7400 Ultimate Series
End Drive Conveyors
Installation, Maintenance and Parts Manual

Flat Belt Conveyor

DORNER MFG. CORP.
P.O. Box 20 • 975 Cottonwood Ave.
Hartland, WI 53029-0020 USA

INSIDE THE USA
TEL: 1-800-397-8664
FAX: 1-800-369-2440

OUTSIDE THE USA
TEL: 262-367-7600
FAX: 262-367-5827

For other service manuals visit our website at:
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851-620 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 Limite Warranty applies.

Dorner 7400 Series conveyors have patents pending.

NOTE

Proper conveyor application, cleaning, and sanitation are the responsibility of the end user.

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 .

Intralox is a registered trademark of Laitram L.L.C. in the United States and / or other countries.

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 conveyor components.

Typical Components	
1	Conveyor
2	Belt (Flat Belt Shown)
3	Return
4	Support Stands
5	Drive End
6	Tension End

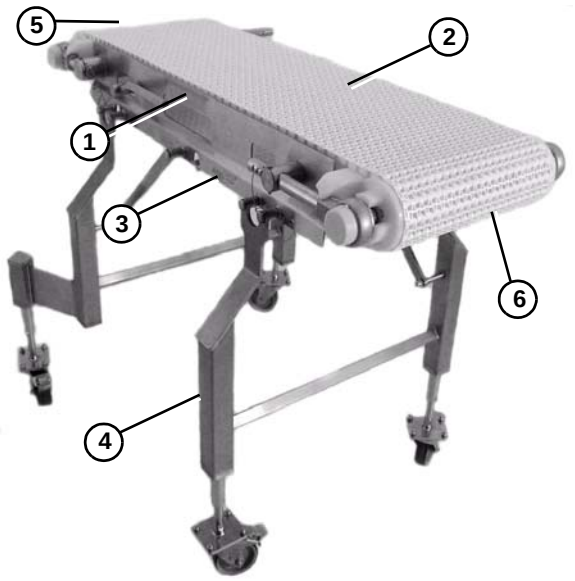
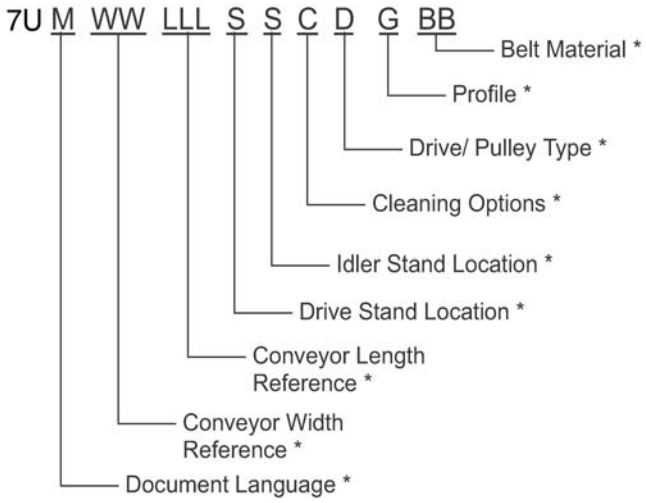


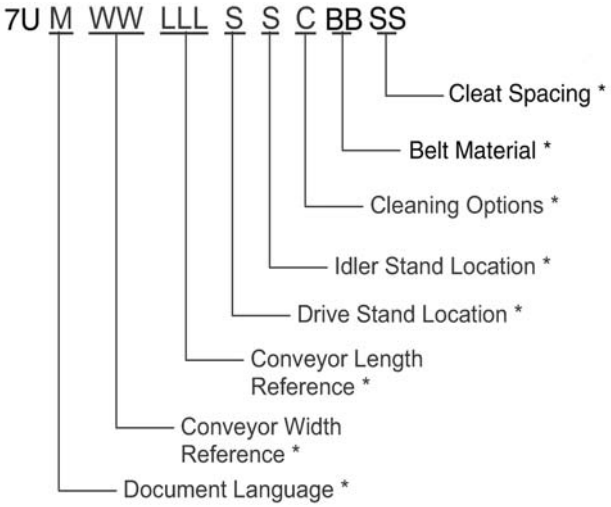
Figure 1

Specifications

Flat Belt 7400 Series Conveyor



Cleated Belt 7400 Series Conveyor



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

Conveyor Supports

Maximum Distances:

1 = 3 ft (914 mm)

2 = 8 ft (2438 mm)**

3 = 3 ft (914 mm)

**** For conveyors longer than 10 ft (3.05 m), install support at frame joint.**

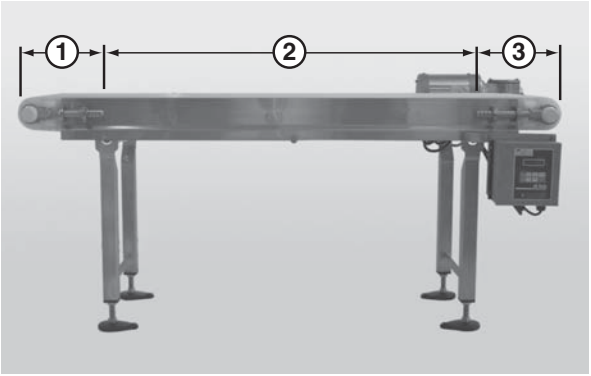


Figure 2

Specifications

Conveyor Width Reference (WW)	06 – 36 in 02 increments
Conveyor Belt Width	6" (152 mm) – 60" (1524 mm) in 2" (51 mm) increments
Maximum Conveyor Load	20 lb / ft^2 (97 kg / m^2) with a maximum of 1000 lb / ft^2 (4882 kg / m^2)
Belt Travel	12" (305 mm) per revolution of pulley
Maximum Belt Speed	233 ft / minute (71 m / minute)
Belt Take-up	2" (51 mm)

Conveyor Length Reference (LLL)	036 – 999 in 001 increments
Conveyor Length	36" (914 mm) – 999" (25.4 mm) in 1" (25 mm) increments

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*

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.

NOTE

Proper conveyor application, cleaning, and sanitation are the responsibility of the end user.

CAUTION

Conveyor MUST be mounted straight, flat, and level within confines of conveyor. Use a level (Figure 3, item 1), during setup.

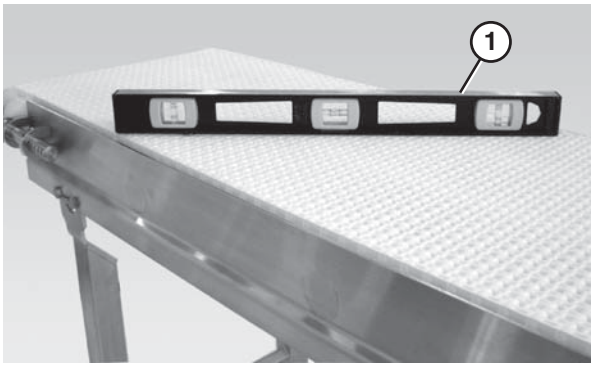


Figure 3

Required Tools

- 17 mm wrench (for hexagonal head fasteners)
- 4 mm hex wrench (for bearing shaft assembly fasteners)
- Level
- Torque wrench

Recommended Installation Sequence

1. Attach the stands to the conveyor. Refer to "Stand Installation" on page 6.
2. Attach the tail assemblies to the frame. Refer to "Tail Assembly Installation" on page 7.
3. Attach the lifters, if applicable. Refer to "Lifter Installation" on page 10.
4. Install the gearmotor, if applicable. Refer to the "7400 Series Drive Package Installation, Maintenance and Parts Manual."
5. Attach the wear strips. Refer to "Wear Strip Installation" on page 10.
6. Install the belt. Refer to "Belt Installation" on page 11.
7. Attach the belt returns. Refer to "Belt Return Installation" on page 12.
8. Attach any guides / accessories. Refer to the "Service Parts" section starting on page 27.

Conveyors up to 10 ft (3048 mm)

Stand Installation

Typical Stand Components **(Figure 4)**.

1	Conveyor frame
2	Stand
3	M10 - 1.5 x 16 mm hex head cap screws (x4)

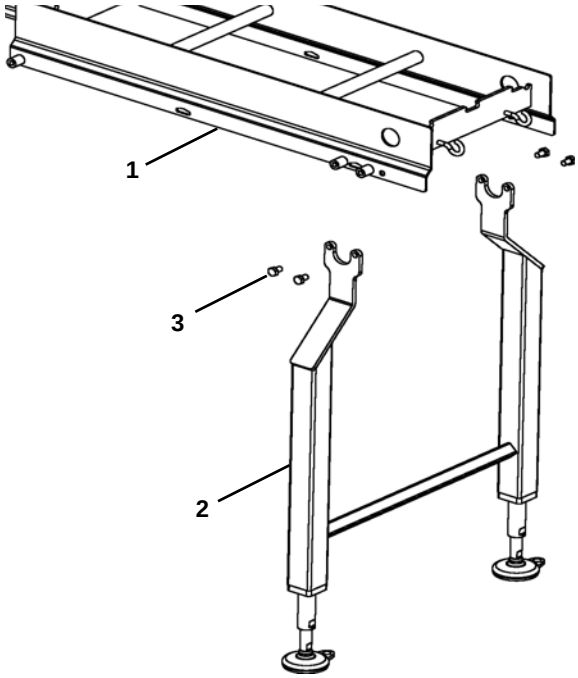


Figure 4

1. Position the stands on a flat, level surface.
2. Attach the stands to the frame **(Figure 5)**.

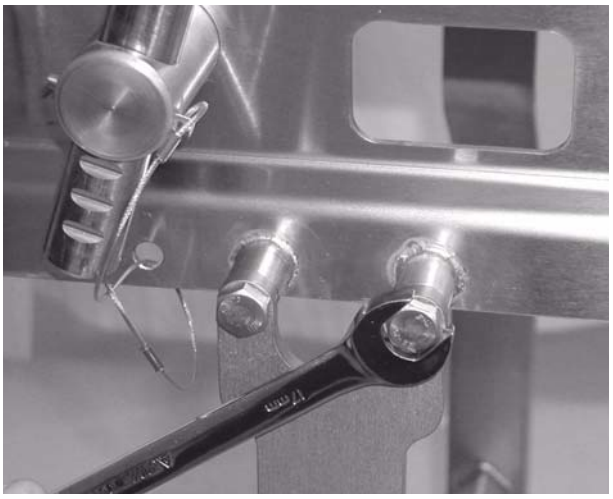


Figure 5

Tail Assembly Installation

Drive Tail

Typical Drive Tail Components **(Figure 6)**

1	Drive tail assembly
2	Pull pin (x2)
3	Conveyor frame

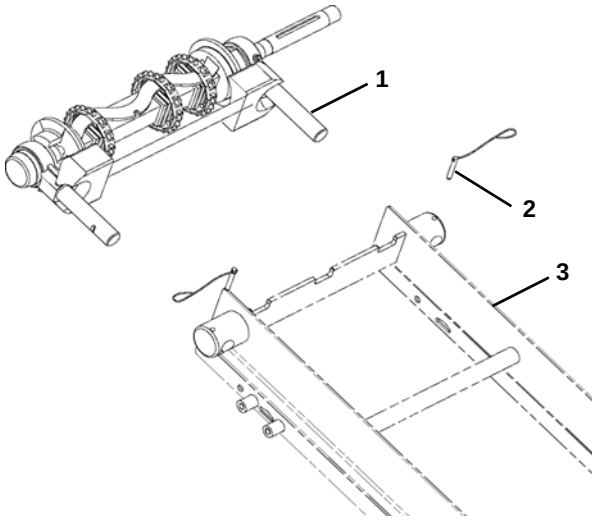


Figure 6

1. Slide the bearing shafts **(Figure 7, item 1)** into the take up blocks **(Figure 7, item 2)**.

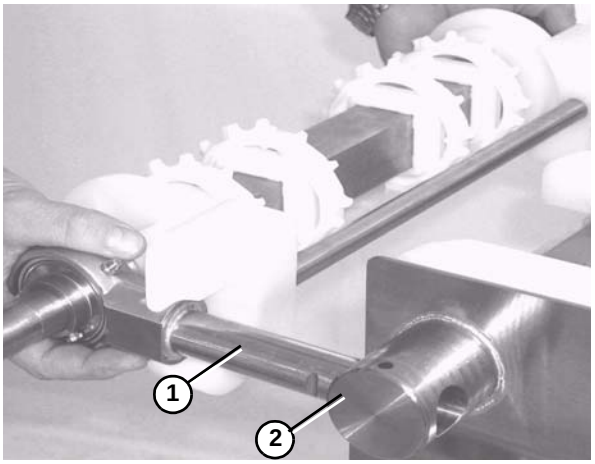


Figure 7

2. Install the drive package, if applicable. Refer to the "7400 Series Drive Package Installation, Maintenance and Parts Manual."
3. Insert the pull pins **(Figure 8, item 1)**.

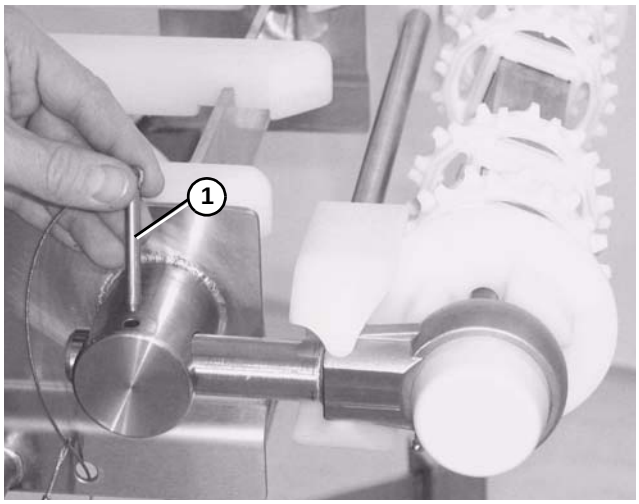


Figure 8

Tip Up Idler Tail

Typical Tip Up Idler Tail Components **(Figure 9)**.

1	Tip up tail assembly
2	Pull pin (x2)
3	Tip up shaft
4	Key stops (x2)

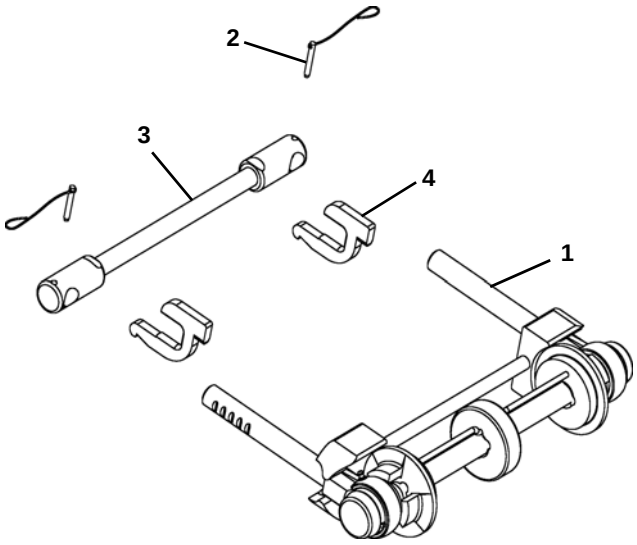


Figure 9

1. Slide the tip up shaft **(Figure 10, item 1)** through the designated slots in the frame.

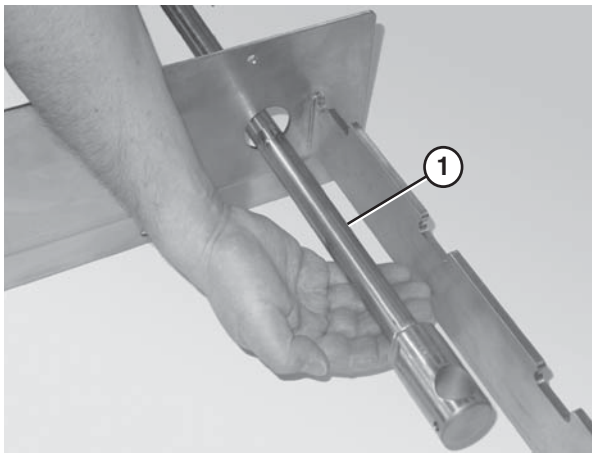


Figure 10

2. Attach the key stops **(Figure 11, item 1)** to the tip up shaft **(Figure 11, item 2)**. The rounded end of the key stop should be facing the tail.

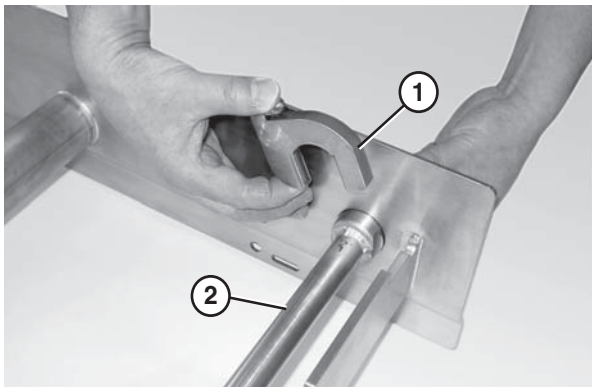


Figure 11

3. Slide the bearing shafts **(Figure 12, item 1)** into the holes in the tip up shaft **(Figure 12, item 2)**.

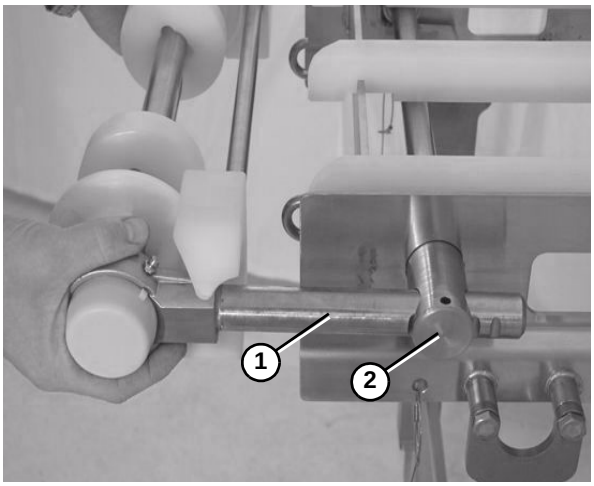


Figure 12

NOTE
Do not insert the pull pins on the tension end of the conveyor until the belt has been installed.

Nose Bar Tip Up Tail

Typical Nose Bar Tip Up Tail Components **(Figure 13)**.

1	Tip up tail assembly
2	Pull pin (x2)
3	Tip up shaft
4	Key stops (x2)

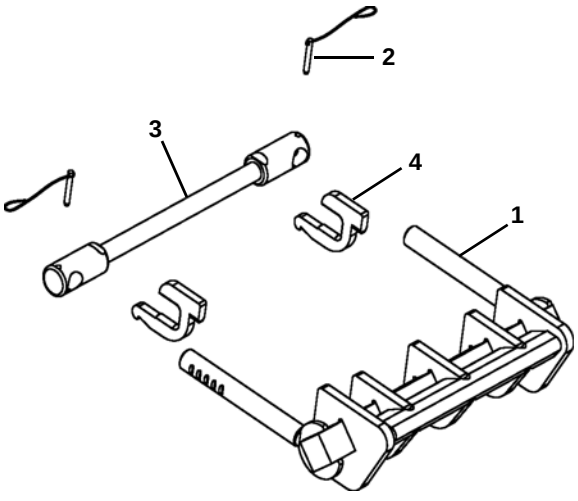


Figure 13

1. Slide the tip up shaft **(Figure 14, item 1)** through the designated slots in the frame.

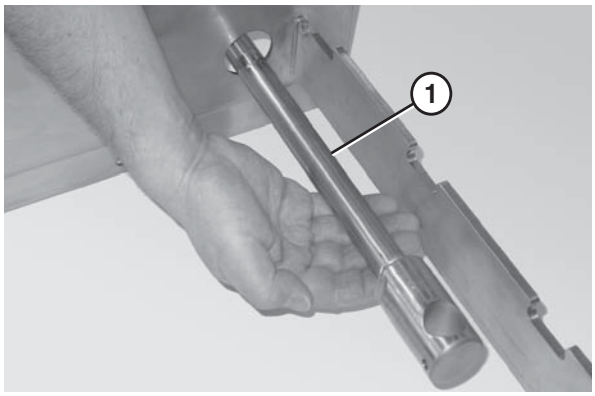


Figure 14

2. Attach the key stops **(Figure 15, item 1)** to the tip up shaft **(Figure 15, item 2)**. The rounded end of the key stop should face the tail.

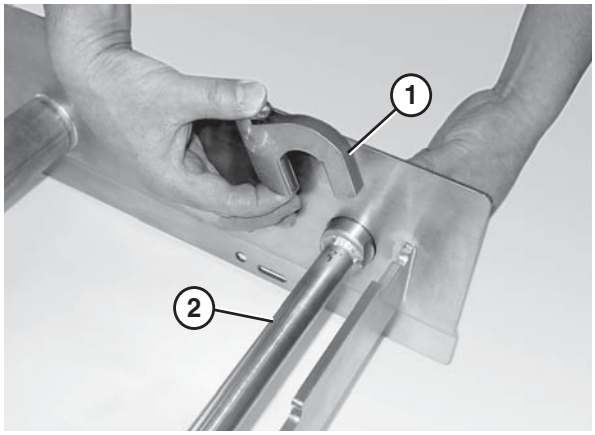


Figure 15

3. Attach the nose bar idler shaft hands **(Figure 16, item 1)** to the tip up shaft **(Figure 16, item 2)**.

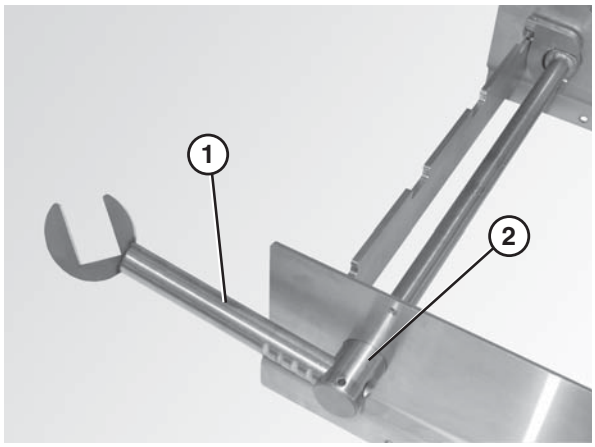


Figure 16

4. Attach the nose bar transfer post **(Figure 17, item 1)** to the nose bar idler shaft hands **(Figure 17, item 2)**.

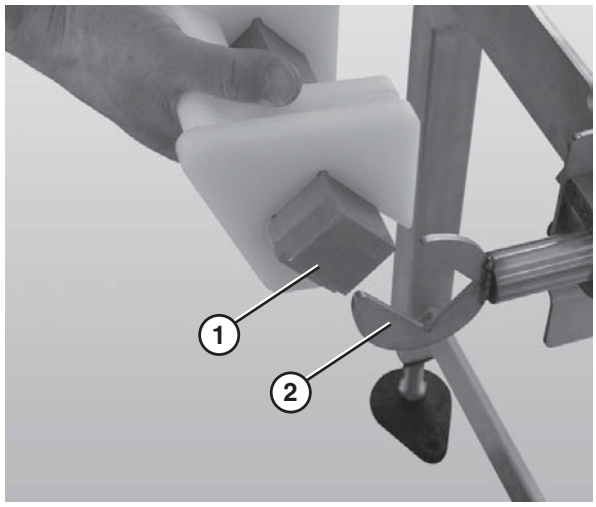


Figure 17

5. Ensure that the nose bar pucks **(Figure 18, item 1)** are in line with the conveyor frame **(Figure 18, item 2)**.

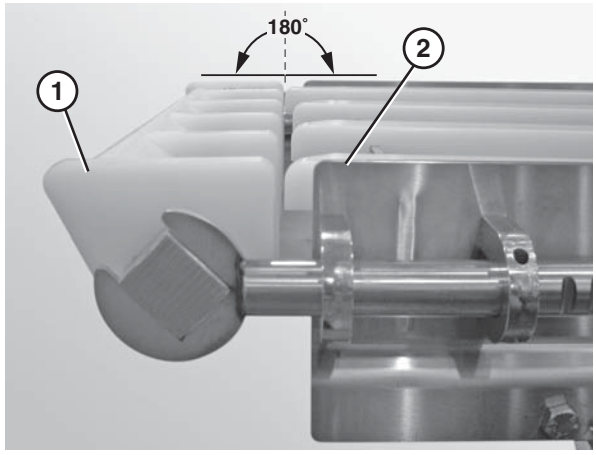


Figure 18

NOTE

Do not insert the pull pins on the tension end of the conveyor until the belt has been installed.

Installation

Lifter Installation

Typical Lifter Components **(Figure 19)**.

1	Belt lift pivot bar
2	Lifter bars
3	Belt lift handle
4	M8 - 1.25 x 16 mm hex head cap screw

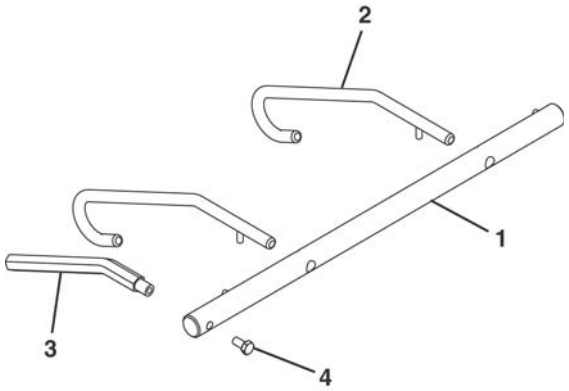


Figure 19

1. Slide the belt lift pivot bar **(Figure 20, item 1)** through the designated holes in the frame. The pins on the pivot bar should be located to the inside of the frame side rails.

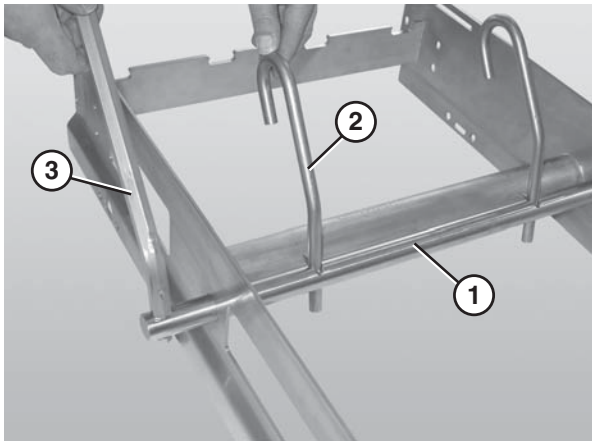


Figure 20

2. Attach the lifter bars **(Figure 20, item 2)** to the belt lift pivot bar **(Figure 20, item 1)**. Make sure the hooked ends of the lifter bars are facing down when resting against the frame.
3. Attach the lifter handle **(Figure 20, item 3)** to the belt lift pivot rod.

Wear Strip Installation

Typical Wear Strip Components **(Figure 21)**.

1	Wear strip

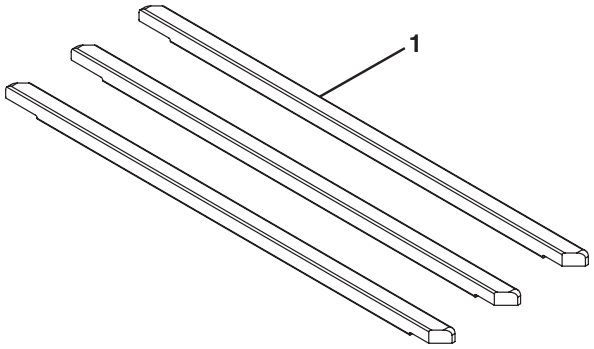


Figure 21

1. Position the wear strips **(Figure 22, item 1)** on the frame.

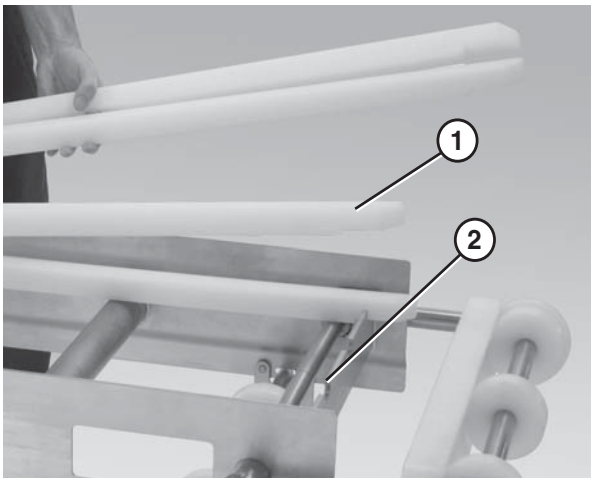


Figure 22

2. Make sure the wear strips are situated securely in the frame slots **(Figure 22, item 2)**.

Belt Installation

Typical Belt Components **(Figure 23)**.

1	Chain belt
2	Belt rod

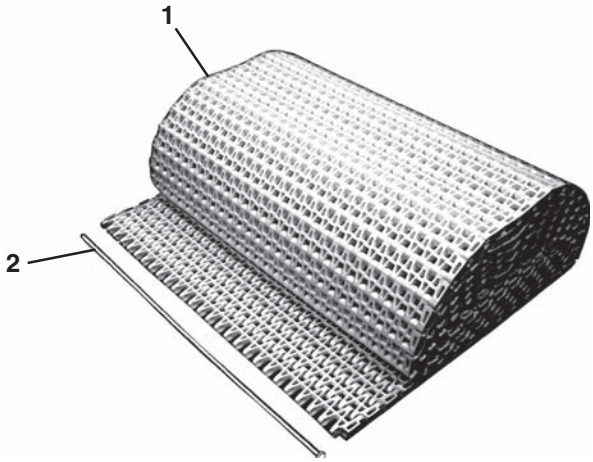


Figure 23

1. Position the belt on the conveyor frame **(Figure 24)**.

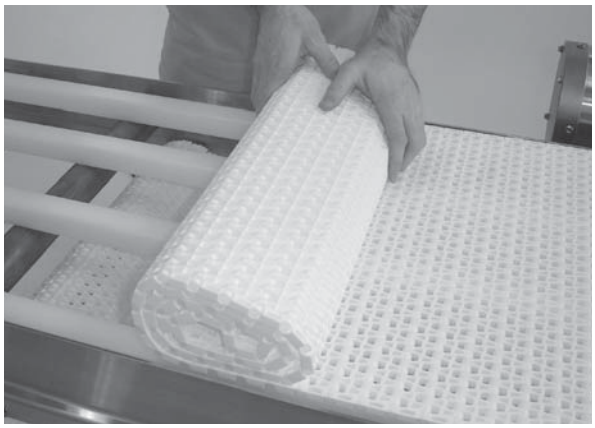


Figure 24

2. Wrap the belt around the conveyor, making sure the sprocket teeth have engaged the belt.
3. Bring the ends of the belt together **(Figure 25)**.

Figure 25

4. Insert the belt rod **(Figure 26, item 1)**.

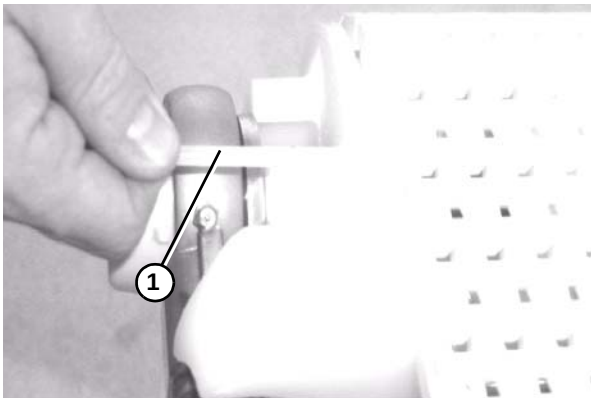


Figure 26

5. Push the belt rod in as far as possible.
6. Lightly tap the head of the rod with a hammer until it snaps into position.
7. Extend the tension end to remove excess slack in the belt **(Figure 27)**. Reference figure 32.

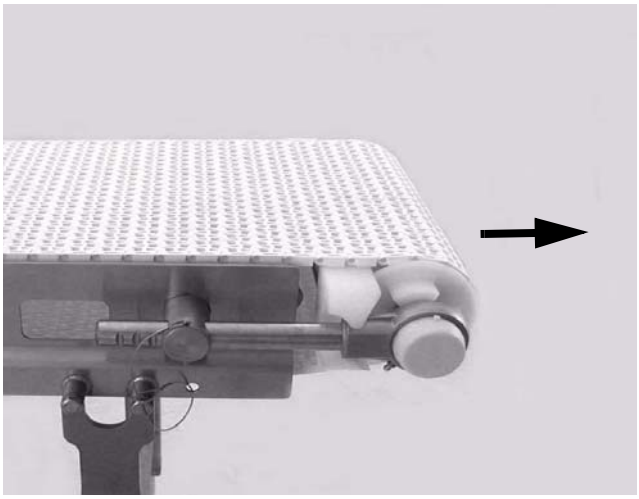


Figure 27

8. Insert the pull pins **(Figure 28, item 1)** on the tension end of the conveyor.

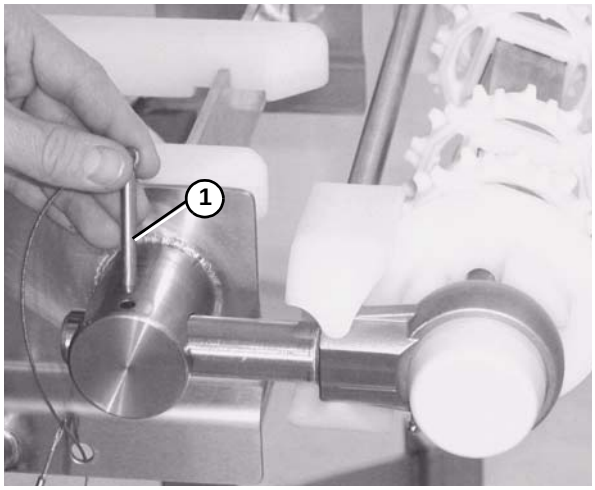


Figure 28

9. If no more travel is available, remove one or more belt links to take up the tension. Refer to “Standard Belts: Replacing a Section of Belt” on page 17.

Belt Return Installation

Typical Belt Return Components **(Figure 29)**.

1	Return shaft
2	Chain return shoe

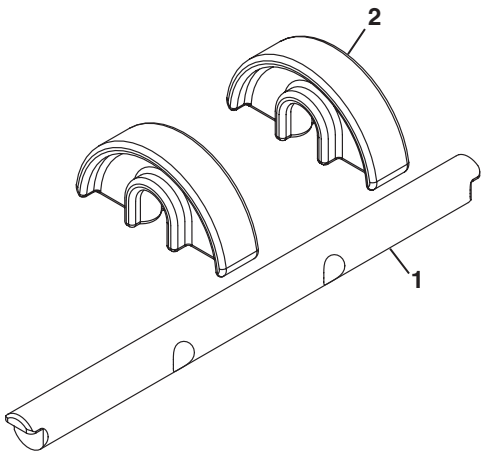


Figure 29

1. Attach the chain return shoes **(Figure 30, item 1)** to the return shaft **(Figure 30, item 2)**.

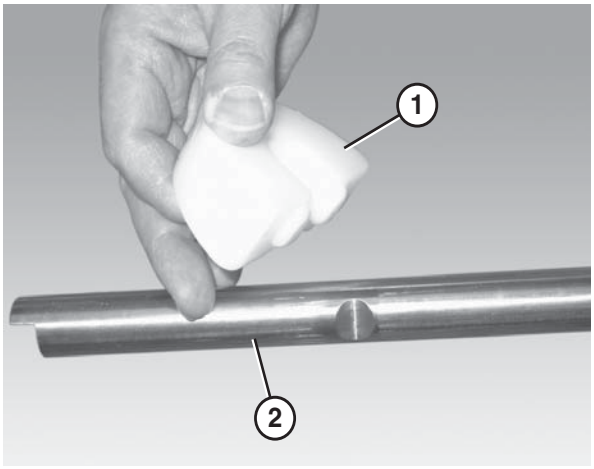


Figure 30

2. Slide the return shaft **(Figure 31, item 1)** up and through the large slot **(Figure 31, item 2)** in the frame (picture shown without the belt or wear strips).

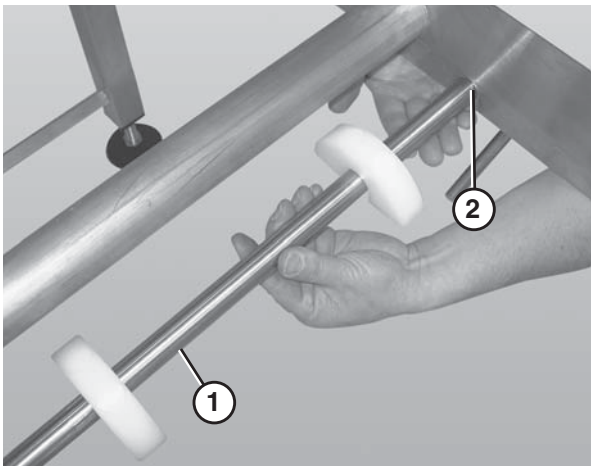


Figure 31

3. Push up on the return shaft **(Figure 31, item 1)** and slide the notched end of the shaft through the small slot on the opposite side of the frame.

4. Check belt sag by measuring from the top of the return **(Figure 32)**. Belt sag should not exceed 4" (102 mm). Follow steps 7 – 9 in the "Belt Installation" section on page 11 to remove slack from the belt.

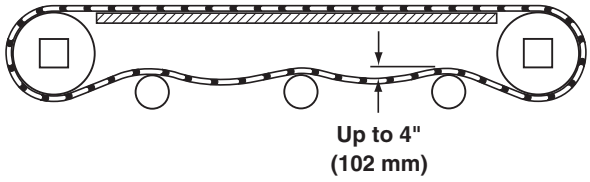


Figure 32

CAUTION

Belt sag should not exceed 4" (102 mm) from the top of the returns.

Conveyors Longer than 10 ft (3048 mm)

Typical Connection Components **(Figure 33)**.

1	M10 x 1.5 mm hex head cap screws (x4)
2	Connector hex rods (x2)
3	Conveyor frame
4	O-rings (x8)

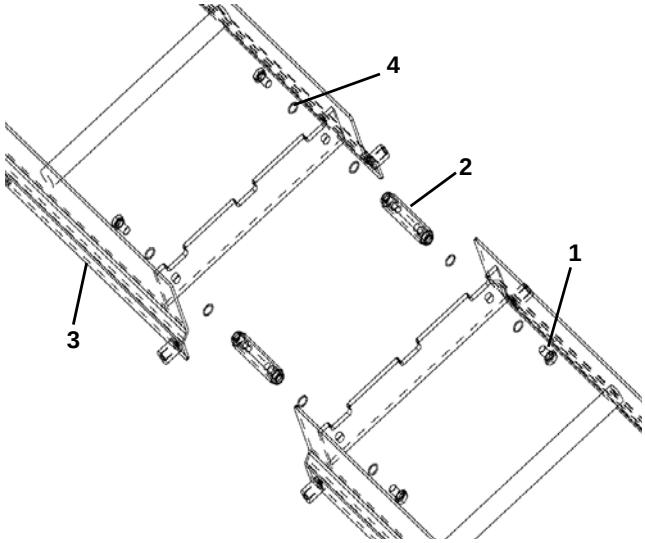


Figure 33

1. Locate the section number sequence etched on each section of frame **(Figure 34, item 1)**.

Figure 34

2. Position the frame sections in the correct order.

CAUTION

Avoid damage to O-rings. Be careful not to pinch or cut them.

3. Connect the frame sections by bolting the hex post connectors **(Figure 35, item 1)** between frame sections. Be sure O-rings are seated properly on hex post and hex screws prior to tightening of screws to avoid damage to O-rings.

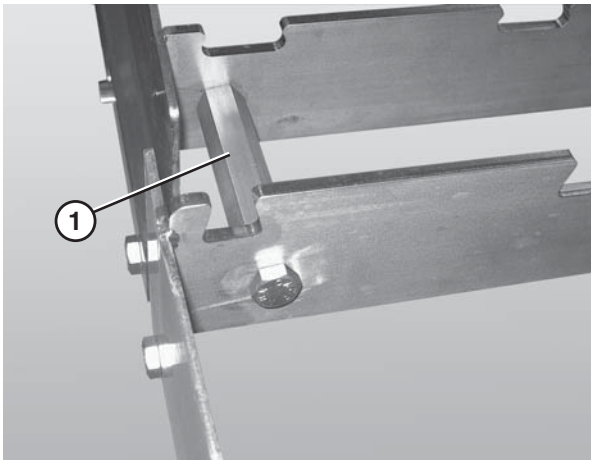


Figure 35

4. Follow the installation process described in "Conveyors up to 10 ft (3048 mm)" starting on page 6.

Required Tools

- 17 mm wrench (or adjustable wrench)
- 4 mm hex wrench (for bearing shaft assembly fasteners)
- 3 mm hex wrench
- Punch and hammer (to remove belt rod)

Checklist

- Keep service parts on hand. Refer to the "Service Parts" section starting on page 27 for recommendations.
- Replace any worn or damaged parts.

Cleaning

NOTE

Proper conveyor application, cleaning, and sanitation are the responsibility of the end user.

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.

Standard Conveyors

1. Remove the guides, if applicable, by removing the pull pins **(Figure 36, item 1)** that connect the guide **(Figure 36, item 2)** to the frame.

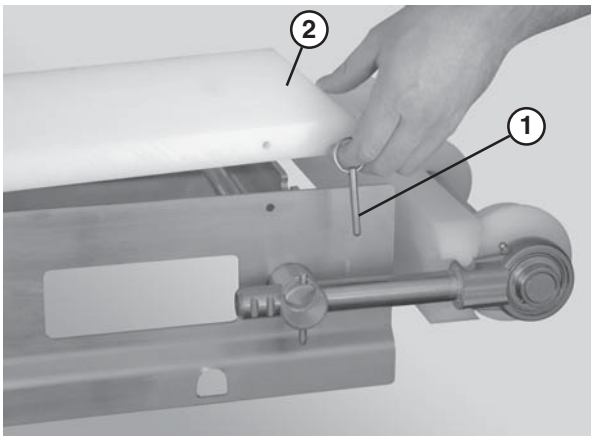


Figure 36

2. Tip up idler tail assembly **(Figure 37)**.

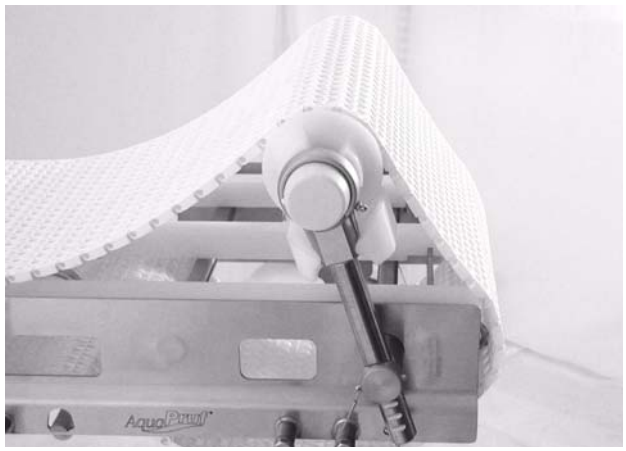


Figure 37

3. Lift up on the belt **(Figure 38)**.

Figure 38

Conveyors with Tip Up Tails and Lifters

1. Remove the guides, if applicable, by removing the pull pins **(Figure 36, item 1)** that connect the guide **(Figure 36, item 2)** to the frame.

2. Use the lifter handle **(Figure 39, item 1)** to raise the lifters **(Figure 39, item 2)** and raise the tip up tail **(Figure 39, item 3)**.

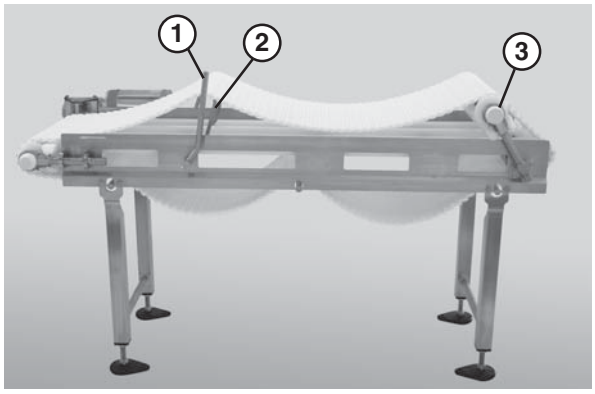


Figure 39

CAUTION

DO NOT submerge or soak bearing assemblies. This will reduce the life of the bearing.

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 16.
- Refer to “Sprocket and Puck Removal” on page 20.
- Refer to “Reassembling Tail Assembly” on page 22.

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 40, item 1)** on the exterior of the bearing shaft assembly.

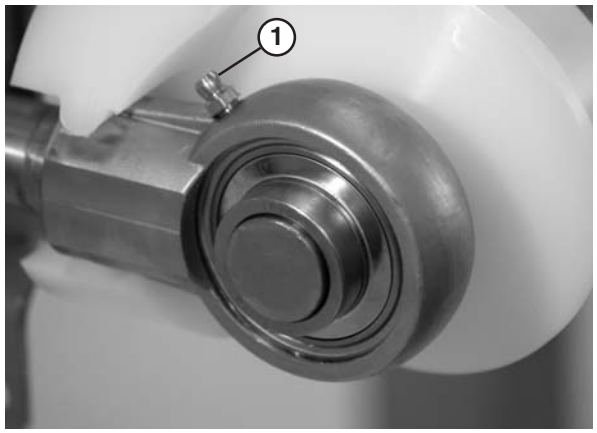


Figure 40

2. Replace the bearings if they become worn.

Wearstrips and Belt Returns

Replace the wearstrips and belt returns if they become worn.

For wearstrip and belt return installation instructions:

- Refer to “Wear Strip Installation” on page 10.
- Refer to “Belt Return Installation” on page 12.

Maintaining the Conveyor Belt

Troubleshooting

NOTE

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

Inspect conveyor belt for:

- Surface cuts or wear
- Skipping

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

- Sharp or heavy parts impacting belt
- Jammed parts
- Accumulated dirt
- Foreign material inside the conveyor
- Improperly positioned accessories

Skipping indicates:

- Excessive load on belt
- Worn sprockets or impacted dirt on drive pulley

Damage to belt links or rods indicate:

- Excessive load on belt
- Dirt impacted on sprockets
- Excessive or improper side loading
- Improperly positioned accessories

Conveyor Belt Replacement

WARNING

SEVERE HAZARD!

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

Conveyors with Guides

1. Remove the pull pins **(Figure 41, item 1)** that connect the guide **(Figure 41, item 2)** to the frame.

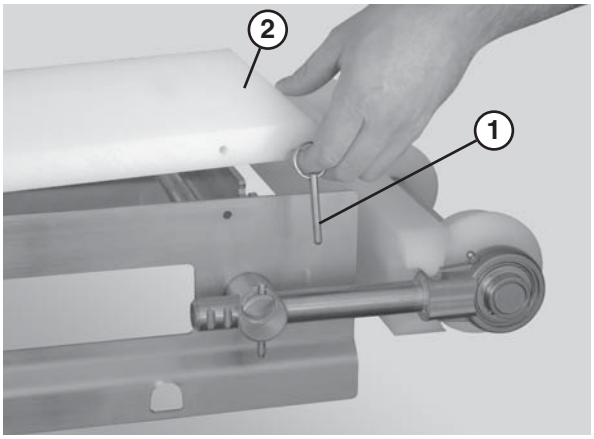


Figure 41

2. Remove the guide **(Figure 42, item 1)**.

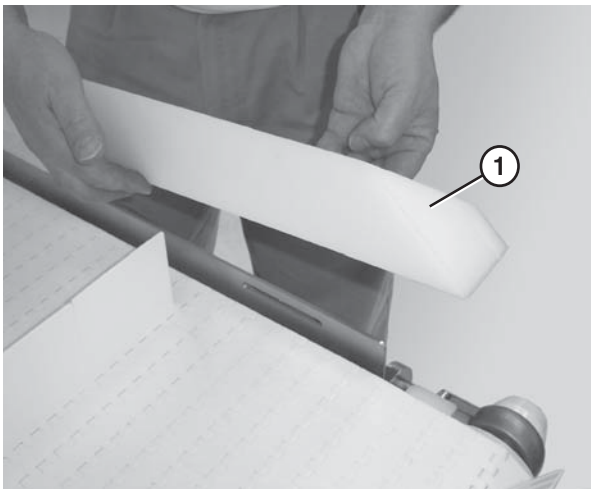


Figure 42

3. Follow the belt replacement procedures described in “Standard Belts” on page 17, “Specialty Intralox 1100 Series Belts” on page 18, or “Specialty Intralox 1600 Series Belts” on page 18.

Standard Belts

Replacing a Section of Belt

1. Tip up idler tail assembly **(Figure 43)**.

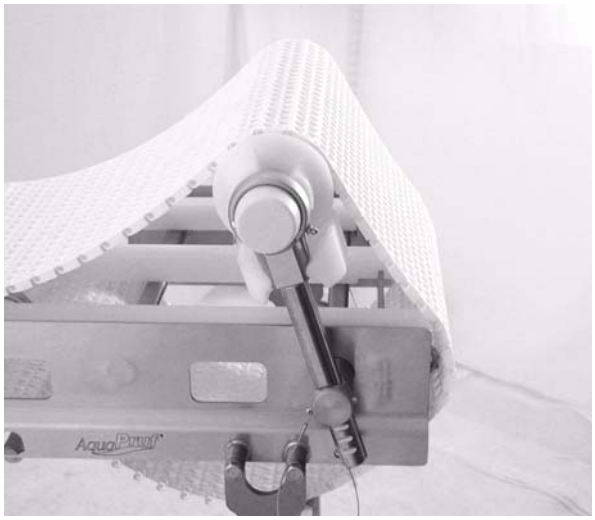


Figure 43

CAUTION

Secure the retaining head side of the belt prior to removing a belt rod in order to prevent damaging the belt.

2. Secure the retaining head side of the belt. Use the belt removal tool **(Figure 44, item 1)** for 1" pitch belts. For all other belts, position the section of belt so that it is braced by the flanged puck **(Figure 44, item 2)**.

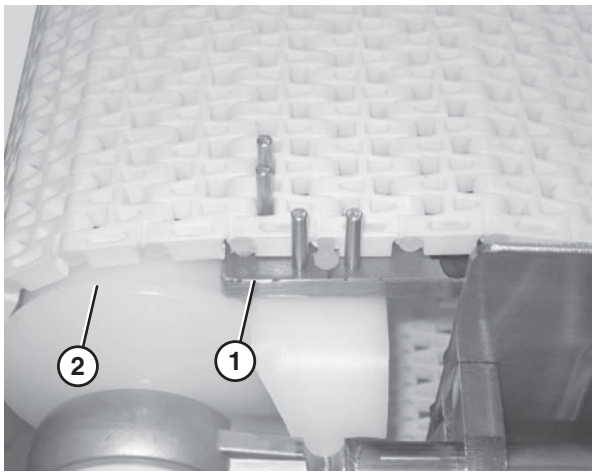


Figure 44

3. Use a punch and hammer to push the belt rod out by striking the rod end opposite the retaining head **(Figure 45)**.

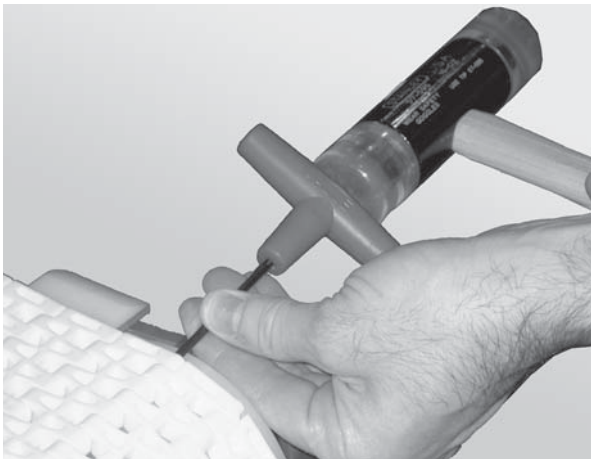


Figure 45

4. Remove the belt rods on both sides of the section of belt being replaced.
5. Replace the old section with a new section of belt.

CAUTION

DO NOT reuse belt rods that are damaged or show signs of wear.

Replacing the Entire Belt

1. Remove the belt returns by pushing up on the return shaft **(Figure 46, item 1)** and sliding it through the large hole **(Figure 46, item 2)** in the frame.

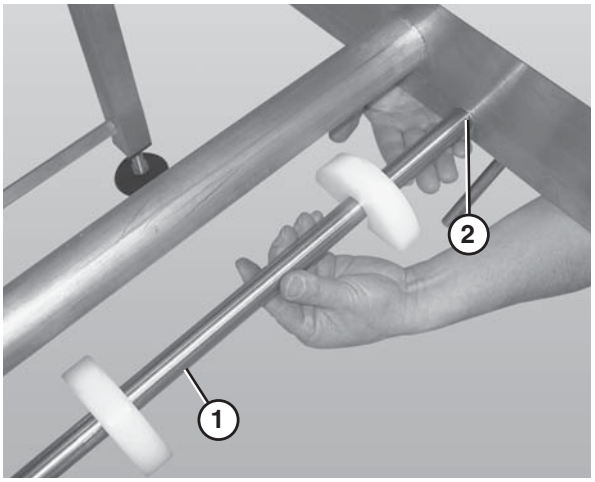


Figure 46

2. Lower the opposite end of the return shaft **(Figure 46, item 1)** and slide it out of the frame.
3. Follow steps 1 – 3 in "Standard Belts: Replacing a Section of Belt" on page 17.
4. Remove the belt.

5. Replace the damaged or worn belt. Refer to “Belt Installation” on page 11 and “Belt Return Installation” on page 12.

Specialty Intralox 1100 Series Belts

Replacing a Section of Belt

1. Place the edge of a flat head screwdriver between the the two belt links and turn clockwise **(Figure 47)**.

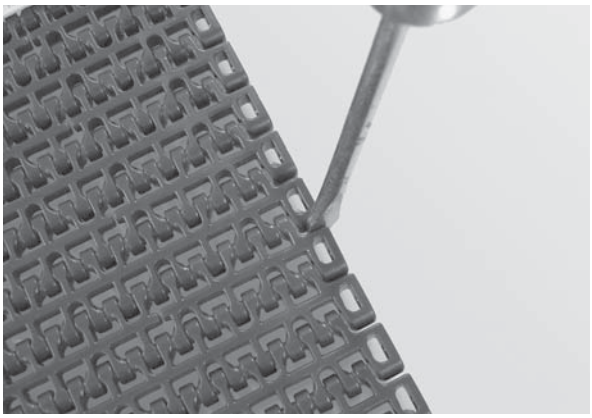


Figure 47

2. Use a second belt rod of the same size to push on the opposite end of the belt rod. **(Figure 48)**.

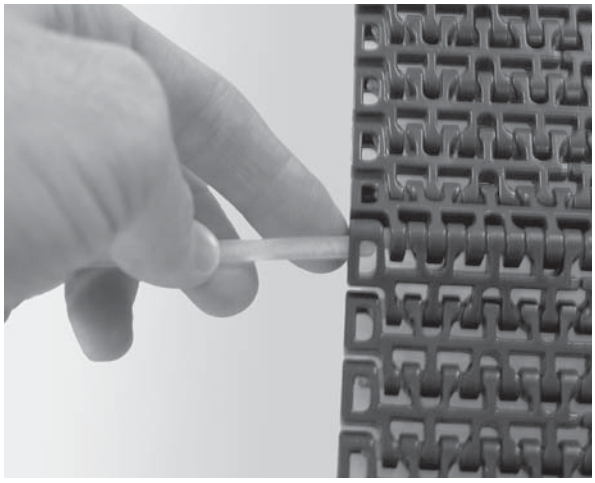


Figure 48

3. Remove the belt rods on both sides of the section of belt being replaced.
4. Replace the old section with a new section of belt.

CAUTION

DO NOT reuse belt rods that are damaged or show signs of wear.

Replacing the Entire Belt

1. Remove the belt returns by pushing up on the return shaft **(Figure 49, item 1)** and sliding it through the large hole **(Figure 49, item 2)** in the frame.

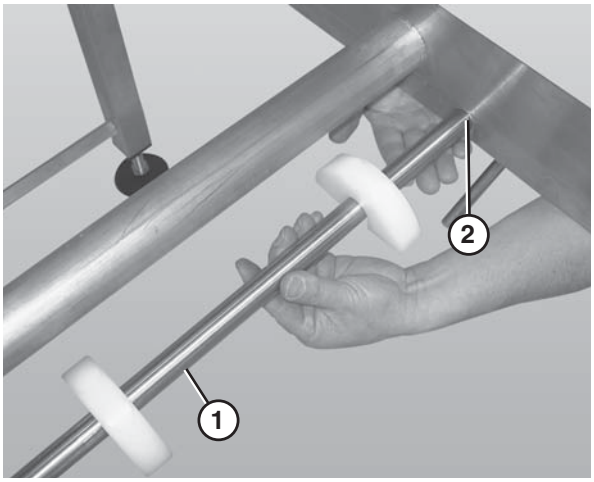


Figure 49

2. Lower the opposite end of the return shaft **(Figure 49, item 1)** and slide it out of the frame.
3. Follow steps 1 – 2 in "Specialty Intralox 1100 Series Belts: Replacing a Section of Belt" on page 18.
4. Remove the belt.
5. Replace the damaged or worn belt. Refer to “Belt Installation” on page 11 and “Belt Return Installation” page 12.

Specialty Intralox 1600 Series Belts

Replacing a Section of Belt

1. Lift up on the belt to gain access to the underside
2. Use a flat head screwdriver to raise the end of the belt rod above the retention lip **(Figure 50)**.

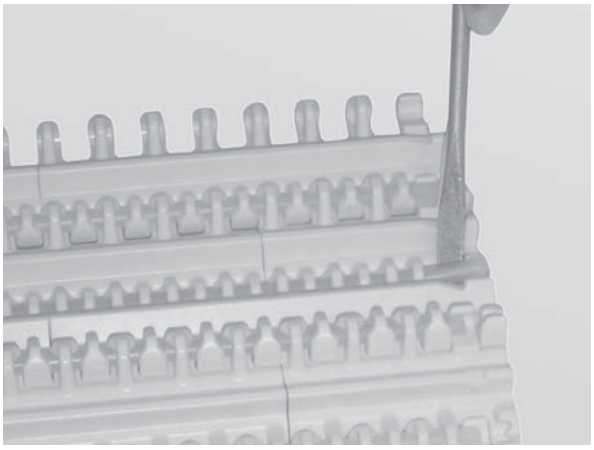


Figure 50

3. Remove the bet rod by gripping the end with a set of pliers and pulling **(Figure 51)**.

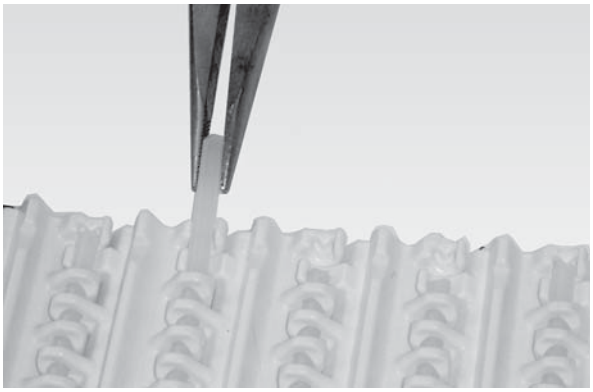


Figure 51

4. Remove the belt rods on both sides of the section of belt being replaced.
5. Replace the old section with a new section of belt.

CAUTION

DO NOT reuse belt rods that are damaged or show signs of wear.

Replacing the Entire Belt

1. Remove the belt returns by pushing up on the return shaft **(Figure 52, item 1)** and sliding it through the large hole **(Figure 52, item 2)** in the frame.

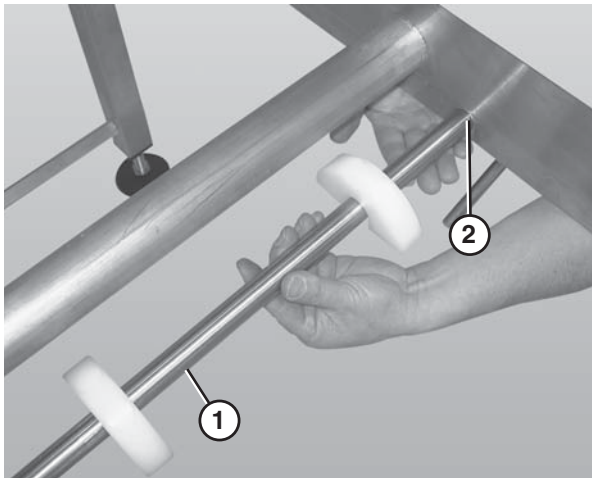


Figure 52

2. Lower the opposite end of the return shaft **(Figure 52, item 1)** and slide it out of the frame.
3. Follow steps 1 – 2 in "Specialty Intralox 1600 Series Belts: Replacing a Section of Belt" on page page 18.
4. Remove the belt.
5. Replace the damaged or worn belt. Refer to “Belt Installation” on page 11 and “Belt Return Installation” page 12.

Conveyor Belt Tensioning

WARNING

SEVERE HAZARD!

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

CAUTION

Belt sag should not exceed 4" (102 mm) from the top of the returns.

1. Remove both pull pins (**Figure 53, item 1)**. Place tip up idler tail in the down position (**Figure 53, item 2)**.

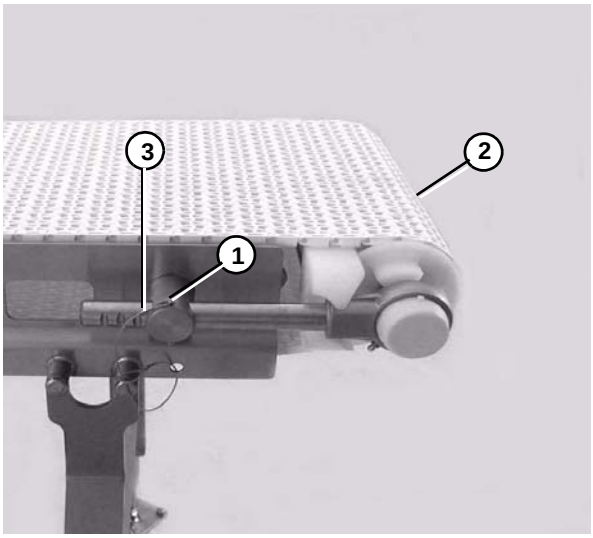


Figure 53

2. Extend the idler tail to the next groove **(Figure 53, item 3)** on the bearing shaft.

3. Continue extending the tension end until the belt is sufficiently tight **(Figure 54)**. Reference figure 32.

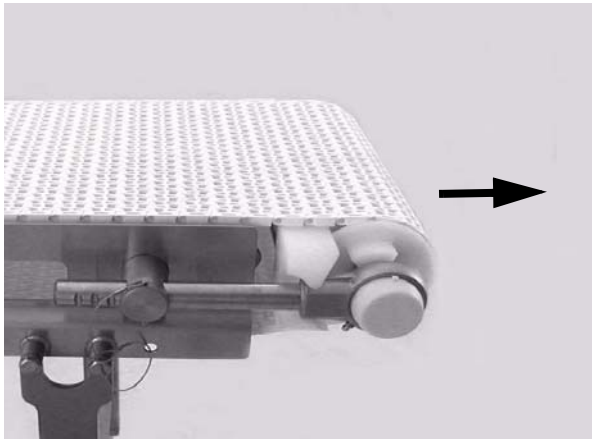


Figure 54

4. Reinsert the pull pins.
5. If no more travel is available, remove one or more belt links to take up the tension. Refer to “Replacing a Section of Belt” on page 17.

Sprocket and Puck Removal

WARNING

SEVERE HAZARD!

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

1. Remove the conveyor belt to access the sprockets / pucks. Refer to “Conveyor Belt Replacement” on page 16.
2. Remove the desired sprocket / puck by following these instructions:

- A - Drive Sprocket Removal
- B - Idler Puck Removal

A - Drive Sprocket Removal

WARNING

PUNCTURE HAZARD!

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

1. Loosen the button head screws **(Figure 55, item 1)** that connect the gearmotor to the drive spindle.

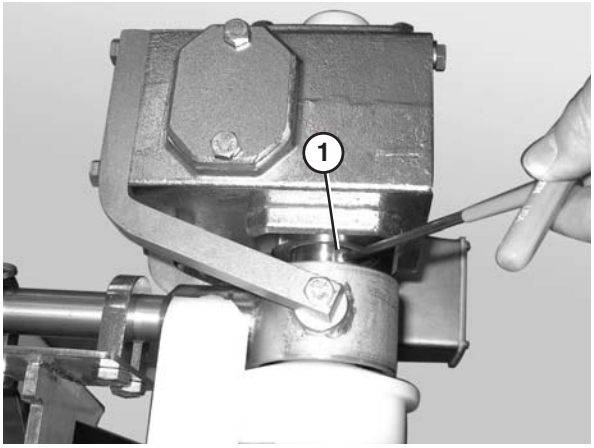


Figure 55

2. Remove the bolts that connect the motor to the drive assembly **(Figure 56)**.
3. Remove the motor **(Figure 56, item 1)** from the drive assembly **(Figure 56, item 2)**.

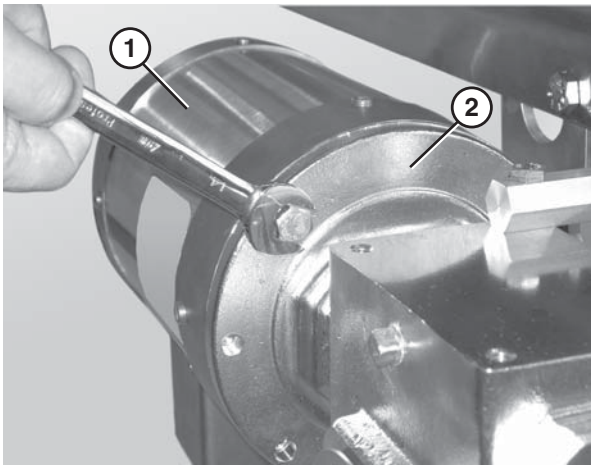


Figure 56

4. Unbolt the drive assembly and slide it off the bearing spindle **(Figure 57, item 1)**.

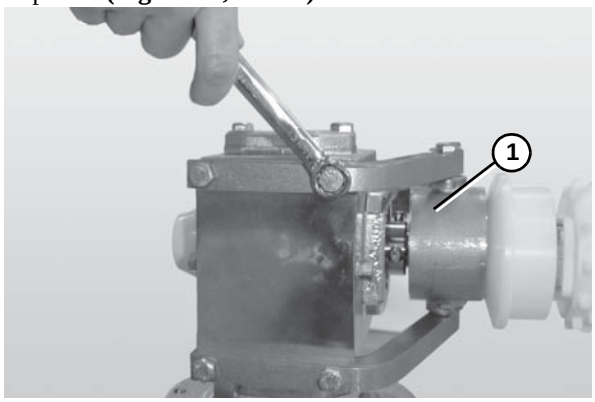


Figure 57

5. Remove the pull pin **(Figure 58, item 1)**.

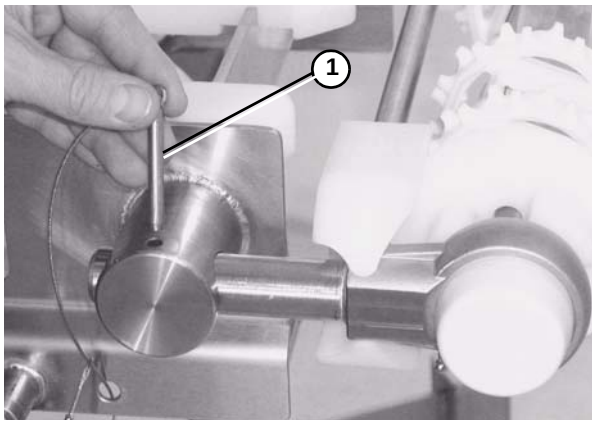


Figure 58

6. Slide the drive tail assembly out of the take up blocks **(Figure 59)**.

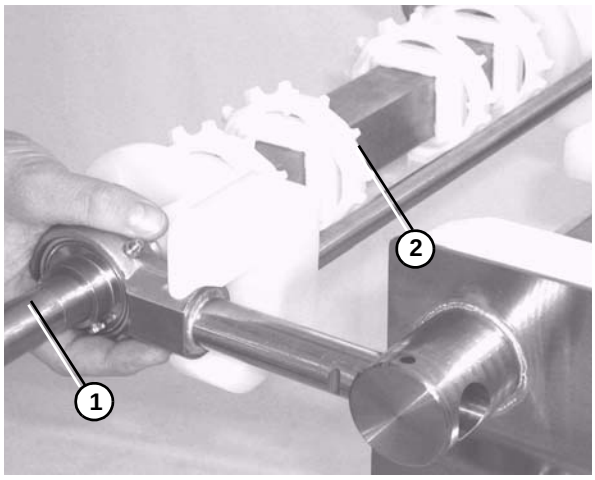


Figure 59

7. Slide the motor support bracket **(Figure 57, item 1)** off the drive spindle **(Figure 59, item 1)**.
8. Remove the sprockets **(Figure 59, item 2)**.

B - Idler Puck Removal

1. Remove the pull pins from take up blocks **(Figure 58)**.
2. Slide the idler tail assembly **(Figure 60, item 1)** out of the take up blocks **(Figure 60, item 2)**.

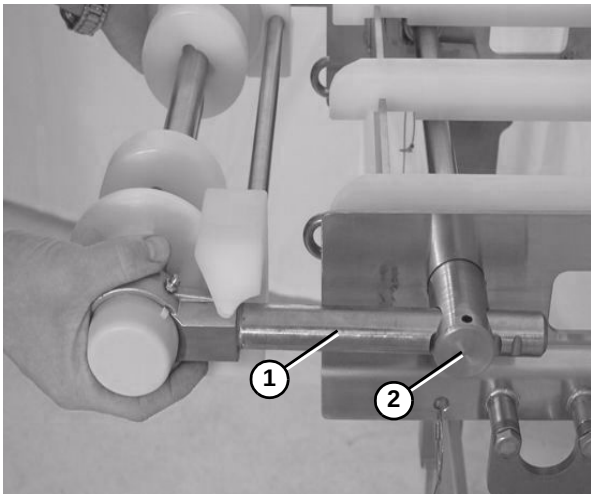


Figure 60

3. Remove the bearing cover **(Figure 61, item 1)**.

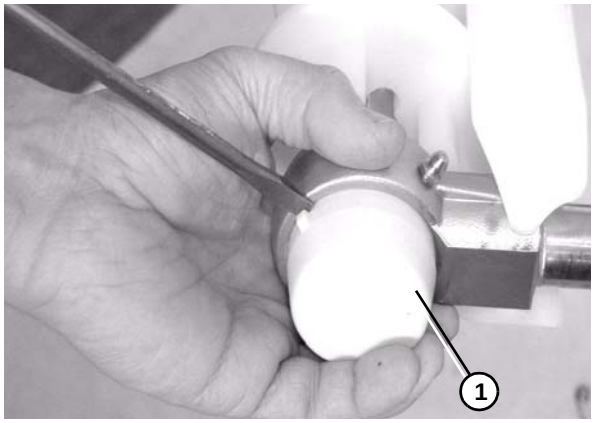


Figure 61

4. Use a hex wrench **(Figure 62, item 1)** to loosen the bearing shaft assembly fasteners **(Figure 62, item 2)**.

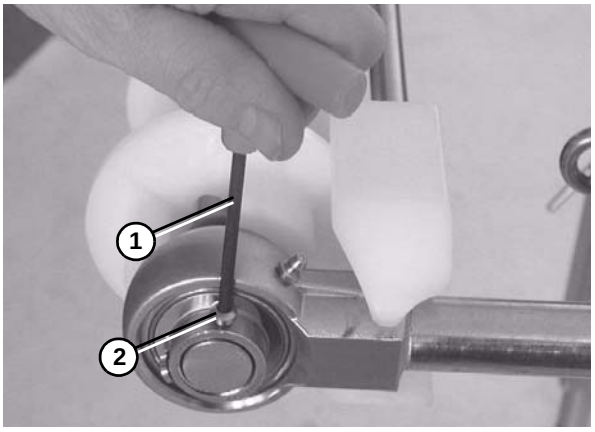


Figure 62

5. Slide the bearing shaft assembly **(Figure 63, item 1)** washer off **(Figure 63, item 3)**, O-ring **(Figure 63, item 4)**, and flanged puck **(Figure 63, item 5)** off the idler shaft **(Figure 63, item 2)**.

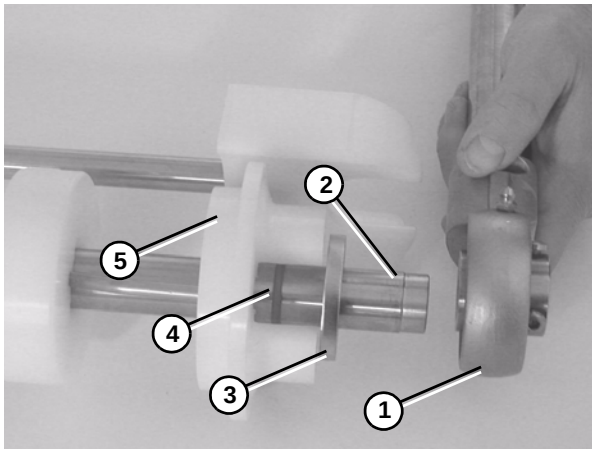


Figure 63

6. Remove the guard bar **(Figure 64, item 1)**.

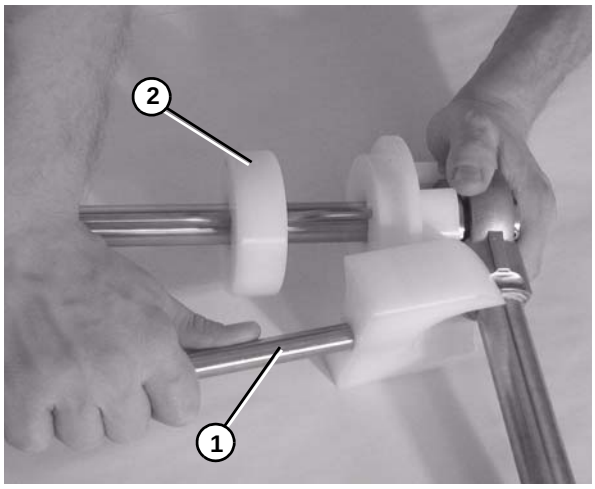


Figure 64

7. Remove the pucks **(Figure 64, item 2)**.

Reassembling Tail Assembly

Refer to the "Service Parts" section starting on page 27 for complete diagrams and lists of all tail assembly components.

Tip Up Idler Tail

1. Place the idler puck **(Figure 65, item 1)** at the center of the bent retaining bar **(Figure 65, item 2)**.
2. Slide the idler puck onto the idler shaft **(Figure 65, item 3)**. Make sure to center the idler puck.

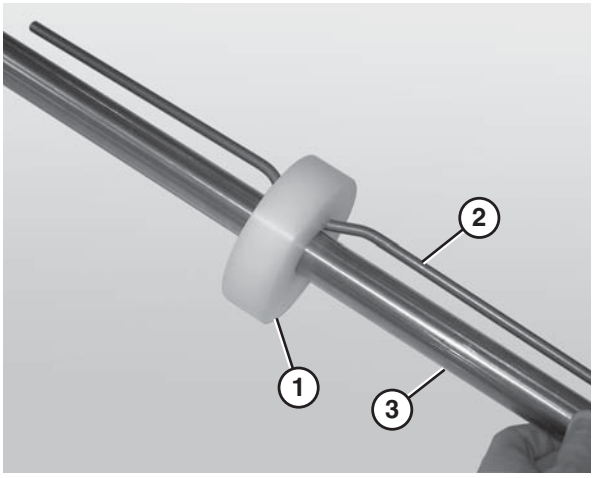


Figure 65

3. Attach the flanged pucks **(Figure 66, item 5)**, the O-rings **(Figure 66, item 4)**, the washers **(Figure 66, item 3)** and the bearing shaft assemblies **(Figure 66, item 1)** onto the idler shaft **(Figure 66, item 2)**.

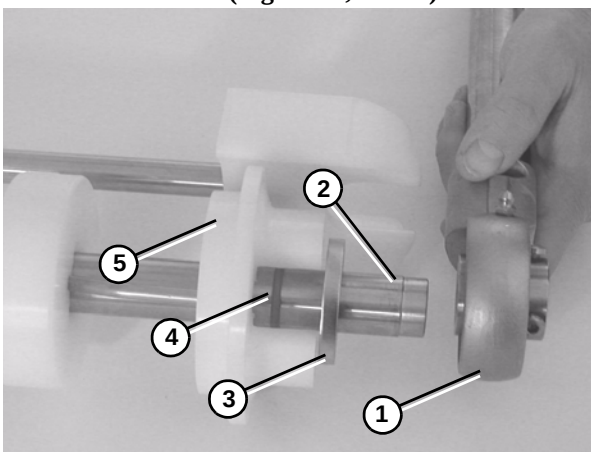


Figure 66

4. Attach the guard bar **(Figure 67, item 1)**.

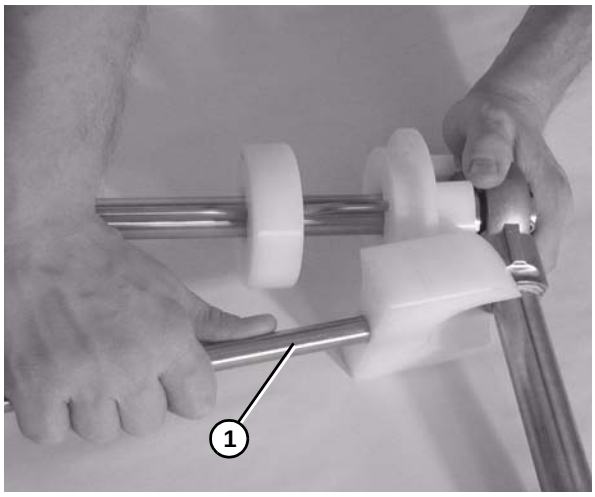


Figure 67

5. Use a hex wrench **(Figure 68, item 1)** to tighten the bearing shaft fasteners **(Figure 68, item 2)** to 54 in•lbs. Check after 24 hours of conveyor use.

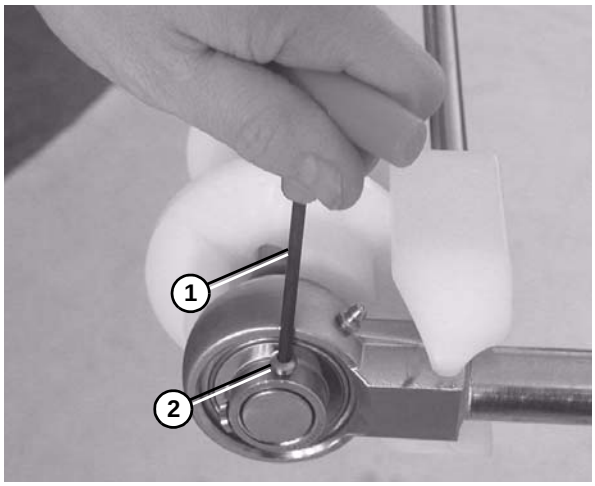


Figure 68

6. Attach the bearing covers. Reference figure 61.

Drive Tail

1. Attach a flanged puck **(Figure 69, item 1)**, an O-ring **(Figure 69, item 4)**, a washer **(Figure 69, item 5)** and a bearing shaft assembly **(Figures 69, item 2)** to the supporter end of the drive spindle.

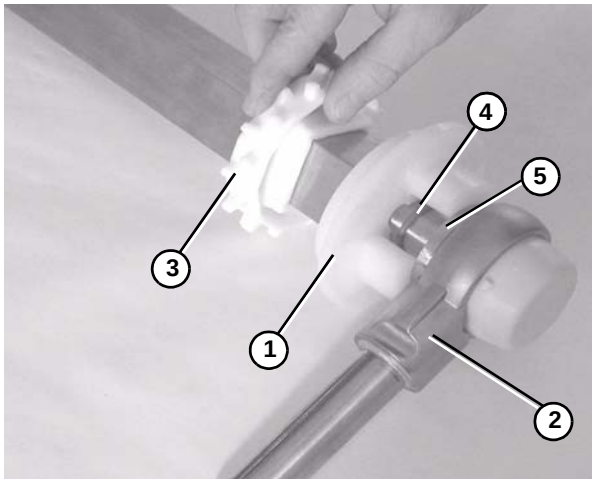


Figure 69

2. Slide the first sprocket **(Figure 69, item 3)** onto the drive spindle.
3. Insert the sprocket alignment bar **(Figure 70, item 1)** into the first sprocket **(Figure 70, item 2)** resting it up against the flanged puck **(Figure 70, item 3)**. Position the first sprocket with the notch in the sprocket alignment bar.

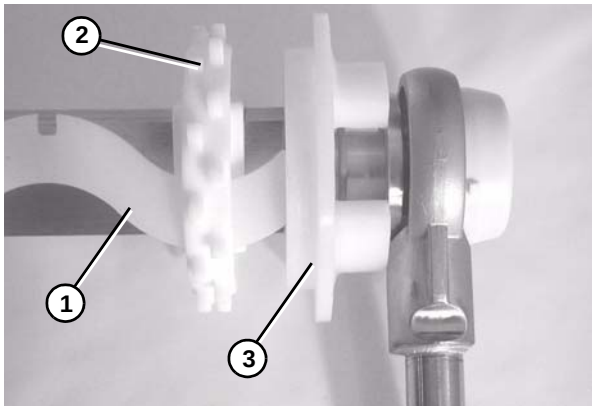


Figure 70

4. Install the remaining sprockets **(Figure 71, item 1)** making sure to position each sprocket with the next available notch **(Figure 71, item 2)** in the sprocket alignment bar.

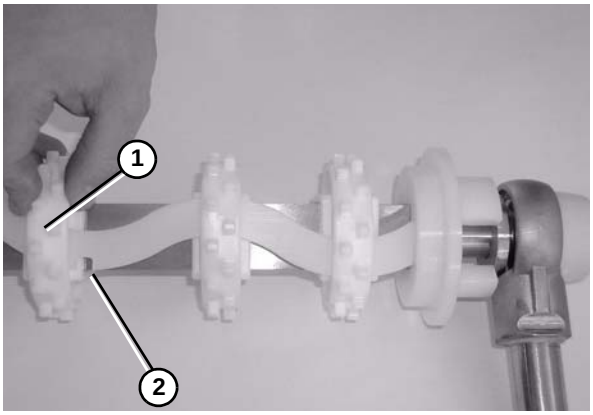


Figure 71

5. Install a flanged puck **(Figure 72, item 2)** onto spindle shaft. Install O-ring **(Figure 72, item 1)** onto spindle in groove provided.

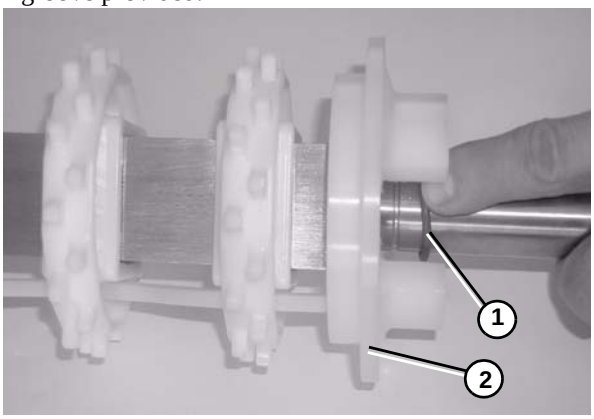


Figure 72

6. Install washer **(Figure 73, item 1)** onto spindle shaft.

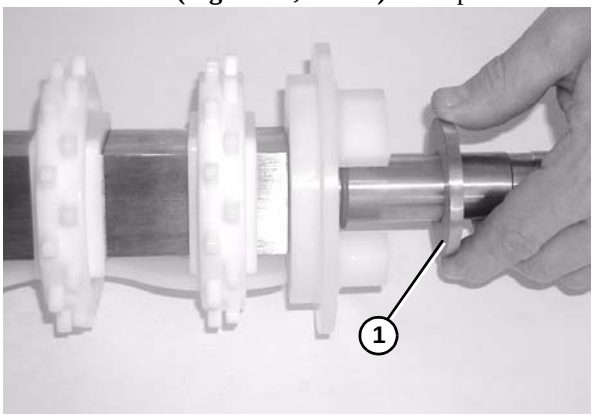


Figure 73

7. Slide the retaining ring **(Figure 74, item 1)** onto the drive spindle. Leave a slight gap between ring and washer to allow flanged puck to spin freely.

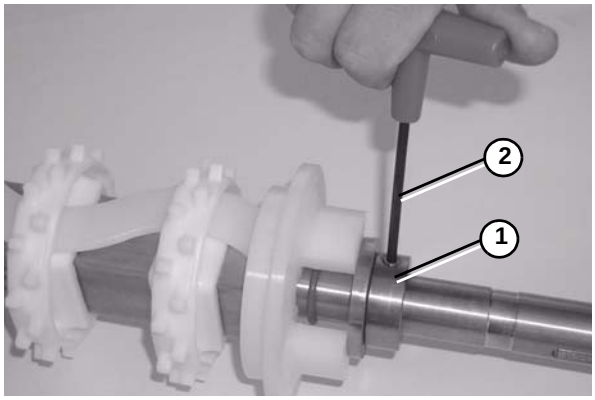


Figure 74

8. Tighten the retainer ring fastener using a hex wrench **(Figure 74, item 2)**.
9. Slide the second bearing shaft assembly, or the motor mount bracket **(Figure 75, item 1)**, onto the longer end of the drive spindle **(Figure 75, item 2)**.

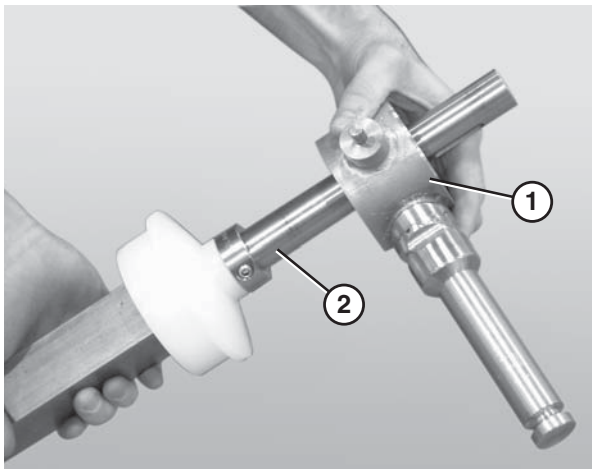


Figure 75

10. Attach the guard bar **(Figure 76, item 1)** to the bearing / motor mount bracket shafts **(Figure 76, item 2)**.

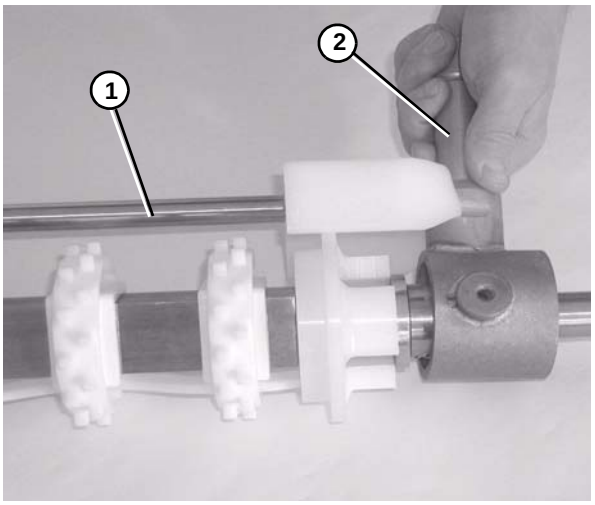


Figure 76

11. Use a hex wrench **(Figure 77, item 1)** to tighten the bearing shaft fasteners **(Figure 77, item 2)** to 54 in•lbs. Check after 24 hours of conveyor use.

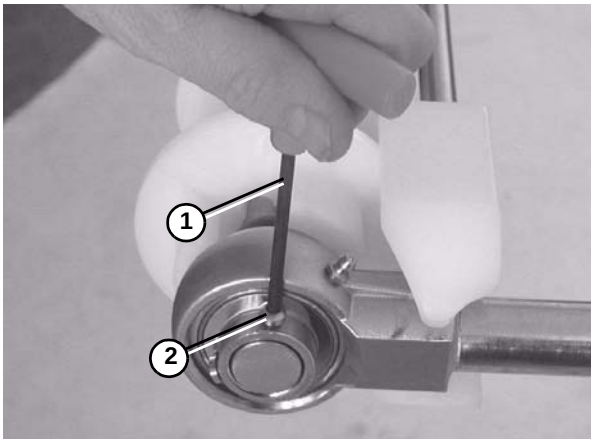


Figure 77

12. Attach the bearing covers.

Bearing Replacement

1. Secure the bearing shaft in the take up blocks.
2. Insert the rod end of a second bearing shaft through the bearing **(Figure 78)**.

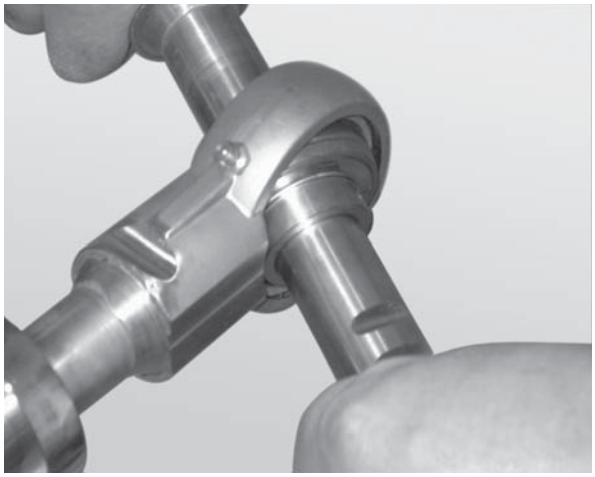


Figure 78

3. Apply lateral pressure to the rod until the bearing comes loose.
4. Remove the worn or damaged bearing **(Figure 79)** to 54 in•lbs. Check after 24 hours of conveyor use.

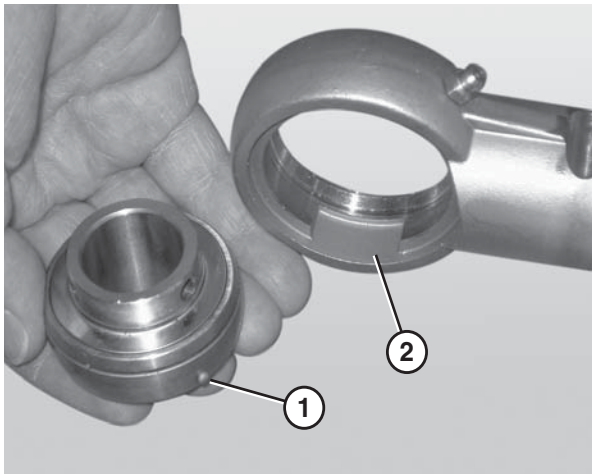


Figure 79

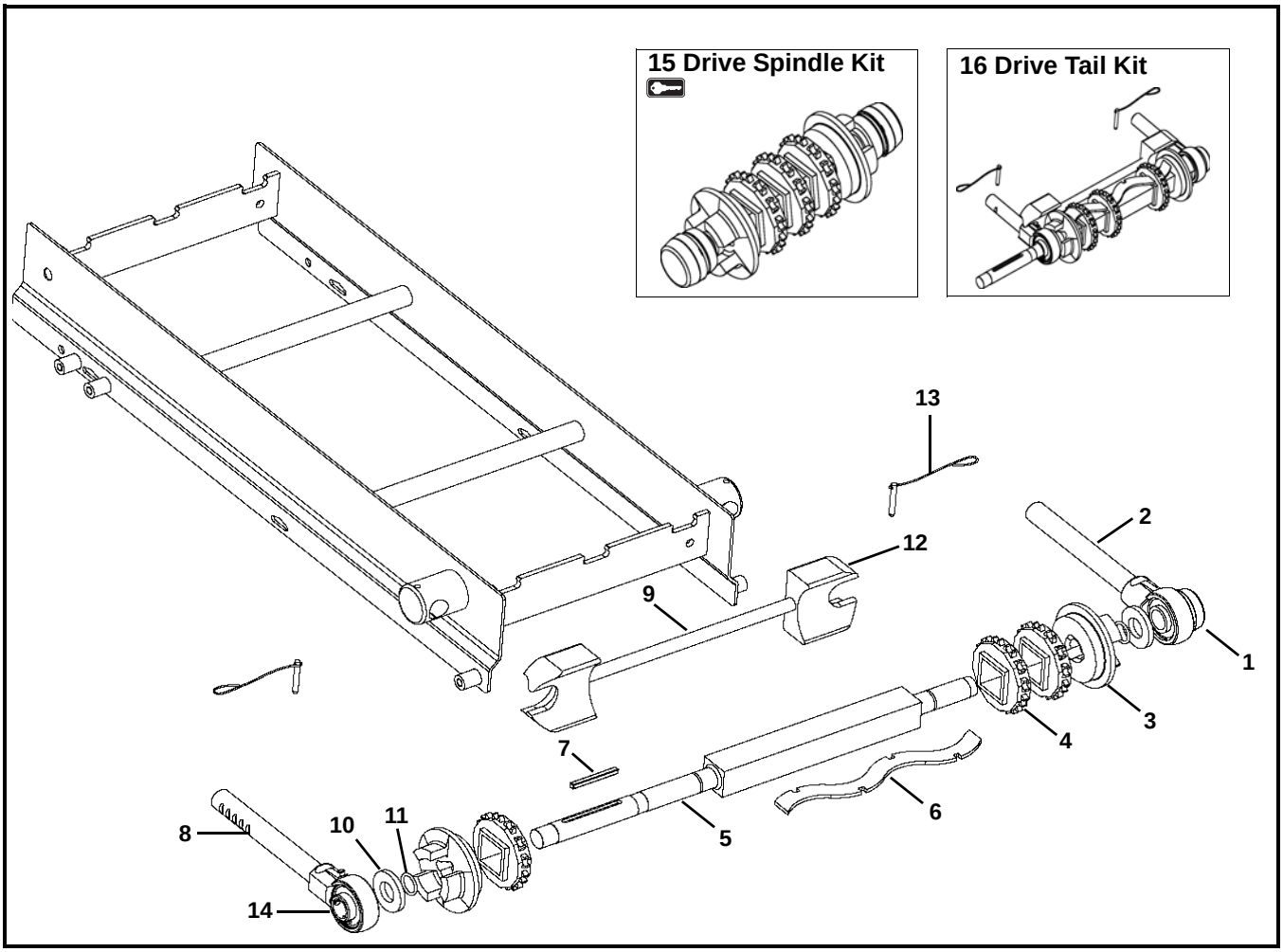
5. Replace the bearing. Reference figure 61.

NOTE
*When inserting the new bearing, make sure the anti-rotation notch **(Figure 79, item 1)** on the bearing lines up with the groove inside the housing **(Figure 79, item 2)**.*

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.

Drive End Components



Item	Part Number	Description
1	807-1454	Bearing Cover
2	500078	Shaft Assembly with Bearing
3	5172WW	Flanged Puck, Drive Tail for Standard Belt
	5173WW	Flanged Puck, Drive Tail for Specialty Intralox Belt
4	807-1443	Sprocket for Standard .50" Pitch Belt
	807-1444	Sprocket for Standard 1.00" Pitch Belt
	807-1446	Sprocket for Specialty Intralox .60" Pitch Belt
	807-1445	Sprocket for Specialty Intralox 1.00" Pitch Belt

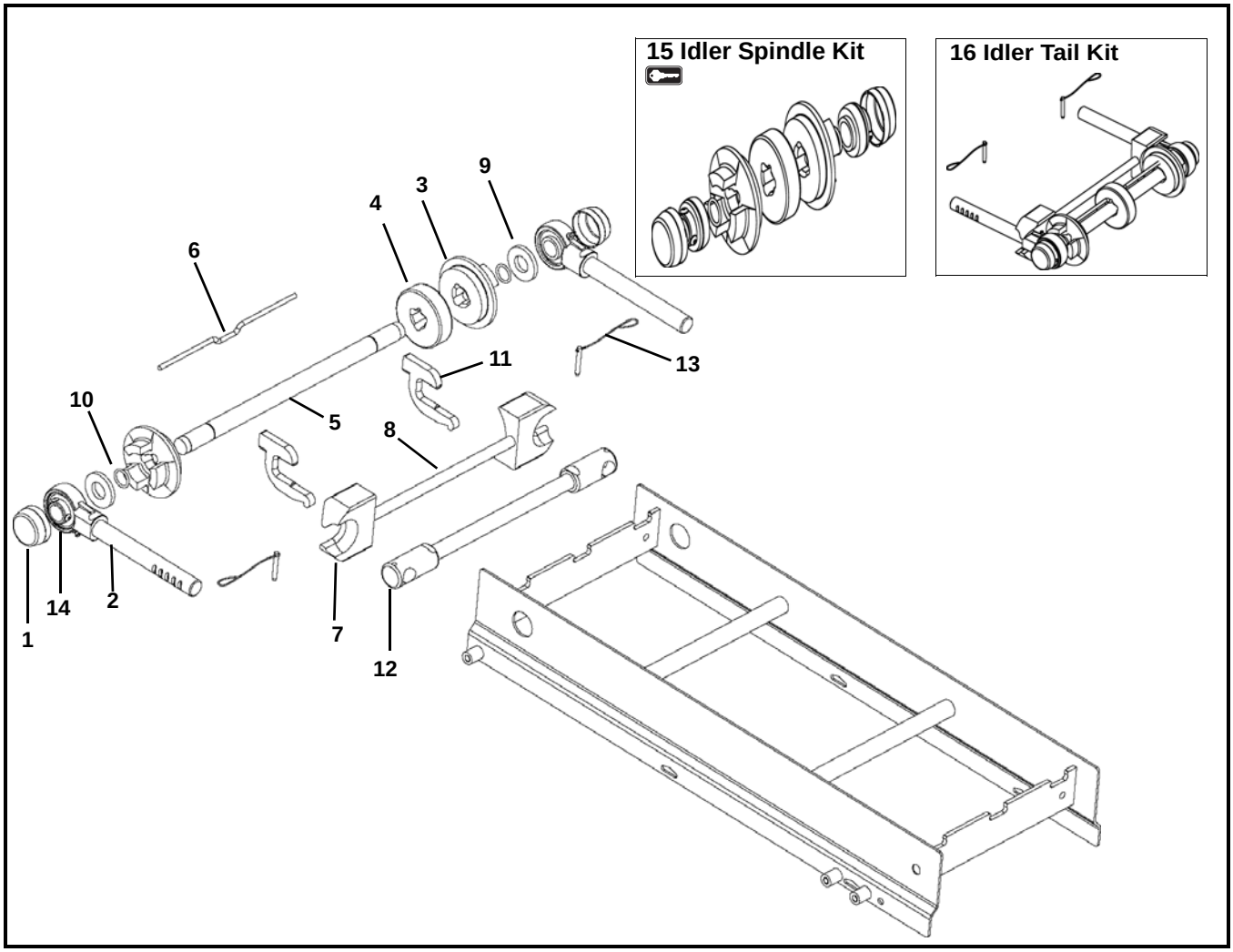
Item	Part Number	Description
5	5179WW	Drive Spindle for Standard Belt
	5180WW	Drive Spindle for Specialty Intralox Belt
6	5162WW	Sprocket Alignment Bar for Standard .50" Pitch Belt
	5160WW	Sprocket Alignment Bar for Standard 1.00" Pitch Belt
	5163WW	Sprocket Alignment Bar for Specialty Intralox .60" Pitch Belt
	5164WW	Sprocket Alignment Bar for Specialty Intralox 1.00" Pitch Belt
7	912-111SS	Square Key .25 x 2.50"
8 *	500078	Shaft Assembly with Bearing

Service Parts

Item	Part Number	Description
9	5154WW	Guard Bar Shaft
10	501381	Washer
11	807-1588	O-Ring
12	501188	Guard Bar
13	501676	Pin Assembly
14	802-162	Bearing
15	74DU12-WW 620-1	Drive Spindle Kit for Standard .50" Pitch Belt (Includes Items 1, 3, 4, 11 and 14)
	74DU25-WW 620-2	Drive Spindle Kit for Standard 1.00" Pitch Belt (Includes Items 1, 3, 4, 11 and 14)
	74DU11-WW 620-3	Drive Spindle Kit for Specialty Intralox .60" Pitch Belt (Includes Items 1, 3, 4 and 11)
	74DU16-WW 620-4	Drive Spindle Kit for Specialty Intralox 1.00" Pitch Belt (Includes Items 1, 3, 4 and 11)
16	74DDTU12-WW	Drive Tail Kit for Standard .50" Pitch Belt (Includes Items 1 through 10)
	74DDTU25-WW	Drive Tail Kit for Standard 1.00" Pitch Belt (Includes Items 1 through 10)
	74DDTU11-WW	Drive Tail Kit for Specialty Intralox .60" Pitch Belt (Includes Items 1 through 10)
	74DDTU16-WW	Drive Tail Kit for Specialty Intralox 1.00" Pitch Belt (Includes Items 1 through 10)
WW = Conveyor width ref: 06 - 36 in 02 increments		
* When the conveyor is ordered with a Dorner gearmotor mounting package the shaft assembly is replaced with a gearmotor mounting bracket.		

Sprocket Quantity (Item 4)	
Width	Sprocket Quantity
6" (152mm)	2
8" (203mm)	2
10" (254mm)	3
12" (305mm)	3
14" (356mm)	4
16" (406mm)	4
18" (457mm)	5
20" (508mm)	5
22" (559mm)	6
24" (610mm)	6
26" (660mm)	7
28" (711mm)	7
30" (762mm)	8
32" (813mm)	8
34" (864mm)	9
36" (914mm)	9

Tip Up Tension End

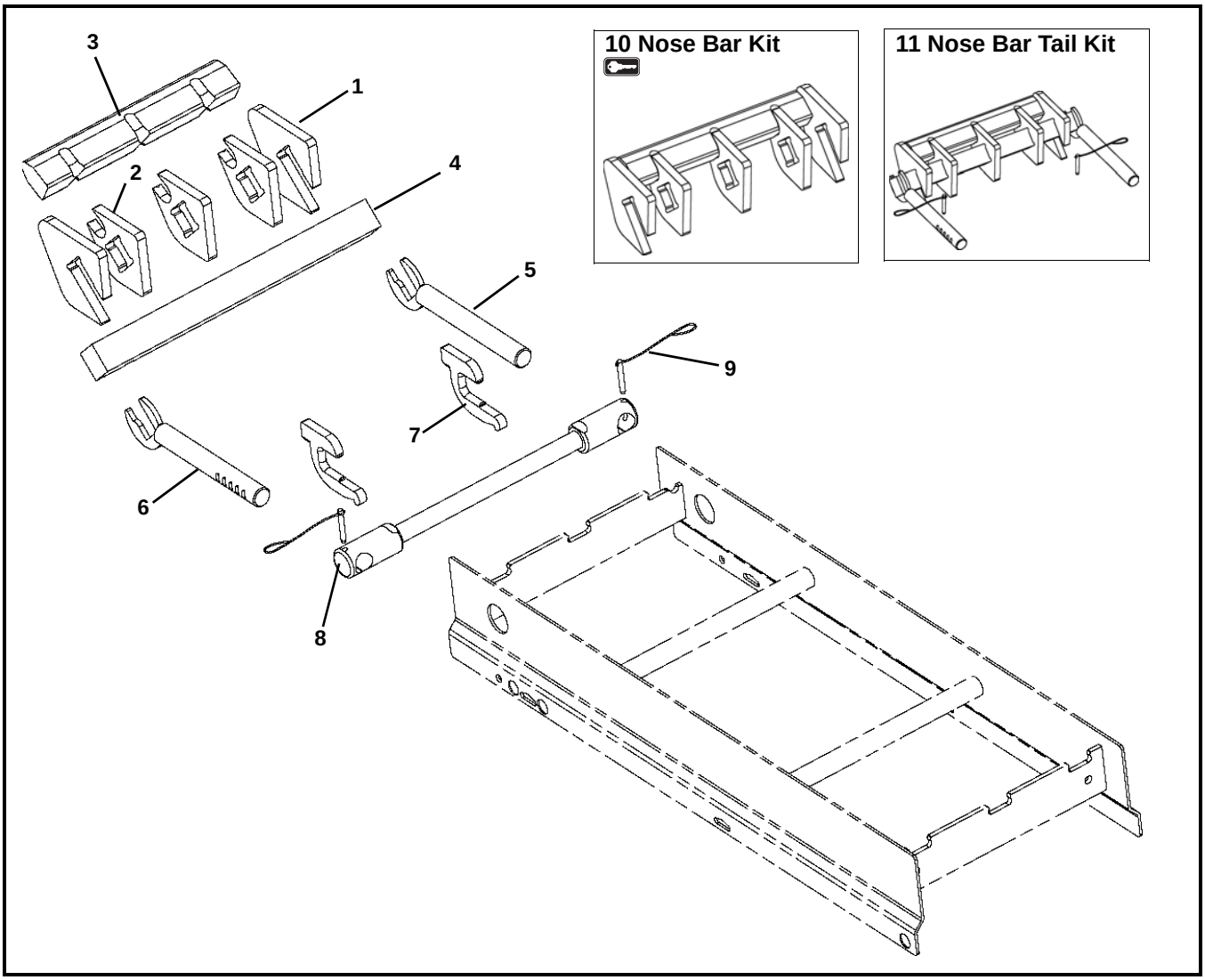


Item	Part Number	Description
1	807-1454	Bearing Cover
2	500079	Shaft Assembly with Bearing
3	5172WW	Flanged Puck, Idler Tail for Standard Belt
	5173WW	Flanged Puck, Idler Tail for Specialty Intralox Belt
4	501189	Idler Puck (for 6" - 60" wide conveyors only)
5	5156WW	Idler Shaft
6	5157WW	Bent Retaining Bar for Standard Belt (for 6" - 60" wide conveyors only)
	5167WW	Bent Retaining Bar for Specialty Intralox Belt (for 6" - 60" wide conveyors only)
7	501188	Guard Bar
8	5154WW	Guard Bar Shaft
9	501381	Washer
10	807-1588	O-Ring
11	501184	Key Stop

Item	Part Number	Description
12	5182WW	Tip Up Shaft Assembly
13	501676	Pin Assembly
14	802-162	Bearing
15	74UI-WW 620-5	Idler Spindle Kit for Standard Belt (Includes Items 1, 3, 4, 10 and 14)
	74UIS-WW 620-6	Idler Spindle Kit for Specialty Intralox Belt (Includes Items 1, 3, 4, 10 and 14)
16	74UIT-WW	Idler Tail Kit for Standard Belt (Includes Items 1 through 10, 13 and 14)
	74UITS-WW	Idler Tail Kit for Specialty Intralox Belt (Includes Items 1 through 10, 13 and 14)
WW = Conveyor width ref: 06 - 36 in 02 increments		

Service Parts

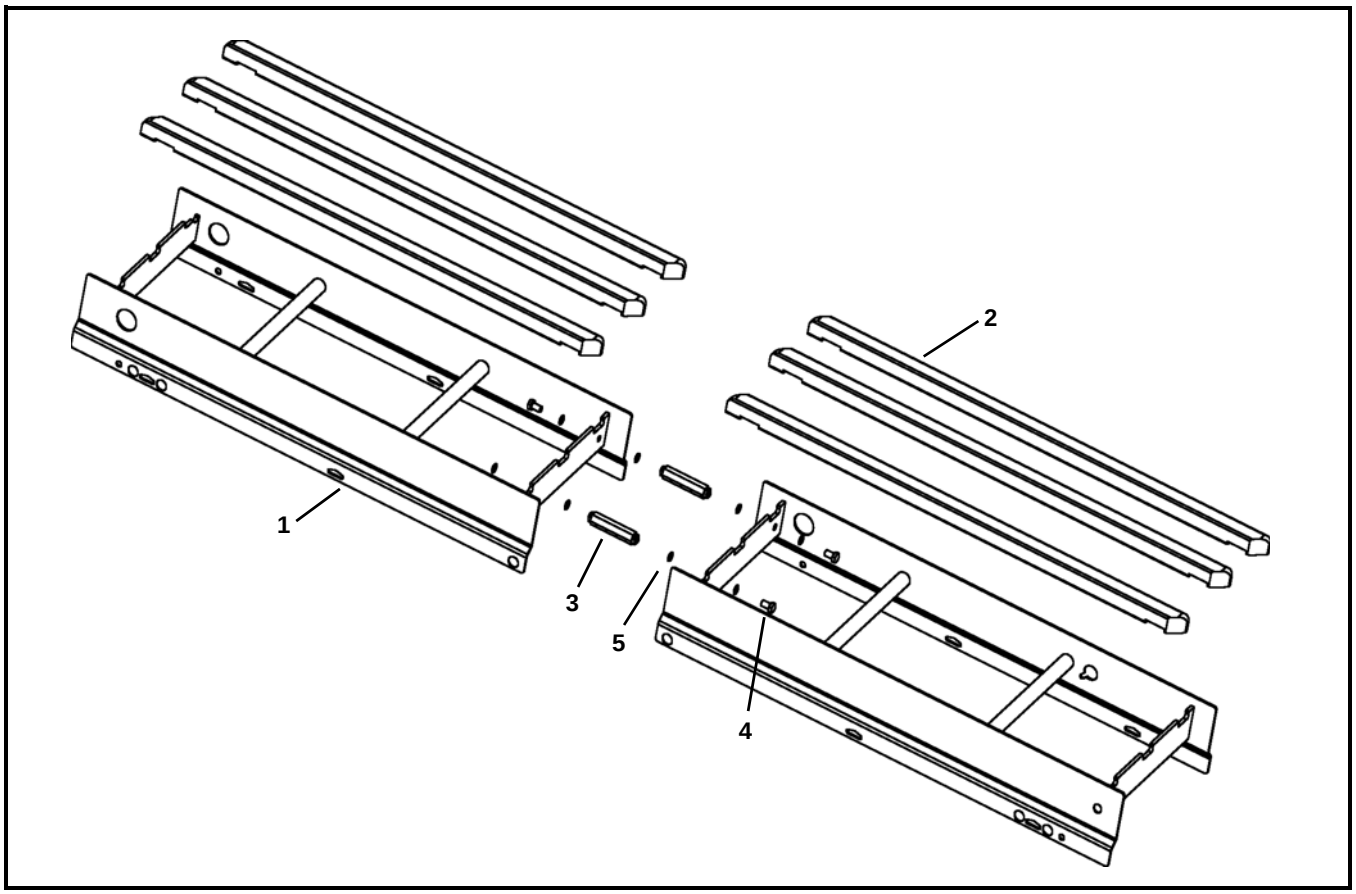
Nose Bar Tip Up Tension End



Item	Part Number	Description
1	500490	Nose Bar Tracking Puck
2	500278	Nose Bar Puck
3	5056WW	.5" Pitch Nose Bar Wear Strip
	5058WW	1" Pitch Nose Bar Wear Strip
4	5176WW	Nose Bar Transfer Post for Standard Belt
	5177WW	Nose Bar Transfer Post for Specialty Intralox Belt
5	500487	Nose Bar Idler Shaft Left Hand
6	500488	Nose Bar Idler Shaft Right Hand
7	501184	Key Stop
8	5182WW	Tip Up Shaft Assembly

Item	Part Number	Description
9	501676	Pin Assembly
10	74UNB5-WW 620-7	.5" Nose Bar Kit (Includes Items 1 through 3) Standard
	74UNB1-WW 620-8	1" Nose Bar Kit (Includes Items 1 through 3) Special
11	74UNBT5-WW	.5" Nose Bar Tail Kit for Standard Belt (Includes Items 1 through 6 and 9)
	74UNBT1-WW	1" Nose Bar Tail Kit For Standard Belt (Includes Items 1 through 6 and 9)
	74UNBT5S-WW	.5" Nose Bar Tail Kit for Specialty Intralox Belt (Includes Items 1 through 6 and 9)
	74UNBT1S-WW	1" Nose Bar Tail Kit For Specialty Intralox Belt (Includes Items 1 through 6 and 9)
WW = Conveyor width ref: 06 - 36 in 02 increments		

Conveyor Frame and Extension



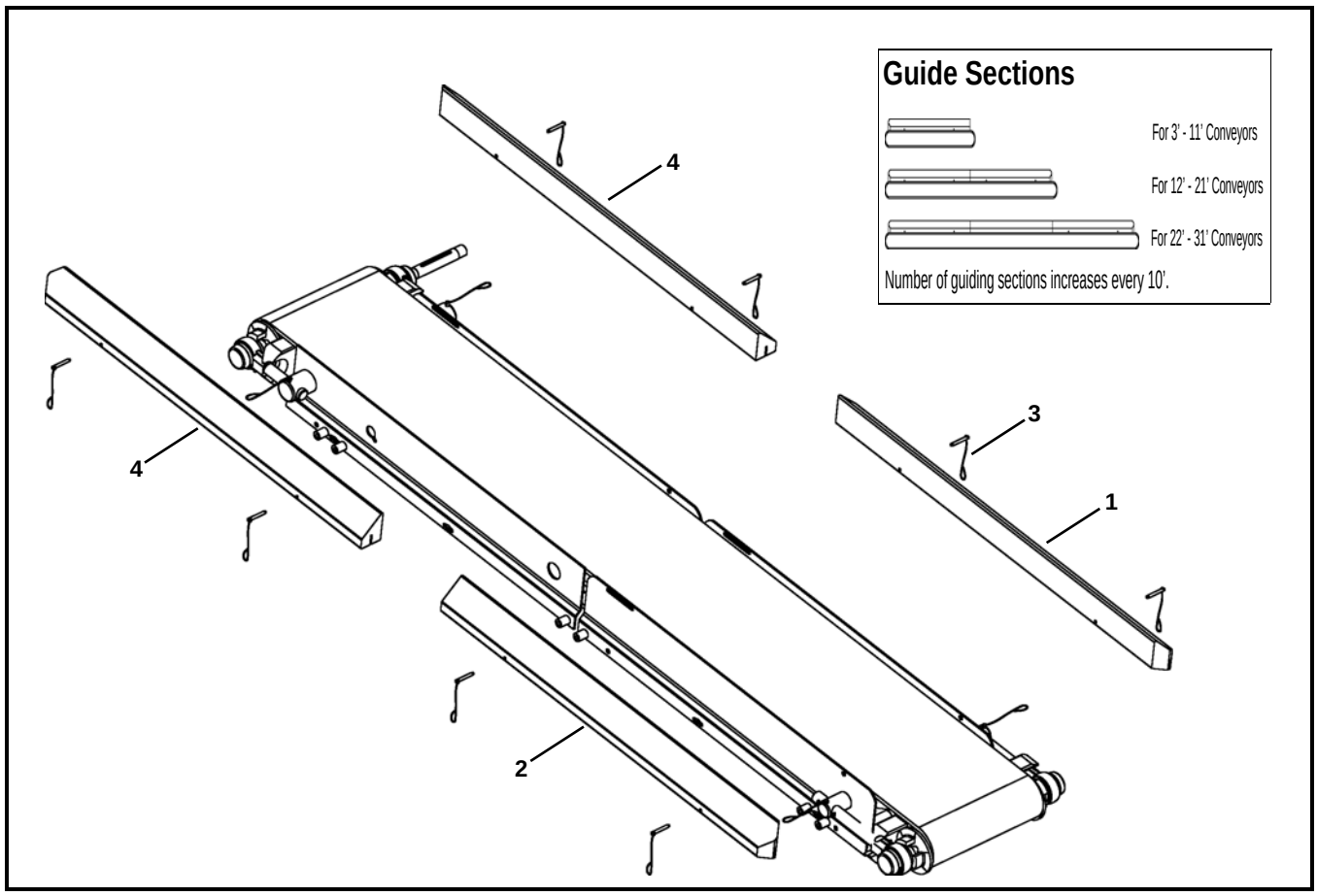
Item	Part Number	Description
1	------	Consult Factory for Frame Part Number
2	501800-LLL	Straight Wear Strip
3	501190	Hex Post Connector
4	961016MSS	Hex Head Cap Screw M10-1.5 x 16mm
5	807-1616	O-Ring
LLL = Conveyor length ref: 036 - 999 in 001 increments		

Wear Strip Quantity (Item 2)									
		Conveyor Length (LLL)							
		036-132	133-252	253-372	373-492	493-612	613-732	733-852	853-999
Conveyor Width (WW)	06	2	4	6	8	10	12	14	16
	08	2	4	6	8	10	12	14	16
	10	3	6	9	12	15	18	21	24
	12	3	6	9	12	15	18	21	24
	14	3	6	9	12	15	18	21	24
	16	4	8	12	16	20	24	28	32
	18	4	8	12	16	20	24	28	32
	20	5	10	15	20	25	30	35	40
	22	5	10	15	20	25	30	35	40
	24	5	10	15	20	25	30	35	40

Wear Strip Quantity (Item 2)									
		Conveyor Length (LLL)							
		036-132	133-252	253-372	373-492	493-612	613-732	733-852	853-999
Conveyor Width (WW)	26	6	12	18	24	30	36	42	48
	28	6	12	18	24	30	36	42	48
	30	6	12	18	24	30	36	42	48
	32	7	14	21	28	35	42	49	56
	34	7	14	21	28	35	42	49	56
	36	8	16	24	32	40	48	56	64

Service Parts

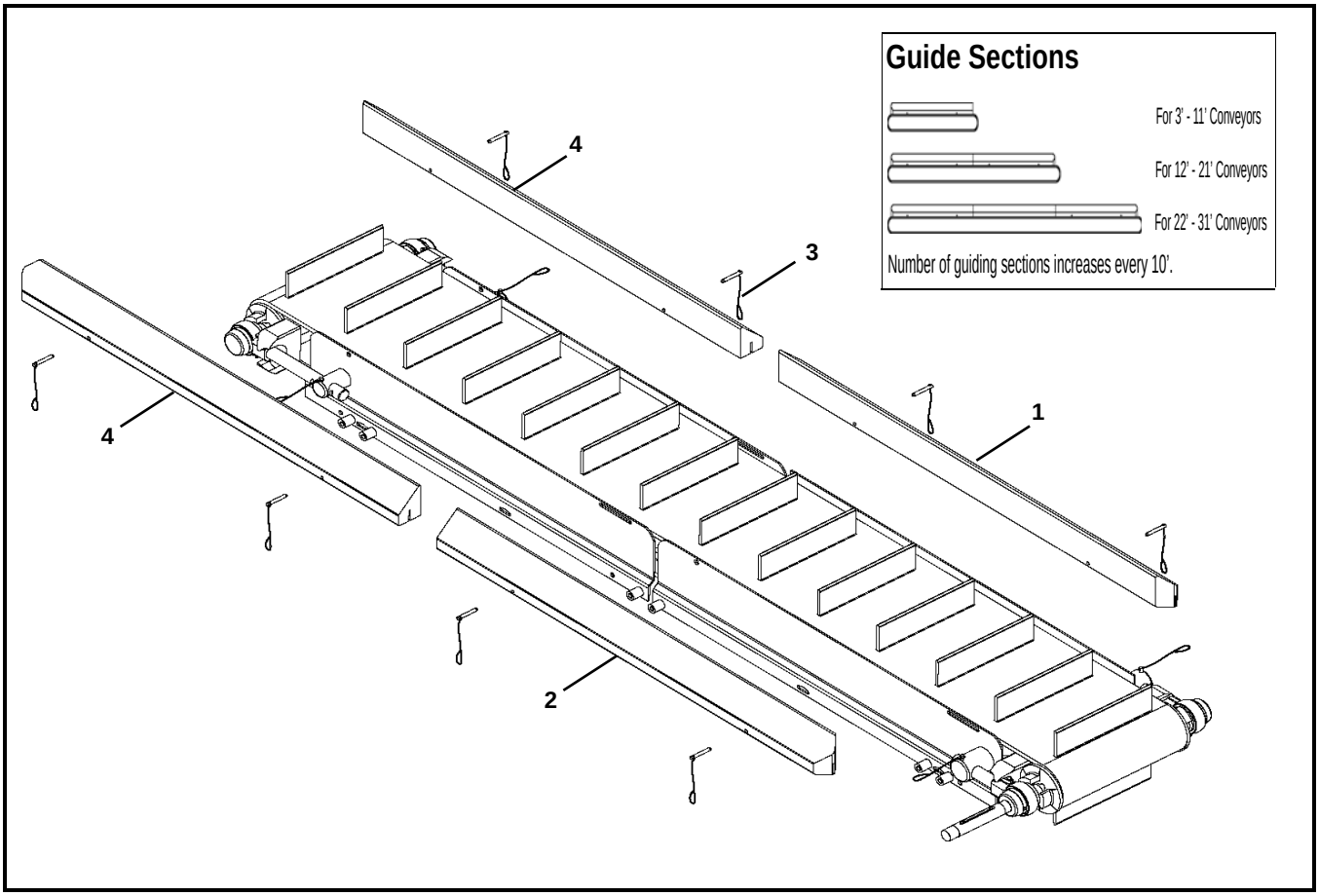
3" (76 mm) High Sides



Item	Part Number	Description
1	503501-LLLLL	Right Hand High Side Guide
2	503601-LLLLL	Left Hand High Side Guide
3	501676	Pin Assembly

Item	Part Number	Description
4	503401-LLLLL	Square End High Side Guide
LLLLL = Guide Length in inches with 2 decimal places.		
Example: Guide Length = 95.25" LLLLL = 09525		

Cleated 1" (25 mm) Guides

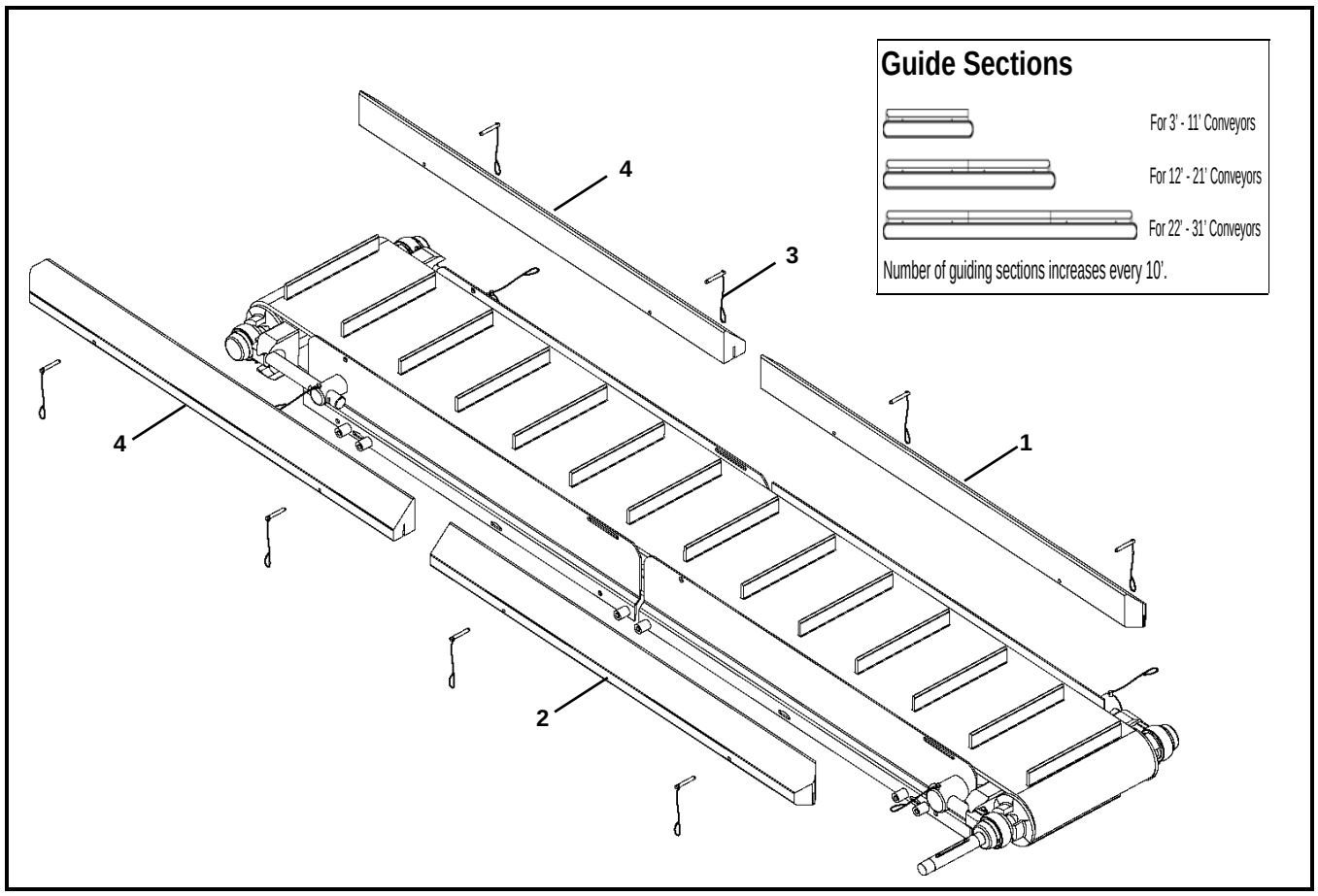


Item	Part Number	Description
1	502401-LLLLL	1" Cleated Right Hand Guide (6" - 16" wide conveyors)
	502402-LLLLL	1" Cleated Right Hand Guide (18" - 24" wide conveyors)
2	502501-LLLLL	1" Cleated Left Hand Guide (6" - 16" wide conveyors)
	502502-LLLLL	1" Cleated Left Hand Guide (18" - 24" wide conveyors)

Item	Part Number	Description
3	501676	Pin Assembly
4	502301-LLLLL	1" Cleated Guide Square End (6" - 16" wide conveyors)
	502302-LLLLL	1" Cleated Guide Square End (18" - 24" wide conveyors)
LLLLL = Guide Length in inches with 2 decimal places.		
Example: Guide Length = 95.25" LLLLL = 09525		

Service Parts

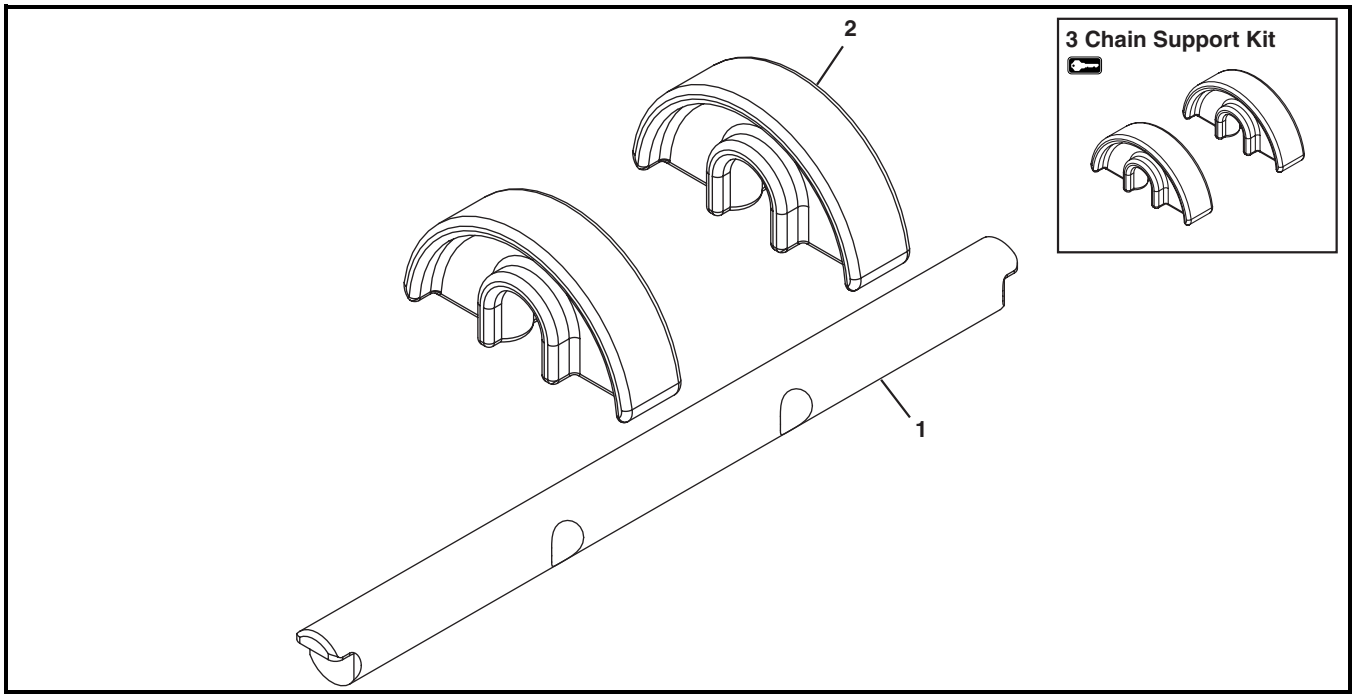
Cleated 3" (76 mm) Guides



Item	Part Number	Description
1	502701-LLLLL	3" Cleated Right Hand Guide (6" - 16" wide conveyors)
	502702-LLLLL	3" Cleated Right Hand Guide (18" - 24" wide conveyors)
2	502801-LLLLL	3" Cleated Left Hand Guide (6" - 16" wide conveyors)
	502802-LLLLL	3" Cleated Left Hand Guide (18" - 24" wide conveyors)

Item	Part Number	Description
3	501676	Pin Assembly
4	502601-LLLLL	3" Cleated Guide Square End (6" - 16" wide conveyors)
	502602-LLLLL	3" Cleated Guide Square End (18" - 24" wide conveyors)
LLLLL = Guide Length in inches with 2 decimal places.		
Example: Guide Length = 95.25" LLLLL = 09525		

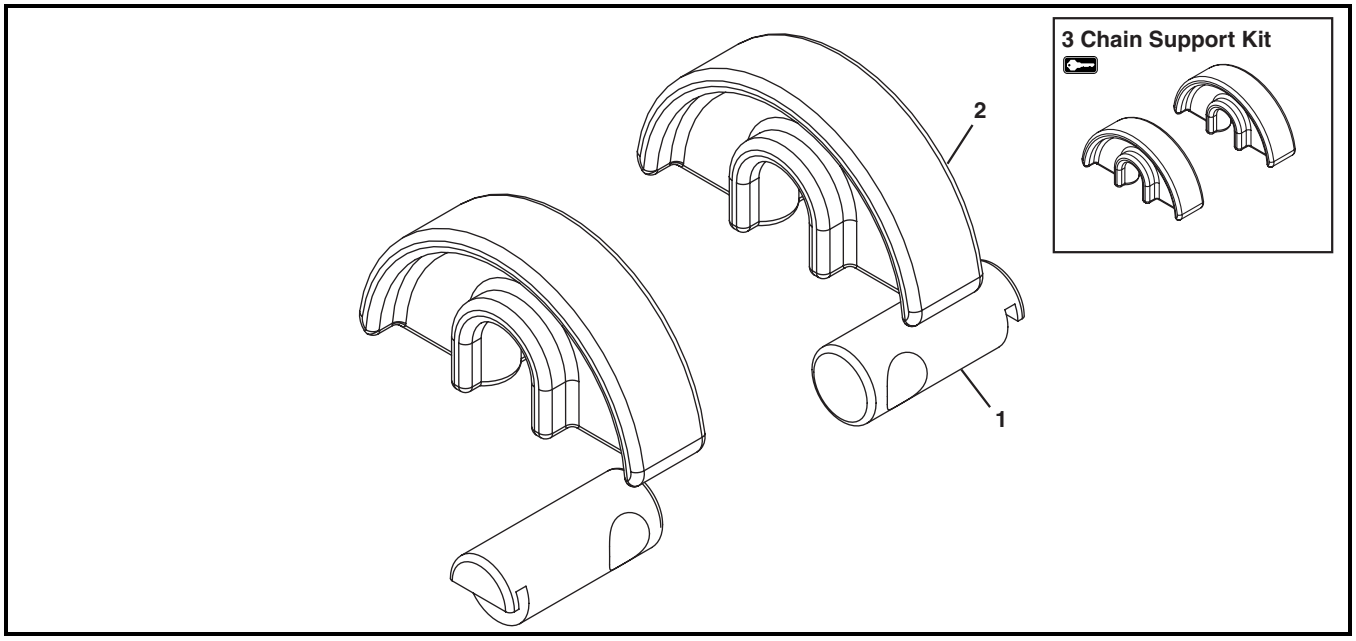
Flat Belt Returns



Item	Part Number	Description
1	5032WW	Return Shaft
2	500075	Chain Return Shoe

Item	Part Number	Description
3	74R-WW	Chain Support Kit (Includes Item 2)
WW = Conveyor width ref: 06 - 60 in 02 increments		

Cleated Belt Returns

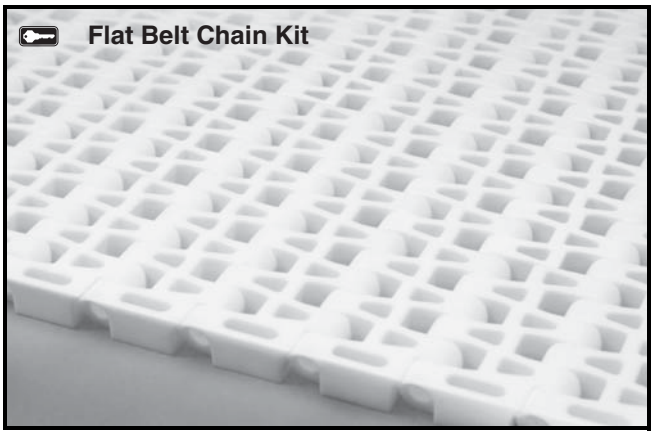


Item	Part Number	Description
1	500196	Cleated Return Shaft
2	500075	Chain Return Shoe

Item	Part Number	Description
3	74CR	Chain Support Kit (Includes Item 2)

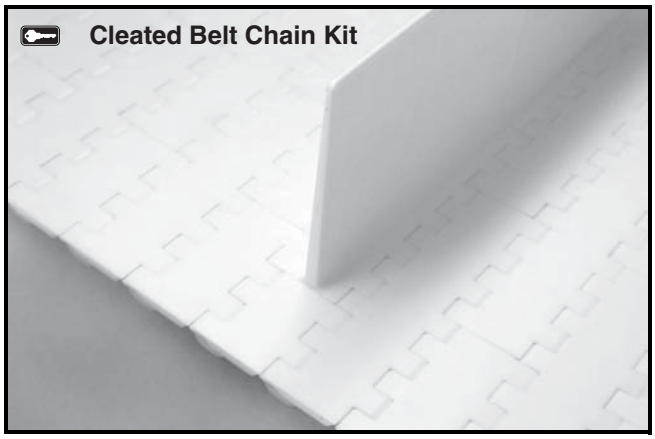
Service Parts

Flat Belt



Item	Part Number	Description
1	74BB-WW	Flat Belt Chain Repair Kit (Includes 1 ft (305 mm) of flat belt chain and assembly pins)
BB = Chain Reference Number		
WW = Conveyor width ref: 06 - 60 in 02 increments		

Cleated Belt



Item	Part Number	Description
1	74BB-WW-SS	Cleated Belt Chain Repair Kit (Includes 1 cleat centered on a cleat spacing length of chain and assembly pins)
BB = Chain Reference Number		
WW = Conveyor width ref: 06 - 60 in 02 increments		
SS = Cleat Spacing		

Ordering a Replacement Chain

Determine the length of chain required for the conveyor and round up to the nearest foot length. Order the proper number of chain repair kits (1' long each) for your conveyor. Dorner will ship chain kits that are of a reasonable length fully assembled.

Example:

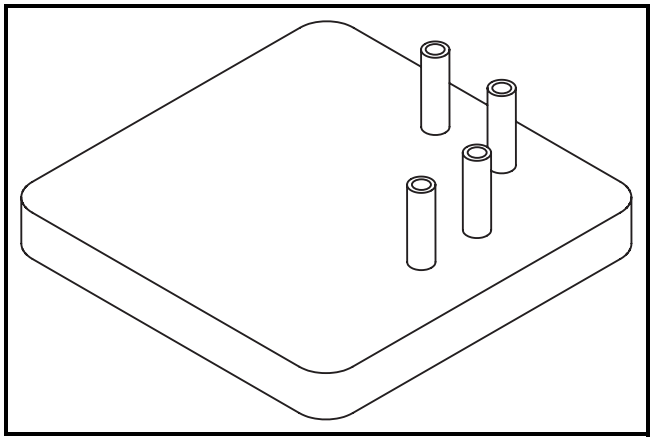
Overall chain length = 42' 5" (rounded up = 43')

Order: Qty (43) of 74BB-WW

BB = Chain reference number

WW = Conveyor width ref: 06-60 in 02 increments

Belt Removal Tool



Item	Part Number	Description
1	500582	Tool Rod Removal for 1" Pitch Flush Grid Belt
	500494	Tool Rod Removal for 1/2" Pitch Flush Grid Belt

Configuring Conveyor Part Number

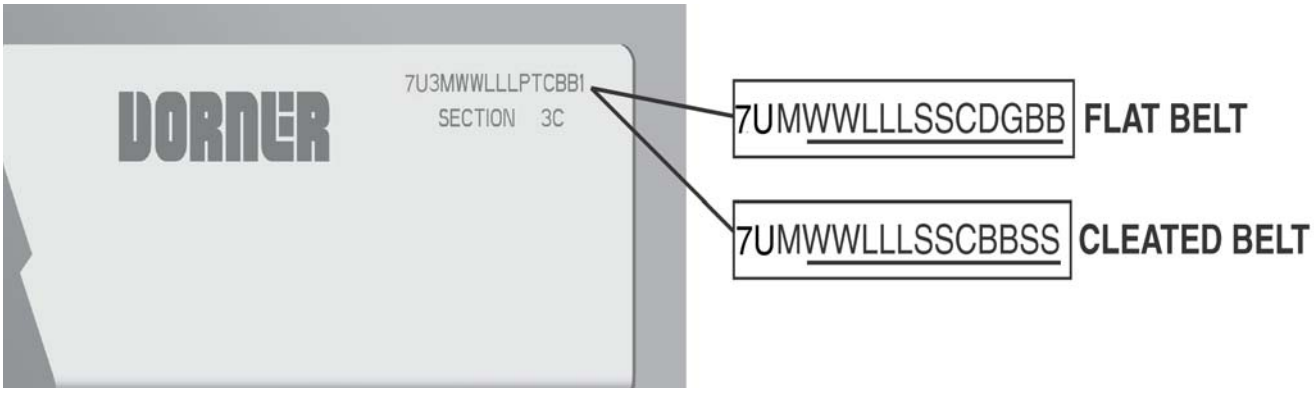


Figure 80

Flat Belt Conveyor

Refer to the model number on the conveyor frame **(Figure 80)**. From the model number, determine conveyor width (WW), length (LLL), drive stand location (S), idler stand location (S), cleaning options (C), drive/pulley type (D), profile (G) and belt material (BB).

Example:
7UM12072CC111MA

7400 Ultimate Series end drive, flat belt conveyor, 12" (305mm) wide x 72" (1829mm) long, stands located 18" (457mm) from each end, frame cutout cleaning option, side drive with standard pulleys on each end, low side profiles, and MA belt material.

Cleated Belt Conveyor

Refer to the model number on the conveyor frame **(Figure 80)**. From the model number, determine conveyor width (WW), length (LLL), drive stand location (S), idler stand location (S), cleaning options (C), cleated belt material (BB) and cleat spacing (SS).

Example:
7UM12072CC1NA10

7400 Ultimate Series end drive, cleated belt conveyor, 12” (305mm) wide x 72” (1829mm) long, stands located 18” (457mm) from each end, frame cutout cleaning option, NA cleated belt material, side drive with standard pulleys on each end, and 10 link spacing for cleats.

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.

DORNER MFG. CORP.
975 Cottonwood Drive, PO Box 20
Hartland, WI 53029-0020 USA
USA
TEL 1-800-397-8664 (USA)
FAX 1-800-369-2440 (USA)
Internet: www.dorner.com

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

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