

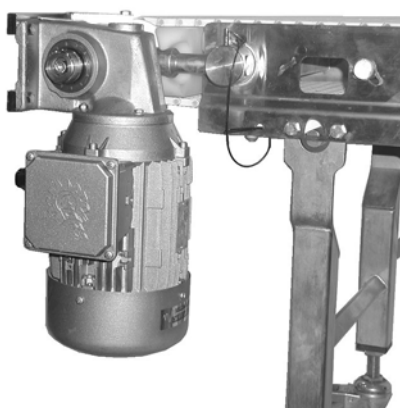


7400 Series and 7400 Ultimate Series CE Drive Packages

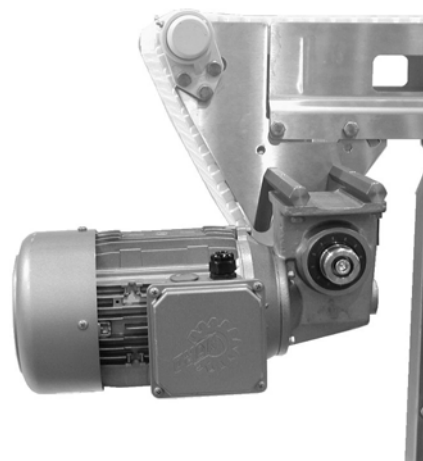
Installation, Maintenance and Parts Manual



Horizontal Mount



Vertical Mount



Nose Bar Mount

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Table of Contents

Introduction	2	Nose Bar Drive Package	10
Warnings – General Safety	3	Preventive Maintenance and Adjustment	12
Product Description	4	Required Tools	12
Specifications	4	Checklist.....	12
7400 Series Gearmotor Mounting Package Models	4	Gearmotor Replacement	12
7400 Series Gearmotor Specifications.....	5	Service Parts	14
Fixed Speed Gearmotors	5	Horizontal Drive	14
Variable Speed Gearmotors	5	Vertical Drive.....	15
Installation	6	Nose Bar Drive.....	16
Required Tools.....	6	Return Policy	18
Drive Package Installation	6		
Horizontal Drive Package	6		
Vertical Drive Package.....	8		

Introduction

CAUTION

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.

The Dorner Limited Warranty applies.

Dorner AquaPruf conveyors are covered by Patent Numbers 7,207,435, 7,246,697, 7,383,944, additional patent pending applications, and corresponding patents in other countries.

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 .

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Warnings – General Safety

DANGER



SEVERE HAZARD!

KEEP OFF CONVEYORS. Climbing, sitting, walking or riding on conveyor will result in death or serious injury.

DANGER



EXPLOSION HAZARD!

- **DO NOT OPERATE CONVEYORS IN AN EXPLOSIVE ENVIRONMENT.** The electric gearmotor generates heat and could ignite combustible vapors.
- Failure to comply will result in death or serious injury.

WARNING



CRUSH HAZARD!

- **DO NOT** place hands or fingers inside the conveyor while it is running.
- **DO NOT** wear loose garments while operating the conveyor. Loose garments can become caught up in the conveyor.
- Failure to comply could result in serious injury.

WARNING



CRUSH HAZARD!

- **SUPPORT CONVEYOR SECTIONS PRIOR TO LOOSENING STAND HEIGHT OR ANGLE ADJUSTMENT SCREWS.**
- Loosening stand height or angle adjustment screws may cause conveyor sections to drop down, causing serious injury.

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.

WARNING



PUNCTURE HAZARD!

Handle drive shaft keyway with care. It may be sharp and could puncture the skin, causing serious injury.

WARNING



SEVERE HAZARD!

- 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.
- Failure to comply could result in serious injury.

Product Description

Refer to **(Figure 1)** for typical gearmotor assembly components.

Typical Components

- | | |
|---|---------------|
| 1 | Conveyor |
| 2 | Mounting bars |
| 3 | Gearmotor |
| 4 | Motor Bracket |

NOTE

the vertical drive package is shown above, but the horizontal and nose bar drive packages contain similar components.

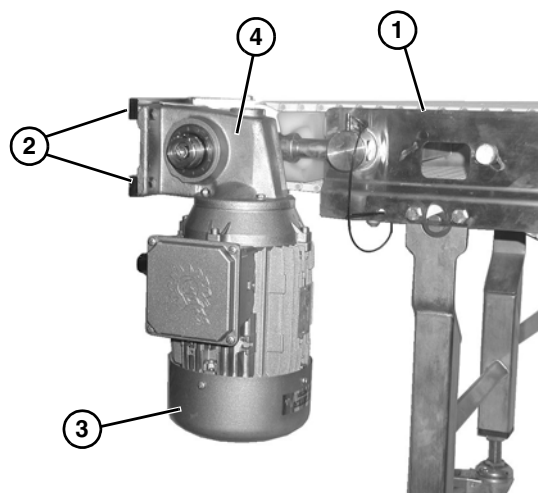
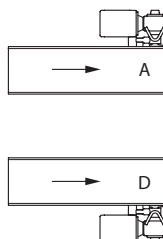
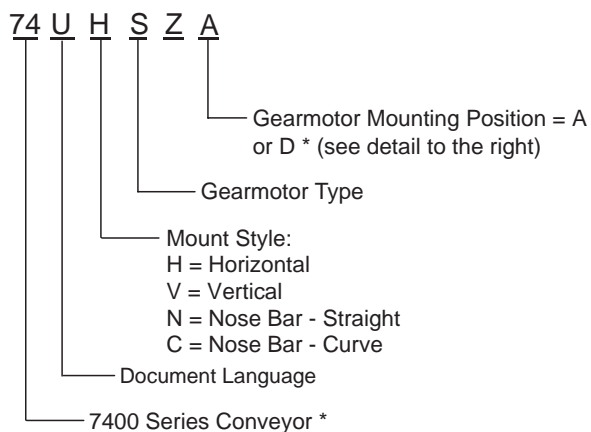


Figure 1

Specifications

7400 Series Gearmotor Mounting Package Models

Example:



* Refer to “Ordering and Specifications” Catalog for details.

7400 Series Gearmotor Specifications

	Three Phase
Output Power	0.37 kW / 0.74 KW / 1.11 kW / 1.49 kW
Input Voltage	230 / 400 V.A.C.
Input Frequency	50 Hz
Motor RPM	See Below
Gearmotor Ratios	5:1, 7:1, 10:1, 15:1, 25:1, 30:1, 60:1
Frame Size	IEC
Motor Type	Totally Enclosed, Fan Cooled

* Refer to "Ordering and Specifications" Catalog for details.

Fixed Speed Gearmotors

Part Number	m / min	RPM @ 50 Hz	N • m	Output Power	Input Voltage	Input Frequency	Gearmotor Ratios	Motor Type
74U060HS423FN	7.0	23	80.9	0.37 Kw	230/400	17-58 Hz	60:1	CE Rated, Painted Gearmotor
74U030HS423FN	14.0	46	101.9	0.74 Kw	230/400	12-80 Hz	30:1	CE Rated, Painted Gearmotor
74U025HS423FN	16.8	55	93.9	0.74 Kw	230/400	12-80 Hz	25:1	CE Rated, Painted Gearmotor
74U015HS423FN	28.3	93	88.9	1.11 Kw	230/400	12-80 Hz	15:1	CE Rated, Painted Gearmotor
74U010HS423FN	42.7	140	63.9	1.11 Kw	230/400	12-72 Hz	10:1	CE Rated, Painted Gearmotor
74U007HS423FN	56.7	186	67.0	1.49 Kw	230/400	12-72 Hz	7:1	CE Rated, Painted Gearmotor
74U005HS423FN	85.0	279	46.0	1.49 Kw	230/400	25-50 Hz	5:1	CE Rated, Painted Gearmotor

Variable Speed Gearmotors

Part Number	m / min	RPM @ 50 hz	N • m	Output Power	Input Voltage	Input Frequency	Gearmotor Ratios	Motor Type
74U060HS423EN	2.2 - 7.3	23	80.9	0.37 Kw	230/400	17-58 Hz	60:1	CE Rated, Painted Gearmotor
74U030HS423EN	3.0 - 20.4	46	101.9	0.74 Kw	230/400	12-80 Hz	30:1	CE Rated, Painted Gearmotor
74U025HS423EN	3.7 - 24.4	55	93.9	0.74 Kw	230/400	12-80 Hz	25:1	CE Rated, Painted Gearmotor
74U015HS423EN	6.1 - 41.5	93	88.9	1.11 Kw	230/400	12-80 Hz	15:1	CE Rated, Painted Gearmotor
74U010HS423EN	9.4 - 56.1	140	63.9	1.11 Kw	230/400	12-72 Hz	10:1	CE Rated, Painted Gearmotor
74U007HS423EN	12.5 - 77.7	186	67.0	1.49 Kw	230/400	12-72 Hz	7:1	CE Rated, Painted Gearmotor
74U005HS423EN	39.0 - 78.0	279	46.0	1.49 Kw	230/400	25-50 Hz	5:1	CE Rated, Painted Gearmotor

NOTE

Contact the factory for details about belt speeds other than those listed.

Installation

Required Tools

- 4 mm Hex Key Wrench
- 8 mm Hex Key Wrench
- 13 mm Open End Wrench
- Flat Blade Screw Driver

Drive Package Installation

Horizontal 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.

Horizontal Drive Mounting Positions

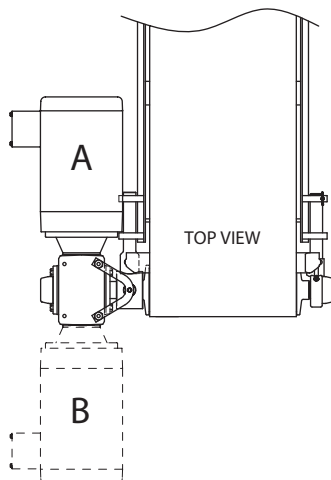


Figure 2

2. Slide the gearmotor assembly (**Figure 5, item 1**) onto

Typical Horizontal Drive Package Components (**Figure 3**)

1	Motor Mounting bracket
2	Upper Gearhead Mounting Bar
3	Lower Gearhead Mounting Bar
4	Upper Mounting Drive Spacer (x2)
5	Lower Mounting Drive Spacer
6	Bore Plug
7	Gearmotor Assembly
8	Hex head cap screw 5 / 16 - 18 x 0.75
9	Hex head cap screw 5 / 16 - 18 x 1.50
10	Socket head screw M10 - 0.50 x 35 mm
11	Hex head cap screw M8 - 1.25 x 20 mm (x8)

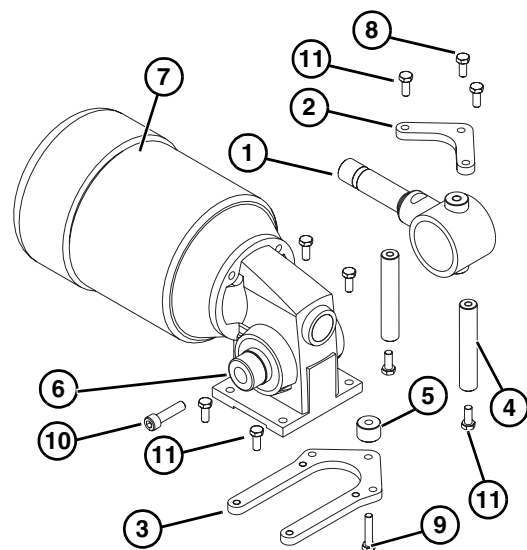


Figure 3

1. Insert the drive spindle key (**Figure 4, item 1**) into the drive spindle keyway (**Figure 4, item 2**).

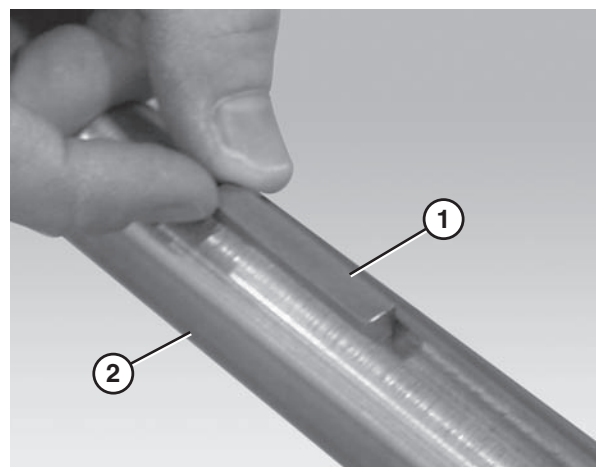


Figure 4

the drive spindle (**Figure 5, item 2**).

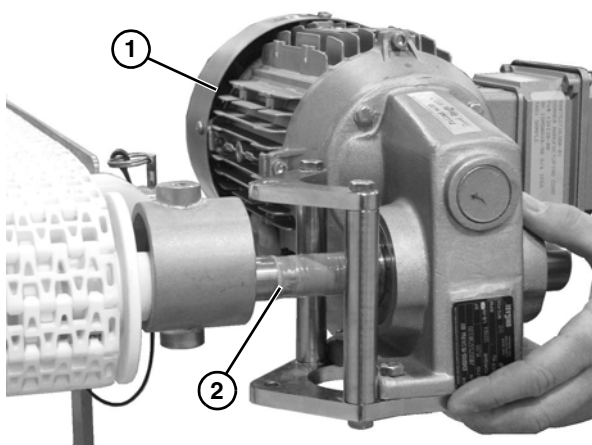


Figure 5

3. Attach the upper gearhead mounting bar (**Figure 6, item 1**) to the motor mounting bracket (**Figure 6, item 2**).

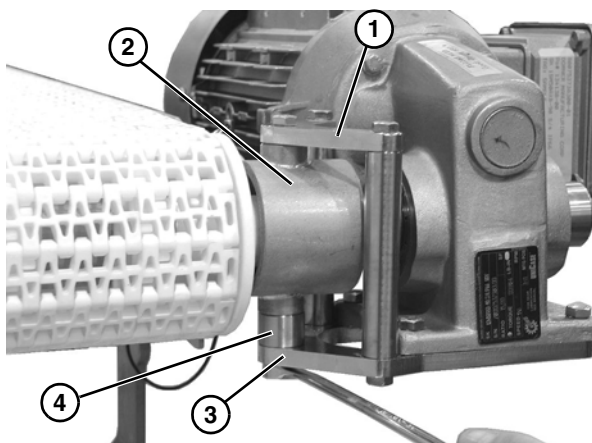


Figure 6

4. Attach the lower gearhead mounting bar (**Figure 6, item 3**) to the motor mounting bracket (**Figure 6, item 2**). Use Spacer (**Figure 6, item 4**)

5. Attach the bore plug (**Figure 7, item 1**) and tighten the socket head screw (**Figure 7, item 2**). Snap cover onto bore plug (**Figure 7, item 1**).

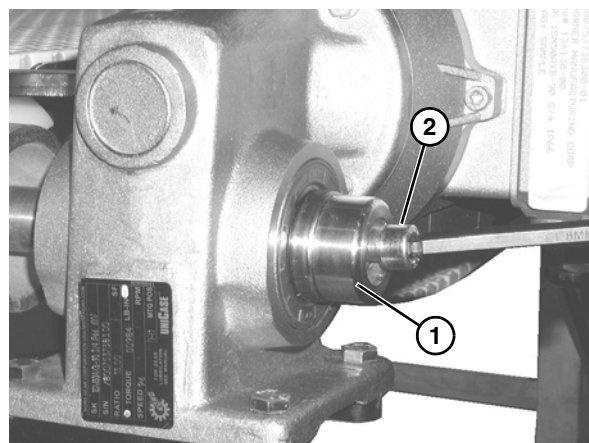


Figure 7

Installation

Vertical 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.

Vertical Drive Mounting Positions

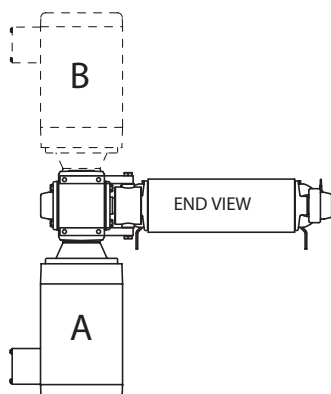


Figure 8

Typical Vertical Drive Package Components (Figure 9)

- 1 Motor Mounting Bracket (Installed on Conveyor)
- 2 Vertical Drive Bent Bar, Left
- 3 Vertical Drive Bent Bar, Right
- 4 Bore Plug
- 5 Gearmotor Assembly
- 6 Hex Head Cap Screw, 5 / 16 - 18 x 1.00 (x2)
- 7 Socket Head Screw, M10 - 0.50 x 35 mm
- 8 Hex Head Cap Screw, M8 - 1.25 x 25 mm (x4)

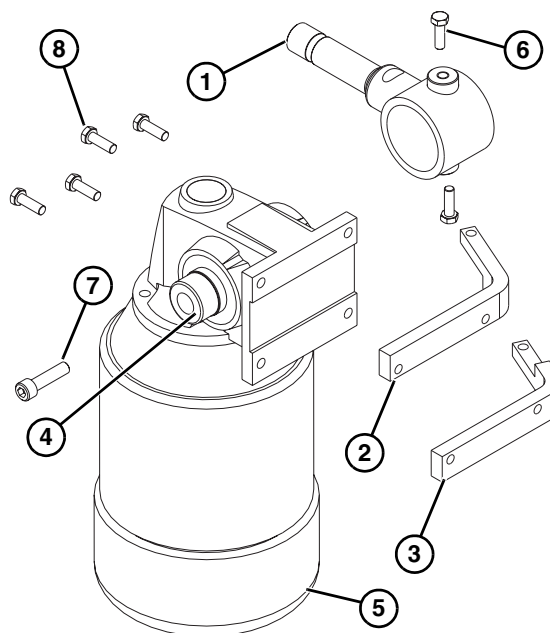


Figure 9

1. Insert the drive spindle key (Figure 10, item 1) into the drive spindle keyway (Figure 10, item 2).

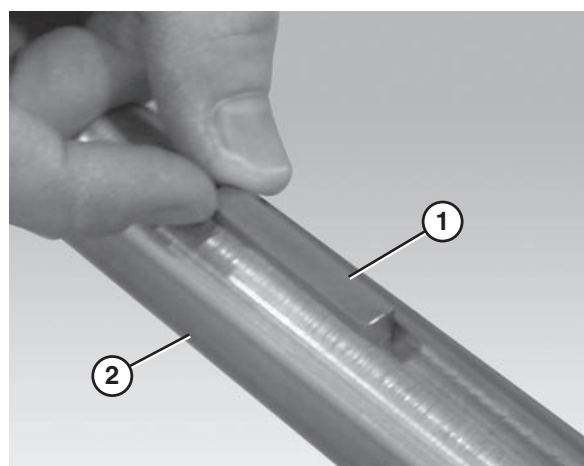


Figure 10

2. Slide the gearmotor assembly (**Figure 11, item 1**) onto the drive spindle (**Figure 11, item 2**).

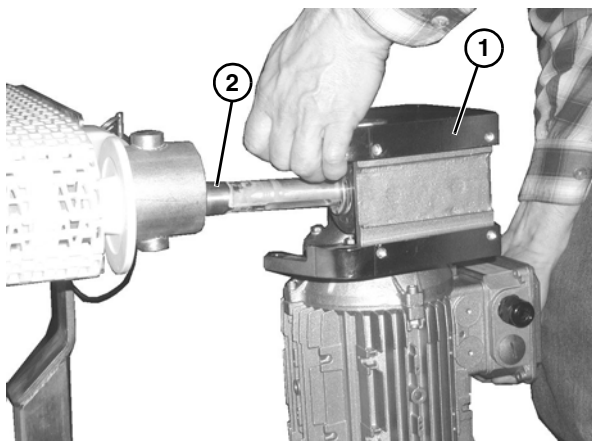


Figure 11

3. Attach the bent bars (**Figure 12, item 1**) to the motor mounting bracket (**Figure 12, item 2**).

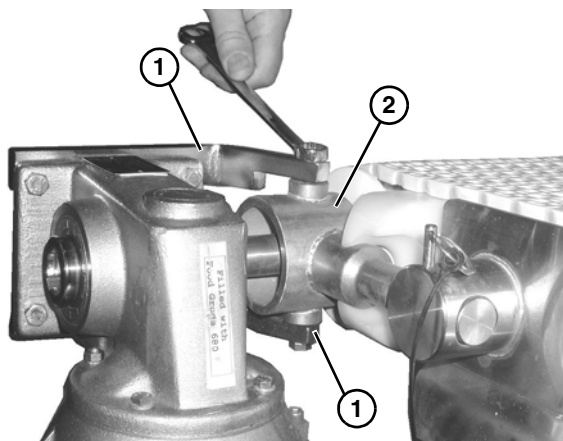


Figure 12

4. Attach the bore plug (**Figure 13, item 1**) and tighten the socket head screw (**Figure 13, item 2**). Snap cover onto bore plug (**Figure 13, item 1**).

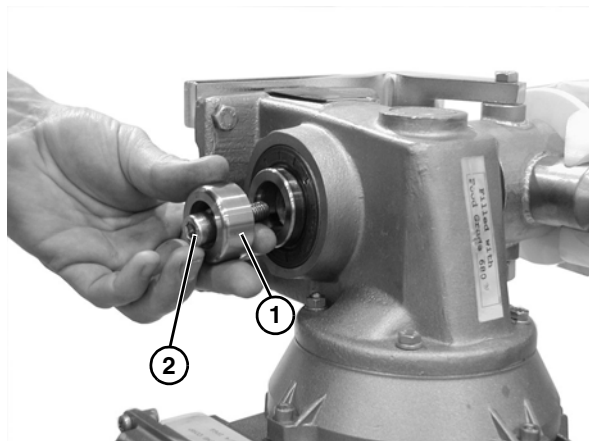


Figure 13

Installation

Nose Bar 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.

Nose Bar Drive Mounting Positions

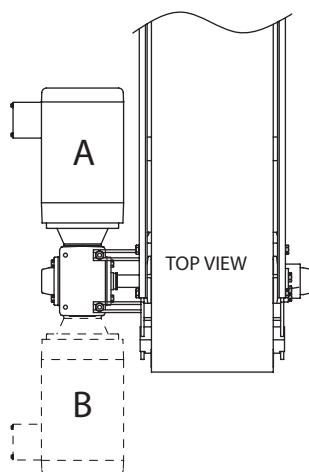


Figure 14

Typical Nose Bar Drive Package Components (Figure 15)

- | | |
|---|---|
| 1 | Bore Plug |
| 2 | Nose Bar Side Plate (Installed on Conveyor) |
| 3 | Gearhead Mounting Post (x2) |
| 4 | Gearmotor assembly |
| 5 | Socket head screw, M10 - 0.50 x 35 mm |
| 6 | Hex head cap screw, M8 - 1.25 x 30 mm (x4) |
| 7 | Hex head cap screw M10 - 1.50 x 16 mm (x2) |

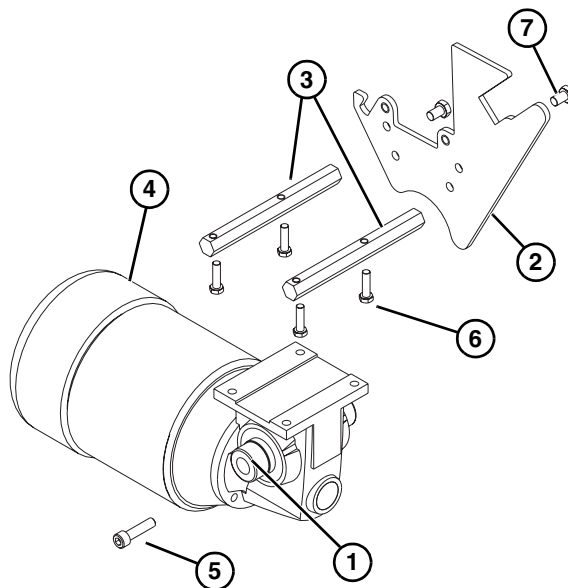


Figure 15

1. Attach the gear reducer mounting posts (Figure 16, item 1) to the nose bar side plate (Figure 16, item 2).

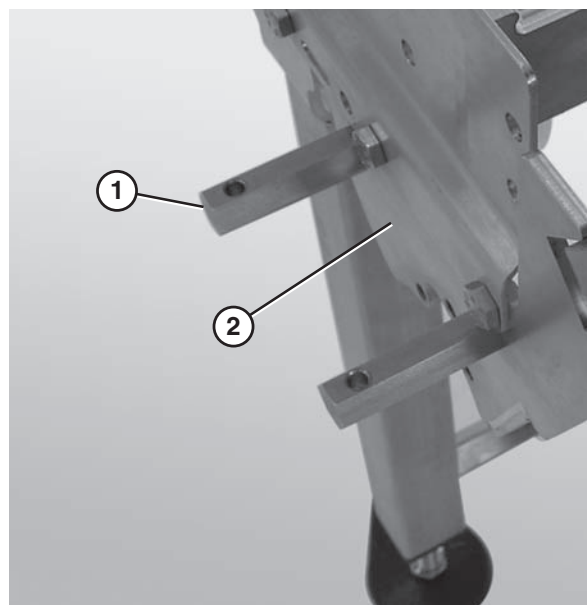


Figure 16

2. Insert the drive spindle key (**Figure 17, item 1**) into the drive spindle keyway (**Figure 17, item 2**).
5. Attach the bore plug (**Figure 20, item 1**) and tighten the socket head screw (**Figure 20, item 2**). Snap cover onto bore plug (**Figure 20, item 1**).

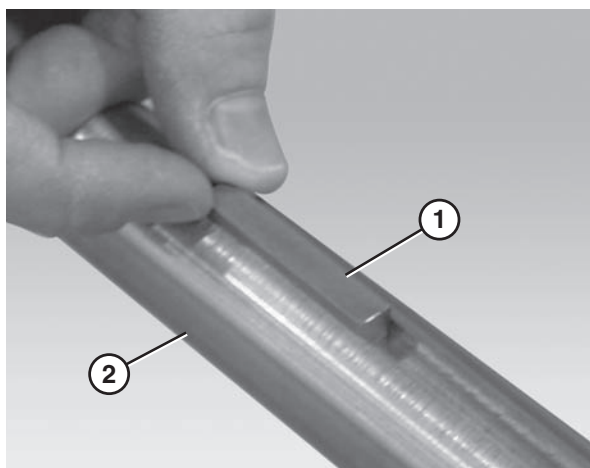


Figure 17

3. Slide the gearmotor assembly (**Figure 18, item 1**) onto the drive spindle (**Figure 18, item 2**).

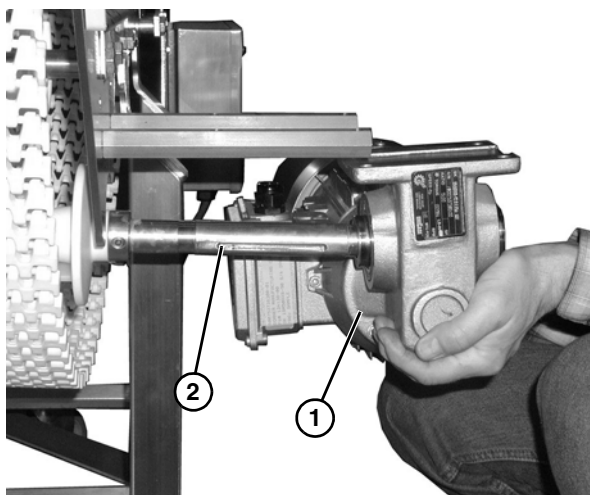


Figure 18

4. Attach the gearmotor assembly (**Figure 19, item 1**) to the gearhead mounting posts (**Figure 19, item 2**).

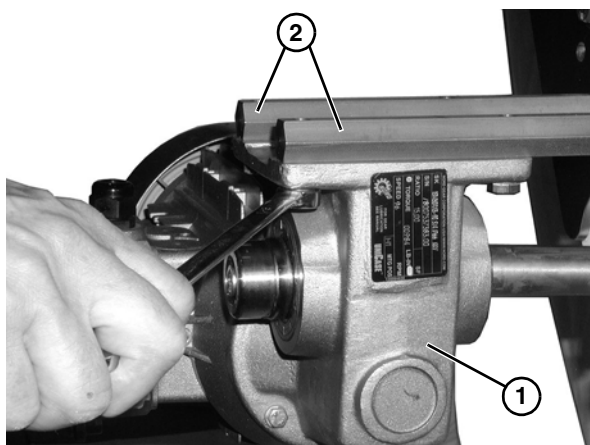


Figure 19

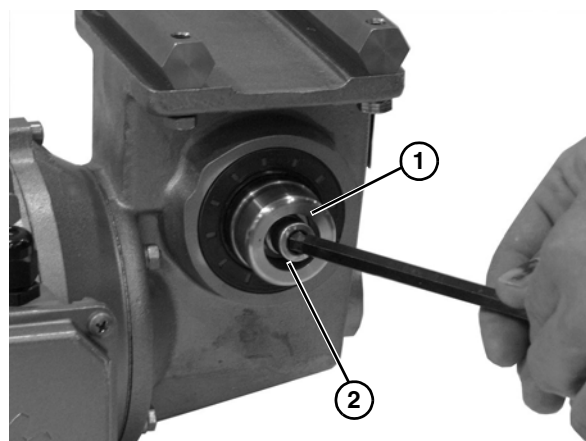


Figure 20

Preventive Maintenance and Adjustment

Required Tools

- 4 mm Hex Key Wrench
- 8 mm Hex Key Wrench
- 13 mm Open End Wrench
- Flat Blade Screw Driver

Checklist

- Keep service parts on hand. Refer to the "Service Parts" section starting on page 14 for recommendations.
- Replace any worn or damaged parts.

Gearmotor 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 the screws and remove the cover (Figure 21, item 1) from the junction box located on the side of the motor (Figure 21, item 2).

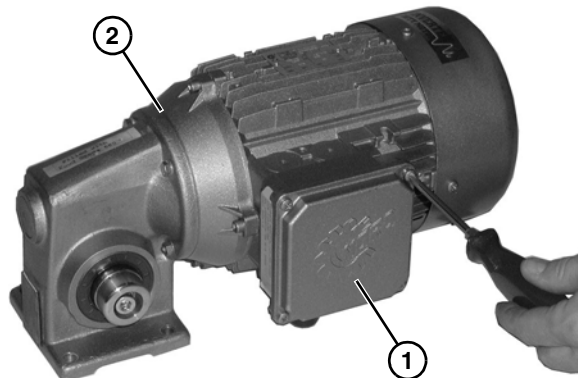


Figure 21

2. Refer to the wiring diagram (Figure 22, item 1) on the inside of the junction box cover.

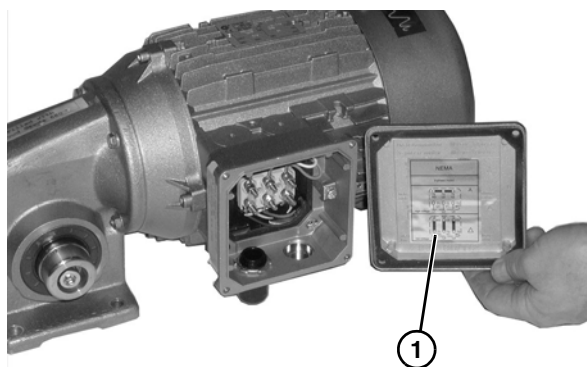


Figure 22

3. Loosen the wire terminals 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.**

Preventive Maintenance and Adjustment

5. Remove the bolts that connect the gearmotor (Figure 23, item 1) to the gearhead mounting posts (Figure 23, item 2).

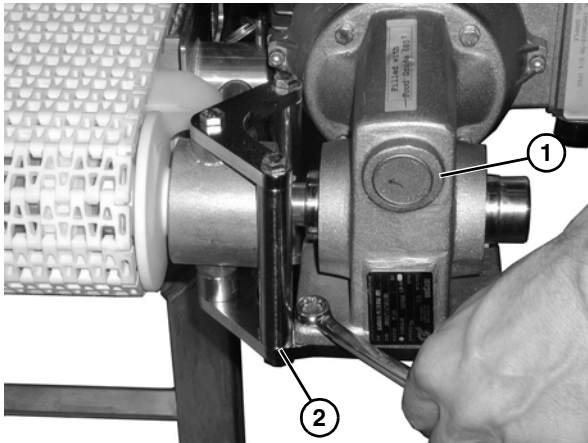


Figure 23

6. Remove the plastic cap on the end of the motor and remove the socket head screw (Figure 24, item 1) and the bore plug (Figure 24, item 2).

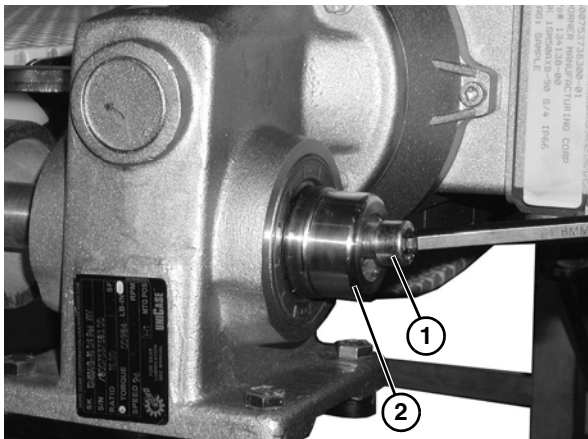



Figure 24

NOTE
Be sure to retain the motor output shaft key.

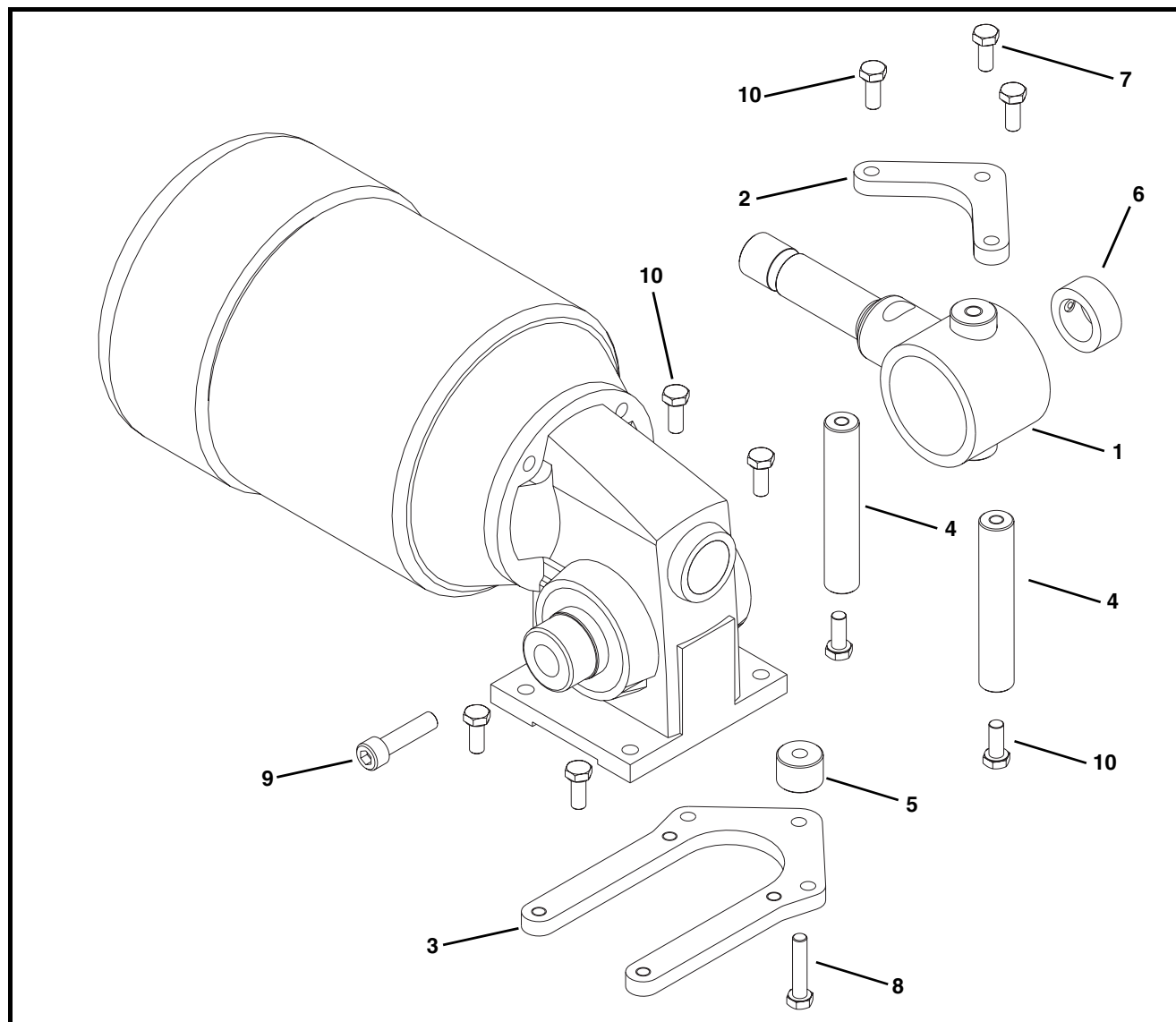
7. Slide the gearmotor off of the drive spindle.

Service Parts

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.

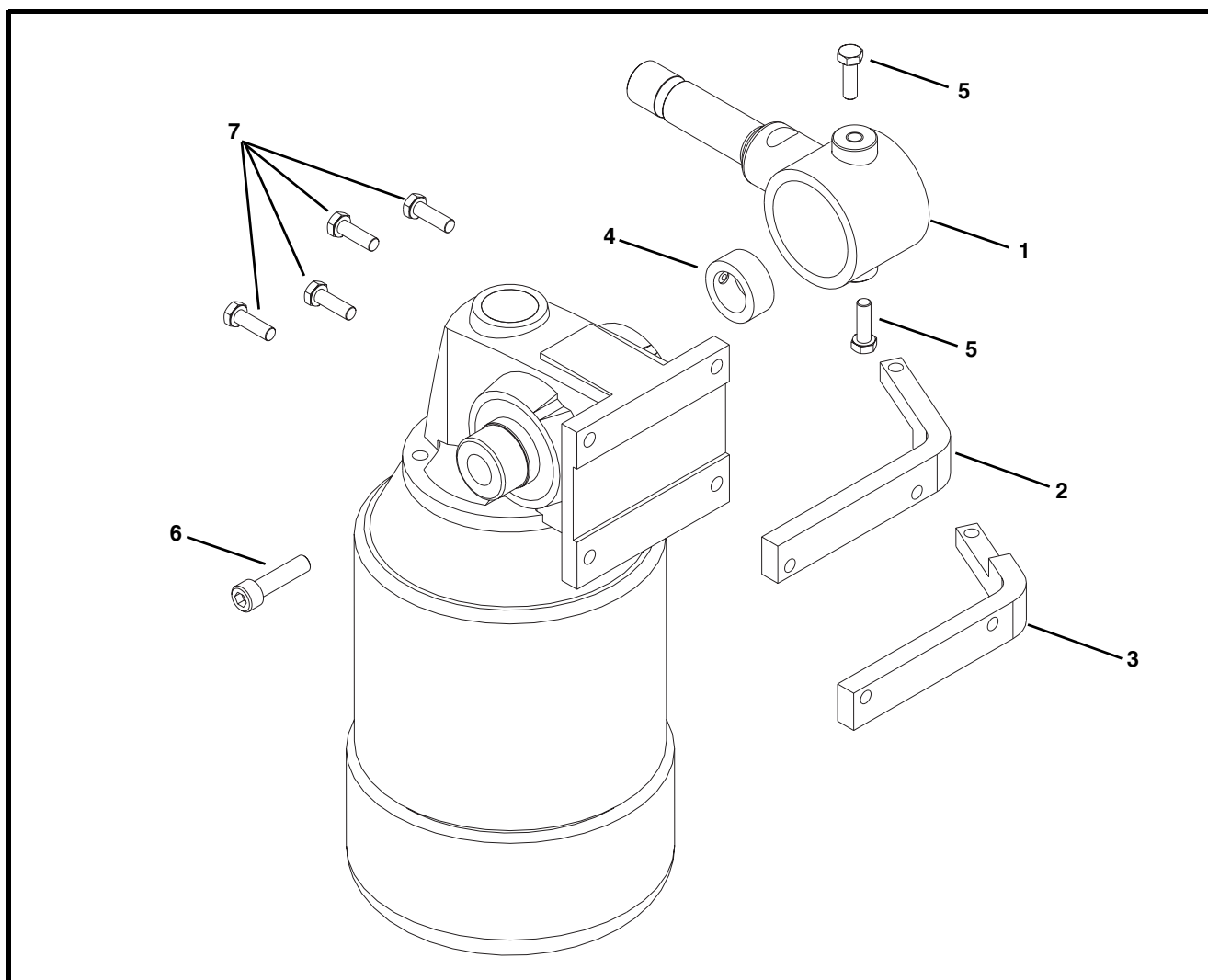
Horizontal Drive



Item	Part Number	Description
1	500379	Motor Mounting Bracket (7400 Series)
	501193	Motor Mounting Bracket (7400 Ultimate Series)
2	506202	Upper Gearhead Mounting Bar
3	506203	Lower Gearhead Mounting Bar
4	506204	Upper Mounting Drive Spacer
5	506205	Lower Mounting Drive Spacer

Item	Part Number	Description
6	807-1458	Set Screw Collar
7	906-061SS	Hex Head Cap Screw, 5/16-18 x 0.75
8	906-064SS	Hex Head Cap Screw, 5/16-18 x 1.50
9	921040MSS	Socket Head Screw, M10 - 0.50 x 35 mm
10	960820MSS	Hex Head Cap Screw, M8 - 1.25 x 20 mm

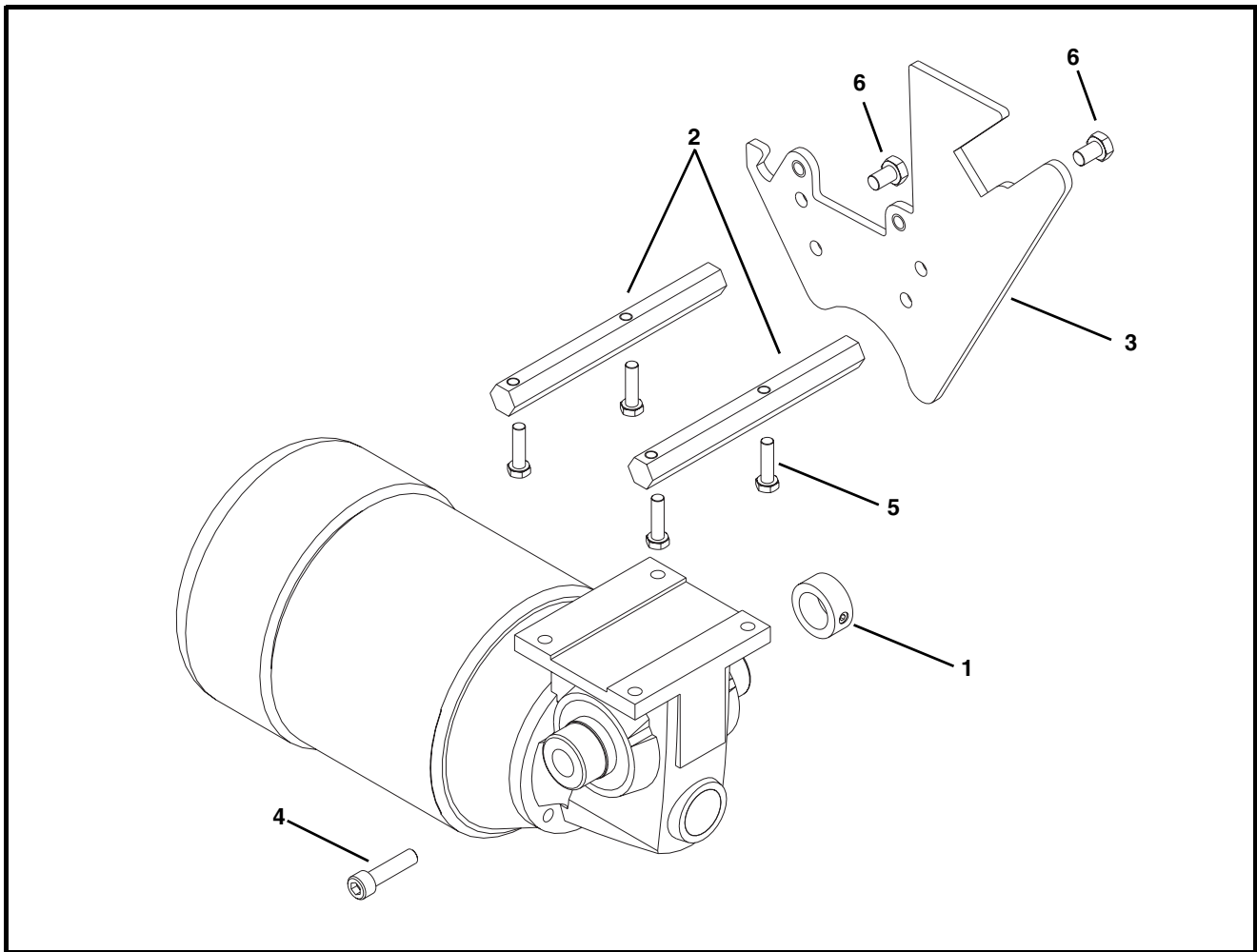
Vertical Drive



Item	Part Number	Description
1	500379	Motor Mounting Bracket (7400 Series)
	501193	Motor Mounting Bracket (7400 Ultimate Series)
2	506200	Vertical Drive Bent Bar, Left
3	506201	Vertical Drive Bent Bar, Right
4	807-1458	Set Screw Collar

Item	Part Number	Description
5	906-063SS	Hex Head Cap Screw, 5/16 - 18 x 1.00
6	921040MSS	Socket Head Screw, M10 - 0.50 x 35 mm
7	960825MSS	Hex Head Cap Screw, M8 - 1.25 x 25 mm

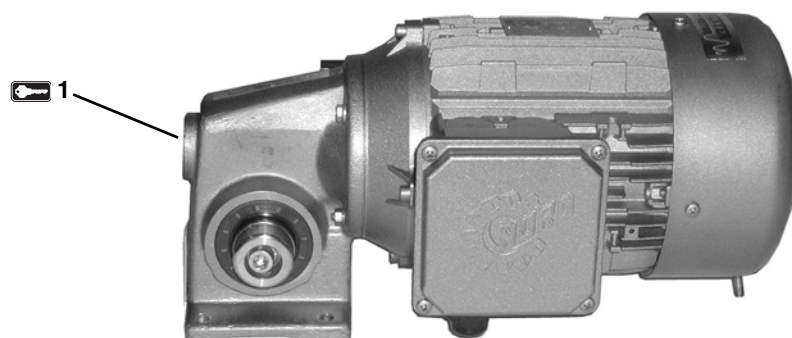
Nose Bar Drive




Item	Part Number	Description
1	807-1458	Set Screw Collar
2	506206	Gearhead Mounting Post (7400 Series Only)
3	506214	Nose Bar Side Plate, for 7400 Series, Straight Conveyors
	506207	Nose Bar Side Plate, for 7400 Series, Curve Conveyors
	506224	Nose Bar Side Plate, A-Position, for 7400 Ultimate, Straight Conveyors
	506225	Nose Bar Side Plate, D-Position, for 7400 Ultimate, Straight Conveyors
	506226	Nose Bar Side Plate, A-Position, for 7400 Ultimate, Curve Conveyors
	506227	Nose Bar Side Plate, D-Position, for 7400 Ultimate, Curve Conveyors

Item	Part Number	Description
4	921040MSS	Socket Head Screw, M10 - 0.50 x 35 mm
5	960830MSS	Hex Head Cap Screw, M8 - 1.25 x 30 mm
6	961016MSS	Hex Head Cap Screw, M10 - 1.50 x 16 mm (7400 Series Only)

Gearmotor Assembly



Item	Part Number	Description
1 	74U060HS423FN	Motor, 0.37Kw (0.5 Hp), 23 RPM, 50Hz
	74U030HS423FN	Motor, 0.74Kw (1.00 Hp), 46 RPM, 50Hz
	74U025HS423FN	Motor, 0.74Kw (1.00 Hp), 55 RPM, 50Hz
	74U015HS423FN	Motor, 1.11Kw (1.50 Hp), 93 RPM, 50Hz
	74U010HS423FN	Motor, 1.11Kw (1.50 Hp), 140 RPM, 50Hz
	74U007HS423FN	Motor, 1.49Kw (2.00 Hp), 186 RPM, 50Hz
	74U005HS423FN	Motor, 1.49Kw (2.00 Hp), 279 RPM, 50Hz
	74U060HS423EN	Motor, 0.37Kw (0.5 Hp), 23 RPM, 50Hz, 230/400 Volts
	74U030HS423EN	Motor, 0.74Kw (1.00 Hp), 46 RPM, 50Hz, 230/400 Volts
	74U025HS423EN	Motor, 0.74Kw (1.00 Hp), 55 RPM, 50Hz, 230/400 Volts
	74U015HS423EN	Motor, 1.11Kw (1.50 Hp), 93 RPM, 50Hz, 230/400 Volts
	74U010HS423EN	Motor, 1.11Kw (1.50 Hp), 140 RPM, 50Hz, 230/400 Volts
	74U007HS423EN	Motor, 1.49Kw (2.00 Hp), 186 RPM, 50Hz, 230/400 Volts
	74U005HS423EN	Motor, 1.49Kw (2.00 Hp), 279 RPM, 50Hz, 230/400 Volts

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%
7400 & 7600 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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