7600 Series Curve Conveyors

Installation, Maintenance and Parts Manual

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851-608 Rev. A

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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 7600 Series conveyors have patents pending.

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 .

⚠ 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 ot 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

CRUSH 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 sysem start-up.**
- **Failure to comply could result in serious injury.**

Product Description

Refer to (Figure 1) for typical conveyor components.

1	Conveyor
2	Gearmotor
3	Belt
4	Support Stands

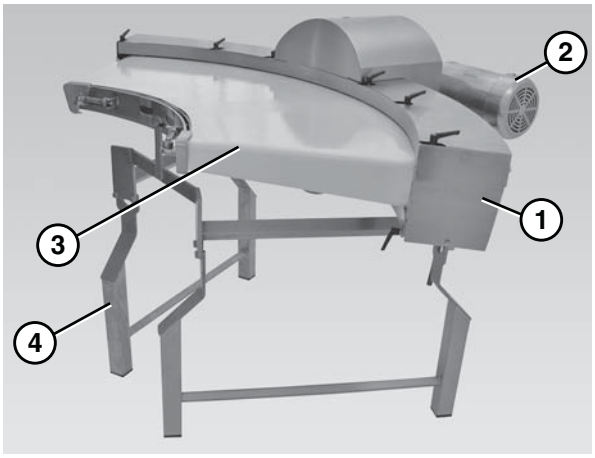
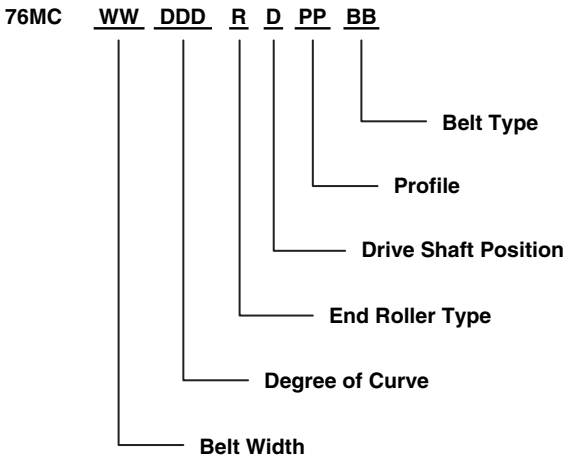


Figure 1

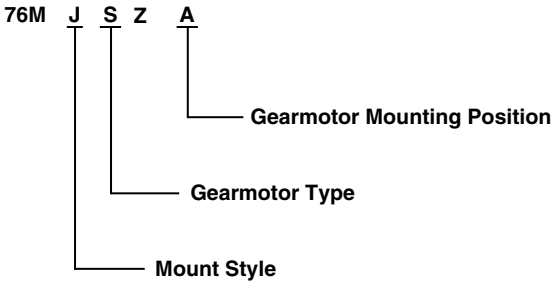
Specifications

7600 Series Curve Conveyor



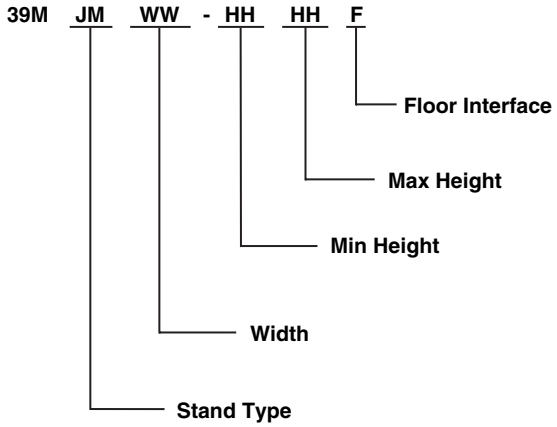
* Refer to “Ordering and Specifications” Catalog for details.

7600 Series Curve Conveyor Gearmotor Mounting Package



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

7600 Series Curve Conveyor Support Stands



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

Conveyor Supports

7600 Curve Conveyor Stand Requirements

		Belt Width			
		12" (305)	18" (457)	24" (610)	36" (914)
Curve	45°	2	2	2	2
	90°	2	2	2	2
	180°	3	3	3	3

Specifications

Conveyor Width Reference (WW)	12, 18, 24 & 36
Conveyor Belt Width	12" (305), 18" (457), 24" (610) & 36" (914)
Maximum Conveyor Load	20 lb / ft^2 (97 kg / m^2) up to 100 lbs (488 kg) max.
Belt Travel	15.7" (399) per revolution of belt
Maximum Belt Speed	173 ft / minute (53 m / minute)
Degree of Curve Reference (DDD)	045, 090 & 180
Degree of Curve	45°, 90° & 180°

IMPORTANT

Maximum conveyor loads are based on:

- *Non-accumulating product*
- *Product moving toward gearmotor*
- *Conveyor being mounted horizontally*
- *Conveyor being located in a dry environment*
- *Conveyor equipped with standard belt only*

45 degree Curve		Belt Speed at Centerline of Belt FPM (M/min)							
		12" wide		18" wide		24" wide		36" wide	
Ratio	RPM	Fixed	Variable	Fixed	Variable	Fixed	Variable	Fixed	Variable
80:1	22	22 (6.7)	2-22 (.6-6.7)	22 (6.7)	2-22 (.6-6.7)	20 (6.1)	2-20 (.6-6.1)	19 (5.8)	2-19 (.6-5.8)
60:1	29	29 (8.8)	3-29 (.8-8.8)	29 (8.8)	3-29 (.8-8.8)	26 (7.9)	3-26 (.8-7.9)	25 (7.6)	3-25 (.8-7.6)
40:1	44	43 (13)	4-43 (1.3-13)	43 (13)	4-43 (1.3-13)	40 (12)	4-40 (1.2-12)	38 (12)	4-38 (1.2-12)
30:1	58	57 (17)	6-57 (1.7-17)	57 (17)	6-57 (1.7-17)	53 (16)	5-53 (1.6-16)	50 (15)	5-50 (1.5-15)
20:1	87	87 (26)	9-87 (3-26)	87 (26)	9-87 (3-26)	80 (24)	8-80 (2.4-24)	76 (23)	8-76 (2.3-23)
15:1	117	116 (35)	12-116 (4-35)	116 (35)	12-116 (4-35)	106 (32)	11-106 (3-32)	101 (31)	10-101 (3-31)
10:1	175	173 (52)	17-173 (5-52)	173 (52)	17-173 (5-52)	159 (48)	16-159 (5-48)	150 (46)	15-150 (5-46)

90 and 180 degree Curve		Belt Speed at Centerline of Belt FPM (M/min)							
		12" wide		18" wide		24" wide		36" wide	
Ratio	RPM	Fixed	Variable	Fixed	Variable	Fixed	Variable	Fixed	Variable
80:1	22	18 (5.5)	2-18 (.6-5.5)	19 (5.8)	2-19 (.6-5.8)	18 (5.5)	2-18 (.6-5.5)	19 (5.8)	2-19 (.6-5.8)
60:1	29	24 (7.3)	3-24 (.7-7.3)	25 (7.6)	3-25 (.8-7.6)	24 (7.3)	3-24 (.7-7.3)	25 (7.6)	3-25 (.8-7.6)
40:1	44	37 (11)	4-37 (1-11)	38 (12)	4-38 (1.2-12)	37 (11)	4-37 (1-11)	38 (12)	4-38 (1.2-12)
30:1	58	48 (15)	5-48 (2-15)	50 (15)	5-50 (1.5-15)	48 (15)	5-48 (2-15)	50 (15)	5-50 (1.5-15)
20:1	87	74 (23)	7-74 (2-23)	76 (23)	8-76 (2.3-23)	74 (23)	7-74 (2-23)	76 (23)	8-76 (2.3-23)
15:1	117	97 (30)	10-97 (3-30)	101 (31)	10-101 (3-31)	97 (30)	10-97 (3-30)	101 (31)	10-101 (3-31)
10:1	175	147 (45)	15-147 (5-45)	150 (46)	15-150 (5-46)	147 (45)	15-147 (5-45)	150 (46)	15-150 (5-46)

Installation

CAUTION

Dorner recommends cleaning all the "food zones" prior to placing conveyor into service. Ensure adequate access is provided for cleaning and servicing equipment so that the required level of hygiene can be maintained.

CAUTION

Conveyor MUST be mounted straight, flat and level within confines of conveyor. Use a level, during setup.

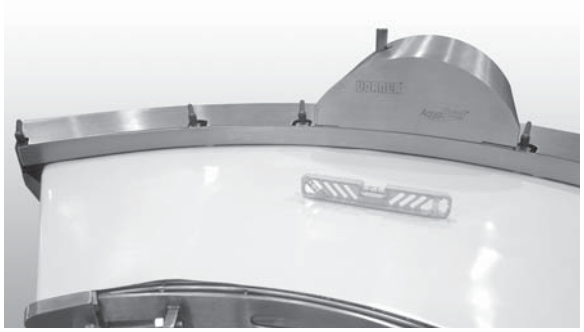


Figure 2

Required Tools

- Level
- Torque wrench

Recommended Installation Sequence

1. Attach the stands. Refer to "Stand Installation" on page 6.
2. Install the gearmotor. Refer to "Drive Package Installation" on page 8.

Stand Installation

Support Stand (Stand Height 20-24 and 23-27)

Typical Stand Components (Figure 3)

1	Hex Head Cap Screw M10-1.5 x 12 mm
2	Hex Nut M20-2.50
3	Teardrop Foot Assembly

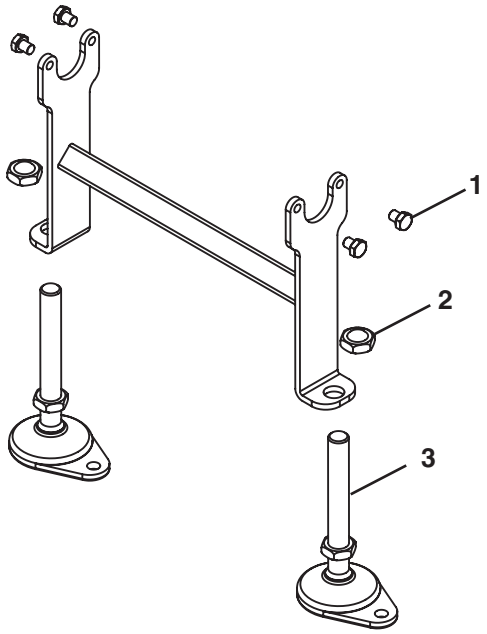


Figure 3

1. Properly support the conveyor or place the conveyor upside down on a flat surface.
2. Attach the stand (Figure 4, item 1) to the conveyor (Figure 4, item 2) using four M10-1.5 x 12 mm hex head cap screws (Figure 4, item 3).

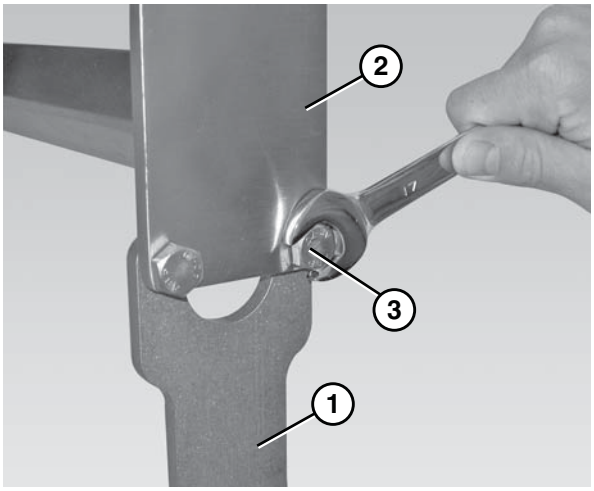


Figure 4

3. Tighten the stand screws (Figure 4, item 3) to 80 in•lb (9 N•m).

⚠ WARNING

CRUSH HAZARD!

- **MAKE SURE TO SECURE ALL STAND SCREWS.**
- **Failure to do so may cause conveyor sections to drop down, causing serious injury.**

4. Adjust the stand height. Refer to “Stand Height Adjustment” on page 18.

Support Stand (Stand Height 26-30 or Taller)

Typical Stand Components (Figure 5)

1	Hex Head Cap Screw M10-1.50 x 12 mm
2	Threaded Tube End
3	Teardrop Foot Assembly

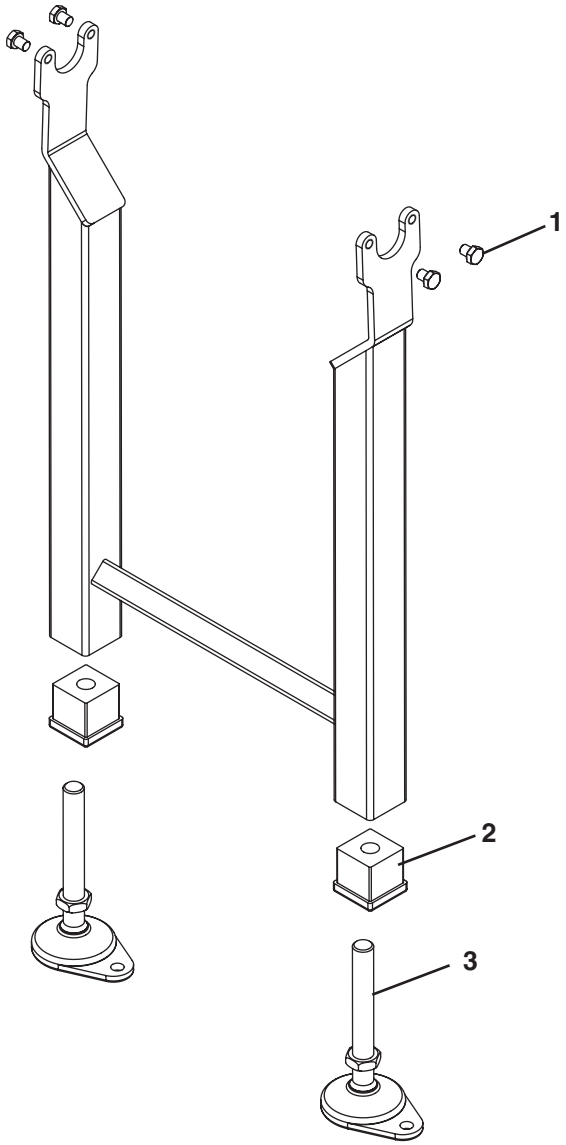


Figure 5

1. Properly support the conveyor or place the conveyor upside down on a flat surface.

2. Attach the stand (Figure 6, item 1) to the conveyor (Figure 6, item 2) using four M10-1.5 x 12 mm hex head cap screws (Figure 6, item 3).

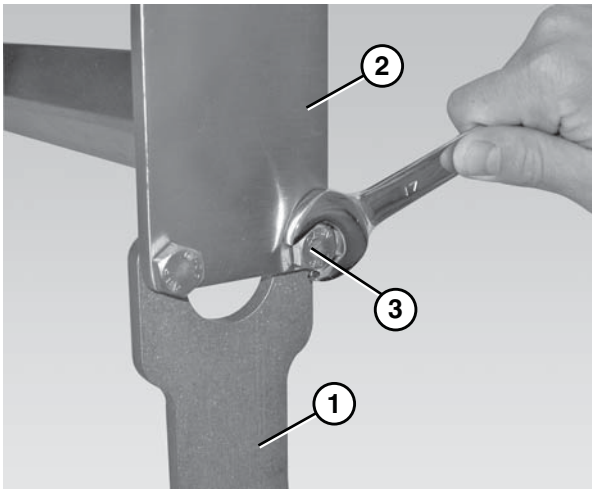


Figure 6

3. Tighten the stand screws (Figure 6, item 3) to 80 in•lb (9 N•m).

⚠ WARNING

CRUSH HAZARD!

- **MAKE SURE TO SECURE ALL STAND SCREWS.**
- **Failure to do so may cause conveyor sections to drop down, causing serious injury.**

4. Adjust the stand height. Refer to “Stand Height Adjustment” on page 18.

Drive Package Installation

⚠ 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.

Typical Center Drive Package Components (Figure 7)

1	Cover
2	Cover Bracket
3	Hex Head Cap Screw 5 / 16 - 18 x .50 (x6)
4	Anti-Rotation Plate
5	Hex Head Cap Screw 5 / 16 - 18 x 1.12 (x3)
6	Bent Bar
7	Gearmotor Assembly

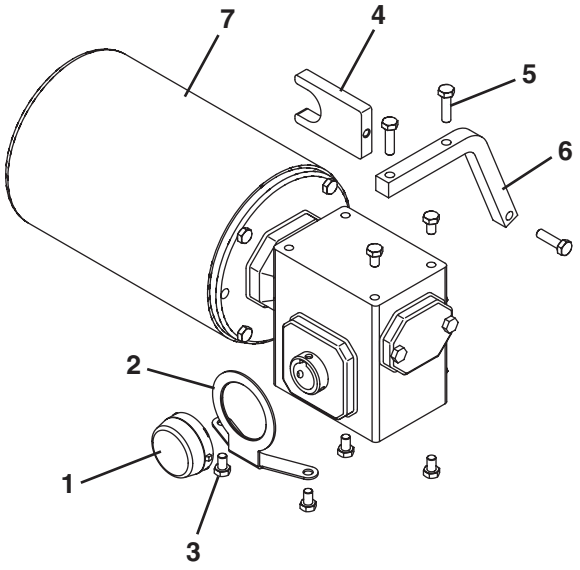


Figure 7

1. Attach the bent bar (Figure 8, item 1) to the gear reducer (Figure 8, item 2).

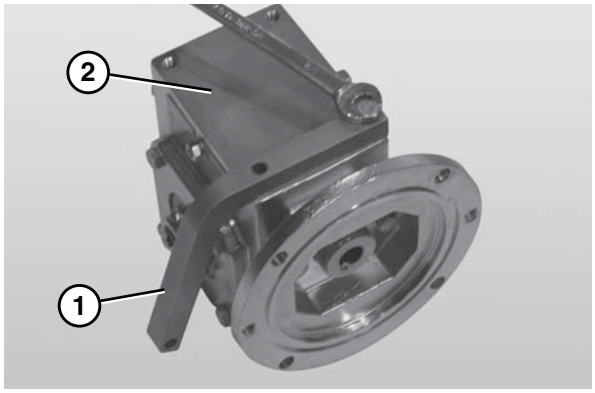


Figure 8

2. Attach the anti-rotation plate (Figure 9, item 1) to the bent bar (Figure 9, item 2).

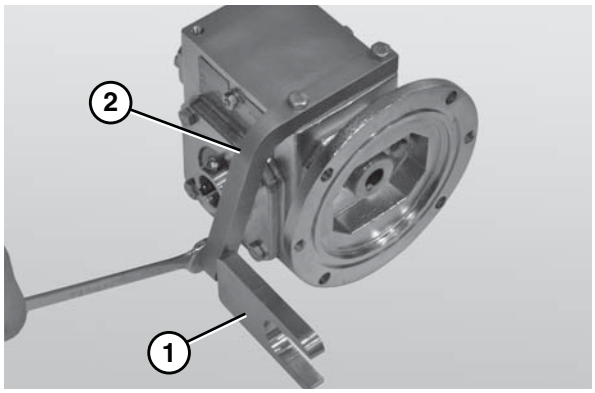


Figure 9

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

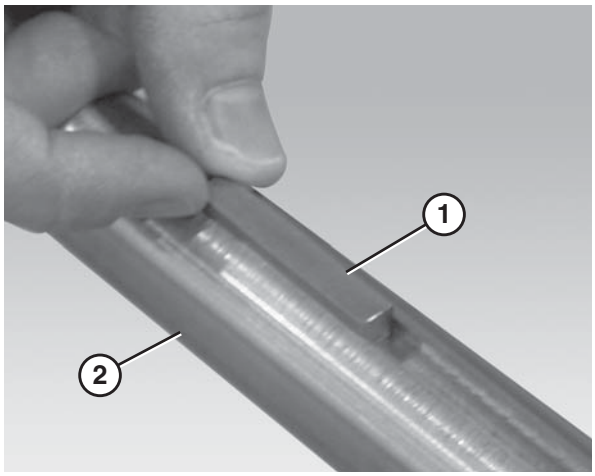


Figure 10

4. Slide the gear reducer onto the drive spindle. Make sure the anti-rotation plate (Figure 11, item 1) is around the anti-rotation cylinder (Figure 11, item 2).

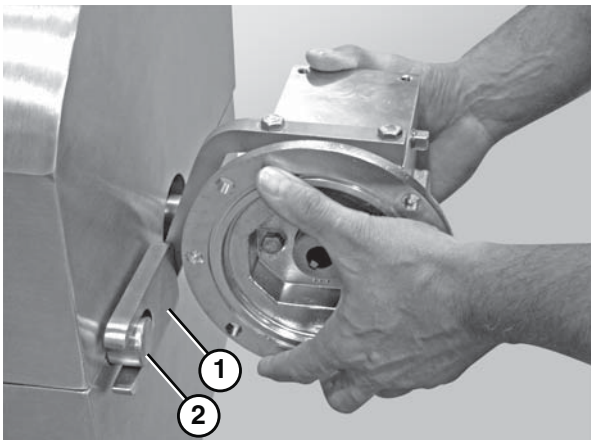


Figure 11

CAUTION

Ensure the gearmotor output shaft key (Figure 12, item 1) is situated properly before attaching the motor to the gear reducer.

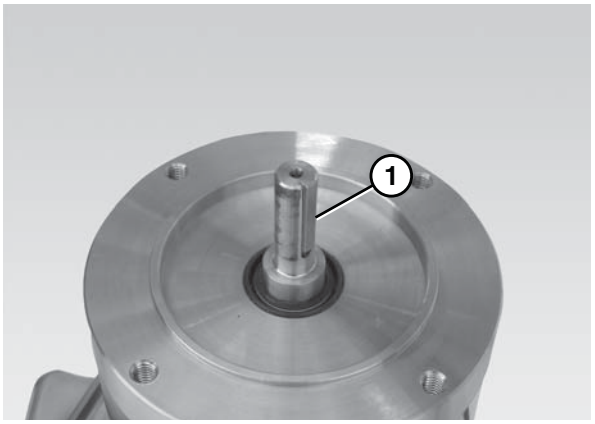


Figure 12

5. Use a 4 mm hex wrench to tighten the outside button head screws (Figure 13, item 1) and the inside button head screws (Figure 13, item 2) that connect the gear reducer to the drive spindle.

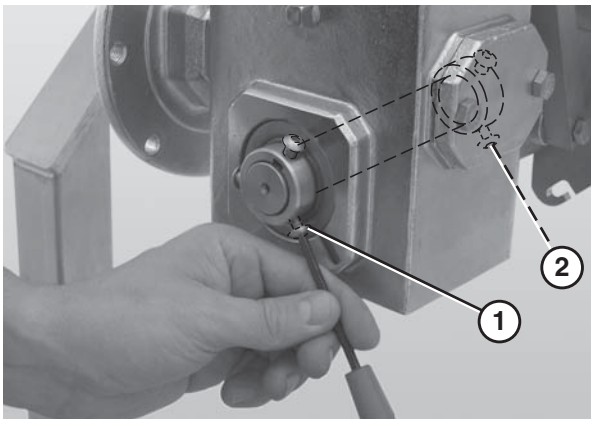


Figure 13

6. Attach the motor (Figure 14, item 1) to the gear reducer (Figure 14, item 2).

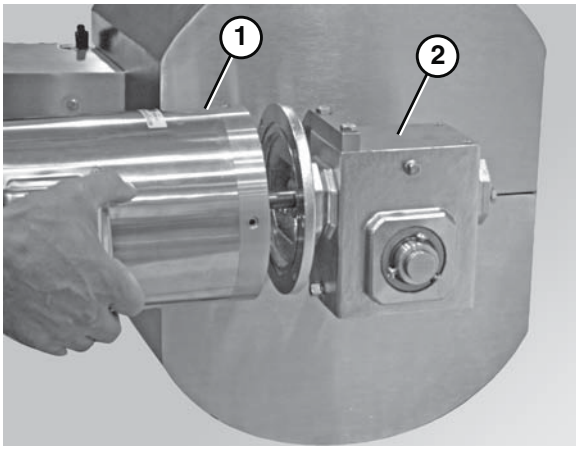


Figure 14

7. Attach the drive spindle cover (Figure 15, item 1).

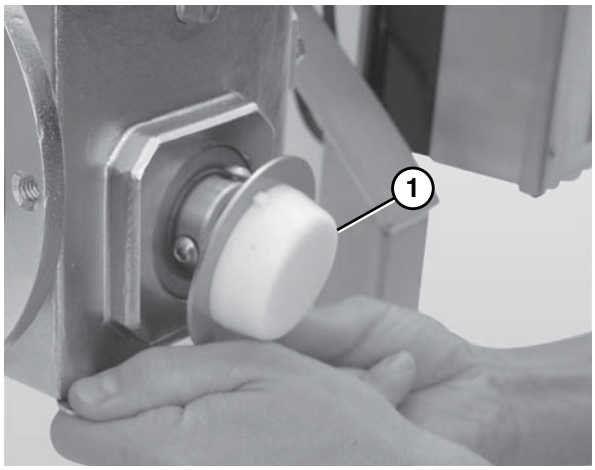


Figure 15

8. Remove the drainage plugs (Figure 16, item 1) on the bottom side of the motor.

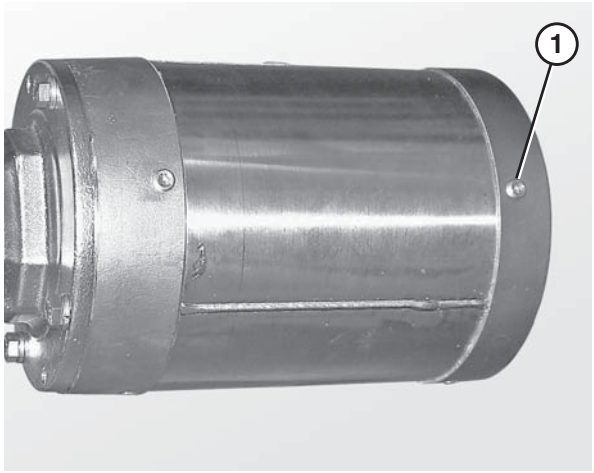


Figure 16

Required Tools

- 14 mm wrench (or adjustable wrench)
- 11 mm wrench
- 17 mm wrench
- 4 mm or 5/32 in. hex wrench (for bearing shaft assembly fasteners)
- 3/16 in. hex wrench
- 3 mm hex wrench

Checklist

- Keep service parts on hand. Refer to the "Service Parts" section starting on page 30 for recommendations.
- Replace any worn or damaged parts.

Cleaning

Routine Cleaning

⚠ WARNING

SEVERE HAZARD!

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

Dorner recommends cleaning the inside and the outside of the conveyor on a daily basis. Refer to the following steps to access the inside of the conveyor.

1. Loosen the tension on the belt by releasing the belt tension adjuster bars (Figure 17, item 1) on each end of the front and back of the conveyor.

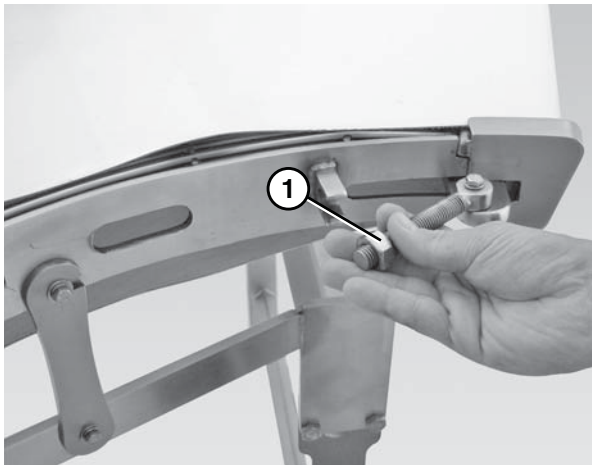


Figure 17

2. Slide the nose bar assembly out of the conveyor. Refer to (Figure 18).

Figure 18

3. Lift up the belt (Figure 19, item 1)

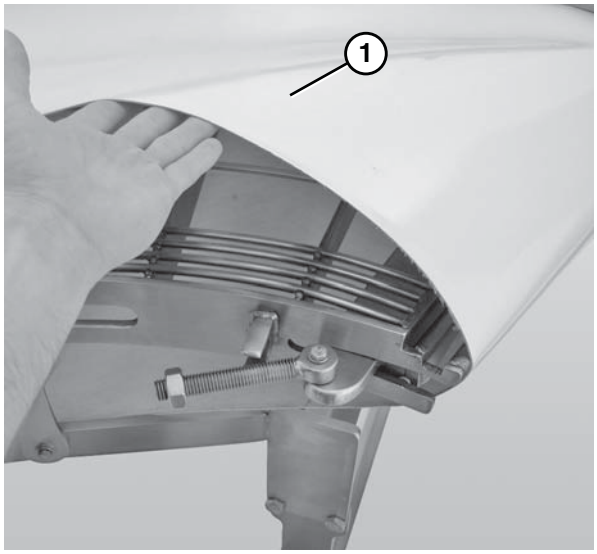


Figure 19

Preventive Maintenance and Adjustment

Periodic Cleaning

Dorner recommends complete disassembly of the conveyor periodically for thorough cleaning.

For conveyor disassembly and reassembly instructions:

- Refer to “Conveyor Belt Replacement” on page 13.
- Refer to” Conveyor Belt Tensioning” on page 15.

Lubrication

Conveyor Bearings

Conveyor bearing lubrication is required. Dorner recommends using an H-1 food grade grease.

NOTE

Although bearings are sealed, re-greasing is recommended to increase bearing life. An H-1 food grade grease is recommended. The frequency of bearing re-greasing is dependent upon the application in which the conveyor is being used. Frequency of re-greasing will increase with the frequency of conveyor washing.

1. Add grease to the bearing using the zerk fitting (Figure 20, item 1) on the exterior of the bearing shaft assembly.

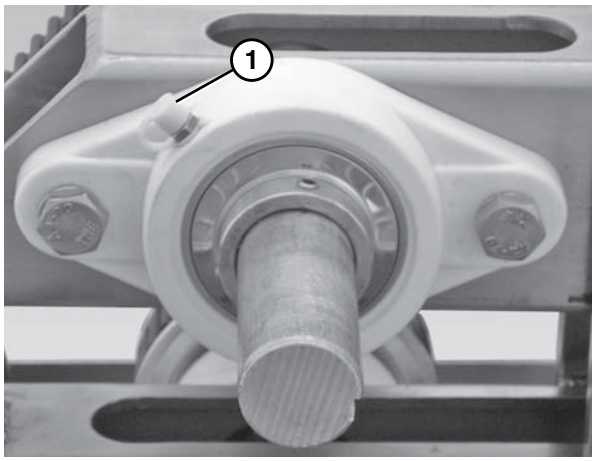


Figure 20

2. Replace the bearings if they become worn. Refer to “Bearing Replacement” on page 28.

Maintaining the Conveyor Belt

Troubleshooting

NOTE

Visit www.dorner.com for complete list of troubleshooting solutions.

Inspect conveyor belt for:

- Surface cuts or wear

Damage to the belt, surface cuts and / or wear indicate:

- Sharp or heavy parts impacting belt
- Jammed parts
- Accumulated dirt
- Foreign material inside the conveyor
- Improperly positioned accessories
- Excessive load on belt
- Dirt impacted on spindle
- Excessive or improper side loading
- Improper tracking

Skipping indicates:

- Excessive load on belt
- Worn spindle or impacted dirt on drive spindle
- Improper tracking

Conveyor Belt Replacement

⚠ WARNING

SEVERE HAZARD!

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

1. Loosen the top (Figure 21, item 1) and bottom (Figure 22, item 1) tension bolts with a wrench.

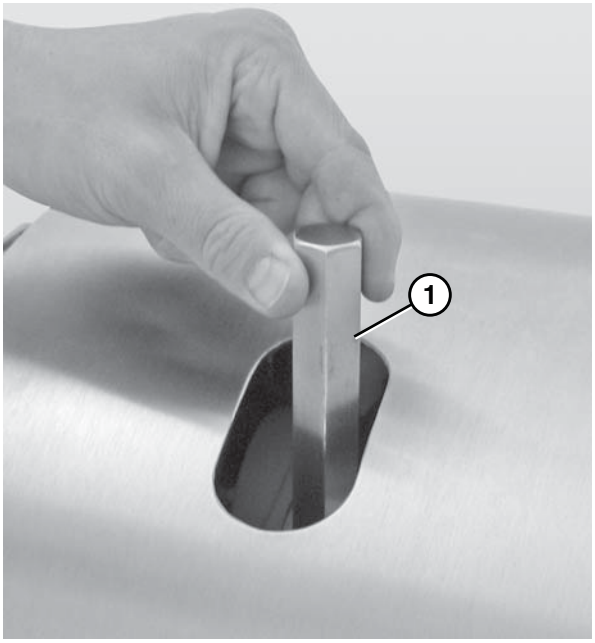


Figure 21

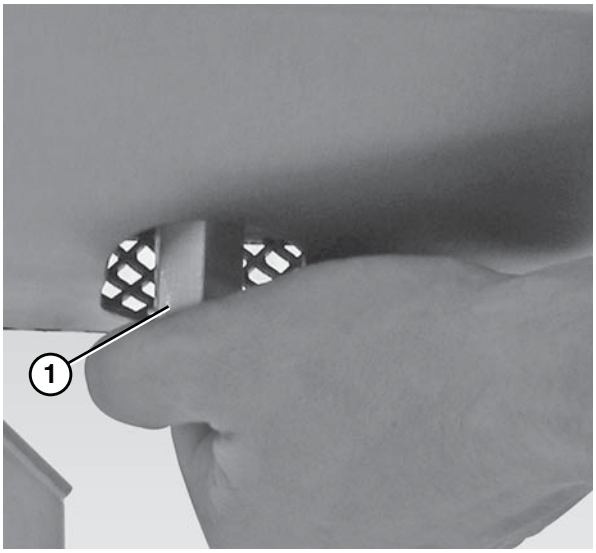


Figure 22

2. Loosen the tension on the belt by releasing the belt tension adjuster bars (Figure 23, item 1) on each end of the front and back of the conveyor.

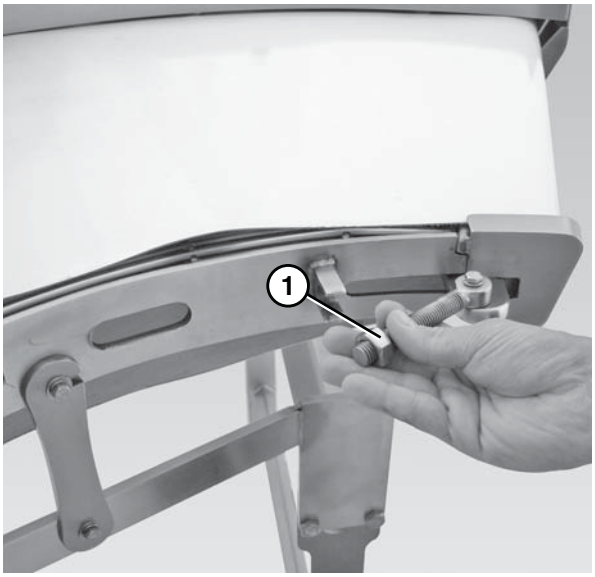


Figure 23

3. Slide the nose bar roller assembly out of the conveyor. Refer to (Figure 24).

Figure 24

4. Loosen all the levers (Figure 25, item 1) that connect the guide (Figure 25, item 2) to the frame.

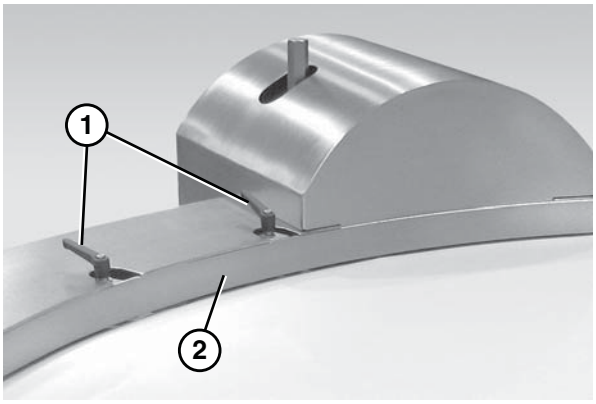


Figure 25

5. Remove the guide (Figure 26, item 1) from the frame (Figure 26, item 2).

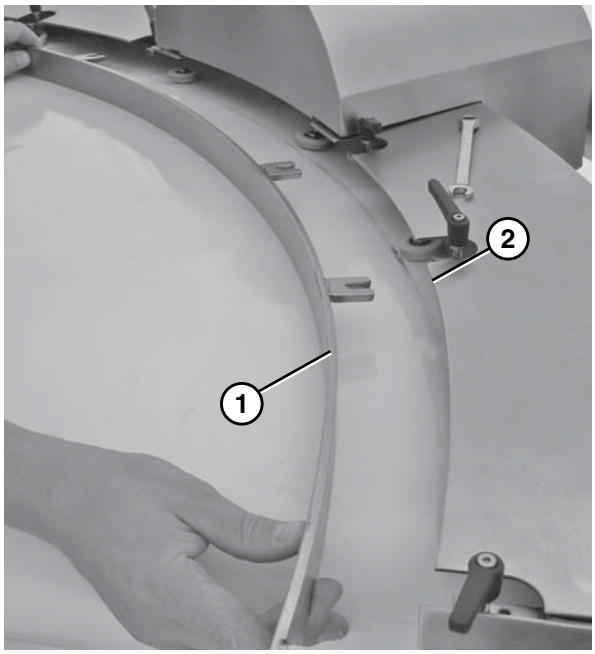


Figure 26

6. Loosen the bracket bolt (Figure 27, item 1).

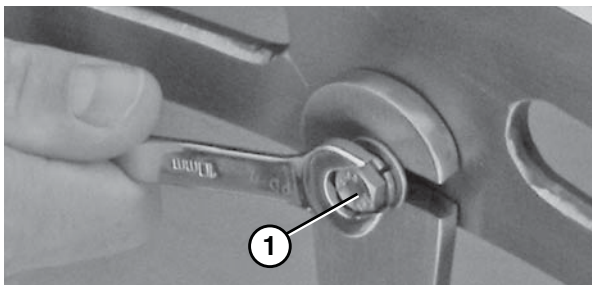


Figure 27

7. Slide the bracket down (Figure 28, item 1).

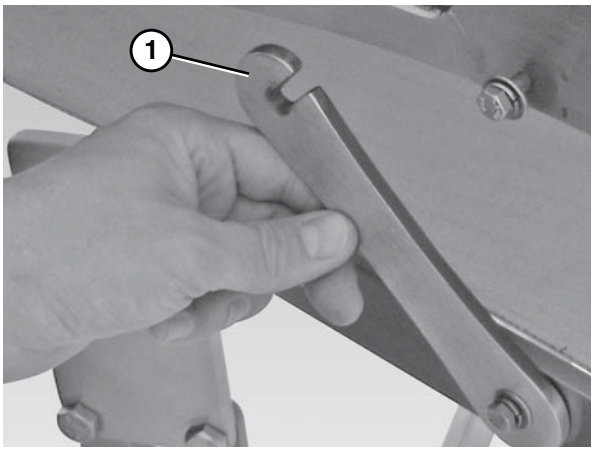


Figure 28

8. Remove all of the levers (Figure 29, item 1) on the bottom of the conveyor frame and remove lower guide (Figure 29, item 2) from the frame.

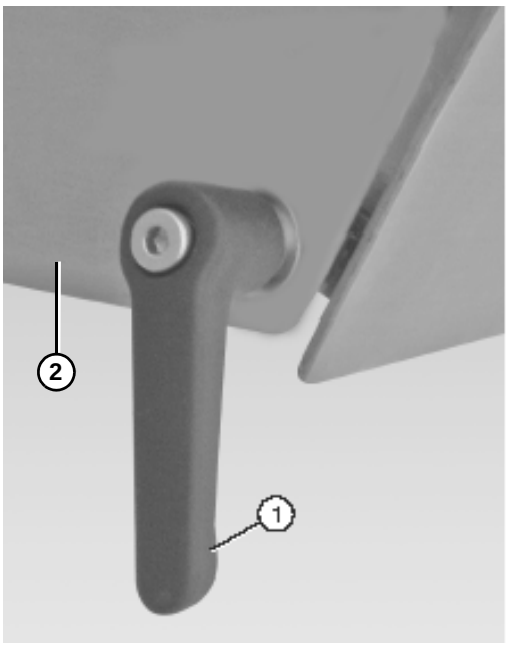


Figure 29

9. Disengage the bottom guide wheels (Figure 30, item 1) from the bottom rail (Figure 30, item 2).

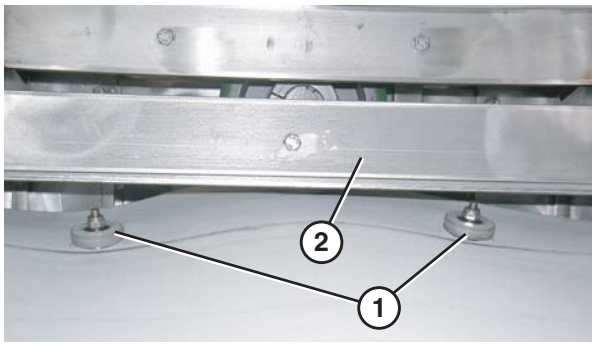


Figure 30

10. Disengage the top guide wheels (Figure 31, item 1) from the top rail (Figure 31, item 2). Remove the belt.

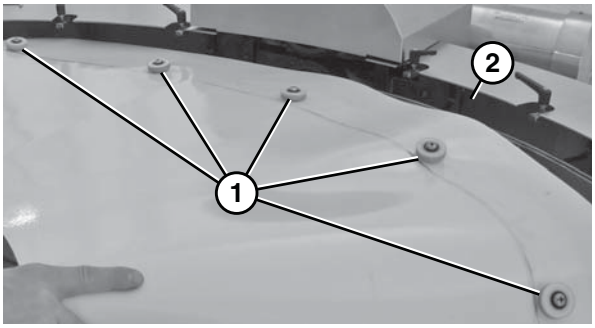


Figure 31

NOTE

To reinstall the conveyor belt, make sure the belt is positioned between the upper pinch roller (Figure 32, item 1), the mid pinch roller (Figure 32, item 2) and the lower pinch roller (Figure 32, item 3).

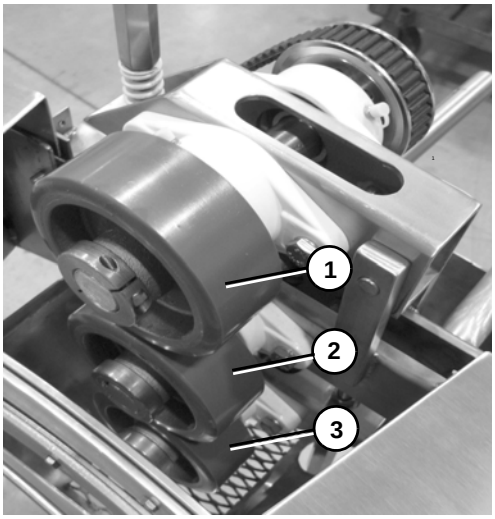


Figure 32

Conveyor Belt Tensioning

⚠ WARNING

SEVERE HAZARD!

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

1. Adjust tension on the belt by tightening or loosening the belt tension adjuster bars (Figure 33, item 1) first on the inner side of the curve, then on the outer side of the curve on both ends of the conveyor.

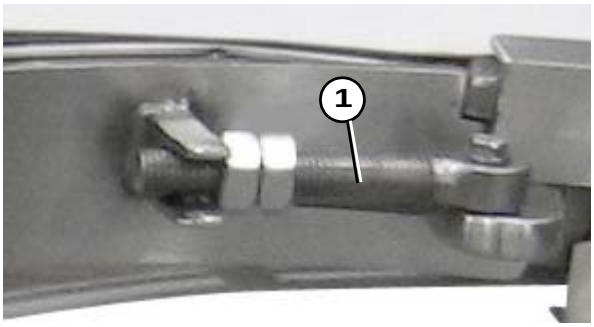


Figure 33

CAUTION

Belt tension is correct when all belt rollers touch the inside of the guide rail except for at the start and finish of the conveyor. The belt rollers (Figure 34, item 1) must have a 1/16” to 1/8” clearance (Figure 34, item 2) from the guide (Figure 34, item 3) at the start and the end of the conveyor.

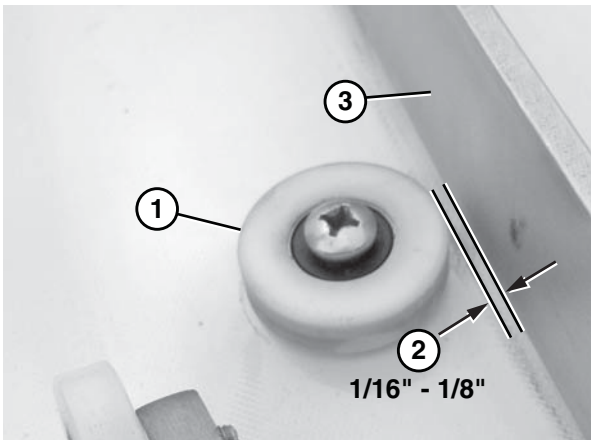


Figure 34

2. Turn the nuts (Figure 35, item 1) clockwise in order increase tension on the belt and counterclockwise to decrease tension on the belt.

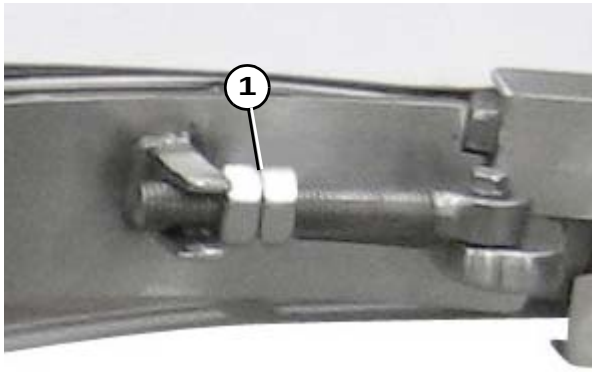


Figure 35

NOTE

Do not over-tighten. Loosen the two belt tension adjuster bars at the rear of the conveyor rather than tighten the two belt tension adjuster bars at the front of the conveyor.

Pinch Roller Tensioning

⚠ WARNING

SEVERE HAZARD!

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

NOTE

Do not over-tighten pinch roller tension. This will cause the belt to walk out of the rollers. Do not tighten more than one turn after the rollers contact the belt.

1. Remove the top drive wheel guard (Figure 36, item 1).

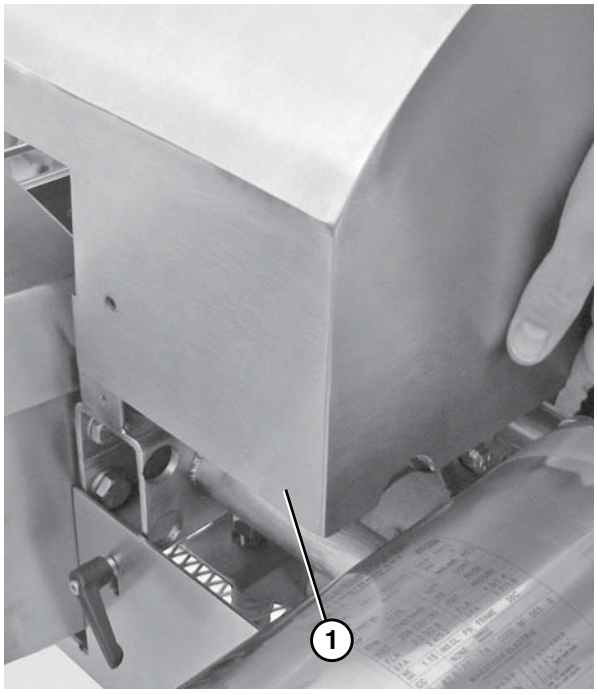


Figure 36

2. Remove the bottom drive wheel guard (Figure 37, item 1).

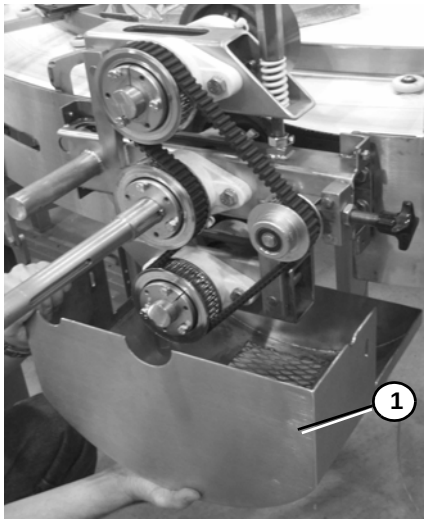


Figure 37

3. Release the tension on the timing belt by loosing the jam nut (Figure 38, item 1) and turning the timing belt tension knob (Figure 38, item 2) to move the small sprocket (Figure 38, item 3) inward.

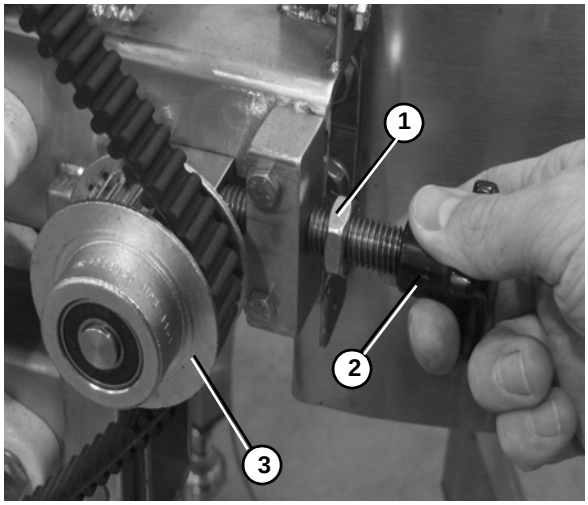


Figure 38

4. Loosen the set screw on the lower jam nut (Figure 39, item 1) on the top tension bolt (Figure 39, item 2).

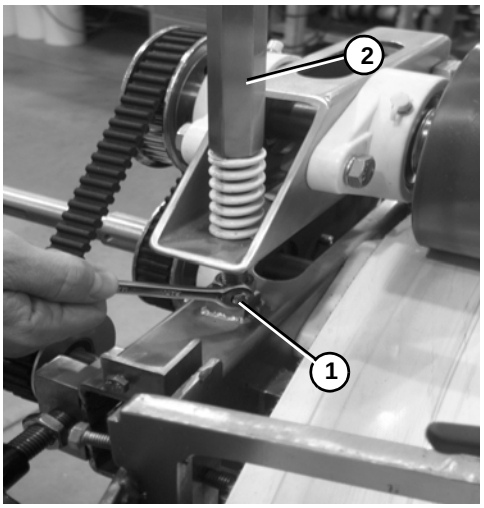


Figure 39

5. Loosen the top tension bolt (Figure 40, item 1) with a wrench until the spring (Figure 40, item 2) is not compressed.

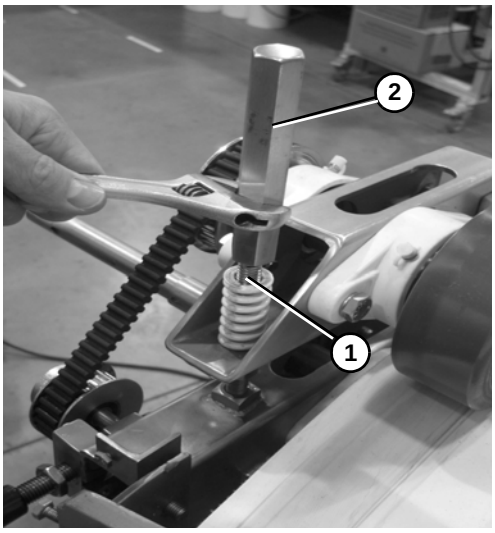


Figure 40

6. Tighten the top tension bolt until the pinch roller contacts the belt (Figure 41, item 1) and tension bolt contacts the spring (Figure 41, item 2).

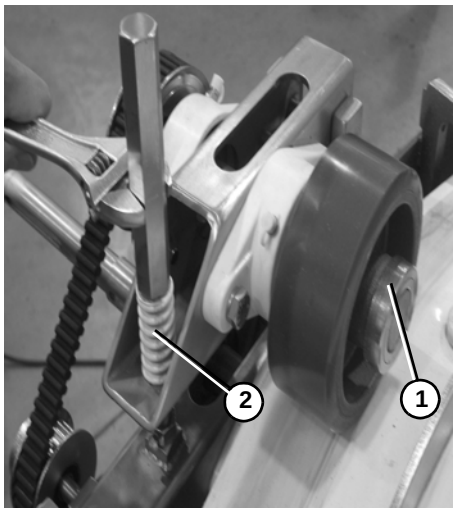


Figure 41

7. Tighten the tension belt one additional turn.
8. Thread lower jam nut (Figure 42, item 1) down to the pinch roller support channel (Figure 42, item 2). Tighten the set screw (Figure 42, item 3).

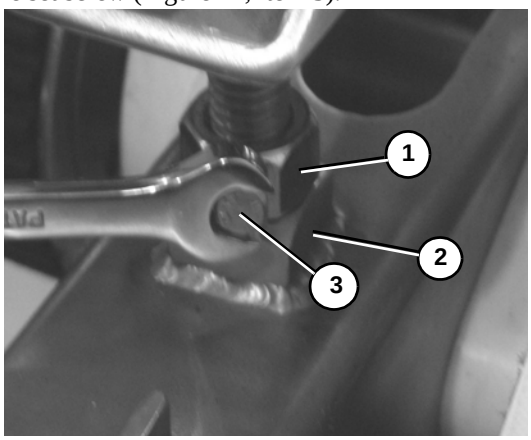


Figure 42

9. Repeat steps 5 - 9 for bottom tension bolt.
10. Tighten the timing belt tension and jam nut (Figure 43, item 1).

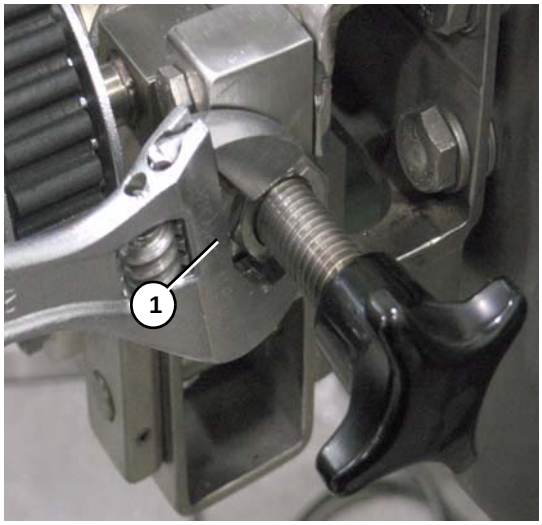


Figure 43

Standard Height Adjustment

Required Tools

- 30 mm wrench
- 0 – 1-1/4” span adjustable wrench
- Level

⚠ WARNING

SEVERE HAZARD!

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

1. Loosen the nut (Figure 44, item 1) on the foot stem (Figure 44, item 2).

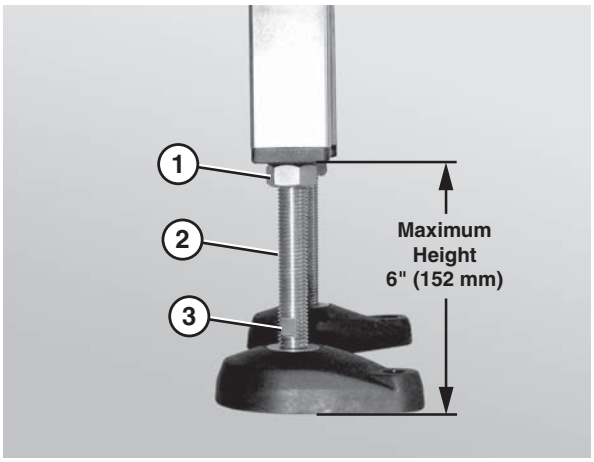


Figure 44

⚠ WARNING

SEVERE HAZARD!

- **DO NOT EXCEED THE MAXIMUM HEIGHT OF 6" (152 mm) from the floor to the bottom of the stand.**
- **Exceeding the maximum height will allow parts to separate and may cause serious injury.**

2. Rotate the foot stem using an adjustable wrench on the foot stem flats (Figure 44, item 3) to raise or lower the stand to the desired height.
3. Repeat steps 1 and 2 on the opposite stand leg.
4. Use a level to verify that both stand legs are the same height.
5. Tighten the nut (Figure 44, item 1) on the foot stem (Figure 44, item 2) to secure each foot assembly.

Gear Reducer Replacement

⚠ WARNING

SEVERE HAZARD!

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

⚠ WARNING

SEVERE 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

CRUSH HAZARD!

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

1. Remove the bolts (Figure 45, item 1) that connect the motor (Figure 45, item 2) to the gear reducer (Figure 45, item 3).

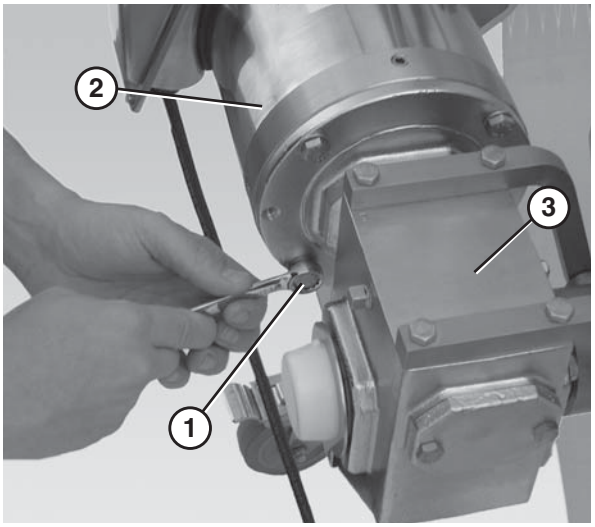


Figure 45

2. Disconnect the motor (Figure 46, item 1) from the gear reducer (Figure 46, item 2) and set the motor aside.

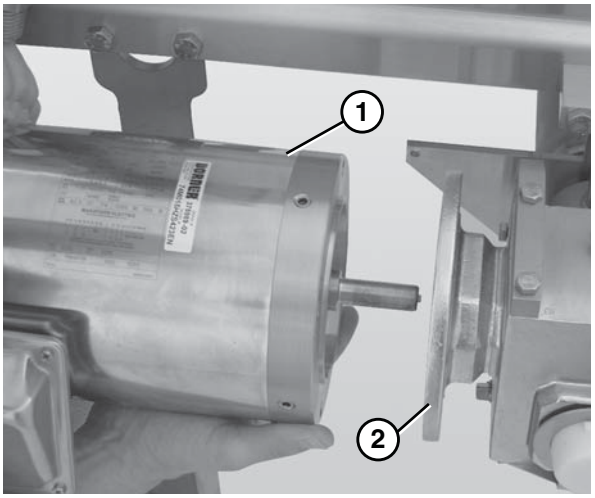


Figure 46

NOTE

Be sure to retain the motor output shaft key.

3. Remove the bearing cover (Figure 47, item 1).

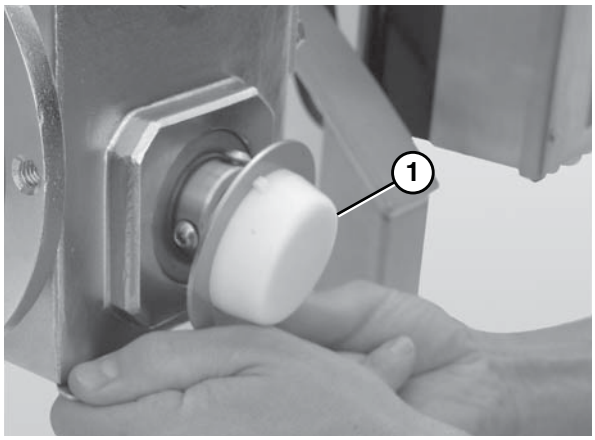


Figure 47

4. Loosen the drive spindle fasteners (Figure 48, item 1) located on the inside and outside of the gearmotor assembly using a 4 mm hex wrench (Figure 48, item 2).

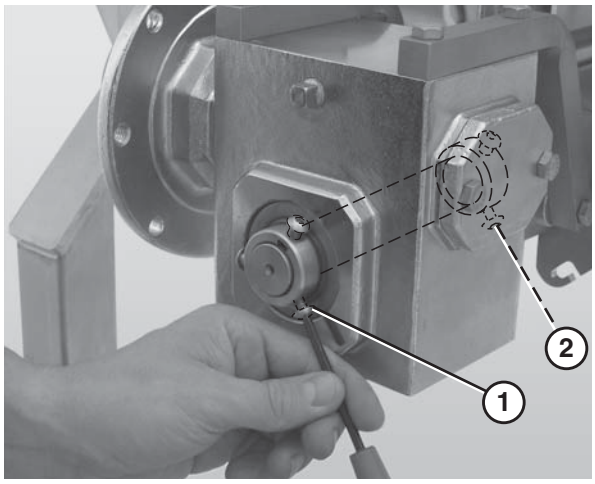


Figure 48

⚠ WARNING

PUNCTURE HAZARD!

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

5. Slide the gearmotor assembly (Figure 49, item 1) off the drive spindle (Figure 49, item 2).

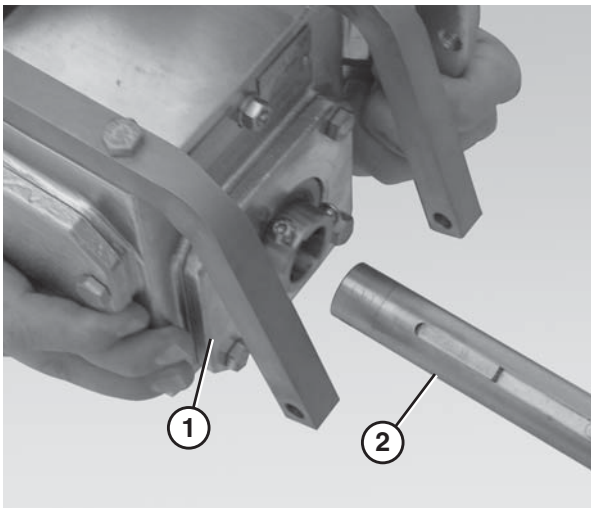


Figure 49

NOTE

Be sure to retain the drive spindle key.

6. Replace the gear reducer. Refer to “Drive Package Installation” on page 8.

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 the screws and remove the cover (Figure 50, item 1) from the junction box located on the side of the motor (Figure 50, item 2).

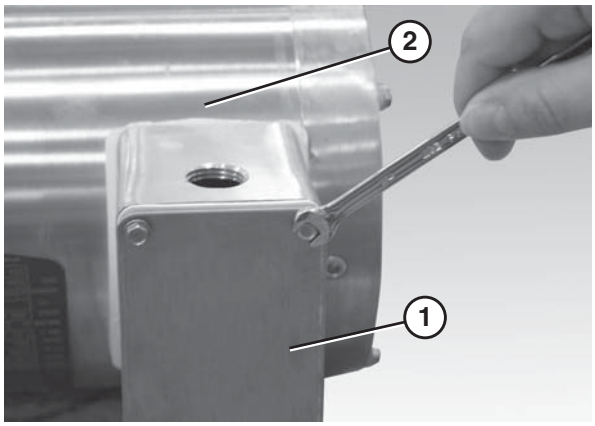


Figure 50

2. Refer to the wiring diagram (Figure 51, item 1) on the inside of the junction box cover.

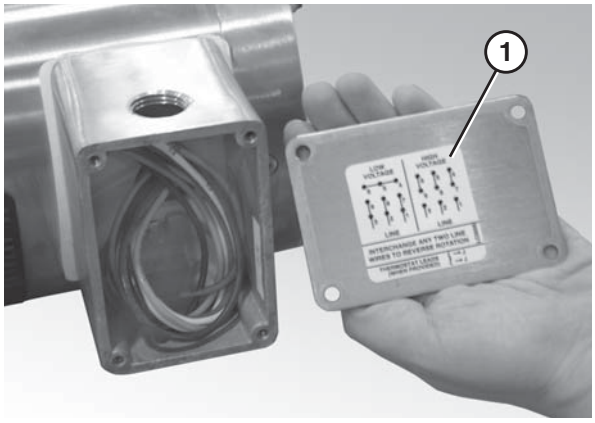


Figure 51

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 the bolts (Figure 52, item 1) that connect the motor (Figure 52, item 2) to the gear reducer (Figure 52, item 3) (horizontal drive shown in figures).

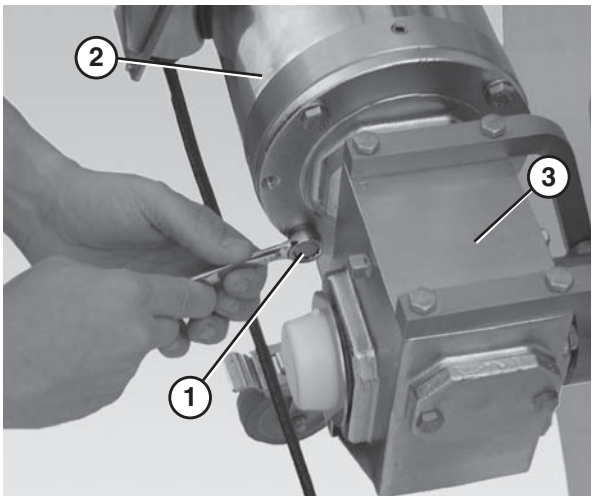


Figure 52

6. Detach the motor (Figure 53, item 1) from the gear reducer (Figure 53, item 2).

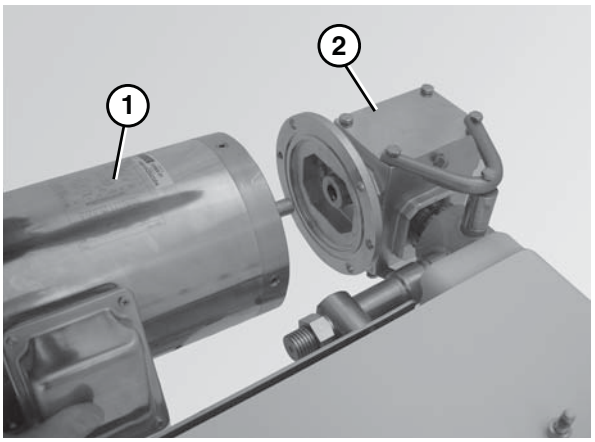


Figure 53

NOTE

Be sure to retain the motor output shaft key.

7. Insert the motor output shaft key (Figure 54, item 1) into the motor output shaft keyway (Figure 54, item 2).

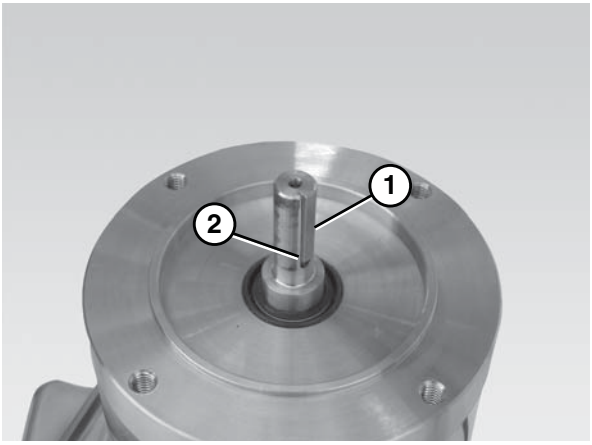


Figure 54

8. Align the motor output shaft key with the access hole in the gear reducer and connect the new motor to the gear reducer.

CAUTION

Ensure the gearmotor output shaft key (Figure 54, item 1) is situated properly before attaching the motor to the gear reducer.

9. Rewire the motor and attach the junction box cover.

Nose Bar Rollers

⚠ WARNING

SEVERE HAZARD!

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

1. Loosen the conveyor belt to access the spindles. Refer to “Routine Cleaning” on page 11.
2. Slide the nose bar roller assembly out of the conveyor. Refer to (Figure 55).

Figure 55

3. Use a 4 mm hex wrench (Figure 56, item 1) to remove the screw (Figure 56, item 2) holding the clip (Figure 56, item 3) to the roller bracket (Figure 56, item 4).

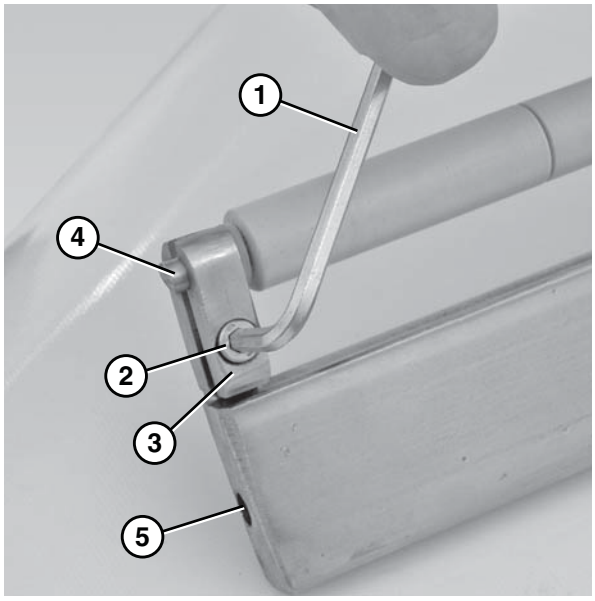


Figure 56

NOTE

The hole in the side of the inside bracket (Figure 56, item 5) must be lined up with the support rod (Figure 57, item 1) when the spindle is replaced in the conveyor.

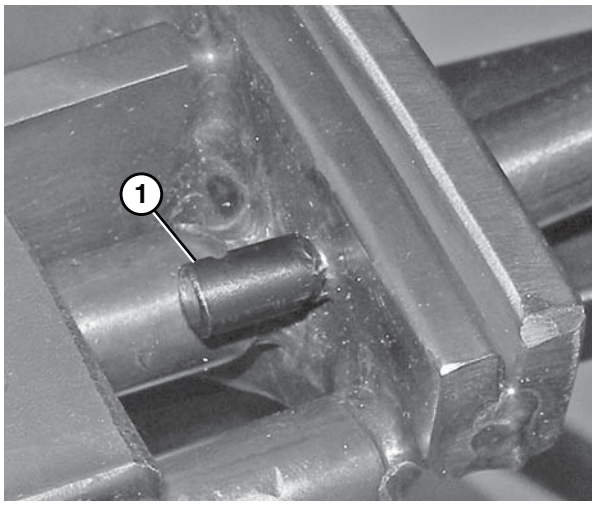


Figure 57

4. Remove the clip (Figure 58, item 1). Remove the gaskets (Figure 58, item 2) and nose bar rollers (Figure 58, item 3).

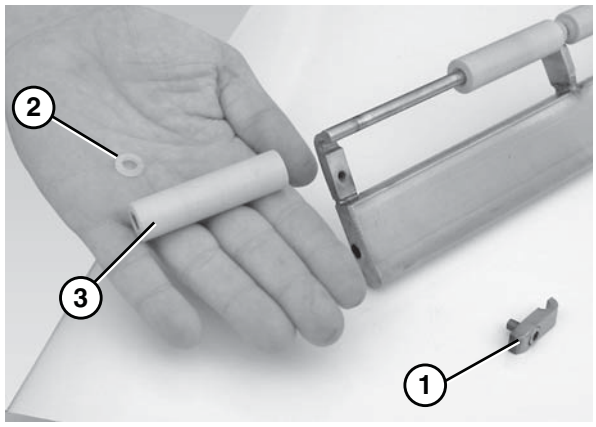


Figure 58

NOTE

Gaskets are located at the beginning and the end of the spindles and on either side of each bracket. Refer to (Figure 59).

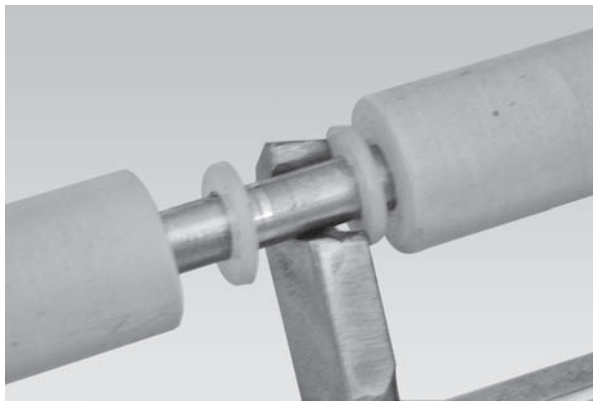


Figure 59

Return Rollers

1. Loosen the conveyor belt to access the spindles. Refer to “Routine Cleaning” on page 11.
2. Remove the nose bar roller assembly. Refer to “Nose Bar Rollers” on page 22.
3. Use a 4 mm hex wrench to loosen the outside button head screws (Figure 60, item 1) that connect the spindle bracket (Figure 60, item 2) to the conveyor (Figure 60, item 3).

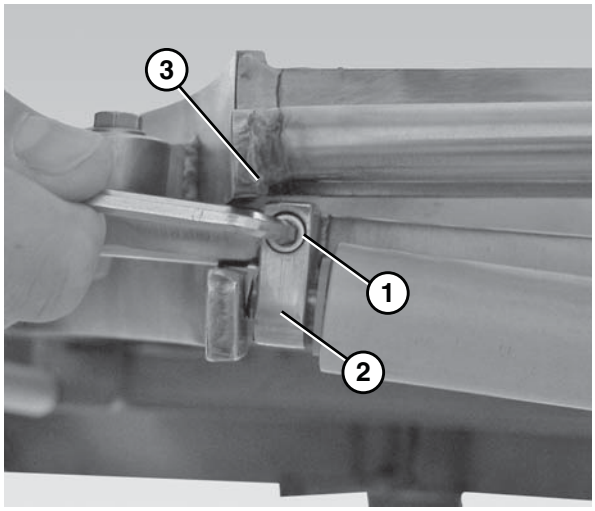


Figure 60

4. Remove the spindle bracket (Figure 61, item 1) and remove the return roller (Figure 61, item 2).

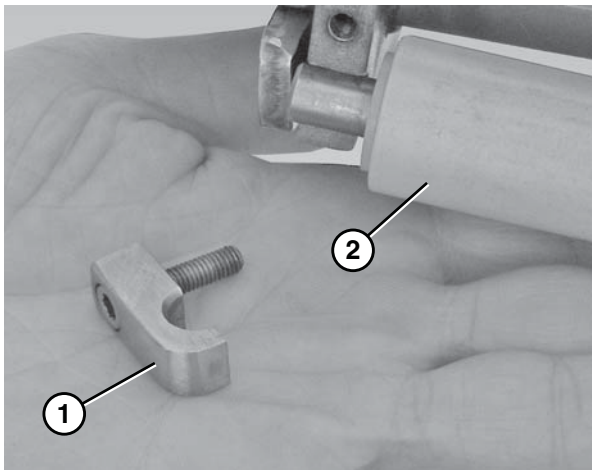


Figure 61

5. Remove the gaskets (Figure 62, item 1) and return rollers (Figure 62, item 2).

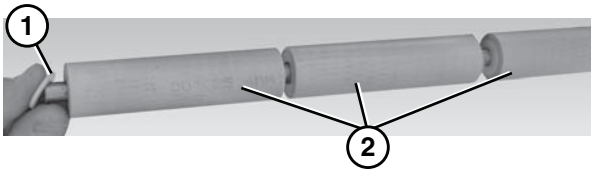


Figure 62

NOTE

Gaskets are located at the beginning and the end of the spindles and on either side of each bracket. Refer to (Figure 63).

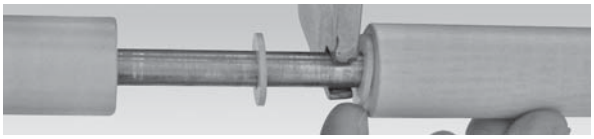


Figure 63

Drive Wheels

1. Loosen tension on the belt. Refer to “Routine Cleaning” on page 11.
2. Loosen all of the levers (Figure 64, item 1) that connect the guide (Figure 64, item 2) to the frame.

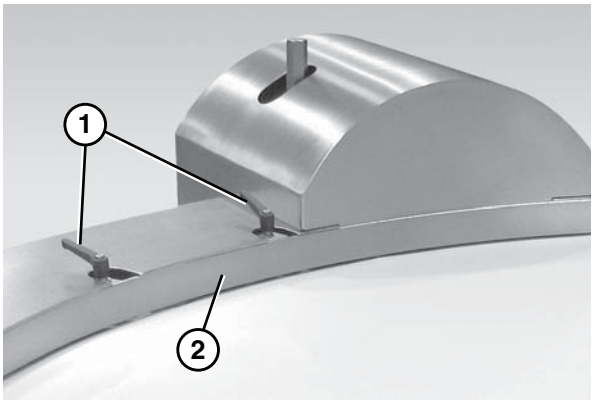


Figure 64

3. Remove the guide (Figure 65, item 1) from the frame (Figure 65, item 2).

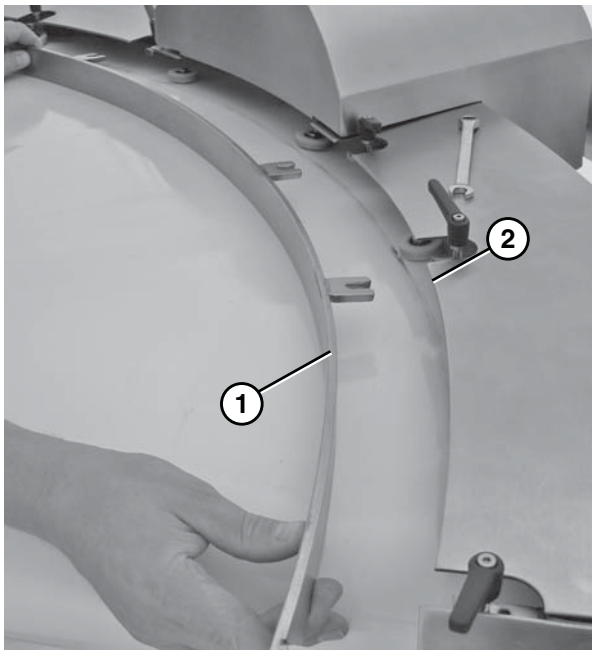


Figure 65

4. Remove the lower drive wheel guard (Figure 66, item 1).

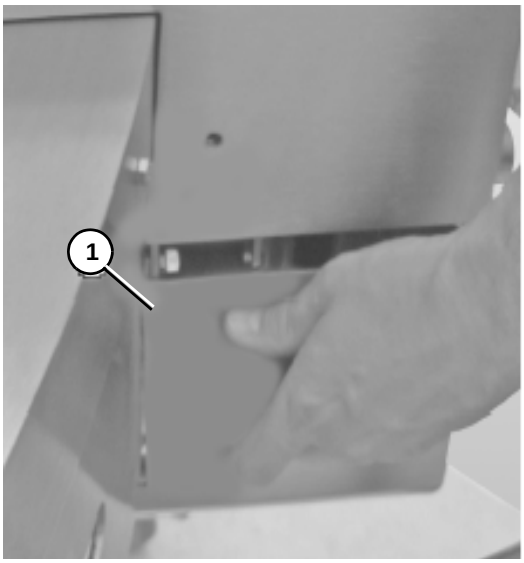


Figure 66

5. Remove the upper drive wheel guard (Figure 67, item 1).

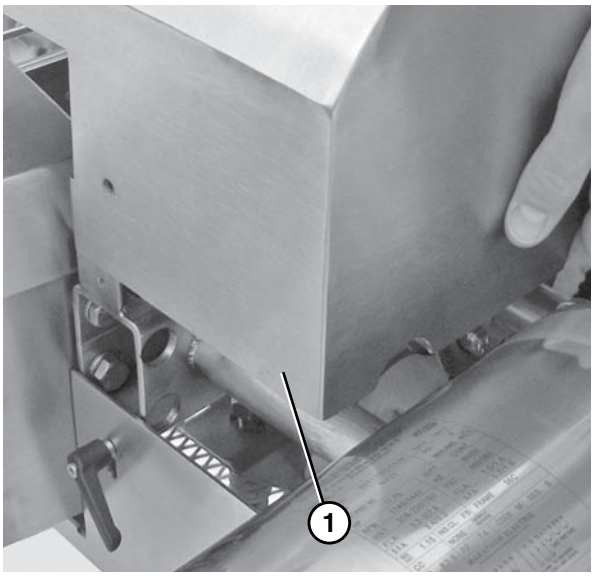


Figure 67

6. Use a 3/16” hex wrench (Figure 68, item 1) to loosen the end ring (Figure 68, item 2).

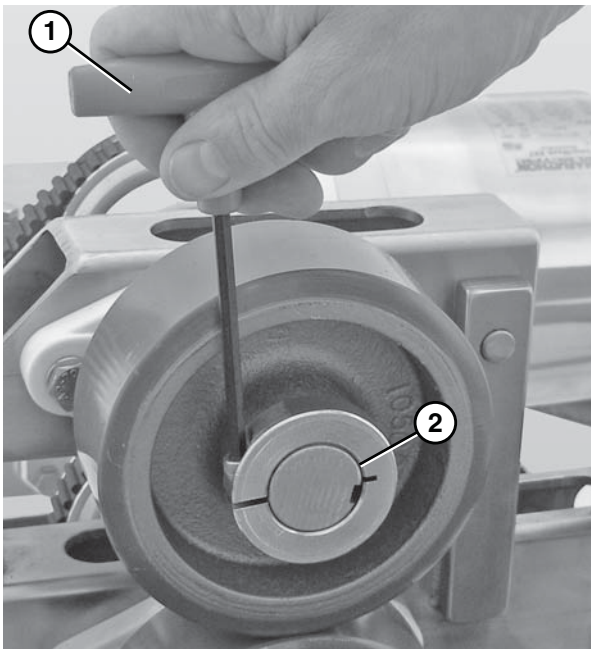


Figure 68

7. Remove the end ring (Figure 69, item 1).

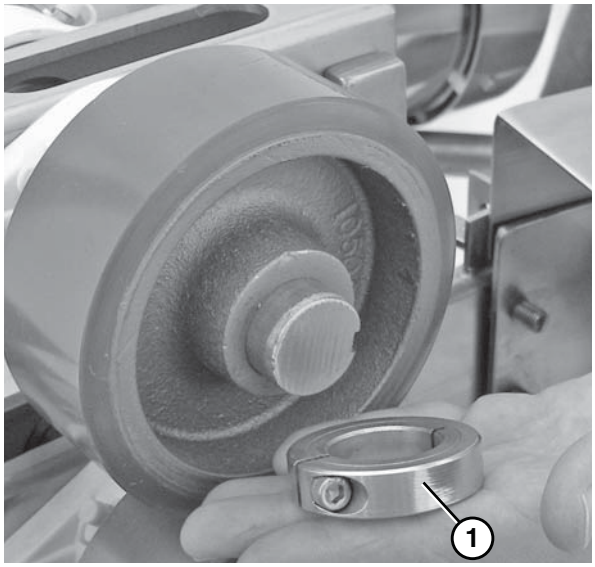


Figure 69

8. Slide the drive wheel (Figure 70, item 1) off the shaft (Figure 70, item 2).

CAUTION

Be careful not to lose the key (Figure 70, item 3). Set the key aside for reassembly.

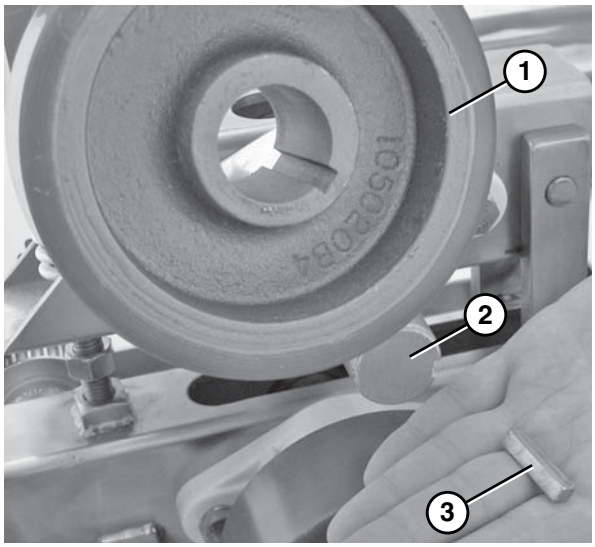


Figure 70

Timing Belt

1. Loosen the tension on the conveyor belt. Refer to “Routine Cleaning” on page 11.
2. Remove the top drive wheel guard (Figure 71, item 1).

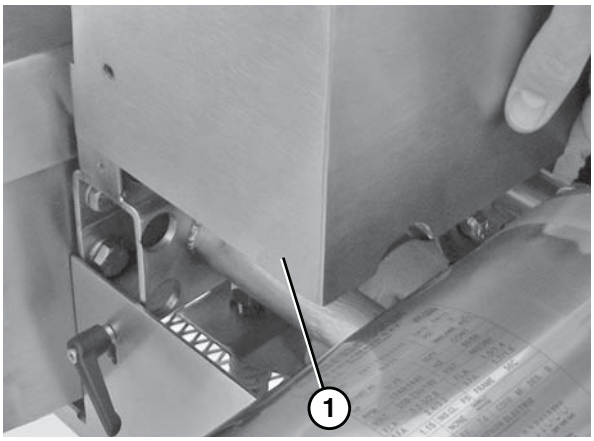


Figure 71

3. Move the small sprocket (Figure 72, item 1) inward to loosen the tension on the timing belt (Figure 72, item 2) by turning the tension knob (Figure 72, item 3).

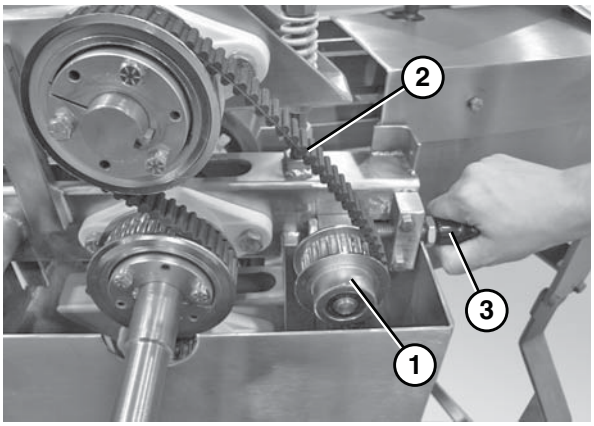


Figure 72

4. Remove the timing belt (Figure 73, item 1).

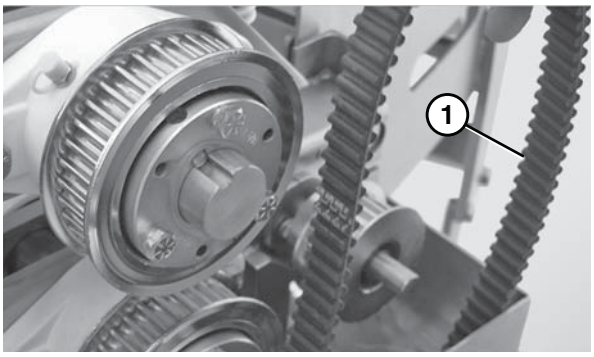


Figure 73

Sprockets

Remove the sprocket to gain access to the bearings on the motor side of the conveyor:

1. Loosen the tension on the conveyor belt. Refer to “Routine Cleaning” on page 11.
2. Remove the lower drive wheel guard (Figure 74, item 1).

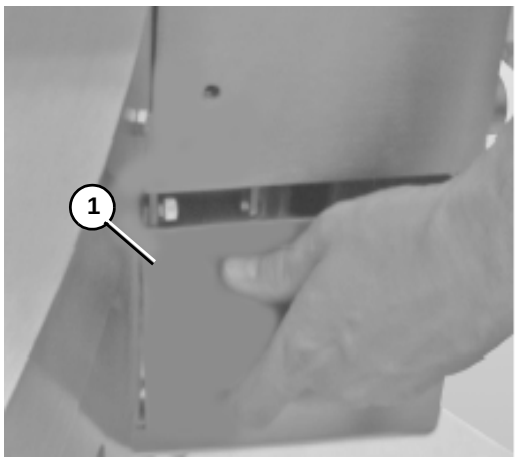


Figure 74

3. Remove the upper drive wheel guard (Figure 75, item 1).

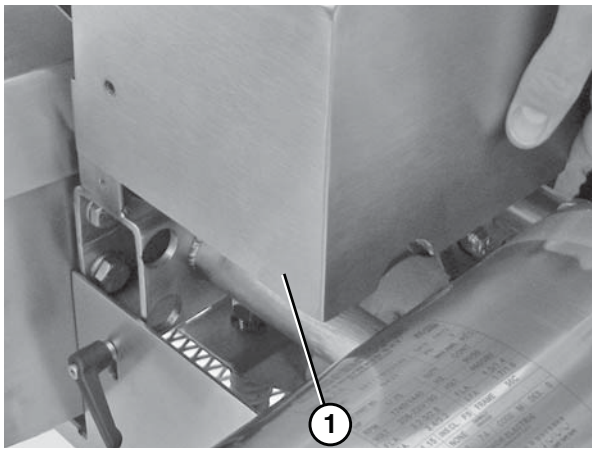


Figure 75

4. Remove timing belt. Refer to “Timing Belt” on page 26.
5. Loosen the set screw (Figure 76, item 1) with a 3 mm hex wrench (Figure 76, item 2).

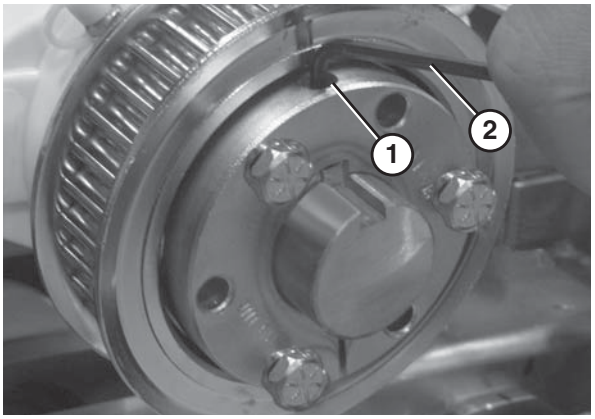


Figure 76

6. Use an 11 mm wrench (Figure 77, item 1) to remove the three hex head bolts (Figure 77, item 2) on the sprocket.

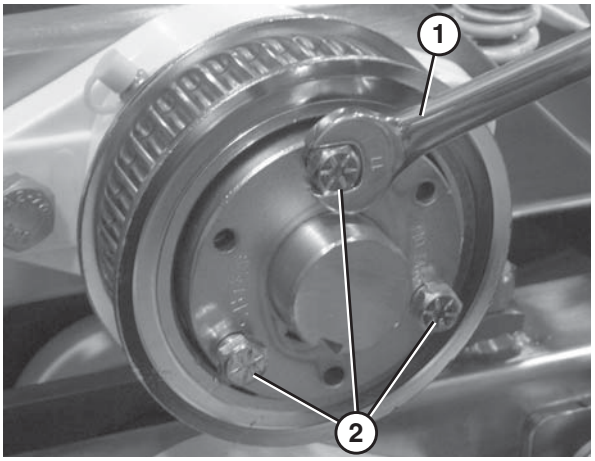


Figure 77

7. Place the three hex head bolts (Figure 78, item 1), removed previously, into the three smaller holes. Tighten the bolts to break the seal.

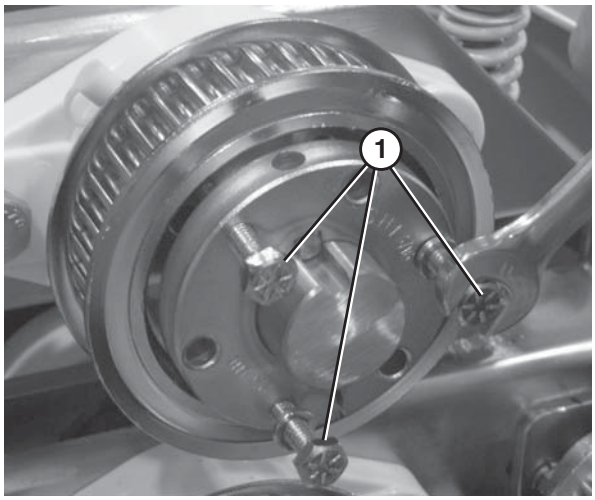


Figure 78

8. Slide the sprocket (Figure 79, item 1) off the shaft (Figure 79, item 2).

CAUTION

Be careful not to lose the key (Figure 79, item 3). Set the key aside for reassembly.

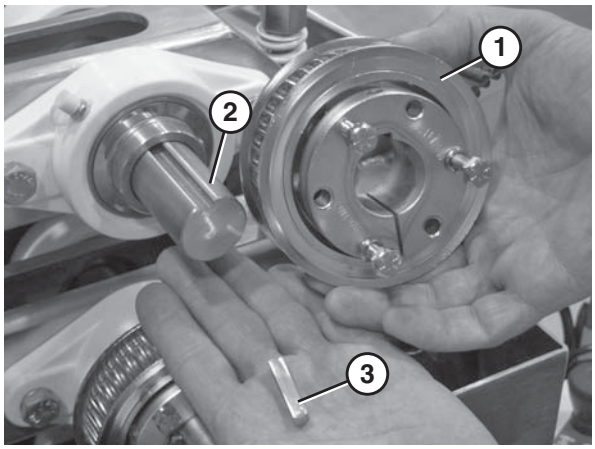


Figure 79

Bearing Replacement

1. Remove the drive wheel (refer to “Drive Wheels” on page 24) or remove the sprocket (refer to “Sprockets” on page 27).

2. Use a 3/16” hex wrench (Figure 80, item 1) to loosen the screw (Figure 80, item 2).

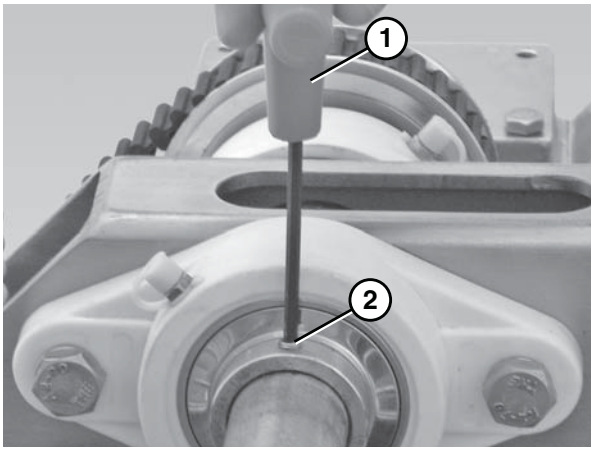


Figure 80

3. Use a 17 mm wrench (Figure 81, item 1) to remove the screws (Figure 81, item 2).

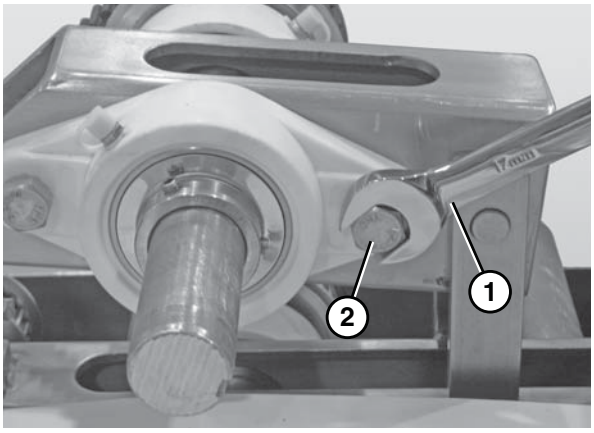


Figure 81

4. Remove the worn or damaged bearing (Figure 82).

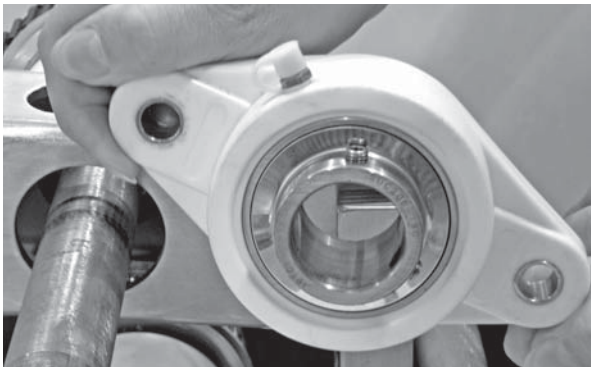


Figure 82

Guide Wheel Assembly

⚠ WARNING

SEVERE HAZARD!

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

1. Remove the conveyor belt. Refer to “Conveyor Belt Replacement” on page 13.
2. Insert a Phillips screwdriver into the screw in the top of the guide wheel assembly (Figure 83, item 1) and hold the screw.

Figure 83

3. Turn the nut (Figure 84, item 1) on the bottom of the guide wheel assembly with a wrench (Figure 84, item 2).

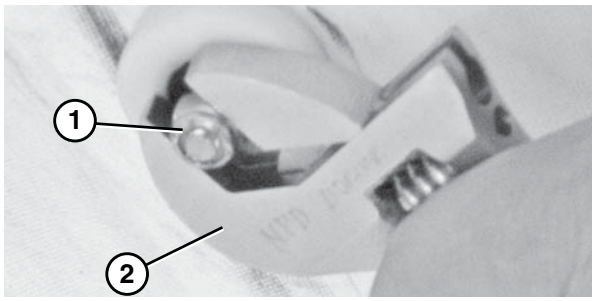


Figure 84

4. Remove the nut (Figure 85, item 1).

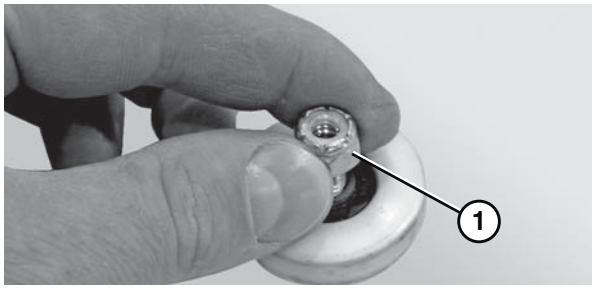


Figure 85

5. Remove the guide wheel (Figure 86, item 1) and both washers (Figure 86, item 2 and 3).

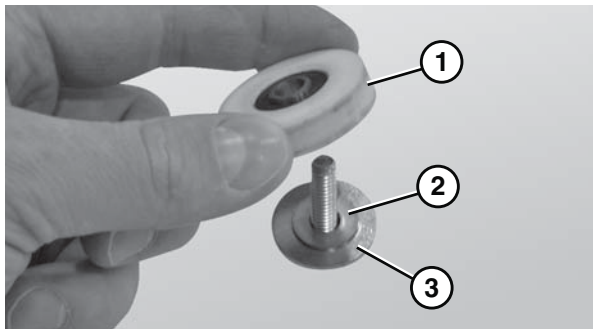


Figure 86

6. Remove the screw (Figure 87, item 1), both washers (Figure 87, item 2 and 3) and the top guide wheel (Figure 87, item 4.)

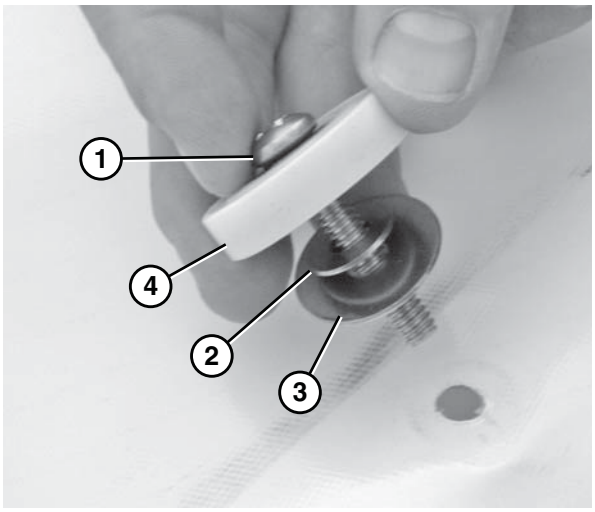


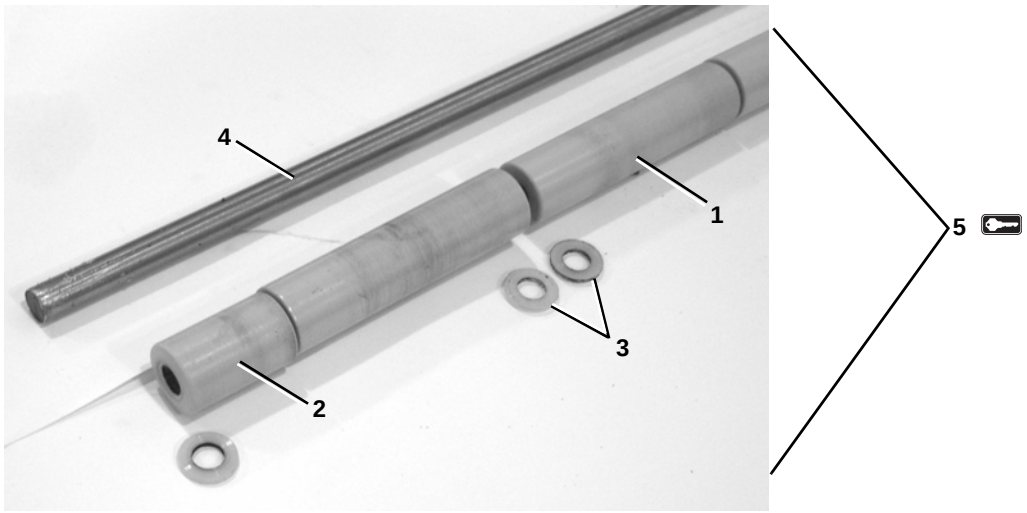
Figure 87

Service Parts

Nose Bar Roller

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.



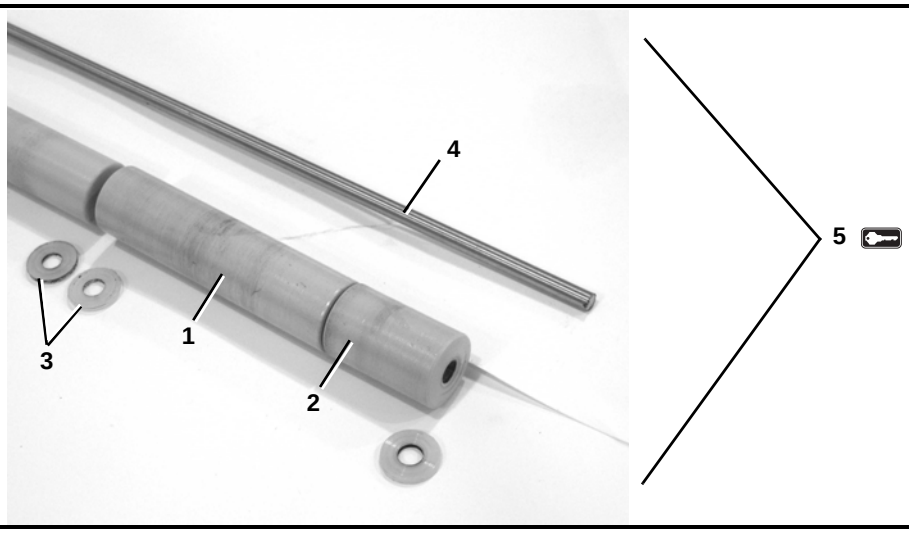
Item	Part Number	Description
1	513612-045	Common Nose Rollers for 12" wide, 45 degree conveyor
	513612-090	Common Nose Rollers for 12" wide, 90 degree conveyor
	513612-180	Common Nose Rollers for 12" wide, 180 degree conveyor
	513618-045	Common Nose Rollers for 18" wide, 45 degree conveyor
	513618-090	Common Nose Rollers for 18" wide, 90 degree conveyor
	513618-180	Common Nose Rollers for 18" wide, 180 degree conveyor
	513624-045	Common Nose Rollers for 24" wide, 45 degree conveyor
	513624-090	Common Nose Rollers for 24" wide, 90 degree conveyor
	513624-180	Common Nose Rollers for 24" wide, 180 degree conveyor
	513636-045	Common Nose Rollers for 36" wide, 45 degree conveyor
	513636-090	Common Nose Rollers for 36" wide, 90 degree conveyor
	513636-180	Common Nose Rollers for 36" wide, 180 degree conveyor

Item	Part Number	Description
2	513712-045	Nose Roller for 12" wide, 45 degree conveyor
	513712-090	Nose Roller for 12" wide, 90 degree conveyor
	513712-180	Nose Roller for 12" wide, 180 degree conveyor
	513718-045	Nose Roller for 18" wide, 45 degree conveyor
	513718-090	Nose Roller for 18" wide, 90 degree conveyor
	513718-180	Nose Roller for 18" wide, 180 degree conveyor
	513724-045	Nose Roller for 24" wide, 45 degree conveyor
	513724-090	Nose Roller for 24" wide, 90 degree conveyor
	513724-180	Nose Roller for 24" wide, 180 degree conveyor
	513736-045	Nose Roller for 36" wide, 45 degree conveyor
	513736-090	Nose Roller for 36" wide, 90 degree conveyor
	513736-180	Nose Roller for 36" wide, 180 degree conveyor

Item	Part Number	Description
3	807-1577	Washer
4	807-1579	Shaft for 12” wide conveyors
	807-1580	Shaft for 18” wide conveyors
	807-1581	Shaft for 24” wide conveyors
	807-1582	Shaft for 36” wide conveyors
5	76CNR45-WW	45 Degree Nose Bar Roller Kit (Includes Items 1 through 4)
	76CNR90-WW	90 Degree Nose Bar Roller Kit (Includes Items 1 through 4)
	76CNR180-WW	180 Degree Nose Bar Roller Kit (Includes Items 1 through 4)
WW = Conveyor width ref: 12, 18, 24 or 36		

Service Parts

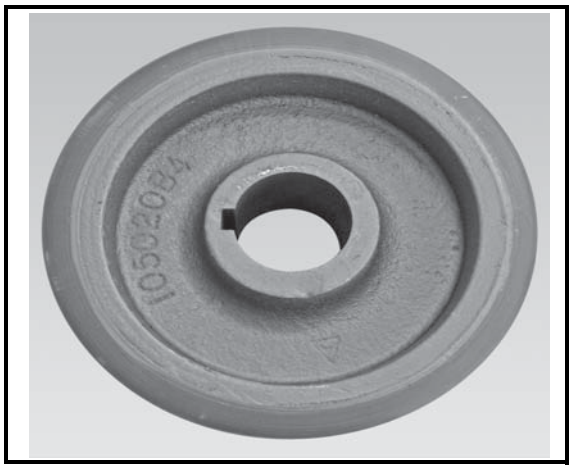
Return Roller



Item	Part Number	Description
1	513812-045	Common Return Side Rollers for 12" wide, 45 degree conveyor
	513812-090	Common Return Side Rollers for 12" wide, 90 degree conveyor
	513812-180	Common Return Side Rollers for 12" wide, 180 degree conveyor
	513818-045	Common Return Side Rollers for 18" wide, 45 degree conveyor
	513818-090	Common Return Side Rollers for 18" wide, 90 degree conveyor
	513818-180	Common Return Side Rollers for 18" wide, 180 degree conveyor
	513824-045	Common Return Side Rollers for 24" wide, 45 degree conveyor
	513824-090	Common Return Side Rollers for 24" wide, 90 degree conveyor
	513824-180	Common Return Side Rollers for 24" wide, 180 degree conveyor
	513836-045	Common Return Side Rollers for 36" wide, 45 degree conveyor
	513836-090	Common Return Side Rollers for 36" wide, 90 degree conveyor
	513836-180	Common Return Side Rollers for 36" wide, 180 degree conveyor

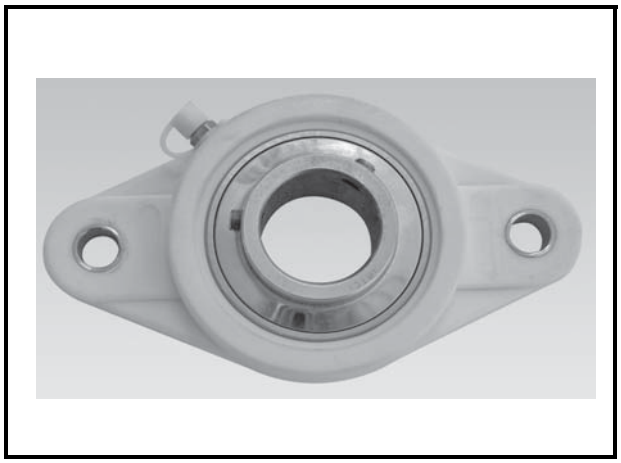
Item	Part Number	Description
2	513912-045	Return Side Roller for 12" wide, 45 degree conveyor
	513912-090	Return Side Roller for 12" wide, 90 degree conveyor
	513912-180	Return Side Roller for 12" wide, 180 degree conveyor
	513918-045	Return Side Roller for 18" wide, 45 degree conveyor
	N/A	Return Side Roller for 18" wide, 90 degree conveyor
	N/A	Return Side Roller for 18" wide, 180 degree conveyor
	513924-045	Return Side Roller for 24" wide, 45 degree conveyor
	513924-090	Return Side Roller for 24" wide, 90 degree conveyor
	513924-180	Return Side Roller for 24" wide, 180 degree conveyor
	513936-045	Return Side Roller for 36" wide, 45 degree conveyor
	513936-090	Return Side Roller for 36" wide, 90 degree conveyor
	513936-180	Return Side Roller for 36" wide, 180 degree conveyor
3	807-1578	Washer
4	807-1583	Shaft for 12” wide conveyors
	807-1584	Shaft for 18” wide conveyors
	807-1585	Shaft for 24” wide conveyors
	807-1586	Shaft for 36” wide conveyors
5	76CRR45-WW	45 Degree Return Roller Kit (Includes Items 1 through 4)
	76CRR90-WW	90 Degree Return Roller Kit (Includes Items 1 through 4)
	76CRR180-WW	180 Degree Return Roller Kit (Includes Items 1 through 4)
WW = Conveyor width ref: 12, 18, 24 or 36		

Drive Wheel



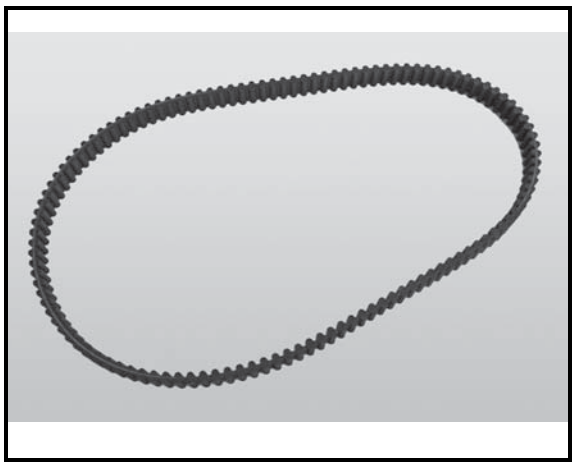
Item	Part Number	Description
1	501181	Drive Wheel

Bearings



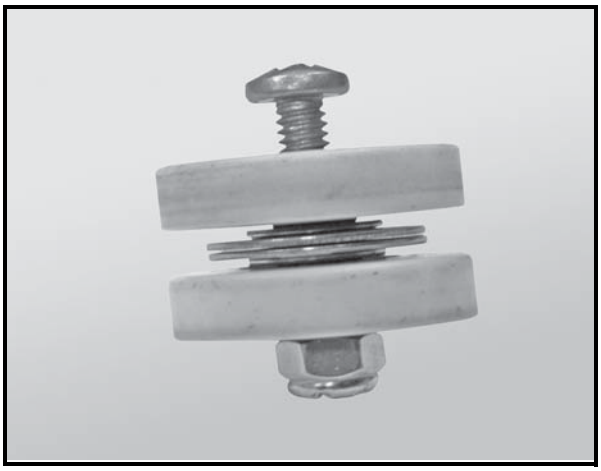
Item	Part Number	Description
1	501182	Bearing Block with Bearing

Timing Belt



Item	Part Number	Description
1	501180	Belt

Guide Wheel Assembly



Item	Part Number	Description
1	501179	Guide Wheel Assembly

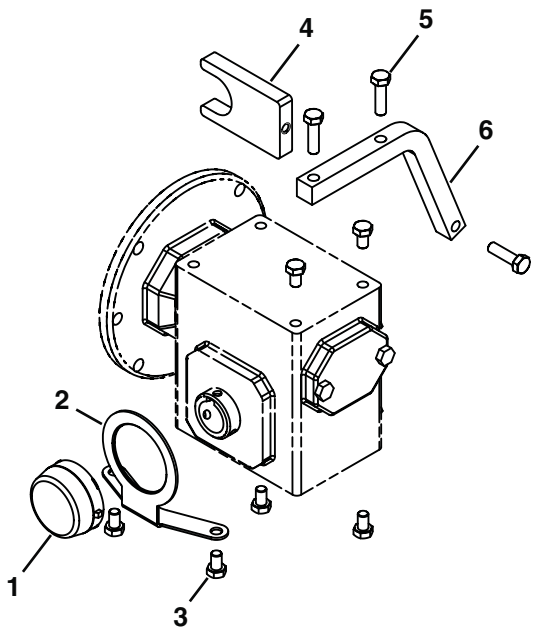
Service Parts

Belt

Item	Part Number	Description
1	513412-045	Belt with Guide Wheel Assemblies for 12" wide, 45 degree conveyor
	513412-090	Belt with Guide Wheel Assemblies for 12" wide, 90 degree conveyor
	513412-180	Belt with Guide Wheel Assemblies for 12" wide, 180 degree conveyor
	513418-045	Belt with Guide Wheel Assemblies for 18" wide, 45 degree conveyor
	513418-090	Belt with Guide Wheel Assemblies for 18" wide, 90 degree conveyor
	513418-180	Belt with Guide Wheel Assemblies for 18" wide, 180 degree conveyor
	513424-045	Belt with Guide Wheel Assemblies for 24" wide, 45 degree conveyor
	513424-090	Belt with Guide Wheel Assemblies for 24" wide, 90 degree conveyor
	513424-180	Belt with Guide Wheel Assemblies for 24" wide, 180 degree conveyor
	513436-045	Belt with Guide Wheel Assemblies for 36" wide, 45 degree conveyor
	513436-090	Belt with Guide Wheel Assemblies for 36" wide, 90 degree conveyor
	513436-180	Belt with Guide Wheel Assemblies for 36" wide, 180 degree conveyor

Item	Part Number	Description
	513512-045	Belt only for 12" wide, 45 degree conveyor
	513512-090	Belt only for 12" wide, 90 degree conveyor
	513512-180	Belt only for 12" wide, 180 degree conveyor
	513518-045	Belt only for 18" wide, 45 degree conveyor
	513518-090	Belt only for 18" wide, 90 degree conveyor
	513518-180	Belt only for 18" wide, 180 degree conveyor
	513524-045	Belt only for 24" wide, 45 degree conveyor
	513524-090	Belt only for 24" wide, 90 degree conveyor
	513524-180	Belt only for 24" wide, 180 degree conveyor
	513536-045	Belt only for 36" wide, 45 degree conveyor
	513536-090	Belt only for 36" wide, 90 degree conveyor
	513536-180	Belt only for 36" wide, 180 degree conveyor

Center Drive

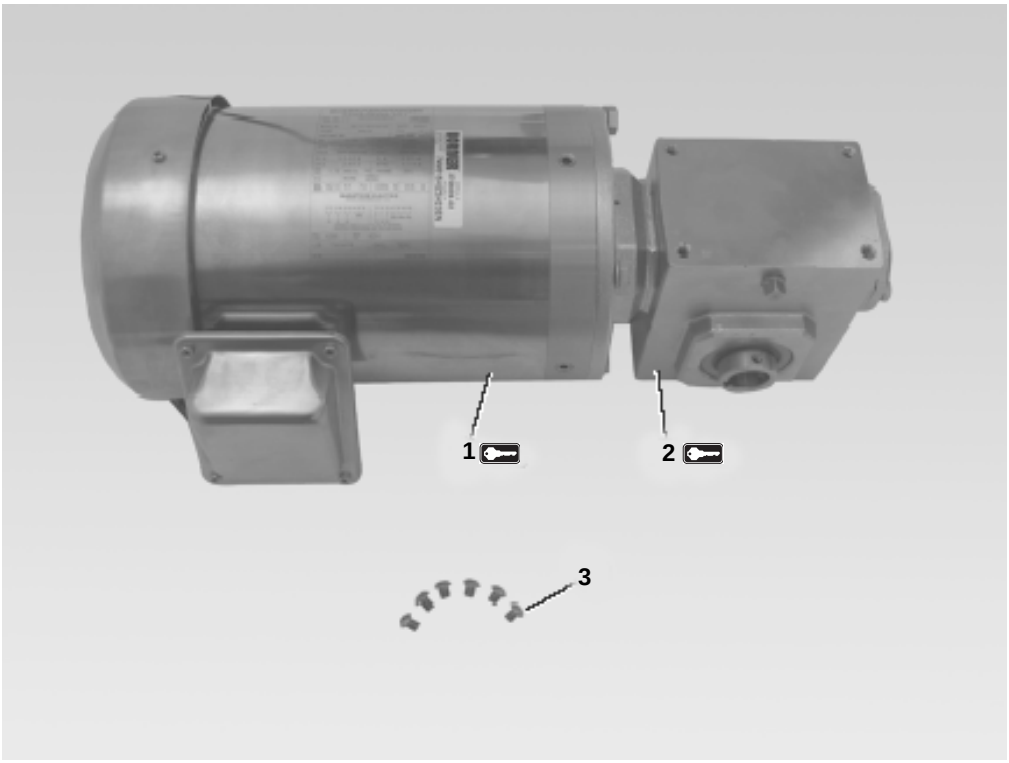


Item	Part Number	Description
1	807-1454	Cover
2	500492	Cover Bracket
3	906-067SS	Hex Head Cap Screws 5/16-18 x .50

Item	Part Number	Description
4	501183	Anti-rotation Plate
5	906-070SS	Hex Head Cap Screws 5/16-18 x 1.12
6	500381	Bent Bar

Service Parts

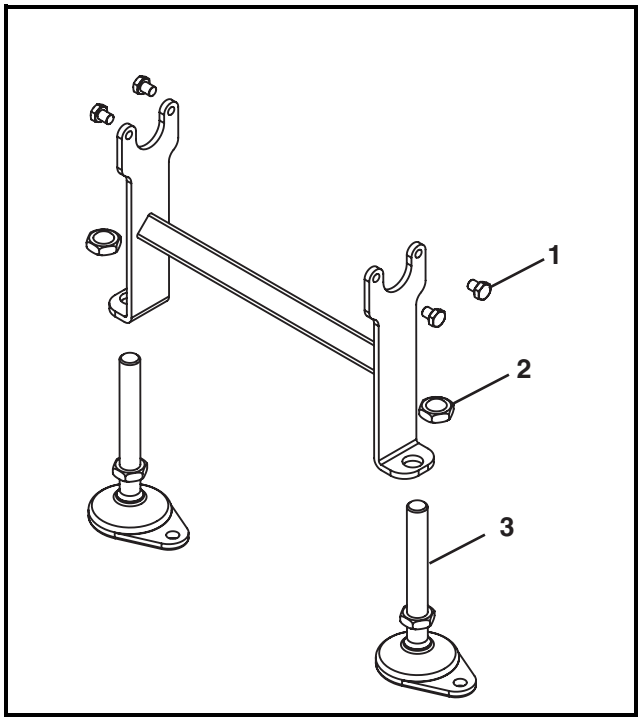
Gearmotor Assembly



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

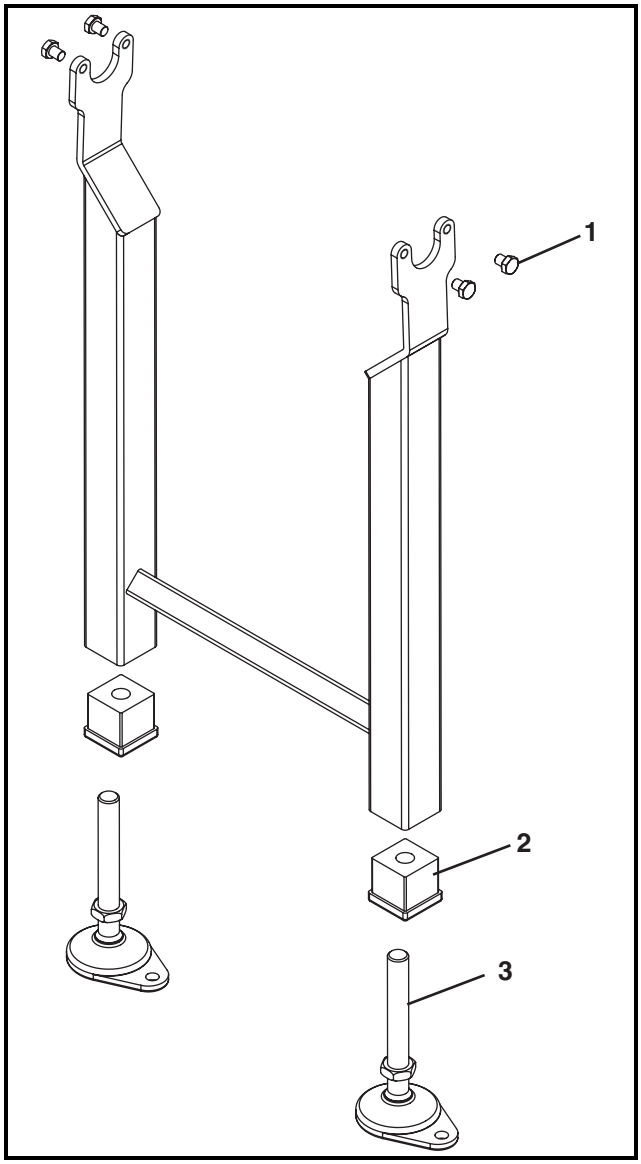
Item	Part Number	Description
2	74M010HS	Painted Gear Reducer, 10:1, 56C
	74M015HS	Painted Gear Reducer, 15:1, 56C
	74M020HS	Painted Gear Reducer, 20:1, 56C
	74M030HS	Painted Gear Reducer, 30:1, 56C
	74M040HS	Painted Gear Reducer, 40:1, 56C
	74M060HS	Painted Gear Reducer, 60:1, 56C
	74M080HS	Painted Gear Reducer, 80:1, 56C
	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

Support Stand (Stand Height 20-24 and 23-27)



Item	Part Number	Description
1	961012MSS	Hex Head Cap Screw M10-1.5 x 12 mm
2	992001MSS	Hex Nut M20-2.50
3	807-1321	Teardrop Foot Assembly

Support Stand (Stand Height 26-30 or Taller)



Item	Part Number	Description
1	961012MSS	Hex Head Cap Screw M10-1.50 x 12 mm
2	807-1304	Threaded Tube End
3	807-1321	Teardrop Foot Assembly

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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