7400 Series Nose Bar Conveyors

Installation, Maintenance and Parts Manual

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851-593 Rev. D

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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 .

⚠ 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

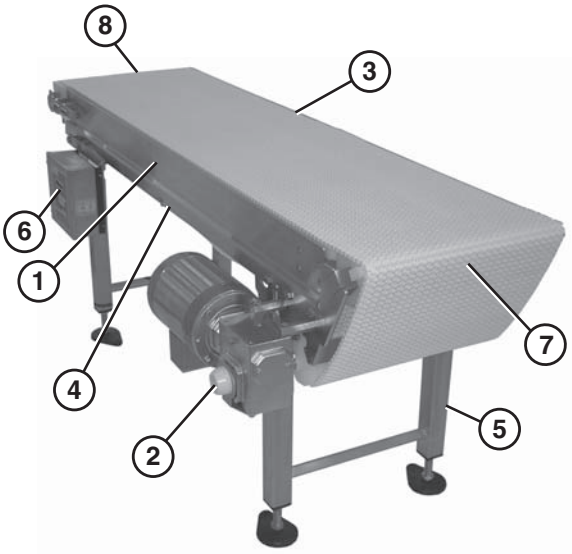
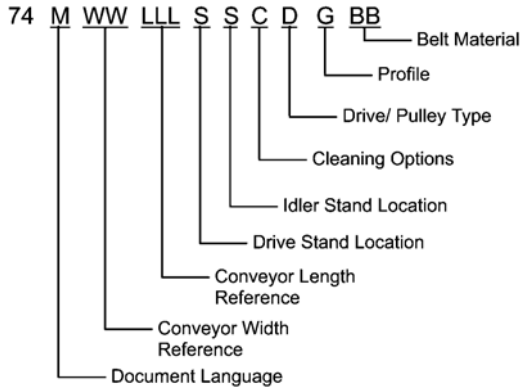


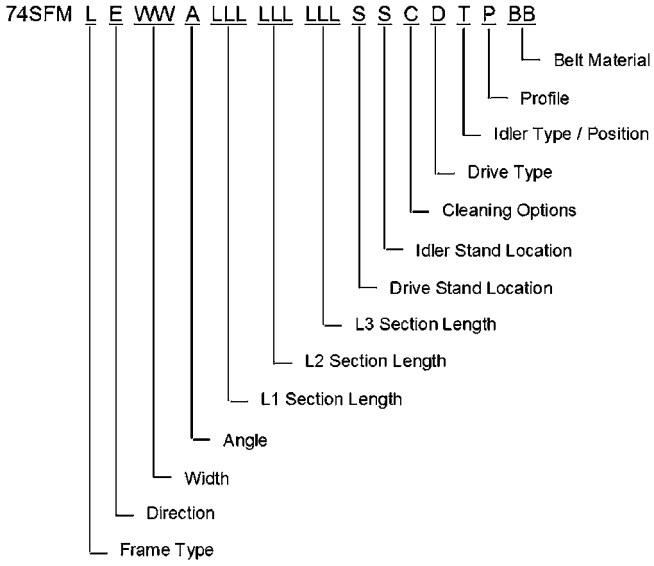
Figure 1

Specifications

Flat Belt 7400 Series Conveyor



Flat Belt 7400 Series LPZ Conveyor



Conveyor Supports

Maximum Distances:
1 = 3 ft (914 mm)
2 = 8 ft (2438 mm)**
3 = 3 ft (914 mm)
**** For conveyors longer than 10 ft (3.05 m), install support at frame joint.**

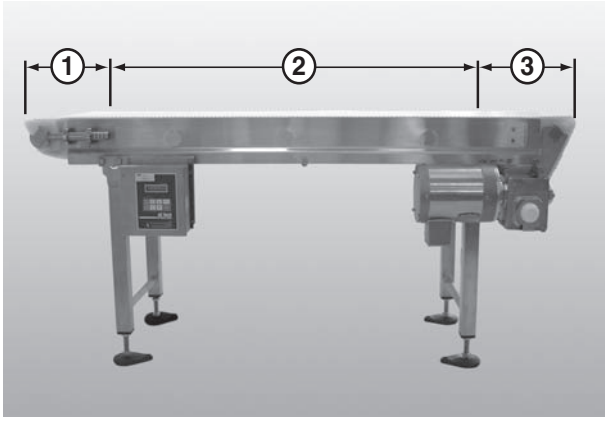


Figure 2

Specifications

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

Conveyor Length Reference (LLL)	036 – 999 in 001 increments
Conveyor Length	36" (914 mm) – 999" (25.4 m) in 1" (25 mm) increments
LPZ Section Lengths (LLL)	024 – 252 in 001 increments
LPZ Section Length	24" (610 mm) – 252" (6401 mm) in 1" (25 mm) increments
Total LPZ Conveyor Length	(L1 +L2 + L3) = Maximum 38' (11.6 m) long conveyor

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*

Installation

⚠ CAUTION

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

⚠ CAUTION

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

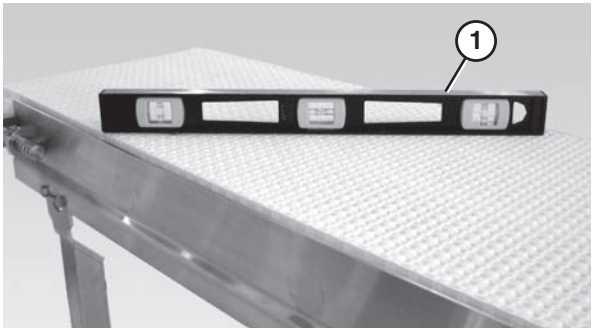


Figure 3

Required Tools

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

Recommended Installation Sequence

1. Attach the stands to the conveyor. Refer to "Stand Installation" on page 8.
2. Attach the tail assemblies to the frame. Refer to "Tail Assembly Installation" on page 9.
3. Attach the lifters, if applicable. Refer to "Lifter Installation" on page 13.
4. Install the gearmotor, if applicable. Refer to the "7400 Series Drive Package Installation, Maintenance and Parts Manual."
5. Attach the wearstrips. Refer to "Wear Strip Installation" on page 13.
6. Install the belt. Refer to "Belt Installation" on page 14.
7. Attach the belt returns. Refer to "Belt Return Installation" on page 15.
8. Attach any guides / accessories. Refer to the "Service Parts" section starting on page 28.

Conveyors Longer than 10 ft (3048 mm)

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

1	M10 x 1.5 mm hex head cap screws (x4)
2	Connector hex rods (x2)
3	Conveyor frames

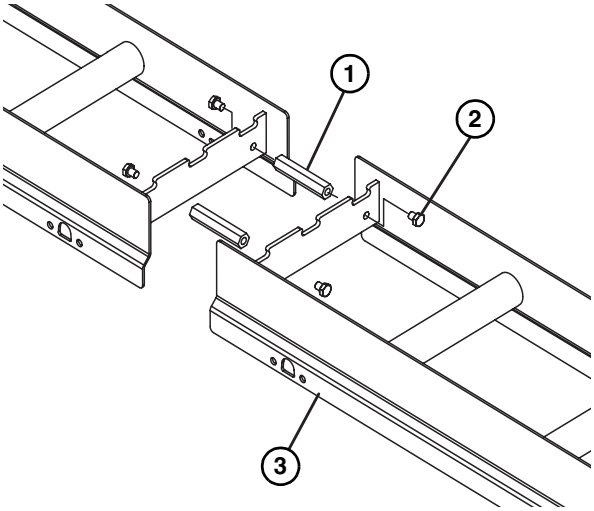


Figure 4

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

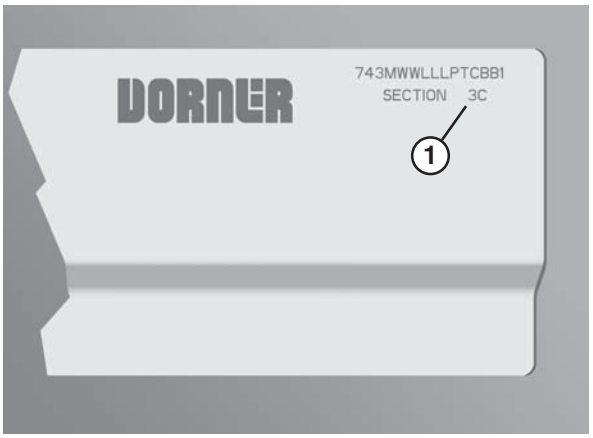


Figure 5

2. Position the frame sections in the correct order.

3. Connect the frame sections by bolting the hex post connectors **(Figure 6, item 1)** the sections of frame.

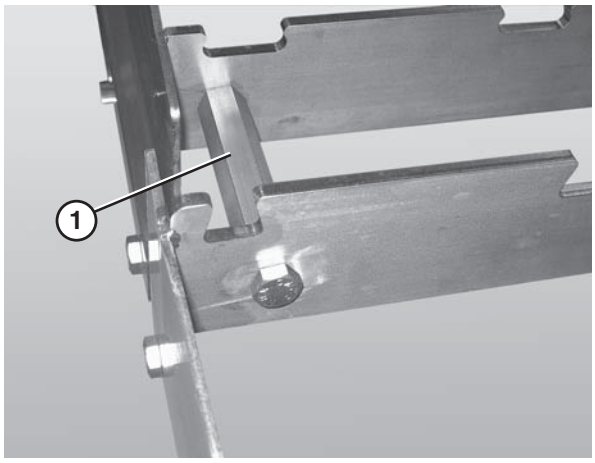


Figure 6

LPZ Conveyors

Knuckles

1. Attach upper knuckle **(Figure 7, item 1)** to frame **(Figure 7, item 2)** with hex rods **(Figure 7, item 3)** and bolts **(Figure 7, item 4)**.

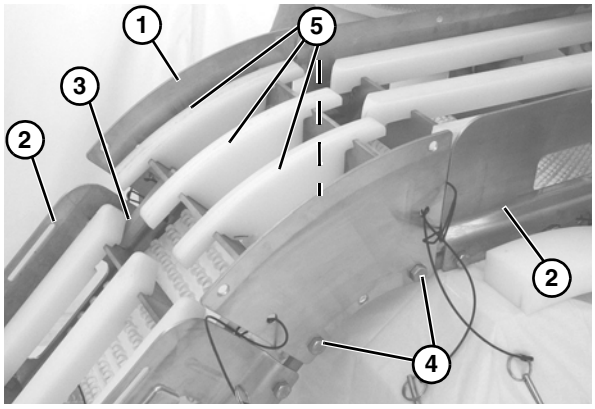


Figure 7

2. Install wear strips **(Figure 7, item 5)**.

3. Attach lower knuckle **(Figure 8, item 1)** to frame **(Figure 8, item 2)** with hex rods **(Figure 8, item 3)** and bolts **(Figure 8, item 4)**.

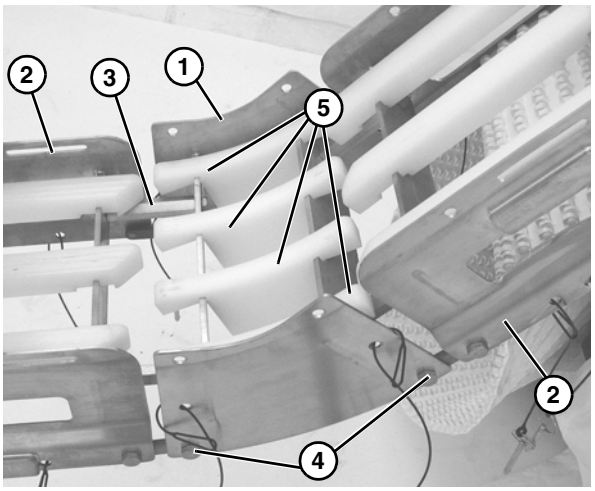


Figure 8

4. Install wear strips **(Figure 8, item 5)**.

Belt

- Slide belt **(Figure 9, item 1)** over knuckles on top of the wear strips.

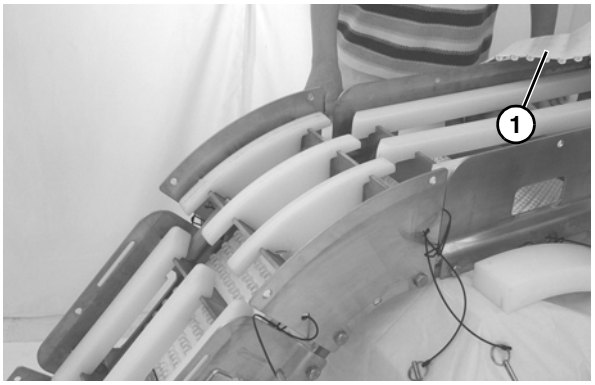


Figure 9

Guides

1. Slide guides **(Figure 10, item 1)** on to the knuckle frame, and secure with pull pins **(Figure 10, item 2)**.

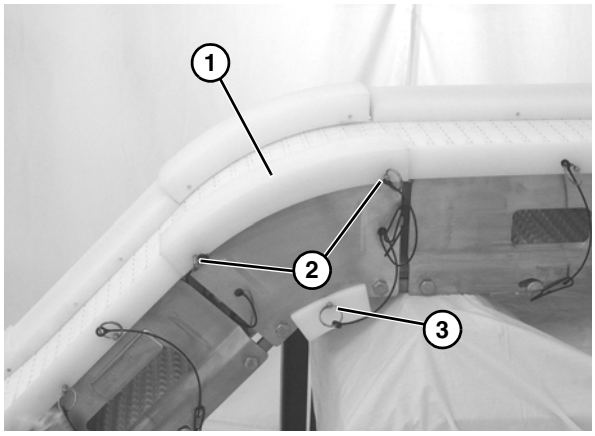


Figure 10

2. Install return guides and secure with pull pin **(Figure 10, item 3)**.
3. Slide guides **(Figure 11, item 1)** onto lower knuckle frame, and secure with pull pins **(Figure 11, item 2)**.

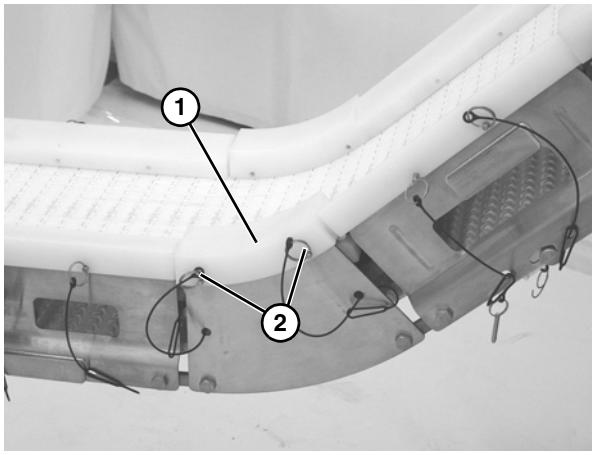


Figure 11

All Conveyors

Stand Installation

Typical Stand Components **(Figure 12)**

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

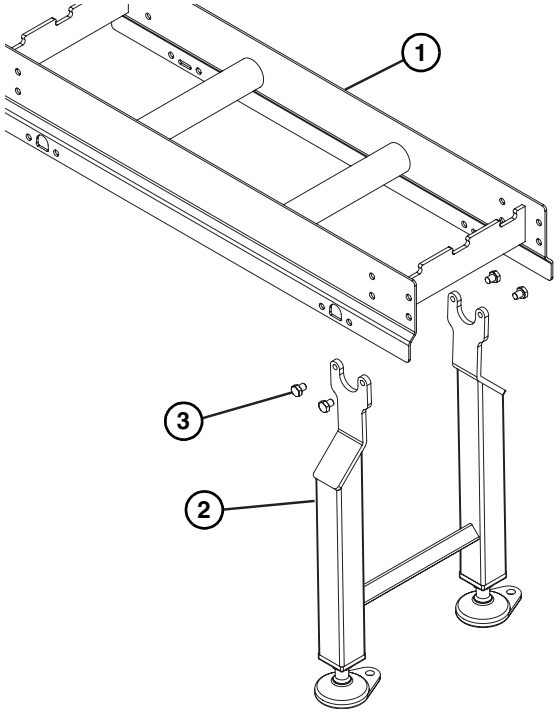


Figure 12

1. Position the stands on a flat, level surface.
2. Attach the stands to the frame **(Figure 13)**.

Figure 13

Tail Assembly Installation

Nose Bar Drive Tail

Typical Nose Bar Drive Tail Components **(Figure 14)**

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

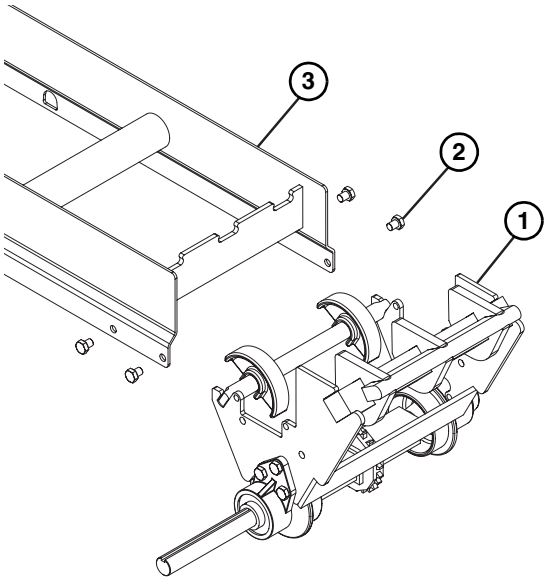


Figure 14

1. Bolt the nose bar drive tail assembly to the conveyor frame **(Figure 15)**.

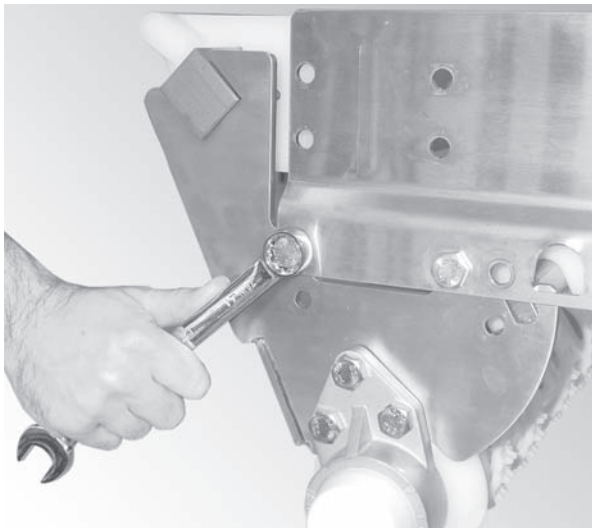


Figure 15

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 16)**

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

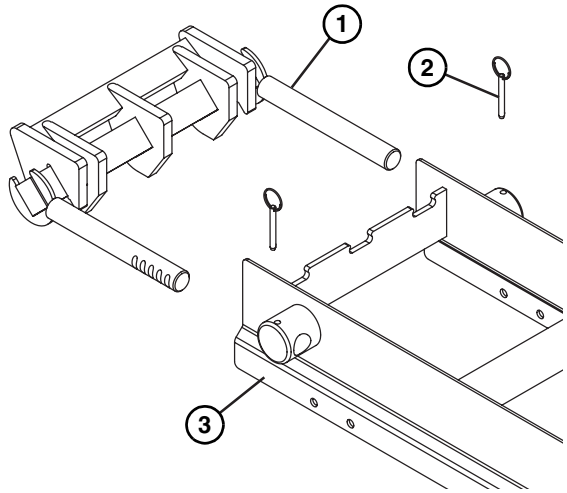


Figure 16

1. Slide the nose bar idler shaft hands **(Figure 17, item 1)** into the take up blocks **(Figure 17, item 2)**.
2. Attach the nose bar transfer post **(Figure 17, item 3)** to the nose bar idler shaft hands.

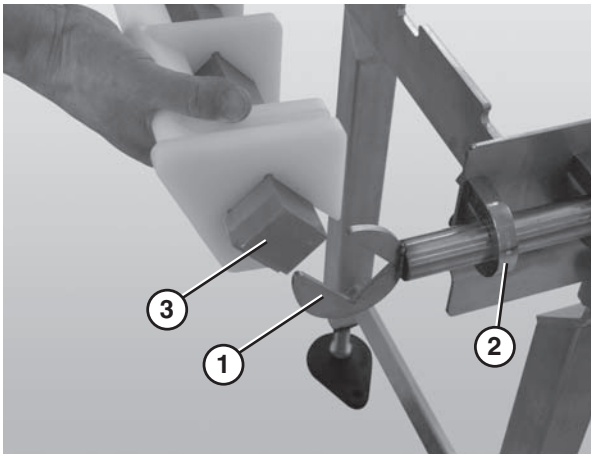


Figure 17

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

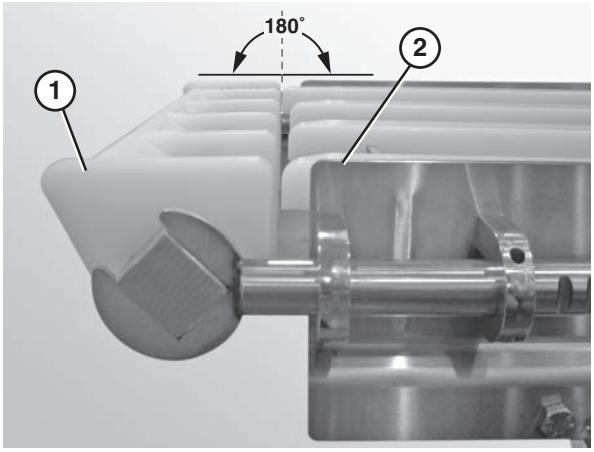


Figure 18

NOTE

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

Nose Bar Tip Up Tail

Typical Nose Bar Tip Up Tail Components **(Figure 19)**

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

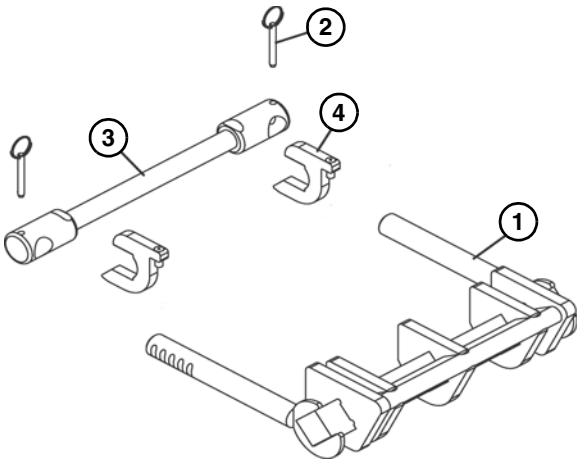


Figure 19

1. Slide the tip up shaft **(Figure 20, item 1)** through the designated slots in the frame.

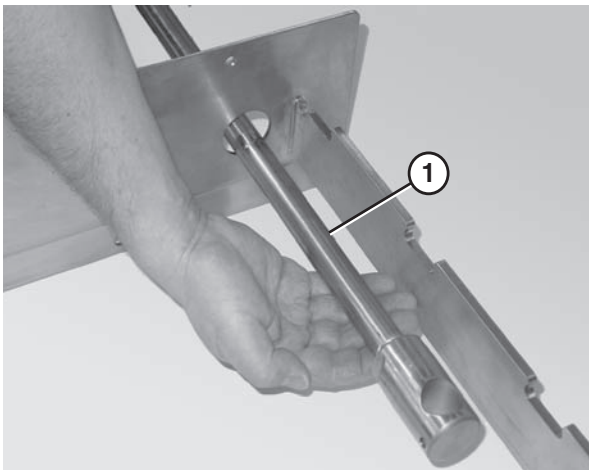


Figure 20

2. Attach the key stops **(Figure 21, item 1)** to the tip up shaft **(Figure 21, item 2)**. The rounded end of the key stop should face the tail.

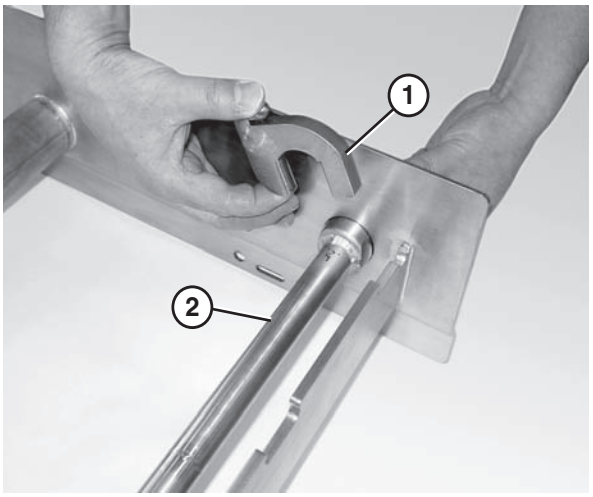


Figure 21

3. Attach the nose bar idler shaft hands **(Figure 22, item 1)** to the tip up shaft **(Figure 22, item 2)**.

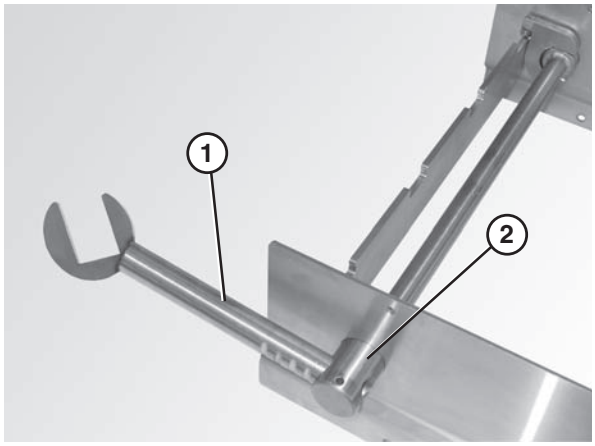


Figure 22

4. Attach the nose bar transfer post **(Figure 23, item 1)** to the nose bar idler shaft hands **(Figure 23, item 2)**.

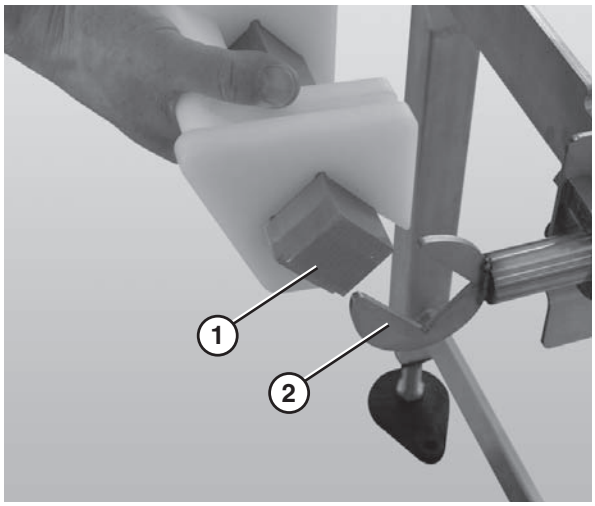


Figure 23

5. Ensure that the nose bar pucks **(Figure 24, item 1)** are in line with the conveyor frame **(Figure 24, item 2)**.

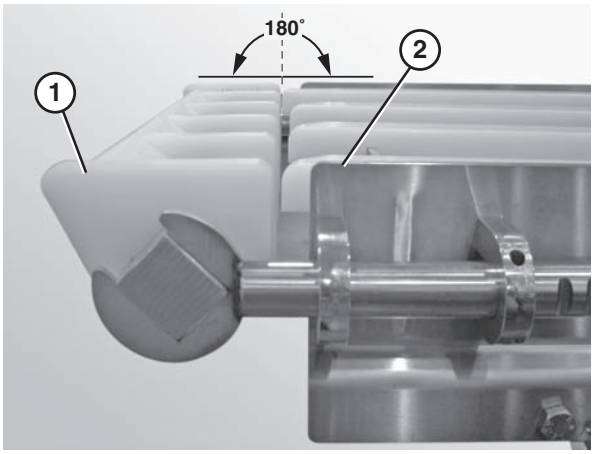


Figure 24

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 25)**

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

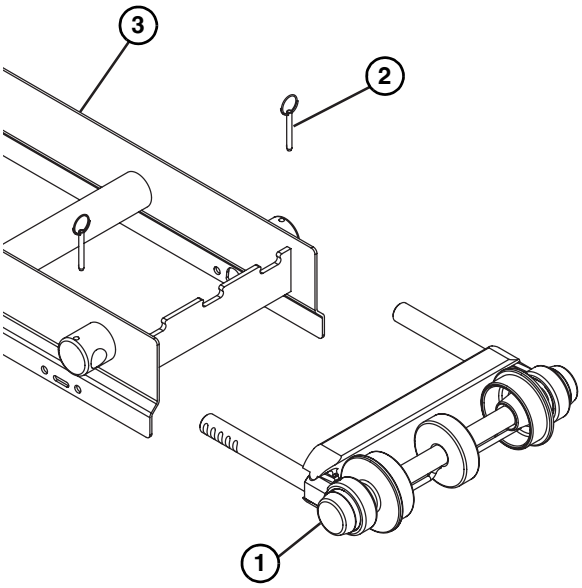


Figure 25

1. Slide the bearing shafts **(Figure 26, item 1)** into the take up blocks **(Figure 26, item 2)**.

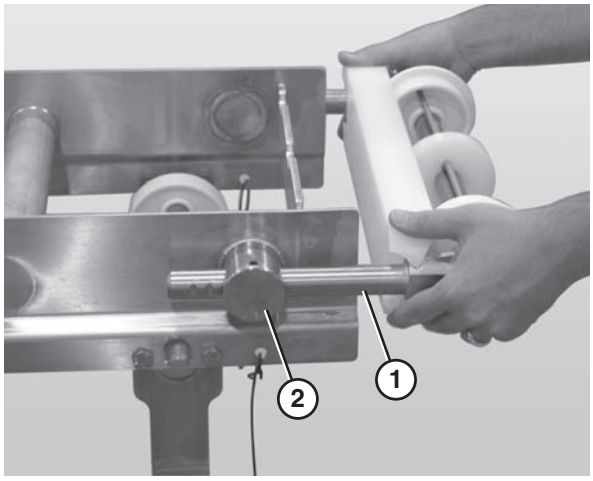


Figure 26

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 27)**

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

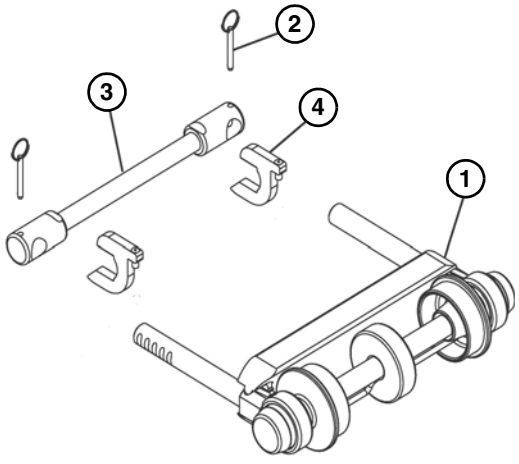


Figure 27

1. Slide the tip up shaft **(Figure 28, item 1)** through the designated slots in the frame.

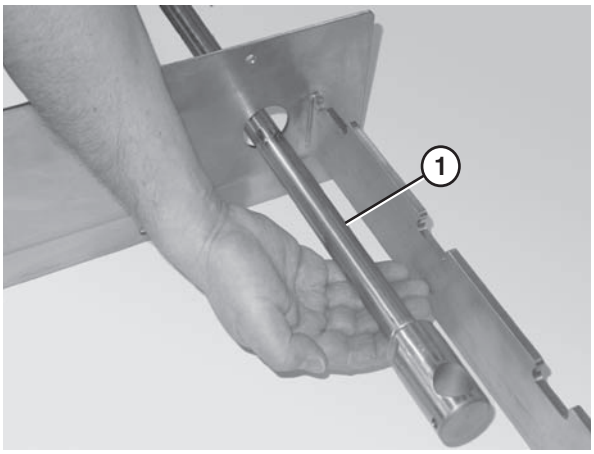


Figure 28

2. Attach the key stops **(Figure 29, item 1)** to the tip up shaft **(Figure 29, item 2)**. The rounded end of the key stop should be facing the tail.

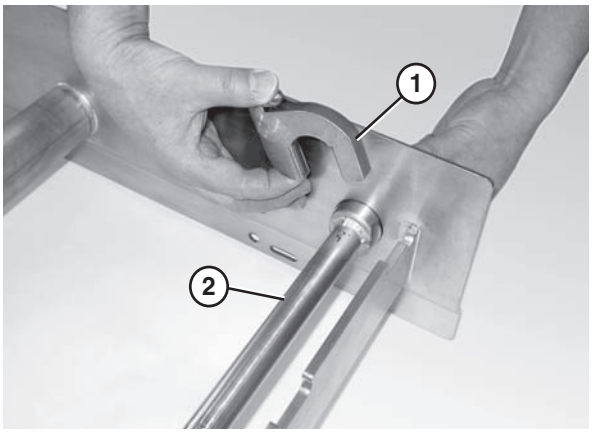


Figure 29

3. Slide the bearing shafts **(Figure 30, item 1)** into the holes in the tip up shaft **(Figure 30, item 2)**.

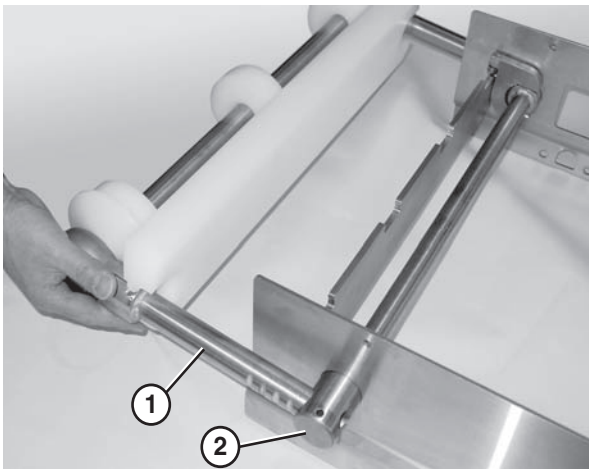


Figure 30

NOTE

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

Lifter Installation

Typical Lifter Components **(Figure 31)**

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

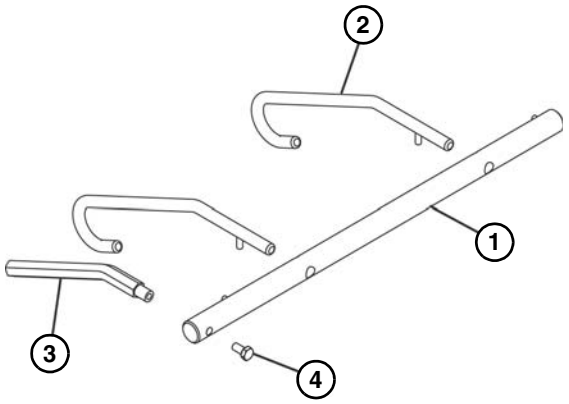


Figure 31

1. Slide the belt lift pivot bar **(Figure 32, item 1)** through the designated holes in the frame.

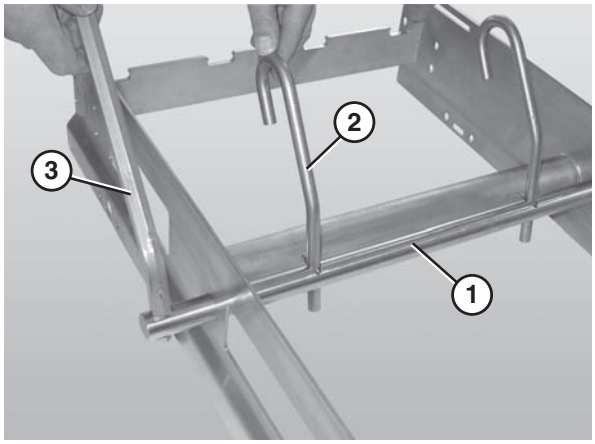


Figure 32

2. Attach the lifter bars **(Figure 32, item 2)** to the belt lift pivot bar **(Figure 32, 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 32, item 3)** to the belt lift pivot rod.

Wear Strip Installation

Typical Wear Strip Components **(Figure 33)**

1	Wear strip

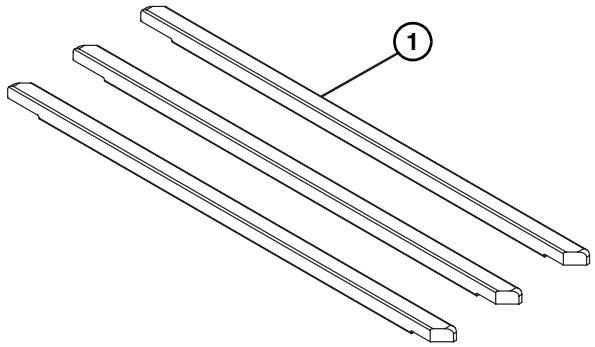


Figure 33

1. Position the wear strips **(Figure 34, item 1)** on the frame.

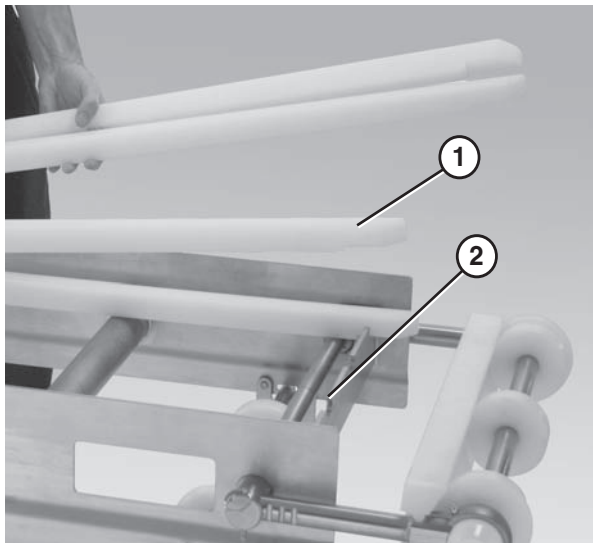


Figure 34

2. Make sure the wear strips are situated securely in the frame slots **(Figure 34, item 2)**.

Belt Installation

Typical Belt Components **(Figure 35)**

1	Chain belt
2	Belt rod

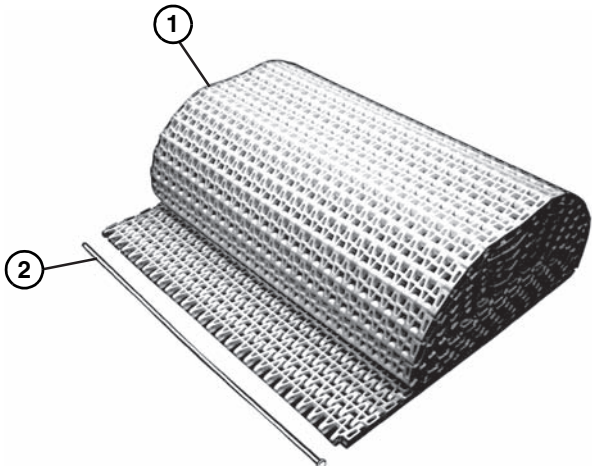


Figure 35

1. Position the belt on the conveyor frame **(Figure 36)**.

Figure 36

2. Wrap the belt around the conveyor, making sure the sprocket teeth have engaged the belt.
3. Bring the ends of the belt together **(Figure 37)**.

Figure 37

4. Insert the belt rod **(Figure 38, item 1)**.

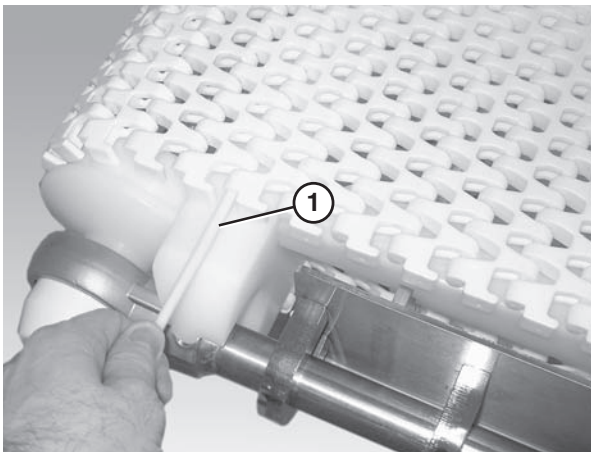


Figure 38

5. Push the belt rod in as far as possible.
6. Lightly tap the head of the rod with a hammer until it snaps into position.
7. Extend the tension end to remove excess slack in the belt **(Figure 39)**.

Figure 39

8. Insert the pull pins **(Figure 40, item 1)** on the tension end of the conveyor.

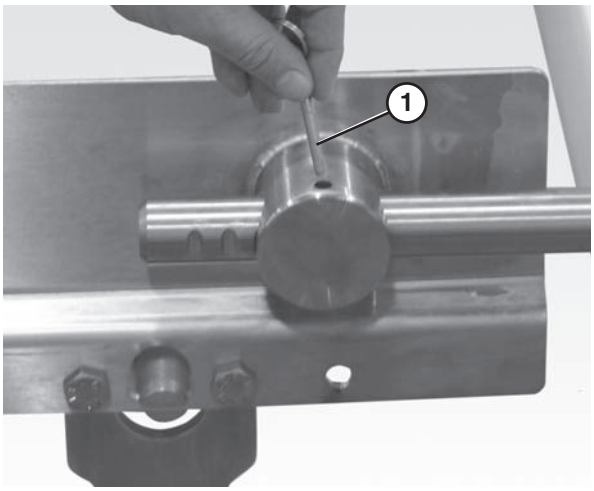


Figure 40

9. If no more travel is available, remove one or more belt links to take up the tension. Refer to “Standard Belts: Replacing a Section of Belt” on page 18.

Belt Return Installation

Typical Belt Return Components **(Figure 41)**

1	Return shaft
2	Chain return shoe

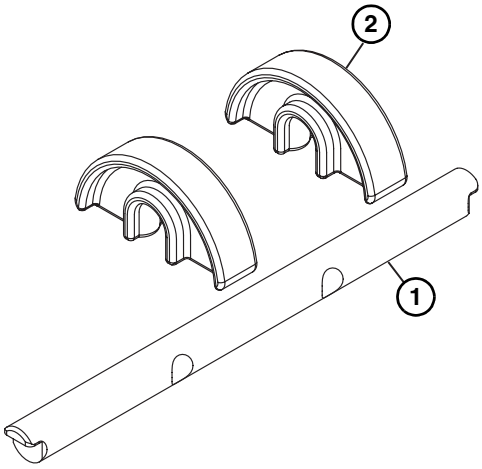


Figure 41

1. Attach the chain return shoes **(Figure 42, item 1)** to the return shaft **(Figure 42, item 2)**.

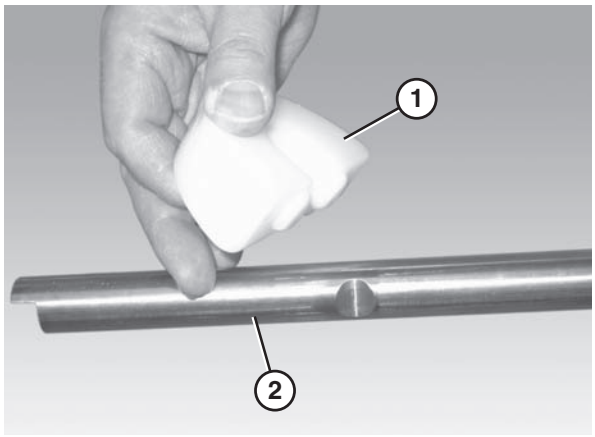


Figure 42

2. Slide the return shaft **(Figure 43, item 1)** up and through the large slot **(Figure 43, item 2)** in the frame (picture shown without the belt or wear strips).

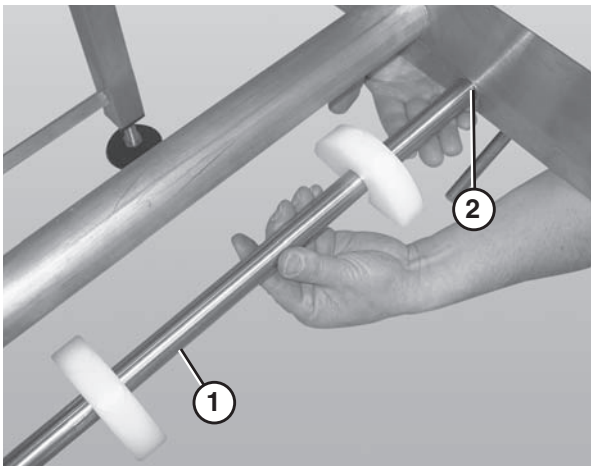


Figure 43

3. Push up on the return shaft **(Figure 43, 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 44)**. 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.

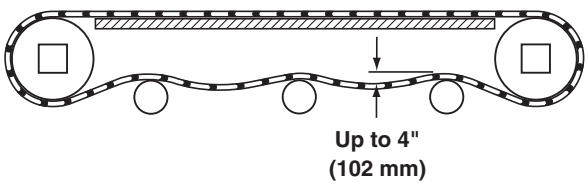


Figure 44

⚠ 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 28 for recommendations.
- Replace any worn or damaged parts.

Cleaning

⚠ 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.

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 45, item 1)** that connect the guide **(Figure 45, item 2)** to the frame.

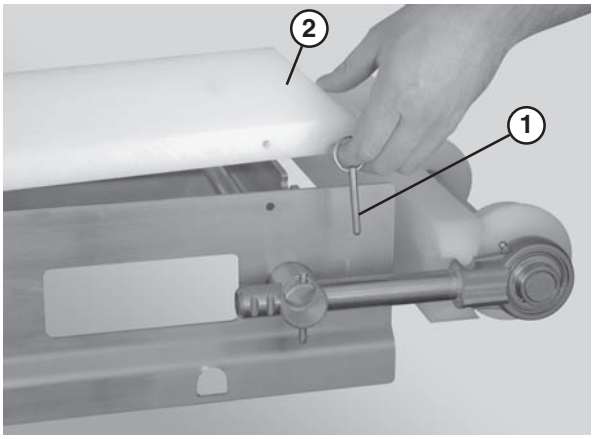


Figure 45

2. Remove the pull pin **(Figure 46, item 1)** on the tension end of the conveyor to release belt tension.

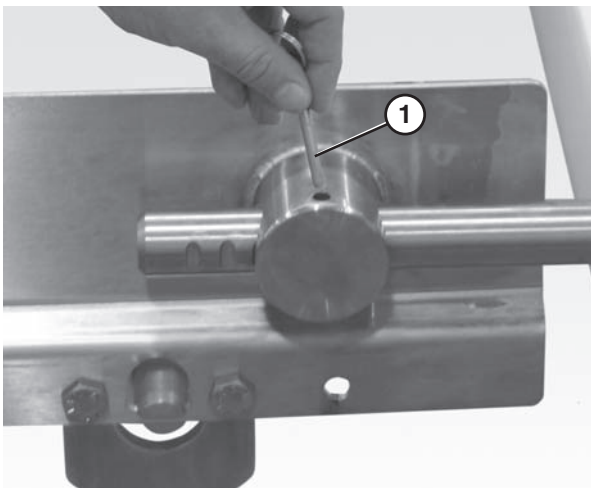


Figure 46

3. Lift up on the belt **(Figure 47)**.

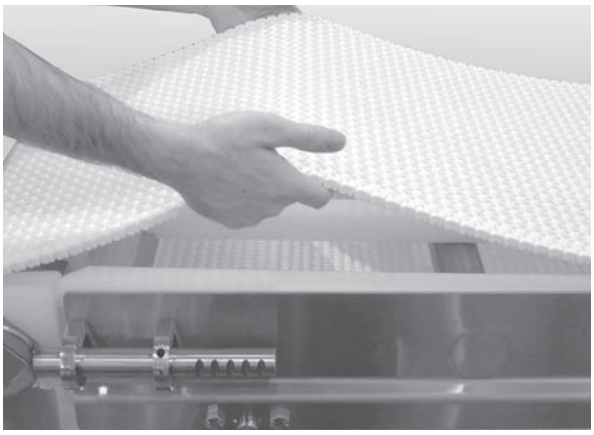


Figure 47

Conveyors with Tip Up Tails and Lifters

1. Remove the guides, if applicable, by removing the pull pins **(Figure 45, item 1)** that connect the guide **(Figure 45, item 2)** to the frame.
2. Use the lifter handle **(Figure 48, item 1)** to raise the lifters **(Figure 48, item 2)** and raise the tip up tail **(Figure 48, item 3)**.

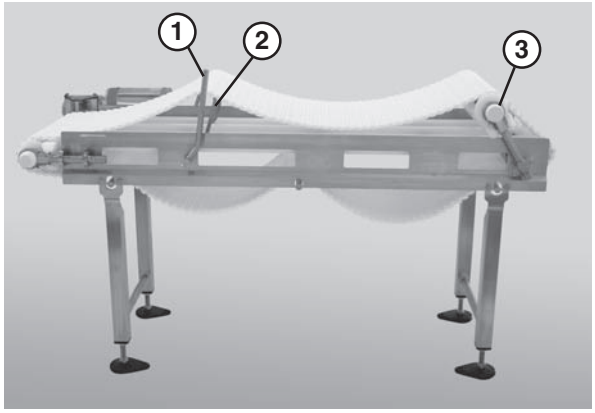


Figure 48

⚠ 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 18.
- Refer to “Sprocket and Puck Removal” on page 21.
- Refer to “Reassembling Tail Assemblies” on page 24.

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

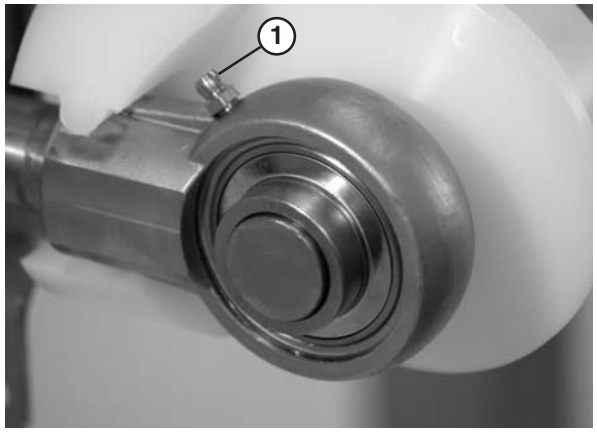


Figure 49

2. Replace the bearings if they become worn.

Wearstrips and Belt Returns

Replace the wearstrips and belt returns if they become worn.

For wearstrip and belt return installation instructions:

- Refer to “Wear Strip Installation” on page 13.
- Refer to “Belt Return Installation” on page 15.

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 50, item 1)** that connect the guide **(Figure 50, item 2)** to the frame.

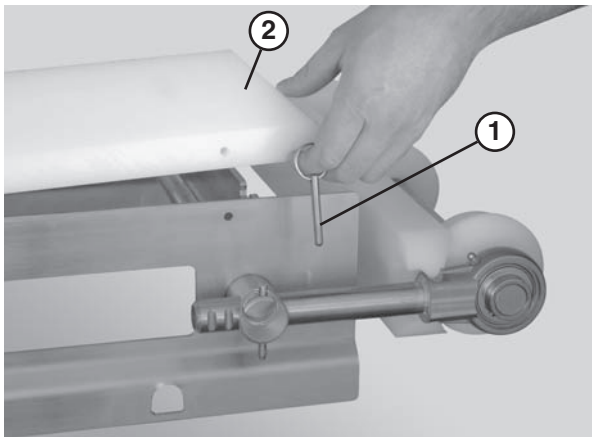


Figure 50

2. Remove the guide **(Figure 51, item 1)**.

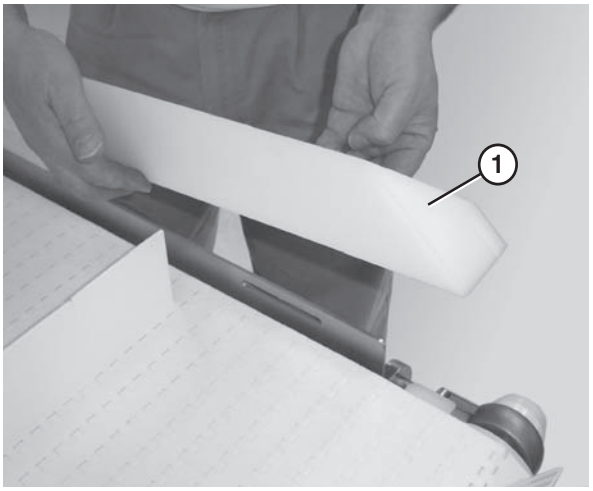


Figure 51

3. Follow the belt replacement procedures described in “Standard Belts” on page 18, “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 52, item 1)** on the tension end of the conveyor to release tension on the belt.

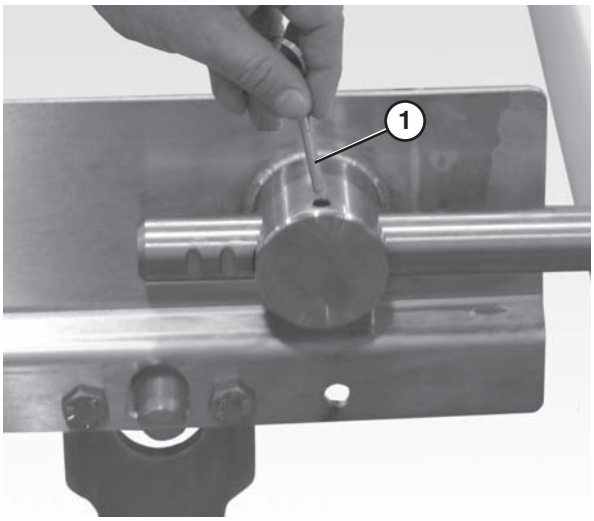


Figure 52

⚠ 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 53, 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 53, item 2)**.

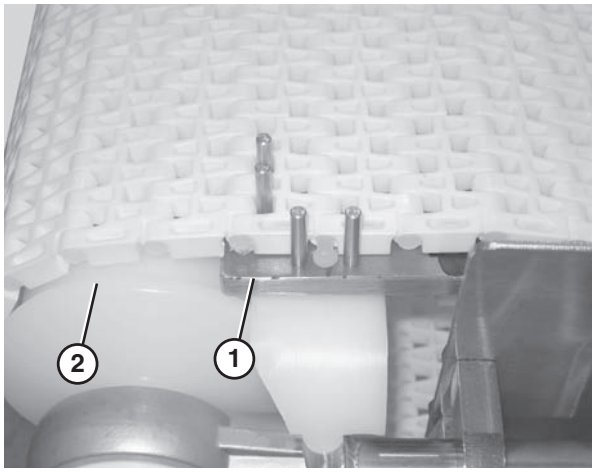


Figure 53

3. Use a punch and hammer to push the belt rod out by striking the rod end opposite the retaining head **(Figure 54)**.

Figure 54

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 55, item 1)** and sliding it through the large hole **(Figure 55, item 2)** in the frame.

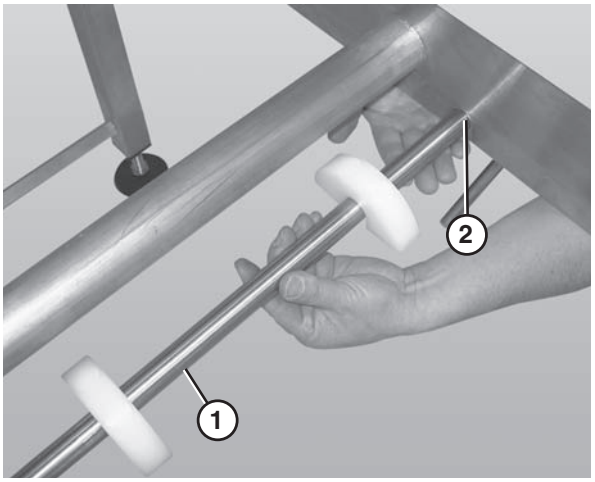


Figure 55

2. Lower the opposite end of the return shaft **(Figure 55, item 1)** and slide it out of the frame.
3. Follow steps 1 – 3 in "Standard Belts: Replacing a Section of Belt" on page 18.
4. Remove the belt.
5. Replace the damaged or worn belt. Refer to “Belt Installation” on page 14 and “Belt Return Installation” on page 15.

Specialty Intralox 1100 Series Belts

Replacing a Section of Belt

1. Place the edge of a flat head screwdriver between the the two belt links and turn clockwise **(Figure 56)**.

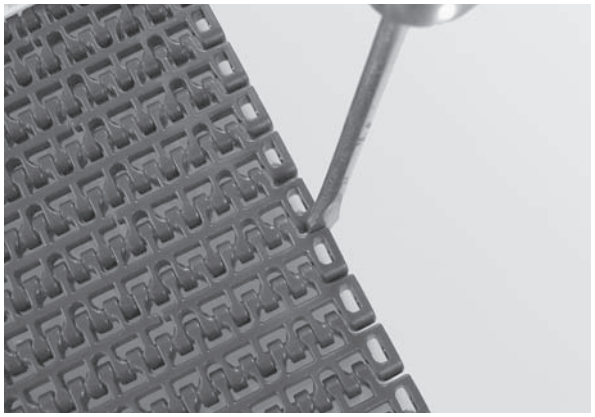


Figure 56

2. Use a second belt rod of the same size to push on the opposite end of the belt rod. **(Figure 57)**.

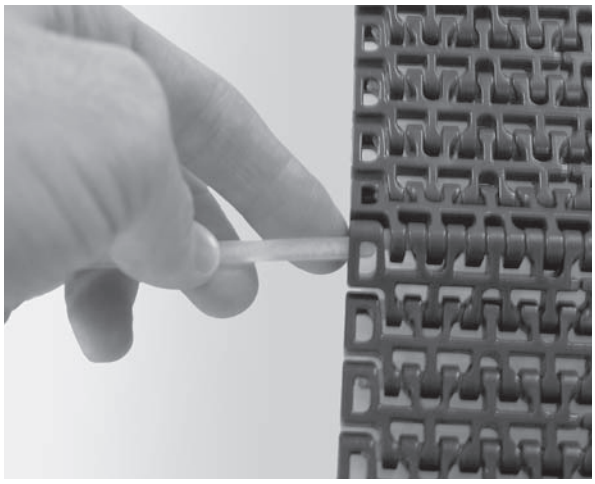


Figure 57

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.
2. Follow steps 1 – 2 in "Specialty Intralox 1100 Series Belts: Replacing a Section of Belt" on page 19.
3. Remove the belt.
4. Replace the damaged or worn belt. Refer to “Belt Installation” on page 14 and “Belt Return Installation” page 15.

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

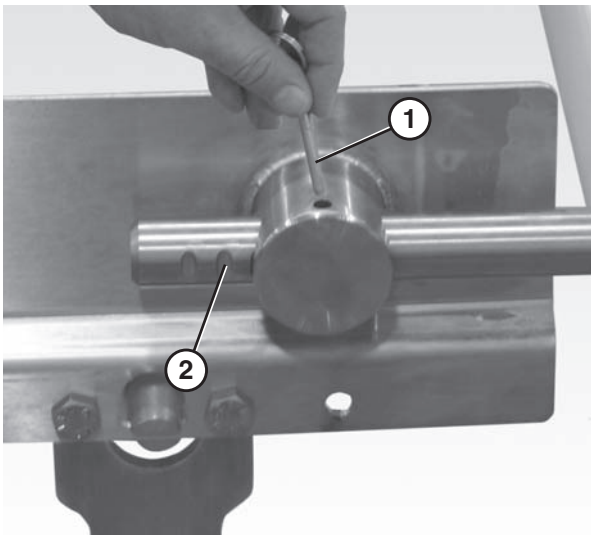


Figure 58

2. Extend the idler tail to the next groove **(Figure 58, item 2)** on the bearing shaft.
3. Continue extending the tension end until the belt is sufficiently tight **(Figure 59)**.

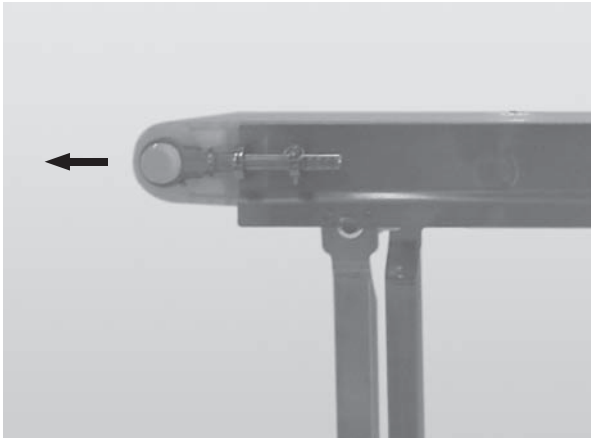


Figure 59

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 18.

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 18.
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 60, item 1)** that connect the gearmotor to the drive spindle using a hex wrench **(Figure 60, item 2)**.

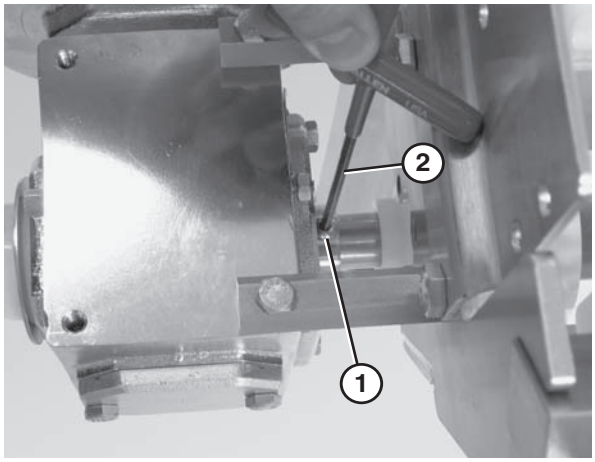


Figure 60

2. Remove the bolts that connect the motor to the drive assembly **(Figure 61)**.
3. Remove the motor **(Figure 61, item 1)** from the drive assembly **(Figure 61, item 2)**.

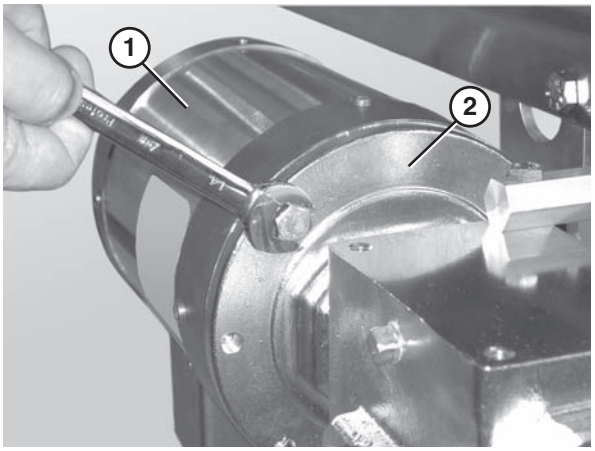


Figure 61

4. Unbolt the drive assembly and slide it off the bearing spindle **(Figure 62)**.

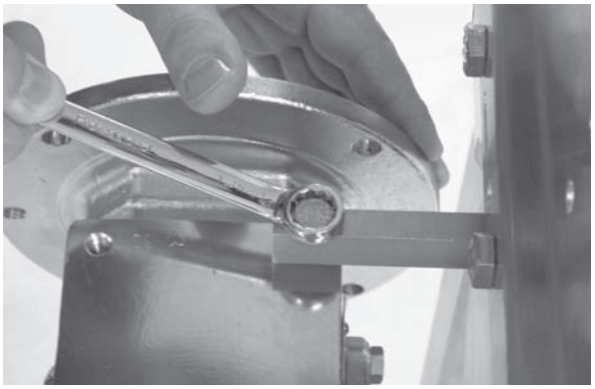


Figure 62

5. Remove the bearing cover.
6. Loosen the 3 hole flange **(Figure 63, item 1)** with bearing fasteners using a hex wrench **(Figure 63, item 2)**.

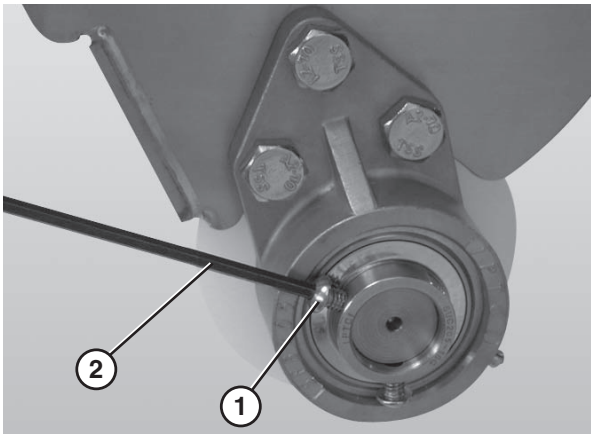


Figure 63

7. Disconnect the 3 hole flange bearing **(Figure 64, item 1)** from the nose bar drive weldment **(Figure 64, item 2)**.

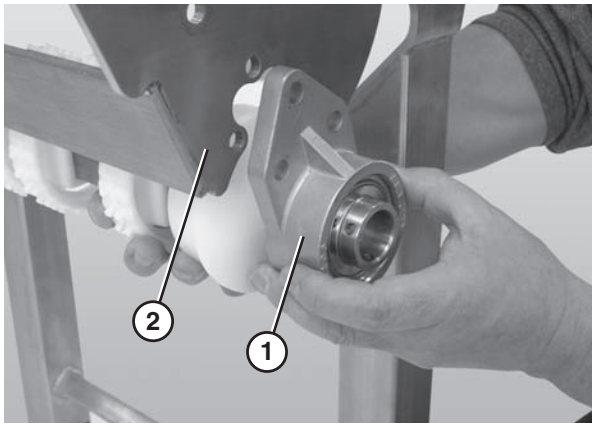


Figure 64

8. Lower the entire drive assembly.
9. Slide the 3 hole flange with bearing **(Figure 65, item 1)** and flanged puck **(Figure 65, item 2)** off the drive spindle.

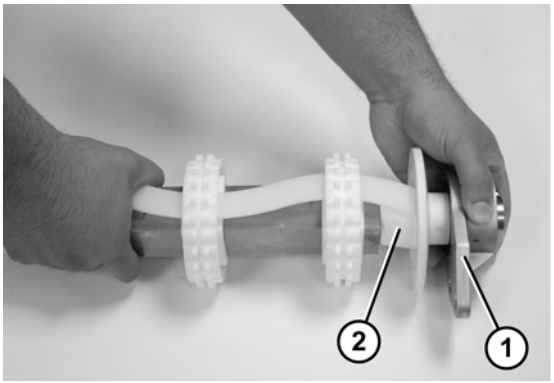


Figure 65

10. Slide the sprockets **(Figure 66, item 1)** and the sprocket alignment bar **(Figure 66, item 2)** off the drive spindle **(Figure 66, item 3)**.

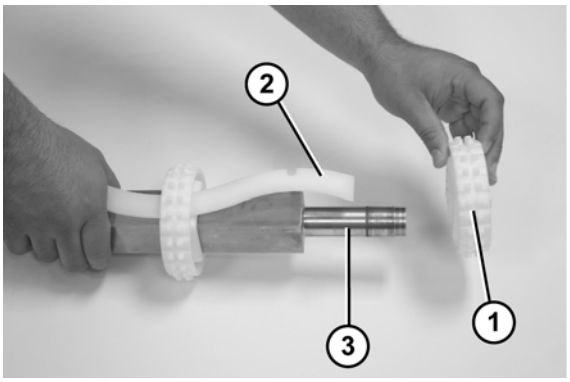


Figure 66

B - Nose Bar Puck Removal

1. Slide the nose bar drive or transfer post **(Figure 67, item 1)** out of the nose bar drive weldment or idler hands **(Figure 67, item 2)**.

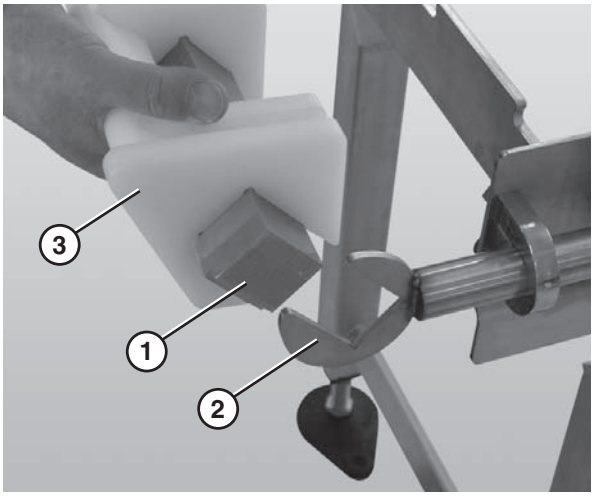


Figure 67

2. Remove the nose bar tracking pucks **(Figure 67, item 3)**, if applicable.
3. Remove the nose bar wear strip **(Figure 68, item 3)**.

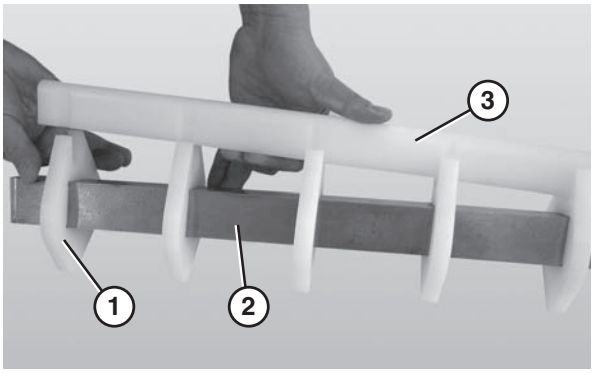


Figure 68

4. Slide the nose bar pucks **(Figure 68, item 1)** off the nose bar shaft **(Figure 68, item 2)**.

C - Idler Puck Removal

1. Remove the pull pins **(Figure 69, item 1).**

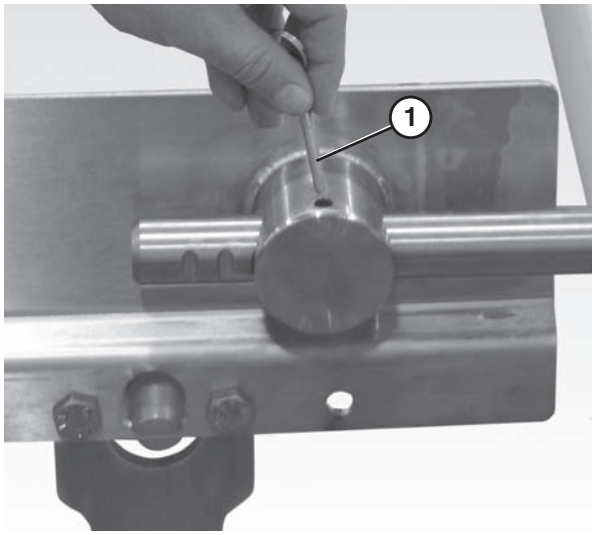


Figure 69

2. Slide the idler tail assembly **(Figure 70, item 1)** out of the take up blocks **(Figure 70, item 2)**.

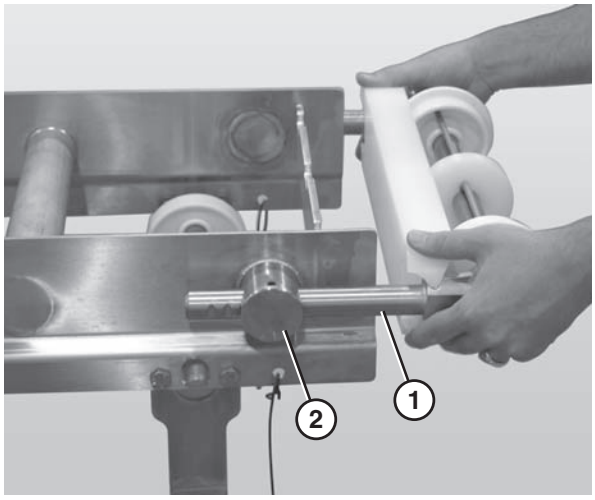


Figure 70

3. Remove the bearing cover **(Figure 71, item 1)**.

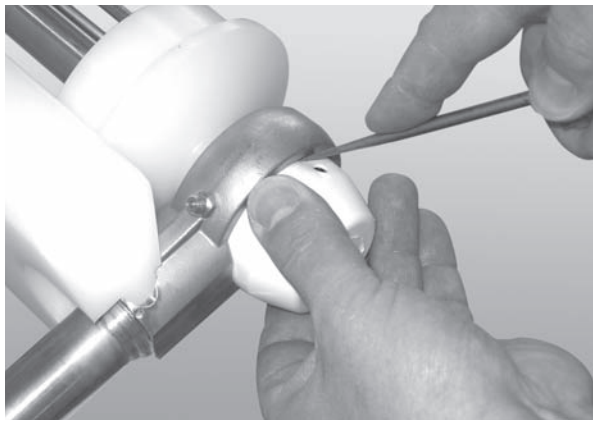


Figure 71

4. Use a hex wrench **(Figure 72, item 1)** to loosen the bearing shaft assembly fasteners **(Figure 72, item 2)**.

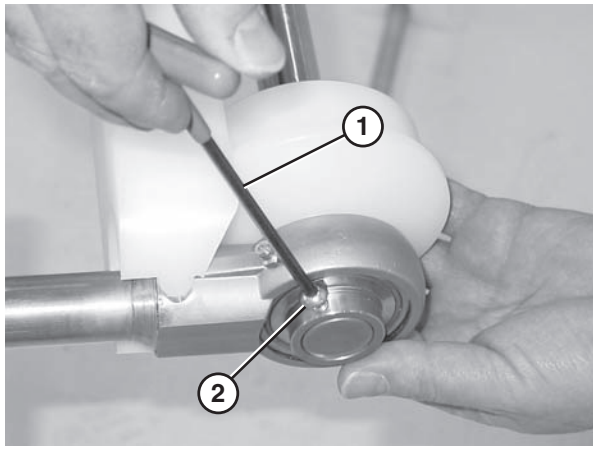


Figure 72

5. Slide the bearing shaft assembly **(Figure 73, item 2)** off the idler shaft.

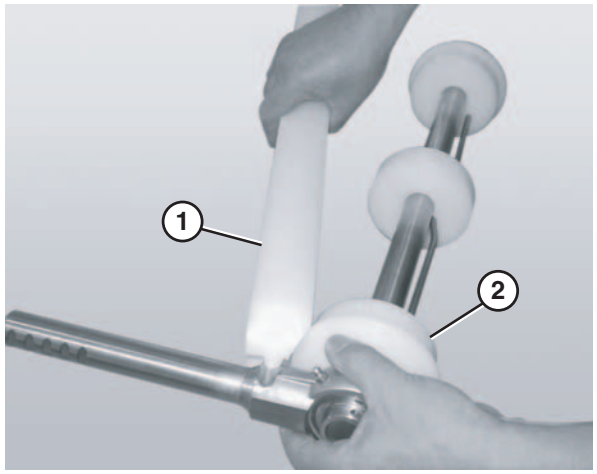


Figure 73

6. Remove the guard bar **(Figure 73, item 3)**.
7. Slide the pucks **(Figure 73, item 1)** off the idler shaft.

Reassembling Tail Assemblies

Refer to the "Service Parts" section starting on page 28 for complete diagrams and lists of all tail assembly components.

Nose Bar Drive Tail

Nose Bar Assembly

1. Slide the nose bar pucks **(Figure 74, item 1)** onto the nose bar drive post **(Figure 74, item 2)**.

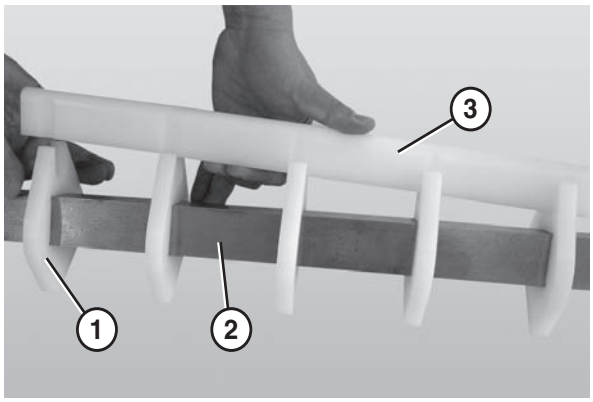


Figure 74

2. Attach the nose bar wear strip **(Figure 74, item 3)**.

Drive Tail Assembly

1. Slide the first sprocket **(Figure 75, item 1)** onto the drive spindle **(Figure 75, item 2).**

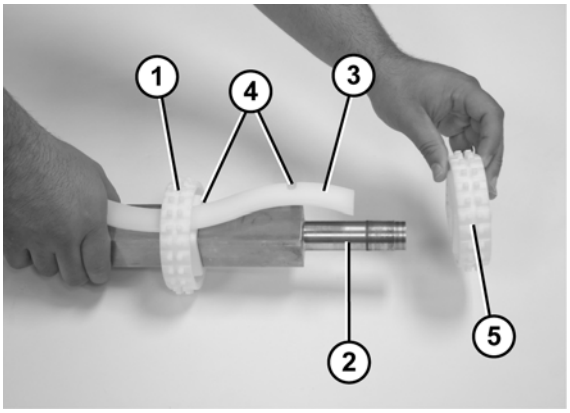


Figure 75

2. Insert the sprocket alignment bar **(Figure 75, item 3)** into the first sprocket and align the sprocket with the notch **(Figure 75, item 4)** in the sprocket alignment bar.
3. Slide the remaining sprockets **(Figure 75, item 5)** onto drive spindle and align each sprocket with the notches **(Figure 75, item 4)** in the sprocket alignment bar.
4. Attach the flanged pucks **(Figure 76, item 1)** and the 3 hole flange with bearing **(Figure 76, item 2)** to the drive spindle.

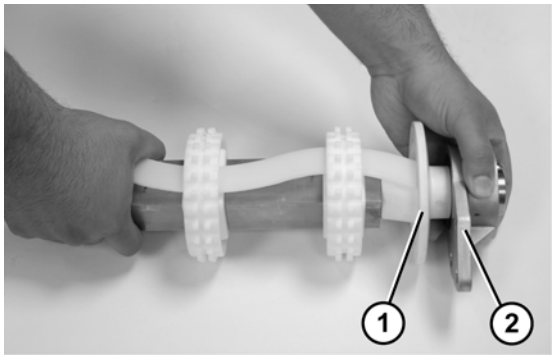


Figure 76

5. Tighten the 3 hole flange with bearing fasteners **(Figure 77, item 1)** using a hex wrench **(Figure 77, item 2)** to 6 N•m (54 in•lbs). Check after 24 hours of conveyor use.

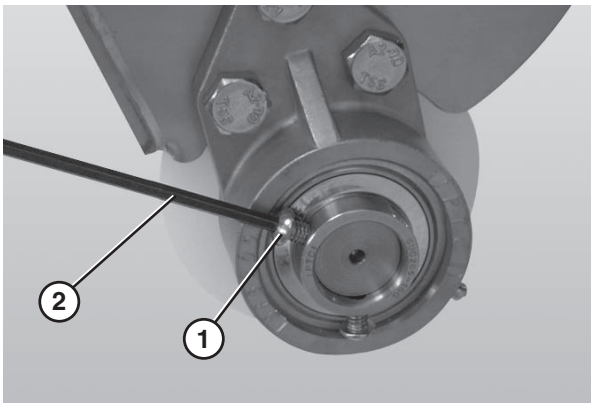


Figure 77

Nose Bar Idler and Tip Up Tail

1. Slide the nose bar pucks **(Figure 78, item 1)** onto the nose bar drive post **(Figure 78, item 2)**.

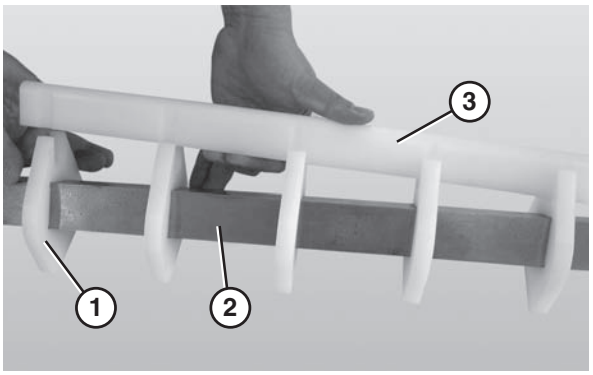


Figure 78

2. Attach the nose bar wear strip **(Figure 78, item 3)**.

3. Attach the nose bar tracking pucks **(Figure 79, item 1)** to the nose bar drive post **(Figure 79, item 2)**.

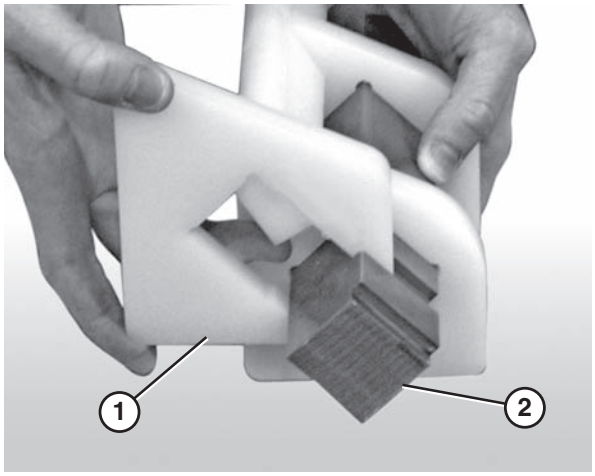


Figure 79

Idler Tail and Tip Up Tail

1. Place the idler puck **(Figure 80, item 1)** at the center of the bent retaining bar **(Figure 80, item 2)**.
2. Slide the idler puck onto the idler shaft **(Figure 80, item 3)**. Make sure to center the idler puck.

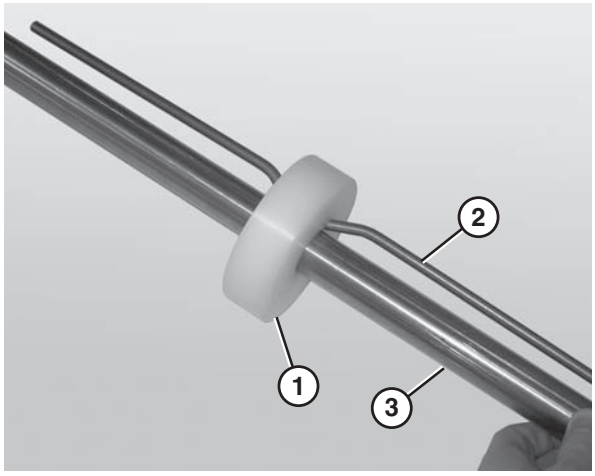


Figure 80

3. Attach the flanged pucks **(Figure 81, item 2)** and bearing shaft assemblies to the idler shaft.
4. Attach the guard bar **(Figure 81, item 1)**.

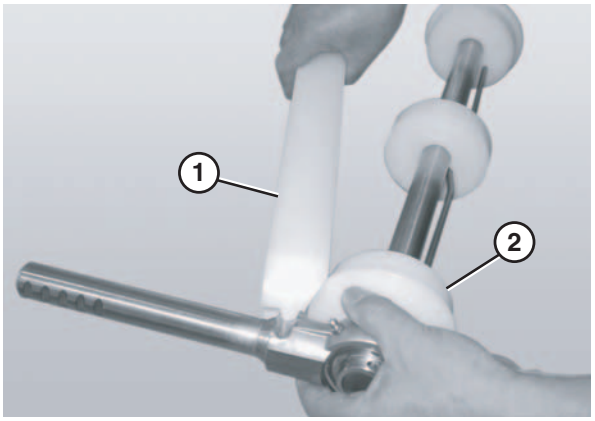


Figure 81

5. Use a hex wrench **(Figure 82, item 1)** to tighten the bearing shaft fasteners **(Figure 82, item 2)** to 54 in•lbs (6 N•m). Check after 24 hours of conveyor use.

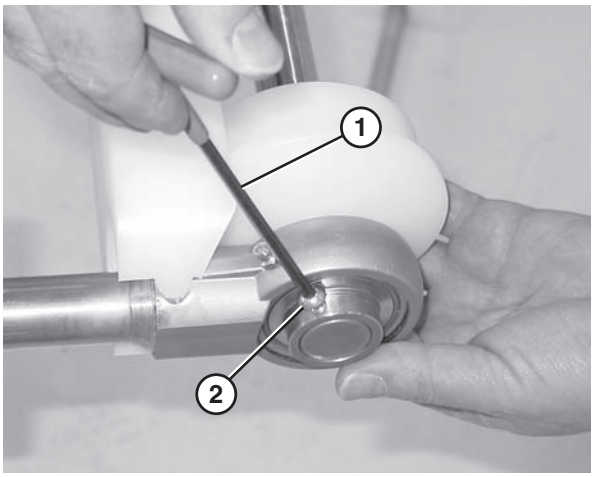


Figure 82

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 83)**.

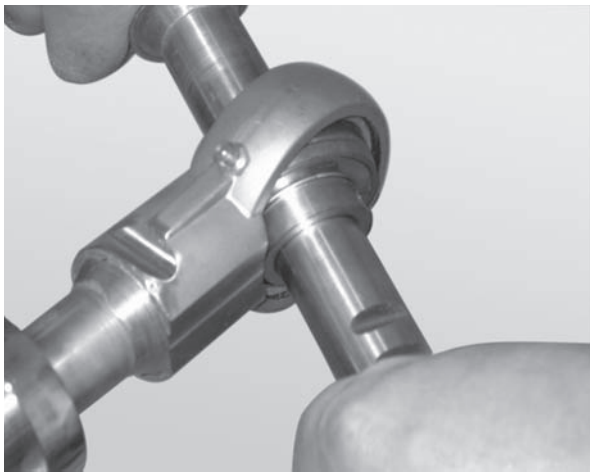


Figure 83

3. Apply lateral pressure to the rod until the bearing comes loose.
4. Remove the worn or damaged bearing **(Figure 84)**.

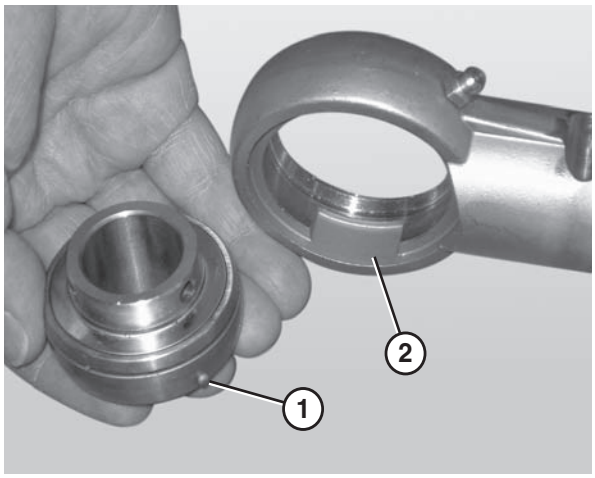


Figure 84

5. Replace the bearing.

NOTE
*When inserting the new bearing, make sure the anti-rotation notch **(Figure 84, item 1)** on the bearing lines up with the groove inside the housing **(Figure 84, item 2)**.*

LPZ Knuckles

Wearstrips and Belt Returns

Replace the wearstrips and belt returns if they become worn.

For wearstrip and belt return installation instructions:

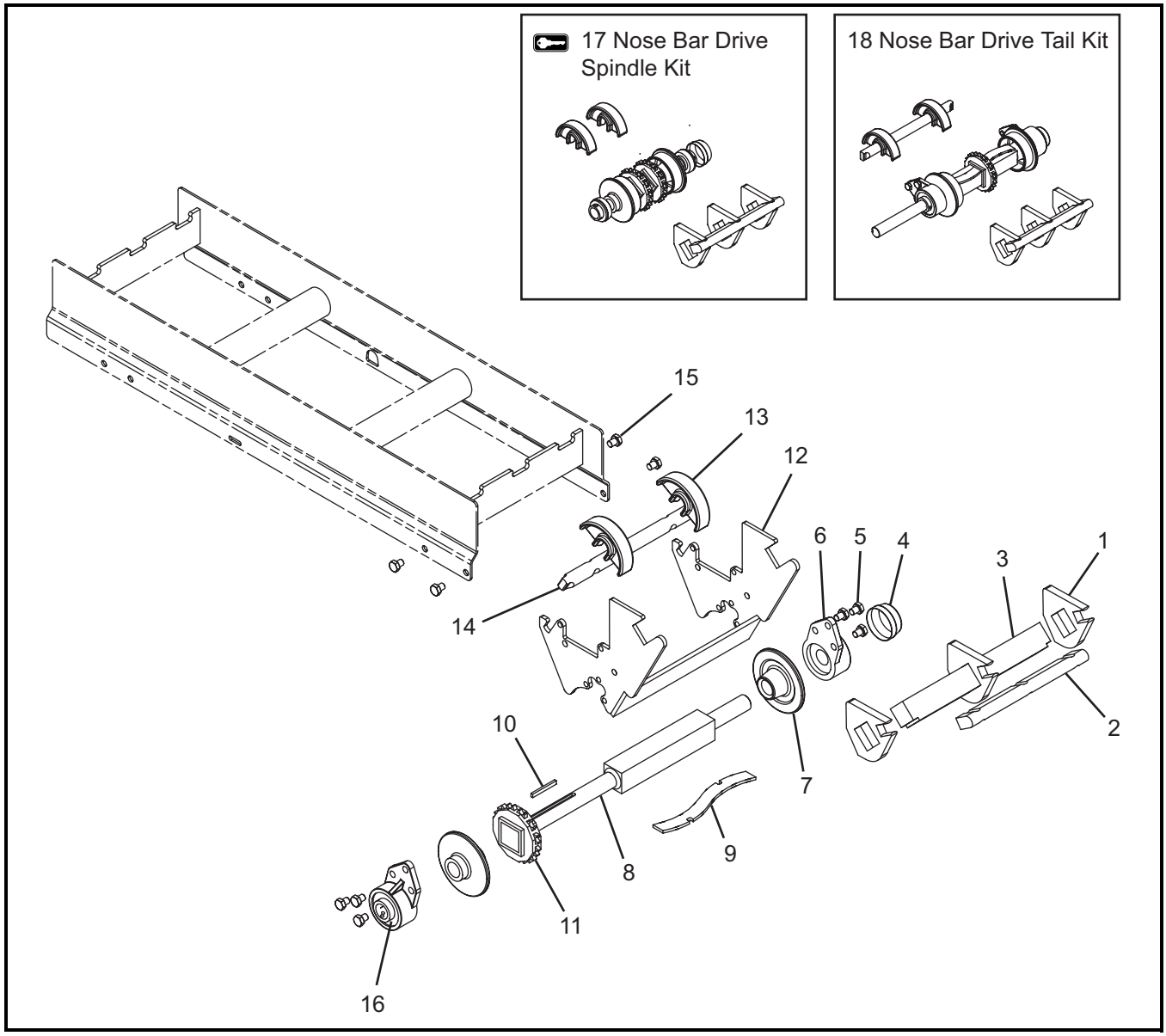
- For wearstrips, replace as needed, making sure wear strips are situated securely in the frame slots.
- For belt returns, Refer to “Belt Return Installation” on page 15.

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	500278	Nose Bar Puck
2	5055WW	.5" Pitch Nose Bar Wear Strip
	5057WW	1" Pitch Nose Bar Wear Strip
3	5038WW	Nose Bar Drive Post
4	807-1454	Cover
5	961016MSS	Hex Head Cap Screw M10-1.5x16mm

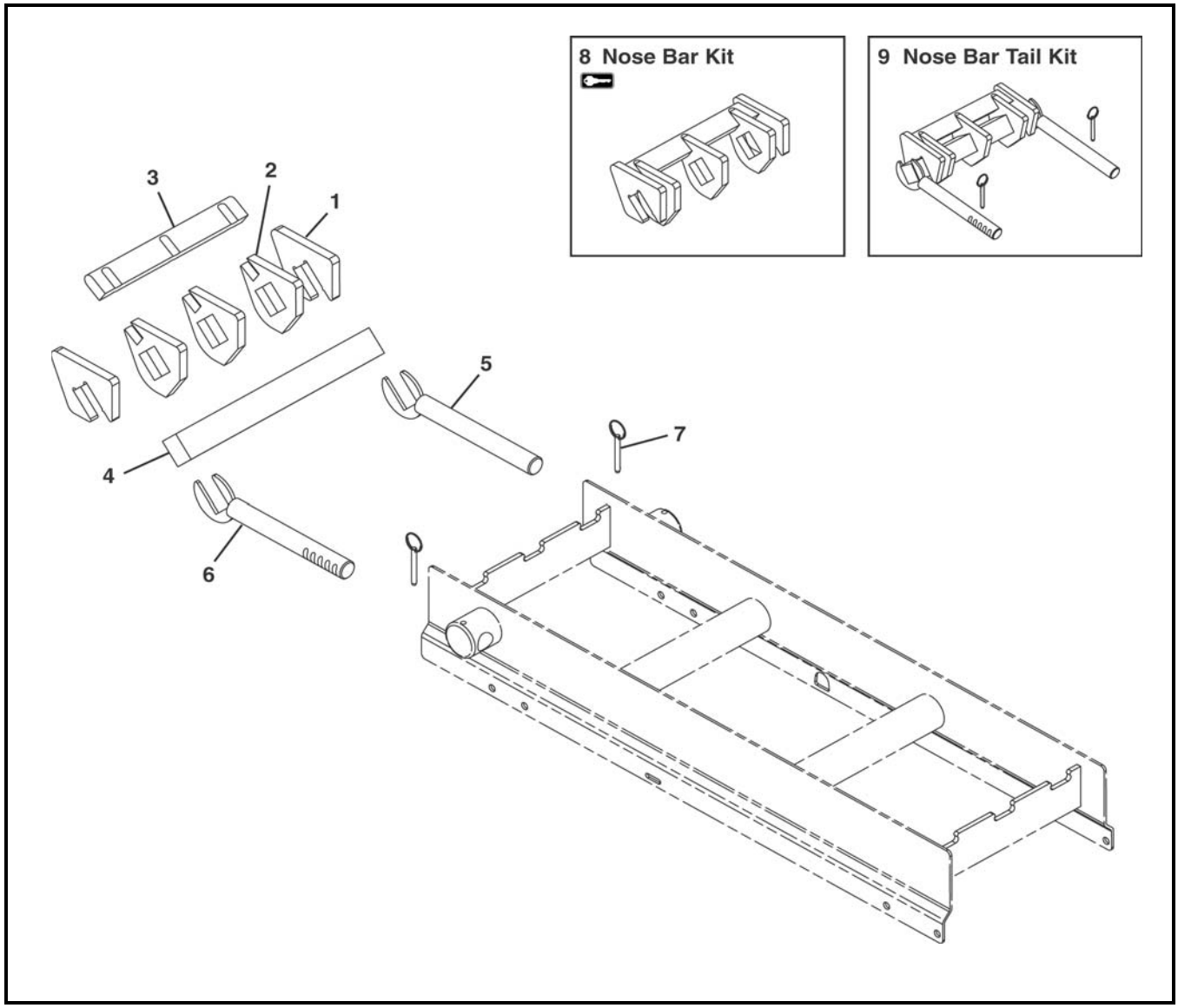
Item	Part Number	Description
6	500288	3 Hole Flange with Bearing
7	5017WW	Flange Puck for Standard Belt
	5071WW	Flange Puck for Specialty Intralox Belt
8	5015WW	Drive Spindle for Standard Belt
	5070WW	Drive Spindle for Specialty Intralox Belt

Item	Part Number	Description
9	5086WW	Sprocket Alignment Bar for Standard .50" Pitch Belt
	5087WW	Sprocket Alignment Bar for Specialty Intralox .60" Pitch Belt
10	912-111SS	Square Key .25" x 2.50"
11	807-1443	Sprocket for Standard .50" Pitch Belt
	807-1446	Sprocket for Specialty Intralox .60" Pitch Belt
12	5060WW	Nose Bar Drive Weldment
13	500075	Chain Return
14	5032WW	Return Shaft
15	961012MSS	Hex Head Cap Screw M10-1.5x12mm
16	802-162	Bearing
17	74NBDD12-WW	Nose Bar Drive Spindle Kit with a Dorner Gearmotor Mounting Package for Standard .50" Pitch Belt (Includes Items 1, 2, 4, 7, 11, 13 and 16)
	74NBDD11-WW	Nose Bar Drive Spindle Kit with a Dorner Gearmotor Mounting Package for Specialty Intralox .60" Pitch Belt (Includes Items 1, 2, 4, 7, 11, 13 and 16)
	74NBDC12-WW	Nose Bar Drive Spindle Kit without a Dorner Gearmotor Mounting Package for Standard .50" Pitch Belt (Includes Items 1, 2, 4, 7, 11, 13 and 16)
	74NBDC11-WW	Nose Bar Drive Spindle Kit without a Dorner Gearmotor Mounting Package for Specialty Intralox .60" Pitch Belt (Includes Items 1, 2, 4, 7, 11, 13 and 16)
18	74NBDDT12- WW	Nose Bar Drive Tail Kit when Conveyor is ordered with a Dorner Gearmotor Mounting Package for Standard .50" Pitch Belt (Includes Items 1, 2, 4 through 11, 13 and 14)
	74NBDDT11- WW	Nose Bar Drive Tail Kit when Conveyor is ordered with a Dorner Gearmotor Mounting Package for Specialty Intralox .60" Pitch Belt (Includes Items 1, 2, 4 through 11, 13 and 14)
	74NBDCT12- WW	Nose Bar Drive Tail Kit when Conveyor is ordered without a Dorner Gearmotor Mounting Package for Standard .50" Pitch Belt (Includes Items 1, 2, 4 through 11, 13 and 14)
	74NBDCT11- WW	Nose Bar Drive Tail Kit when Conveyor is ordered without a Dorner Gearmotor Mounting Package for Specialty Intralox .60" Pitch Belt (Includes Items 1, 2, 4 through 11, 13 and 14)
WW = Conveyor width ref: 06 - 60 in 02 increments		

Sprocket Quantity (Item 11)	
Width	Sprocket Quantity
6" (152mm)	2
8" (203mm)	2
10" (254mm)	3
12" (305mm)	3
14" (356mm)	4
16" (406mm)	4
18" (457mm)	5
20" (508mm)	5
22" (559mm)	6
24" (610mm)	6
26" (660mm)	7
28" (711mm)	7
30" (762mm)	8
32" (813mm)	8
34" (864mm)	9
36" (914mm)	9
38" (965mm)	10
40" (1016mm)	10
42" (1067mm)	11
44" (1118mm)	11
46" (1168mm)	12
48" (1219mm)	12
50" (1270mm)	13
52" (1321mm)	13
54" (1372mm)	14
56" (1422mm)	14
58" (1473mm)	15
60" (1524mm)	15

Service Parts

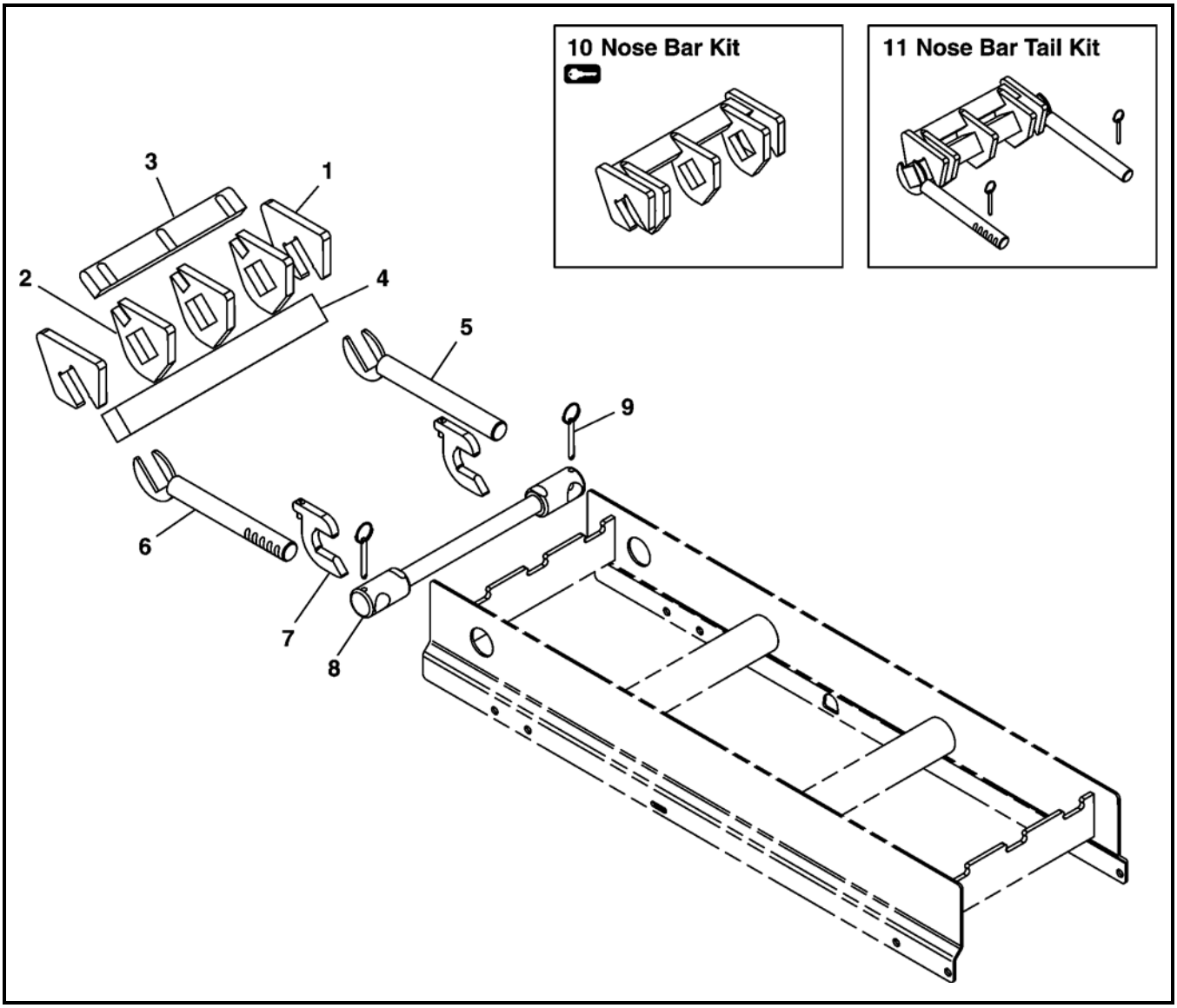
Nose Bar Tension End



Item	Part Number	Description
1	500490	Nose Bar Tracking Puck
2	500278	Nose Bar Puck
3	5056WW	.5" Pitch Nose Bar Wear Strip
	5058WW	1" Pitch Nose Bar Wear Strip
4	5037WW	Nose Bar Transfer Post for Standard Belt
	5076WW	Nose Bar Transfer Post for Specialty Intralox Belt
5	500487	Nose Bar Idler Shaft Left Hand
6	500488	Nose Bar Idler Shaft Right Hand
7	807-1469	Pull Pin
8	74NB5-WW	.5" Nose Bar Kit (Includes Items 1 through 3)
	74NB1-WW	1" Nose Bar Kit (Includes Items 1 through 3)

Item	Part Number	Description
9	74NBT5-WW	.5" Nose Bar Tail Kit, for Standard Belt (Includes Items 1 through 6)
	74NBT1-WW	1" Nose Bar Tail Kit, for Standard Belt (Includes Items 1 through 6)
	74NBT5S-WW	.5" Nose Bar Tail Kit, for Specialty Intralox Belt (Includes Items 1 through 6)
	74NBT1S-WW	1" Nose Bar Tail Kit, for Specialty Intralox Belt (Includes Items 1 through 6)
WW = Conveyor width ref: 06 - 60 in 02 increments		

Nose Bar Tip Up Tension End

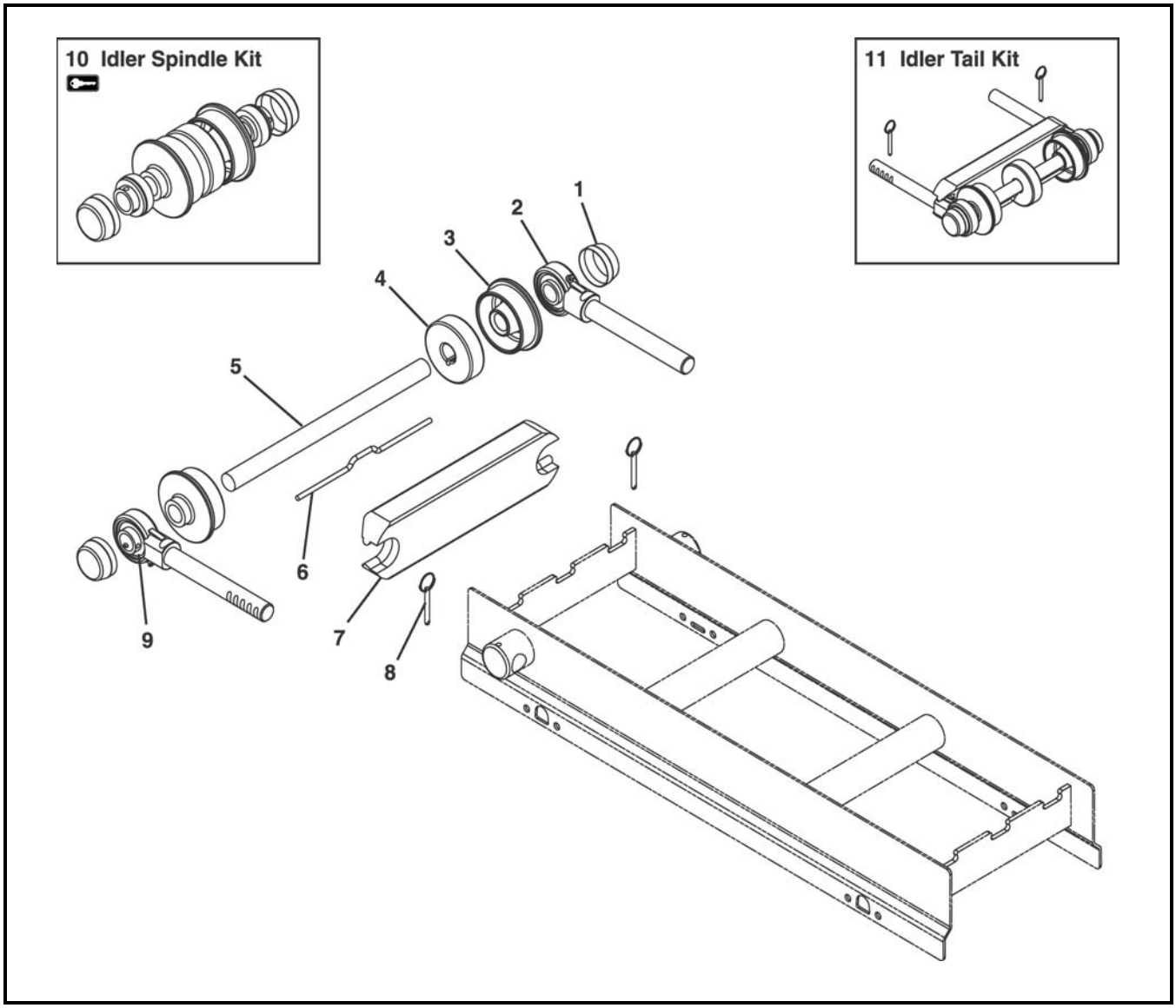


Item	Part Number	Description
1	500490	Nose Bar Tracking Puck
2	500278	Nose Bar Puck
3	5056WW	.5" Pitch Nose Bar Wear Strip
	5058WW	1" Pitch Nose Bar Wear Strip
4	5037WW	Nose Bar Transfer Post for Standard Belt
	5076WW	Nose Bar Transfer Post for Specialty Intralox Belt
5	500487	Nose Bar Idler Shaft Left Hand
6	500488	Nose Bar Idler Shaft Right Hand
7	500675	Key Stop
8	5005WW	Tip Up Shaft Assembly

Item	Part Number	Description
9	807-1469	Pull Pin
10	74NB5-WW	.5" Nose Bar Kit (Includes Items 1 through 3)
	74NB1-WW	1" Nose Bar Kit (Includes Items 1 through 3)
11	74NBT5-WW	.5" Nose Bar Tail Kit, for Standard Belt (Includes Items 1 through 6)
	74NBT1-WW	1" Nose Bar Tail Kit, for Standard Belt (Includes Items 1 through 6)
	74NBT5S-WW	.5" Nose Bar Tail Kit, for Specialty Intralox Belt (Includes Items 1 through 6 and 9)
	74NBT1S-WW	1" Nose Bar Tail Kit, for Specialty Intralox Belt (Includes Items 1 through 6 and 9)
WW = Conveyor width ref: 06 - 60 in 02 increments		

Service Parts

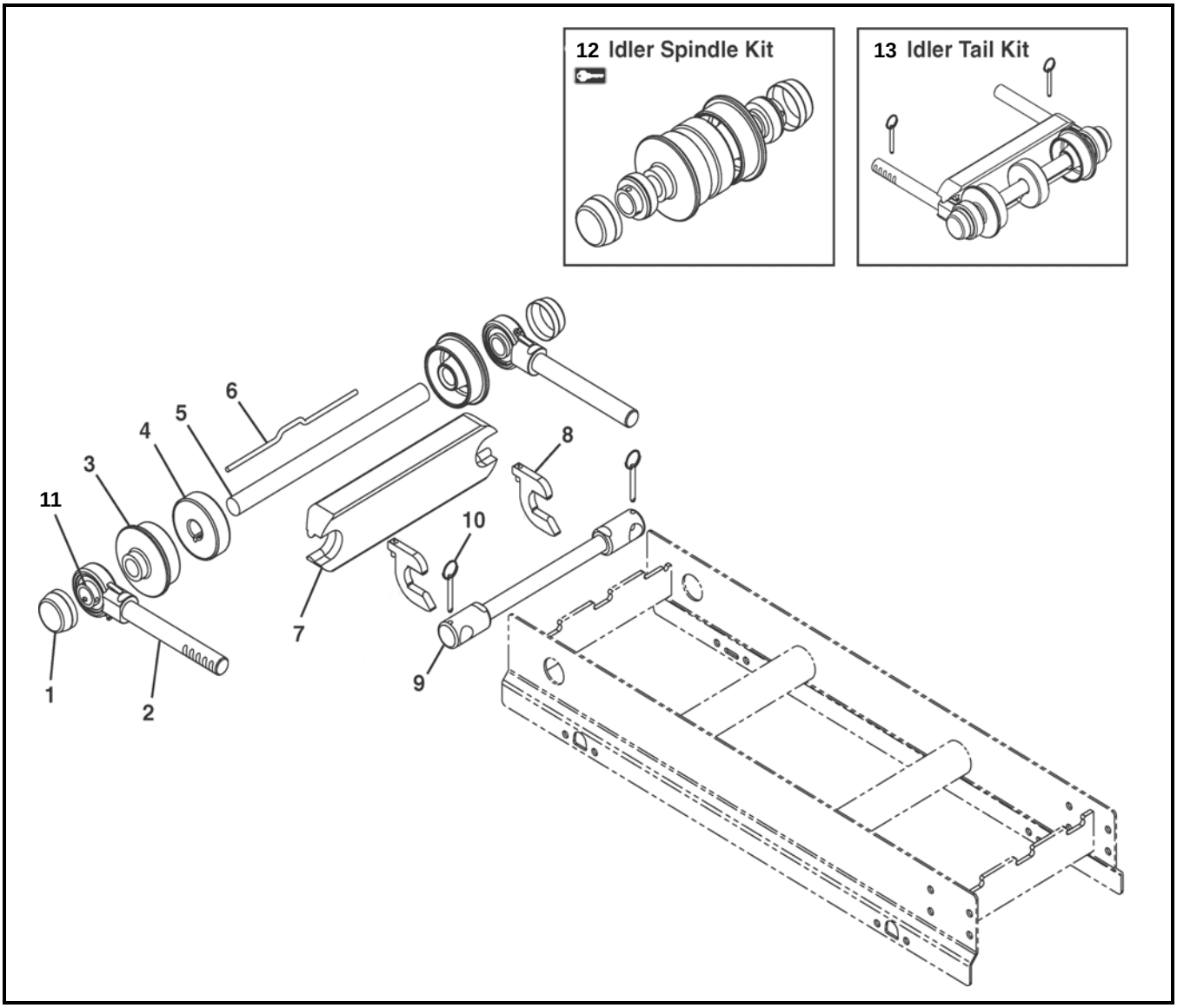
Tension End Components



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 (for 8" - 60" wide conveyors only)
5	5007WW	Idler Shaft
6	5008WW	Bent Retaining Bar for Standard Belt (for 8" - 60" wide conveyors only)
	5073WW	Bent Retaining Bar for Specialty Intralox Belt (for 8" - 60" 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: 06 - 60 in 02 increments		

Tip Up Tension End

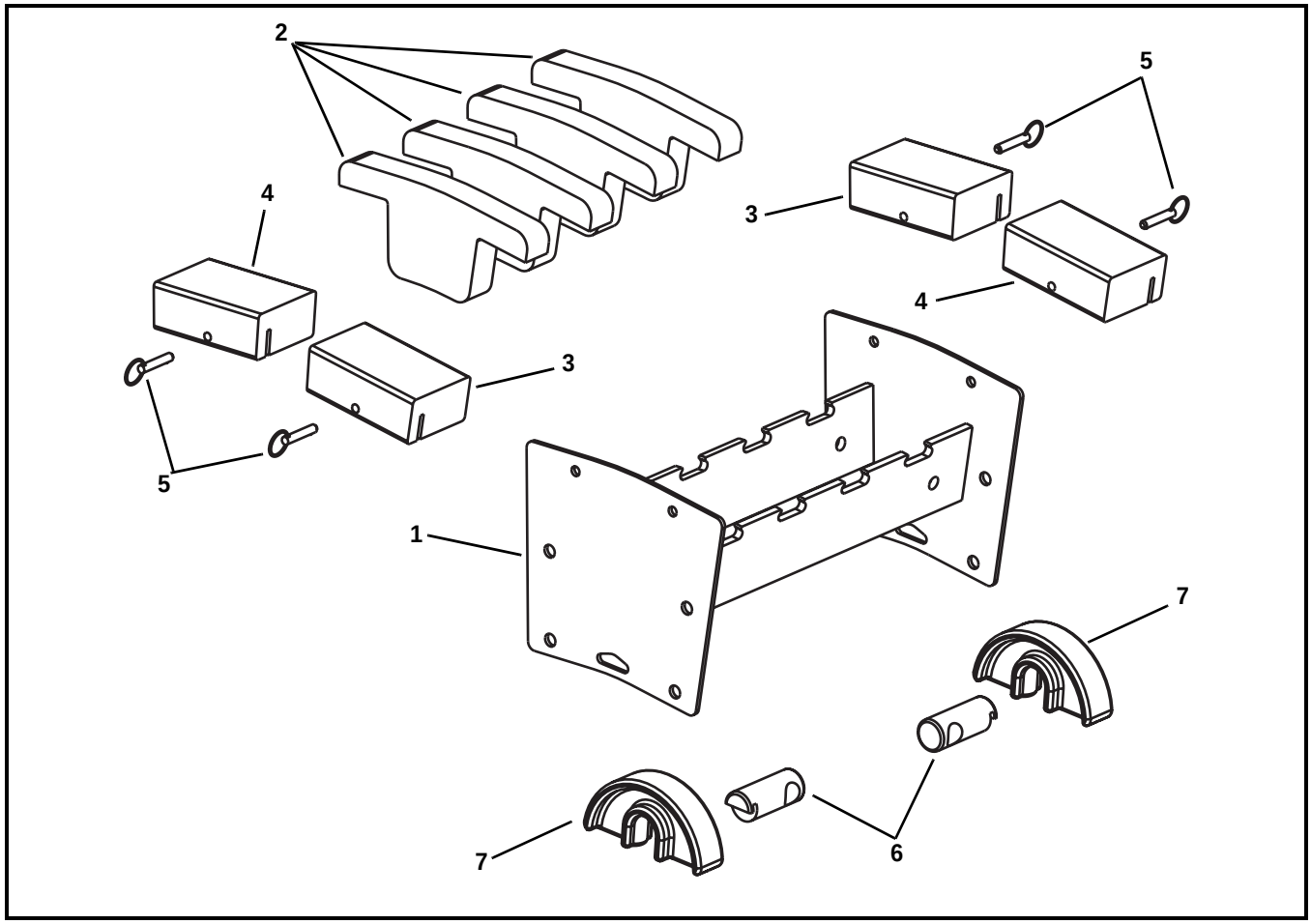


Item	Part Number	Description
1	807-1454	Bearing Cover
2	500079	Shaft Assembly with Bearing
3	5017WW	Flanged Puck, Idler Tail for Standard Belt
	5072WW	Flanged Puck, Idler Tail for Specialty Intralox Belt
4	500175	Idler Puck (for 8" - 60" wide conveyors only)
5	5007WW	Idler Shaft
6	5008WW	Bent Retaining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

Item	Part Number	Description
8	500675	Key Stop
9	5005WW	Tip Up Shaft Assembly
10	807-1469	Pull Pin
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: 06 - 60 in 02 increments		

Service Parts

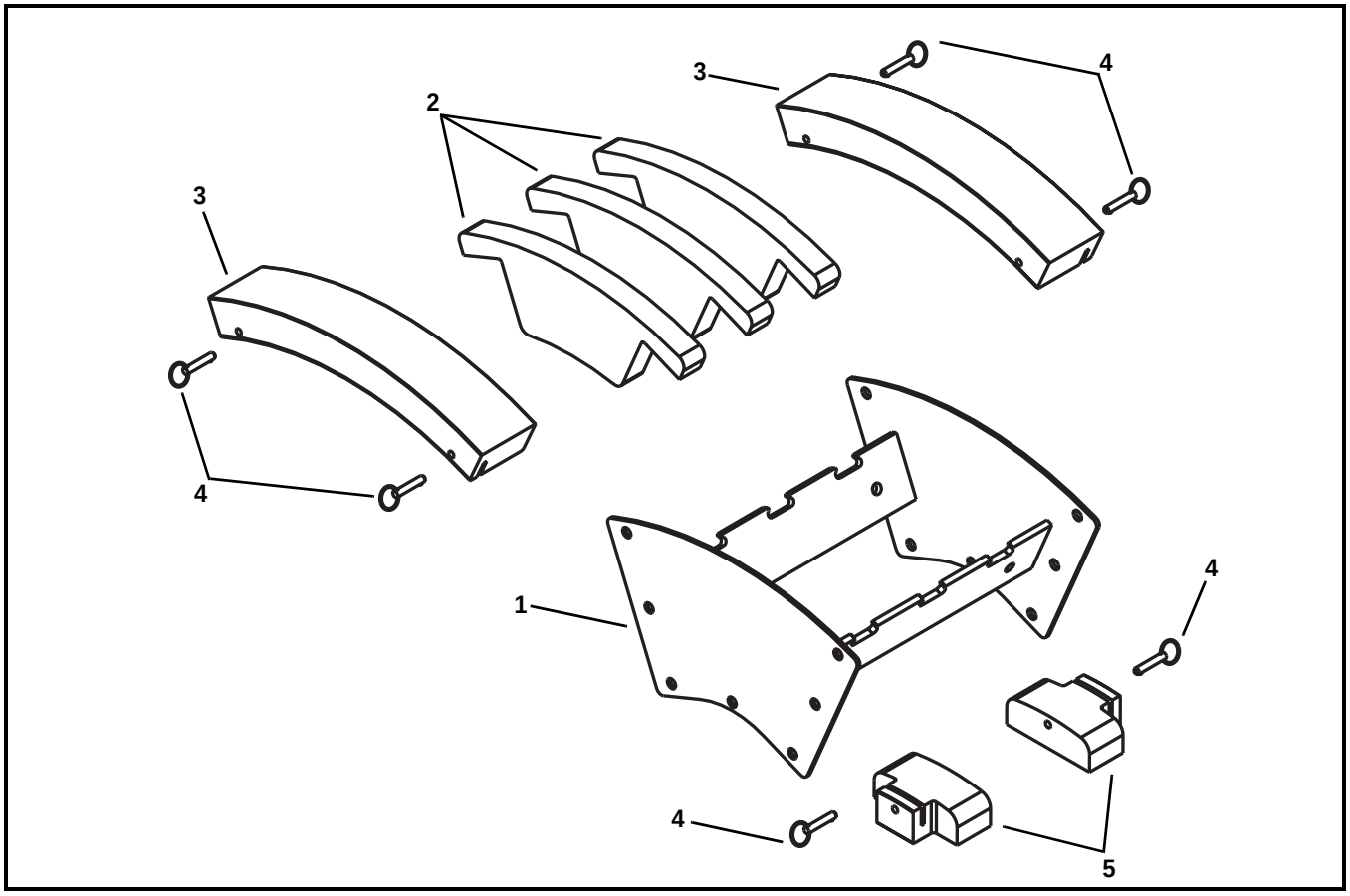
Upper Knuckle for 5° - 15°



Item	Part Number	Description
1	5224WW	Frame Assembly for 5° Knuckle
	5225WW	Frame Assembly for 10° Knuckle
	5226WW	Frame Assembly for 15° Knuckle
2	501695-AA	Wear Strips for 5° - 15° Knuckle
3	501893-AA	1.5" Hold Down Guide for 5° - 15° Knuckle Right Hand 6"-16" wide
	501685-AA	1.5" Hold Down Guide for 5° - 15° Knuckle Right Hand 18"-24" wide
	501883-AA	3" Hold Down Guide for 5° - 15° Knuckle Right Hand 6"-16" wide
	501684-AA	3" Hold Down Guide for 5° - 15° Knuckle Right Hand 18"-24" wide

Item	Part Number	Description
4	501699-AA	1.5" Hold Down Guide for 5° - 15° Knuckle Left Hand 6"-16" wide
	501687-AA	1.5" Hold Down Guide for 5° - 15° Knuckle Left Hand 18"-24" wide
	501698-AA	3" Hold Down Guide for 5° - 15° Knuckle Left Hand 6"-16" wide
	501686-AA	3" Hold Down Guide for 5° - 15° Knuckle Left Hand 18"-24" wide
5	807-1553	Pull Pin
6	500196	Return Shaft
7	500075	Return Shoe
WW = Conveyor width ref: 06 - 24 in 02 increments		
AA = Angle 05, 10 or 15		

Upper Knuckle for 30°

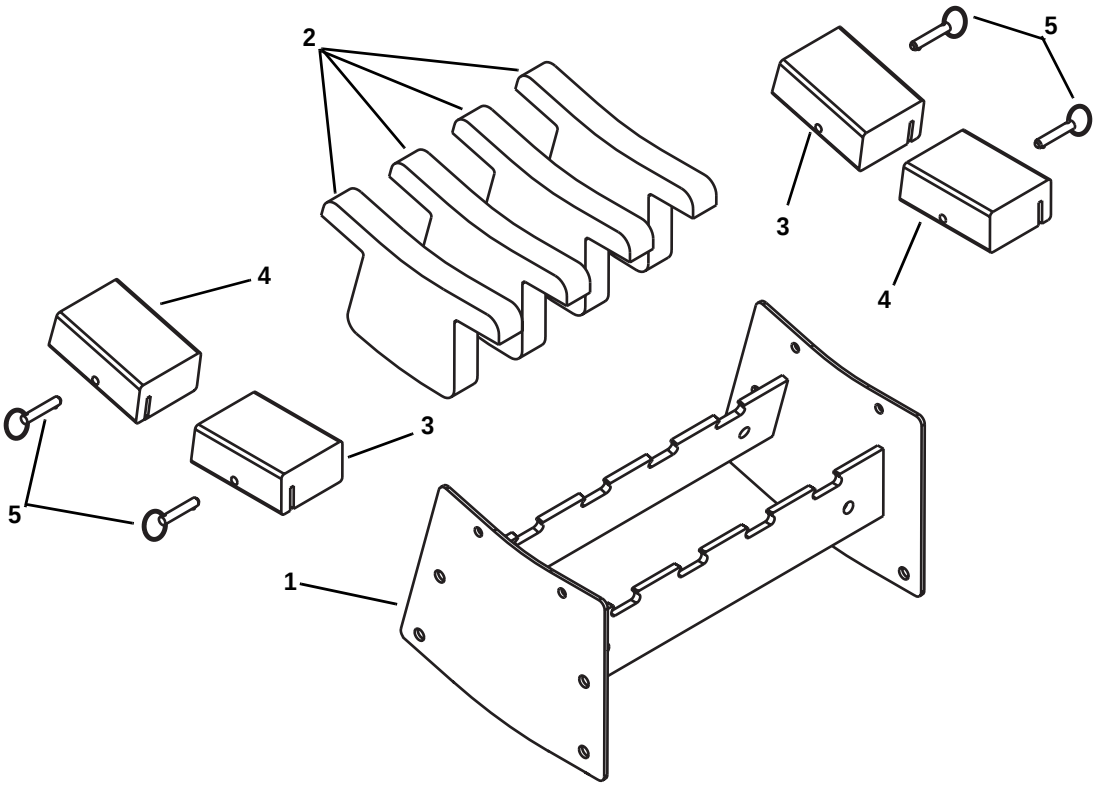


Item	Part Number	Description
1	5227WW	Frame Assembly for 30° Knuckle
2	501693-30	Wear Strips for 30° Knuckle
3	501697-30	1.5" Hold Down Guide for 30° Knuckle
	501879-30	3" Hold Down Guide for 30° Knuckle

Item	Part Number	Description
4	807-1553	Pull Pin
5	501683	Return Guide
WW = Conveyor width ref: 06 - 24 in 02 increments		

Service Parts

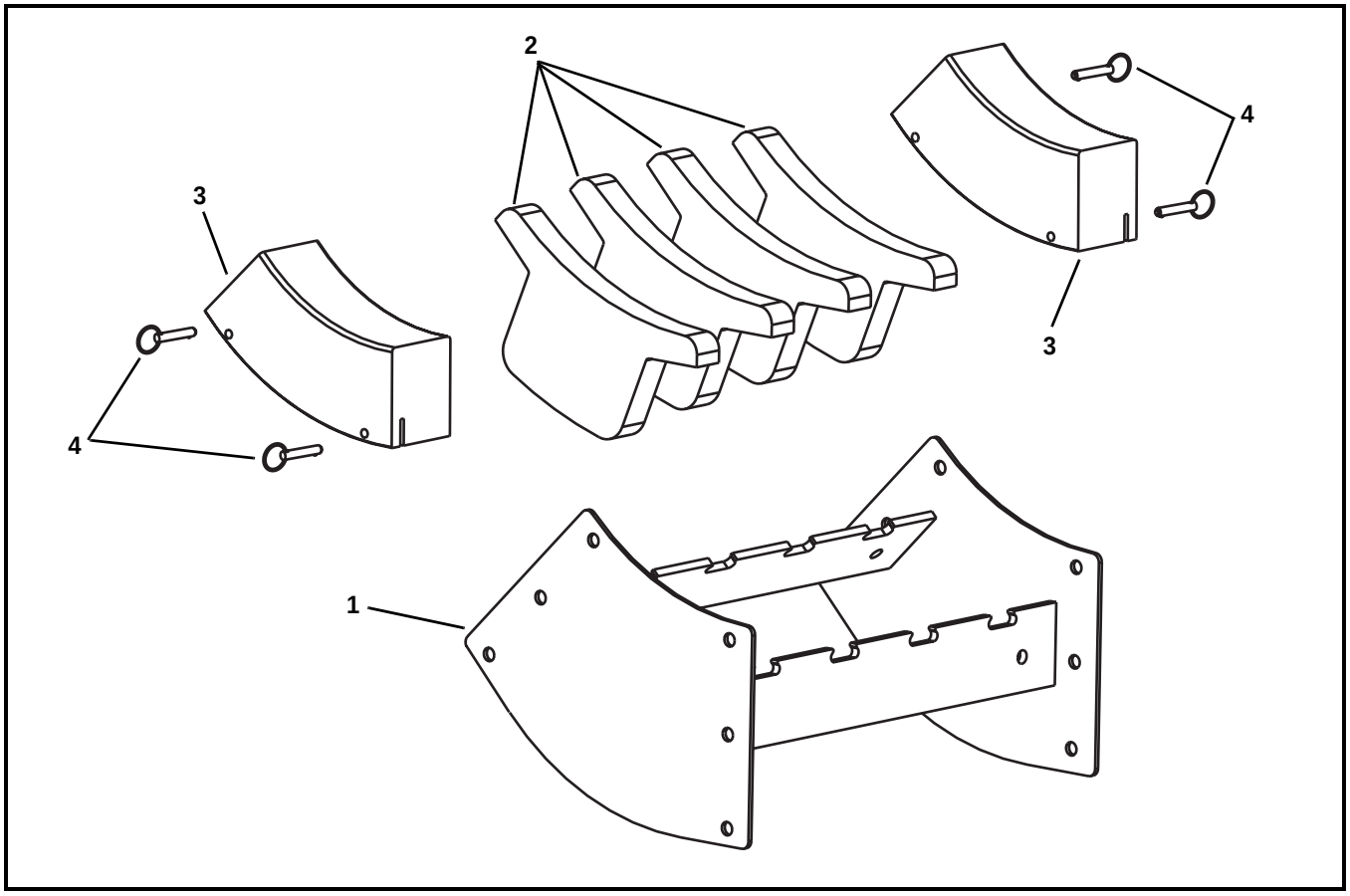
Lower Knuckle for 5° - 15°



Item	Part Number	Description
1	5218WW	Frame Assembly for 5° Knuckle
	5219WW	Frame Assembly for 10° Knuckle
	5220WW	Frame Assembly for 15° Knuckle
2	501694-AA	Wear Strips for 5° - 15° Knuckle
3	501993-AA	1.5" Hold Down Guide for 5° - 15° Knuckle Right Hand 6"-16" wide
	501987-AA	1.5" Hold Down Guide for 5° - 15° Knuckle Right Hand 18"-24" wide
	501992-AA	3" Hold Down Guide for 5° - 15° Knuckle Right Hand 6"-16" wide
	501986-AA	3" Hold Down Guide for 5° - 15° Knuckle Right Hand 18"-24" wide

Item	Part Number	Description
4	501991-AA	1.5" Hold Down Guide for 5° - 15° Knuckle Left Hand 6"-16" wide
	501989-AA	1.5" Hold Down Guide for 5° - 15° Knuckle Left Hand 18"-24" wide
	501990-AA	3" Hold Down Guide for 5° - 15° Knuckle Left Hand 6"-16" wide
	501988-AA	3" Hold Down Guide for 5° - 15° Knuckle Left Hand 18"-24" wide
5	807-1553	Pull Pin
WW = Conveyor width ref: 06 - 24 in 02 increments		
AA = Angle 05, 10 or 15		

Lower Knuckle for 30°

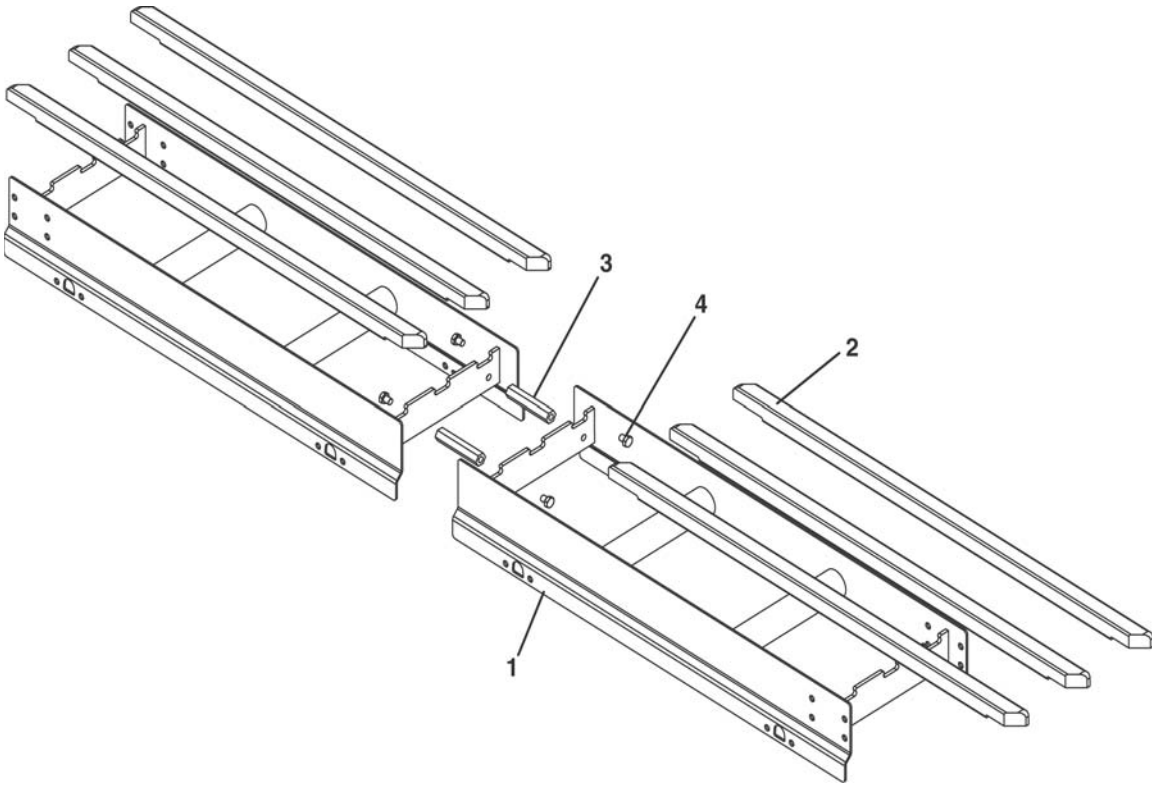


Item	Part Number	Description
1	5221WW	Frame Assembly for 30° Knuckle
2	501691-30	Wear Strips for 30° Knuckle

Item	Part Number	Description
3	501692-30	1.5" Hold Down Guide for 30° Knuckle
	501878-30	3" Hold Down Guide for 30° Knuckle
4	807-1553	Pull Pin
WW = Conveyor width ref: 06 - 24 in 02 increments		

Service Parts

Conveyor Frame and Extension



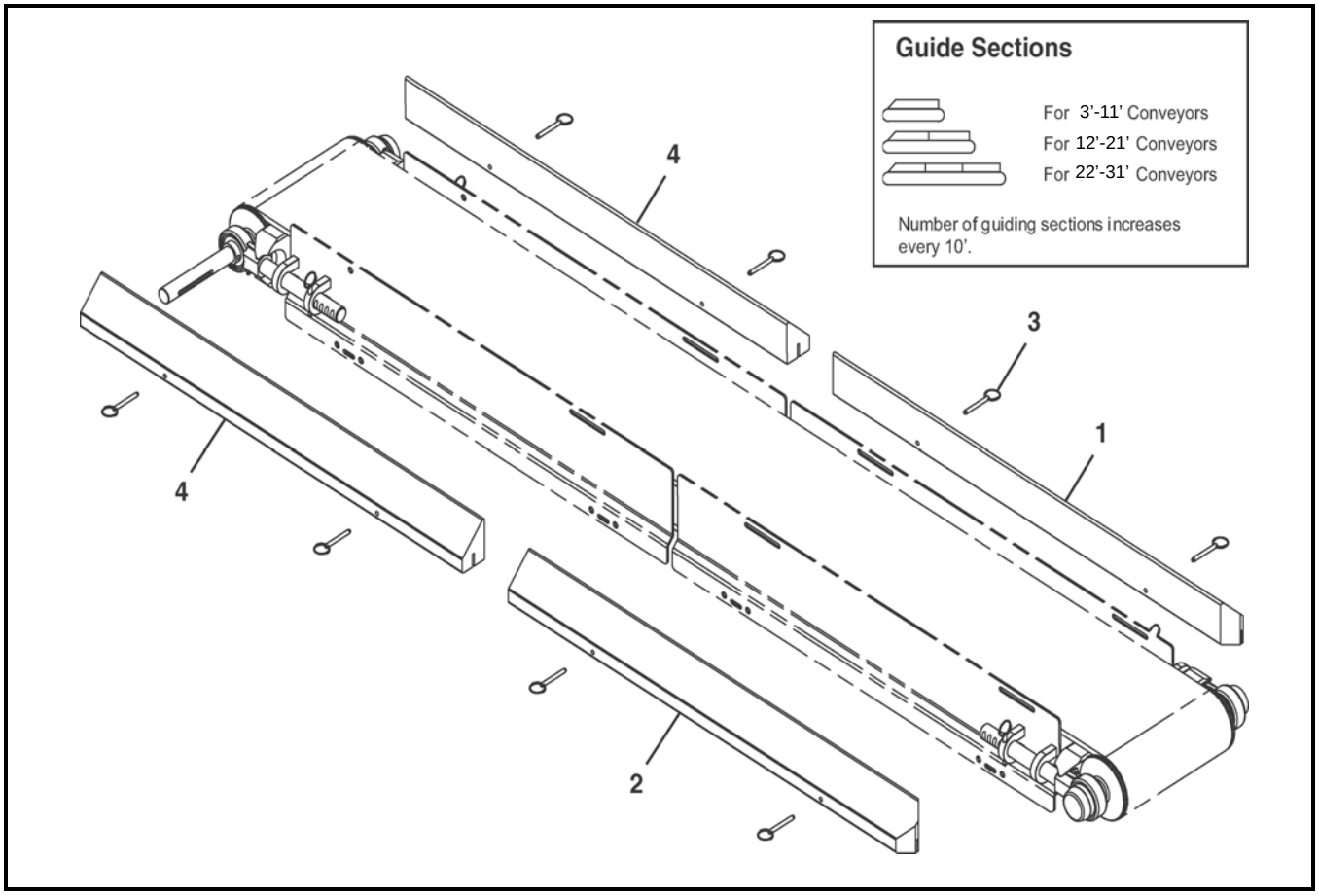
Item	Part Number	Description
1	------	Consult Factory for Frame Part Number
2	501800-LLL	Straight Wear Strip
3	500193	Hex Post Connector
4	961016MSS	Hex Head Cap Screw M10-1.5x16mm

LLL = Conveyor length ref: 036 - 999 in 001 increments

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

Wear Strip Quantity (Item 2)									
		Conveyor Length (LLL)							
		036-132	133-252	253-372	373-492	493-612	613-732	733-852	853-999
Conveyor Width (WW)	26	6	12	18	24	30	36	42	48
	28	6	12	18	24	30	36	42	48
	30	6	12	18	24	30	36	42	48
	32	7	14	21	28	35	42	49	56
	34	7	14	21	28	35	42	49	56
	36	8	16	24	32	40	48	56	64
	38	8	16	24	32	40	48	56	64
	40	8	16	24	32	40	48	56	64
	42	9	18	27	36	45	54	63	72
	44	9	18	27	36	45	54	63	72
	46	9	18	27	36	45	54	63	72
	48	10	20	30	40	50	60	70	80
	50	10	20	30	40	50	60	70	80
	52	11	22	33	44	55	66	77	88
	54	11	22	33	44	55	66	77	88
	56	11	22	33	44	55	66	77	88
	58	12	24	36	48	60	72	84	96
	60	12	24	36	48	60	72	84	96

3" (76 mm) High Sides

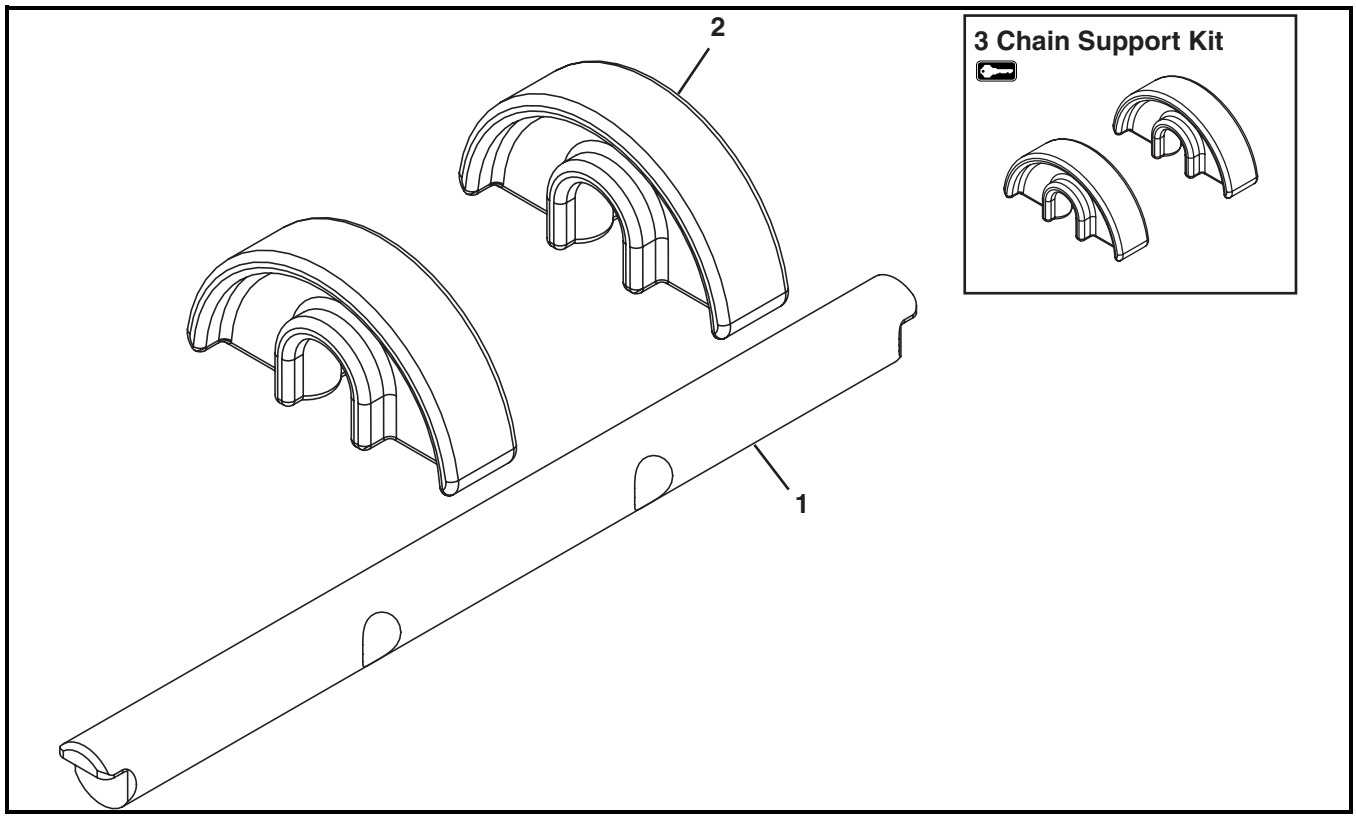


Item	Part Number	Description
1	503501-LLLLL	Right Hand High Side Guide
2	503601-LLLLL	Left Hand High Side Guide
3	807-1553	Pull Pin

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		

Service Parts

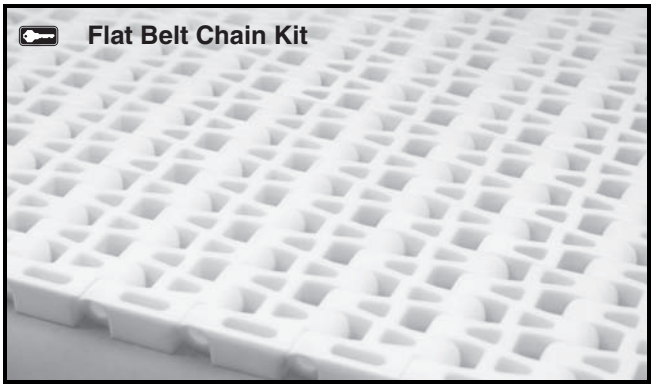
Flat Belt Returns



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

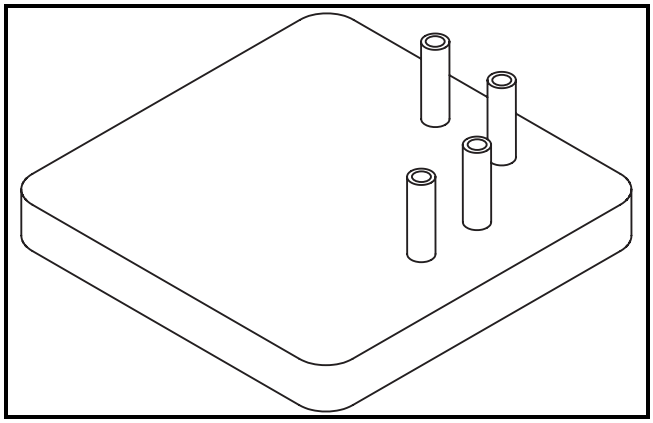
Item	Part Number	Description
3	74R-WW	Chain Support Kit (Includes Item 2)
WW = Conveyor width ref: 06 - 60 in 02 increments		

Flat Belt Chain Repair Kit



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

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: 06 - 60 in 02 increments

Configuring a Conveyor Part Number

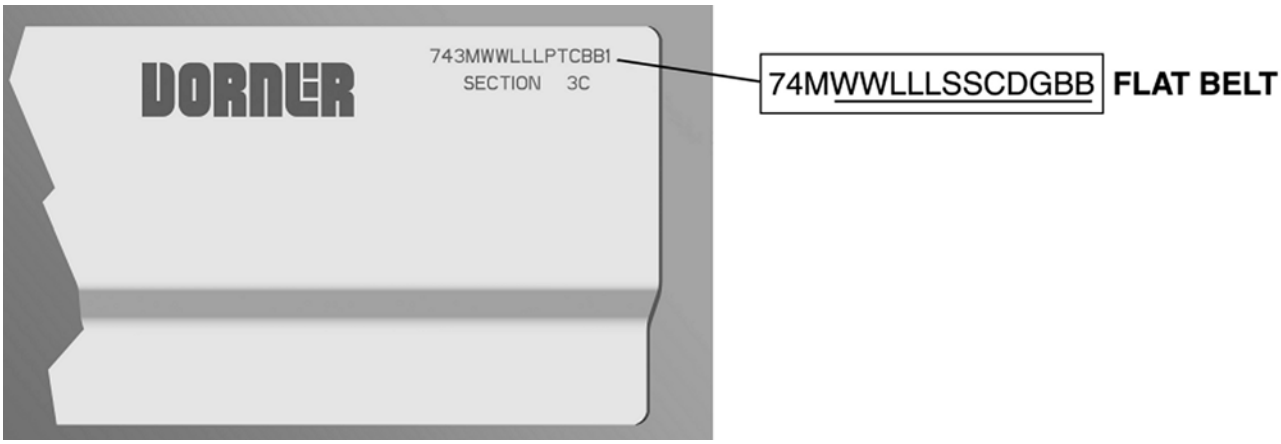


Figure 85

Flat Belt Conveyor

Refer to the model number on the conveyor frame **(Figure 85)**. From the model number, determine conveyor width (WW), length (LLL), drive stand location (S), idler stand location (S), cleaning options (C), drive/pulley type (D), profile (G) and belt material (BB).

Example:
74M12072CC1NA10

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

Return Policy

Returns must have prior written factory authorization or they will not be accepted. Items that are returned to Dorner without authorization will not be credited nor returned to the original sender. When calling for authorization, please have the following information ready for the Dorner factory representative or your local distributor:

1. Name and address of customer.
2. Dorner part number(s) of item(s) being returned.
3. Reason for return.
4. Customer's original order number used when ordering the item(s).
5. Dorner or distributor invoice number.

A representative will discuss action to be taken on the returned items and provide a Returned Goods Authorization number for reference.

There will be a return charge on all new undamaged items returned for credit where Dorner was not at fault. Dorner is not responsible for return freight on such items.

Conveyors and conveyor accessories

Standard catalog conveyors	30%
MPB Series, cleated and specialty belt conveyors	50%
7400 & 7600 Series conveyors	non-returnable items
Engineered special products	case by case
Drives and accessories	30%
Sanitary stand supports	non-returnable items

Parts

Standard stock parts	30%
MPB, cleated and specialty belts	non-returnable items

Returns will not be accepted after 60 days from original invoice date.

The return charge covers inspection, cleaning, disassembly, disposal and reissuing of components to inventory.

If a replacement is needed prior to evaluation of returned item, a purchase order must be issued. Credit (if any) is issued only after return and evaluation is complete.

Dorner has representatives throughout the world. Contact Dorner for the name of your local representative. Our Technical Sales, Catalog Sales and Service Teams will gladly help with your questions on Dorner products.

For a copy of Dorner's Warranty, contact factory, distributor, service center or visit our website at www.dorner.com.

For replacement parts, contact an authorized Dorner Service Center or the factory.

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