7400 Series Curved Nose Bar Conveyors

Installation, Maintenance and Parts Manual

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851-594 Rev. D

Table of Contents

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 7400 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 .

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	Gearmotor
3	Belt
4	Return
5	Support Stands
6	Motor Controller
7	Drive End
8	Tension End

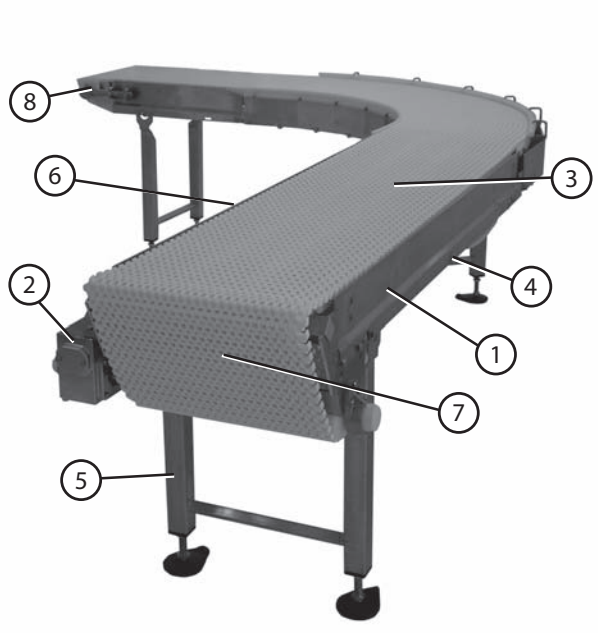


Figure 1

Specifications

Specifications

Conveyor Width Reference (WW)	08 – 36 in 02 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
Belt Take-up	2" (51 mm)

Conveyor Length Reference (LLL)	020 – 999 in 001 increments
Conveyor Length	20" (508 mm) – 999" (25.4 m) 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*

Conveyor Supports

Maximum Distances:
1 (Infeed) = 3 ft (914 mm)
2 (Outfeed) = 3 ft (914 mm)
**** Stand positions will be determined by the factory.**

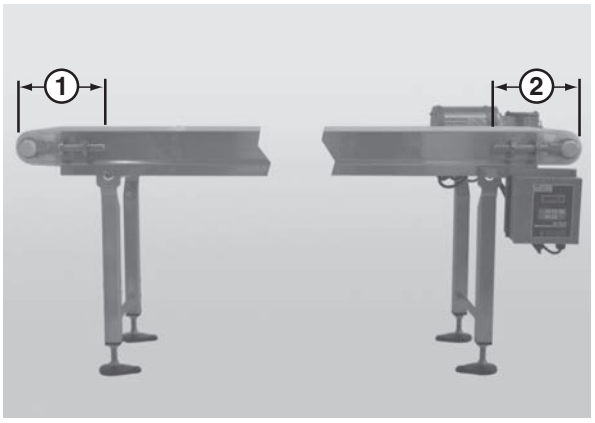
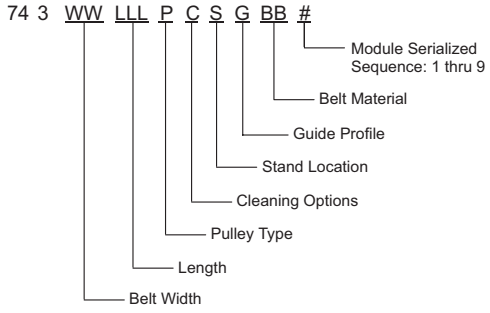


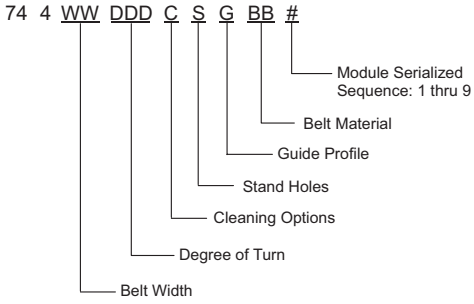
Figure 2

7400 Series Frame Section Numbers

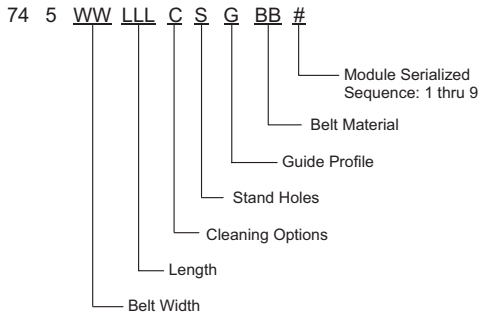
Straight Infeed / Idler Module



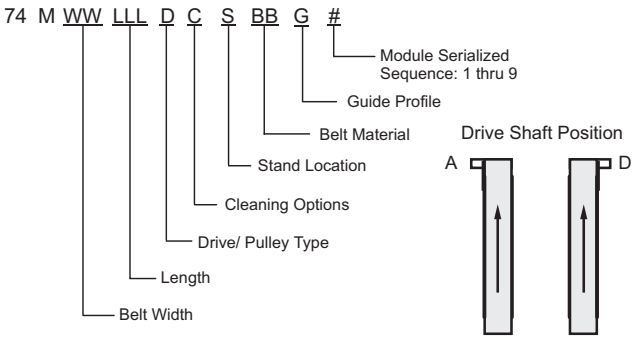
Curve Module



Straight Intermediate Module



Straight Exit / Drive Module



⚠ 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 (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. Connect the frame sections together. "Frame Section Connection" on page 6.
2. Attach the stands to the conveyor. Refer to "Stand Installation" on page 7.
3. Attach the tail assemblies to the frame. Refer to "Tail Assembly Installation" on page 8.
4. Attach the lifters, if applicable. Refer to "Lifter Installation" on page 12.
5. Install the gearmotor, if applicable. Refer to the "7400 Series Drive Package Installation, Maintenance and Parts Manual."
6. Attach the wear strips. Refer to "Wear Strip Installation" on page 12.
7. Attach the belt returns. Refer to "Belt Return Installation – Straight Frame Sections" on page 16.
8. Install the belt. Refer to "Belt Installation" on page 14.
9. Attach any guides / accessories. Refer to the "Service Parts" section starting on page 30.

Conveyor Installation

Frame Section Connection

Typical Connection Components **(Figure 4)**

1	Conveyor frame section
2	Curved conveyor frame section
3	Hex post connector (x2)
4	Flat connector (x2)*
5	M10 - 1.5 x 12 mm hex head cap screw (x4)*
6	M10 - 1.5 x 16 mm hex head cap screw (x4)

* For connections not supported by stands.

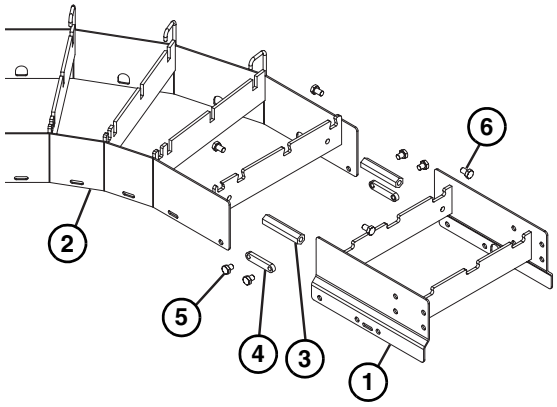


Figure 4

1. Locate the section number sequence etched on each section of frame **(Figure 5, item 1)**.

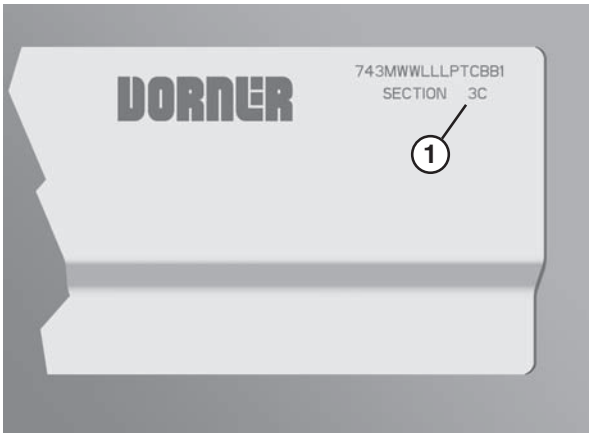


Figure 5

2. Position the frame sections in the correct order **(Figure 6)**.

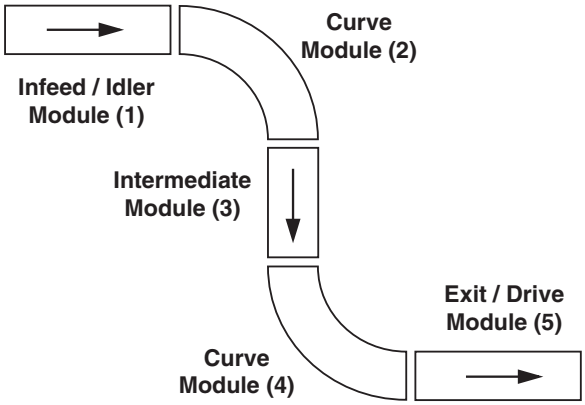


Figure 6

3. Connect the frame sections by bolting the hex post connectors **(Figure 7, item 1)** to the cross member supports of each frame section.

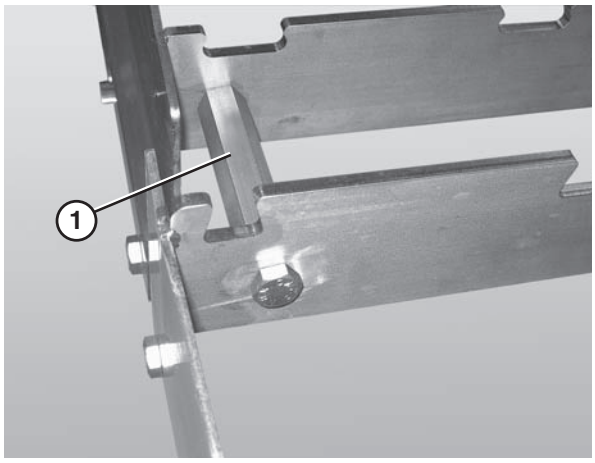


Figure 7

4. Attach the flat connectors **(Figure 8, item 1)**, if applicable, to the inside of the frame sections.

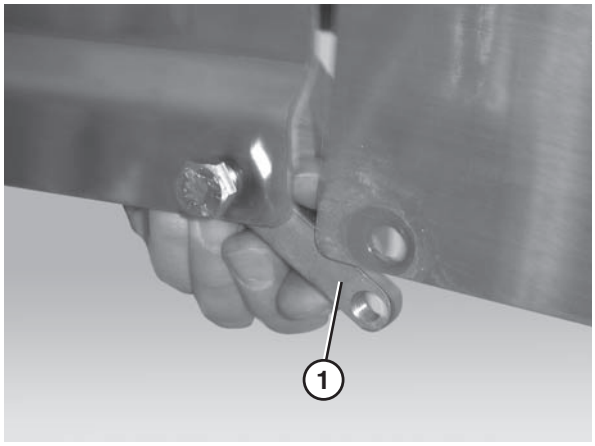


Figure 8

Stand Installation

Typical Stand Components **(Figure 9)**

1	Conveyor frame
2	Stand
3	M10 - 1.5 x 12 mm hex head cap screws (x4)

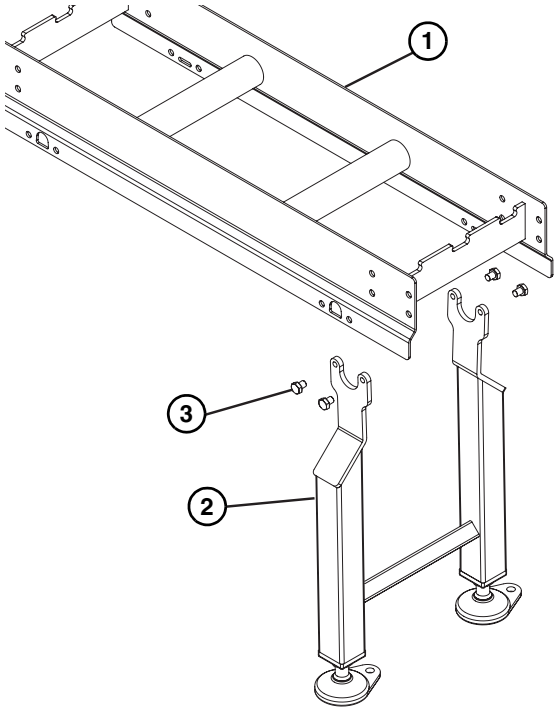


Figure 9

1. Position the stands on a flat, level surface.
2. Attach the stands to the frame **(Figure 10)**.

Figure 10

Installation

Tail Assembly Installation

Nose Bar Drive Tail

Typical Nose Bar Drive Tail Components **(Figure 11)**

1	Nose bar drive tail assembly
2	M10 x 1.5 x 12mm hex head cap screws (x4)
3	Conveyor frame

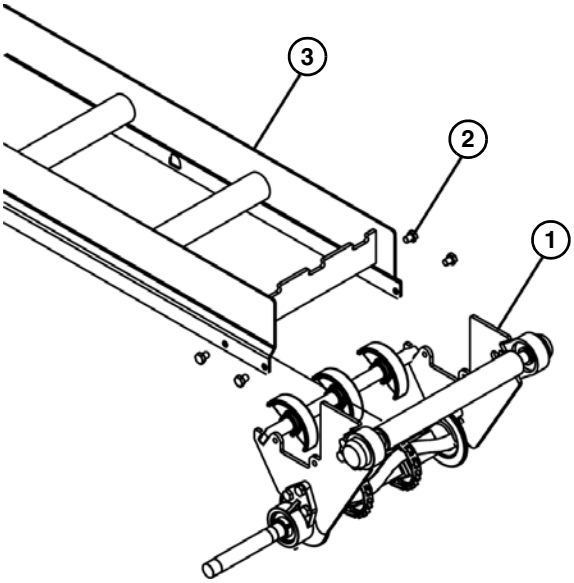


Figure 11

1. Bolt the nose bar drive tail assembly to the conveyor frame **(Figure 12)**.

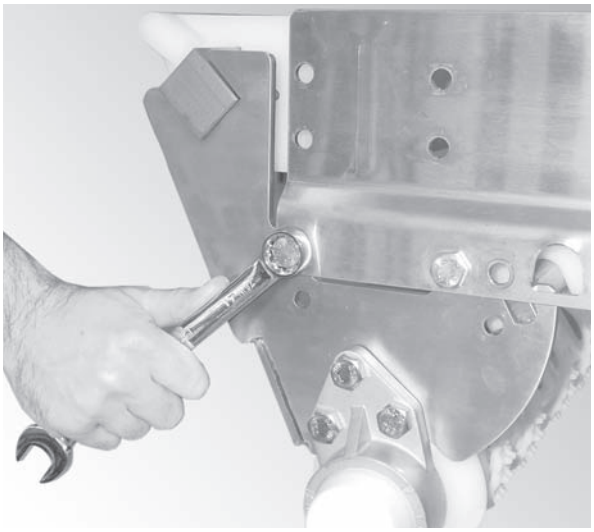


Figure 12

2. Install the drive package, if applicable. Refer to the "7400 Series Drive Package Installation, Maintenance and Parts Manual."

Nose Bar Idler Tail

Typical Nose Bar Idler Tail Components **(Figure 13)**

1	Nose bar idler tail assembly
2	Pull pin (x2)
3	Conveyor frame

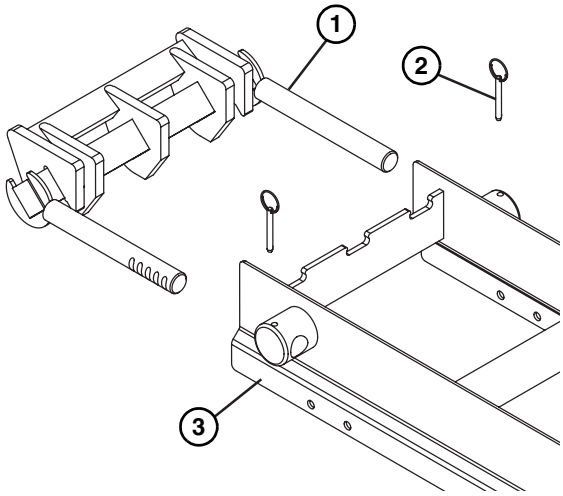


Figure 13

1. Slide the nose bar idler shaft hands **(Figure 14, item 1)** into the take up blocks **(Figure 14, item 2)**.
2. Attach the nose bar transfer post **(Figure 14, item 3)** to the nose bar idler shaft hands.

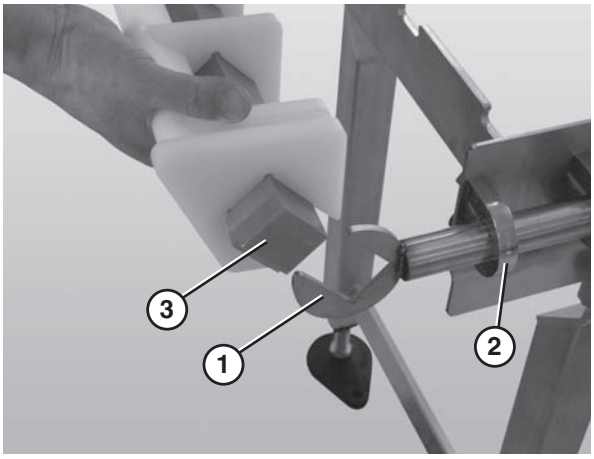


Figure 14

3. Ensure that the nose bar pucks **(Figure 15, item 1)** are in line with the conveyor frame **(Figure 15, item 2)**.

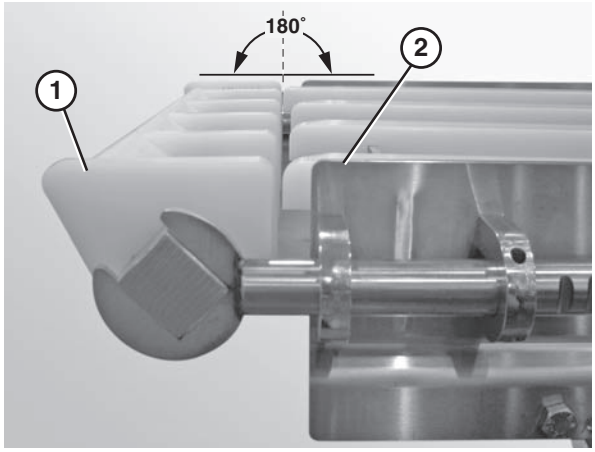


Figure 15

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 16)**

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

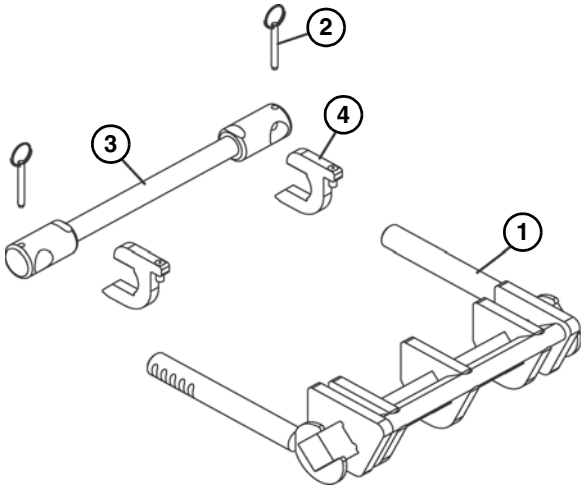


Figure 16

1. Slide the tip up shaft **(Figure 17, item 1)** through the designated slots in the frame.

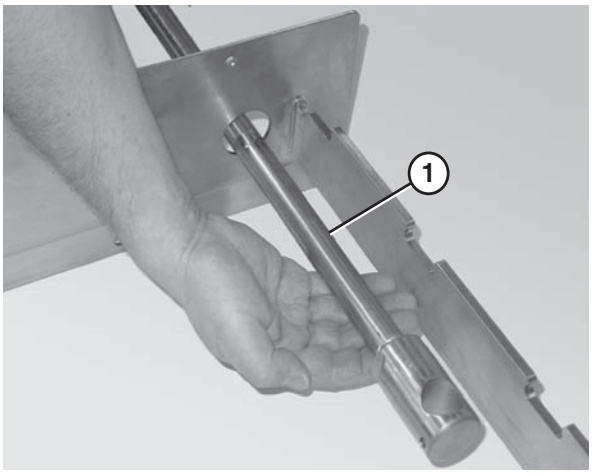


Figure 17

2. Attach the key stops **(Figure 18, item 1)** to the tip up shaft **(Figure 18, item 2)**. The rounded end of the key stop should face the tail.

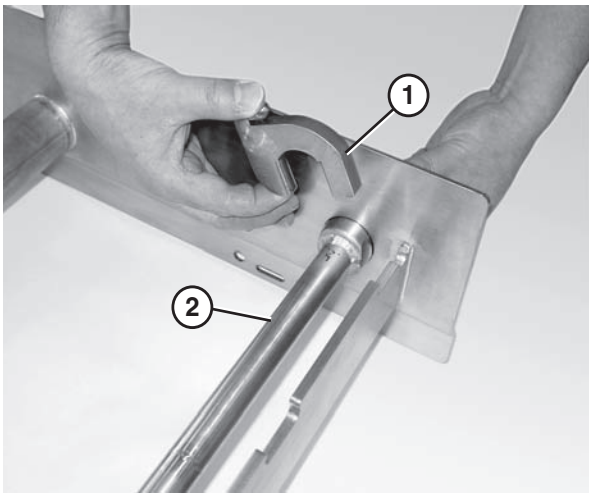


Figure 18

3. Attach nose bar idler shaft hands **(Figure 19, item 1)** to the tip up shaft **(Figure 19, item 2)**.

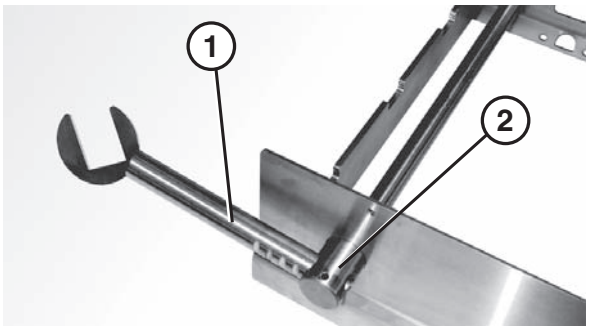


Figure 19

4. Attach the nose bar transfer post **(Figure 20, item 1)** to the nose bar idler shaft hands **(Figure 20, item 2)**.

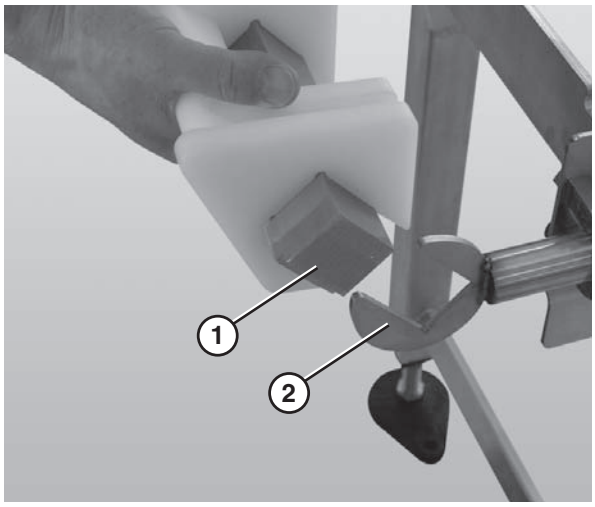


Figure 20

5. Ensure that the nose bar pucks **(Figure 21, item 1)** are in line with the conveyor frame **(Figure 21, item 2)**.

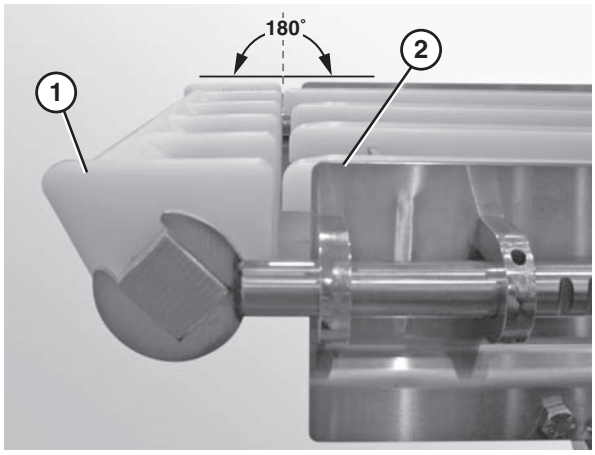


Figure 21

NOTE

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

Idler Tail

Typical Idler Tail Components **(Figure 22)**

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

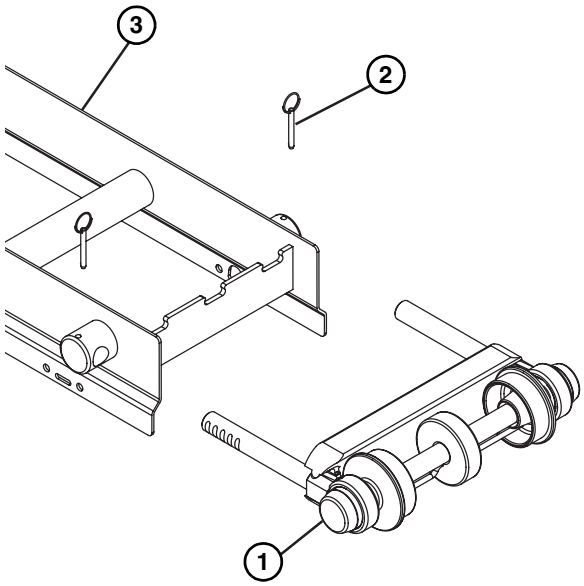


Figure 22

1. Slide the bearing shafts **(Figure 23, item 1)** into the take up blocks **(Figure 23, item 2)**.

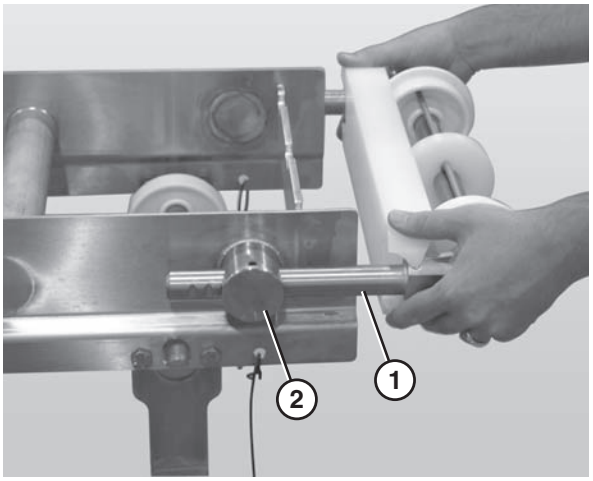


Figure 23

NOTE

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

Tip Up Tail

Typical Tip Up Tail Components **(Figure 24)**

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

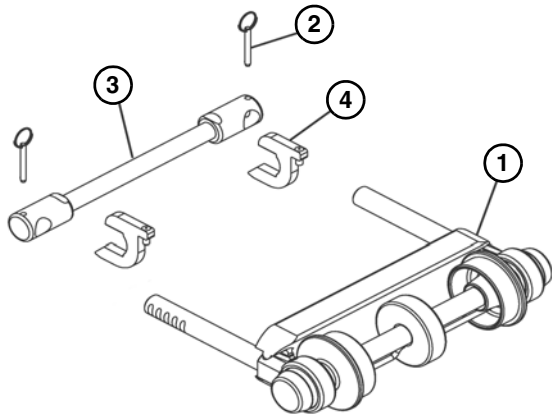


Figure 24

1. Slide the tip up shaft **(Figure 25, item 1)** through the designated slots in the frame.

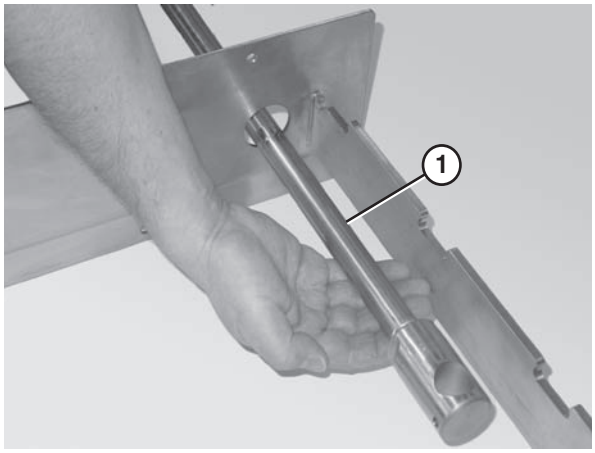


Figure 25

2. Attach the key stops **(Figure 26, item 1)** to the tip up shaft **(Figure 26, item 2)**. The rounded end of the key stop should be facing the tail.

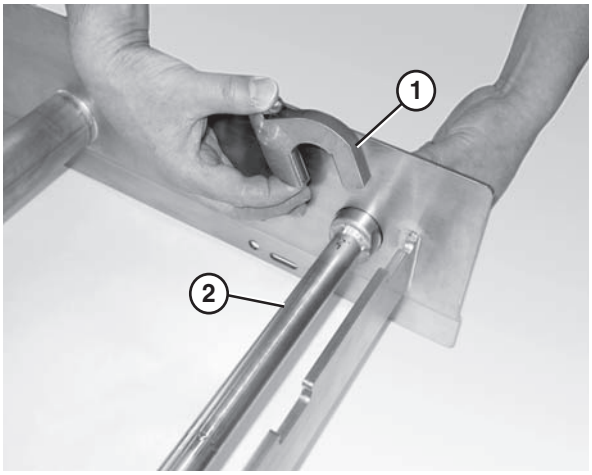


Figure 26

3. Slide the bearing shafts **(Figure 27, item 1)** into the holes in the tip up shaft **(Figure 27, item 2)**.

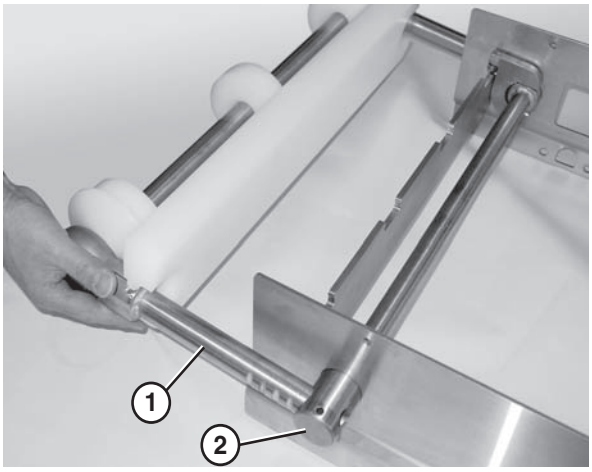


Figure 27

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 28)**

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

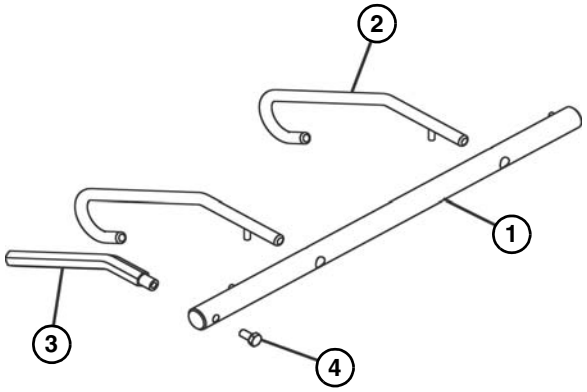


Figure 28

1. Slide the belt lift pivot bar **(Figure 29, item 1)** through the designated holes in the frame.

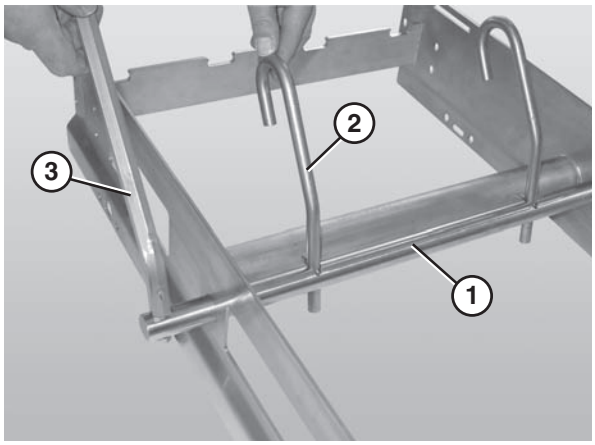


Figure 29

2. Attach the lifter bars **(Figure 29, item 2)** to the belt lift pivot bar **(Figure 29, 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 29, item 3)** to the belt lift pivot rod.

Wear Strip Installation

Straight Frame Sections

Typical Wear Strip Components **(Figure 30)**

1	Wear strip

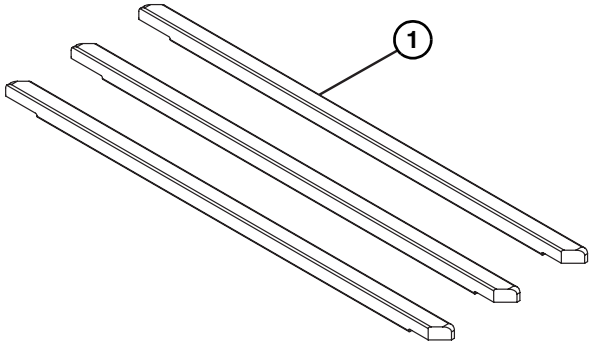


Figure 30

1. Position the wear strips **(Figure 31, item 1)** on the frame.

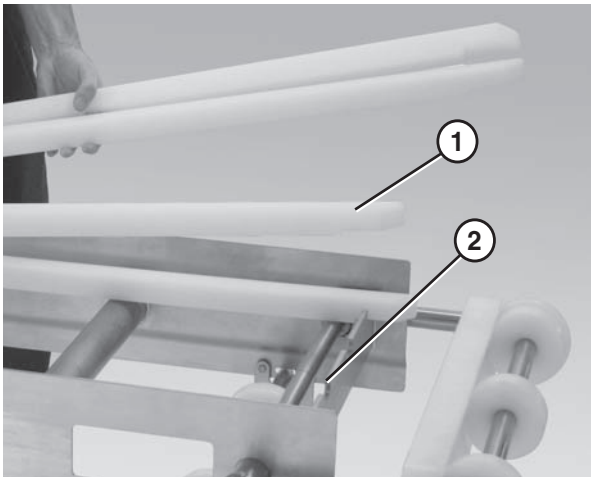


Figure 31

2. Make sure the wear strips are situated securely in the frame slots **(Figure 31, item 2)**.

Curved Frame Sections

Typical Curved Wear Strip Components **(Figure 32)**

1	Hold down wear strip
2	Wear strip
3	Inside curve top wear strip

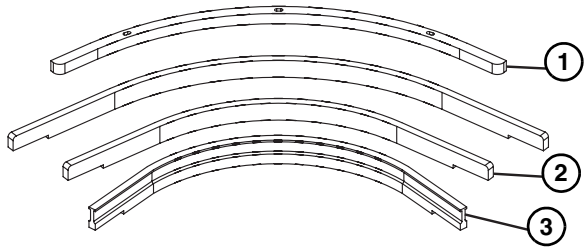


Figure 32

1. Insert inside curve top wear strip **(Figure 33, item 1)** into the innermost slot **(Figure 33, item 2)** on the inside of the frame.

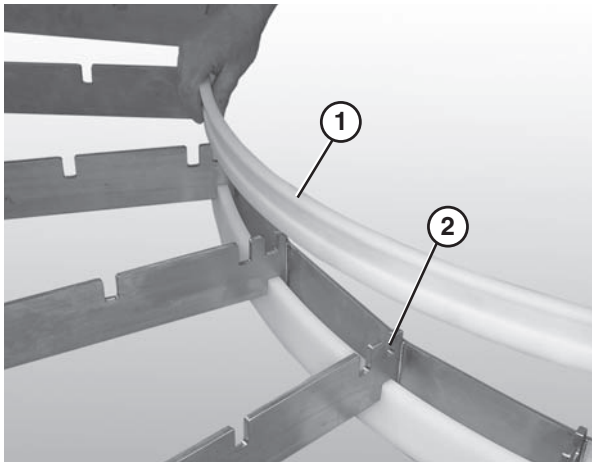


Figure 33

2. Attach the hold down wear strip **(Figure 34, item 1)** to the frame hooks **(Figure 34, item 2)** on the outside of the frame.

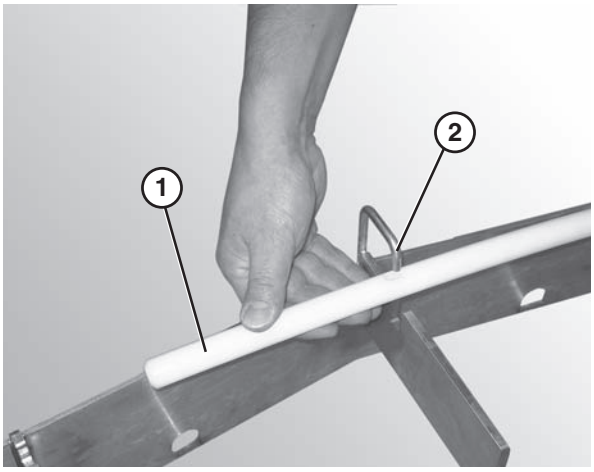


Figure 34

3. Insert the wear strips **(Figure 35, item 1)** into the appropriate slots in the frame **(Figure 35, item 2)**, starting with the shortest wear strip on the inside of the curved section and working outward to the longest.

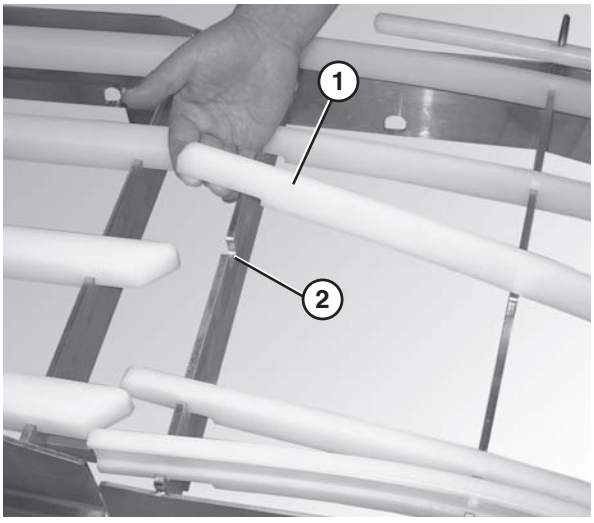


Figure 35

Belt Return Installation – Curved Frame Sections

Typical Curved Belt Return Components **(Figure 36)**

1	Return bottom wear strip
2	Curve return shaft
3	Chain return shoe
4	Inside return bottom wear strip

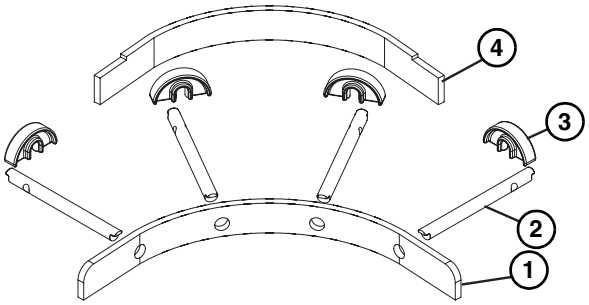


Figure 36

1. Insert the inside return bottom wear strip **(Figure 37, item 1)** into the slots **(Figure 37, item 2)** on the lower inside section of the frame (figure shown without the belt or wear strips).

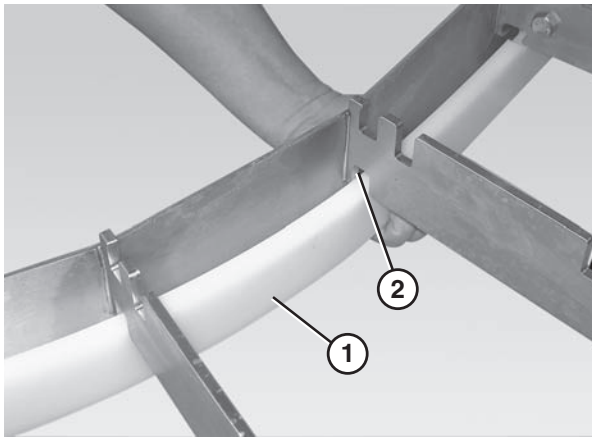


Figure 37

2. Attach the chain return shoes **(Figure 37, item 1)** to the curve return shafts **(Figure 37, item 2)**.
3. Slide the long end of the curve return shaft **(Figure 38, item 1)** through the center hole in the return bottom wear strip **(Figure 38, item 2)**.

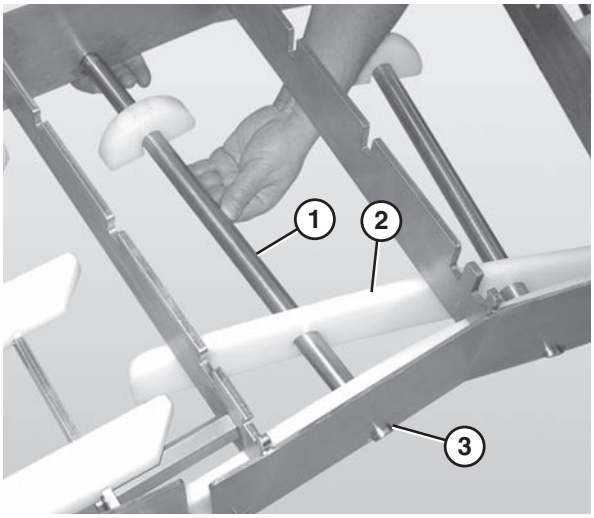


Figure 38

4. Slide the return shaft up and through the large slot in the frame. Make sure the holes in the return bottom wear strip match up with the holes in the conveyor frame.
5. Push up on the return shaft and slide the notched end of the shaft through the small slot on the opposite side of the frame **(Figure 38, item 3)**.
6. Repeat steps 4 – 5 with the remaining returns.

Belt Installation

Typical Belt Components **(Figure 39)**

1	Chain belt
2	Belt rod

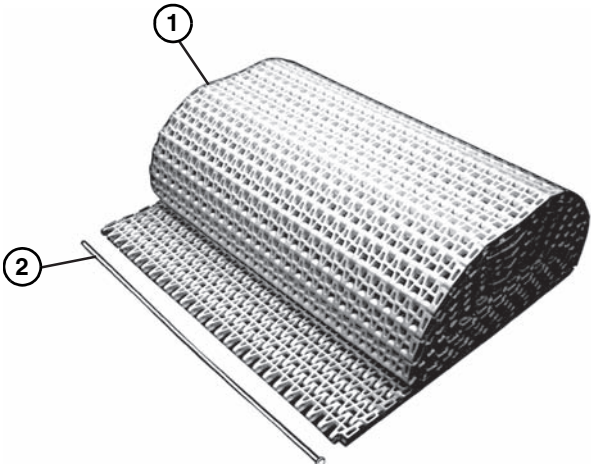


Figure 39

1. Position the belt on the conveyor frame **(Figure 40)**.

Figure 40

NOTE

*Ensure the belt is running in the correct direction **(Figure 41)**.*

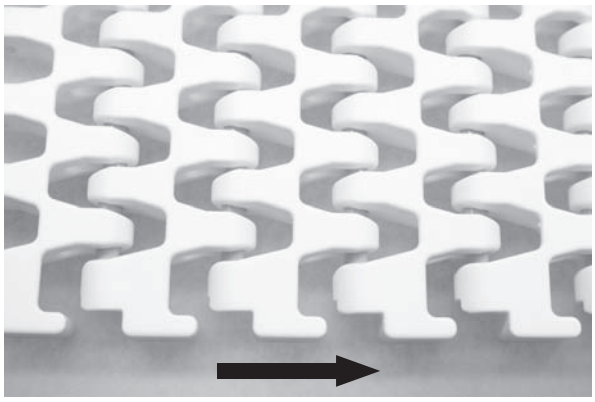


Figure 41

2. Wrap the belt around the conveyor, making sure the sprocket teeth have engaged the belt.
3. Feed the ends of the belt through the top and bottom of the curved frame sections.
4. Bring the ends of the belt together **(Figure 42)**.

Figure 42

5. Insert the belt rod **(Figure 43, item 1)**.

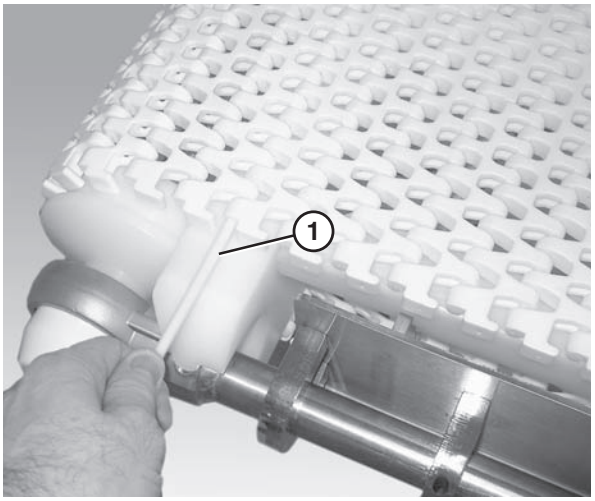


Figure 43

6. Push the belt rod in as far as possible.
7. Lightly tap the head of the rod with a hammer until it snaps into position.
8. Extend the tension end to remove excess slack in the belt **(Figure 44)**.

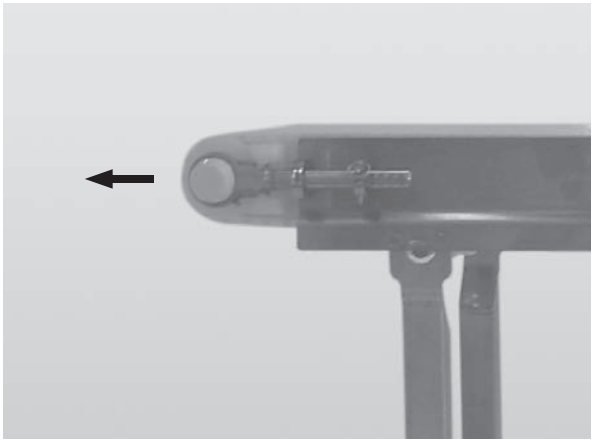


Figure 44

9. Insert the pull pins **(Figure 45, item 1)** on the tension end of the conveyor.

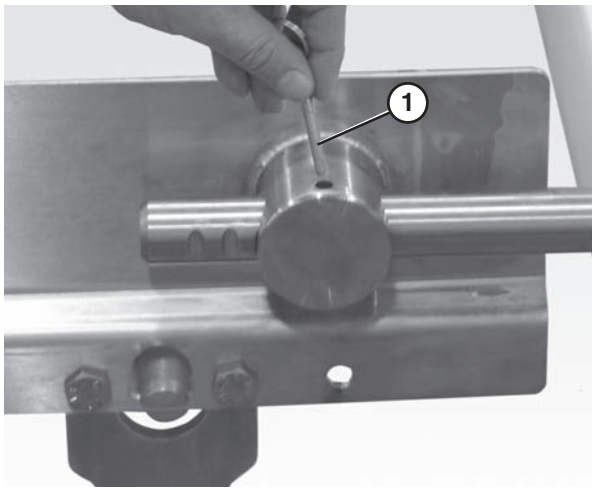


Figure 45

10. 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 19.

Belt Return Installation – Straight Frame Sections

Typical Belt Return Components **(Figure 46)**

1	Return shaft
2	Chain return shoe

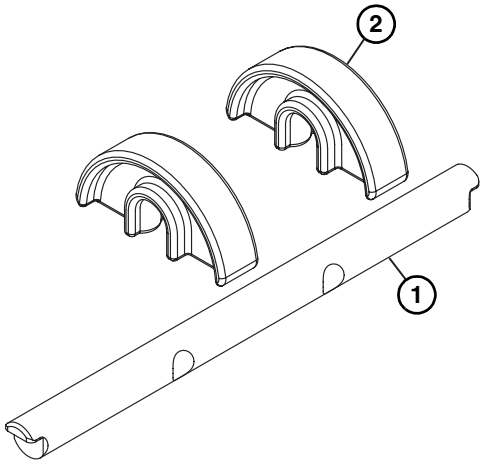


Figure 46

1. Attach the chain return shoes **(Figure 47, item 1)** to the return shaft **(Figure 47, item 2)**.

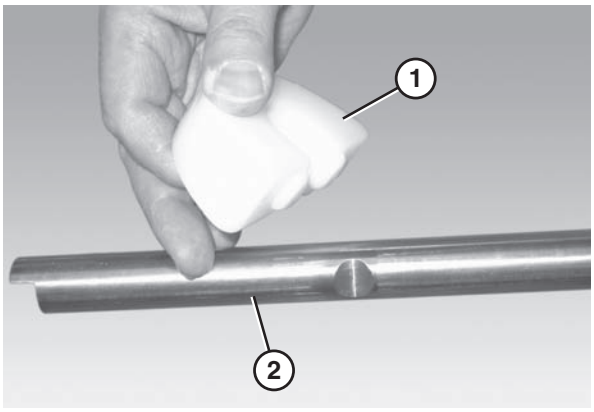


Figure 47

2. Slide the return shaft **(Figure 48, item 1)** up and through the large slot **(Figure 48, item 2)** in the frame (picture shown without the belt or wear strips).

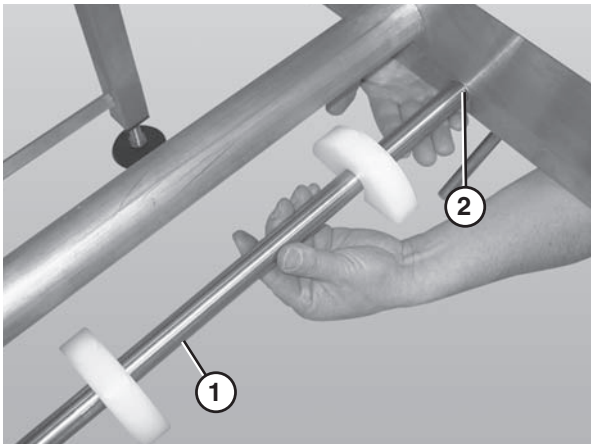


Figure 48

3. Push up on the return shaft **(Figure 48, 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 49)**. Belt sag should not exceed 4" (102 mm). Follow steps 7 – 9 in the “Belt Installation” section on page 14 to remove slack from the belt.

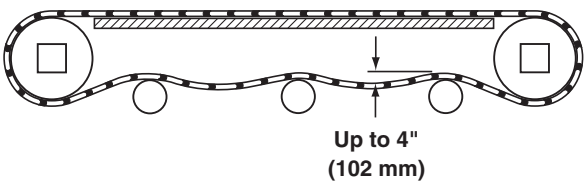


Figure 49

⚠ CAUTION

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

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 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.

Standard Conveyors

1. Remove the guides, if applicable, by removing the pull pins **(Figure 50, item 1)** that connect the guide **(Figure 50, item 2)** to the frame.

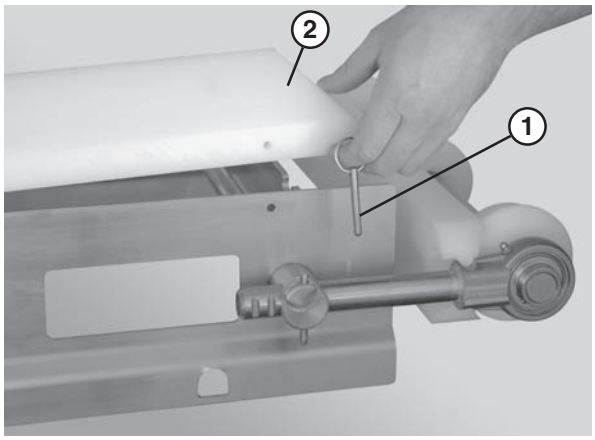


Figure 50

2. Remove the pull pin **(Figure 51, item 1)** on the tension end of the conveyor to release belt tension.

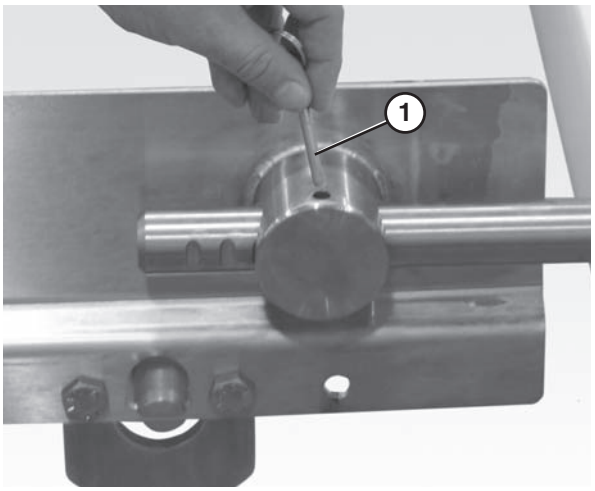


Figure 51

3. Lift up on the belt **(Figure 52)**.

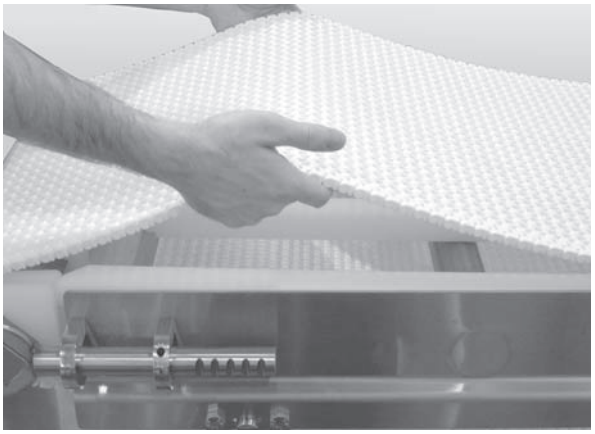


Figure 52

Conveyors with Tip Up Tails and Lifters

1. Remove the guides, if applicable, by removing the pull pins **(Figure 50, item 1)** that connect the guide **(Figure 50, item 2)** to the frame.

2. Use the lifter handle **(Figure 53, item 1)** to raise the lifters **(Figure 53, item 2)** and raise the tip up tail **(Figure 53, item 3)**.

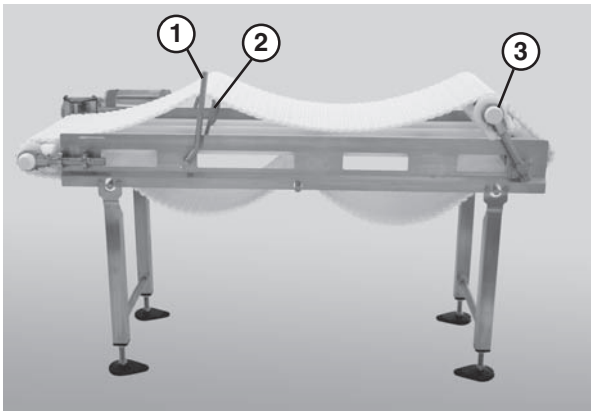


Figure 53

⚠ 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 19.
- Refer to “Sprocket and Puck Removal” on page 22.
- Refer to “Reassembling Tail Assemblies” on page 25.

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

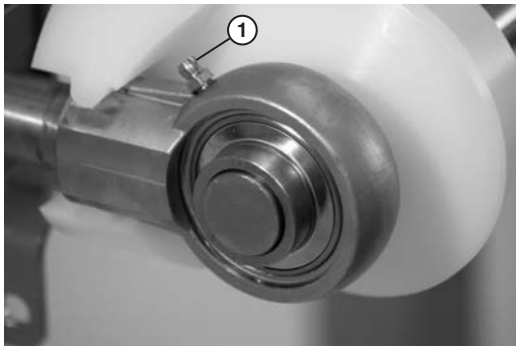


Figure 54

2. Replace the bearings if they become worn.

Wear Strips and Belt Returns

Replace the wear strips and belt returns if they become worn.

For wear strip and belt return installation instructions:

- Refer to “Wear Strip Installation” on page 12.
- Refer to “Belt Return Installation – Straight Frame Sections” on page 16.

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 55, item 1)** that connect the guide **(Figure 55, item 2)** to the frame.

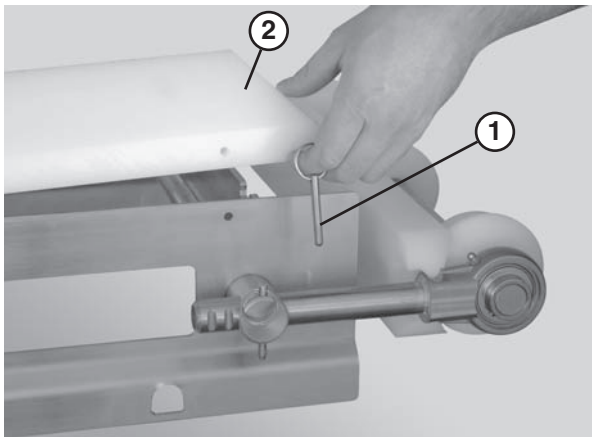


Figure 55

2. Remove the guide **(Figure 56, item 1)**.

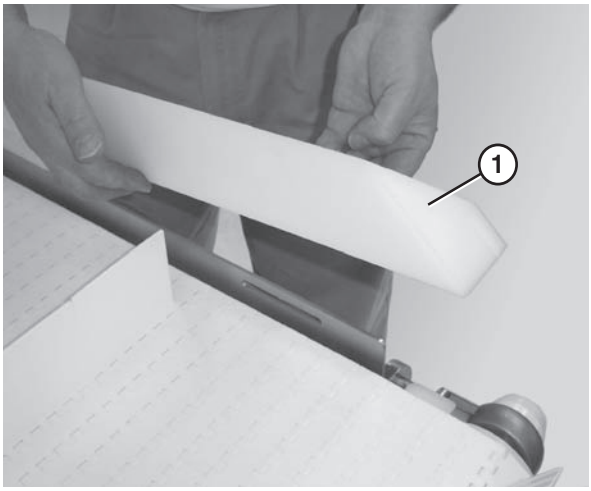


Figure 56

3. Follow the belt replacement procedures described in “Standard Belts” on page 19, “Specialty Intralox 1100 Series Belts” on page 19, or “Specialty Intralox 1600 Series Belts” on page 19.

Standard Belts

Replacing a Section of Belt

1. Remove the pull pins **(Figure 57, item 1)** on the tension end of the conveyor to release tension on the belt.

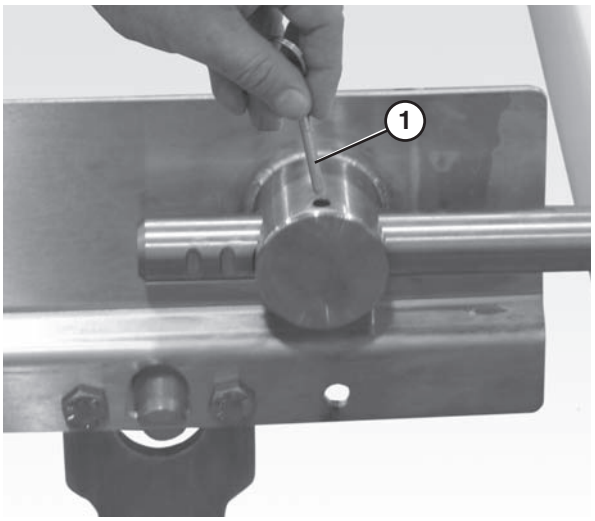


Figure 57

⚠ 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 58, 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 58, item 2)**.

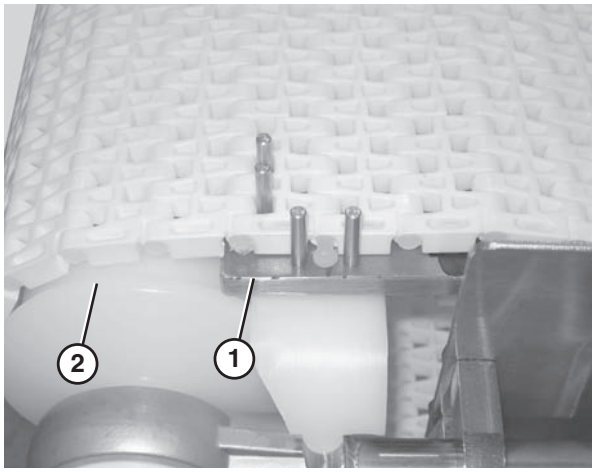


Figure 58

3. Use a punch and hammer to push the belt rod out by striking the rod end opposite the retaining head **(Figure 59)**.

Figure 59

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 60, item 1)** and sliding it through the large hole **(Figure 60, item 2)** in the frame.

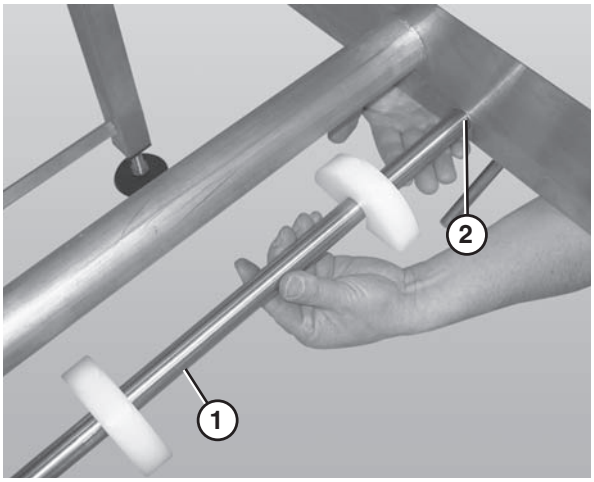


Figure 60

2. Lower the opposite end of the return shaft **(Figure 60, item 1)** and slide it out of the frame.
3. Follow steps 1 – 3 in "Standard Belts: Replacing a Section of Belt" on page 19.
4. Remove the belt.
5. Replace the damaged or worn belt. Refer to “Belt Installation” on page 14 and “Belt Return Installation” on page 16.

Specialty Intralox 2400 Series Belts

Replacing a Section of Belt

1. Remove the pull pins **(Figure 61, item 1)** on the tension end of the conveyor to release tension on the belt.

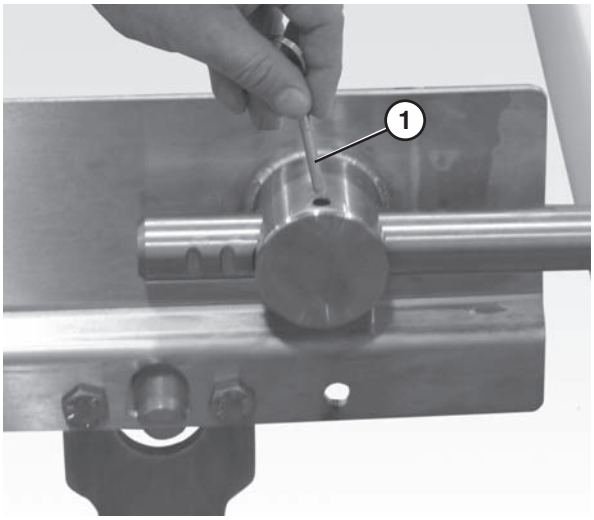


Figure 61

⚠ CAUTION

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

2. Use a punch and hammer to push the belt rod out by striking the rod end opposite the retaining head **(Figure 62, item 1)**.

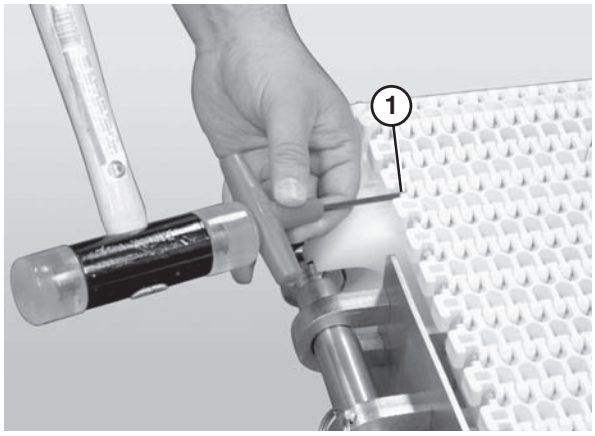


Figure 62

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 63, item 1)** and sliding it through the large hole **(Figure 63, item 2)** in the frame.

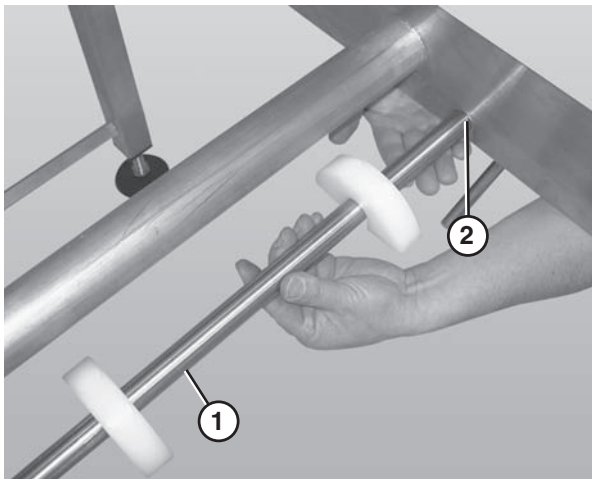


Figure 63

2. Lower the opposite end of the return shaft **(Figure 63, item 1)** and slide it out of the frame.
3. Follow steps 1 – 3 in "Specialty Intralox 2400 Series Belts: Replacing a Section of Belt" on page 19.
4. Remove the belt.
5. Replace the damaged or worn belt. Refer to “Belt Installation” on page 14, and “Belt Return Installation” on page 16.

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 64, item 1)** on the tension end of the conveyor.

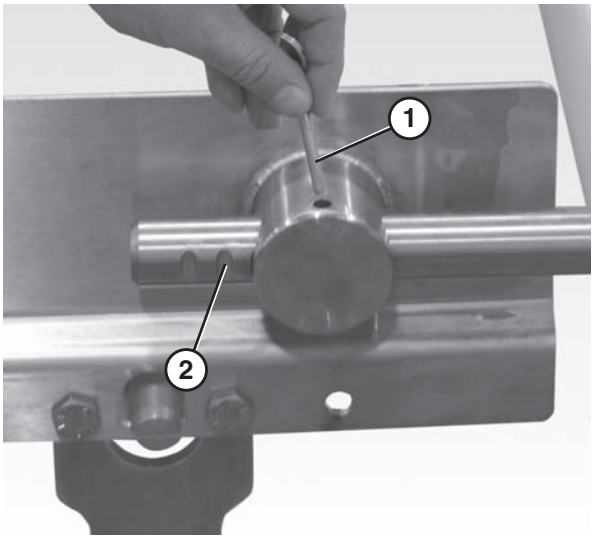


Figure 64

2. Extend the idler tail to the next groove **(Figure 64, item 2)** on the bearing shaft.

3. Continue extending the tension end until the belt is sufficiently tight **(Figure 65)**.

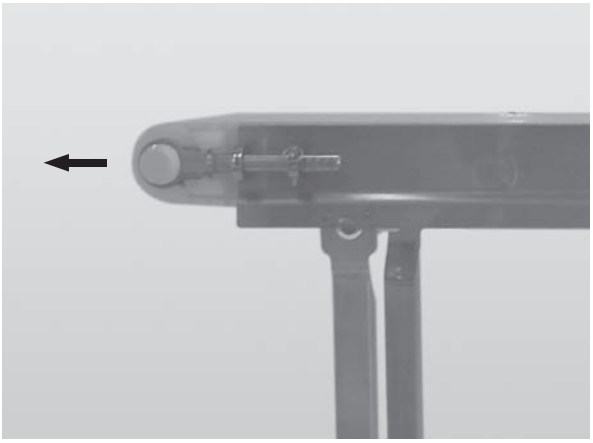


Figure 65

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 19.

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” starting on page 19.
2. Remove the desired sprocket / puck by following these instructions:

- A - Drive Sprocket Removal
- B - Nose Bar Puck Removal
- C - 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 fasteners **(Figure 66, item 1)** that connect the gearmotor to the drive spindle using a hex wrench **(Figure 66, item 2)**.

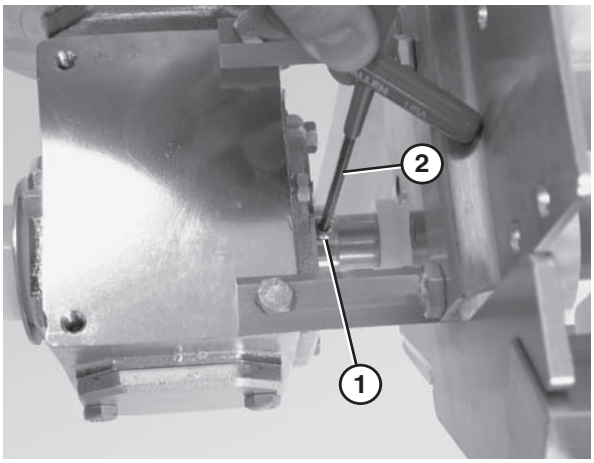


Figure 66

2. Remove the bolts that connect the motor to the drive assembly **(Figure 67)**.
3. Remove the motor **(Figure 67, item 1)** from the drive assembly **(Figure 67, item 2)**.

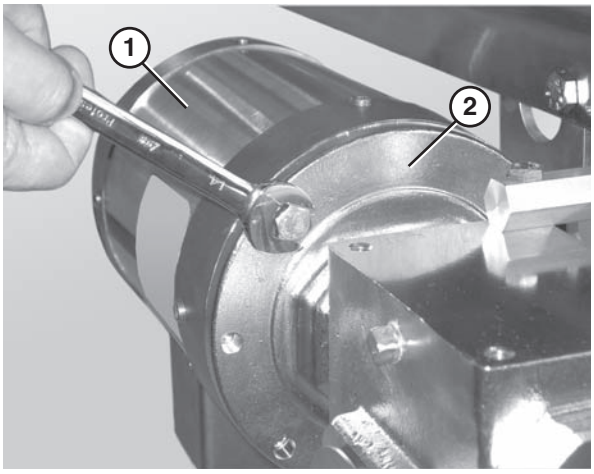


Figure 67

4. Unbolt the drive assembly and slide it off the bearing spindle **(Figure 68)**.

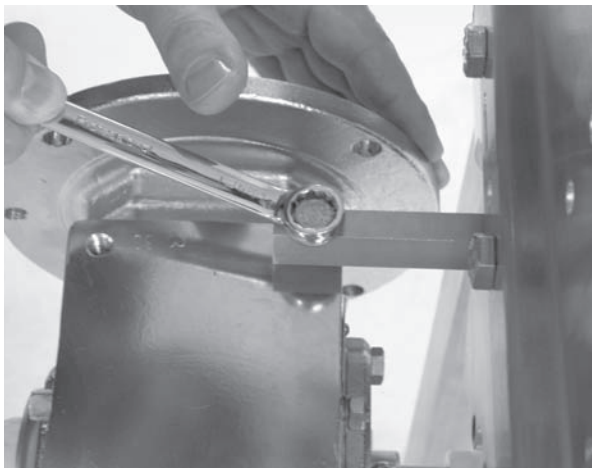


Figure 68

5. Remove the bearing cover.
6. Loosen the 3 hole flange **(Figure 69, item 1)** with bearing fasteners using a hex wrench **(Figure 69, item 2)**.

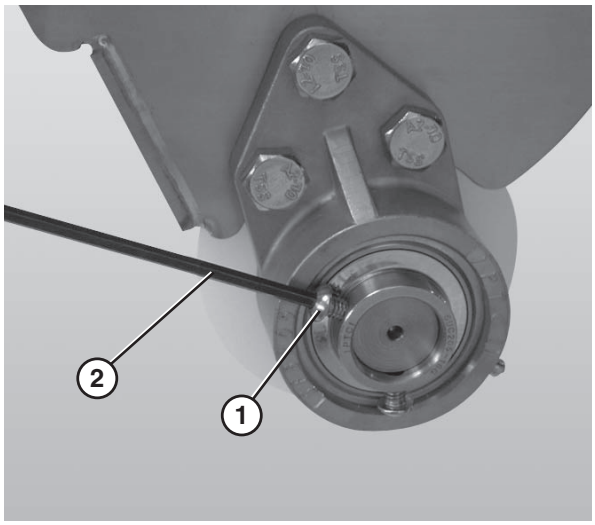


Figure 69

7. Disconnect the 3 hole flange bearing **(Figure 70, item 1)** from the nose bar drive weldment **(Figure 70, item 2)**.

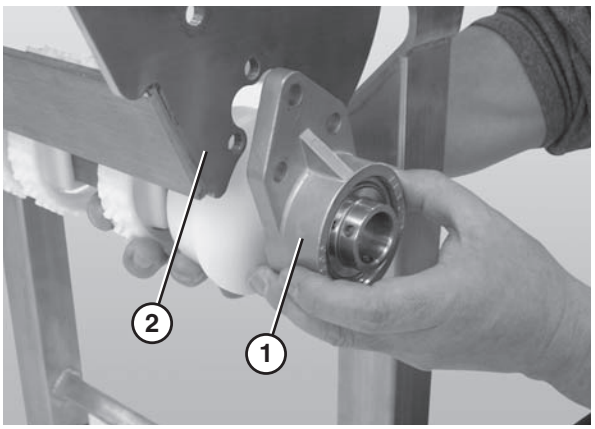


Figure 70

8. Lower the entire drive assembly.
9. Slide the 3 hole flange with bearing **(Figure 71, item 1)** and flanged puck **(Figure 71, item 2)** off the drive spindle.

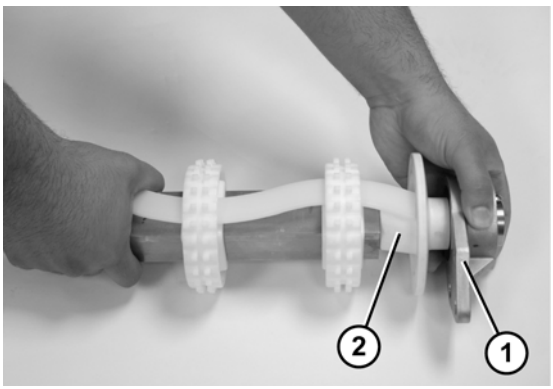


Figure 71

10. Slide the sprockets **(Figure 72, item 1)** and the sprocket alignment bar **(Figure 72, item 2)** off the drive spindle **(Figure 72, item 3)**.

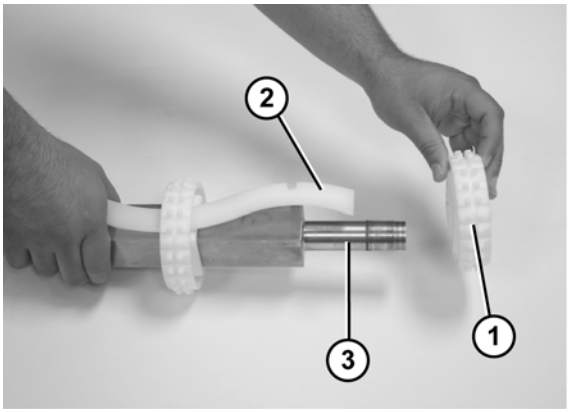


Figure 72

B - Nose Bar Puck Removal

1. Slide the nose bar drive or transfer post **(Figure 73, item 1)** out of the nose bar drive weldment or idler hands **(Figure 73, item 2)**.

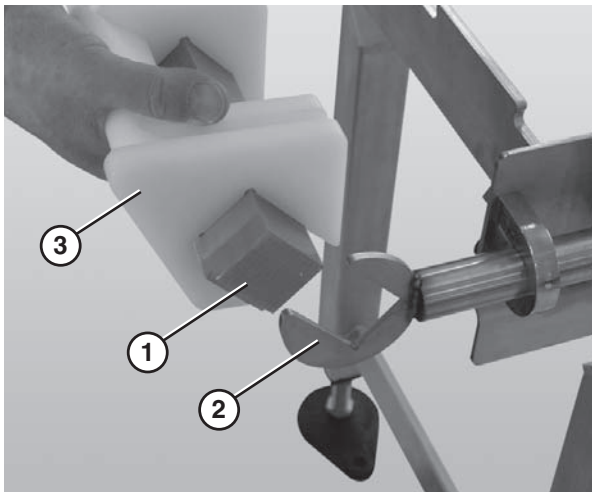


Figure 73

2. Remove the nose bar tracking pucks **(Figure 73, item 3)**, if applicable.
3. Remove the nose bar wear strip **(Figure 74, item 3)**.

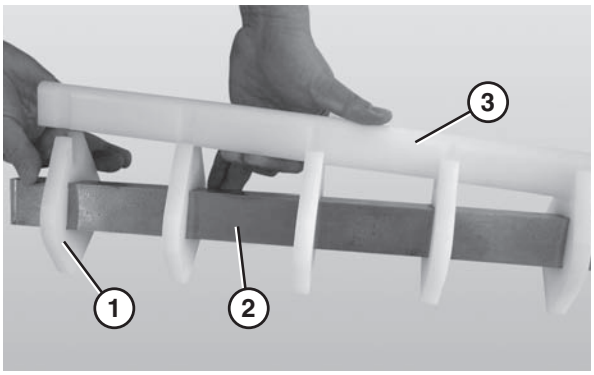


Figure 74

4. Slide the nose bar pucks **(Figure 74, item 1)** off the nose bar shaft **(Figure 74, item 2)**.

C - Idler Puck Removal

1. Remove the pull pins **(Figure 75, item 1).**

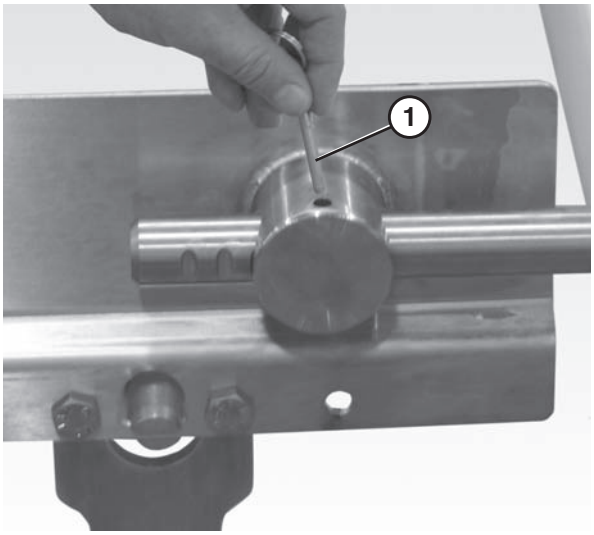


Figure 75

2. Slide the idler tail assembly **(Figure 76, item 1)** out of the take up blocks **(Figure 76, item 2)**.

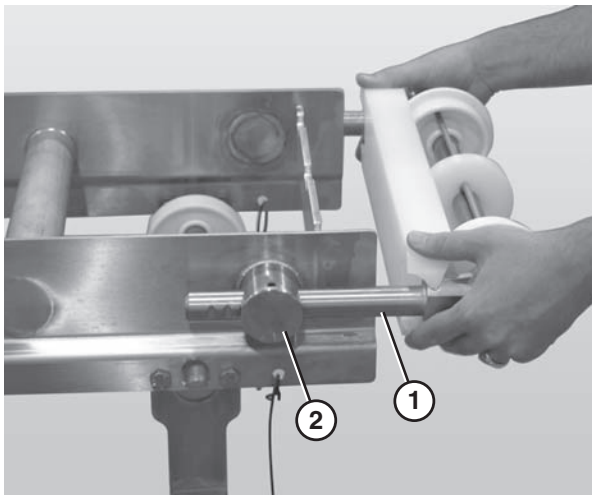


Figure 76

3. Remove the bearing cover **(Figure 77, item 1)**.

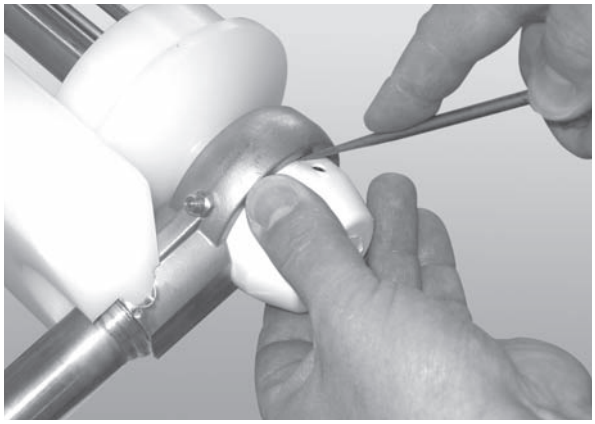


Figure 77

4. Use a hex wrench **(Figure 78, item 1)** to loosen the bearing shaft assembly fasteners **(Figure 78, item 2)**.

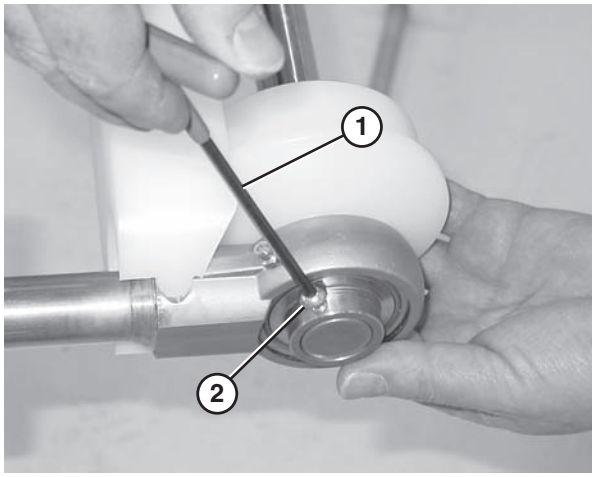


Figure 78

5. Slide the bearing shaft assembly **(Figure 79, item 2)** off the idler shaft.

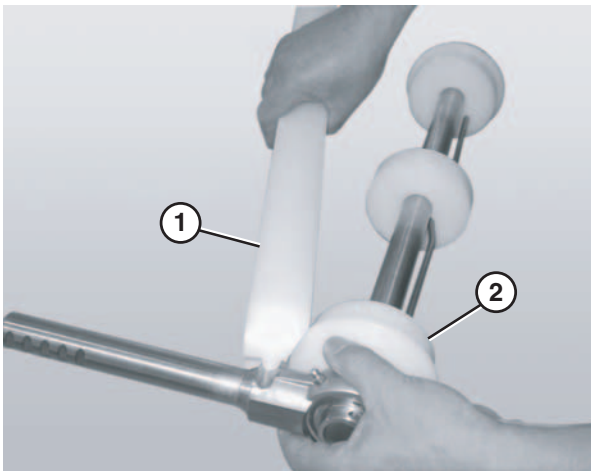


Figure 79

6. Remove the guard bar **(Figure 79, item 3)**.
7. Slide the pucks **(Figure 79, item 1)** off the idler shaft.

Reassembling Tail Assemblies

Refer to the "Service Parts" section starting on page 30 for complete diagrams and lists of all tail assembly components.

Nose Bar Drive Tail

Nose Bar Assembly

1. Slide the nose bar pucks **(Figure 80, item 1)** onto the nose bar drive post **(Figure 80, item 2)**.

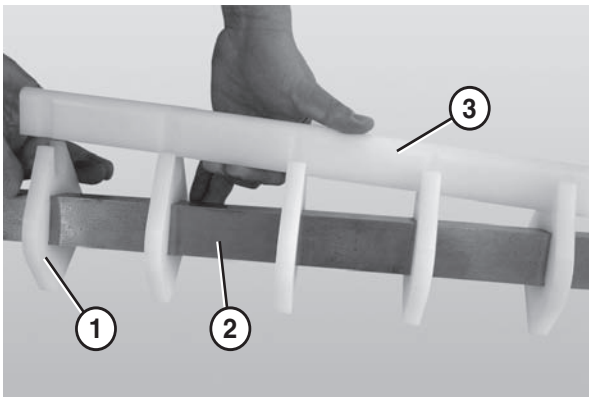


Figure 80

2. Attach the nose bar wear strip **(Figure 80, item 3)**.

Drive Tail Assembly

1. Slide the first sprocket **(Figure 81, item 1)** onto the drive spindle **(Figure 81, item 2).**

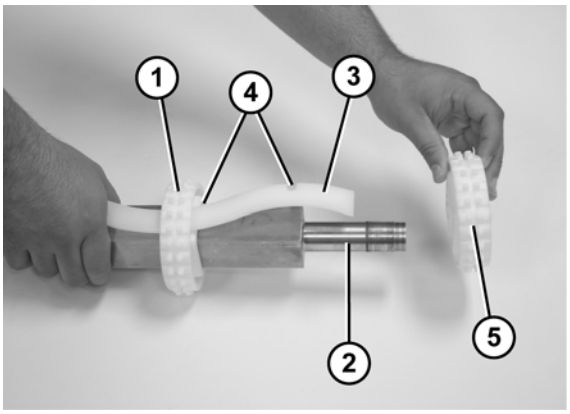


Figure 81

2. Insert the sprocket alignment bar **(Figure 81, item 3)** into the first sprocket and align the sprocket with the notch **(Figure 81, item 4)** in the sprocket alignment bar.
3. Slide the remaining sprockets **(Figure 81, item 5)** onto drive spindle and align each sprocket with the notches **(Figure 81, item 4)** in the sprocket alignment bar.
4. Attach the flanged pucks **(Figure 82, item 1)** and the 3 hole flange with bearing **(Figure 82, item 2)** to the drive spindle.

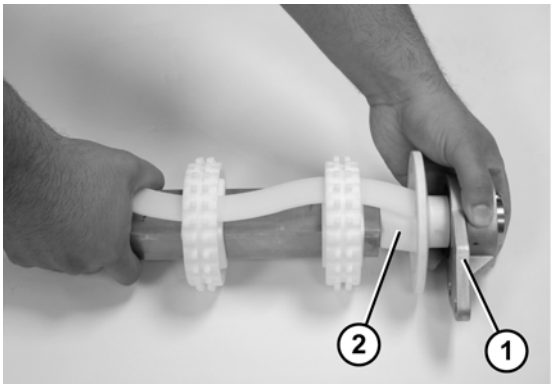


Figure 82

5. Tighten the 3 hole flange with bearing fasteners **(Figure 83, item 1)** using a hex wrench **(Figure 83, item 2)** to 54 in•lbs (6 N•m). Check after 24 hours of conveyor use.

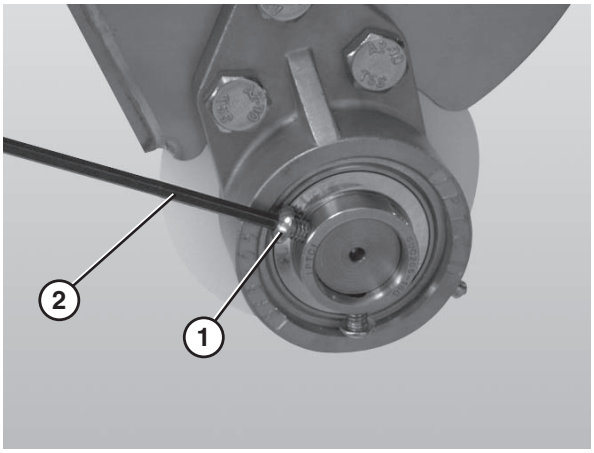


Figure 83

Nose Bar Idler and Tip Up Tail

1. Slide the nose bar pucks **(Figure 84, item 1)** onto the nose bar drive post **(Figure 84, item 2)**.

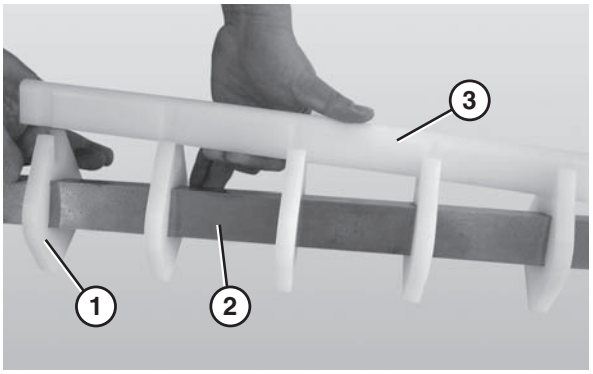


Figure 84

2. Attach the nose bar wear strip **(Figure 84, item 3)**.

3. Attach the nose bar tracking pucks **(Figure 85, item 1)** to the nose bar drive post **(Figure 85, item 2)**.

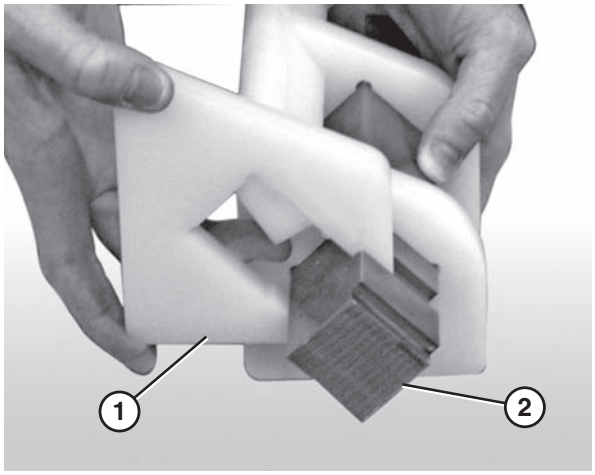


Figure 85

Idler Tail and Tip Up Tail

1. Place the idler puck **(Figure 86, item 1)** at the center of the bent retaining bar **(Figure 86, item 2)**.
2. Slide the idler puck onto the idler shaft **(Figure 86, item 3)**. Make sure to center the idler puck.

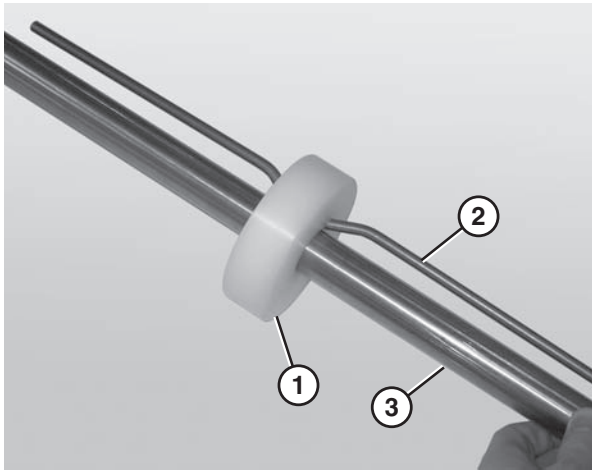


Figure 86

3. Attach the flanged pucks **(Figure 87, item 2)** and bearing shaft assemblies to the idler shaft.
4. Attach the guard bar **(Figure 87, item 1)**.

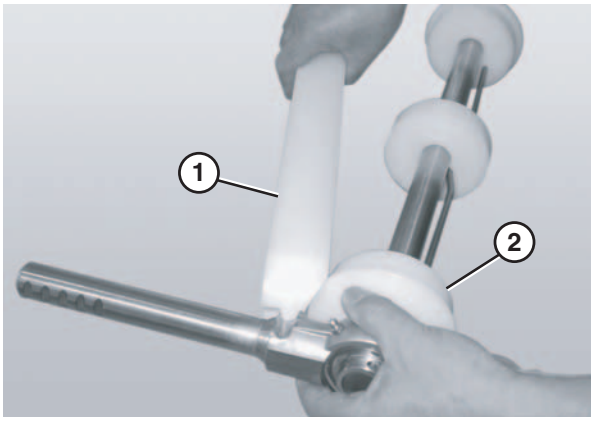


Figure 87

5. Use a hex wrench **(Figure 88, item 1)** to tighten the bearing shaft fasteners **(Figure 88, item 2)** to 54 in•lbs (6 N•m). Check after 24 hours of conveyor use.

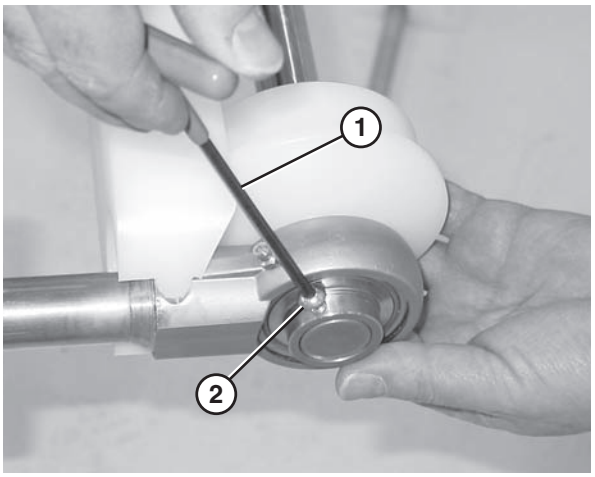


Figure 88

6. 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 89)**.

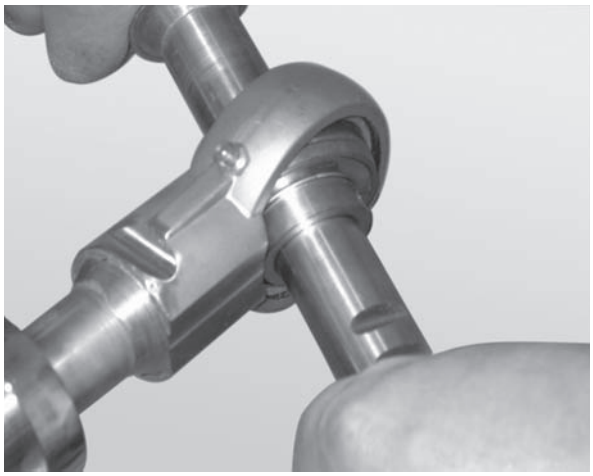


Figure 89

3. Apply lateral pressure to the rod until the bearing comes loose.
4. Remove the worn or damaged bearing **(Figure 90)**.

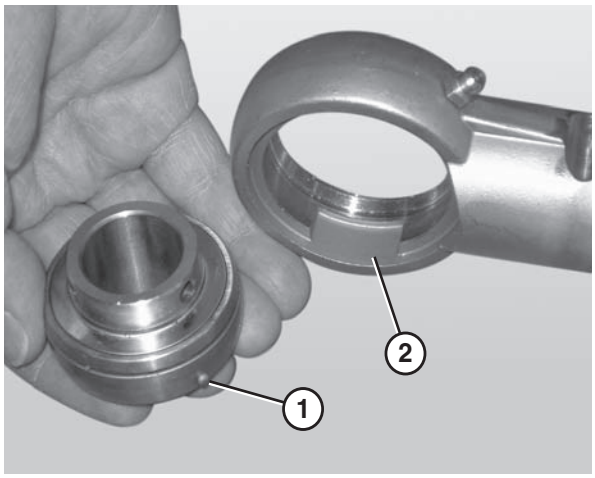


Figure 90

5. Replace the bearing.

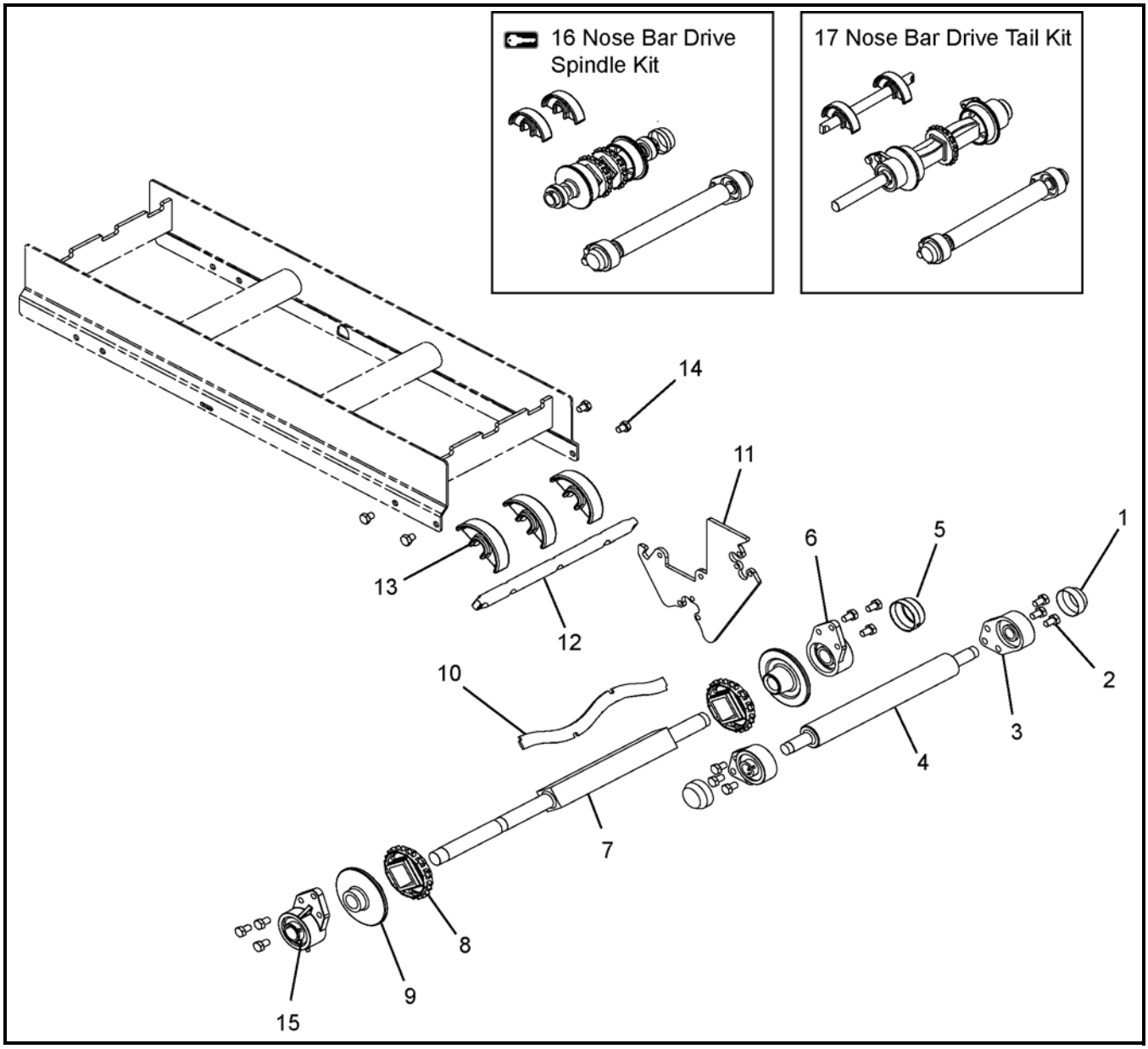
NOTE
*When inserting the new bearing, make sure the anti-rotation notch **(Figure 90, item 1)** on the bearing lines up with the groove inside the housing **(Figure 90, item 2)**.*

NOTES

Service Parts

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

Nose Bar Drive End Components



Item	Part Number	Description
1	802-133	Bearing Cover
2	961016MSS	Hex Head Cap Screw M10-1.5x16mm
3	802-132	3 Hole Flange Bearing 20mm Bore
4	5006WW	Transfer Spindle

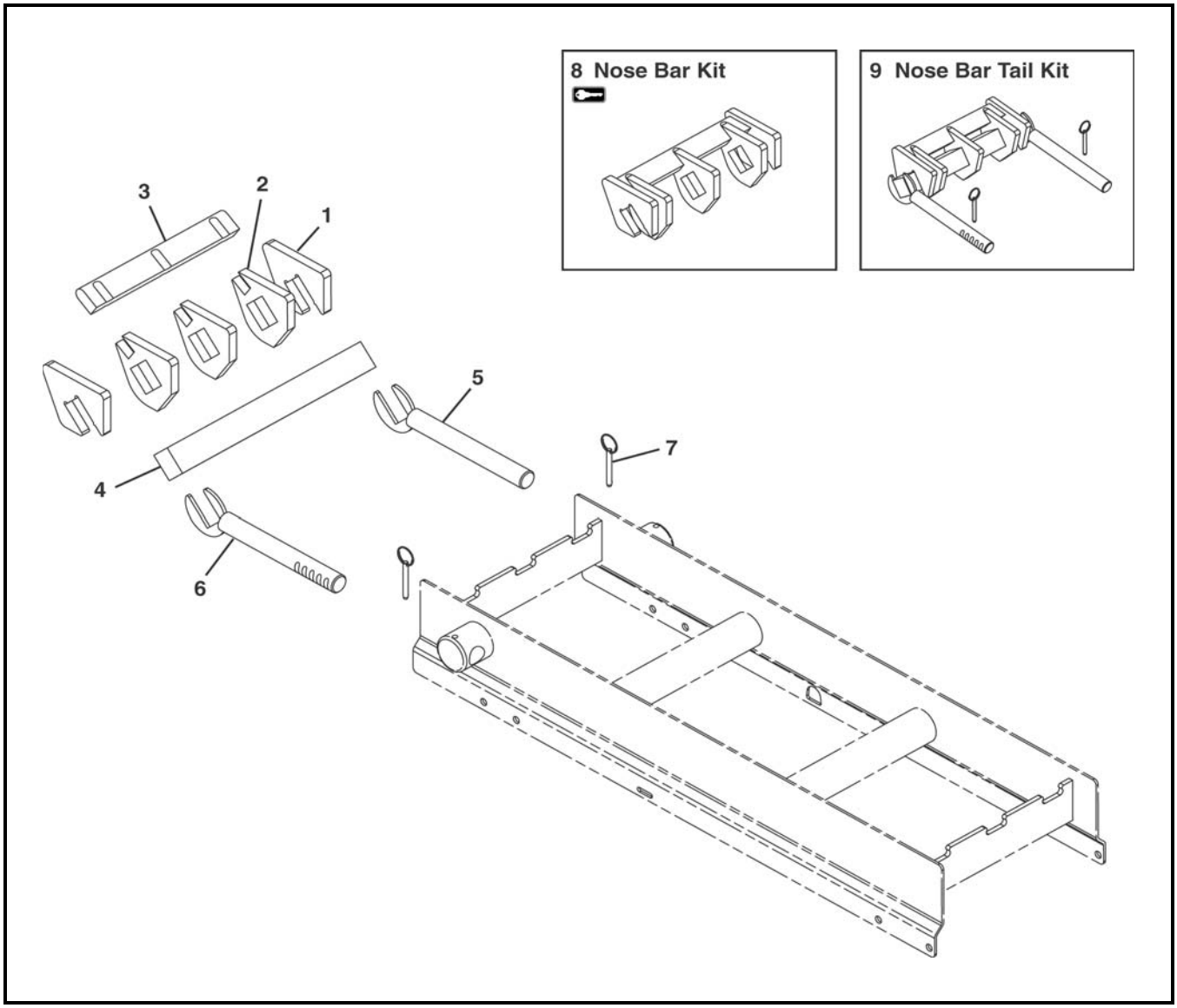
Item	Part Number	Description
5	807-1454	Bearing Cover
6	500288	3 Hole Flange with Bearing
7	5015WW	Drive Spindle for Standard Belt
	5070WW	Drive Spindle for Specialty Intralox Belt

Item	Part Number	Description
8	807-1444	Sprocket for Standard 1.00" Pitch Belt
	807-1447	Sprocket for Specialty Intralox 1.00" Pitch Belt
9	5053WW	Flange Puck for Standard Belt
	5071WW	Flange Puck for Specialty Intralox Belt
10	5085WW	Sprocket Alignment Bar for Standard 1.00" Pitch Belt
	5088WW	Sprocket Alignment Bar for Specialty Intralox 1.00" Pitch Belt
11	500496	Nose Bar Drive Sideplate
12	5039WW	Return Shaft
13	500075	Chain Return Shoe
14	961012MSS	Hex Head Cap Screw M10-1.5x12mm
15	802-163	Bearing
16	74NBDD25-WW	Nose Bar Drive Spindle Kit with a Dorner Gearmotor Mounting Package for Standard 1.00" Pitch Belt (Includes Items 1 through 5, 8, 9, 13 and 15)
	74NBDD24-WW	Nose Bar Drive Spindle Kit with a Dorner Gearmotor Mounting Package for Specialty Intralox 1.00" Pitch Belt (Includes Items 1 through 5, 8, 9, 13 and 15)
	74NBDC25-WW	Nose Bar Drive Spindle Kit without a Dorner Gearmotor Mounting Package for Standard 1.00" Pitch Belt (Includes Items 1 through 5, 8, 9, 13 and 15)
	74NBDC24-WW	Nose Bar Drive Spindle Kit without a Dorner Gearmotor Mounting Package for Specialty Intralox 1.00" Pitch Belt (Includes Items 1 through 5, 8, 9, 13 and 15)
17	74NBDDT25-WW	Nose Bar Drive Tail Kit with a Dorner Gearmotor Mounting Package for Standard 1.00" Pitch Belt (Includes Items 1 through 10, 12 and 13)
	74NBDDT24-WW	Nose Bar Drive Tail Kit with a Dorner Gearmotor Mounting Package for Specialty Intralox 1.00" Pitch Belt (Includes Items 1 through 10, 12 and 13)
	74NBDCT25-WW	Nose Bar Drive Tail Kit without a Dorner Gearmotor Mounting Package for Standard 1.00" Pitch Belt (Includes Items 1 through 10, 12 and 13)
	74NBDCT24-WW	Nose Bar Drive Tail Kit without a Dorner Gearmotor Mounting Package for Specialty Intralox 1.00" Pitch Belt (Includes Items 1 through 10, 12 and 13)
WW = Conveyor width ref: 08 - 36 in 02 increments		

Sprocket Quantity (Item 8)	
Width	Sprocket Quantity
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

Service Parts

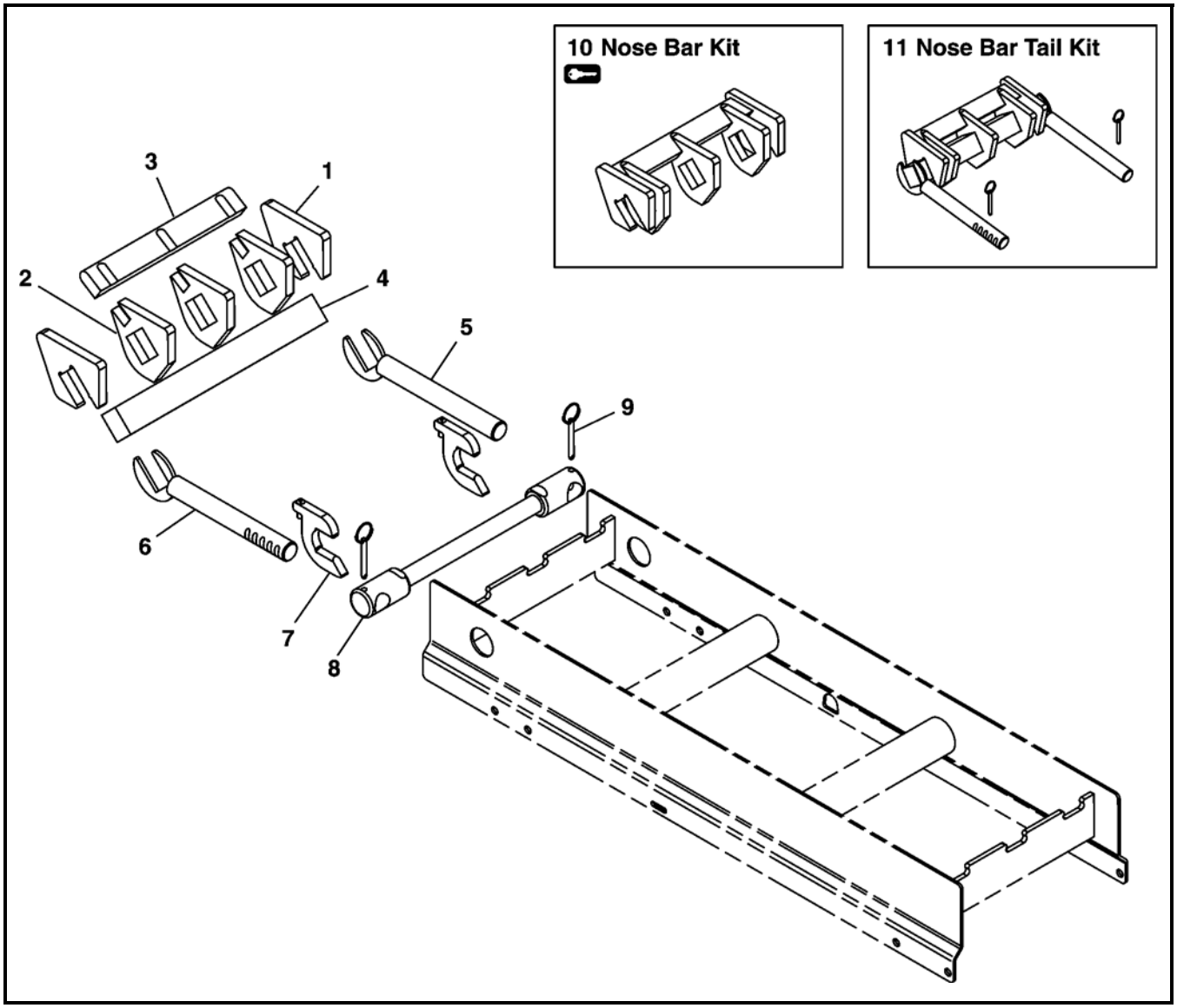
Nose Bar Tension End



Item	Part Number	Description
1	500490	Nose Bar Tracking Puck
2	500278	Nose Bar Puck
3	5058WW	Nose Bar Wear Strip
4	5037WW	Nose Bar Transfer Post
5	500487	Nose Bar Idler Shaft Left Hand
6	500488	Nose Bar Idler Shaft Right Hand

Item	Part Number	Description
7	807-1469	Pull Pin
8	74NB1-WW	Nose Bar Kit (Includes Items 1 through 3)
9	74NBT1-WW	Nose Bar Tail Kit (Includes Items 1 through 6 and 9)
WW = Conveyor width ref: 08 - 36 in 02 increments		

Nose Bar Tip Up Tension End

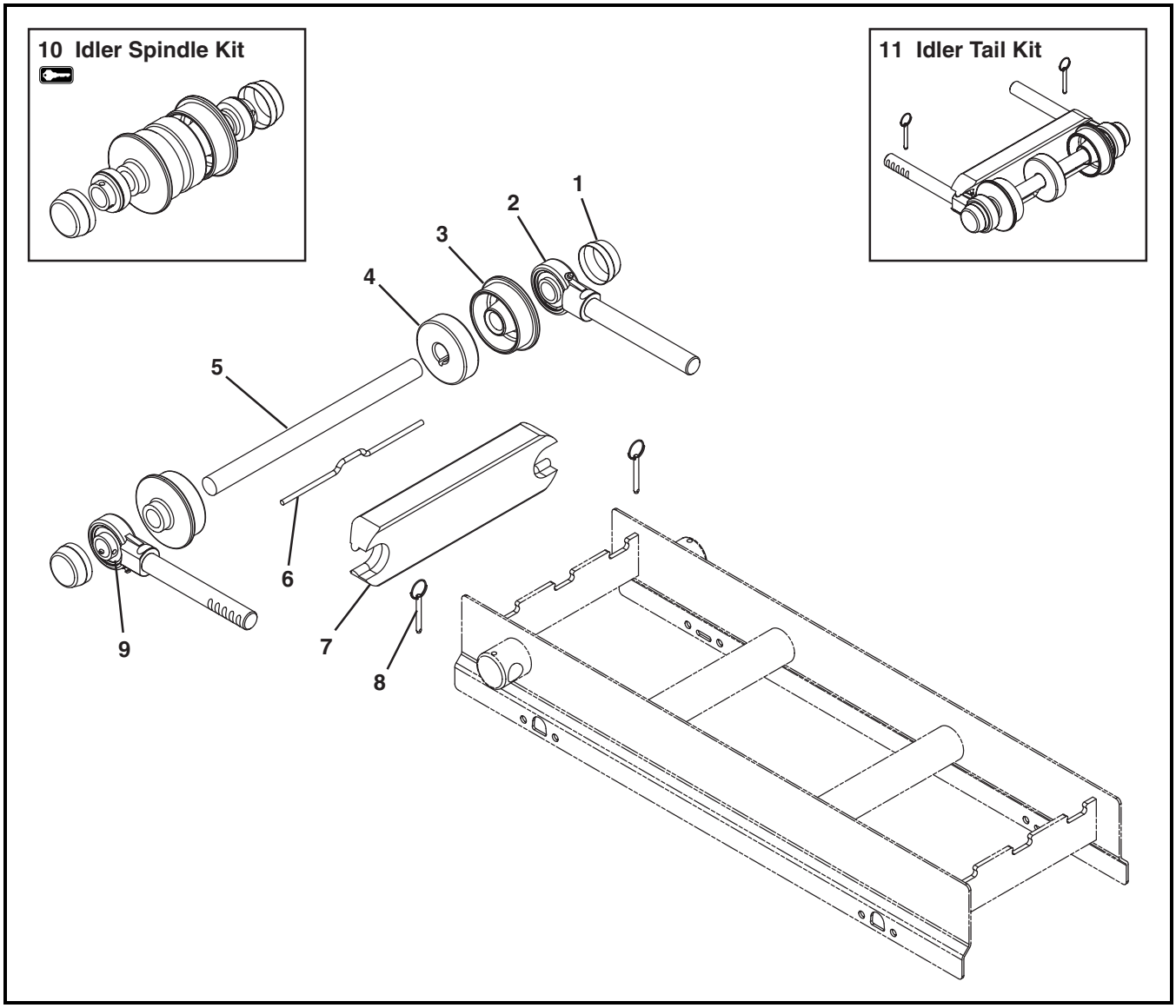


Item	Part Number	Description
1	500490	Nose Bar Tracking Puck
2	500278	Nose Bar Puck
3	5058WW	Nose Bar Wear Strip
4	5037WW	Nose Bar Transfer Post
5	500487	Nose Bar Idler Shaft Left Hand
6	500488	Nose Bar Idler Shaft Right Hand
7	500675	Key Stop

Item	Part Number	Description
8	5005WW	Tip Up Shaft Assembly
9	807-1469	Pull Pin
10	74NB1-WW	Nose Bar Kit (Includes Items 1 through 3)
11	74NBT1-WW	Nose Bar Tail Kit (Includes Items 1 through 6 and 9)
WW = Conveyor width ref: 08 - 36 in 02 increments		

Service Parts

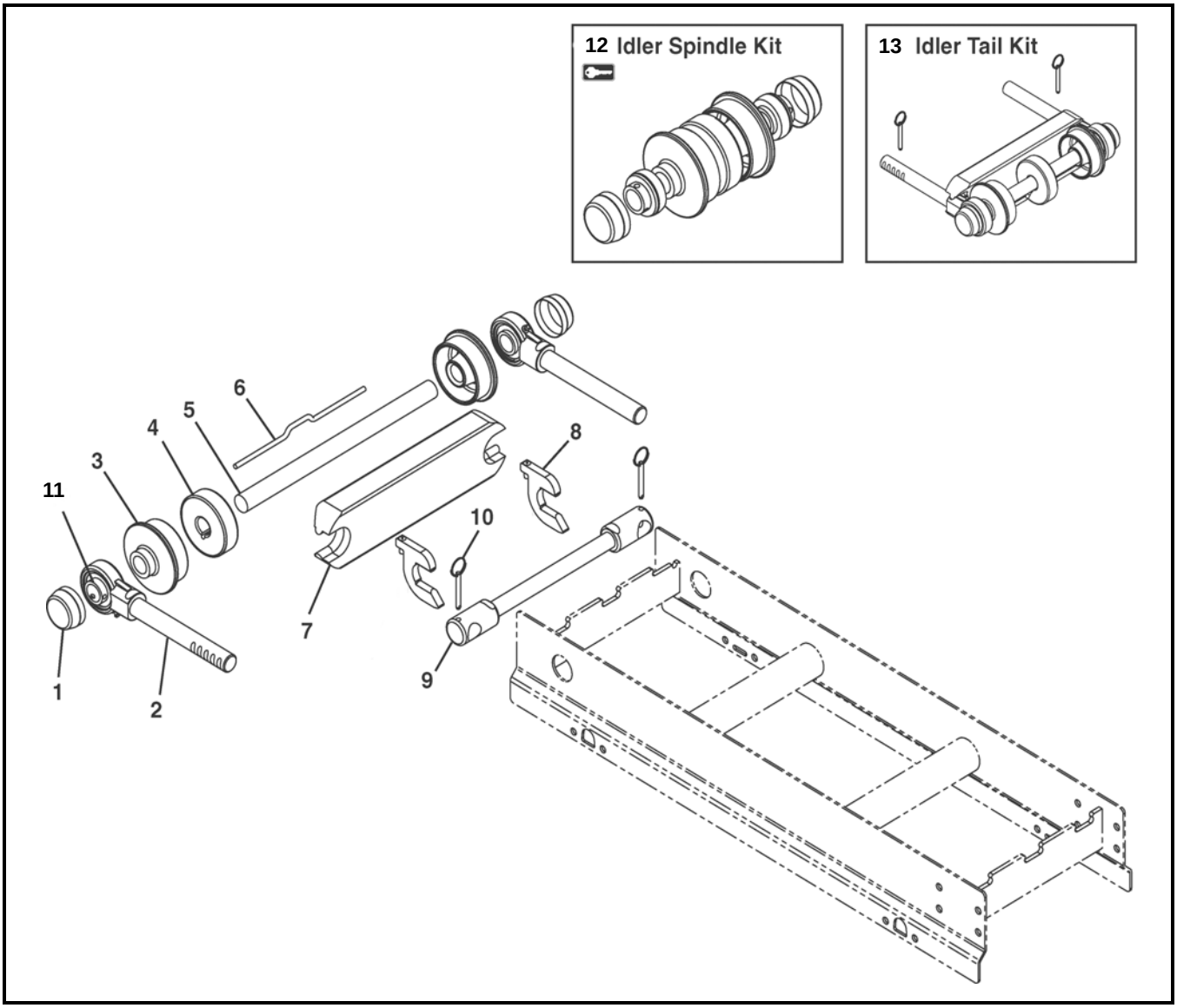
Tension End Components



Item	Part Number	Description
1	807-1454	Bearing Cover
2	500079	Shaft Assembly with Bearing
3	5017WW	Flanged Puck, Idler Tail for Standard Belt
	5072WW	Flanged Puck, Idler Tail for Specialty Intralox Belt
4	500175	Idler Puck
5	5007WW	Idler Shaft
6	5008WW	Bent etaining Bar for Standard Belt
	5073WW	Bent Retaining Bar for Specialty Intralox Belt

Item	Part Number	Description
7	5009WW	Guard Bar
8	807-1469	Pull Pin
9	802-162	Bearing
10	74I-WW	Idler Spindle Kit for Standard Belt (Includes Items 1, 3, 4 and 9)
	74IS-WW	Idler Spindle Kit for Specialty Intralox Belt (Includes Items 1, 3, 4 and 9)
11	74IT-WW	Idler Tail Kit for Standard Belt (Includes Items 1 through 8)
	74ITS-WW	Idler Tail Kit for Specialty Intralox Belt (Includes Items 1 through 8)
WW = Conveyor width ref: 08 - 36 in 02 increments		

Tip Up Tension End

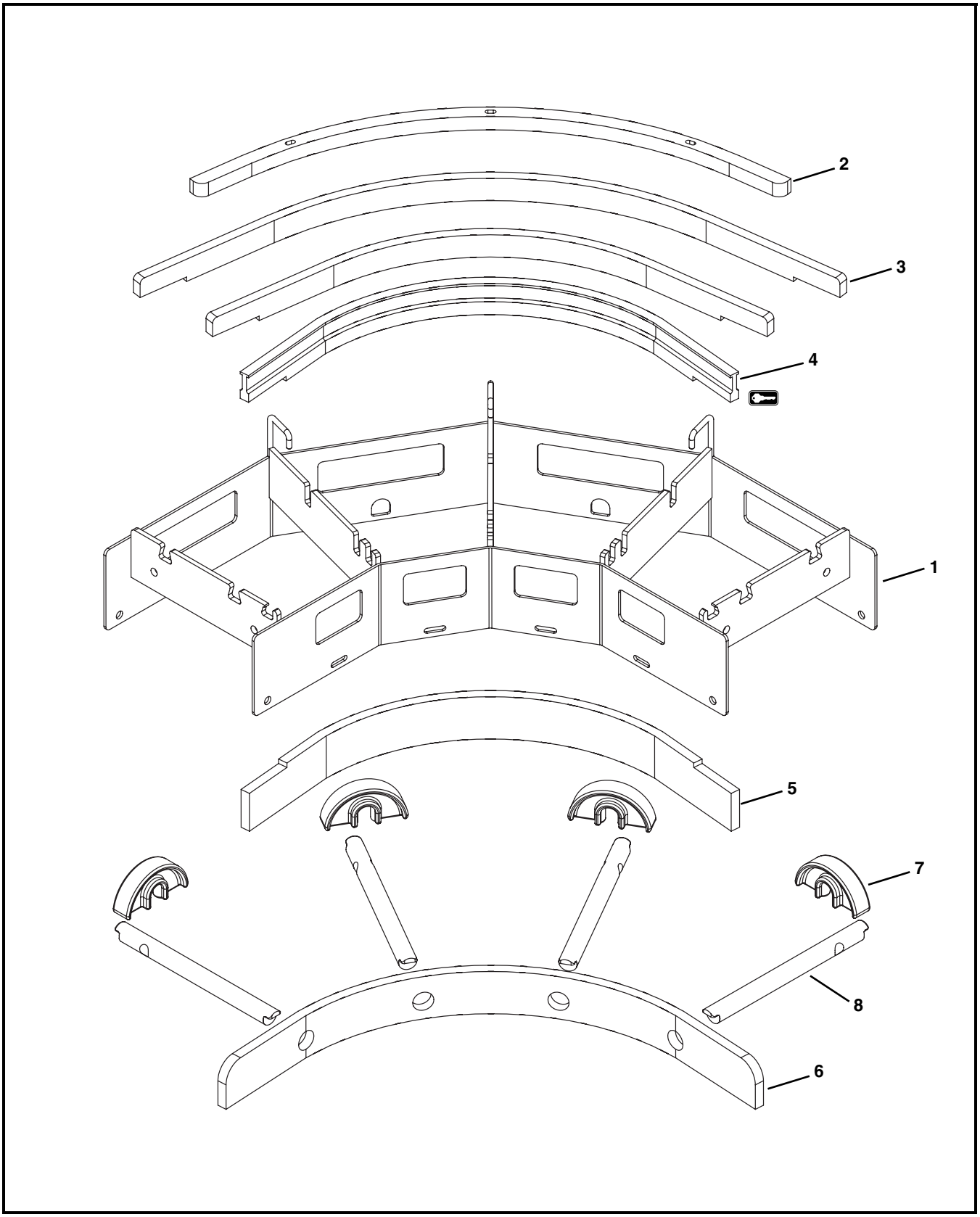


Item	Part Number	Description
1	807-1454	Bearing Cover
2	500079	Shaft Assembly with Bearing
3	5017WW	Flanged Puck, Idler Tail for Standard Belt
	5072WW	Flanged Puck, Idler Tail for Specialty Intralox Belt
4	500175	Idler Puck
5	5007WW	Idler Shaft
6	5008WW	Bent Retaining Bar for Standard Belt
	5073WW	Bent Retaining Bar for Specialty Intralox Belt
7	5009WW	Guard Bar
8	500675	Key Stop
9	5005WW	Tip Up Shaft Assembly
10	807-1469	Pull Pin

Item	Part Number	Description
11	802-162	Bearing
12	74I-WW	Idler Spindle Kit for Standard Belt (Includes Items 1, 3, 4 and 11)
	74IS-WW	Idler Spindle Kit for Specialty Intralox Belt (Includes Items 1, 3, 4 and 11)
13	74IT-WW	Idler Tail Kit for Standard Belt (Includes Items 1 through 7 and 10)
	74ITS-WW	Idler Tail Kit for Specialty Intralox Belt (Includes Items 1 through 7 and 10)
WW = Conveyor width ref: 08 - 36 in 02 increments		

Service Parts

Curve Conveyor Frame and Wear Strips

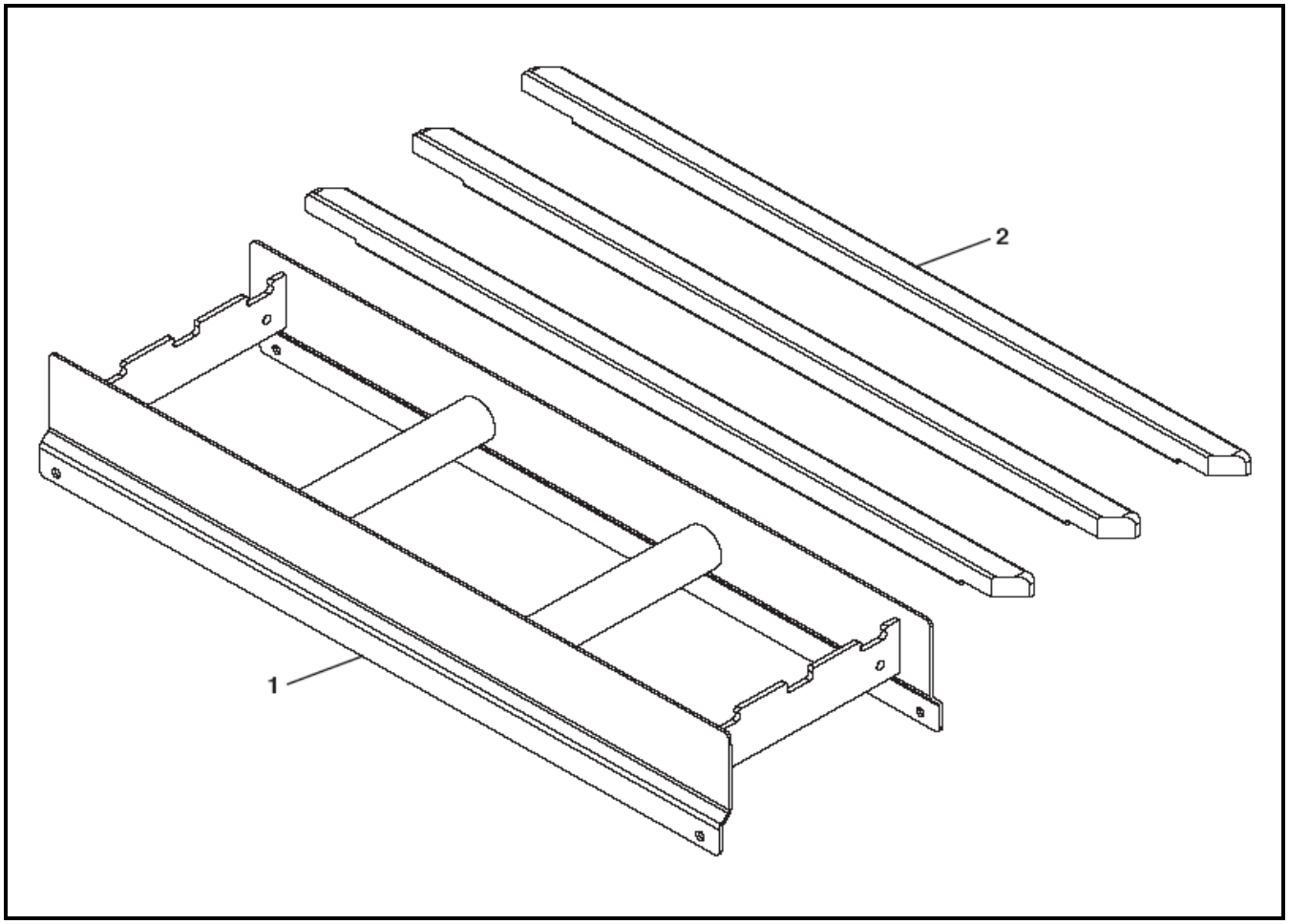


Item	Part Number	Description
1	------	Consult Factory for Frame Part Number
2	500189-LLLLL	Hold Down Wearstrip
3	500186-LLLLL	Curved Bed Rail Group
4	500187-LLLLL	Low Side Inside Curve Top Wearstrip
	500197-LLLLL	High Side Inside Curve Top Wearstrip
5	500188-LLLLL	Inside Return Bottom Wearstrip
6	500190-LLLLL	Return Bottom Wearstrip
7	500075	Chain Return
8	5033WW	Curve Return Shaft
LLLLL = Length in inches with 2 decimal places.		
Example: Length = 95.25" LLLLL = 09525		
WW = Conveyor width ref: 08 - 36 in 02 increments		

Section Degree of Turn Chart				
		Conveyor Width (WW)		
		08-10	12-24	26-36
Module Degree of Turn	**15**	N/A	15	15
	30	30	30	30
	45	N/A	45	45
	60	60	60	30 & 30
	75	N/A	75	45 & 30
	90	90	90	45 & 45
	105	N/A	60 & 45	45, 30 & 30
	120	60 & 60	60 & 60	45, 45 & 30
	135	N/A	75 & 60	45, 45 & 45
	150	90 & 60	75 & 75	45, 45, 30 & 30
	165	N/A	90 & 75	45, 45, 45 & 30
	180	90 & 90	90 & 90	45, 45, 45 & 45

Service Parts

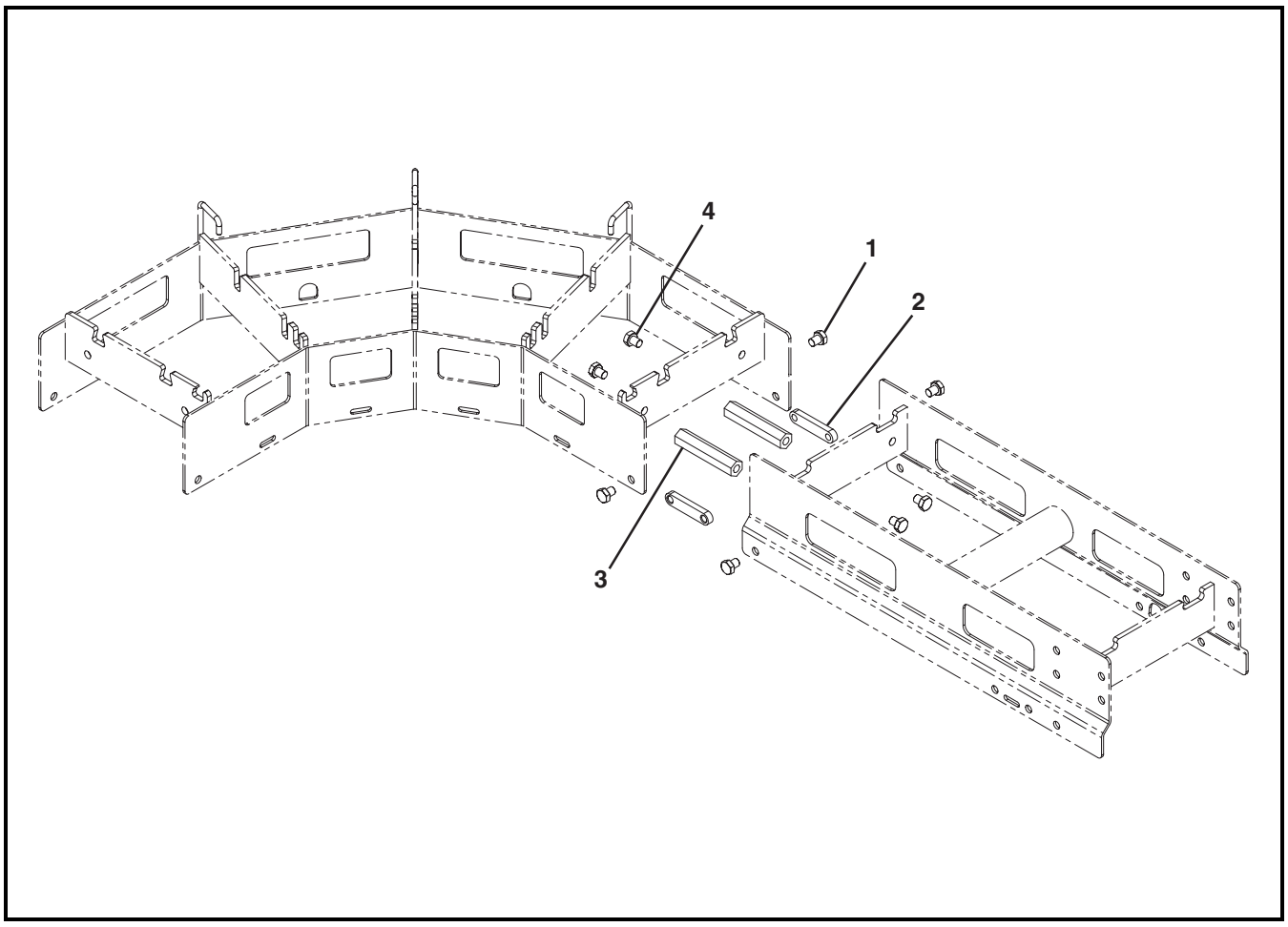
Straight Conveyor Frame and Wear Strips



Item	Part Number	Description
1	------	Consult Factory for Frame Part Number
2	501800-LLL	Straight Wear Strip (Refer to chart)
LLL = Conveyor length ref: 020 - 999 in 001 increments		

Wear Strip Quantity (Item 2)								
		Conveyor Length (LLL)							
		020-132	133-252	253-372	373-492	493-612	613-732	733-852	853-999
Conveyor Width (WW)	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
	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

Conveyor Frame Connection

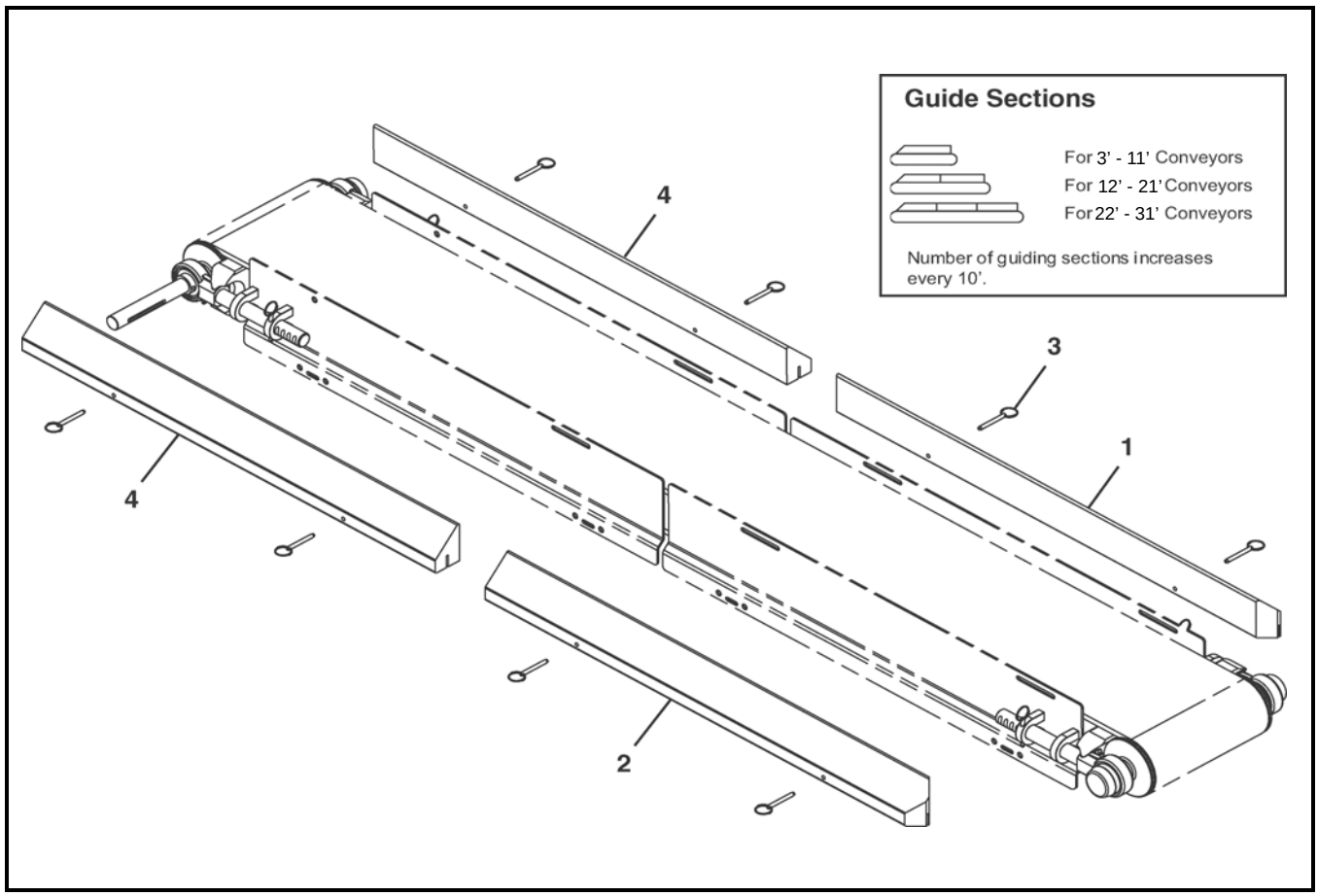


Item	Part Number	Description
1	961012MSS	Hex Head Cap Screw M10-1.5x12mm
2	500199	Flat Connector (Not Applicable if Stand Located at Connection)

Item	Part Number	Description
3	500193	Hex Post Connector
4	961016MSS	Hex Head Cap Screw M10-1.5x16mm

Service Parts

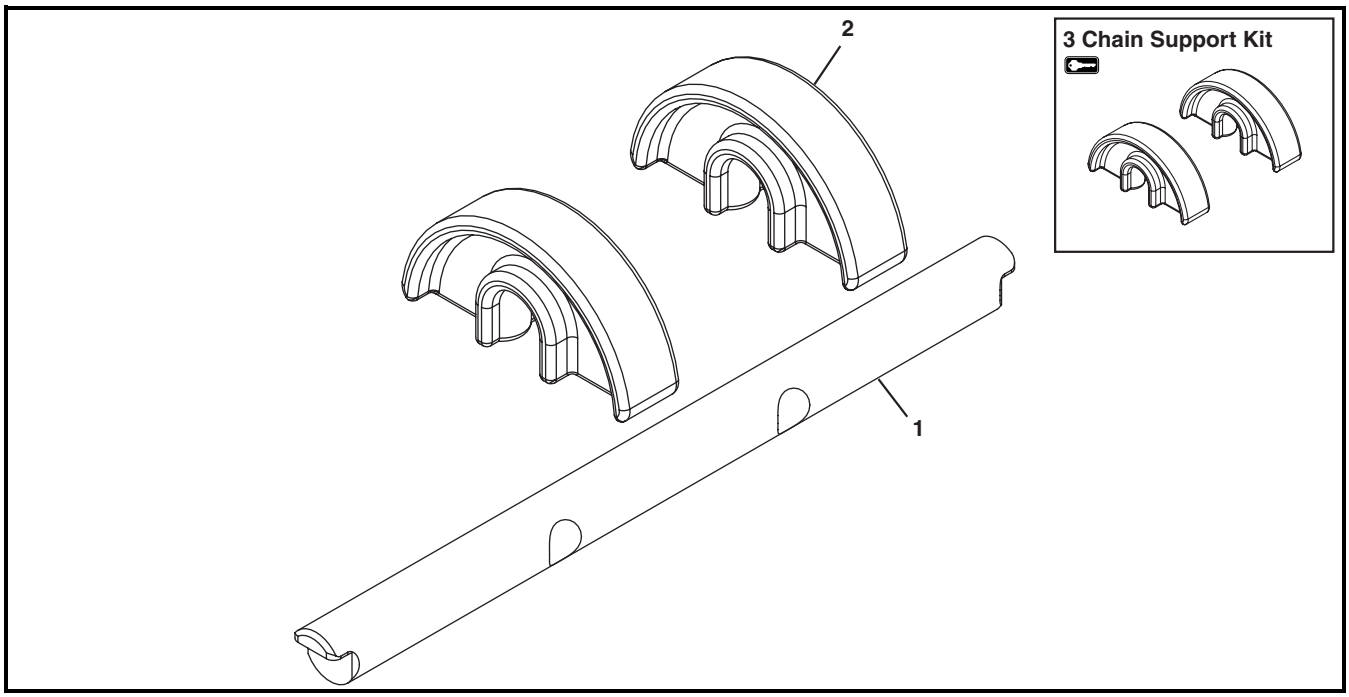
3" (76 mm) High Sides



Item	Part Number	Description
1	503501-LLLLL	Right Hand High Side Guide
2	503601-LLLLL	Left Hand High Side Guide
3	807-1553	Pull Pin

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		

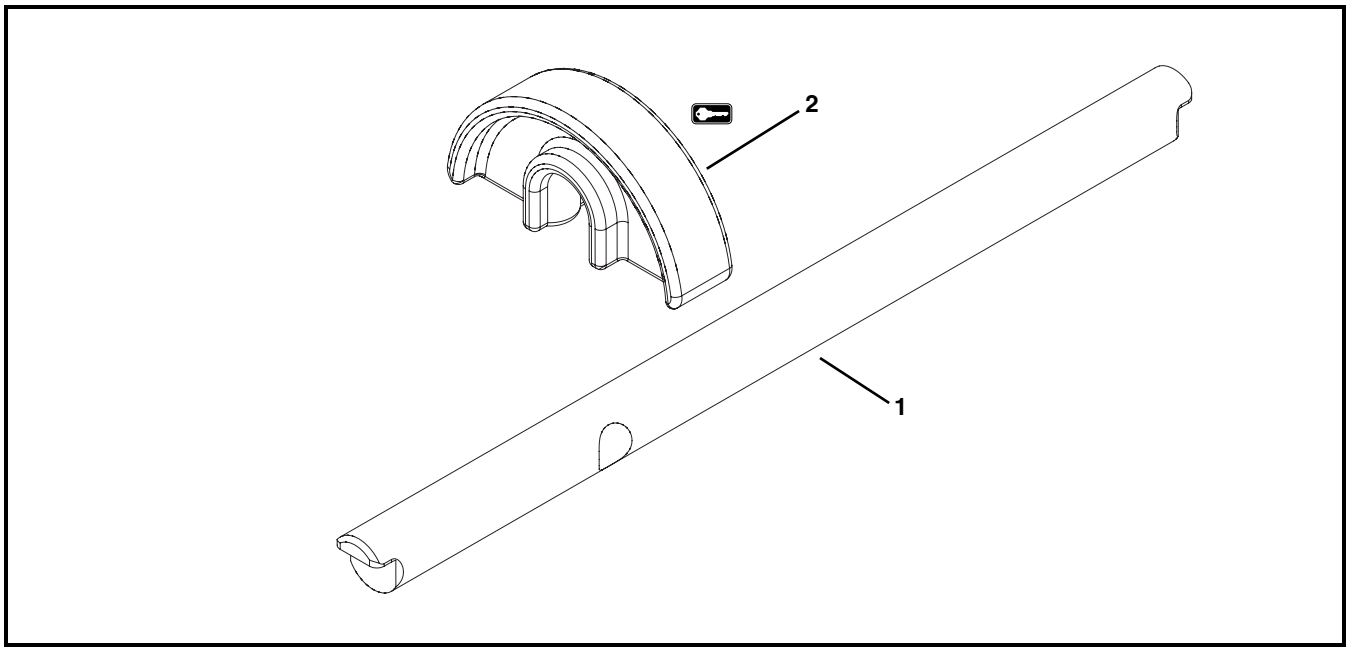
Straight Belt Return



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: 08 - 36 in 02 increments		

Curve Belt Return

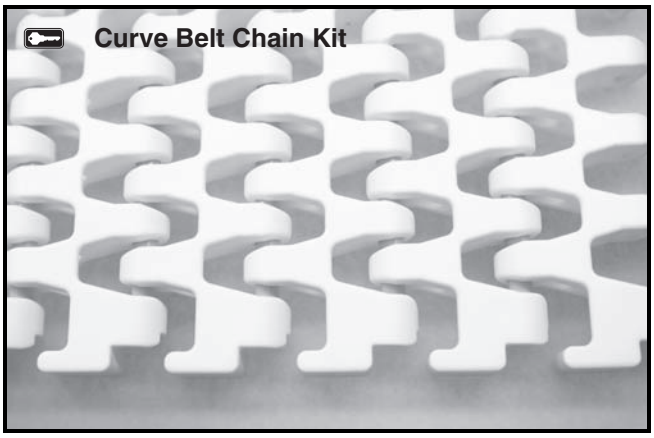


Item	Part Number	Description
1	5033WW	Curve Return Shaft

Item	Part Number	Description
2	500075	Chain Return Shoe
WW = Conveyor width ref: 08 - 36 in 02 increments		

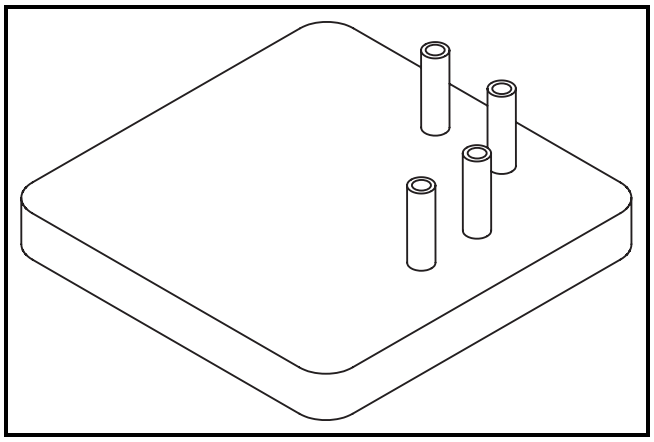
Service Parts

Curve Belt Chain Kit



Item	Part Number	Description
1	74BB-WW	Curve Belt Chain Kit (Includes 1 ft (305 mm) of flat belt chain and assembly pins)
BB = Chain Reference Number		
WW = Conveyor width ref: 08 - 36 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

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:

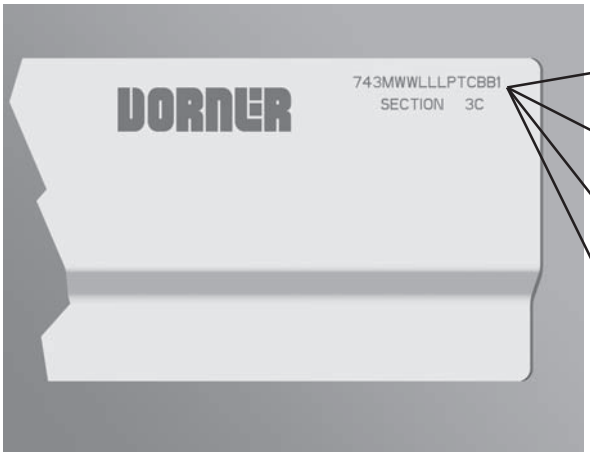
Overall chain length = 42' 5" (rounded up = 43')

Order: Qty (43) of 74BB-WW

BB = Chain reference number

WW = Conveyor width ref: 08 - 36 in 02 increments

Configuring a Conveyor Part Number



743WWLLLPCSGBB#
STRAIGHT INFEED / IDLER MODULE

744WWDDDCSGBB#
CURVE MODULE

745WWLLLCSGBB#
STRAIGHT INTERMEDIATE MODULE

74MWWLLLDCSBBG#
STRAIGHT EXIT / DRIVE MODULE

Figure 91

Curve Conveyor

Refer to your serial and model number plate **(Figure 91)**. From the model number, determine conveyor width (WW), length (LLL), pulley type (P), stand location, cleaning options (C), stand holes (S), guide profile (G), belt material (BB), degree of turn (DDD), drive/pulley type (D) and module serialized sequence (#).

Straight Infeed / Idler Module
Example: 7432412015B1MR1

Straight Infeed/Idler module, 24" wide, 10' long, ready for Dorner support stands, first stand 12" from pulley end including standard idler pulley, frame cutouts, belt lifters, tip up idler pulley option, lowside profile and MR belt material.

Straight Intermediate Module
Example: 745241807Z1MR3

Straight Intermediate module, 24" wide, 15' long, ready for Dorner support stands, including frame cutouts, belt lifters, lowside profile and MR belt material.

Curve Module
Example: 744240901Z1MR4

Curve module, 24" wide, 90°, ready for Dorner support stands, including frame cutouts and MR belt material.

Straight Exit / Drive Module
Example: 74M2404817CMR15

Straight Exit/Drive module, 24" wide, 4' long, ready for Dorner support stands, last stand mounted 18" from pulley end, and side drive mount in position D, including standard drive pulley, frame cutouts, belt lifters, lowside profile and MR belt material.

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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