



7400 Series Curved Nose Bar Conveyors

Installation, Maintenance and Parts Manual



DORNER MFG. CORP. P.O. Box 20 • 975 Cottonwood Ave. Hartland, WI 53029-0020 USA INSIDE THE USA TEL: 1-800-397-8664 FAX: 1-800-369-2440 OUTSIDE THE USA TEL: 262-367-7600 FAX: 262-367-5827

For other service manuals visit our website at: www.dorner.com/service_manuals.asp

Table of Contents

Introduction	2
Warnings - General Safety	3
Product Description	4
Specifications	
Specifications	
Conveyor Supports	5
7400 Series Frame Section Numbers	-
Straight Infeed / Idler Module	
Straight Intermediate Module	5
Curve Module	5
Straight Exit / Drive Module	5
Installation	
Required Tools	
Recommended Installation Sequence	
Conveyor Installation	
Frame Section Connection	6
Stand Installation	
Tail Assembly Installation	8
Lifter Installation	11
	11
	11
	12
	13
	13
	15
	15
	16
	16
	16
	16
e	16
	16
	17
	17
	17
	17
	17
	17
	17
	18
	18
	18
	19

~	
Specialty Intralox 2400 Series Belts	19
Replacing a Section of Belt	19
Replacing the Entire Belt	19
Conveyor Belt Tensioning	
Sprocket and Puck Removal	20
A - Drive Sprocket Removal	$\overline{20}$
B - Idler Puck Removal	$\frac{1}{22}$
C - Nose Bar Puck Removal	
Reassembling Tail Assemblies	
Nose Bar Idler	$\frac{23}{22}$
Idler Tail	24
Drive Tail Assembly	24
Bearing Replacement	25
Service Parts	
Nose Bar Drive End Components	26
Tension End Components	28
Nose Bar Tension End	29
Curve Conveyor Frame and Wear Strips	30
Straight Conveyor Frame and Wear Strips	32
Conveyor Frame Connection	33
Lifters	34
Mounting Block	
3" (76 mm) High Sides	35
Adjustable Guiding	36
Adjustable Guiding Tool-Less Adjustable Guiding	37
Hingad Cuidas	20
Hinged Guides	20
Adjustable Hinged Guides	39
Tool-Less Adjustable Hinged Guides	40
Straight Belt Return	
Curve Belt Return	41
Opposed (Thru Beam) Photo Eye Mount	42
Reflective Photo Eye Mount	42
Reflective Photo Eye Kit	
Curve Belt Chain Kit	44
Belt Removal Tool	
Ordering a Replacement Chain	44
Configuring a Conveyor Part Number	45
Curve Conveyor	45
Straight Infeed / Idler Module	45
Straight Intermediate Module	45
Curve Module	45
Straight Exit / Drive Module	45
Return Policy	46
Keturii I oney	ŦU

Introduction

CAUTION

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

Upon receipt of shipment:

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

The Dorner Limited Warranty applies.

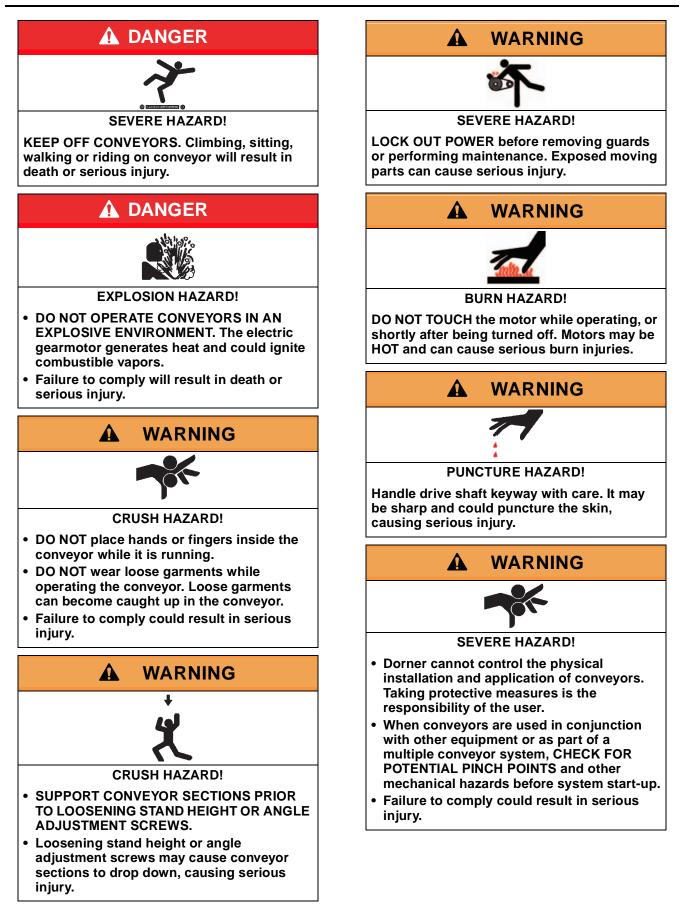
Dorner 7400 Series conveyors have patents pending.

Dorner reserves the right to make changes at any time without notice or obligation.

Dorner has convenient, pre-configured kits of Key Service Parts for all conveyor products. These time saving kits are easy to order, designed for fast installation, and guarantee you will have what you need when you need it. Key Parts and Kits are marked in the Service Parts section of this manual with the Performance Parts Kits logo

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

Warnings – General Safety



Product Description

Refer to (Figure 1) for typical conveyor components.

Typical Components

- Conveyor
 Gearmotor
 Belt
 Return
 Support Stands
 Mature Controlling
- 6 Motor Controller
- 7 Drive End
- 8 Tension End



Specifications

Specifications

Conveyor Width Reference (WW)	08 – 36 in 02 increments			
Maximum Conveyor Load	20 lb / ft ² (97 kg / m ²) with a maximum of 1000 lb / ft ² (4882 kg / m ²)			
Belt Travel	12" (305 mm) per revolution of pulley			
Belt Take-up	2" (51 mm)			
Conveyor Length Reference (LLL)	020 – 999 in 001 increments			
Conveyor Length	20" (508 mm) – 999" (25.4 m) in 1" (25 mm) increments			
IMPORTANT				

Maximum conveyor loads are based on:

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

Specifications

Conveyor Supports

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

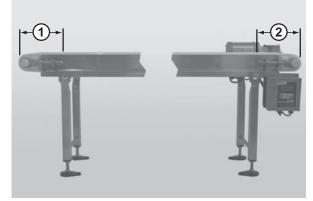
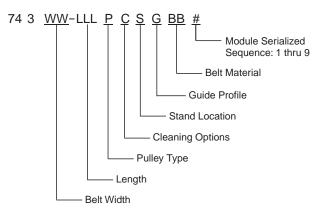


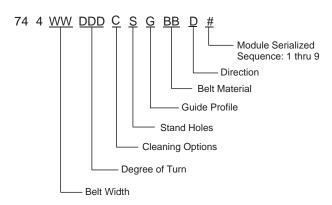
Figure 2

7400 Series Frame Section Numbers

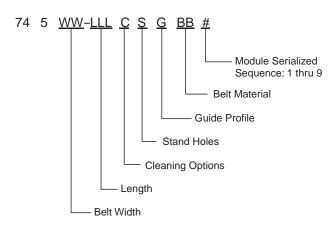
Straight Infeed / Idler Module



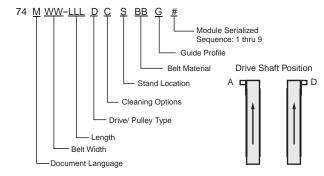
Curve Module



Straight Intermediate Module



Straight Exit / Drive Module



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.

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 11.
- 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 11.
- Attach the belt returns. Refer to "Belt Return Installation – Straight Frame Sections" on page 15.
- 8. Install the belt. Refer to "Belt Installation" on page 13.

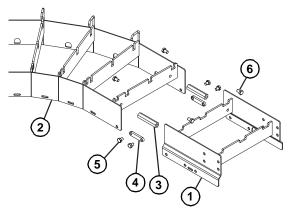
9. Attach any guides / accessories. Refer to the "Service Parts" section starting on page 26.

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.





1. Locate and arrange conveyor sections by section labels (Figure 5, item 1).

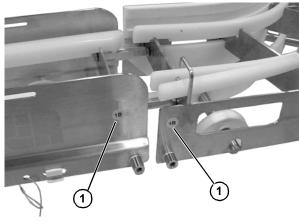


Figure 5

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

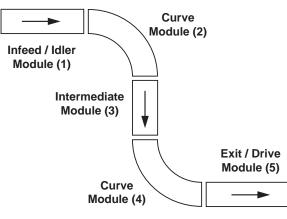
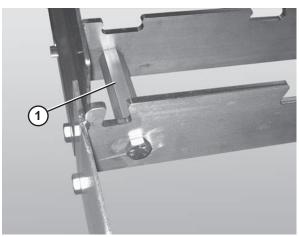


Figure 6

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





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

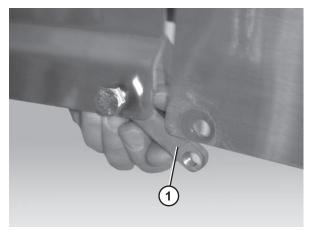


Figure 8

Stand Installation

Typical Stand Components (Figure 9)

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

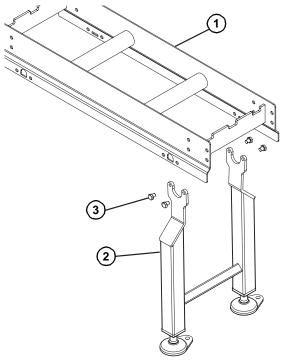


Figure 9

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

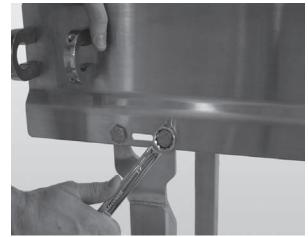


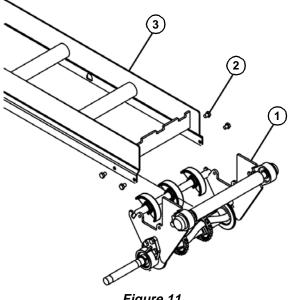
Figure 10

Tail Assembly Installation

Nose Bar Drive Tail

Typical Nose Bar Drive Tail Components (Figure 11)

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



- Figure 11
- 1. Bolt the nose bar drive tail assembly to the conveyor frame (Figure 12).

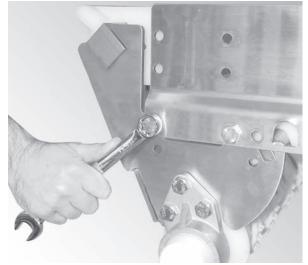


Figure 12

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

Tip Up Assembly

Typical Tip Up Assembly Components (Figure 13)

- 1 Hex Bar
- 2 Stop Key (x2)
- 3 Tip Up Sleeve (x2)

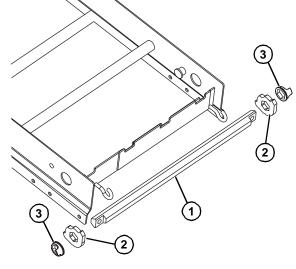


Figure 13

 Slide stop keys (Figure 14, item 1) and tip up sleeves (Figure 14, item 2) onto hex shaft (Figure 14, item 3). The tabs on the tip up sleeves face outward and align with the slotted ends of the hex shaft as shown.

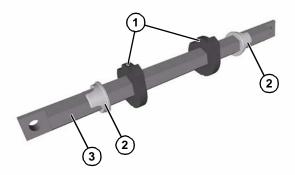


Figure 14

2. Place hex shaft assembly (**Figure 15, item 1**) through the conveyor frame tip up holes (**Figure 15, item 2**) and center with conveyor.

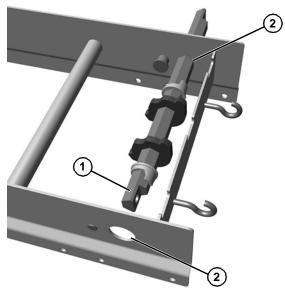


Figure 15

3. Hex shaft assembly will need to be rotated (Figure 16) for stop keys (Figure 16, item 1) to pass by the frame stops (Figure 16, item 2).

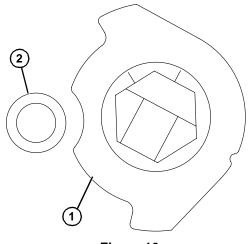
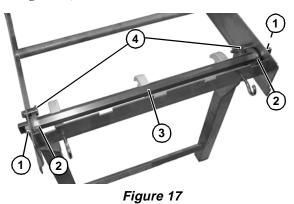


Figure 16

 Slide the tip up sleeves (Figure 17, item 1) and stop keys (Figure 17, item 2) outward on hex shaft assembly (Figure 17, item 3) until the sleeves seat in the holes of the frame and stop keys are seated against frame stops (Figure 17, item 4).



Nose Bar Idler Tail

Typical Nose Bar Idler Tail Components (Figure 18)

- 1 Nose bar idler tail assembly
- 2 Bolt (x2)
- 3 Conveyor frame

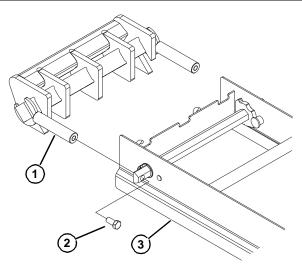


Figure 18

Place the nose bar idler shafts (Figure 19, item 1) against the holes in the hex shaft assembly (Figure 19, item 2) and secure each with a bolt (Figure 19, item 3).

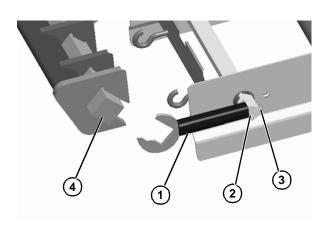


Figure 19

- 2. Attach the nose bar transfer post (Figure 19, item 4) to the nose bar idler shafts.
- 3. Ensure that the nose bar pucks (Figure 20, item 1) are in line with the conveyor frame (Figure 20, item 2).

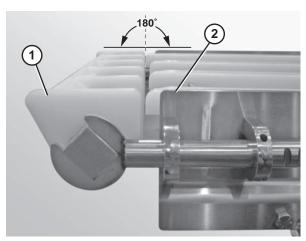


Figure 20

Idler Tail

Typical Idler Tail Components (Figure 21)

- 1 Conveyor Frame
- 2 Bolt (x2)
- 3 Idler tail assembly

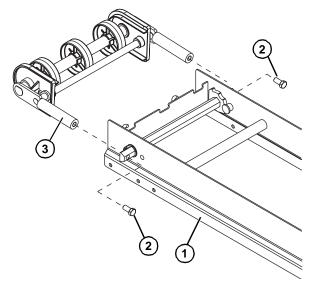
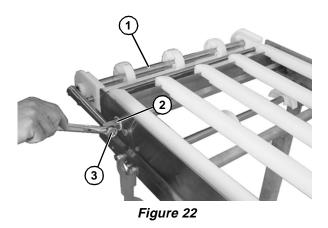


Figure 21

A CAUTION

To avoid injury and damage to parts, have an assistant hold opposite end of idler tail when removing or installing it.

 Place the idler tail assembly (Figure 22, item 1) against the holes in the tip up hex shaft assembly (Figure 22, item 2) and secure with a bolt (Figure 22, item 3) on each side.



Lifter Installation

Typical Lifter Components (Figure 23)

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

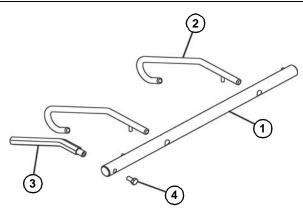


Figure 23

1. Slide the belt lift pivot bar (**Figure 24, item 1**) through the designated holes in the frame.

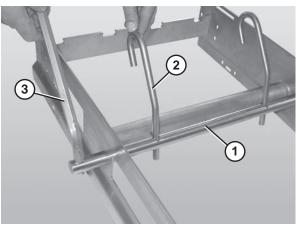


Figure 24

- 2. Attach the lifter bars (**Figure 24, item 2**) to the belt lift pivot bar (**Figure 24, 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 24, item 3**) to the belt lift pivot rod.

Wear Strip Installation

Straight Frame Sections

Typical Wear Strip Components (Figure 25)

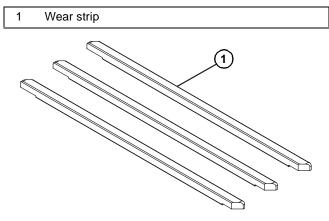


Figure 25

1. Position the wear strips (Figure 26, item 1) on the frame.

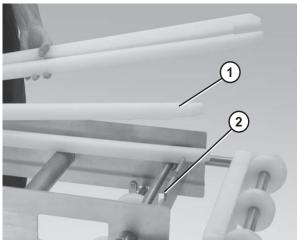


Figure 26

2. Make sure the wear strips are situated securely in the frame slots (**Figure 26**, **item 2**).

Curved Frame Sections

Typical Curved Wear Strip Components (Figure 27)

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

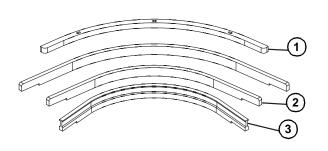


Figure 27

1. Insert inside curve top wear strip (**Figure 28, item 1**) into the innermost slot (**Figure 28, item 2**) on the inside of the frame.

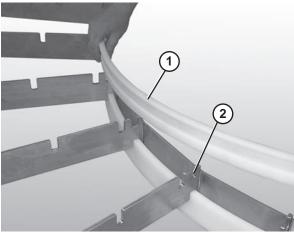
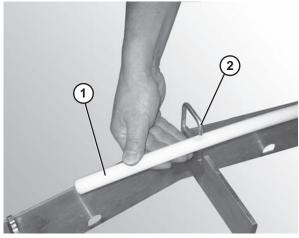


Figure 28

2. Attach the hold down wear strip (Figure 29, item 1) to the frame hooks (Figure 29, item 2) on the outside of the frame.





3. Insert the wear strips (**Figure 30, item 1**) into the appropriate slots in the frame (**Figure 30, item 2**), starting with the shortest wear strip on the inside of the curved section and working outward to the longest.

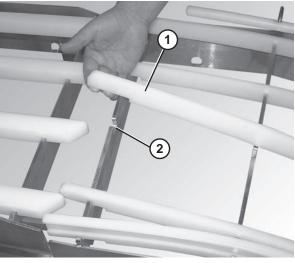


Figure 30

Belt Return Installation – Curved Frame Sections

Typical Curved Belt Return Components (Figure 31)

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

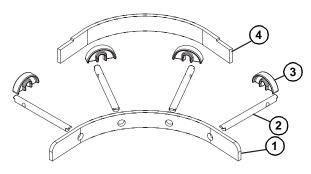


Figure 31

 Insert the inside return bottom wear strip (Figure 32, item 1) into the slots (Figure 32, item 2) on the lower inside section of the frame (figure shown without the belt or wear strips).

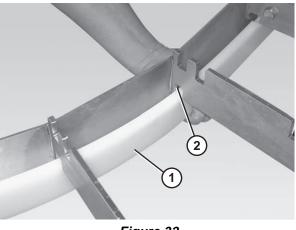
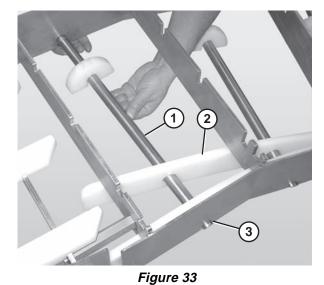


Figure 32

2. Attach the chain return shoes (Figure 32, item 1) to the curve return shafts (Figure 32, item 2).

3. Slide the long end of the curve return shaft (Figure 33, item 1) through the center hole in the return bottom wear strip (Figure 33, item 2).



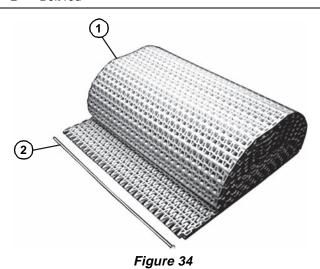
4. Slide the return shaft up and through the large slot in the frame. Make sure the holes in the return bottom wear strip match up with the holes in the conveyor frame.

- 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 33, item 3**).
- 6. Repeat steps 4-5 with the remaining returns.

Belt Installation

Typical Belt Components (Figure 34)

- 1 Chain belt
- 2 Belt rod



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



Figure 35

 Orient the belt direction such that the pin heads (Figure 36, item 1) are on the outside of the belt radius (Figure 36, item 2). The straight portion on the pin (Figure 36, item 3) will be on the inside radius.

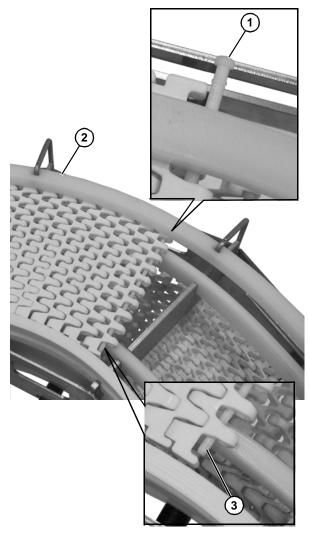


Figure 36

NOTE

For "S" shaped conveyors, the pin heads must be oriented on the outside of the belt radius on the exiting or last curve on the conveyor.

- 3. Wrap the belt around the conveyor, making sure the sprocket teeth have engaged the belt.
- 4. Feed the ends of the belt through the top and bottom of the curved frame sections.
- 5. Bring the ends of the belt together (Figure 37).



Figure 37

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

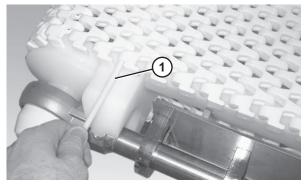
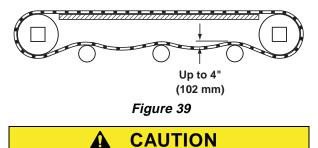


Figure 38

- 7. Push the belt rod in as far as possible.
- 8. Lightly tap the head of the rod with a hammer until it snaps into position.
- 9. Check belt sag by measuring from the top of the return (Figure 39).



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

7400 Series Curved Nose Bar Conveyors

Belt Return Installation – Straight Frame Sections

Typical Belt Return Components (Figure 40)

- 1 Return shaft
- 2 Chain return shoe

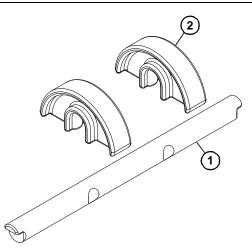
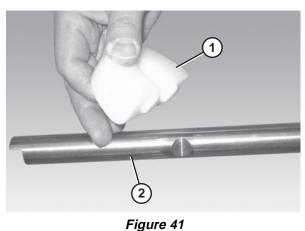


Figure 40

1. Attach the chain return shoes (Figure 41, item 1) to the return shaft (Figure 41, item 2).



Slide the return shaft (Figure 42, item 1) up and through the large slot (Figure 42, item 2) in the frame (picture shown without the belt or wear strips).

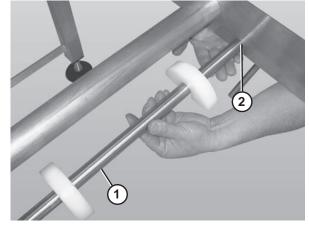


Figure 42

- 3. Push up on the return shaft (**Figure 42, item 1**) and slide the notched end of the shaft through the small slot on the opposite side of the frame.
- 4. See Step 8 of Belt Installation to check for proper belt sag.

Mounting Block Installation

- 1. Clamp mounting block (Figure 43, item 1) to frame (Figure 43, item 2).
- 2. Tighten bolt to 20 in-lb (2 Nm) to secure (Figure 43, item 3).

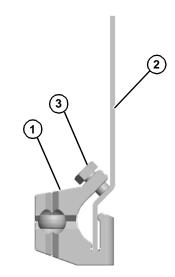


Figure 43



Required Tools

- 17 mm wrench (or adjustable wrench)
- 1/8" 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 26 for recommendations.
- Replace any worn or damaged parts.

Cleaning

NOTE

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

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



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

 Remove the guides, if applicable, by removing the pull pins (Figure 44, item 1) that connect the guide (Figure 44, item 2) to the frame.

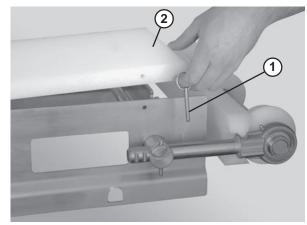


Figure 44

2. Use the lifter handle (Figure 45, item 1) to raise the lifters (Figure 45, item 2) and raise the tip up tail (Figure 45, item 3).

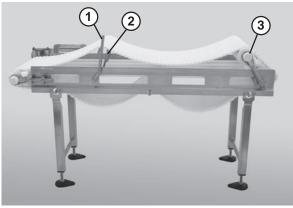


Figure 45

3. Lift up on the belt (Figure 46).

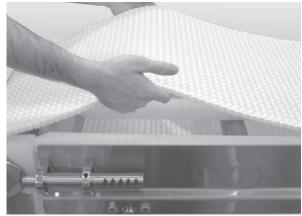


Figure 46

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 17.
- Refer to "Sprocket and Puck Removal" on page 20.
- Refer to "Reassembling Tail Assemblies" on page 23.

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 regreasing will increase with the frequency of conveyor washing.

 Add grease to the bearing using the zerk fitting (Figure 47, item 1) on the exterior of the bearing shaft assembly.



Figure 47

2. Replace the bearings if they become worn.

Wear Strips and Belt Returns

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

For wear strip and belt return installation instructions:

- Refer to "Wear Strip Installation" on page 11.
- Refer to "Belt Return Installation Straight Frame Sections" on page 15.

Maintaining the Conveyor Belt

Troubleshooting

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:

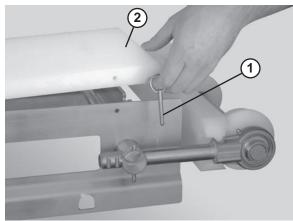
- Excessive load on belt
- Worn sprockets or impacted dirt on drive pulley
- Damage to belt links or rods indicate:
- Excessive load on belt
- · Dirt impacted on sprockets
- · Excessive or improper side loading
- Improperly positioned accessories

Conveyor Belt Replacement



Conveyors with Guides

1. Remove the pull pins (Figure 48, item 1) that connect the guide (Figure 48, item 2) to the frame.





2. Remove the guide (Figure 49, item 1).

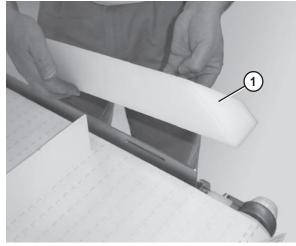


Figure 49

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

Standard Belts

Replacing a Section of Belt

Secure the retaining head side of the belt prior to removing a belt rod in order to prevent damaging the belt. 1. Secure the retaining head side of the belt. Use the belt removal tool (**Figure 50, 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 50, item 2**).

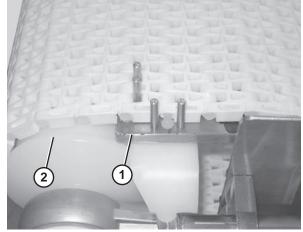


Figure 50

2. Use a punch and hammer to push the belt rod out by striking the rod end opposite the retaining head (**Figure 51**).





- 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.

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

Replacing the Entire Belt

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

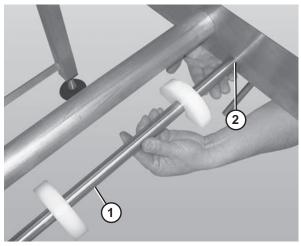


Figure 52

- 2. Lower the opposite end of the return shaft (Figure 52, item 1) and slide it out of the frame.
- 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 13 and "Belt Return Installation" on page 15.

Specialty Intralox 2400 Series Belts

Replacing a Section of Belt



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

 Use a punch and hammer to push the belt rod out by striking the rod end opposite the retaining head (Figure 53, item 1).

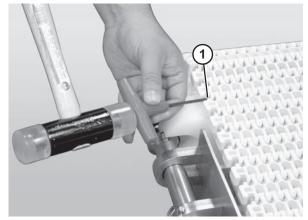


Figure 53

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

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 54, item 1**) and sliding it through the large hole (**Figure 54, item 2**) in the frame.

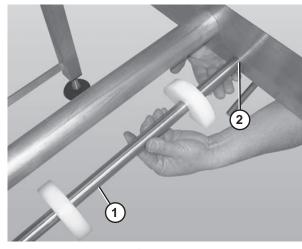
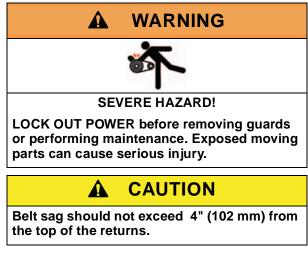


Figure 54

- 2. Lower the opposite end of the return shaft (**Figure 54, item 1**) and slide it out of the frame.
- Follow steps 1 3 in "Specialty Intralox 2400 Series Belts: Replacing a Section of Belt" on page 18.
- 4. Remove the belt.
- 5. Replace the damaged or worn belt. Refer to "Belt Installation" on page 13, and "Belt Return Installation" on page 15.

Conveyor Belt Tensioning



- 1. Check belt for proper sag. Refer to step 7 of "Belt Installation" on page 13.
- 2. If belt has excessive sag, 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



- 1. Remove the conveyor belt to access the sprockets / pucks. Refer to "Conveyor Belt Replacement" starting on page 17.
- 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



1. Loosen the fasteners (Figure 55, item 1) that connect the gearmotor to the drive spindle using a hex wrench (Figure 55, item 2).

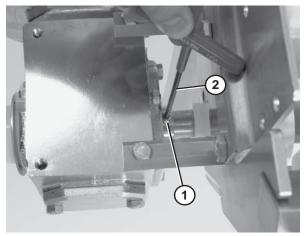


Figure 55

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

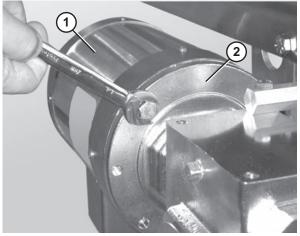


Figure 56

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

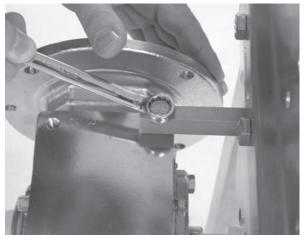


Figure 57

- 5. Remove the bearing cover.
- Loosen the 3 hole flange (Figure 58, item 1) with bearing fasteners using a hex wrench (Figure 58, item 2).

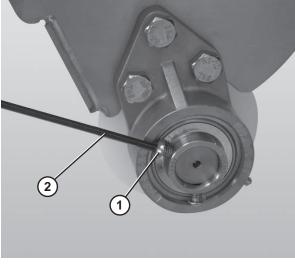


Figure 58

 Disconnect the 3 hole flange bearing (Figure 59, item 1) from the nose bar drive weldment (Figure 59, item 2).

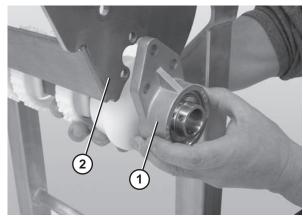


Figure 59

- 8. Lower the entire drive assembly.
- 9. Slide the 3 hole flange with bearing (**Figure 60, item 1**) and flanged puck (**Figure 60, item 2**) off the drive spindle.

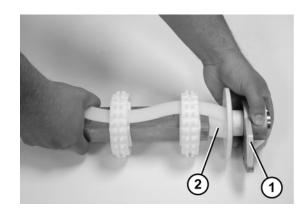
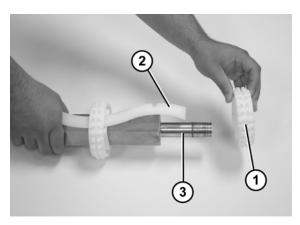


Figure 60

 Slide the sprockets (Figure 61, item 1) and the sprocket alignment bar (Figure 61, item 2) off the drive spindle (Figure 61, item 3).





B - Idler Puck Removal

1. Remove bolt (**Figure 62, item 1**) from each side, and remove idler tail assembly (**Figure 62, item 2**) from take up blocks (**Figure 62, item 3**).

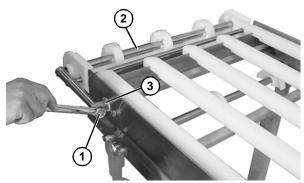


Figure 62

2. Remove the bearing end rod (Figure 63, item 1) from idler shaft (Figure 63, item 2) and pinch guard shaft (Figure 63, item 3).

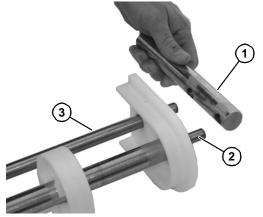


Figure 63

 Remove pinch guard (Figure 64, item 1) from idler shaft (Figure 64, item 2) and pinch guard shaft (Figure 64, item 3).

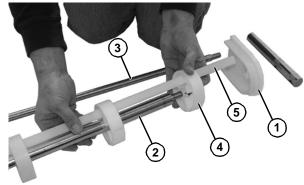


Figure 64

 Slide the pucks (Figure 64, item 4) and alignment bar (Figure 64, item 5) off the idler shaft (Figure 64, item 2).

C - Nose Bar Puck Removal

 Slide the nose bar drive or transfer post (Figure 65, item 1) out of the nose bar drive weldment or idler hands (Figure 65, item 2).

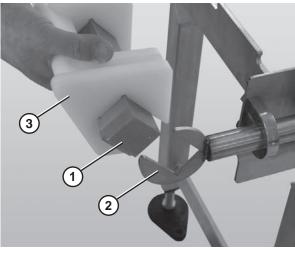


Figure 65

2. Remove the nose bar tracking pucks (Figure 65, item 3), if applicable.

3. Remove the nose bar wear strip (Figure 66, item 3).

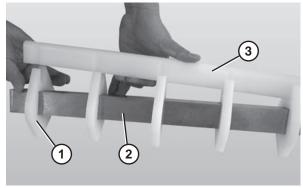


Figure 66

4. Slide the nose bar pucks (**Figure 66, item 1**) off the nose bar shaft (**Figure 66, item 2**).

Reassembling Tail Assemblies

Refer to the "Service Parts" section starting on page 26 for complete diagrams and lists of all tail assembly components.

Nose Bar Idler

1. Slide the nose bar pucks (Figure 67, item 1) onto the nose bar drive post (Figure 67, item 2).

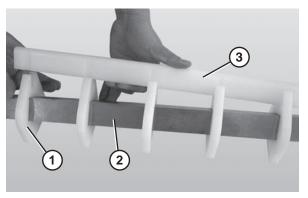


Figure 67

2. Attach the nose bar wear strip (Figure 67, item 3).

3. Attach the nose bar tracking pucks (Figure 68, item 1) to the nose bar drive post (Figure 68, item 2).

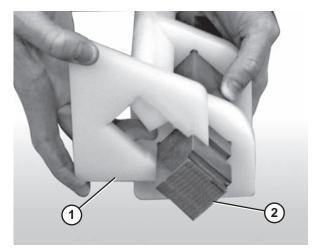


Figure 68

 After all tracking pucks (Figure 69, item 3) are installed, slide the nose bar drive or transfer post (Figure 69, item 1) into of the nose bar drive weldment or idler hands (Figure 69, item 2).

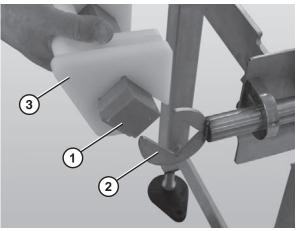


Figure 69

Idler Tail

 Place the pucks (Figure 70, item 1) into the slots (Figure 70, item 2) of alignment bar (Figure 70, item 3).

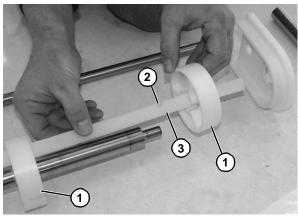


Figure 70

2. Slide all the idler pucks (**Figure 71, item 1**) along with alignment bar onto idler shaft (**Figure 71, item 2**).

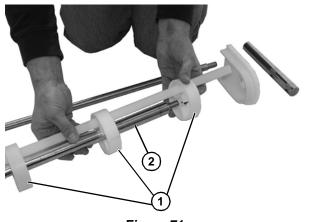


Figure 71

3. Install the pinch guard (Figure 72, item 1) to each side onto idler shaft (Figure 72, item 2) and pinch guard shaft (Figure 72, item 3).

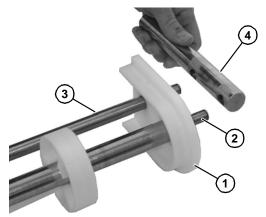


Figure 72

4. Install the bearing end rod (Figure 72, item 4) onto idler shaft (Figure 72, item 2) and rod (Figure 72, item 3).

Drive Tail Assembly

1. Slide the first sprocket (**Figure 73, item 1**) onto the drive spindle (**Figure 73, item 2**).

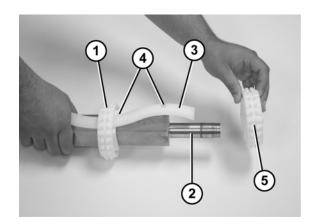


Figure 73

- 2. Insert the sprocket alignment bar (**Figure 73, item 3**) into the first sprocket and align the sprocket with the notch (**Figure 73, item 4**) in the sprocket alignment bar.
- 3. Slide the remaining sprockets (Figure 73, item 5) onto drive spindle and align each sprocket with the notches (Figure 73, item 4) in the sprocket alignment bar.
- 4. Attach the flanged pucks (Figure 74, item 1) and the 3 hole flange with bearing (Figure 74, item 2) to the drive spindle.

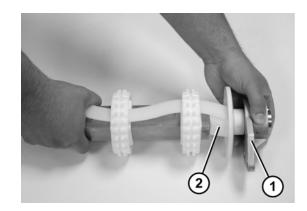
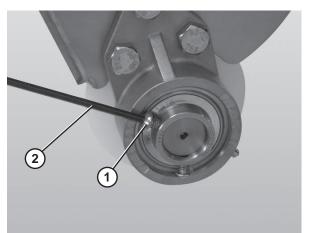


Figure 74

5. Tighten the 3 hole flange with bearing fasteners (Figure 75, item 1) using a hex wrench (Figure 75, item 2) to 54 in•lbs (6 N•m). Check after 24 hours of conveyor use.



4. Remove the worn or damaged bearing (Figure 77).

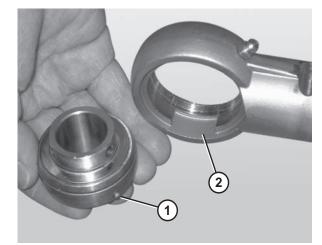


Figure 77

5. Replace the bearing.

Figure 75

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 76**).

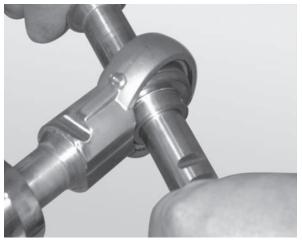


Figure 76

3. Apply lateral pressure to the rod until the bearing comes loose.

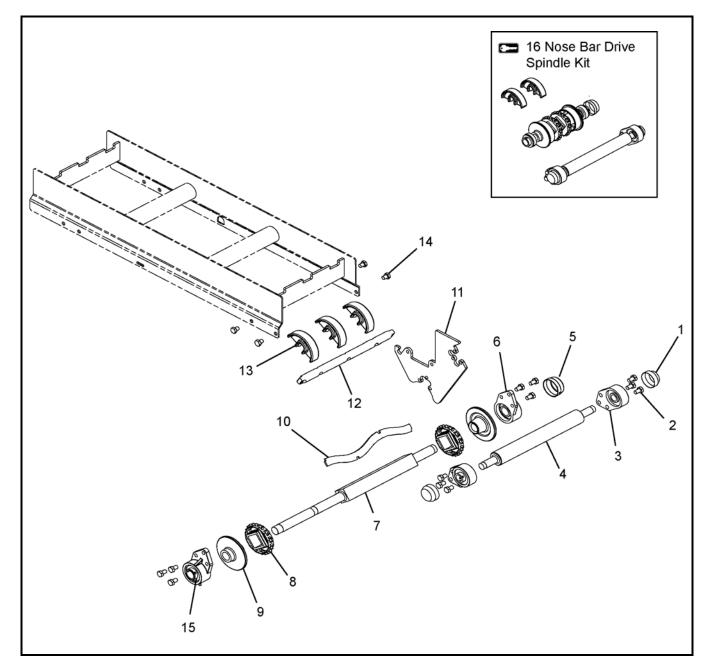
NOTE

When inserting the new bearing, make sure the anti-rotation notch (Figure 77, item 1) on the bearing lines up with the groove inside the housing (Figure 77, item 2).

NOTE

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

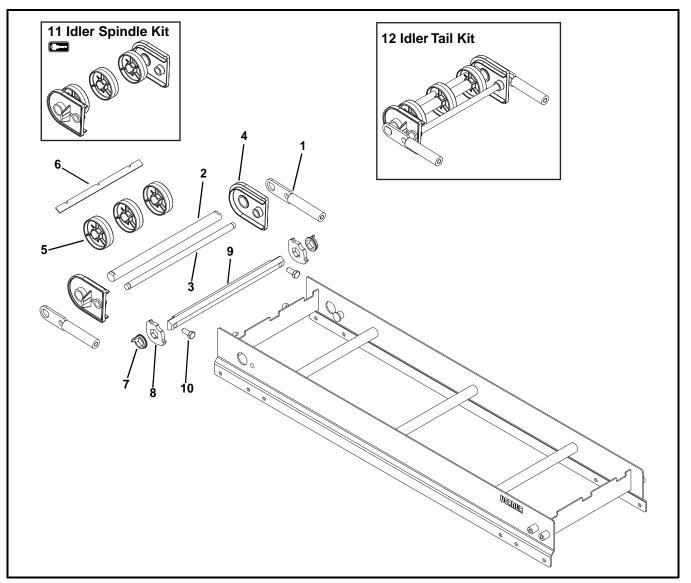
Nose Bar Drive End Components



Item	Part Number	Description			
1	802-133	Bearing Cover			
2	961016MSS	Hex Head Cap Screw M10- 1.5x16mm			
3	802-132	3 Hole Flange Bearing 20mm Bore			
4	5006 <u>WW</u>	Transfer Spindle			
5	807-1454	Bearing Cover			
6	500288	3 Hole Flange with Bearing			
7	5015 <u>WW</u>	Drive Spindle for Standard Belt			
	5070 <u>WW</u>	Drive Spindle for Specialty Intralox Belt			
	5295 <u>WW</u>	CE Drive Spindle for Standard Belt			
	5294 <u>WW</u>	CE Drive Spindle for Specialty Intralox Belt			
8	807-1444	Sprocket for Standard 1.00" Pitch Belt			
	807-1447	Sprocket for Specialty Intralox 1.00" Pitch Belt			
9	5053 <u>WW</u>	Flange Puck for Standard Belt			
	5071 <u>WW</u>	Flange Puck for Specialty Intralox Belt			
10	5090 <u>WW</u>	Sprocket Alignment Bar for Standard 1.00" Pitch Belt			
	5089 <u>WW</u>	Sprocket Alignment Bar for Specialty Intralox 1.00" Pitch Belt			
11	500496	Nose Bar Drive Sideplate			
12	5039 <u>WW</u>	Return Shaft			
13	500075	Chain Return Shoe			
14	961012MSS	Hex Head Cap Screw M10- 1.5x12mm			
15	802-163	Bearing			
16	74NBDD25- <u>WW</u>	Nose Bar Drive Spindle Kit with a Dorner Gearmotor Mounting Package for Standard 1.00" Pitch Belt (Includes Items 1 through 5, 8, 9, 13 and 15)			
	74NBDD24- <u>WW</u>	Nose Bar Drive Spindle Kit with a Dorner Gearmotor Mounting Package for Specialty Intralox 1.00" Pitch Belt (Includes Items 1 through 5, 8, 9, 13 and 15)			
	74NBDC25- <u>WW</u>	Nose Bar Drive Spindle Kit without a Dorner Gearmotor Mounting Package for Standard 1.00" Pitch Belt (Includes Items 1 through 5, 8, 9, 13 and 15)			
	74NBDC24- <u>WW</u>	Nose Bar Drive Spindle Kit without a Dorner Gearmotor Mounting Package for Specialty Intralox 1.00" Pitch Belt (Includes Items 1 through 5, 8, 9, 13 and 15)			
<u>vvvv</u> =	<u>WW</u> = Conveyor width ref: 08 - 36 in 02 increments				

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

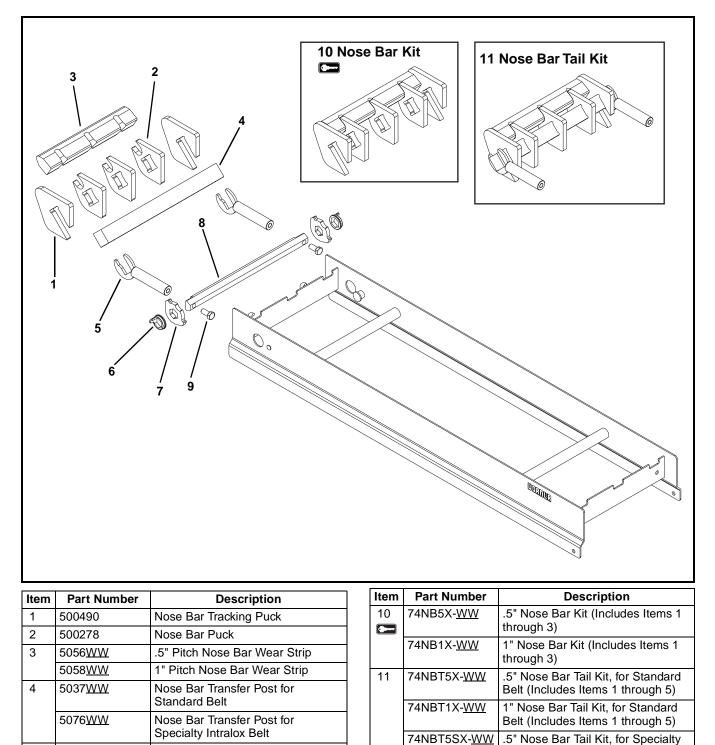
Tension End Components



ltem	Part Number	Description		
1	506801	Shaft Assembly		
2	506397- <u>WW</u>	Idler Shaft		
3	506396- <u>WW</u>	Pinch Guard Shaft		
4	506327- <u>WW</u>	Tracking Plate for Standard Belt		
	506332- <u>WW</u>	Tracking Plate for Specialty Intralox Belt		
5	506297	Idler Puck		
6	506313- <u>WW</u>	Alignment Bar for Standard Belt		
	506314- <u>WW</u>	Alignment Bar for Specialty Intralox Belt		

ltem	Part Number	Description		
7	514387	Tip Up Sleeve		
8	506356	Stop Key		
9	506328- <u>WW</u>	Hex Bar		
10	961225MSS	Hex Head Cap Screw M12-1.75 x 25mm		
11	74IX- <u>WW</u>	Idler Spindle Tail Kit for Standard Belt (Includes Items 4 and 5)		
	74ISX- <u>WW</u>	Idler Spindle Tail Kit for Specialty Intralox Belt (Includes Items 4 and 5)		
12	74ITX- <u>WW</u>	Idler Tail Kit for Standard Belt (Includes Items 1 through 6)		
	74ITSX- <u>WW</u>	Idler Tail Kit for Specialty Intralox Belt (Includes Items 1 through 6)		
<u>WW</u> =	<u>WW</u> = Conveyor width ref: 08 - 36 in 02 increments			

Nose Bar Tension End



506363

514387

506356

506328-<u>WW</u>

961225MSS

5

6

7

8

9

Nose Bar Idler Shaft

Hex Head Cap Screw M12-1.75 x

Tip Up Sleeve

Stop Key

Hex Bar

25mm

Intralox Belt (Includes Items 1

Intralox Belt (Includes Items 1

1" Nose Bar Tail Kit, for Specialty

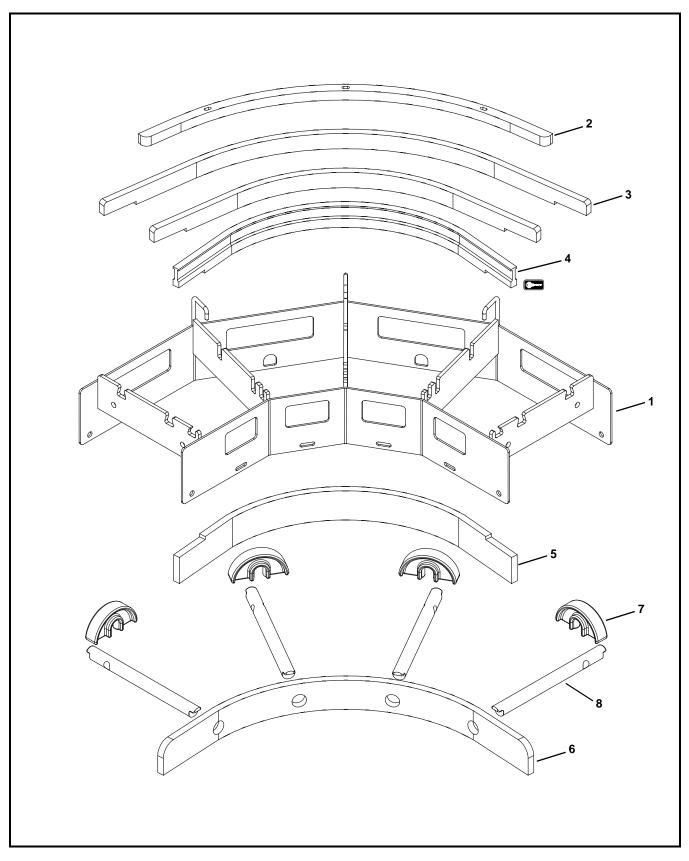
through 5)

through 5)

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

74NBT1SX-WW

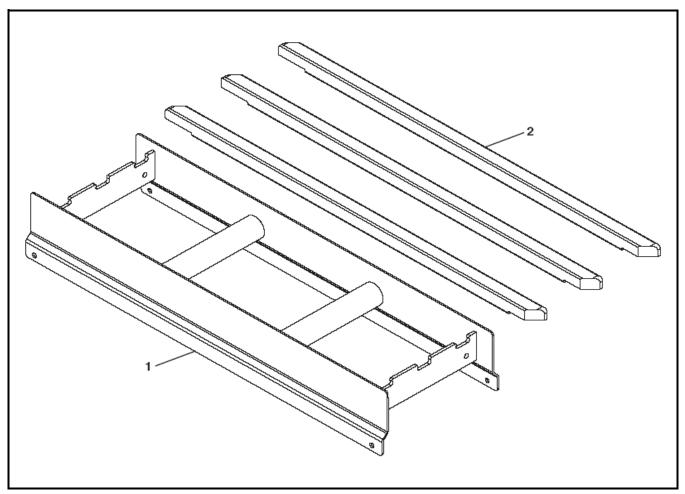
Curve Conveyor Frame and Wear Strips



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

	Section Degree of Turn Chart						
		Conveyor Width (<u>WW</u>)					
		08-10	12-24	26-36			
	15	N/A	15	15			
	30	30	30	30			
rn	45	N/A	45	45			
of Turn	60	60	60	30 & 30			
	75	N/A	75	45 & 30			
Jree	90	90	90	45 & 45			
Deç	105	N/A	60 & 45	45, 30 & 30			
le l	120	60 & 60	60 & 60	45, 45 & 30			
Module Degree	135	N/A	75 & 60	45, 45 & 45			
M	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			

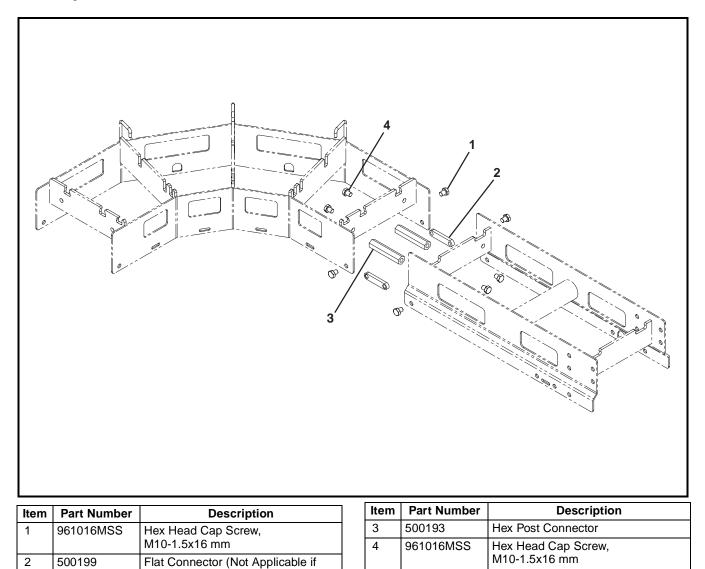
Straight Conveyor Frame and Wear Strips



ltem	Part Number	Description		
1		Consult Factory for Frame Part Number		
2	501800- <u>LLL</u>	Straight Wear Strip (Refer to chart)		
<u>LLL</u> =	<u>LLL</u> = Conveyor length ref: 020 - 999 in 001 increments			
<u>WW</u> =	<u>WW</u> = Conveyor width ref: 08 - 36 in 02 increments			

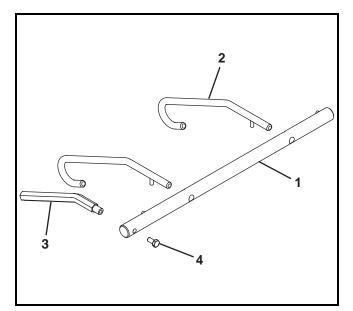
	Wear Strip Quantity (Item 2)								
		Conveyor Length (<u>LLL</u>)							
		020- 132	133- 252	253- 372	373- 492	493- 612	613- 732	733- 852	853- 999
	08	2	4	6	8	10	12	14	16
	10	3	6	9	12	15	18	21	24
	12	3	6	9	12	15	18	21	24
_	14	3	6	9	12	15	18	21	24
(<u>WW</u>)	16	4	8	12	16	20	24	28	32
S	18	4	8	12	16	20	24	28	32
Width	20	5	10	15	20	25	30	35	40
Ň	22	5	10	15	20	25	30	35	40
Conveyor	24	5	10	15	20	25	30	35	40
Ne	26	6	12	18	24	30	36	42	48
Cor	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



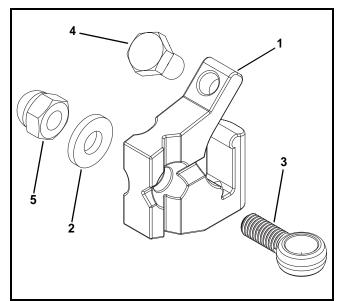
Stand Located at Connection)

Lifters



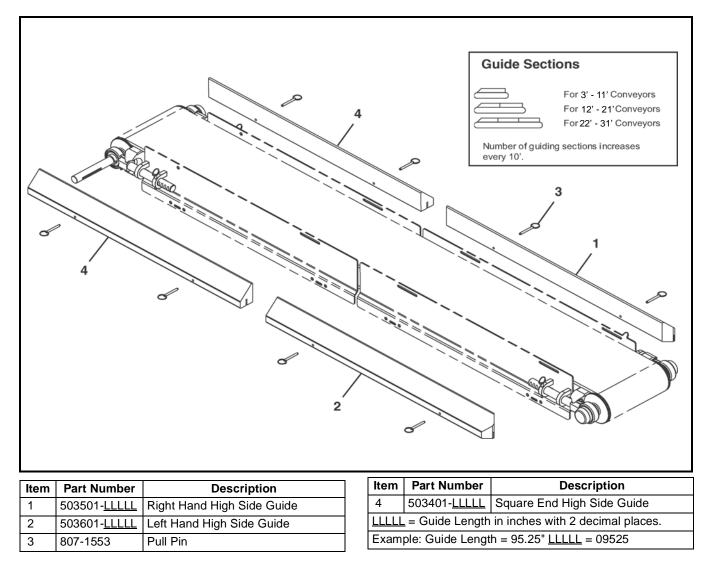
ltem	Part Number	Description	
1	5054 <u>WW</u>	Belt Lifter Shaft	
2	501376	Belt Lifter	
3	500491	Belt Lifter Handle	
4	960812MSS	Hex Head Cap Screw, M8-1.25 x 12 mm	
<u>WW</u> =	WW = Conveyor width ref: 08 - 36 in 02 increments		

Mounting Block

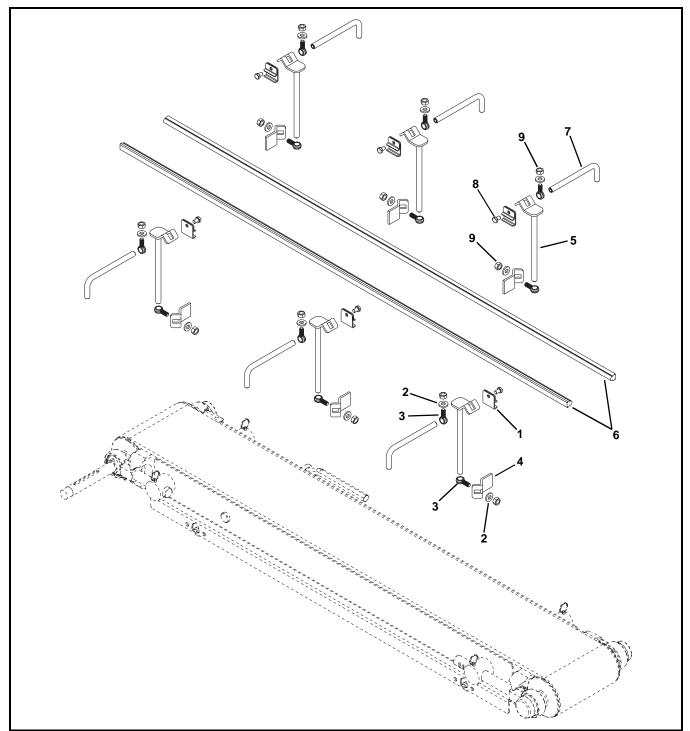


Item	Part Number	Description
1	509868	Mounting Block
2	807-1821	Washer
3	807-1994	Eyebolt, M10 x 1.50 mm
4	961016MSS	Hex Head Cap Screw, M10 - 1.50 x 16 mm
5	991008MSS	Hex Nut, M10 - 1.50 mm

3" (76 mm) High Sides

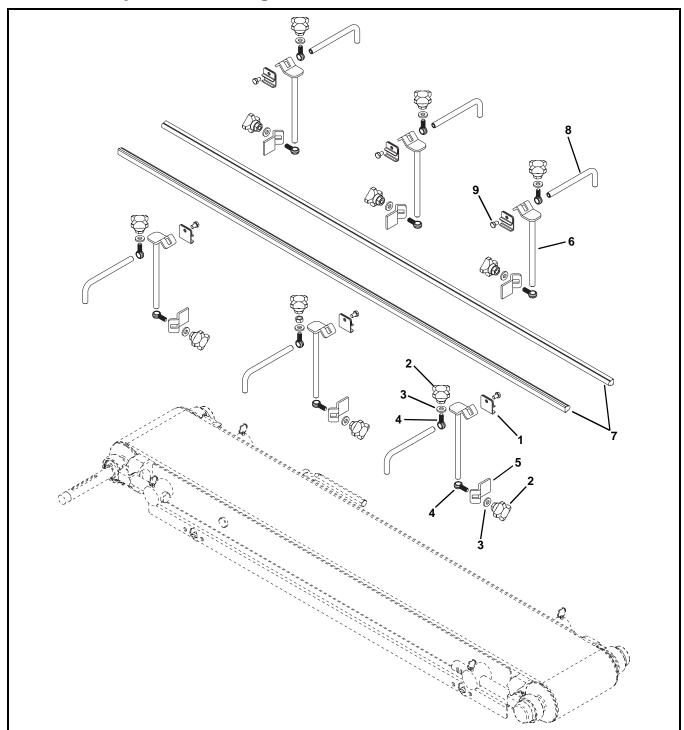


Adjustable Guiding



ltem	Part Number	Description	Item	Part Number	Description
1	807-015	Rail Clamp	7	532300	Guide Post
2	807-1821	Washer	8	960812MSS	Hex Head Cap Screw,
3	807-1994	Eye Bolt M10 x 1.50 mm			M8 - 1.25 x 12 mm
4	509875	Mounting Bracket	9	991001MSS	Hex Nut, M10 - 1.50 mm
5	509876	Vertical Post Assembly	LLLLL = Length in inches with 2 decimal places. Length Example: Length = 95.25" LLLLL = 09525		
6	532167- <u>LLLLL</u>	Round Guide Rail			= 95.25" <u>LLLLL</u> = 09525

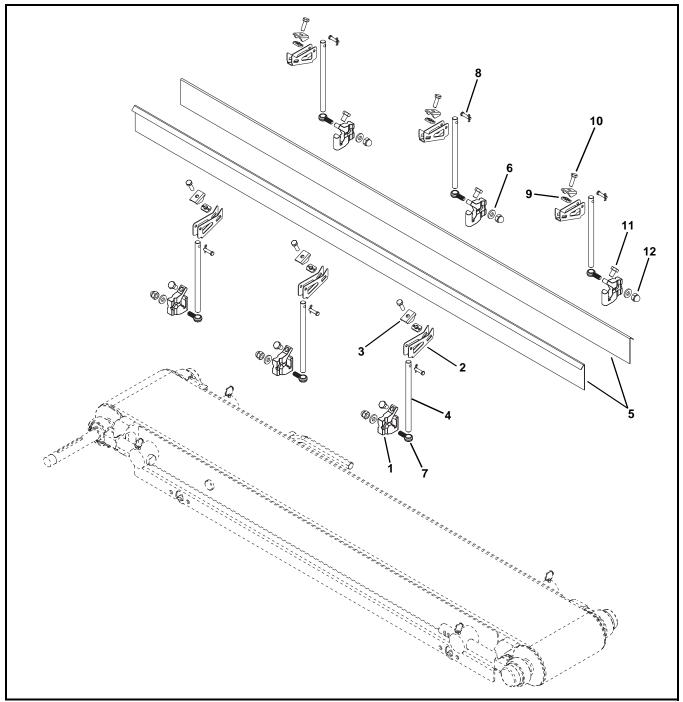
Tool-Less Adjustable Guiding



Item	Part Number	Description		
1	807-015	Rail Clamp		
2	807-1057	Handle		
3	807-1821	Washer		
4	807-1994	Eye Bolt M10 x 1.50 mm		
5	509875	Mounting Bracket		
6	509876	Vertical Post Assembly		

Item	Part Number	Description			
7	532167- <u>LLLLL</u>	Round Guide Rail			
8	532300	Guide Post			
9	960812MSS	Hex Head Cap Screw, M8 - 1.25 x 12 mm			
LLLLL	LLLLL = Length in inches with 2 decimal places.				
Length	n Example: Length	= 95.25" <u>LLLLL</u> = 09525			

Hinged Guides

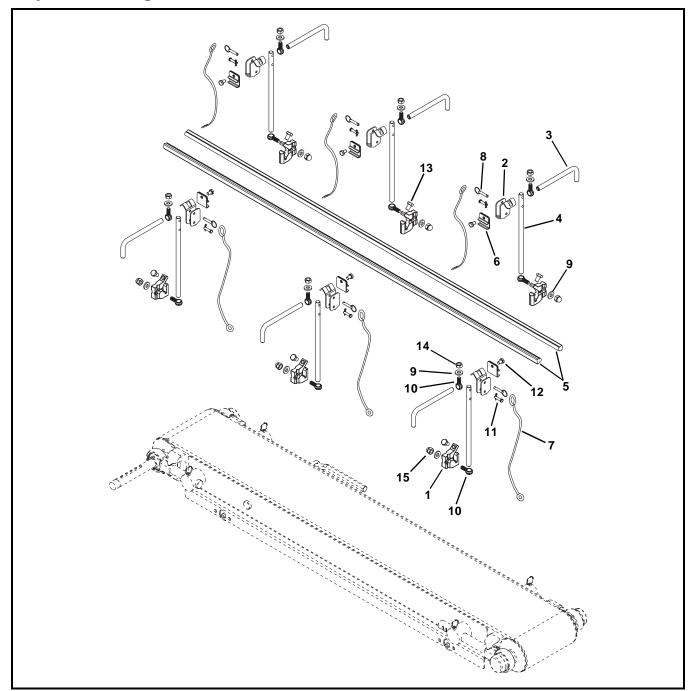


Item	Part Number	Description
1	509868	Mounting Block
2	509870	Pivot Guide Mounting Bracket
3	509871	Guide Clamp Bracket
4	509872-PH-0800	Mounting Guide Shaft for 3" Guides
	509872-PH-1100	Mounting Guide Shaft for 6" Guides
5	532172- <u>LLLLL</u>	Guiding for 3" Guides
	509890- <u>LLLLL</u>	Guiding for 6" Guides
6	807-1821	Washer
7	807-1994	Eyebolt M10 x 1.50 mm

8				
-	807-1995	Cotter Pin		
9	807-1075SS	Weld Nut, M8 x 1.25 mm		
10	960825MSS	Hex Head Cap Screw, M8 - 1.25 x 25 mm		
11	961016MSS	Hex Head Cap Screw, M10 - 1.50 x 16 mm		
12	991008MSS	Hex Nut, M10 - 1.50 mm		
LLLLL = Length in inches with 2 decimal places.				
Length	n Example: Length	= 95.25" <u>LLLLL</u> = 09525		

7400 Series Curved Nose Bar Conveyors

Adjustable Hinged Guides

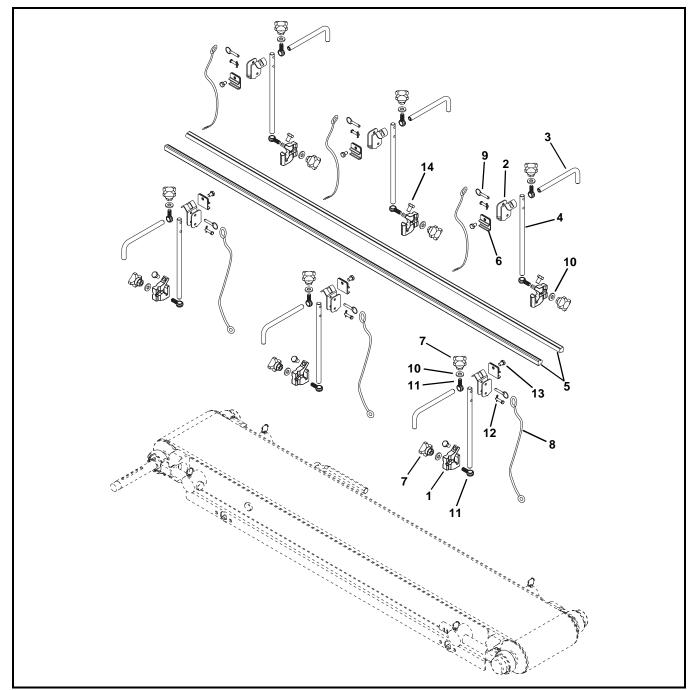


ltem	Part Number	Description
1	509868	Mounting Block
2	509883	Pivot Guide Bracket
3	532300	Guide Post
4	509872-DH-1100	Adjustable Guide Shaft
5	532167- <u>LLLLL</u>	Guiding
6	807-015	Clamp Rail
7	807-1448	Lanyard
8	807-1553	Pin
9	807-1821	Washer
10	807-1994	Eyebolt M10 x 1.50

Item	Part Number	Description			
11	807-1995	Cotter Pin			
12	960812MSS	Hex Head Cap Screw, M8 - 1.25 x 12 mm			
13	961016MSS	Hex Head Cap Screw, M10 - 1.50 x 16 mm			
14	991001MSS	Hex Nut, M10 - 1.50			
15	991008MSS	Hex Nut, M10 - 1.50			
LLLL	LLLLL = Length in inches with 2 decimal places.				
Lengt	h Example: Length =	= 95.25" <u>LLLLL</u> = 09525			

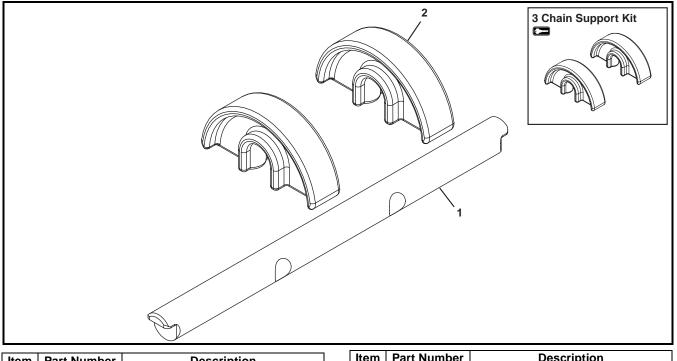
7400 Series Curved Nose Bar Conveyors

Tool-Less Adjustable Hinged Guides



ltem	Part Number	Description	Item	Part Number	Description
1	509868	Mounting Block	10	807-1821	Washer
2	509883	Pivot Guide Bracket	11	807-1994	Eyebolt M10 x 1.50/
3	532300	Guide Post	12	807-1995	Cotter Pin
4	509872-DH-1100	Adjustable Guide Shaft	13		Hex Head Cap Screw, M8 - 1.25 x 12 mm
5	532167- <u>LLLLL</u>	Guiding			
6	807-015	Clamp Rail	14	961016MSS	Hex Head Cap Screw,
7	807-1057	Handle	M10 - 1.50 x 16 mm		
8	807-1448	Lanyard	LLLLL = Length in inches with 2 decimal places. Length Example: Length = 95.25" LLLLL = 09525		
9	807-1553	Pin			

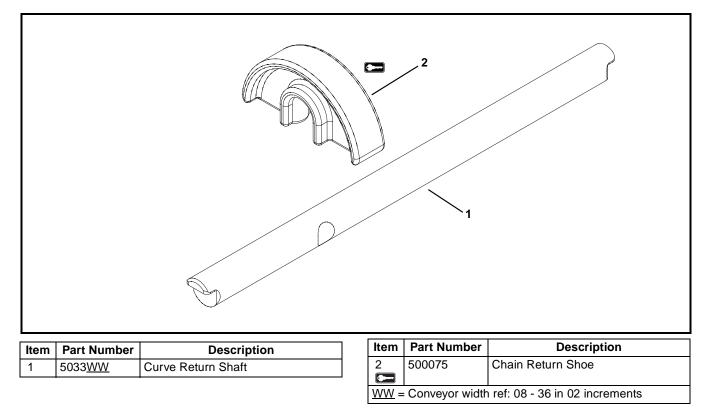
Straight Belt Return



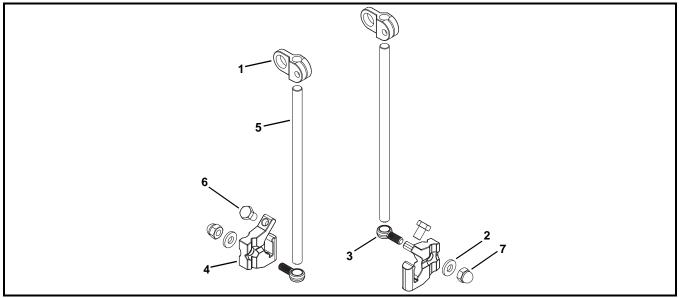
ltem	Part Number	Description	
1	5032 <u>WW</u>	Return Shaft	
2	500075	Chain Return Shoe	

ltem	Part Number	Description			
3	74R- <u>WW</u>	Chain Support Kit (Includes Item 2)			
WW = Conveyor width ref: 08 - 36 in 02 increments					

Curve Belt Return

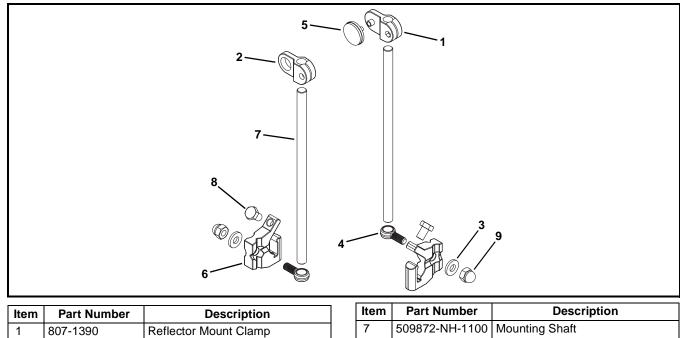


Opposed (Thru Beam) Photo Eye Mount



Item	Part Number	Description	Item	Part Number	Description
1	807-1391	Mount Clamp	5	509872-NH-1100	Mounting Shaft
2	807-1821	Washer	6	961016MSS	Hex Head Cap Screw,
3	807-1994	Eyebolt, M10 x 1.50	_	004000400	M10 - 1.50 x 16 mm
4	509868	Mounting Block	1	991008MSS	Hex Nut, M10 - 1.50

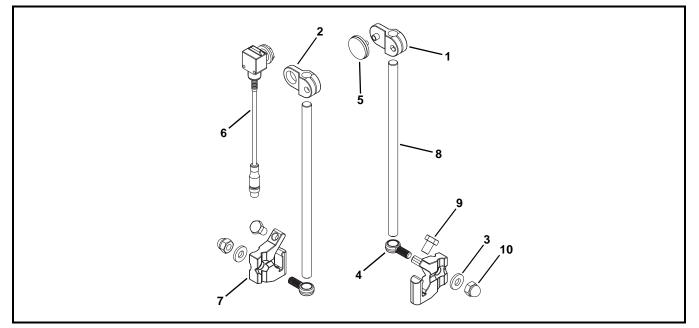
Reflective Photo Eye Mount



item	Part Number	Description		nem	I alt Number	Description
1	807-1390	Reflector Mount Clamp		7	509872-NH-1100	Mounting Shaft
2	807-1391	Photo Eye Mount Clamp		8	961016MSS	Hex Head Cap Screw, M10 - 1.50 x 16 mm
3	807-1821	Washer				WTU - 1.50 X TO IIIII
-	007 400 4	Evel at M40 v 4 50		9	991008MSS	Hex Nut, M10 - 1.50
4	807-1994	Eyebolt, M10 x 1.50			L	
5	809-289	Reflector				
6	509868	Mounting Block				

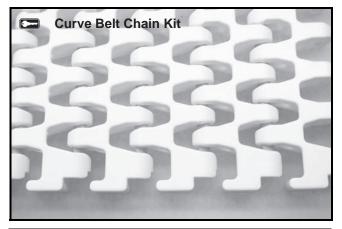
7400 Series Curved Nose Bar Conveyors

Reflective Photo Eye Kit



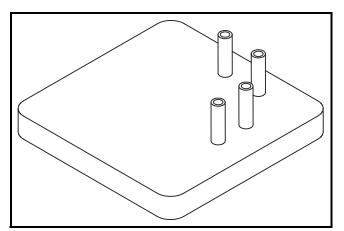
ltem	Part Number	Description
1	807-1390	Reflector Mount Clamp
2	807-1391	Photo Eye Mount Clamp
3	807-1821	Washer
4	807-1994	Eyebolt, M10 x 1.50
5	809-289	Reflector
6	809-315	Photo Eye Sensor
7	509868	Mounting Block
8	509872-NH-1100	Mounting Shaft
9	961016MSS	Hex Head Cap Screw, M10 - 1.50 x 16 mm
10	991008MSS	Hex Nut, M10 - 1.50

Curve Belt Chain Kit



Item	Part Number	Description		
1	74 <u>BB-WW</u>	Curve Belt Chain Kit (Includes 1 ft (305 mm) of flat belt chain and assembly pins)		
BB = Chain Reference Number				
<u>WW</u> = Conveyor width ref: 08 - 36 in 02 increments				

Belt Removal Tool



ltem	Part Number	Description
1	500581	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

 \underline{BB} = Chain reference number

 \underline{WW} = Conveyor width ref: 08 - 36 in 02 increments

Configuring a Conveyor Part Number

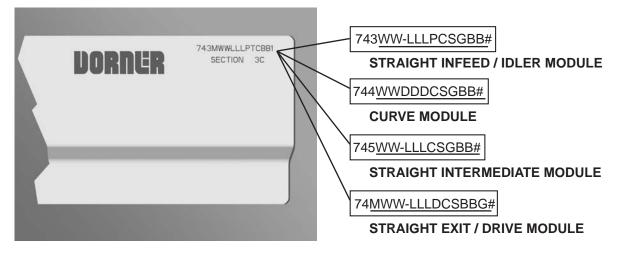


Figure 78

Curve Conveyor

Refer to your serial and model number plate (**Figure 78**). From the model number, determine conveyor width (<u>WW</u>), length (<u>LLL</u>), pulley type (<u>P</u>), stand location, cleaning options (<u>C</u>), stand holes (<u>S</u>), guide profile (<u>G</u>), belt material (<u>BB</u>), degree of turn (<u>DDD</u>), drive/pulley type (<u>D</u>) and module serialized sequence (<u>#</u>).

Straight Infeed / Idler Module Example: 74324-12015B1MR1

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: 74524-1807Z1MR3

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: 74M24-04817CMR15

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 (if available, part serial number).

A representative will discuss action to be taken on the returned items and provide a Returned Goods Authorization (RMA) number for reference. RMA will automatically close 30 days after being issued. To get credit, items must be new and undamaged. There will be a return charge on all items returned for credit, where Dorner was not at fault. It is the customer's responsibility to prevent damage during return shipping. Damaged or modified items will not be accepted. The customer is responsible for return freight.

Conveyors and conveyor accessories

Standard catalog conveyors	30%
MPB, 7200, 7300 Series, cleated and specialty belt	50%
AquaGard & AquaPruf Series conveyors	non-returnable items
Engineered to order products	case by case
Drives and accessories	30%
Sanitary stand supports	non-returnable items

Parts Standard stock parts Plastic chain, cleated and specialty belts

30% 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 Customer Service Team will gladly help with your questions on Dorner products.

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

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



Dorner Mfg. Corp. reserves the right to change or discontinue products without notice. All products and services are covered in accordance with our standard warranty. All rights reserved. © Dorner Mfg. Corp. 2011 DORNER MFG. CORP. 975 Cottonwood Ave., PO Box 20 Hartland, WI 53029-0020 USA TEL 1-800-397-8664 (USA) FAX 1-800-369-2440 (USA) Internet: www.dorner.com

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