7400 Series Curved End Drive Conveyors

Installation, Maintenance and Parts Manual

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851-595 Rev. B

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Introduction

CAUTION

Some illustrations may show guards removed. DO NOT operate equipment without guards.

Upon receipt of shipment:

- Compare shipment with packing slip. Contact factory regarding discrepancies.
- Inspect packages for shipping damage. Contact carrier regarding damage.Accessories may be shipped loose.
- See accessory instructions for installation.

The Dorner Limited Warranty applies.

Dorner 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 .

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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
Conveyor Belt Width	8" (203 mm) – 36" (914 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	150 ft / minute (45 m / minute)
Belt Take-up	2" (51 mm)

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

Conveyor Supports

Maximum Distances:

1 (Infeed) = 3 ft (914 mm)

2 (Outfeed) = 3 ft (914 mm)

**** Stand positions will be determined by the factory.**

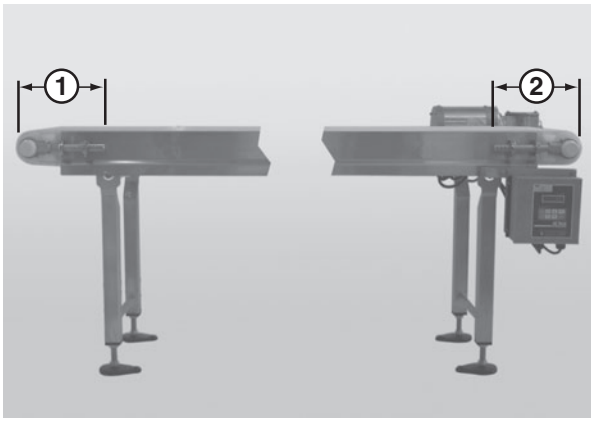


Figure 2

7400 Series Frame Section Numbers

Straight Infeed Module / Idler Module

74 3 WW LLL P C S G BB #

- # — Module Serialized Sequence: 1 thru 9
- BB — Belt Material
- G — Guide Profile
- S — Stand Location
- C — Cleaning Options
- P — Pulley Type
- LLL — Length
- WW — Belt Width

Curve Module

74 4 WW DDD C S G BB #

- # — Module Serialized Sequence: 1 thru 9
- BB — Belt Material
- G — Guide Profile
- S — Stand Holes
- C — Cleaning Options
- DDD — Degree of Turn
- WW — Belt Width

Straight Intermediate Module

74 5 WW LLL C S G BB #

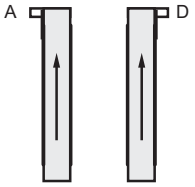
- # — Module Serialized Sequence: 1 thru 9
- BB — Belt Material
- G — Guide Profile
- S — Stand Holes
- C — Cleaning Options
- LLL — Length
- WW — Belt Width

Straight Exit / Drive Module

74 M WW LLL D C S BB G #

- # — Module Serialized Sequence: 1 thru 9
- G — Guide Profile
- BB — Belt Material
- S — Stand Location
- C — Cleaning Options
- D — Drive/ Pulley Type
- LLL — Length
- WW — Belt Width

Drive Shaft Position



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

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.

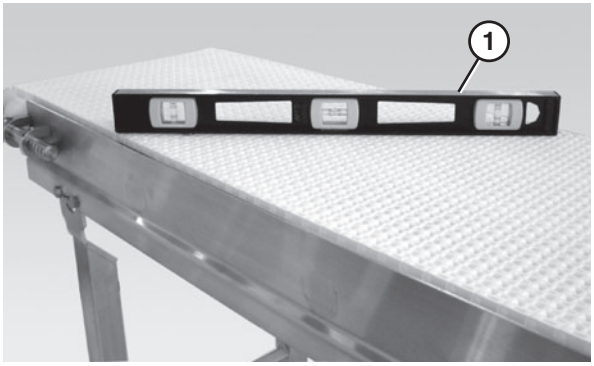


Figure 3

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 13.
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 15.
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

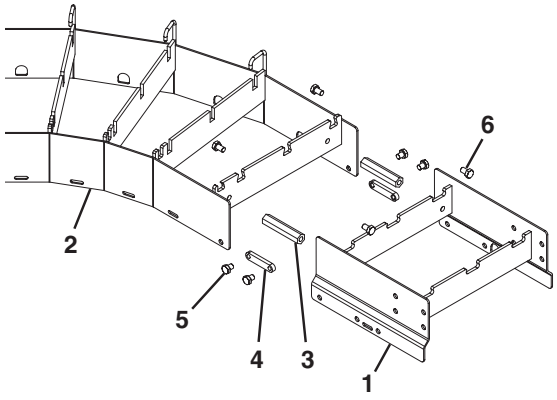


Figure 5

1. Locate the section number sequence etched on each section of frame **(Figure 6, item 1)**.

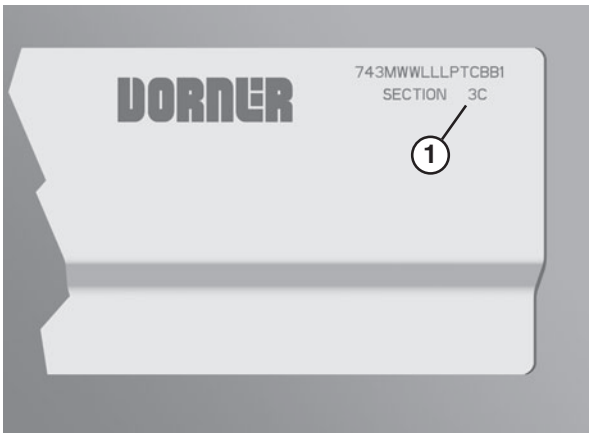


Figure 6

2. Position the frame sections in the correct order **(Figure 7)**.

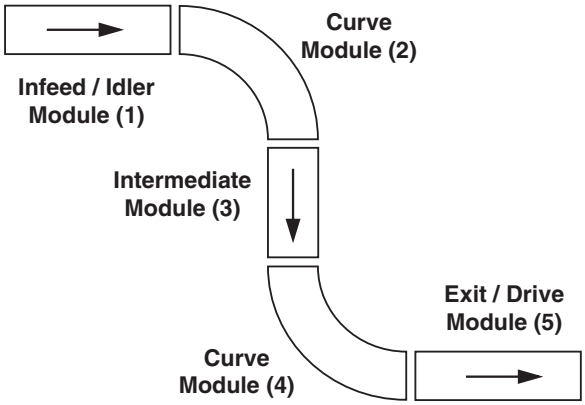


Figure 7

3. Connect the frame sections by bolting the hex post connectors **(Figure 8, item 1)** to the cross member supports of each frame section.

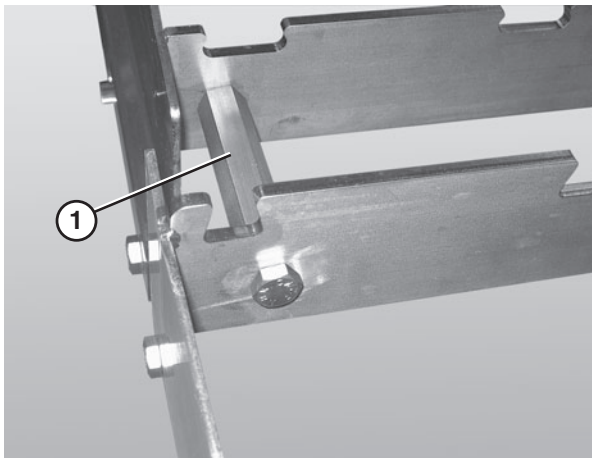


Figure 8

4. Attach the flat connectors **(Figure 9, item 1)**, if applicable, to the inside of the frame sections.

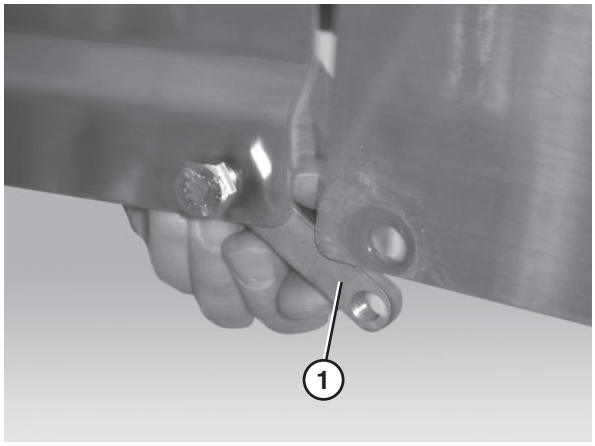


Figure 9

Stand Installation

Typical Stand Components **(Figure 10)**

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

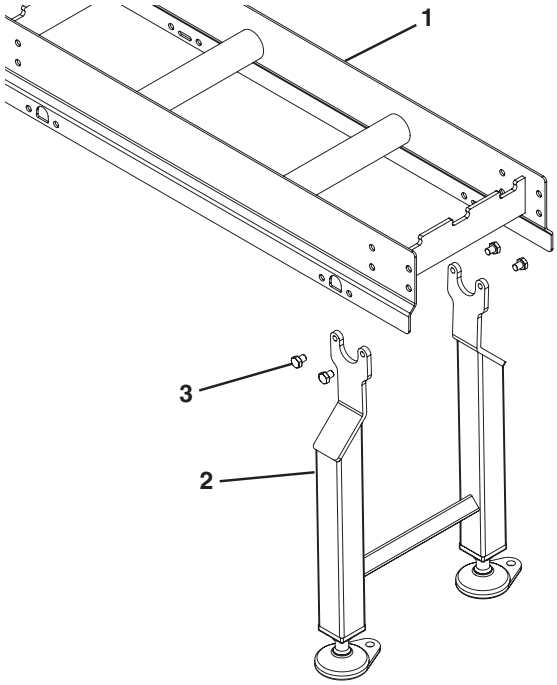


Figure 10

1. Position the stands on a flat, level surface.
2. Attach the stands to the frame **(Figure 11)**.

Figure 11

Installation

Tail Assembly Installation

Drive Tail

Typical Drive Tail Components **(Figure 12)**

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

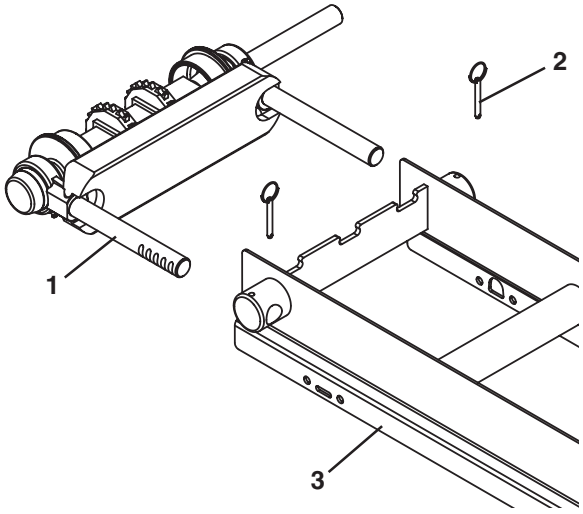


Figure 12

1. Slide the bearing shafts **(Figure 13, item 1)** into the take up blocks **(Figure 13, item 2)**.

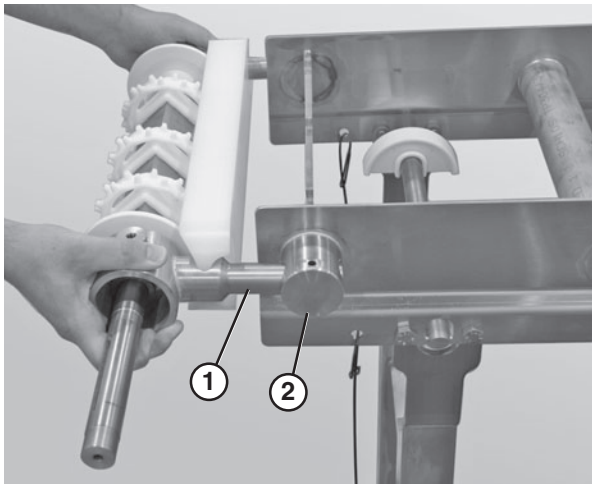


Figure 13

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 14, item 1)**.

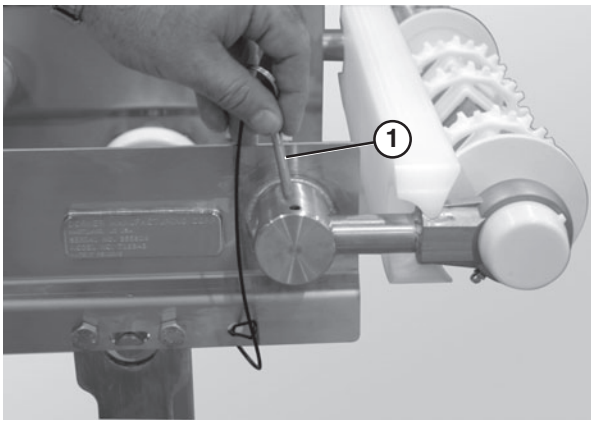


Figure 14

Idler Tail

Typical Idler Tail Conponents **(Figure 15)**

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

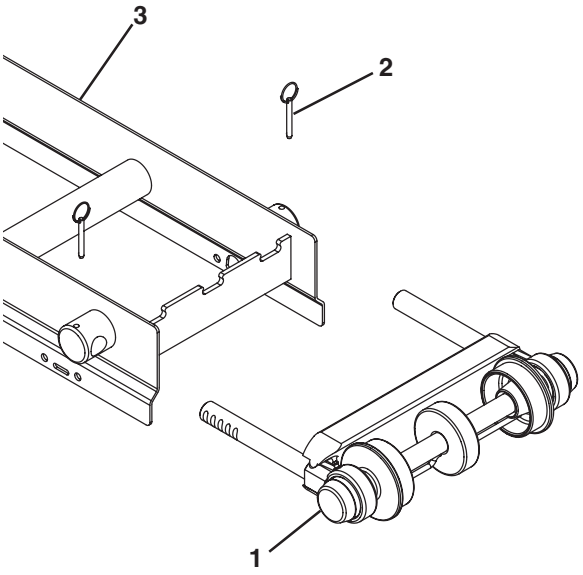


Figure 15

1. Slide the bearing shafts **(Figure 16, item 1)** into the take up blocks **(Figure 16, item 2)**.

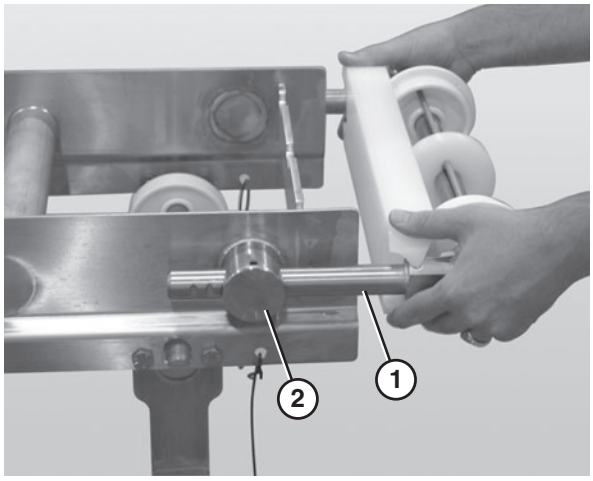


Figure 16

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 17)**

1	Tip up tail assembly
2	Pull pin (x2)
3	Tip up shaft
4	Key stops (x2)
5	M10 - 1.5 mm acorn nut (x2)

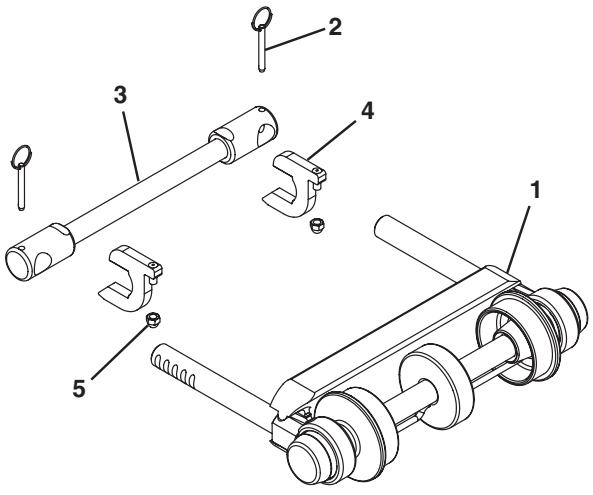


Figure 17

1. Slide the tip up shaft **(Figure 18, item 1)** through the designated slots in the frame.

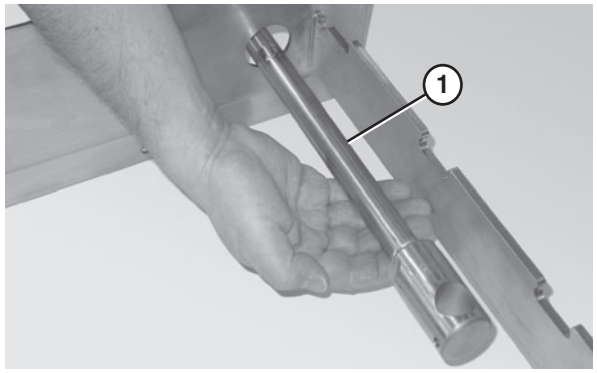


Figure 18

2. Attach the key stops **(Figure 19, item 1)** to the tip up shaft **(Figure 19, item 2)**. The rounded end of the key stop should be facing the tail.

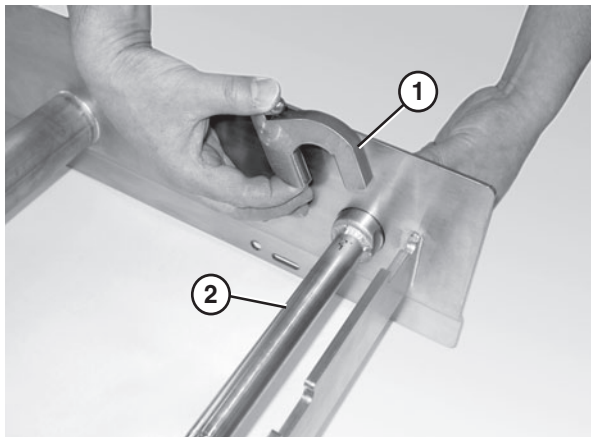


Figure 19

3. Slide the bearing shafts **(Figure 20, item 1)** into the holes in the tip up shaft **(Figure 20, item 2)**.

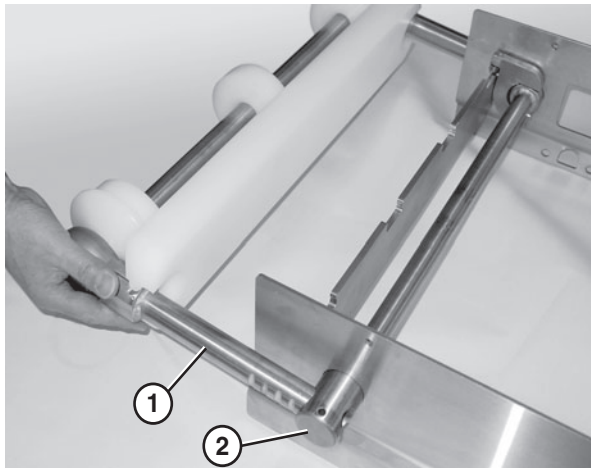


Figure 20

NOTE

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

NOTE

*Adjust the acorn nuts **(Figure 17, item 5)** on the key stops **(Figure 17, item 4)** to raise or lower the tip up tail assembly.*

Nose Bar Idler Tail

Typical Nose Bar Idler Tail Components **(Figure 21)**

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

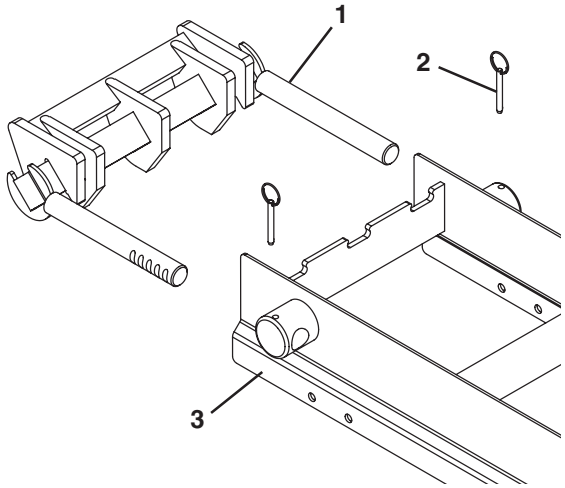


Figure 21

1. Slide the nose bar idler shaft hands **(Figure 22, item 1)** into the take up blocks **(Figure 22, item 2)**.
2. Attach the nose bar transfer post **(Figure 22, item 3)** to the nose bar idler shaft hands.

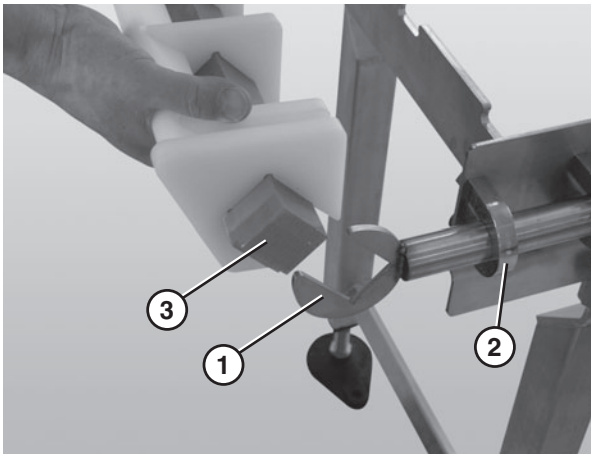


Figure 22

3. Ensure that the nose bar pucks **(Figure 23, item 1)** are in line with the conveyor frame **(Figure 23, item 2)**.

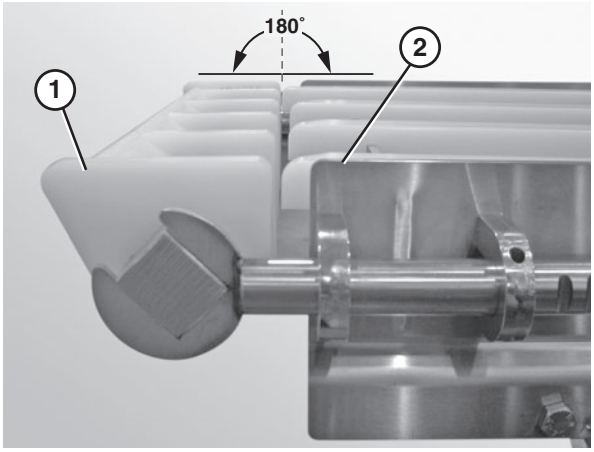


Figure 23

NOTE

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

Nose Bar Tip Up Tail

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

1	Tip up tail assembly
2	Pull pin (x2)
3	Tip up shaft
4	Key stops (x2)
5	M10 - 1.5 mm acorn nut (x2)

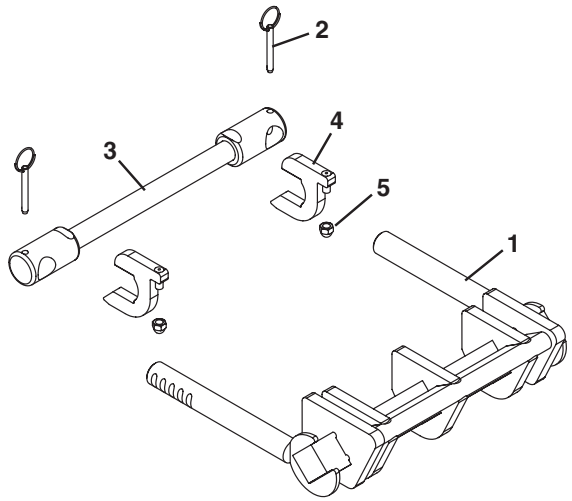


Figure 24

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

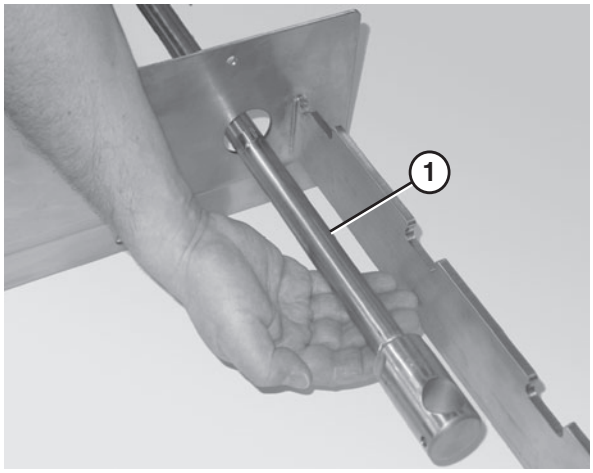


Figure 25

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 face the tail.

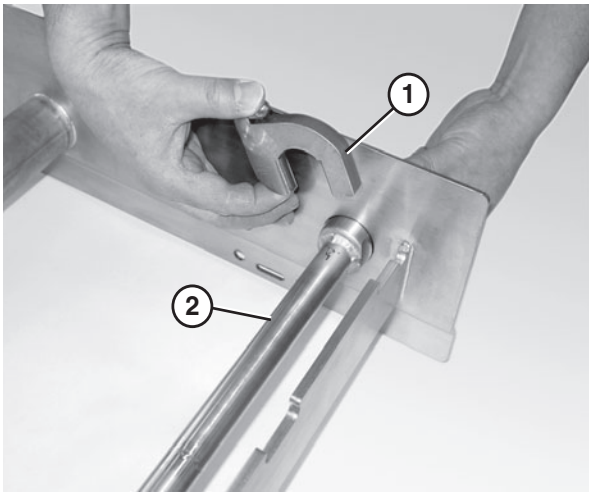


Figure 26

3. Attach the nose bar idler shaft hands **(Figure 27, item 1)** to the tip up shaft **(Figure 27, item 2)**.

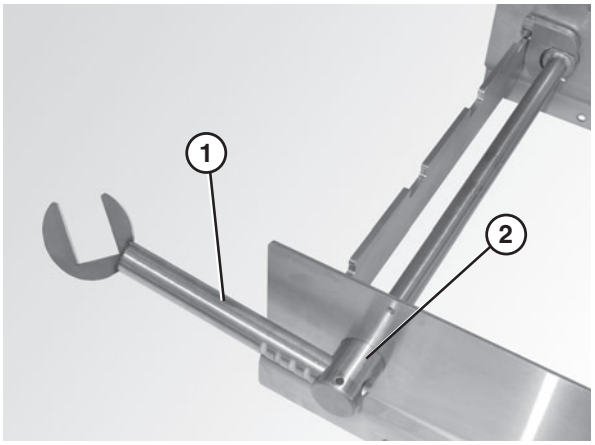


Figure 27

4. Attach the nose bar transfer post **(Figure 28, item 1)** to the nose bar idler shaft hands **(Figure 28, item 2)**.

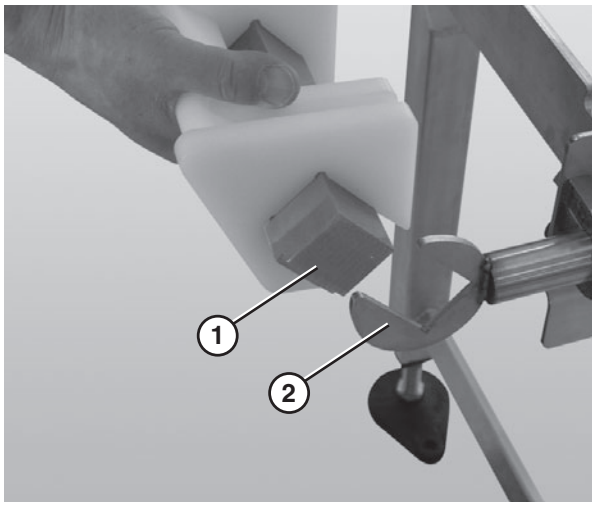


Figure 28

5. Ensure that the nose bar pucks **(Figure 29, item 1)** are in line with the conveyor frame **(Figure 29, item 2)**.

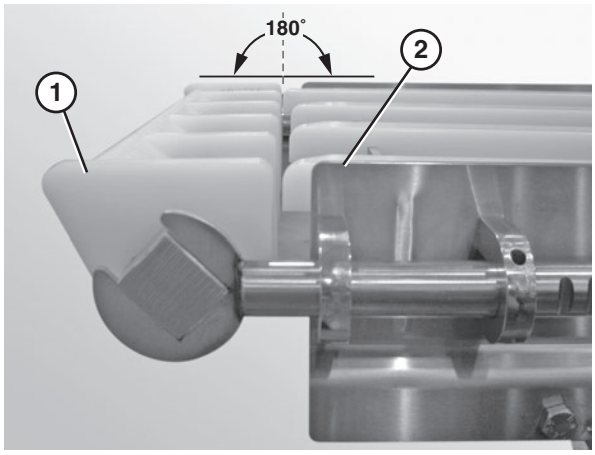


Figure 29

NOTE

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

NOTE

*Adjust the acorn nuts **(Figure 24, item 5)** on the key stops **(Figure 24, item 4)** to raise or lower the tip up tail assembly.*

Lifter Installation

Typical Lifter Components **(Figure 30)**

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

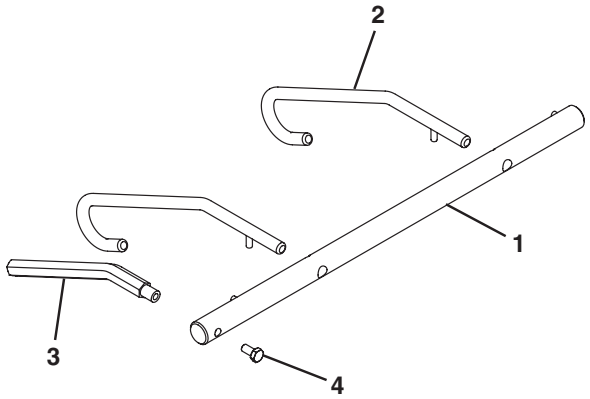


Figure 30

1. Slide the belt lift pivot bar **(Figure 31, item 1)** through the designated holes in the frame.

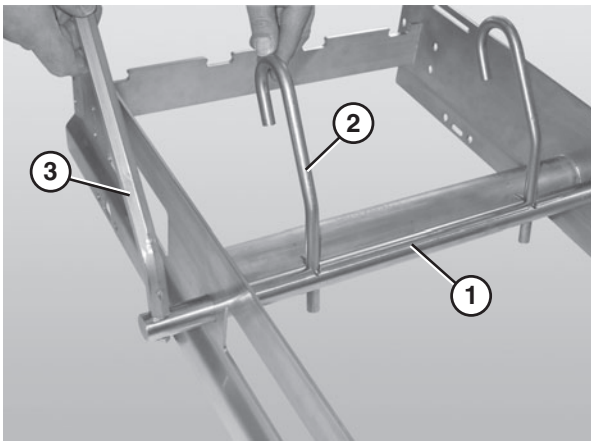


Figure 31

2. Attach the lifter bars **(Figure 31, item 2)** to the belt lift pivot bar **(Figure 31, 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 31, item 3)** to the belt lift pivot rod.

Wear Strip Installation

Straight Frame Sections

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

1	Wear strip

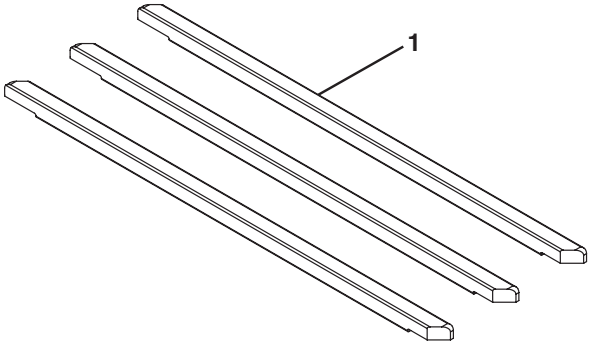


Figure 32

1. Position the wear strips **(Figure 33, item 1)** on the frame.

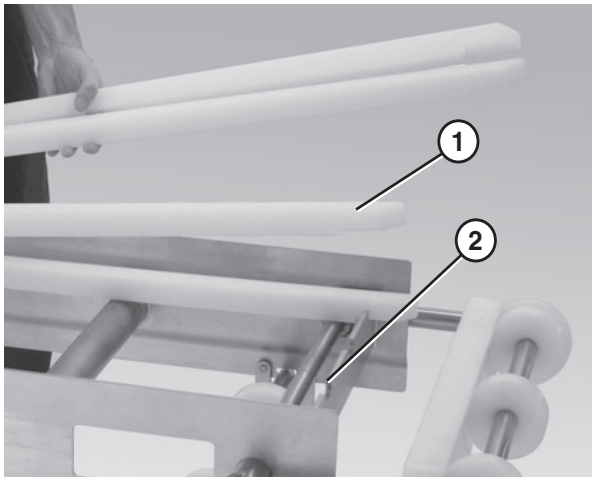


Figure 33

2. Make sure the wear strips are situated securely in the frame slots **(Figure 33, item 2)**.

Curved Frame Sections

Typical Curved Wear Strip Components **(Figure 34)**

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

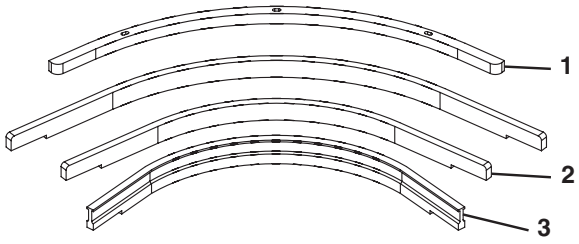


Figure 34

1. Insert the inside curve top wear strip **(Figure 35, item 1)** into the innermost slot **(Figure 35, item 2)** on the inside of the frame.

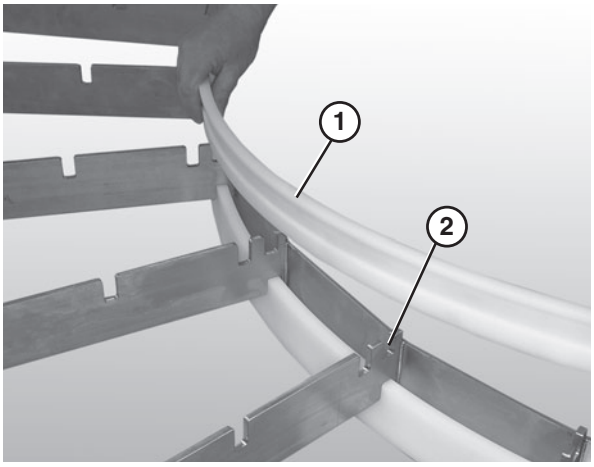


Figure 35

2. Attach the hold down wear strip **(Figure 36, item 1)** to the frame hooks **(Figure 36, item 2)** on the outside of the frame.

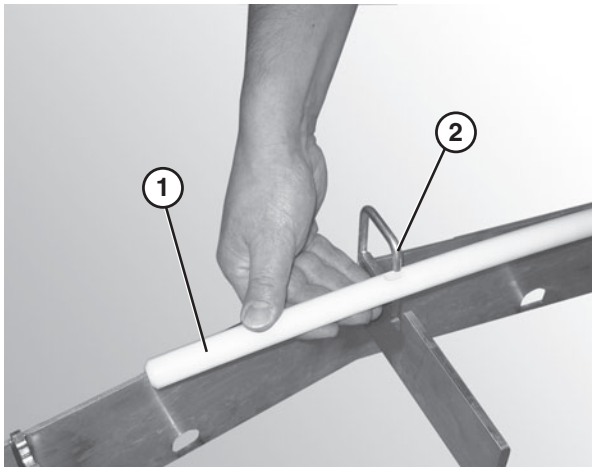


Figure 36

3. Insert the wear strips **(Figure 37, item 1)** into the appropriate slots in the frame **(Figure 37, item 2)**, starting with the shortest wear strip on the inside of the curved section and working outward to the longest.

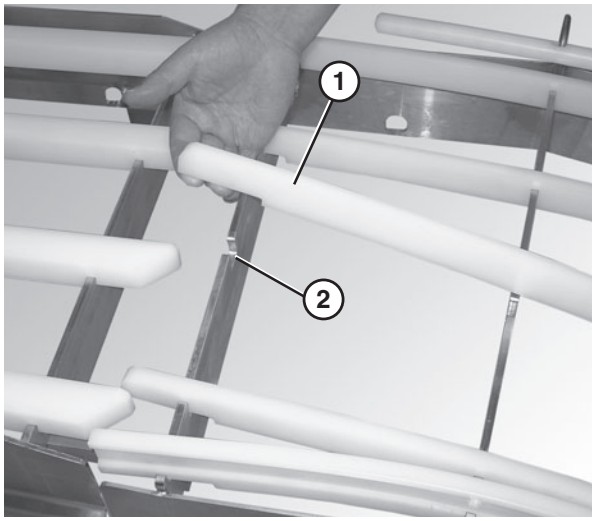


Figure 37

Belt Return Installation – Curved Frame Sections

Typical Curved Belt Return Components **(Figure 38)**

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

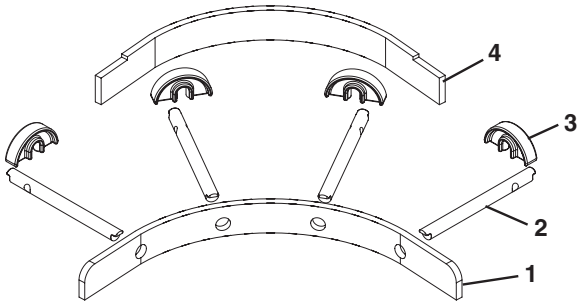


Figure 38

1. Insert the inside return bottom wear strip **(Figure 39, item 1)** into the slots **(Figure 39, item 2)** on the lower inside section of the frame (figure shown without the belt or wear strips).

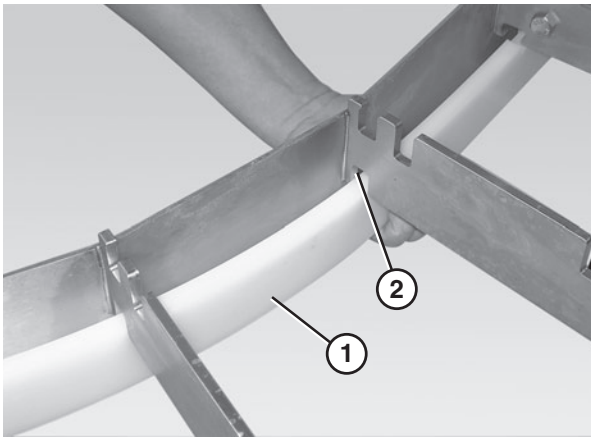


Figure 39

2. Attach the chain return shoes **(Figure 39, item 1)** to the curve return shafts **(Figure 39, item 2)**.

3. Slide the long end of the curve return shaft **(Figure 40, item 1)** through the center hole in the return bottom wear strip **(Figure 40, item 2)**.

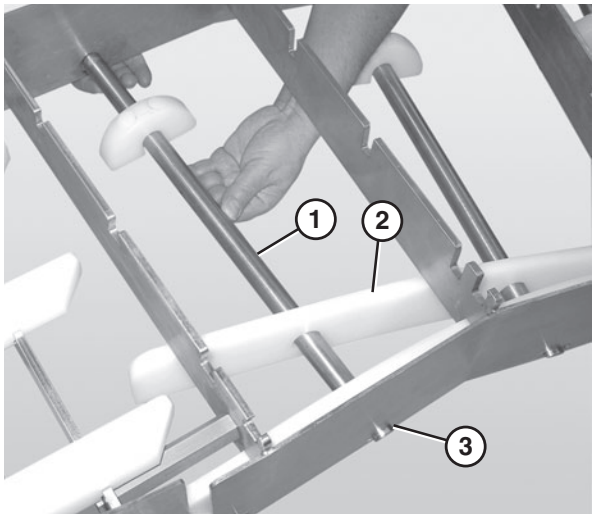


Figure 40

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 40, item 3)**.
6. Repeat steps 4 – 5 with the remaining returns.

Belt Installation

Typical Belt Components **(Figure 41)**

1	Chain belt
2	Belt rod

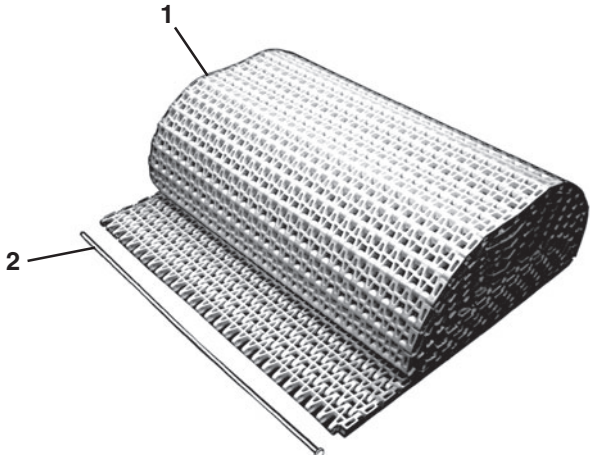


Figure 41

1. Position the belt on the conveyor frame **(Figure 42)**.

Figure 42

NOTE

*Ensure the belt is running in the correct direction **(Figure 43)**.*

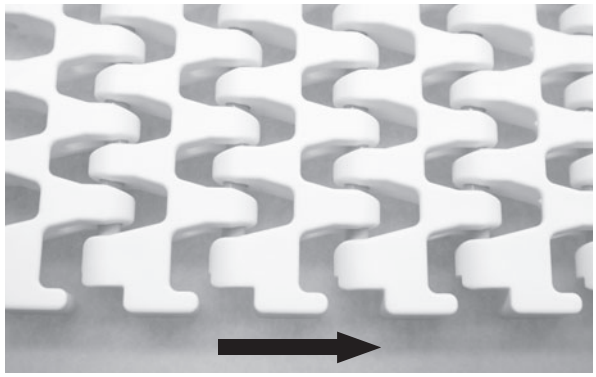


Figure 43

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 44)**.

Figure 44

5. Insert the belt rod **(Figure 45, item 1)**.

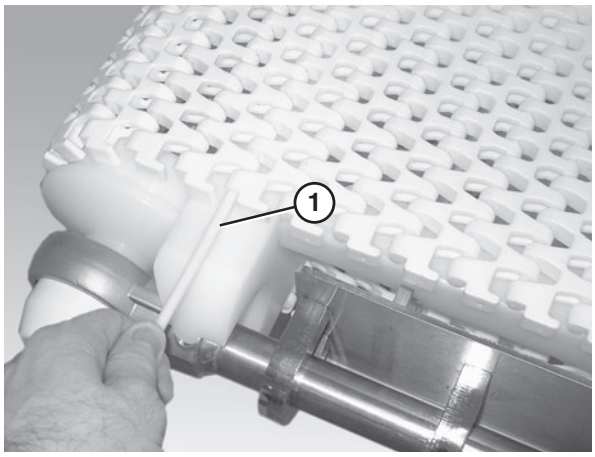


Figure 45

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 46)**.

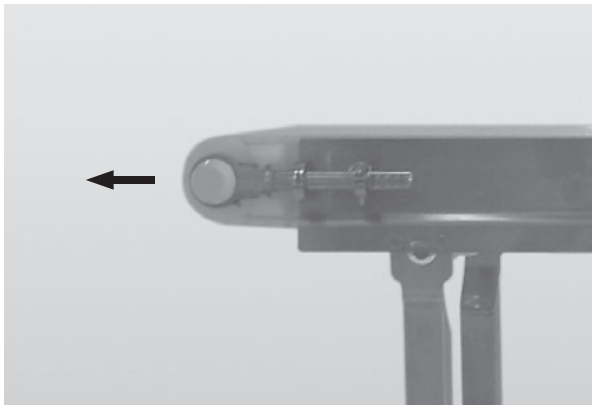


Figure 46

9. Insert the pull pins **(Figure 47, item 1)** on the tension end of the conveyor.

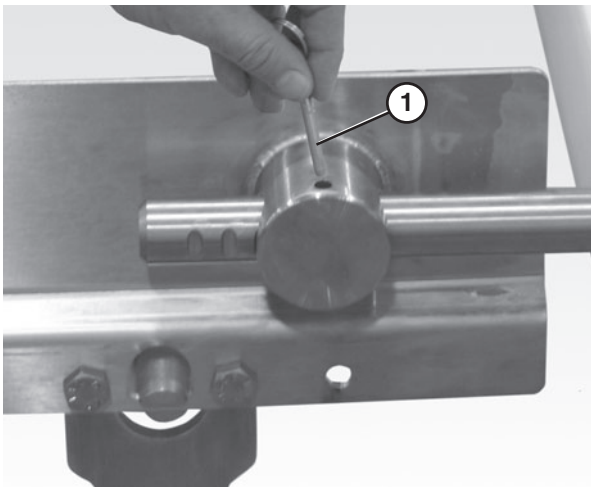


Figure 47

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 20.

Belt Return Installation – Straight Frame Sections

Typical Belt Return Components **(Figure 48)**

1	Return shaft
2	Chain return shoe

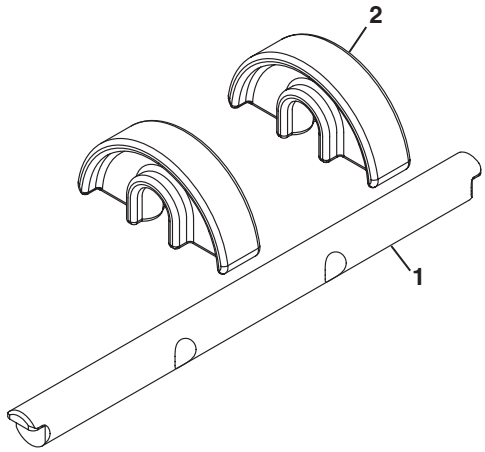


Figure 48

1. Attach the chain return shoes **(Figure 49, item 1)** to the return shaft **(Figure 49, item 2)**.

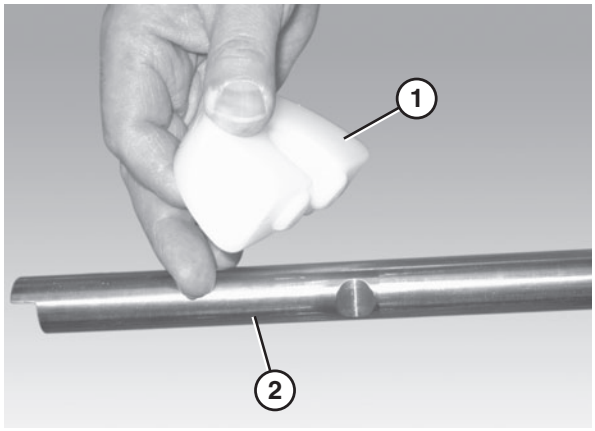


Figure 49

2. Slide the return shaft up **(Figure 50, item 1)** and through the large slot **(Figure 50, item 2)** in the frame (picture shown without the belt or wear strips).

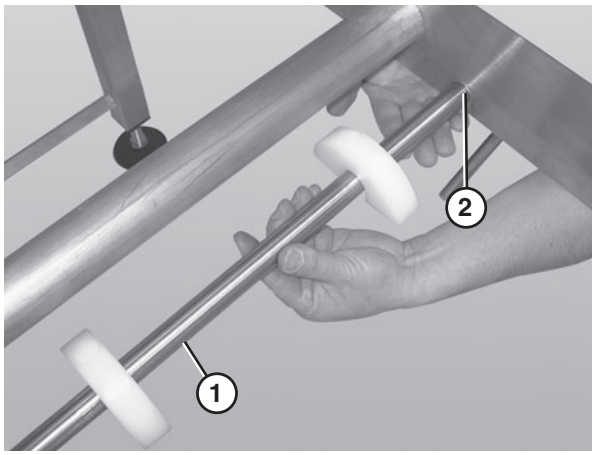


Figure 50

3. Push up on the return shaft **(Figure 50, 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 51)**. Belt sag should not exceed 4" (102 mm). Follow steps 7 – 9 in the “Belt Installation” section on page 15 to remove slack from the belt.

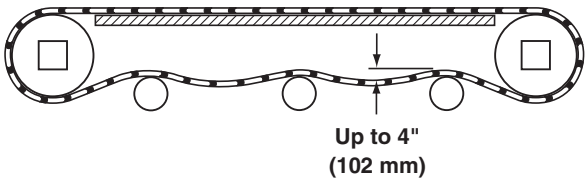


Figure 51

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 52, item 1)** that connect the guide **(Figure 52, item 2)** to the frame.

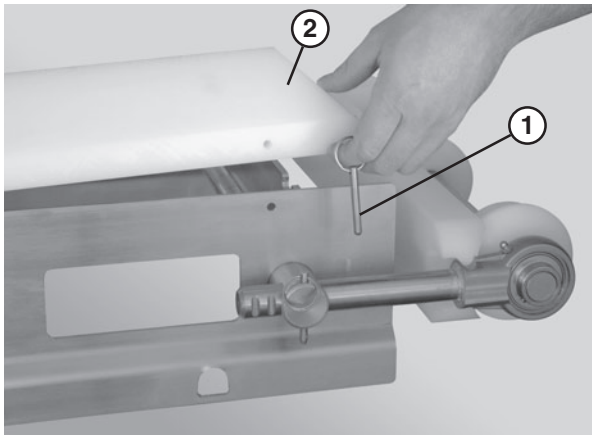


Figure 52

2. Remove the pull pin **(Figure 53, item 1)** on the tension end of the conveyor to release belt tension.

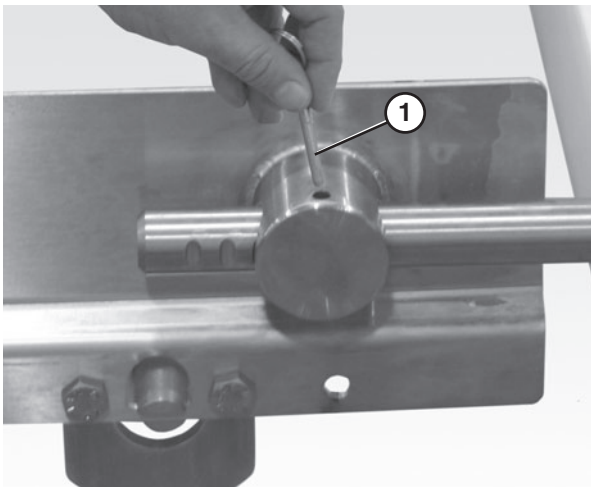


Figure 53

3. Lift up on the belt **(Figure 54)**.

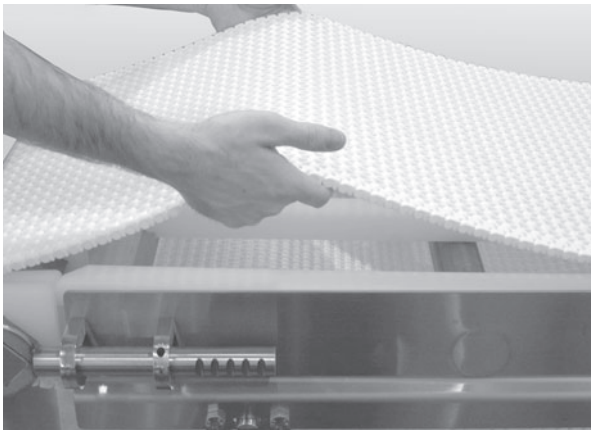


Figure 54

Conveyors with Tip Up Tails and Lifters

1. Remove the guides, if applicable, by removing the pull pins **(Figure 52, item 1)** that connect the guide **(Figure 52, item 2)** to the frame.

2. Use the lifter handle **(Figure 55, item 1)** to raise the lifters **(Figure 55, item 2)** and raise the tip up tail **(Figure 55, item 3)**.

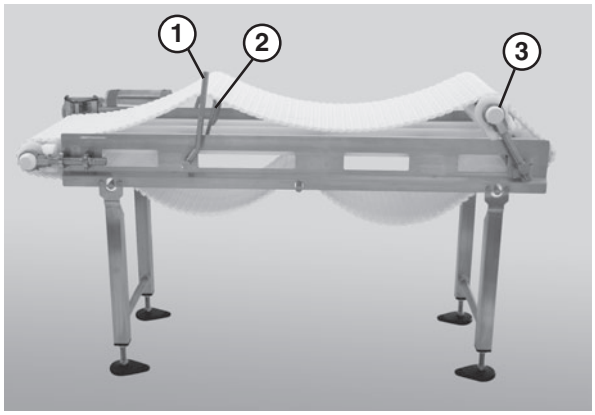


Figure 55

CAUTION

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

Periodic Cleaning

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

For conveyor disassembly and reassembly instructions:

- Refer to “Conveyor Belt Replacement” on page 20.
- Refer to “Sprocket and Puck Removal” on page 23.
- 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 56, item 1)** on the exterior of the bearing shaft assembly.

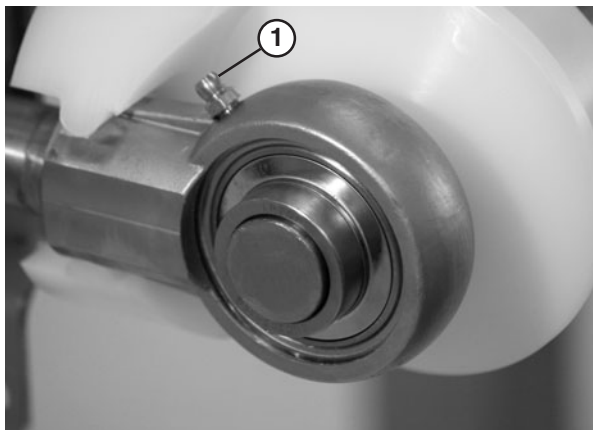


Figure 56

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 wearstrip and belt return installation instructions:

- Refer to “Wear Strip Installation” on page 13.
- 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 57, item 1)** that connect the guide **(Figure 57, item 2)** to the frame.

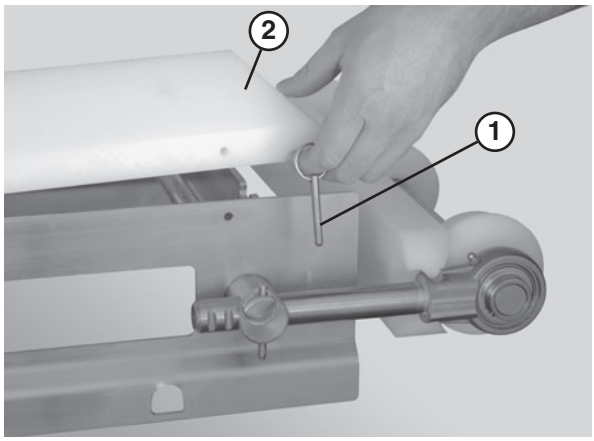


Figure 57

2. Remove the guide **(Figure 58, item 1)**.

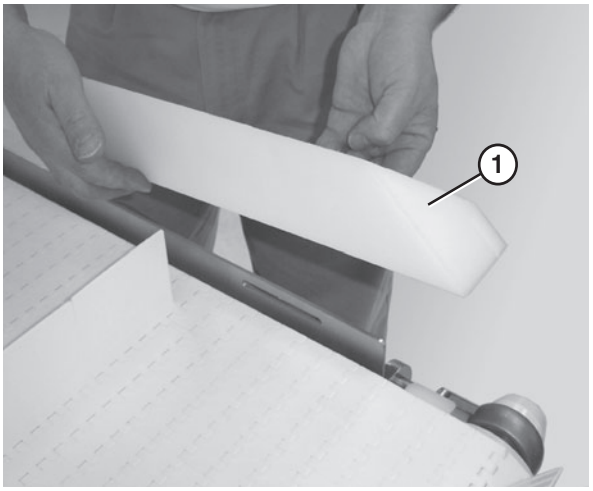


Figure 58

3. Follow the belt replacement procedures described in “Standard Belts” on page 20 or “Specailty Intralox 2400 Series Belts”on page 21.

Standard Belts

Replacing a Section of Belt

1. Remove the pull pins **(Figure 59, item 1)** on the tension end of the conveyor to release tension on the belt.

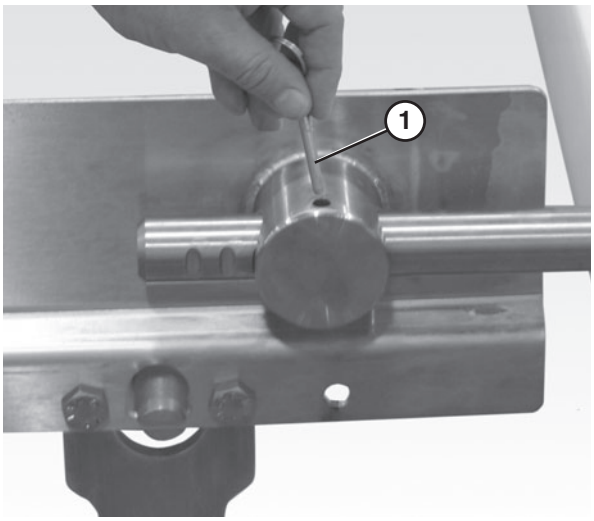


Figure 59

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 using the belt removal tool **(Figure 60, item 1)**.

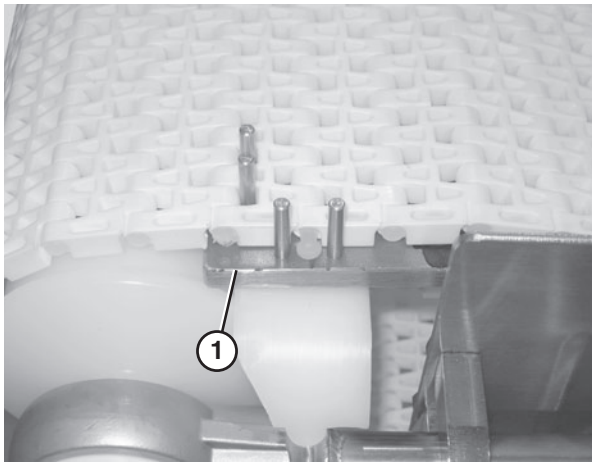


Figure 60

3. Use a punch and hammer to push the belt rod out by striking the rod end opposite the retaining head **(Figure 61)**.

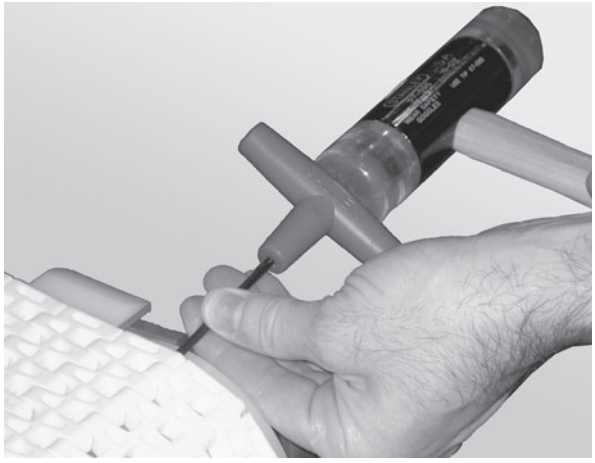


Figure 61

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 62, item 1)** and sliding it through the large hole **(Figure 62, item 2)** in the frame.

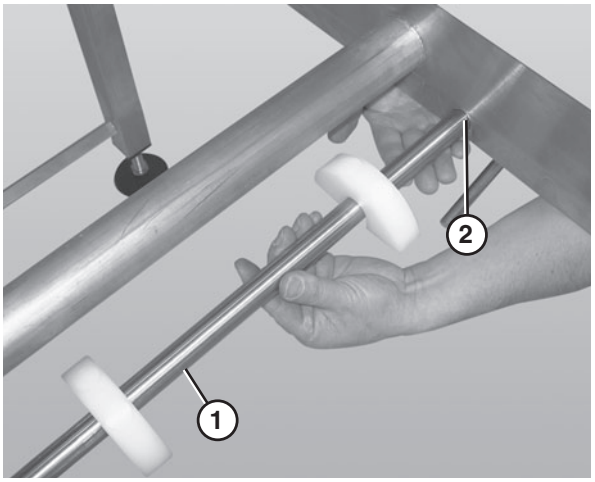


Figure 62

2. Lower the opposite end of the return shaft **(Figure 62, item 1)** and slide it out of the frame.
3. Follow steps 1 – 3 in "Standard Belts: Replacing a Section of Belt" on page 20.
4. Remove the belt.
5. Replace the damaged or worn belt. Refer to “Belt Installation” on page 15 and “Belt Return Installation” on page 16.

Specialty Intralox 2400 Series Belts

Replacing a Section of Belt

1. Remove the pull pins **(Figure 59, item 1)** on the tension end of the conveyor to release tension on the belt.

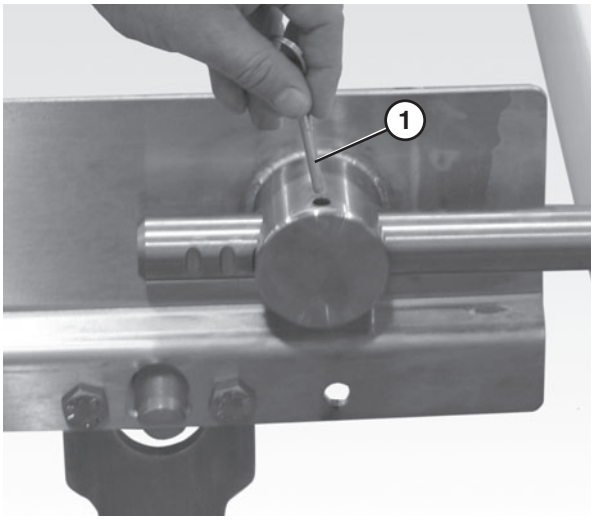


Figure 63

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 64, item 1)**.

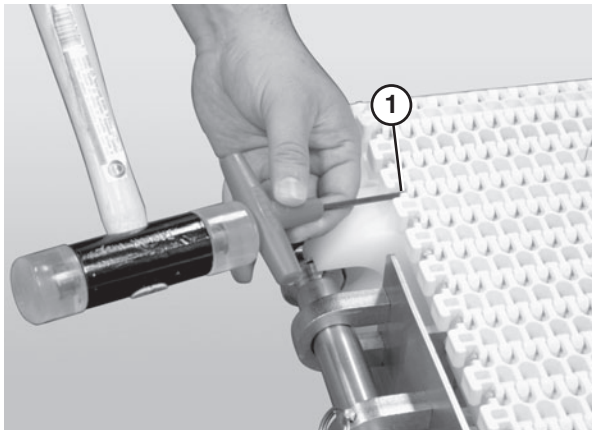


Figure 64

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 65, item 1)** and sliding it through the large hole **(Figure 65, item 2)** in the frame.

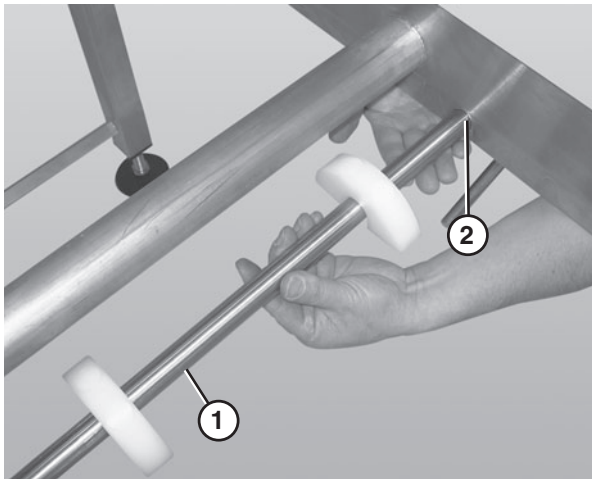


Figure 65

2. Lower the opposite end of the return shaft **(Figure 65, 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 20.
4. Remove the belt.
5. Replace the damaged or worn belt. Refer to “Belt Installation” on page 15 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 66, item 1)** on the tension end of the conveyor.

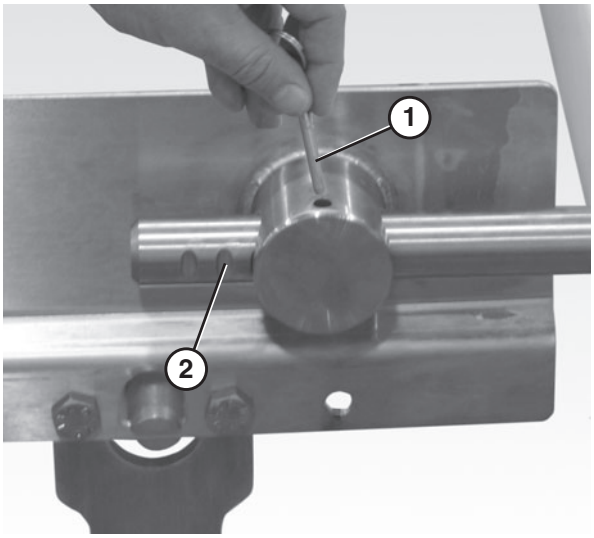


Figure 66

2. Extend the idler tail to the next groove **(Figure 66, item 2)** on the bearing shaft.

3. Continue extending the tension end until the belt is sufficiently tight **(Figure 67)**.

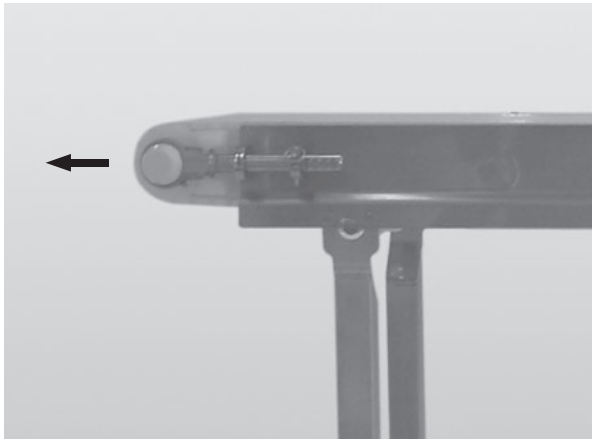


Figure 67

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 20.

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 20.
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 68, item 1)** that connect the gearmotor to the drive spindle.

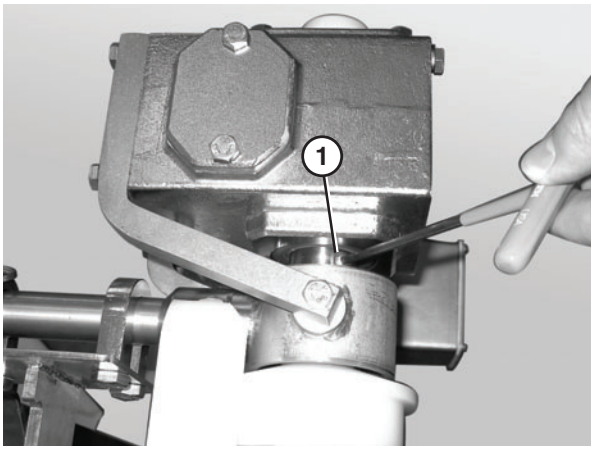


Figure 68

2. Remove the bolts that connect the motor to the drive assembly **(Figure 69)**.
3. Remove the motor **(Figure 69, item 1)** from the drive assembly **(Figure 69, item 2)**.

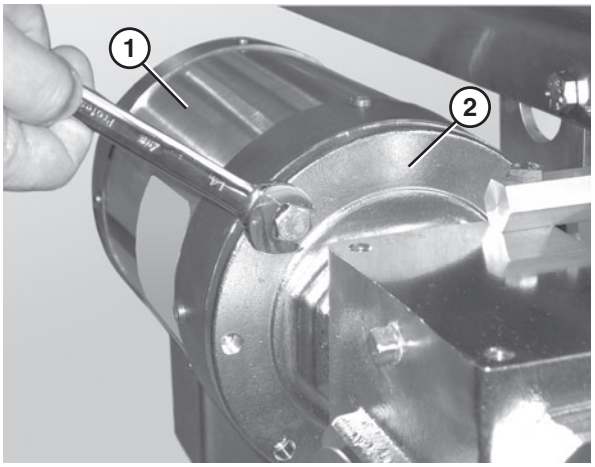


Figure 69

4. Unbolt the drive assembly and slide it off the bearing spindle **(Figure 70)**.

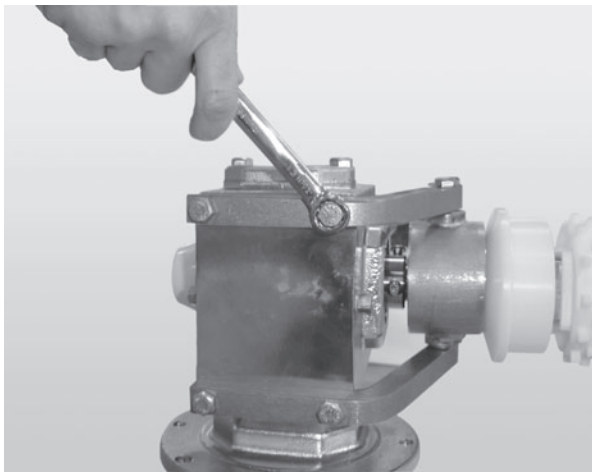


Figure 70

5. Remove the pull pin **(Figure 71, item 1)**.

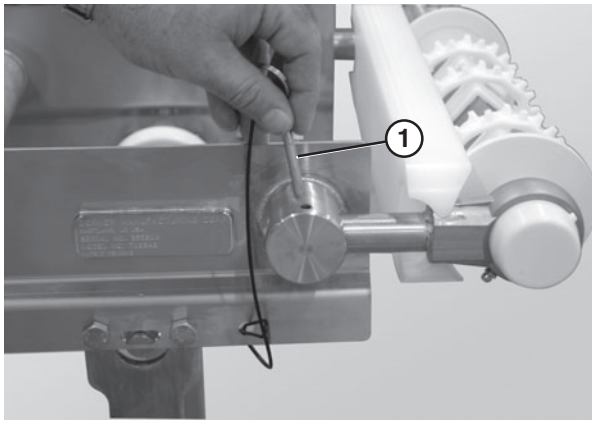


Figure 71

6. Slide the drive tail assembly out of the take up blocks **(Figure 72)**.

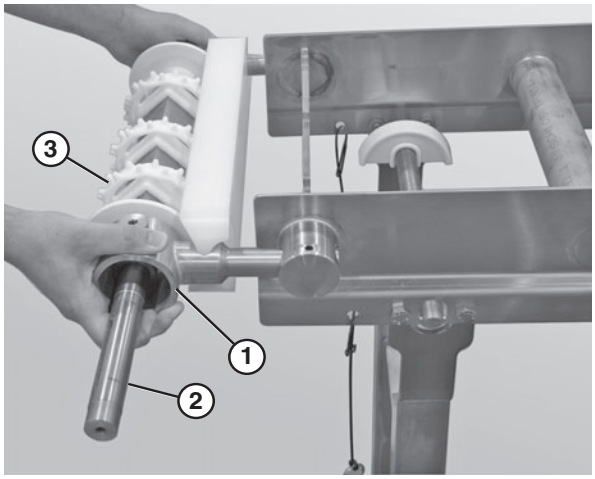


Figure 72

7. Slide the motor support bracket **(Figure 72, item 1)** off the drive spindle **(Figure 72, item 2)**.
8. Remove the sprockets **(Figure 72, item 3)**.

B - Idler Puck Removal

1. Remove the pull pins **(Figure 71, item 1).**
2. Slide the idler tail assembly **(Figure 73, item 1)** out of the take up blocks **(Figure 73, item 2)**.

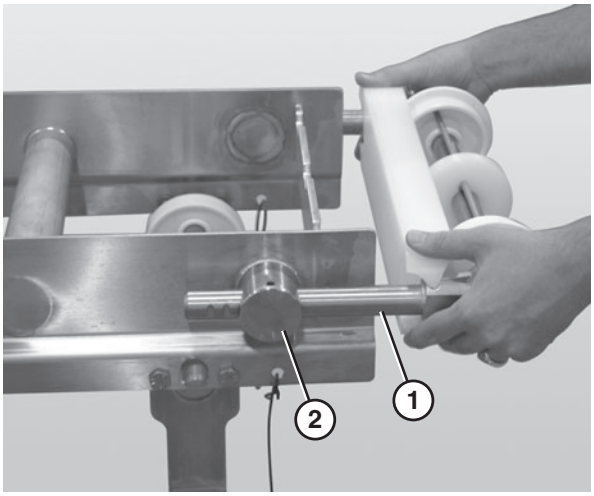


Figure 73

3. Remove the bearing cover **(Figure 74, item 1)**.

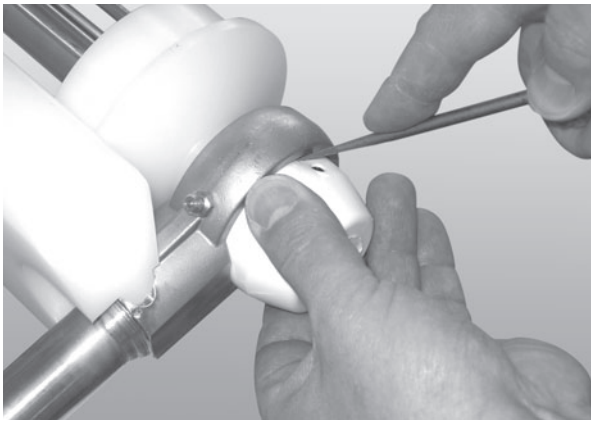


Figure 74

4. Use a hex wrench **(Figure 75, item 1)** to loosen the bearing shaft assembly fasteners **(Figure 75, item 2)**.

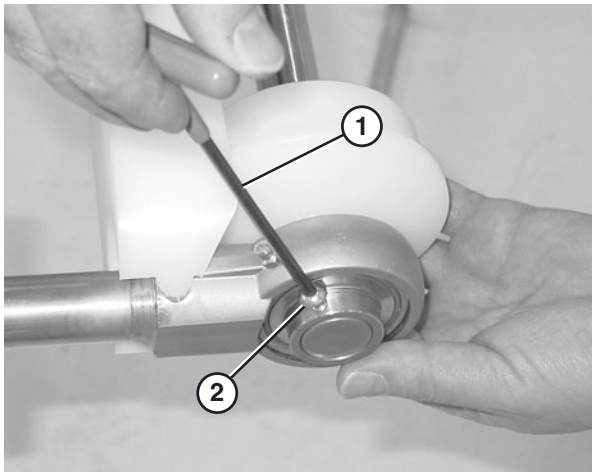


Figure 75

5. Slide the bearing shaft assembly **(Figure 76, item 1)** off the idler shaft **(Figure 76, item 2)**.

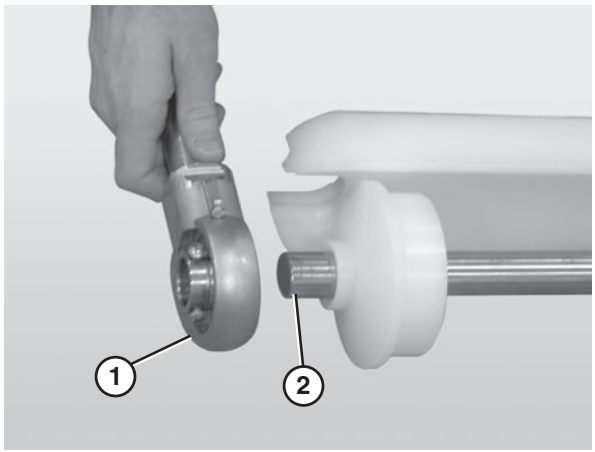


Figure 76

6. Remove the guard bar **(Figure 77, item 1)**.

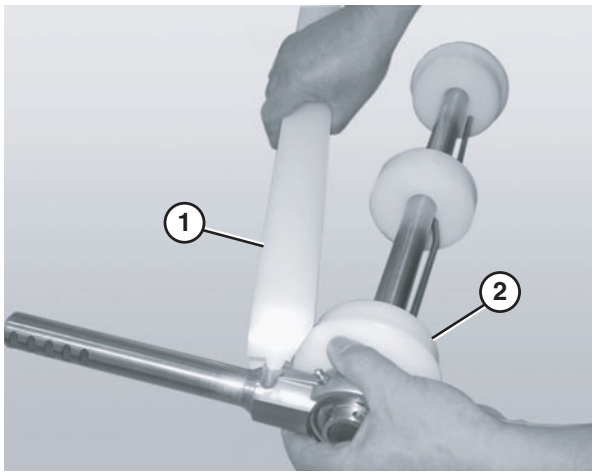


Figure 77

7. Remove the pucks **(Figure 77, item 2)**.

Reassembling Tail Assemblies

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

Idler Tail and Tip Up Tail

1. Place the idler puck **(Figure 78, item 1)** at the center of the bent retaining bar **(Figure 78, item 2)**.
2. Slide the idler puck onto the idler shaft **(Figure 78, item 3)**. Make sure to center the idler puck.

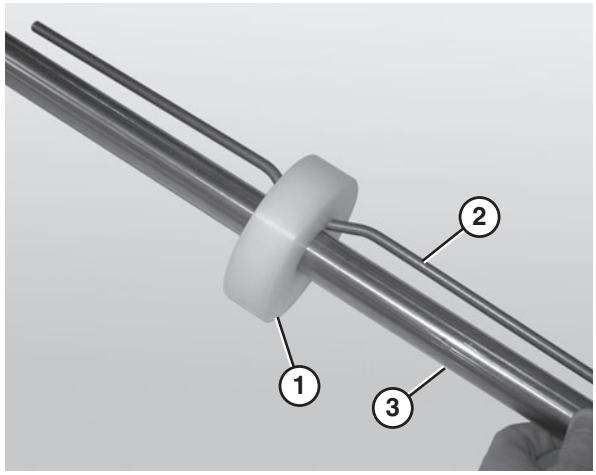


Figure 78

3. Attach the flanged pucks **(Figure 79, item 2)** and bearing shaft assemblies to the idler shaft.
4. Attach the guard bar **(Figure 79, item 1)**.

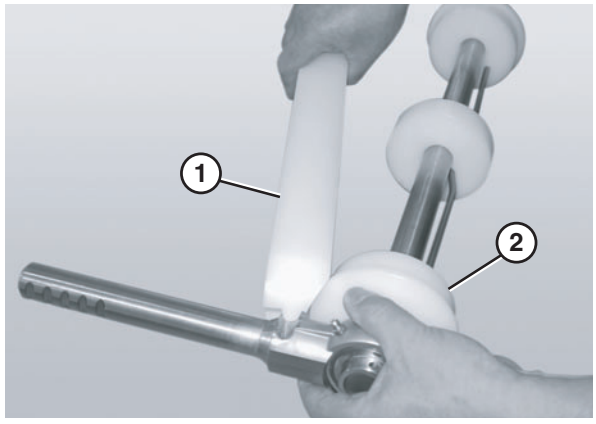


Figure 79

5. Use a hex wrench **(Figure 80, item 1)** to tighten the bearing shaft fasteners **(Figure 80, item 2)**.

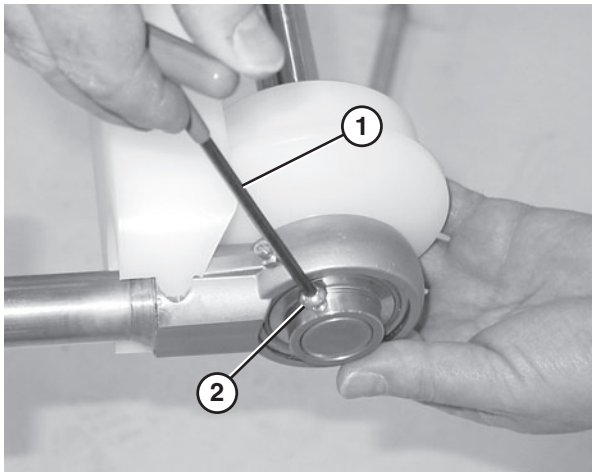


Figure 80

6. Attach the bearing covers.

Drive Tail

1. Attach a flanged puck **(Figure 81, item 1)** and bearing shaft assembly **(Figure 81, item 2)** to the shorter end of the drive spindle.

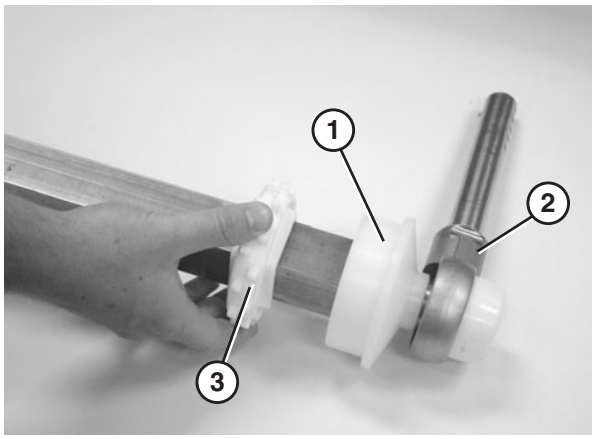


Figure 81

2. Slide the first sprocket **(Figure 81, item 3)** onto the drive spindle.

3. Insert the sprocket alignment bar **(Figure 82, item 1)** into the first sprocket **(Figure 82, item 2)** resting it up against the flanged puck **(Figure 82, item 3)**. Position the first sprocket with the notch in the sprocket alignment bar.

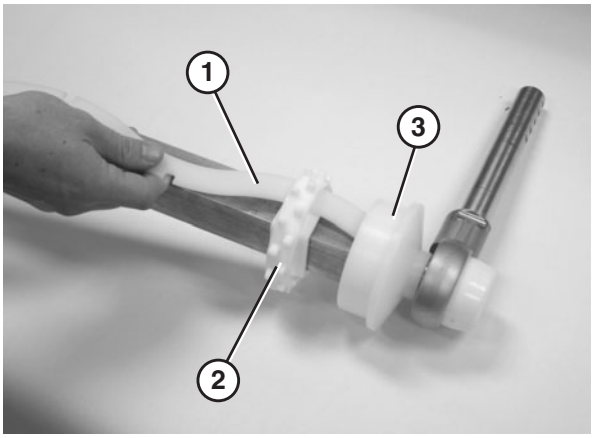


Figure 82

4. Install the remaining sprockets **(Figure 83, item 1)** making sure to position each sprocket with the next available notch **(Figure 83, item 2)** in the sprocket alignment bar.

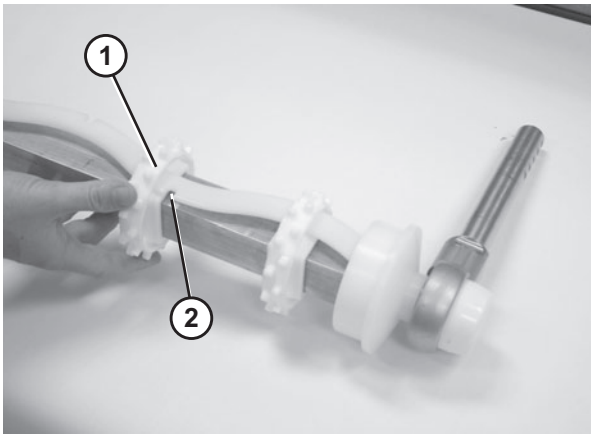


Figure 83

5. Slide the second flanged puck **(Figure 84, item 1)** and the retaining ring **(Figure 84, item 2)** onto the drive spindle.

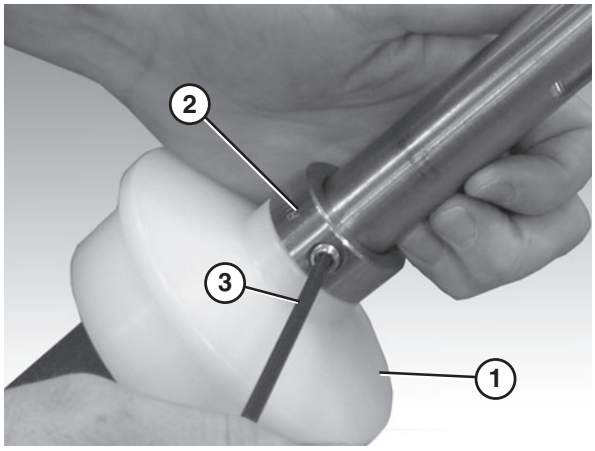


Figure 84

6. Tighten the retainer ring fastener **(Figure 84, item 3)** using a hex wrench.
7. Slide the second bearing shaft assembly, or the motor mount bracket **(Figure 85, item 1)**, onto the longer end of the drive spindle **(Figure 85, item 2)**.

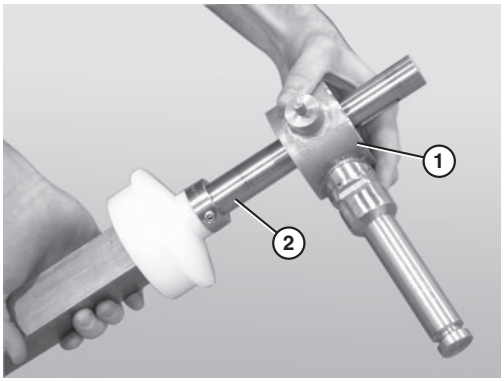


Figure 85

8. Attach the guard bar **(Figure 86, item 1)** to the bearing / motor mount bracket shafts **(Figure 86, item 2)**.

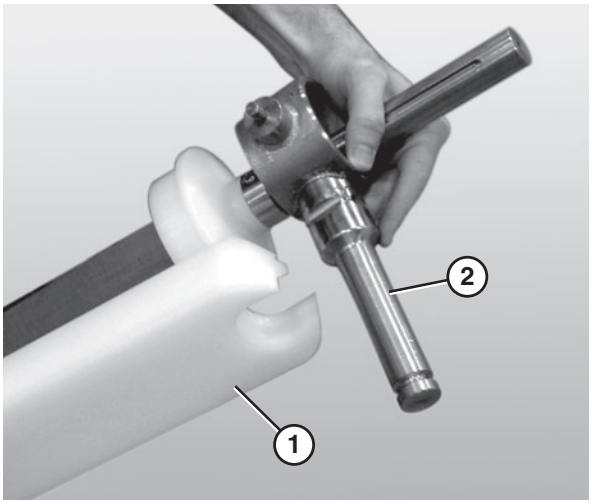


Figure 86

9. Use a hex wrench **(Figure 87, item 1)** to tighten the bearing shaft fasteners **(Figure 87, item 2)**.

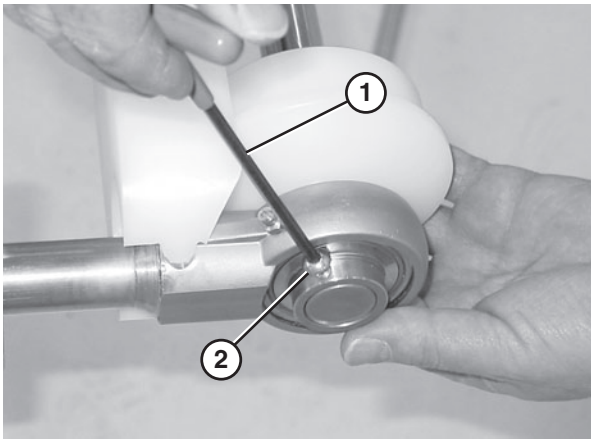


Figure 87

10. 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 88)**.

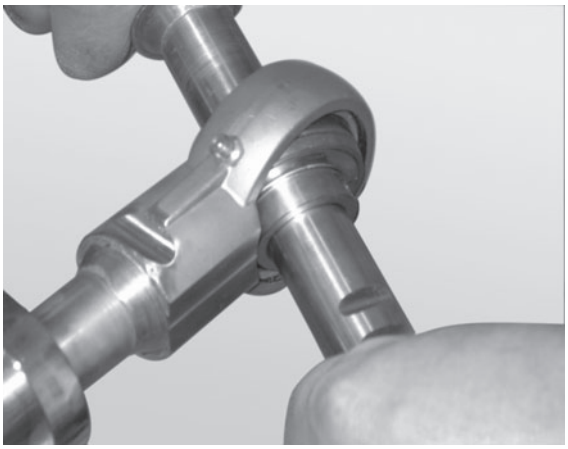


Figure 88

3. Apply lateral pressure to the rod until the bearing comes loose.
4. Remove the worn or damaged bearing **(Figure 89)**.

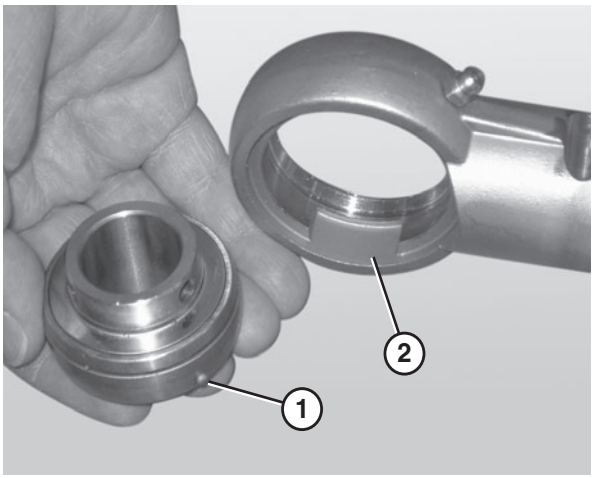


Figure 89

5. Replace the bearing.

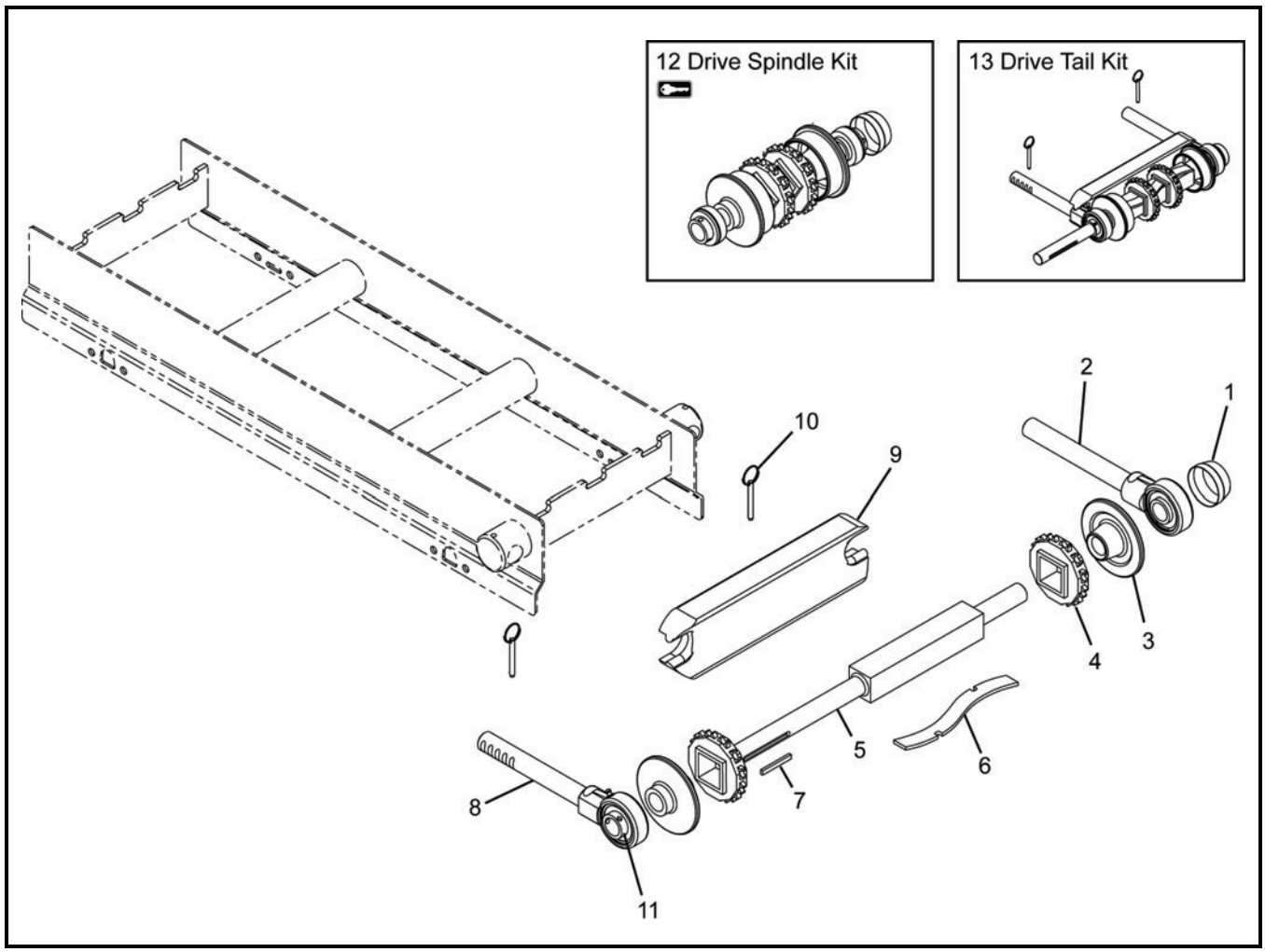
NOTE
*When inserting the new bearing, make sure the anti-rotation notch **(Figure 89, item 1)** on the bearing lines up with the groove inside the housing **(Figure 89, item 2)**.*

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.

Drive End Components



Item	Part Number	Description
1	807-1454	Bearing Cover
2	500078	Shaft Assembly with Bearing
3	5053WW	Flanged Puck, Drive Tail for Standard 1.00" Pitch Belt
	5071WW	Flanged Puck, Drive Tail for Specialty Intralox 1.00" Pitch Belt
4	807-1444	Sprocket for Standard 1.00" Pitch Belt
	807-1445	Sprocket for Specialty Intralox 1.00" Pitch Belt

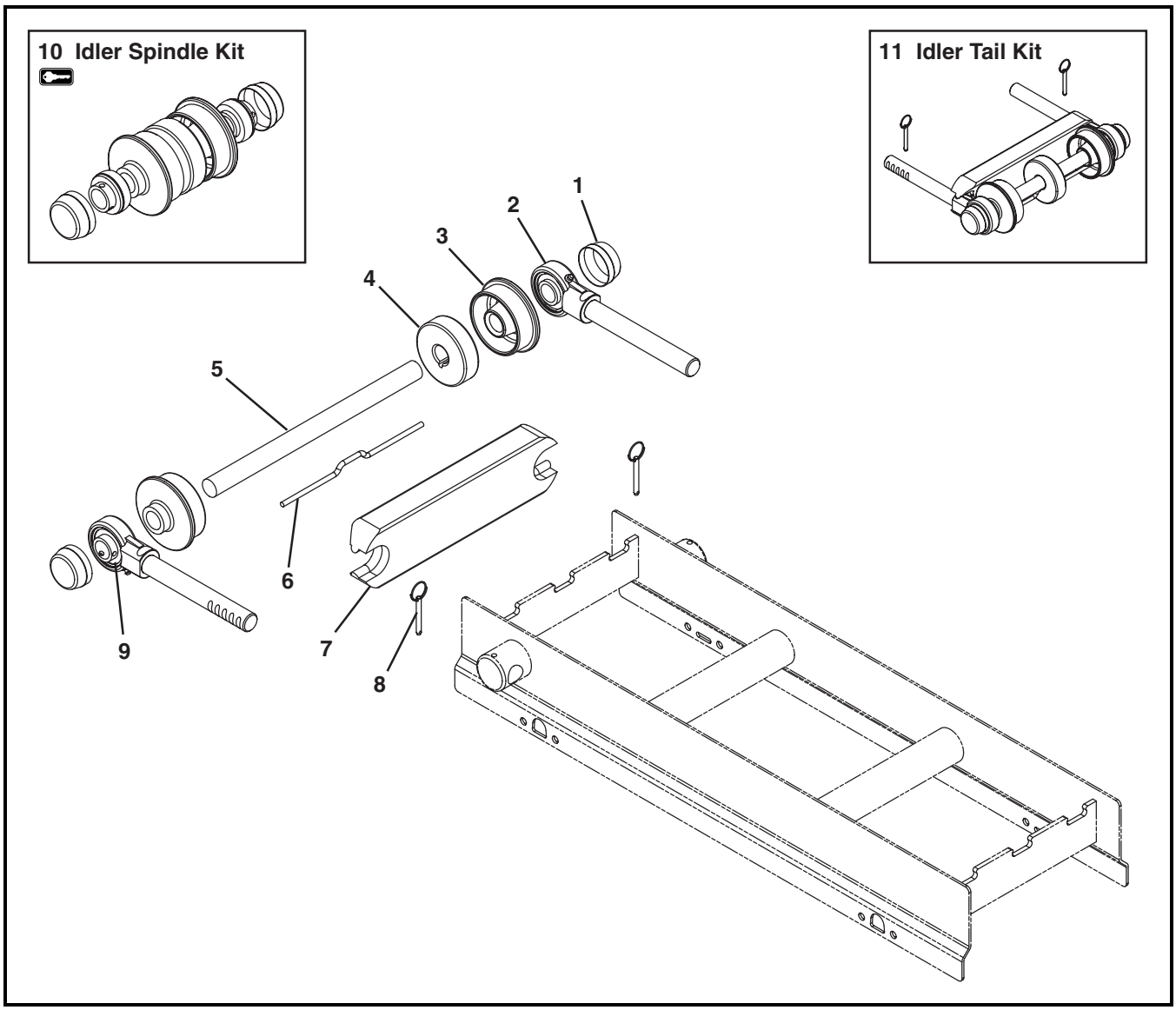
Item	Part Number	Description
5	5015WW	Drive Spindle for Standard 1.00" Pitch Belt
	5070WW	Drive Spindle for Specialty Intralox 1.00" Pitch Belt
6	5085WW	Sprocket Alignment Bar for Standard 1.00" Pitch Belt
	5088WW	Sprocket Alignment Bar for Specialty Intralox 1.00" Pitch Belt
7	912-111SS	Square Key .25x2.50"
8 *	500078	Shaft Assembly with Bearing
9	5009WW	Guard Bar
10	807-1424	Pull Pin
11	802-162	Bearing

Item	Part Number	Description
12	74D25-WW	Drive Spindle Kit for Standard 1.00" Pitch Belt (Includes Items 1, 3, 4 and 11)
	74D24-WW	Drive Spindle Kit for Specialty Intralox 1.00" Pitch Belt (Includes Items 1, 3, 4 and 11)
13	74DDT25-WW	Drive Tail Kit for Standard 1.00" Pitch Belt (Includes Items 1 through 10)
	74DDT24-WW	Drive Tail Kit for Specialty Intralox 1.00" Pitch Belt (Includes Items 1 through 10)
WW = Conveyor width ref: 08 - 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 (Item 4)	
Width	Quantity Required
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

Service Parts

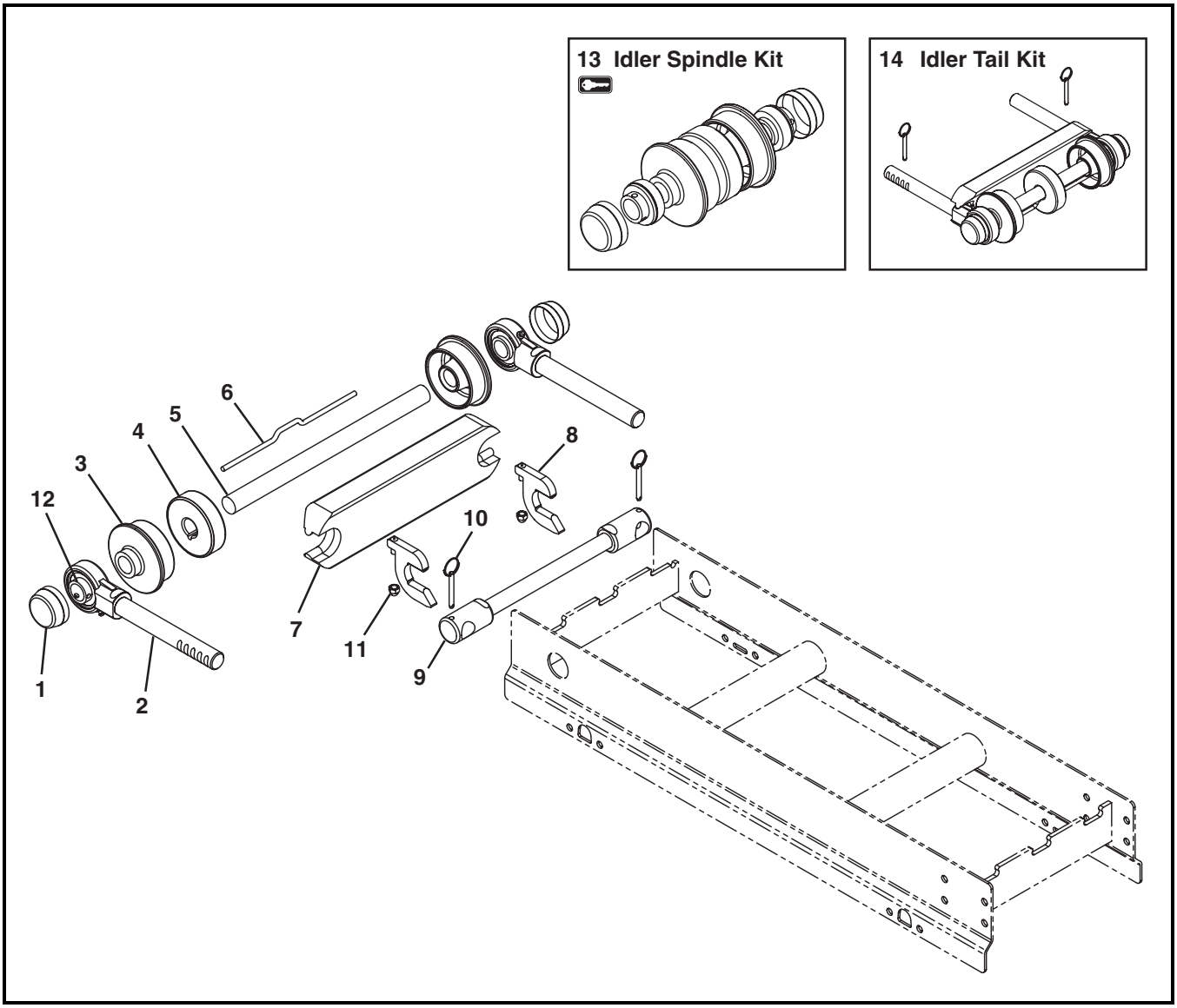
Tension End Components



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 (for 8" - 36" wide conveyors only)
5	5007WW	Idler Shaft
6	5008WW	Bent Retaining Bar for Standard Belt (for 8" - 36" wide conveyors only)
	5073WW	Bent Retaining Bar for Specialty Intralox Belt (for 8" - 36" wide conveyors only)

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

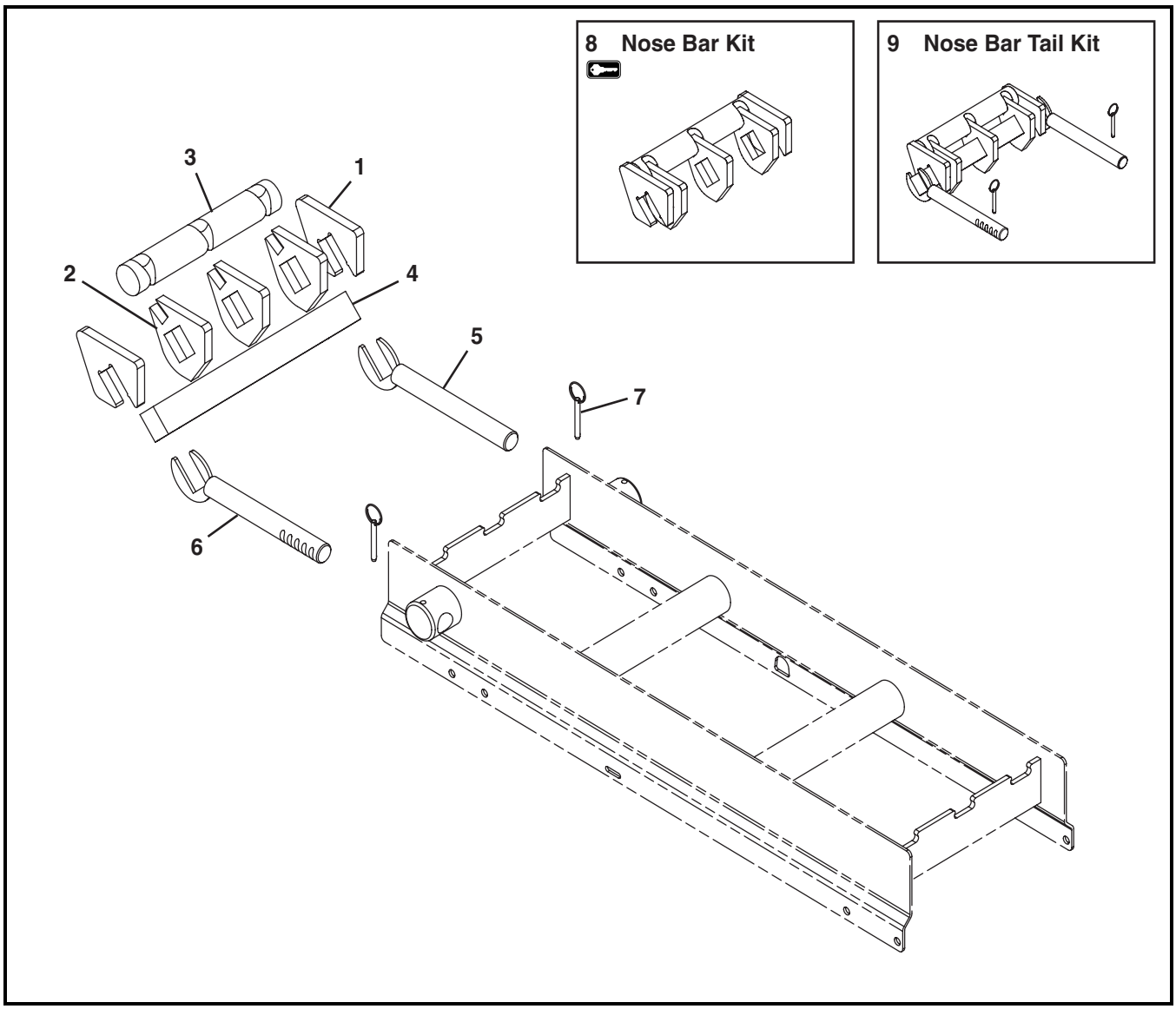


Item	Part Number	Description
1	807-1454	Bearing Cover
2	500079	Shaft Assembly with Bearing
3	5017WW	Flanged Puck, Idler Tail for Standard Belt
	5072WW	Flanged Puck, Idler Tail for Specialty Intralox Belt
4	500175	Idler Puck (for 8" - 60" wide conveyors only)
5	5007WW	Idler Shaft
6	5008WW	Bent Retaining Bar for Standard Belt (for 8" - 36" wide conveyors only)
	5073WW	Bent Retaining Bar for Specialty Intralox Belt (for 8" - 36" wide conveyors only)
7	5009WW	Guard Bar

Item	Part Number	Description
8	500184	Key Stop
9	5005WW	Tip Up Shaft Assembly
10	807-1469	Pull Pin
11	991008MSS	M10-1.50 Acorn Nut
12	802-162	Bearing
13	74I-WW	Idler Spindle Kit for Standard Belt (Includes Items 1, 3, 4 and 12)
	74IS-WW	Idler Spindle Kit for Specialty Intralox Belt (Includes Items 1, 3, 4 and 12)
14	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

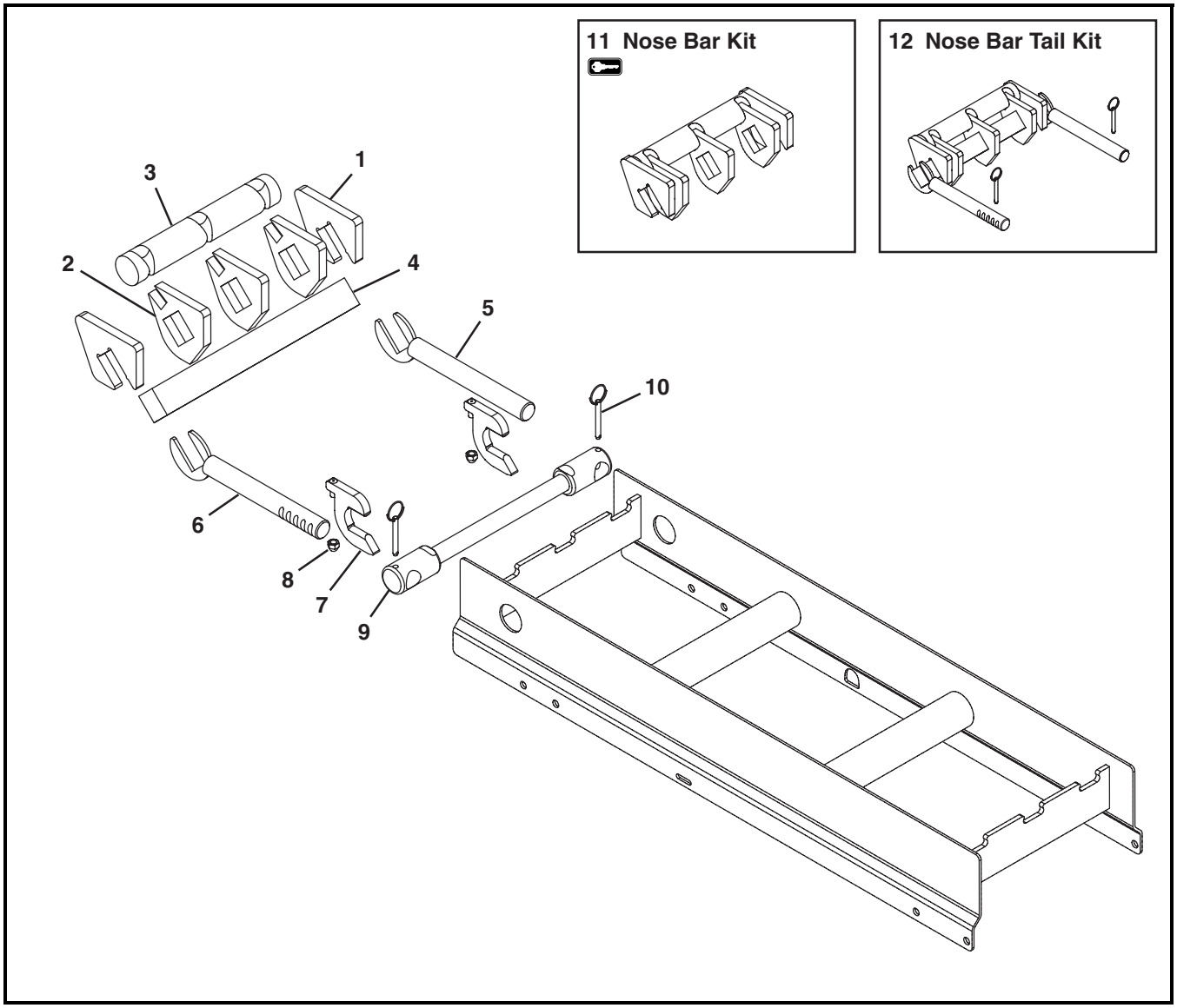
Nose Bar Tension End



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 7)
WW = Conveyor width ref: 08 - 36 in 02 increments		

Nose Bar Tip Up Tension End

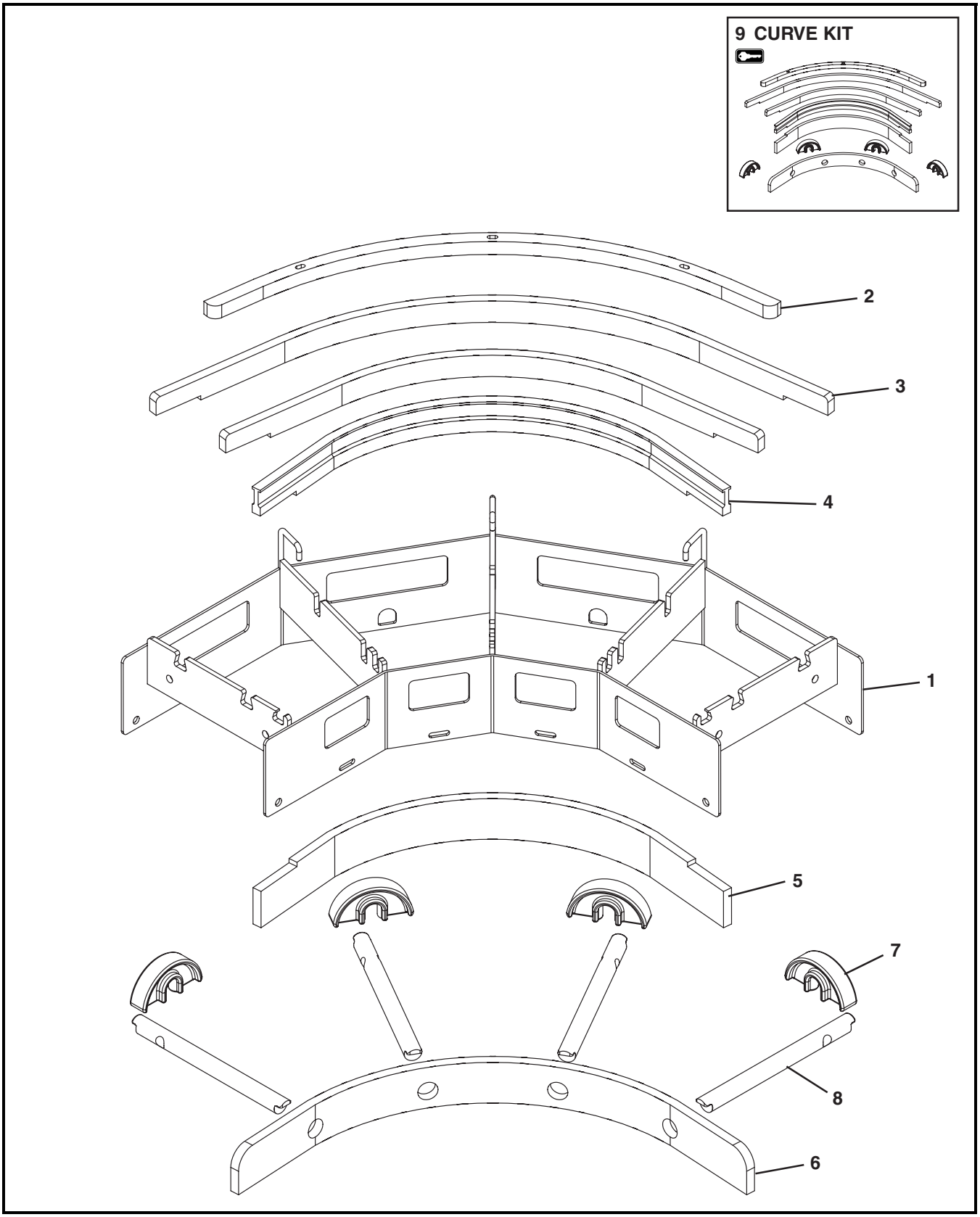


Item	Part Number	Description
1	500490	Nose Bar Tracking Puck
2	500278	Nose Bar Puck
3	5058WW	Nose Bar Wear Strip
4	5037WW	Nose Bar Transfer Post
5	500487	Nose Bar Idler Shaft Left Hand
6	500488	Nose Bar Idler Shaft Right Hand
7	500184	Key Stop

Item	Part Number	Description
8	991008MSS	M10-1.50 Acorn Nut
9	5005WW	Tip Up Shaft Assembly
10	807-1469	Pull Pin
11	74NB1-WW	Nose Bar Kit (Includes Items 1 through 3)
12	74NBT1-WW	Nose Bar Tail Kit (Includes Items 1 through 6 and 10)
WW = Conveyor width ref: 08 - 36 in 02 increments		

Service Parts

Curve Conveyor Frame and Wear Strips

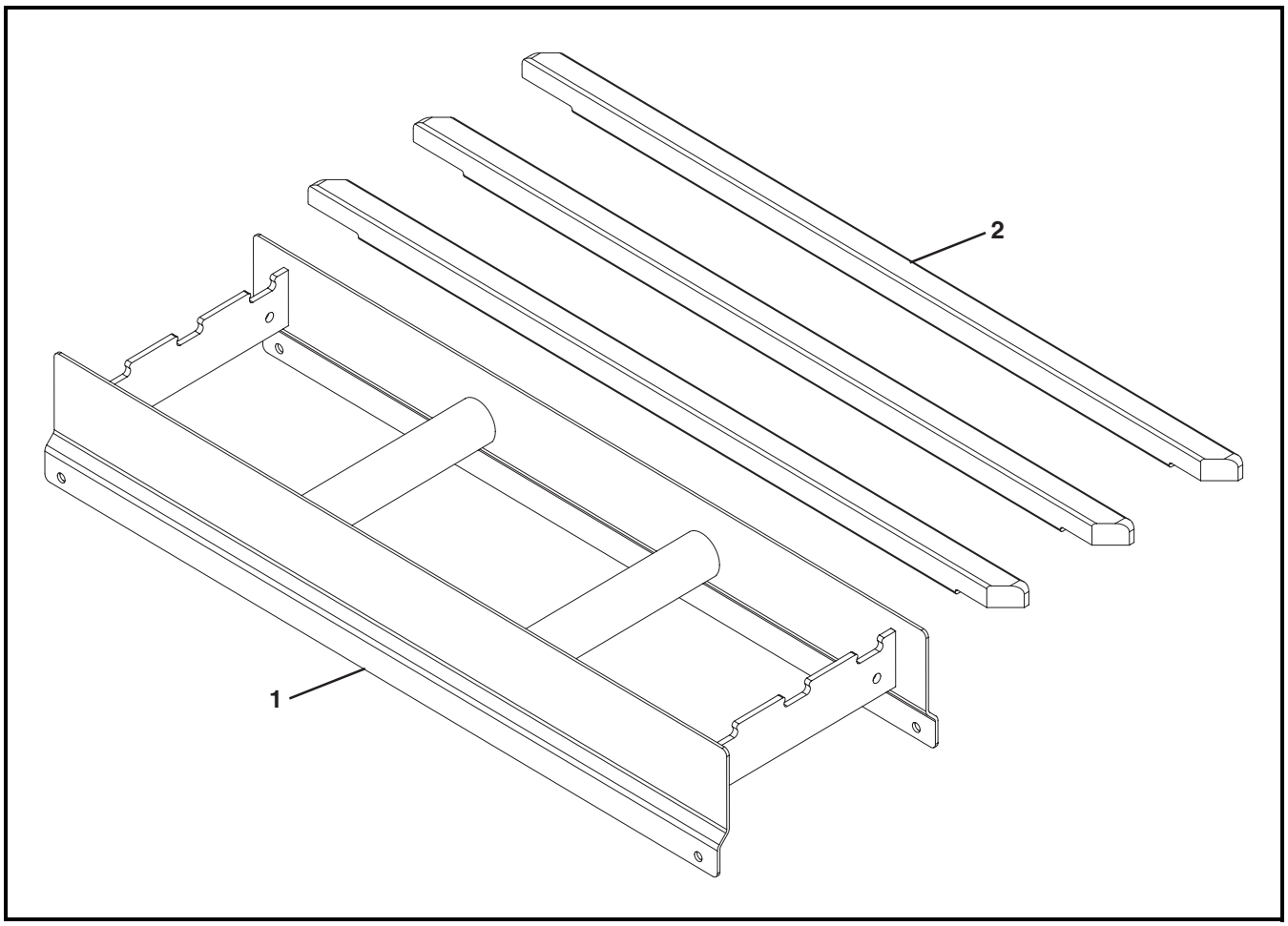


Item	Part Number	Description
1	------	Consult Factory for Frame Part Number
2	5044WW-DD	Hold Down Wear Strip for Standard Belting
	5045WW-DD	Hold Down Wear Strip for Specialty Intralox Belting
3	5042WW-DD	Curved Bed Rail Group for Standard Belting
	5043WW-DD	Curved Bed Rail Group for Specialty Intralox Belting
4	5040WW-DD	Low Side Inside Curve Top Wear Strip for Standard Belting
	5041WW-DD	Low Side Inside Curve Top Wear Strip for Specialty Intralox Belting
	5050WW-DD	High Side Inside Curve Top Wear Strip for Standard Belting
	5051WW-DD	High Side Inside Curve Top Wear Strip for Specialty Intralox Belting
5	5046WW-DD	Inside Return Bottom Wear Strip for Standard Belting
	5047WW-DD	Inside Return Bottom Wear Strip for Specialty Intralox Belting
6	5048WW-DD	Return Bottom Wear Strip for Standard Belting
	5049WW-DD	Return Bottom Wear Strip for Specialty Intralox Belting
7	500075	Chain Return Shoe
8	5033WW	Curve Return Shaft
9	74C25WW-DD	Curve Kit for Standard Belting (Includes Items 2 through 7)
	74C24WW-DD	Curve Kit for Specialty Intralox Belting (Includes Items 2 through 7)
WW = Conveyor width ref: 08 - 36 in 02 increments		
DD = Section degree of turn (Refer to chart)		

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

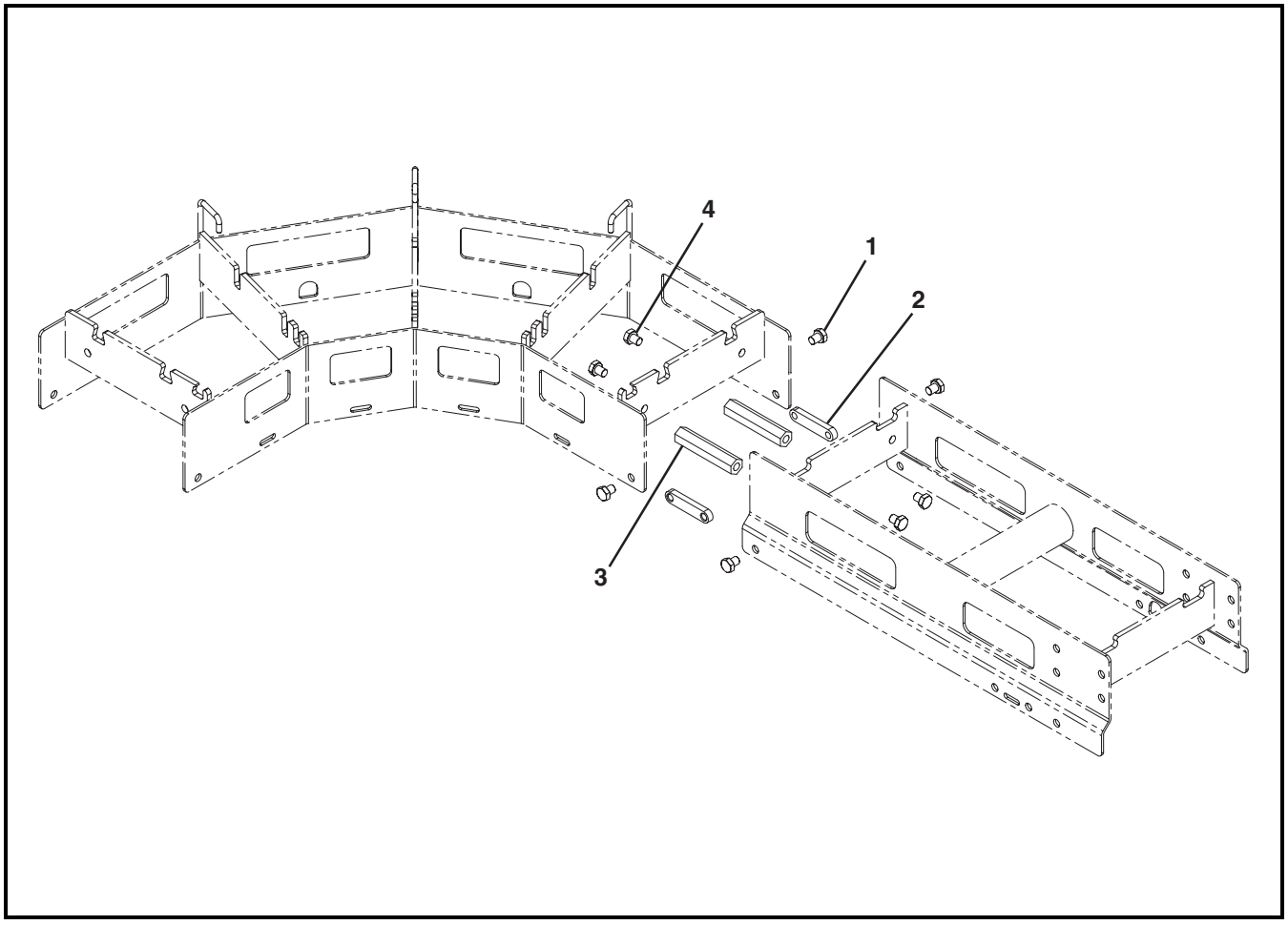


Item	Part Number	Description
1	------	Consult Factory for Frame Part Number
2	501800-LLL	Straight Wear Strip (Refer to chart)
LLL = Conveyor length ref: 020 - 999 in 001 increments		

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

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)	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

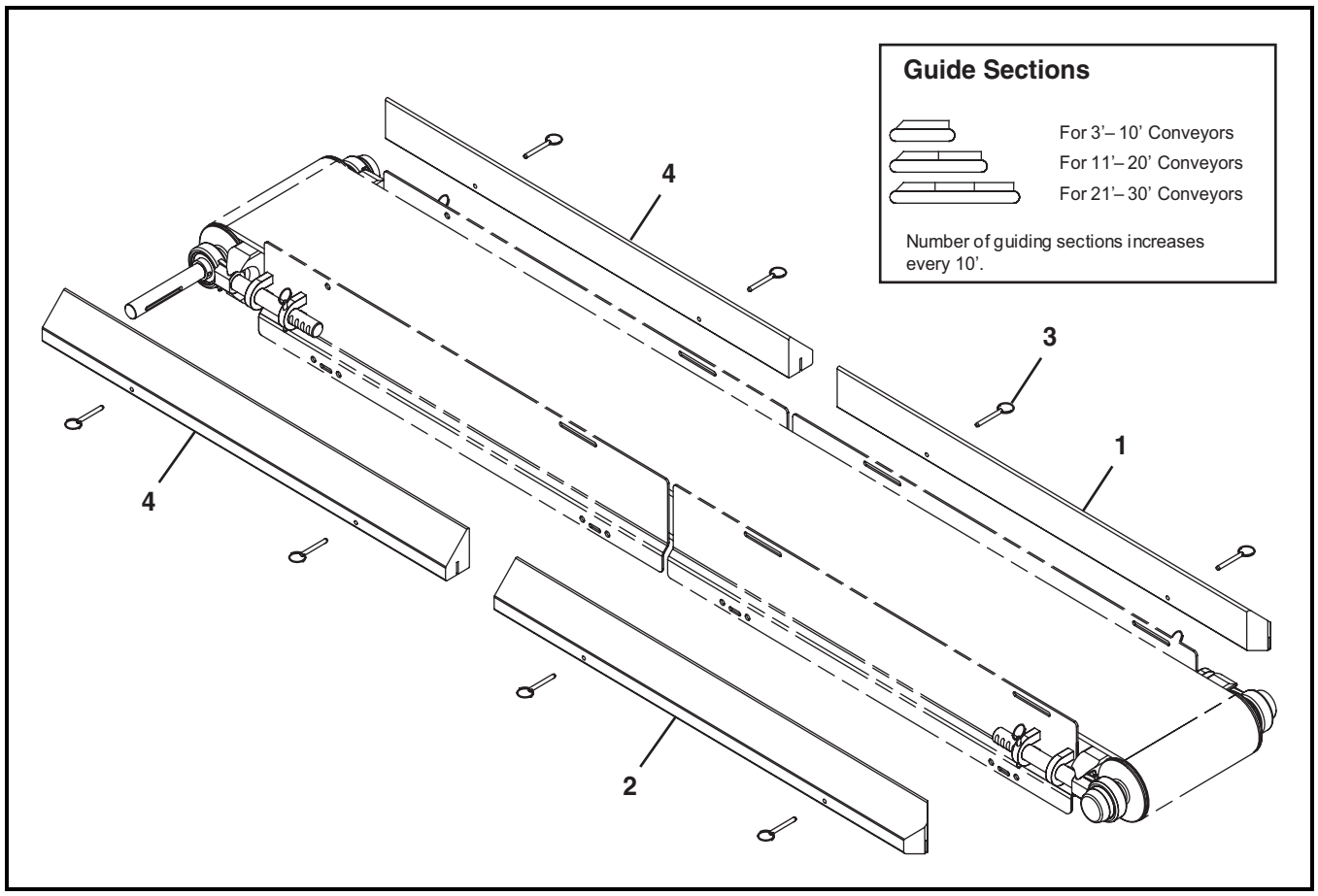


Item	Part Number	Description
1	961012MSS	Hex Head Cap Screw M10-1.5x12mm
2	500199	Flat Connector (Not Applicable if Stand Located at Connection)

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

Service Parts

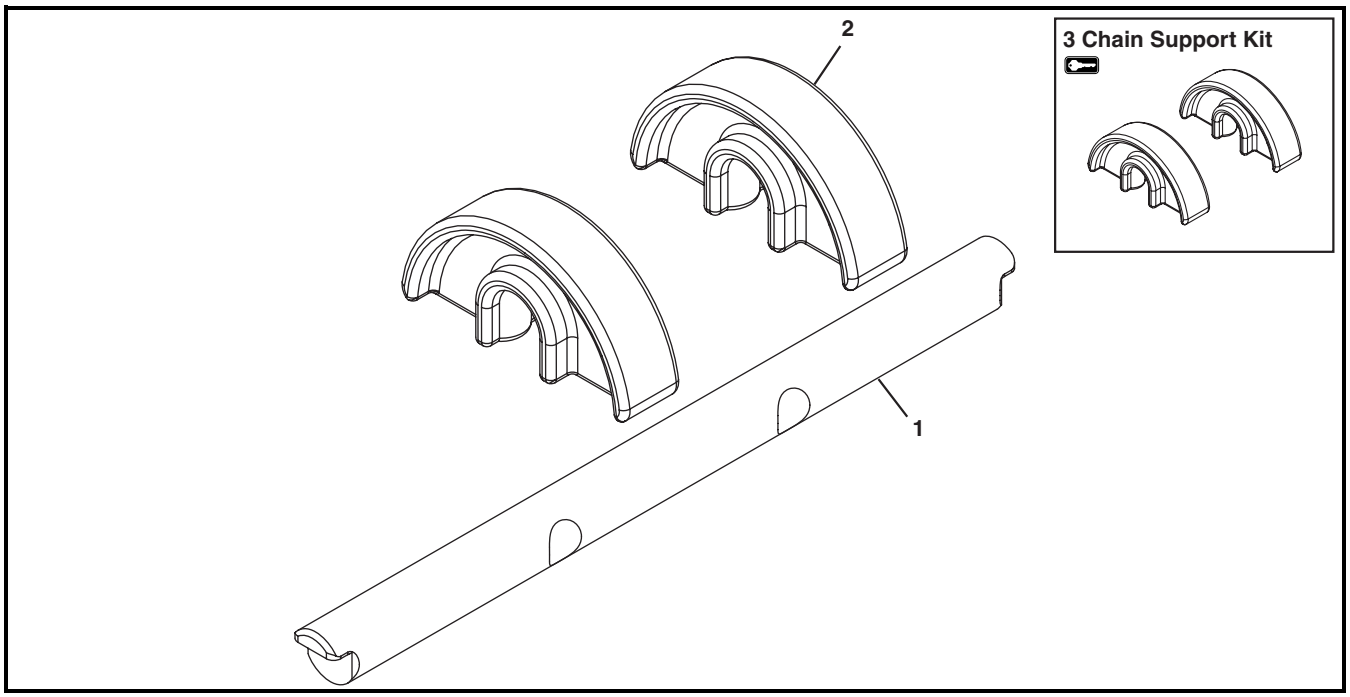
3" (76 mm) High Sides



Item	Part Number	Description
1	503501-LLLLL	Right Hand High Side Guide
2	503601-LLLLL	Left Hand High Side Guide
3	807-1469	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		

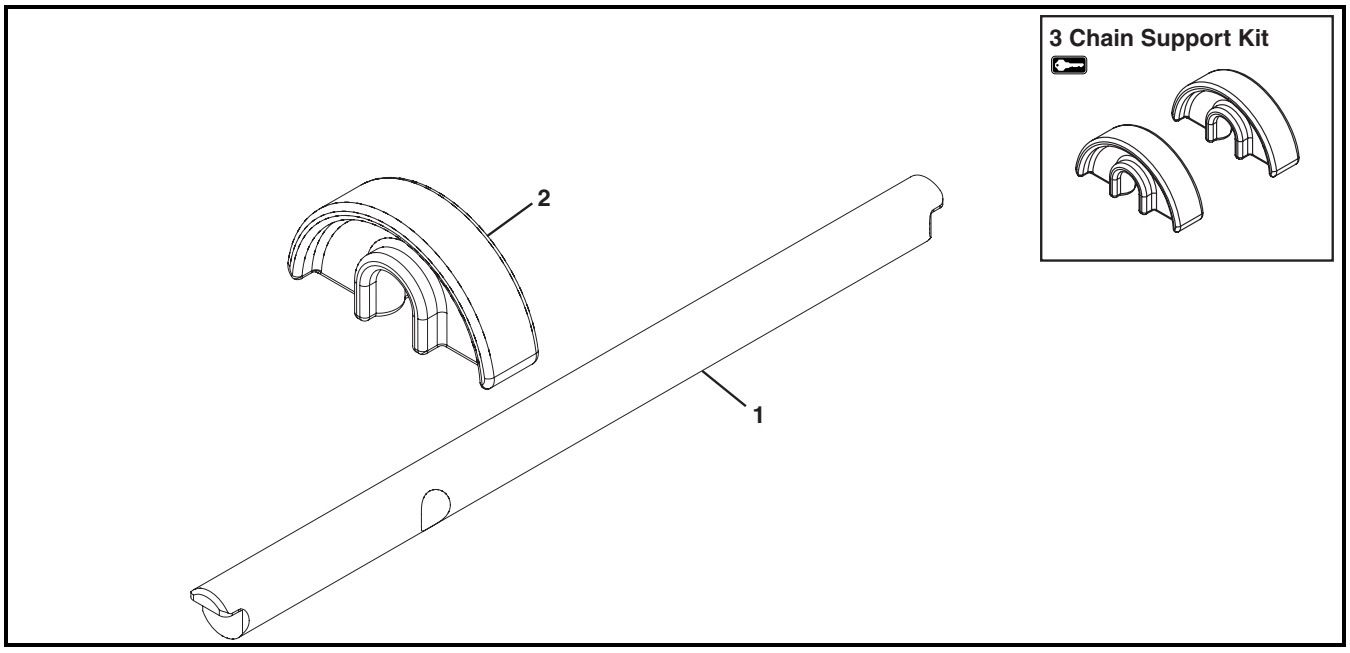
Straight Belt Return



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

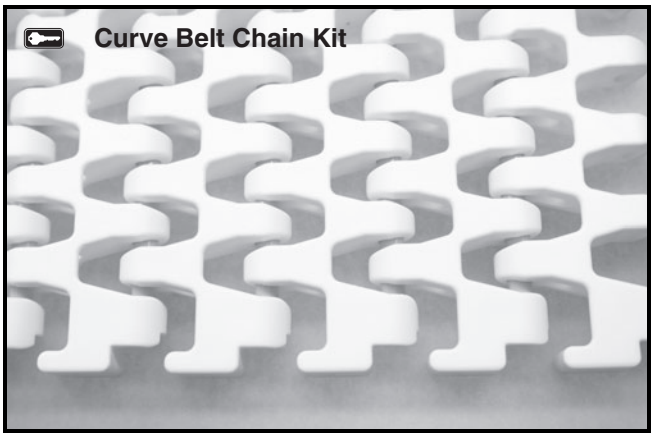


Item	Part Number	Description
1	5033WW	Curve Return Shaft
2	500075	Chain Return Shoe

Item	Part Number	Description
3	74C-WW	Chain Support Kit (Includes Item 2)
WW = Conveyor width ref: 08 - 36 in 02 increments		

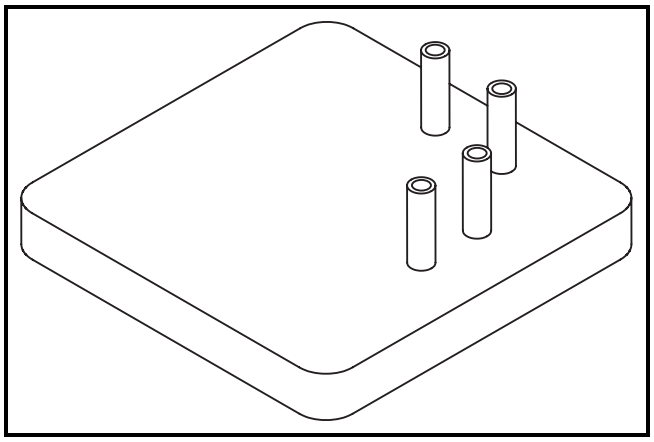
Service Parts

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	500581	Tool Rod Removal for Curve 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

Configuring a Conveyor Part Number

743WWLLLPCSGBB#
STRAIGHT INFEED / IDLER MODULE

744WWDDDCSGBB#
CURVE MODULE

745WWLLLCSGBB#
STRAIGHT INTERMEDIATE MODULE

74MWWLLLDCSBBG#
STRAIGHT EXIT / DRIVE MODULE

Figure 90

Curve Conveyor

Refer to your serial and model number plate **(Figure 90)**. 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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