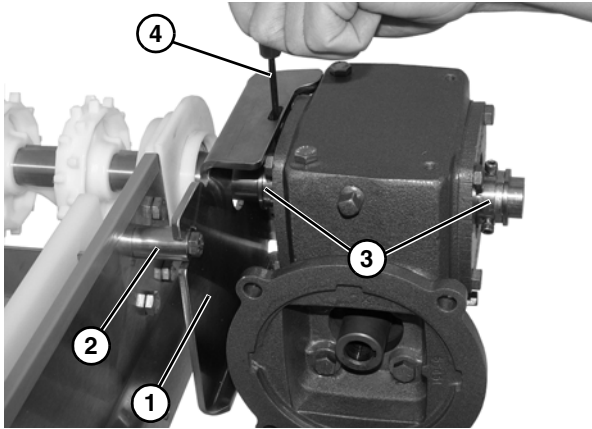


Figure 6

5. Install gear reducer output shaft cover (Figure 7, item 1).

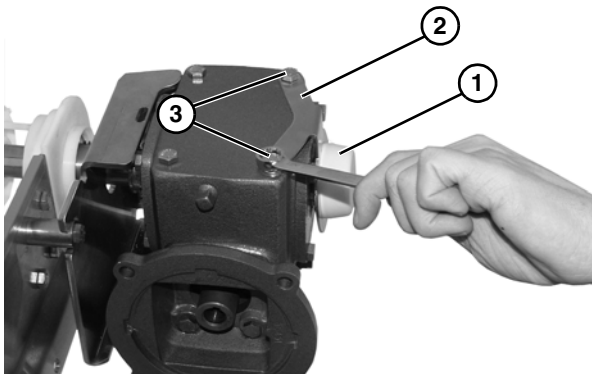


Figure 7

6. Install cover bracket (Figure 7, item 2) onto gear reducer with screws (Figure 7, item 3).

IMPORTANT

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

7. Install shaft key (Figure 8, item 1) onto motor shaft (Figure 8, item 2), and install motor (Figure 8, item 3) onto gear reducer (Figure 8, item 4).

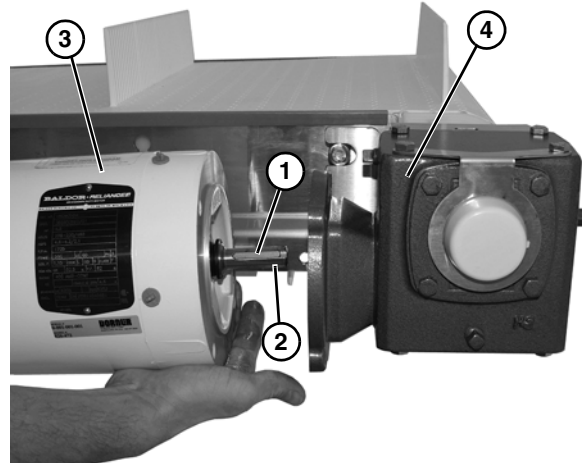


Figure 8

8. Secure motor (Figure 9, item 1) to gear reducer (Figure 9, item 2), with four bolts (Figure 9, item 3).

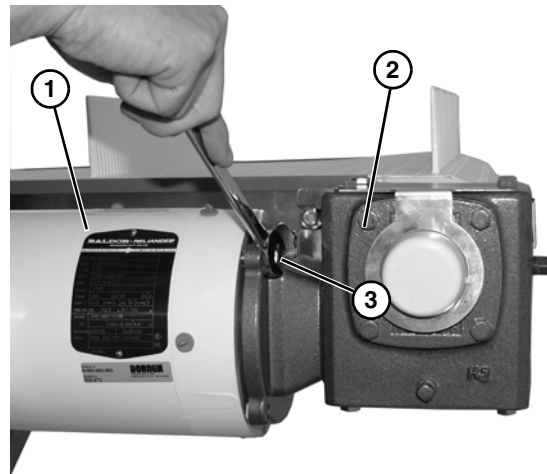


Figure 9

9. Tighten four bolts (Figure 9, item 3) to 65 in-lbs (7.3 N-m).

Preventive Maintenance and Adjustment

Required Tools

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

Check List

- Keep service parts on hand. Refer to "Service Parts" on page 13 for recommendations.
- Replace any worn or damaged parts.

Gear Reducer 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.

1. Remove four bolts (Figure 10, item 1) securing motor (Figure 10, item 2) to gear reducer (Figure 10, item 3).

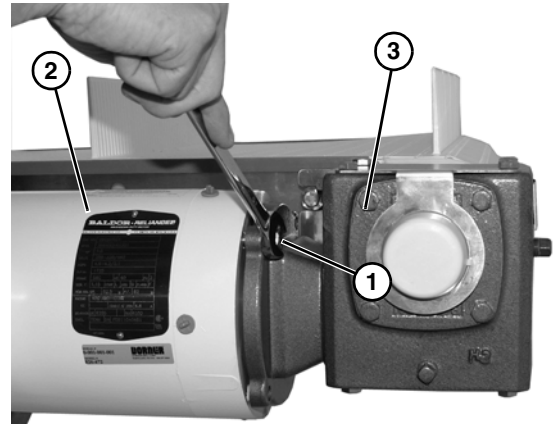



Figure 10

⚠ 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.

2. Slide motor (Figure 11, item 1) off of gear reducer (Figure 11, item 2), and remove shaft key (Figure 11, item 3) from motor shaft (Figure 11, item 4).

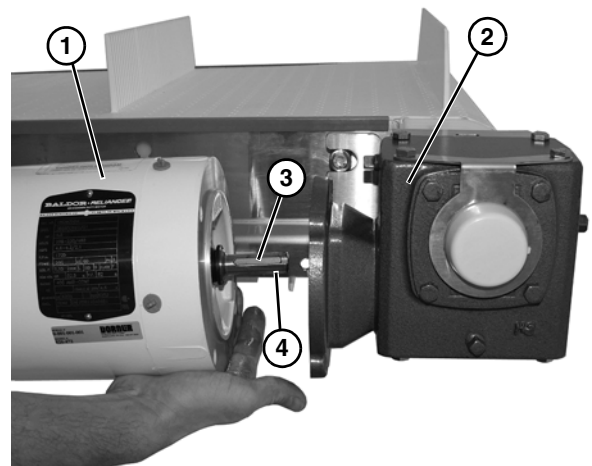


Figure 11

NOTE
<i>Be sure to retain the motor output shaft key.</i>

Preventive Maintenance and Adjustment

3. Remove two screws (**Figure 12, item 1**) and gear reducer output shaft cover and bracket (**Figure 12, item 2**).

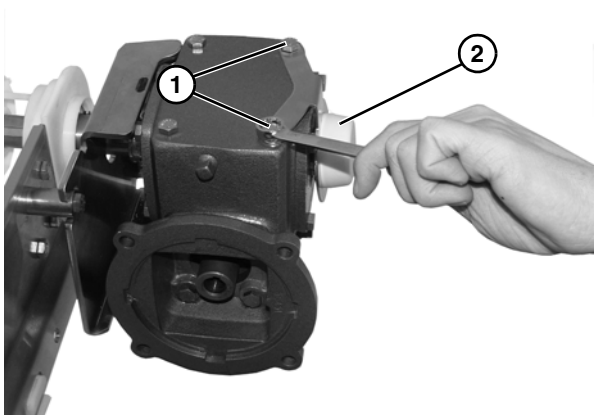


Figure 12

4. Use a hex key wrench (**Figure 13, item 1**) to remove set screws on both bearings (**Figure 13, item 2**). Slide gear reducer and mounting bracket (**Figure 13, item 3**) from spacer (**Figure 13, item 4**) on conveyor.

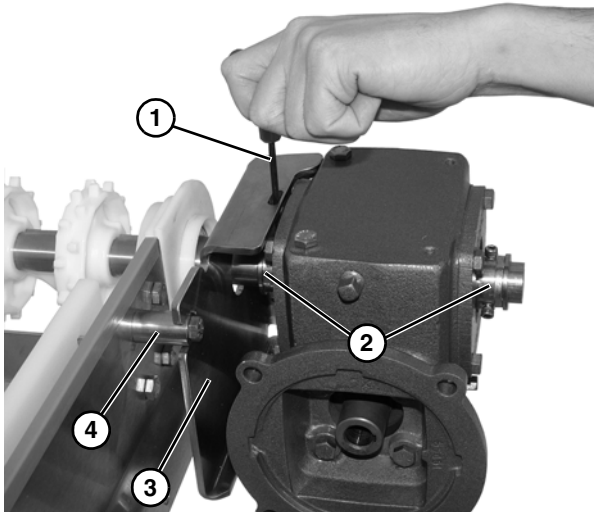


Figure 13

5. Remove gear reducer assembly from conveyor shaft (**Figure 14, item 1**), making sure to not lose key on conveyor shaft.

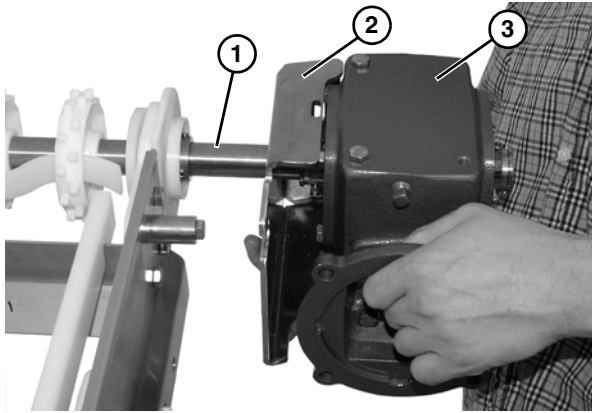


Figure 14

6. Remove screws and mounting bracket (**Figure 14, item 2**) from gear reducer (**Figure 14, item 3**).
7. To install components, complete steps 3 through 9 of "Side Drive Package" on page 7.

Preventive Maintenance and Adjustment

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 15, item 1) and remove cover (Figure 15, item 2).

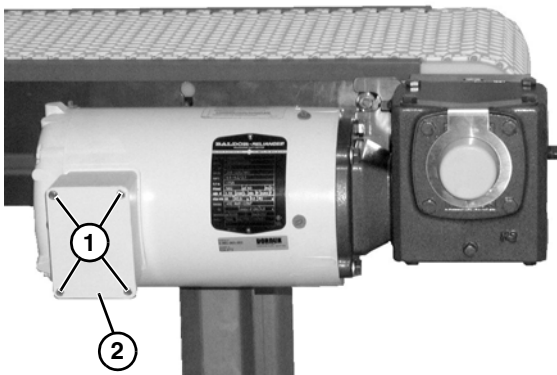


Figure 15

2. Refer to the wiring diagram (Figure 16, item 1) on the inside of the junction box cover.

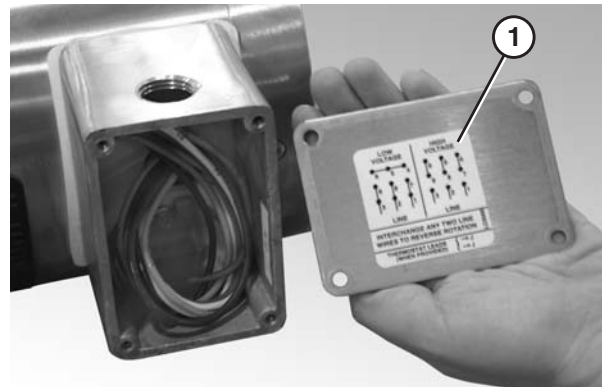



Figure 16

3. Loosen the wire nuts and disconnect the wires.
4. Loosen the cord grip and remove the cord.

⚠ WARNING



CRUSH HAZARD!

- **SUPPORT MOTOR PRIOR TO LOOSENING THE BOLTS**
- **Loosening motor bolts may cause it to drop down, causing serious injury.**

5. Remove four bolts (Figure 17, item 1) securing motor (Figure 17, item 2) to gear reducer (Figure 17, item 3).

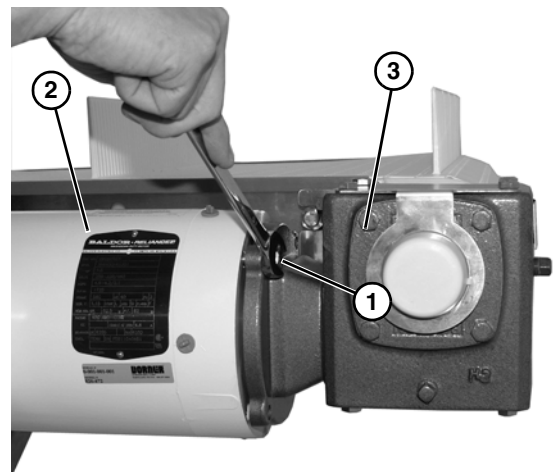


Figure 17

Preventive Maintenance and Adjustment

- Slide motor (**Figure 18, item 1**) off of gear reducer (**Figure 18, item 2**), and remove shaft key (**Figure 18, item 3**) from motor shaft (**Figure 18, item 4**).

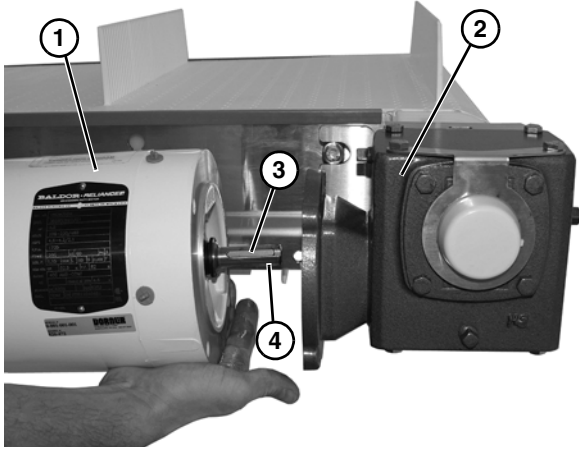


Figure 18

NOTE

<i>Be sure to retain the motor output shaft key.</i>
--

- With key (**Figure 18, item 3**) in keyway on motor shaft (**Figure 18, item 4**), slide new motor (**Figure 18, item 1**) and gear reducer (**Figure 18, item 2**) together.
- Secure motor (**Figure 19, item 1**) to gear reducer (**Figure 19, item 2**), with four bolts (**Figure 19, item 3**).

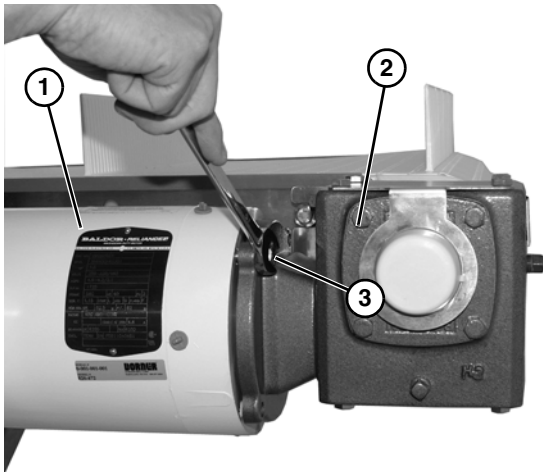



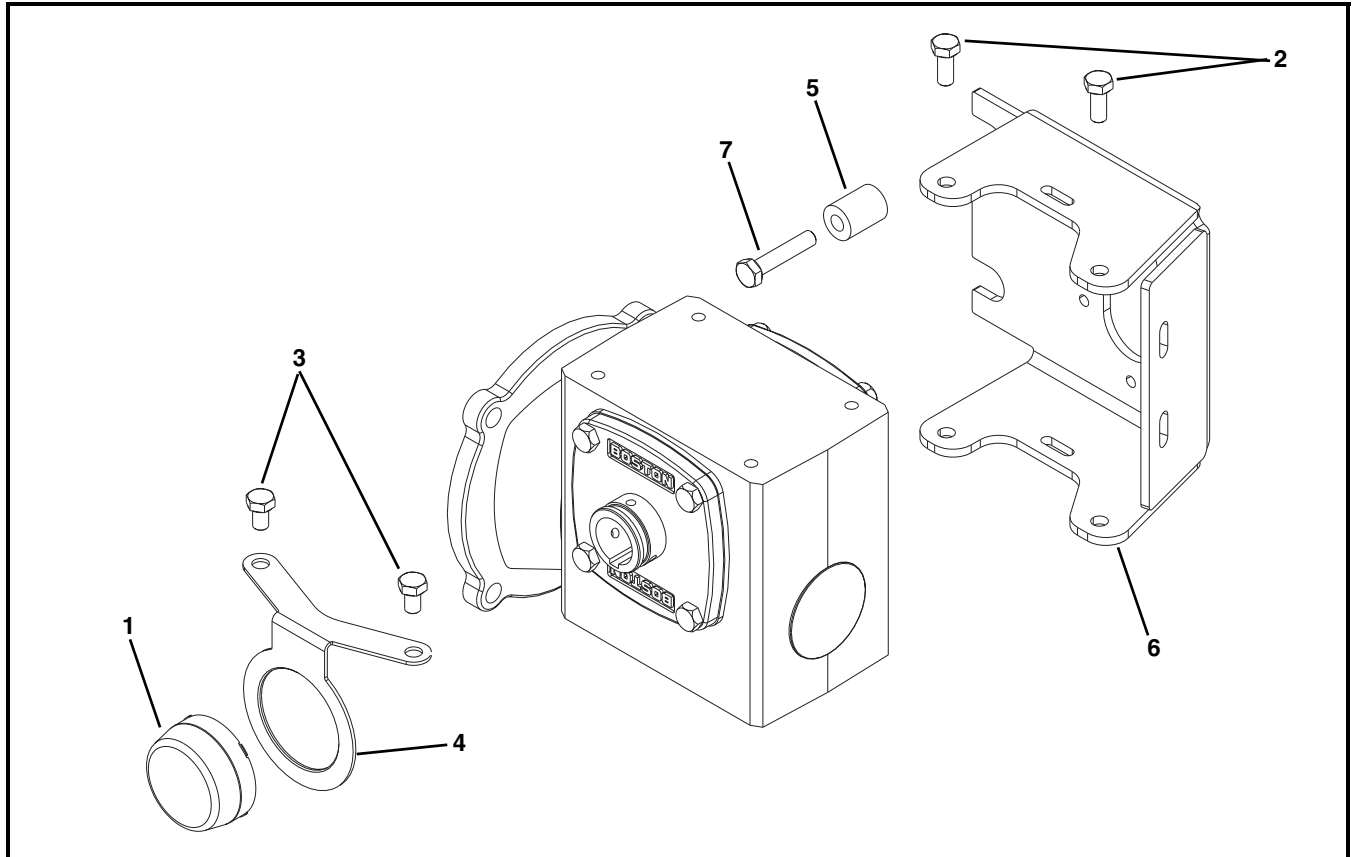
Figure 19

- Tighten four bolts (**Figure 19, item 3**) to 65 in-lbs (7.3 N-m).
- Rewire the motor and attach the box cover.

Side Mount Drive Package for 90° Industrial Gearmotors

NOTE

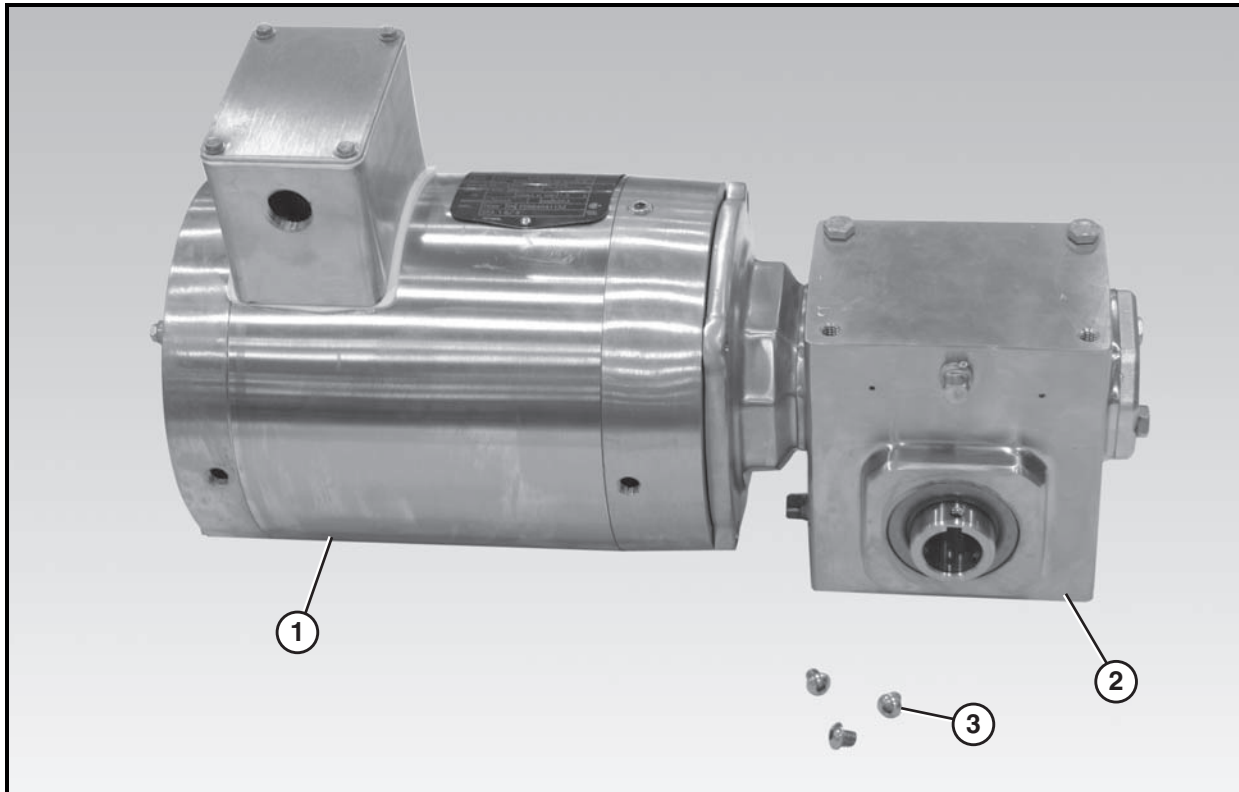
For replacement parts other than those shown in this section, contact an authorized Dorner Service Center or the factory. Key Service Parts and Kits are identified by the Performance Parts Kits logo . Dorner recommends keeping these parts on hand.



Item	Part Number	Description
1	807-1454	Cover
2	906-061SS	Hex Head Cap Screw 5/16-18 x .75"
3	906-067SS	Hex Head Cap Screw 5/16-18 x .50"
4	500492	Cover Bracket
5	532146	Support Arm
6	532148	Mounting Bracket
7	960840MSS	Hex Head Cap Screw M8-1.25 x 40 mm

Service Parts

Gearmotor Assembly



Item	Part Number	Description
1	62MZ411	Painted Motor, 0.50 Hp (0.37Kw) 115 Volts, 60Hz, 1 Phase
	62MZ423	Painted Motor, 0.50 Hp (0.37Kw) 208-230/460 Volts, 6 to 60Hz, 3 Phase
	74MHS423-10	Painted Motor, 1.00 Hp (0.74Kw) 208-230/460 Volts, 6 to 60Hz, 3 Phase
	74MHS423-15	Painted Motor, 1.50 Hp (1.11Kw) 208-230/460 Volts, 6 to 60Hz, 3 Phase
	62MZS423	Stainless Steel Motor, 0.50 Hp (0.37Kw) 208-230/460 Volts, 6 to 60Hz, 3 Phase
	74MZS423-10	Stainless Steel Motor, 1.00 Hp (0.74Kw) 208-230/460 Volts, 6 to 60Hz, 3 Phase
	74MZS423-15	Stainless Steel Motor, 1.50 Hp (1.11Kw) 208-230/460 Volts, 6 to 60Hz, 3 Phase

Item	Part Number	Description
2	74M005HS	Painted Gear Reducer, 5:1, 56C
	74M007HS	Painted Gear Reducer, 7:1, 56C
	74M010HS	Painted Gear Reducer, 10:1, 56C
	74M015HS	Painted Gear Reducer, 15:1, 56C
	74M020HS	Painted Gear Reducer, 20:1, 56C
	74M030HS	Painted Gear Reducer, 30:1, 56C
	74M040HS	Painted Gear Reducer, 40:1, 56C
	74M060HS	Painted Gear Reducer, 60:1, 56C
	74M080HS	Painted Gear Reducer, 80:1, 56C
	74M005HZ	Stainless Steel Gear Reducer, 5:1, 56C
	74M007HZ	Stainless Steel Gear Reducer, 7:1, 56C
	74M010HZ	Stainless Steel Gear Reducer, 10:1, 56C
	74M015HZ	Stainless Steel Gear Reducer, 15:1, 56C
	74M020HZ	Stainless Steel Gear Reducer, 20:1, 56C
	74M030HZ	Stainless Steel Gear Reducer, 30:1, 56C
	74M040HZ	Stainless Steel Gear Reducer, 40:1, 56C
74M060HZ	Stainless Steel Gear Reducer, 60:1, 56C	
74M080HZ	Stainless Steel Gear Reducer, 80:1, 56C	
3	917-104	Stainless Steel Socket Head Cap Screw 10-32 x .25 for Painted Gearmotor
	916-126	Stainless Steel Button Head Cap Screw 1/4-20 x .31 for Stainless Steel Gearmotor

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 & Aqua Pruf 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.



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