

DORNER[®]

AquaPruf[®] ULTIMATE

7400 Ultimate Series Nose Bar Conveyors

Installation, Maintenance and Parts Manual



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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.

NOTE
<i>Proper conveyor application, cleaning, and sanitation are the responsibility of the end user.</i>

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

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

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Warnings – General Safety

⚠ 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

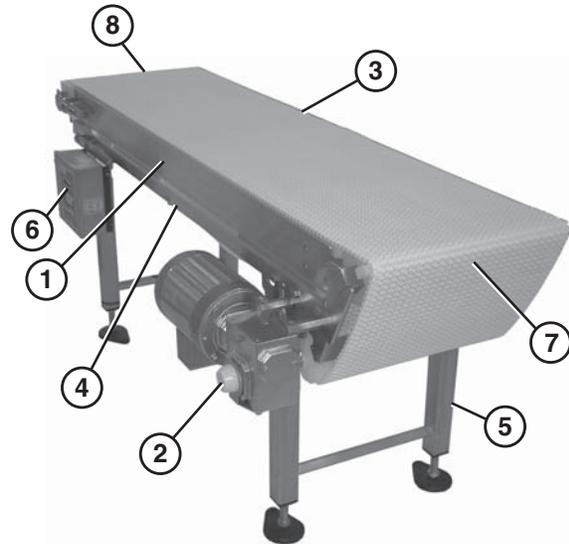
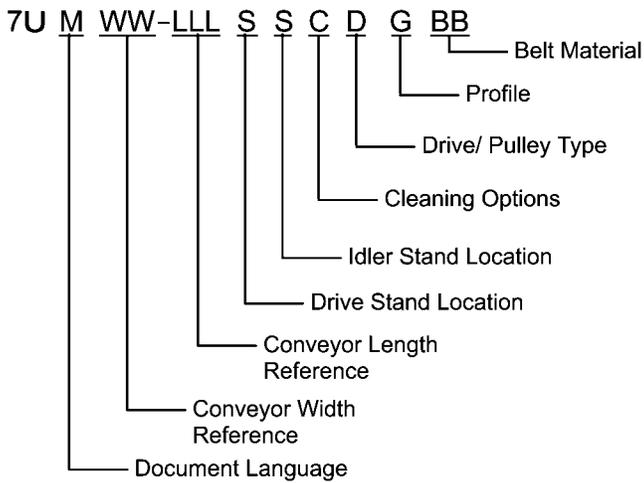


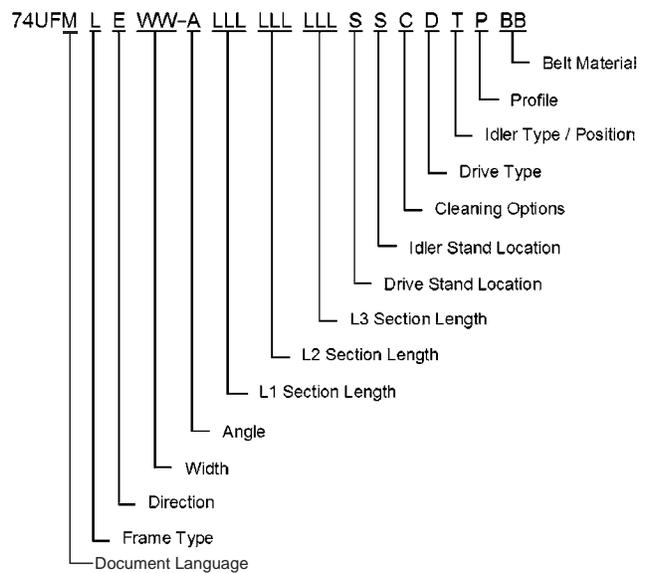
Figure 1

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.

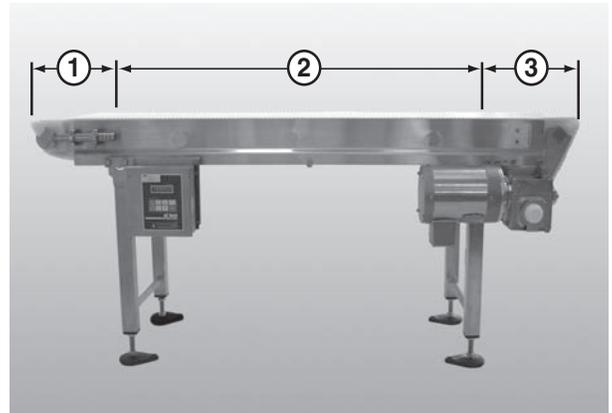


Figure 2

Specifications

Conveyor Width Reference (<u>WW</u>)	06 – 36 in 02 increments
Conveyor Belt Width	6" (152 mm) – 36" (914 mm) in 2" (51 mm) increments
Maximum Conveyor Load	20 lb / ft ² (97 kg / m ²) with a maximum of 1000 lb / ft ² (4882 kg / m ²)
Belt Travel	12" (305 mm) per revolution of pulley
Maximum Belt Speed	233 ft / minute (71 m / minute)
Belt Take-up	2" (51 mm)

Conveyor Length Reference (<u>LLL</u>)	036 – 999 in 001 increments
Conveyor Length	36" (914 mm) – 999" (25.4 m) in 1" (25 mm) increments
LPZ Section Lengths (<u>LLL</u>)	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.

NOTE

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

⚠ CAUTION

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

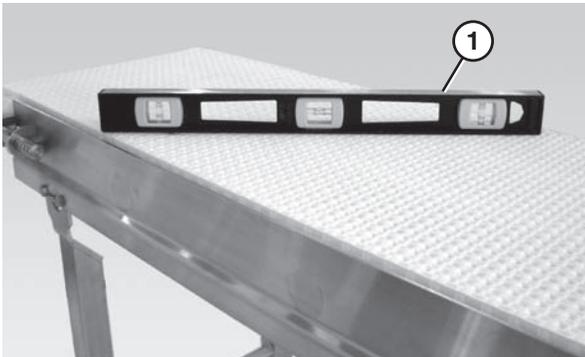


Figure 3

Required Tools

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

Recommended Installation Sequence

1. Attach the stands to the conveyor. Refer to “Stand Installation” on page 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 11.
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 11.
6. Install the belt. Refer to “Belt Installation” on page 12.
7. Attach the belt returns. Refer to “Belt Return Installation” on page 13.
8. Attach any guides / accessories. Refer to the “Service Parts” section starting on page 24.

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 |
| 4 | O-rings (x8) |

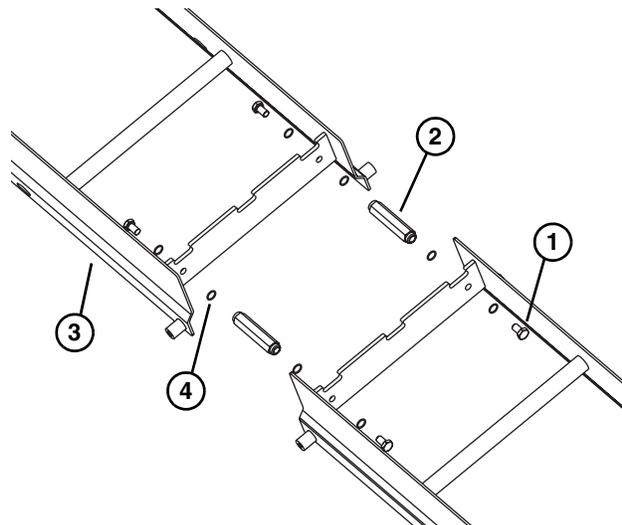


Figure 4

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

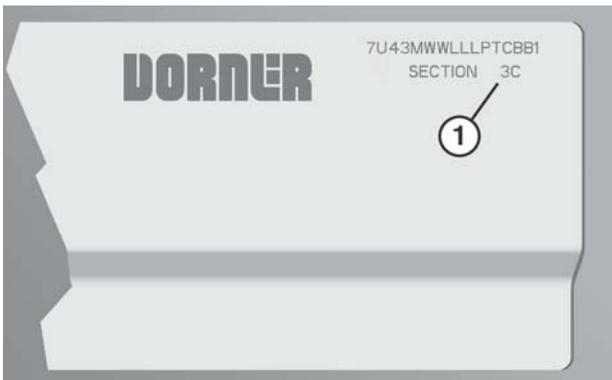


Figure 5

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.

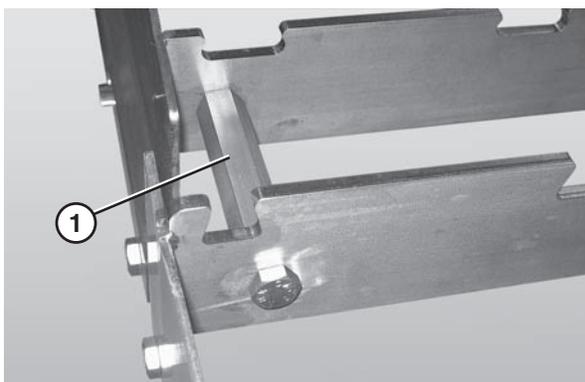


Figure 6

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**).

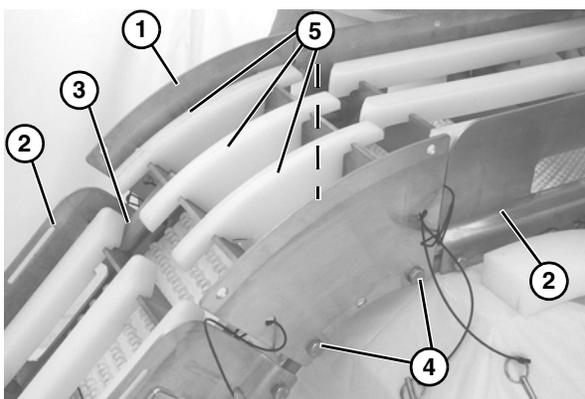


Figure 7

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**).

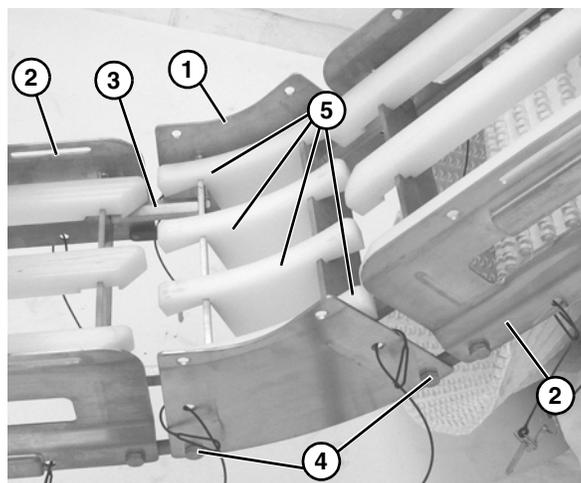


Figure 8

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

Belt

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



Figure 9

Installation

Guides

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

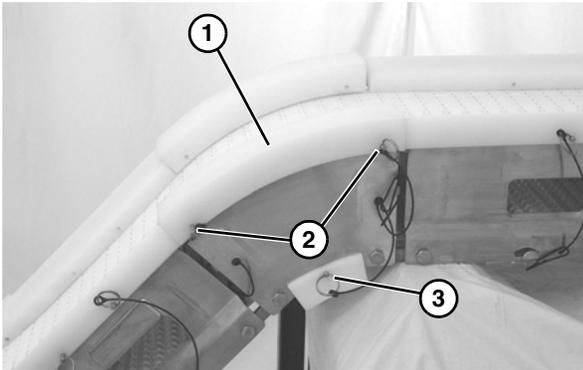


Figure 10

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**).

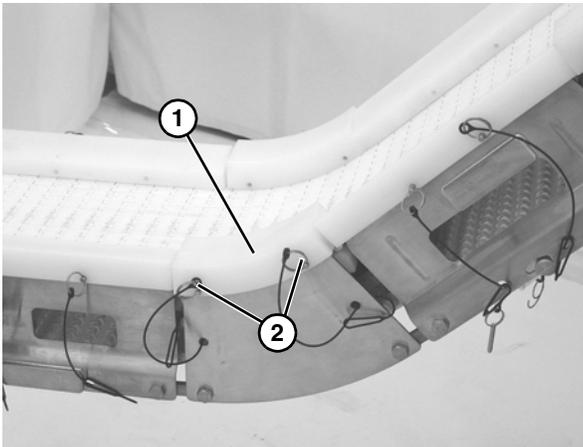


Figure 11

All Conveyors

Stand Installation

Typical Stand Components (**Figure 12**)

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

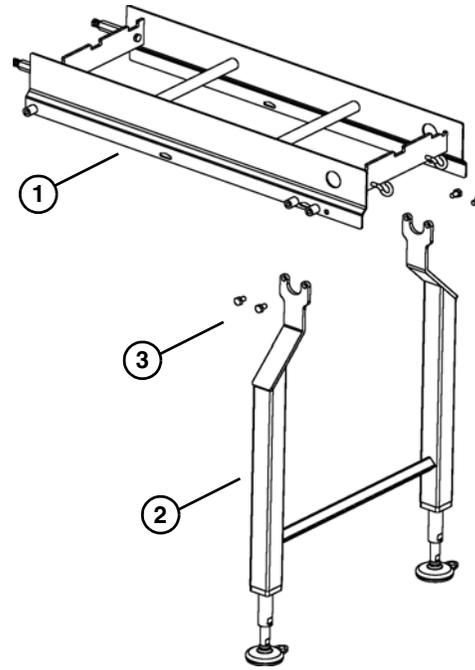


Figure 12

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

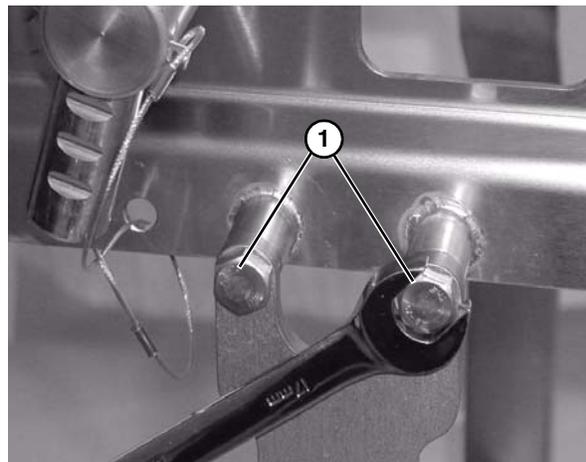


Figure 13

3. Tighten hex screws (**Figure 13, item 1**).

Tail Assembly Installation

Nose Bar Drive Tail

Typical Nose Bar Drive Tail Components (Figure 14)

1	Nose bar drive tail assembly
2	Conveyor frame

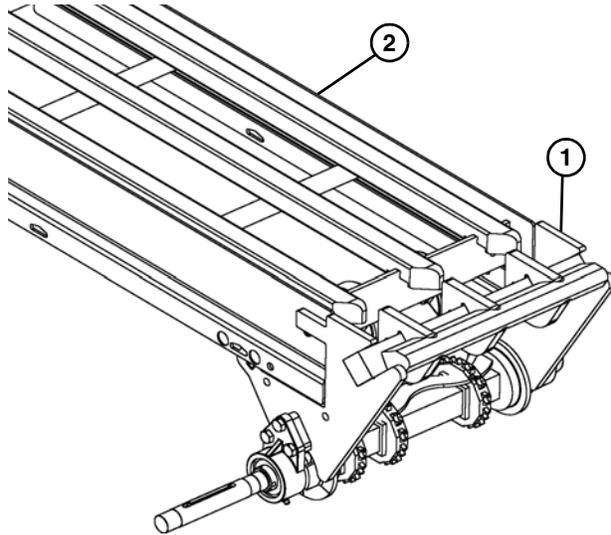


Figure 14

1. 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 15)

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

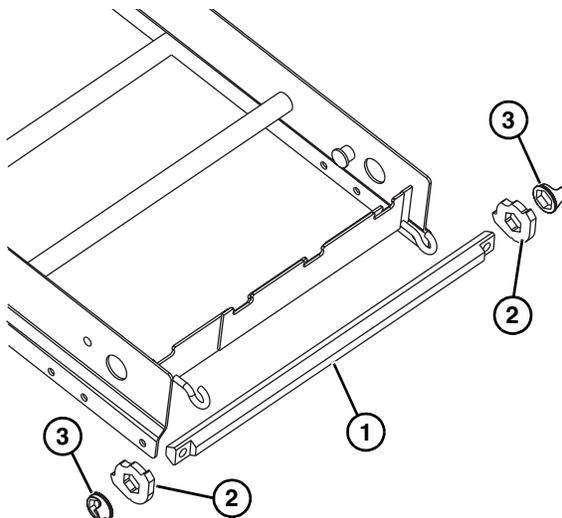


Figure 15

1. Slide stop keys (Figure 16, item 1) and tip up sleeves (Figure 16, item 2) onto hex shaft (Figure 16, item 3). The tabs on the tip up sleeves face outward and align with the slotted ends of the hex shaft as shown.

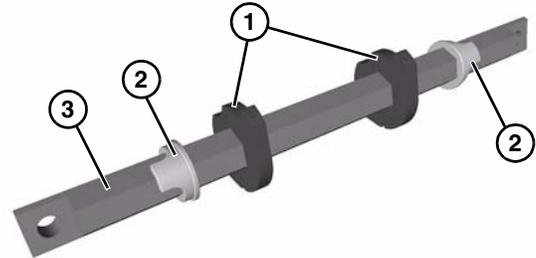


Figure 16

2. Place hex shaft assembly (Figure 17, item 1) through the conveyor frame tip up holes (Figure 17, item 2) and center with conveyor.

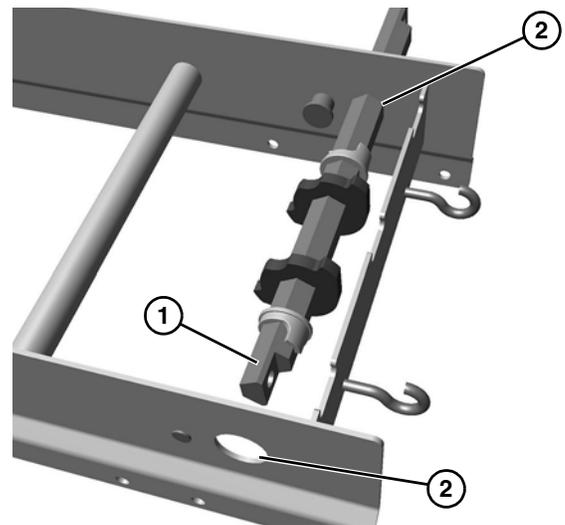


Figure 17

3. Hex shaft assembly will need to be rotated (Figure 18) for stop keys (Figure 18, item 1) to pass by the frame stops (Figure 18, item 2).

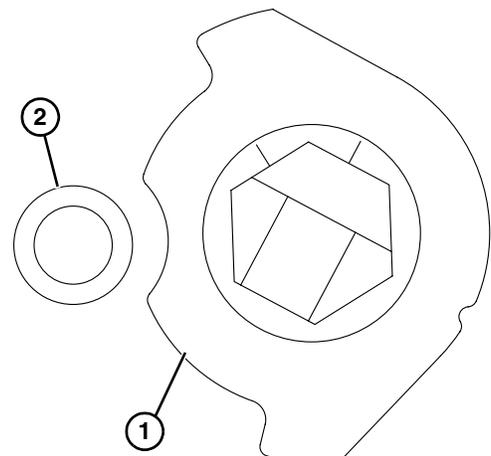


Figure 18

Installation

- Slide the tip up sleeves (**Figure 19, item 1**) and stop keys (**Figure 19, item 1**) outward on hex shaft assembly (**Figure 19, item 3**) until the sleeves seat in the holes of the frame and stop keys are seated against frame stops (**Figure 19, item 4**).

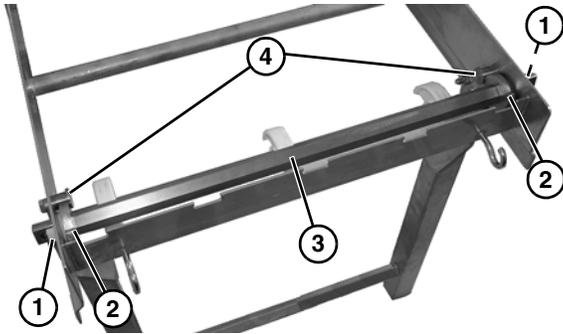


Figure 19

Idler Tail

Typical Idler Tail Components (**Figure 20**).

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

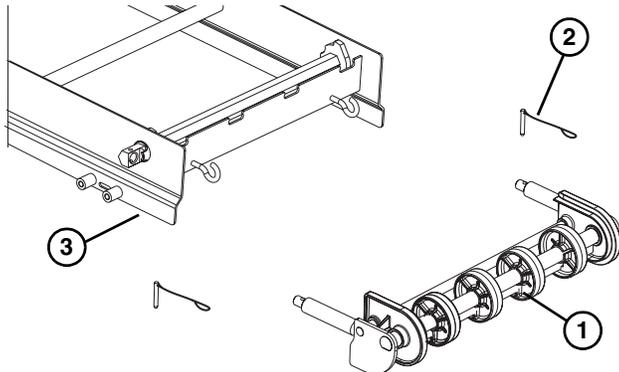


Figure 20

⚠ 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 21, item 1**) against the holes in the tip up hex shaft assembly (**Figure 21, item 2**) and secure with a pull pin (**Figure 21, item 3**) on each side.

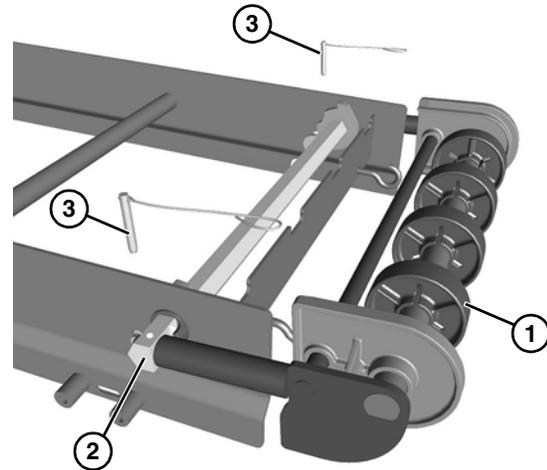


Figure 21

Nose Bar Idler Tail

Typical Nose Bar Tip Up Tail Components (**Figure 22**).

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

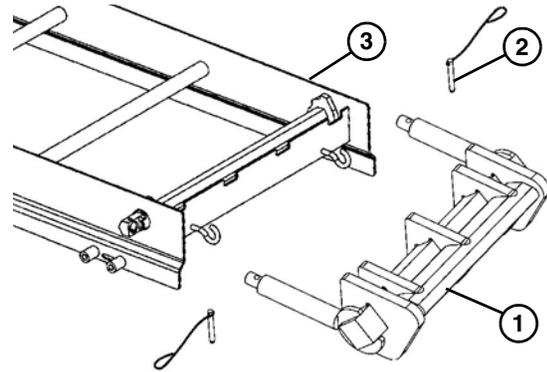


Figure 22

- Attach nose bar idler shaft hands (**Figure 23, item 1**) to the tip up shaft (**Figure 23, item 2**) with a pull pin (**Figure 23, item 3**).

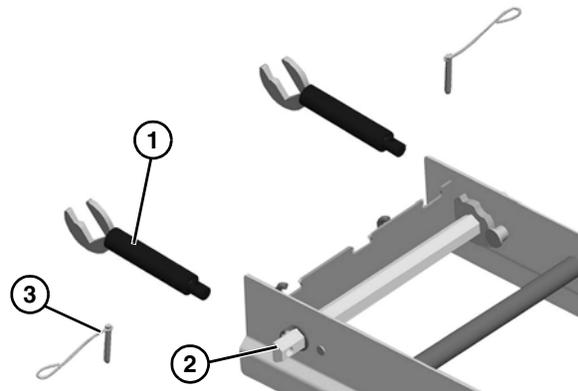


Figure 23

3. Attach the nose bar transfer post (Figure 24, item 1) to the nose bar idler shaft hands (Figure 24, item 2).

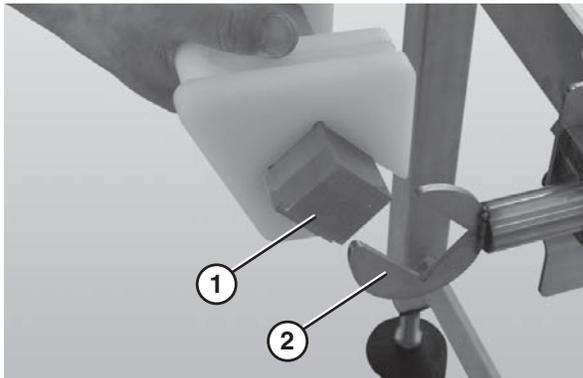


Figure 24

4. Ensure that the nose bar pucks (Figure 25, item 1) are in line with the conveyor frame (Figure 25, item 2).

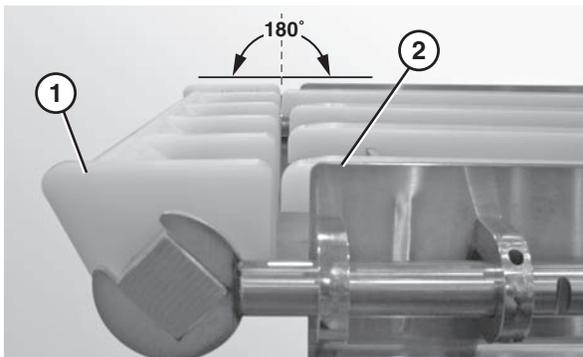


Figure 25

Lifter Installation

Typical Lifter Components (Figure 26)

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

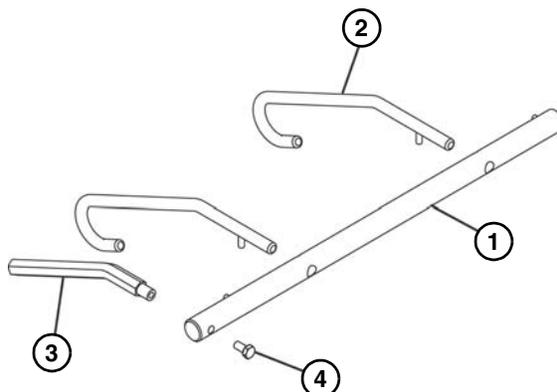


Figure 26

1. Slide the belt lift pivot bar (Figure 27, item 1) through the designated holes in the frame.

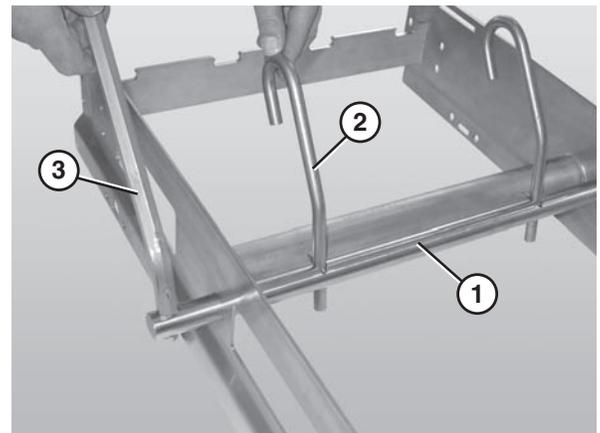


Figure 27

2. Attach the lifter bars (Figure 27, item 2) to the belt lift pivot bar (Figure 27, 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 27, item 3) to the belt lift pivot rod.

Wear Strip Installation

Typical Wear Strip Components (Figure 28)

1	Wear strip
---	------------

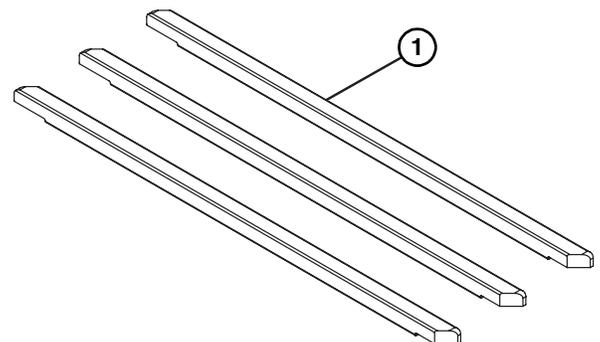


Figure 28

Installation

1. Position the wear strips (**Figure 29, item 1**) on the frame.

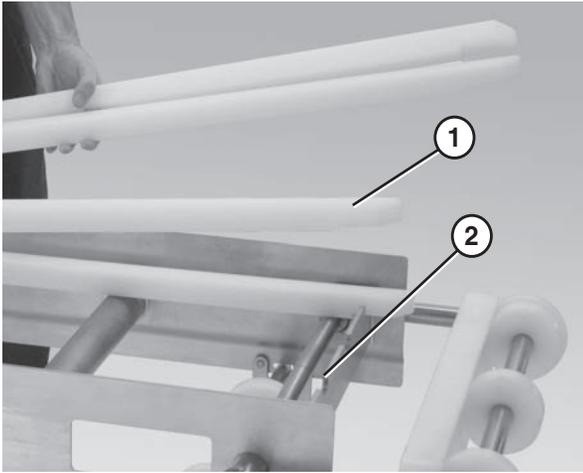


Figure 29

2. Make sure the wear strips are situated securely in the frame slots (**Figure 29, item 2**).

Belt Installation

Typical Belt Components (**Figure 30**)

1	Chain belt
2	Belt rod

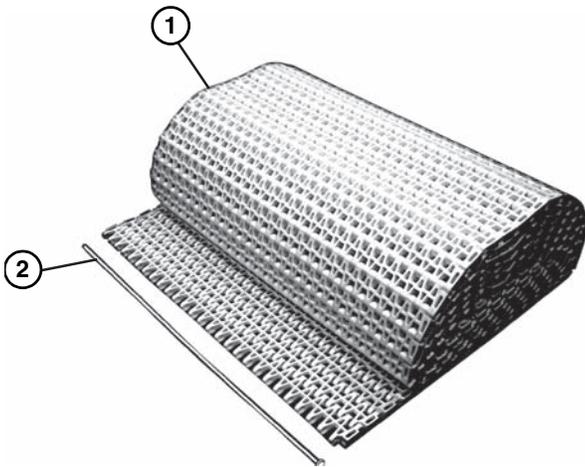


Figure 30

1. Position the belt on the conveyor frame (**Figure 31**).



Figure 31

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 32**).



Figure 32

4. Insert the belt rod (**Figure 33, item 1**).

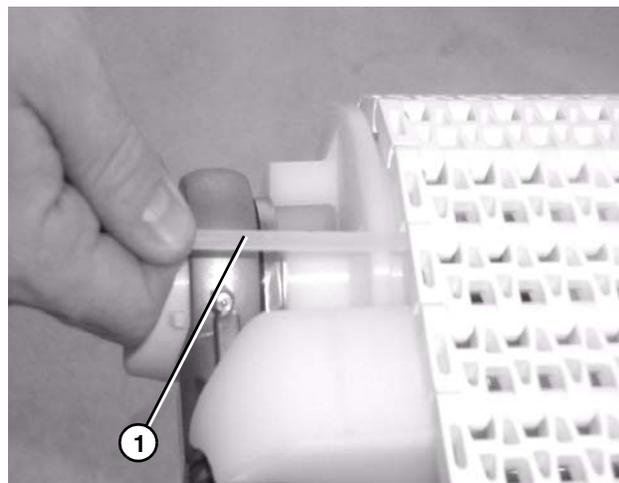


Figure 33

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. Check belt sag by measuring from the top of the return (Figure 34).

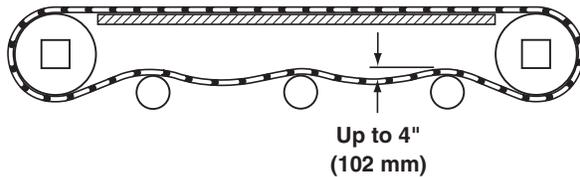


Figure 34

⚠ CAUTION

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

Belt Return Installation

Typical Belt Return Components (Figure 35)

- | | |
|---|-------------------|
| 1 | Return shaft |
| 2 | Chain return shoe |

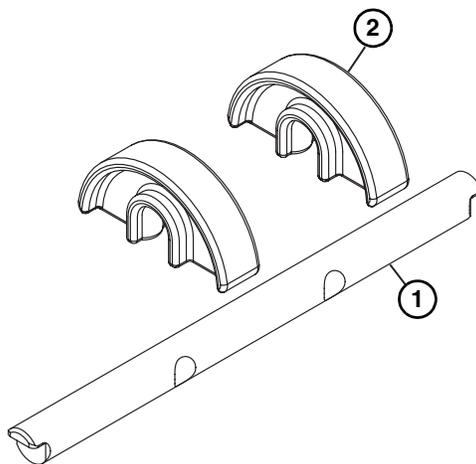


Figure 35

1. Attach the chain return shoes (Figure 36, item 1) to the return shaft (Figure 36, item 2).

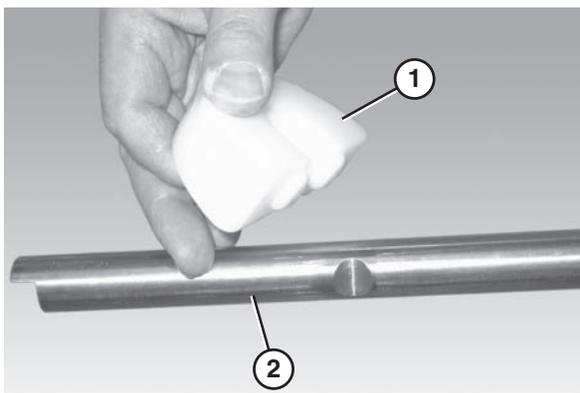


Figure 36

2. Slide the return shaft (Figure 37, item 1) up and through the large slot (Figure 37, item 2) in the frame (picture shown without the belt or wear strips).

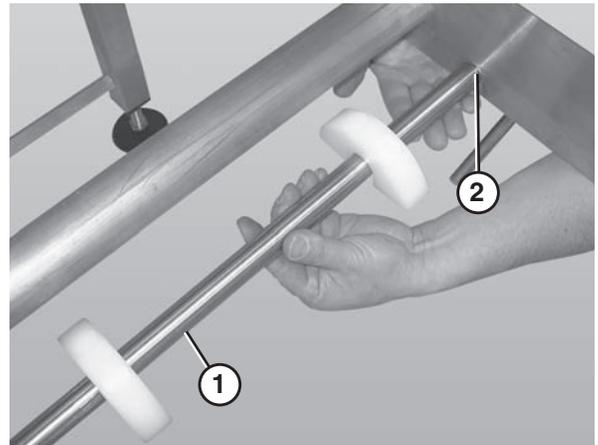


Figure 37

3. Push up on the return shaft (Figure 37, 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 38). Belt sag should not exceed 4" (102 mm). Follow steps 7 – 9 in the "Belt Installation" section on page 12 to remove slack from the belt.

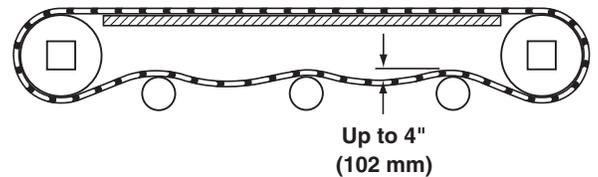


Figure 38

⚠ CAUTION

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

Preventive Maintenance and Adjustment

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 24 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

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 39, item 1**) that connect the guide (**Figure 39, item 2**) to the frame.

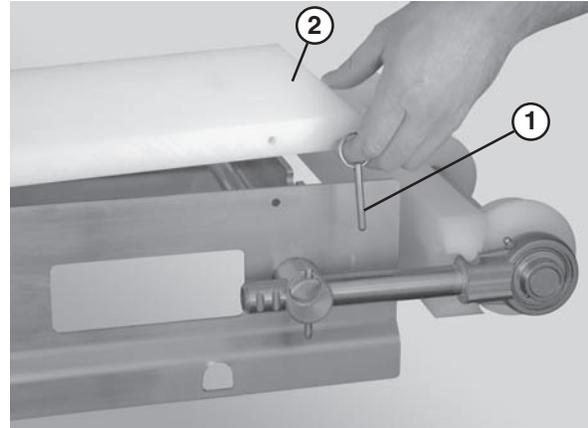


Figure 39

2. Tip up idler tail assembly (**Figure 40**).

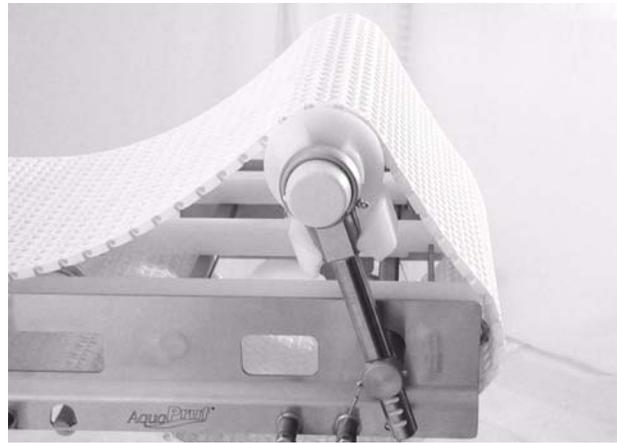


Figure 40

3. Lift up on the belt (**Figure 41**).



Figure 41

Preventive Maintenance and Adjustment

Conveyors with Lifters

1. Remove the guides, if applicable, by removing the pull pins (**Figure 39, item 1**) that connect the guide (**Figure 39, item 2**) to the frame.
2. Use the lifter handle (**Figure 42, item 1**) to raise the lifters (**Figure 42, item 2**) and raise the tip up tail (**Figure 42, item 3**).

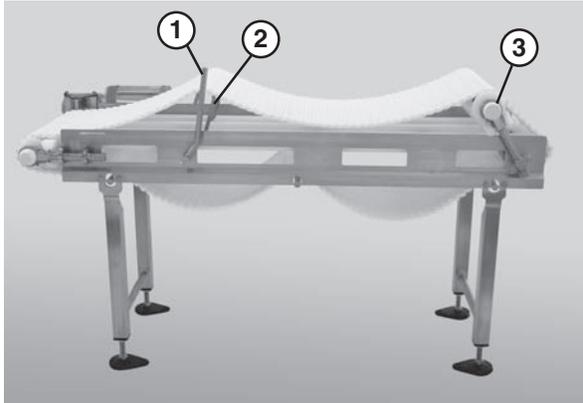


Figure 42



CAUTION

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

Periodic Cleaning

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

For conveyor disassembly and reassembly instructions:

- Refer to “Conveyor Belt Replacement” on page 16.
- Refer to “Sprocket and Puck Removal” on page 18.
- Refer to “Reassembling Tail Assemblies” on page 22.

Lubrication

Conveyor Bearings

Conveyor bearing lubrication is required. Dorner recommends using an H-1 food grade grease.

NOTE

Although bearings are sealed, re-greasing is recommended to increase bearing life. An H-1 food grade grease is recommended. The frequency of bearing re-greasing is dependent upon the application in which the conveyor is being used. Frequency of re-greasing will increase with the frequency of conveyor washing.

1. Add grease to the bearing using the zerk fitting (**Figure 43, item 1**) on the exterior of the bearing shaft assembly.

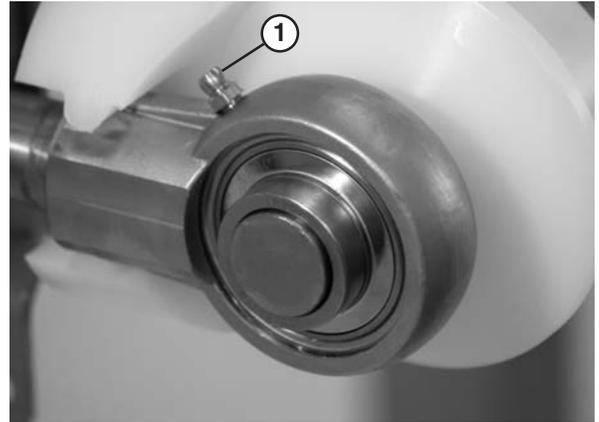


Figure 43

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 11.
- Refer to “Belt Return Installation” on page 13.

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

Preventive Maintenance and Adjustment

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 44, item 1**) that connect the guide (**Figure 44, item 2**) to the frame.

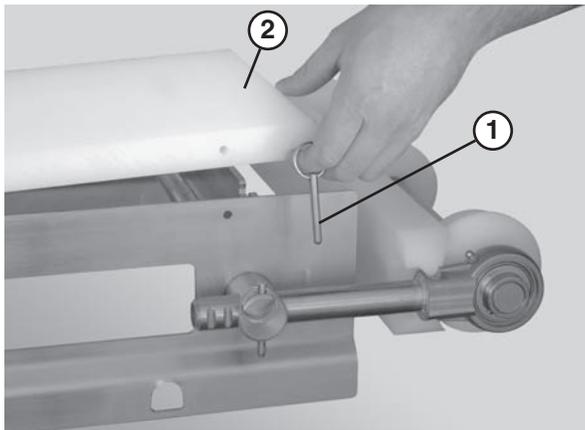


Figure 44

2. Remove the guide (**Figure 45, item 1**).

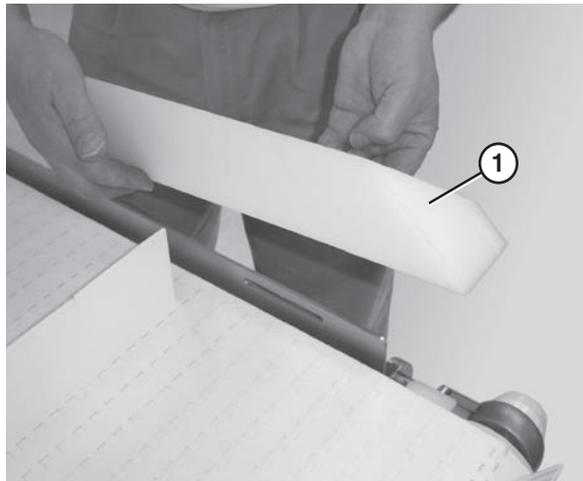


Figure 45

3. Follow the belt replacement procedures described in “Standard Belts” on page 16, “Specialty Intralox 1100 Series Belts” on page 17, or “Specialty Intralox 1600 Series Belts” on page 17.

Standard Belts

Replacing a Section of Belt

1. Tip up idler tail assembly (**Figure 46**).

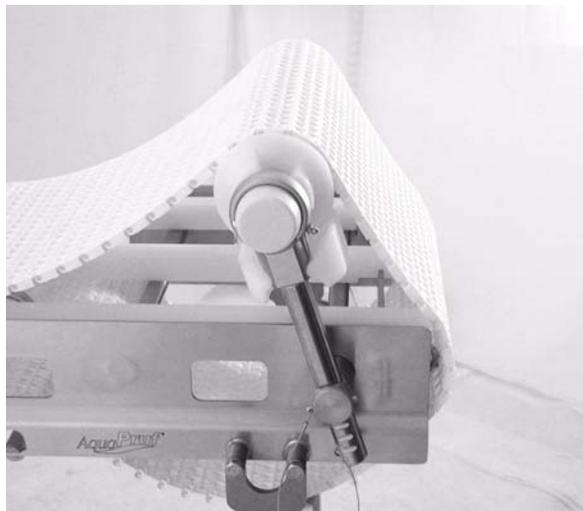


Figure 46

Preventive Maintenance and Adjustment

⚠ 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 47, 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 47, item 2**).

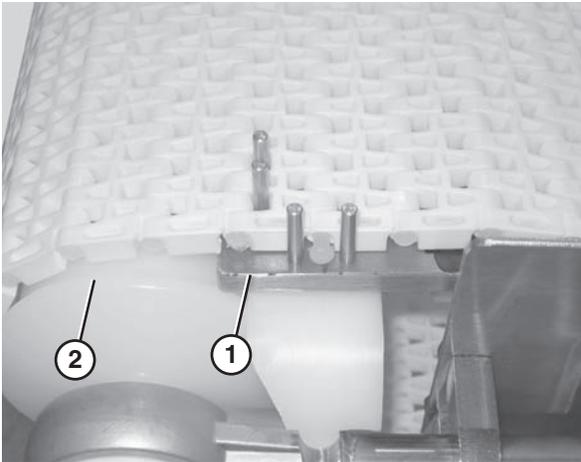


Figure 47

3. Use a punch and hammer to push the belt rod out by striking the rod end opposite the retaining head (**Figure 48**).



Figure 48

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 49, item 1**) and sliding it through the large hole (**Figure 49, item 2**) in the frame.

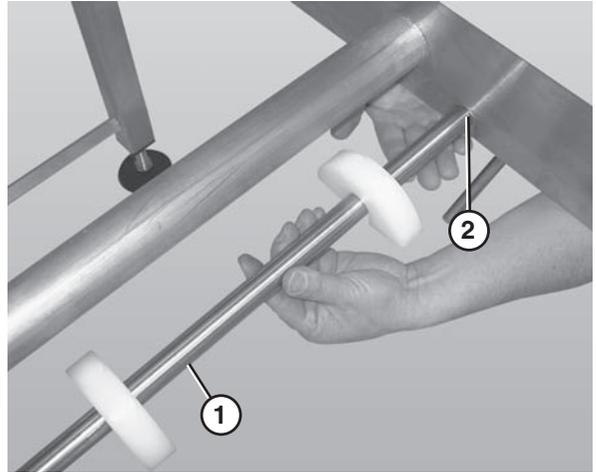


Figure 49

2. Lower the opposite end of the return shaft (**Figure 49, item 1**) and slide it out of the frame.
3. Follow steps 1 – 3 in "Standard Belts: Replacing a Section of Belt" on page 16.
4. Remove the belt.
5. Replace the damaged or worn belt. Refer to "Belt Installation" on page 12 and "Belt Return Installation" on page 13.

Specialty Intralox 1100 Series Belts

Replacing a Section of Belt

1. Place the edge of a flat head screwdriver between the two belt links and turn clockwise (**Figure 50**).

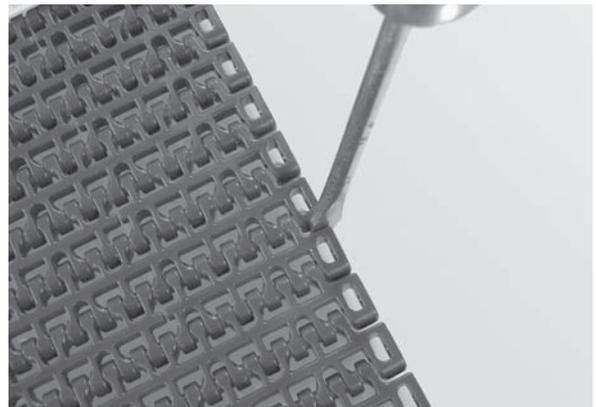


Figure 50

Preventive Maintenance and Adjustment

2. Use a second belt rod of the same size to push on the opposite end of the belt rod. (Figure 51).

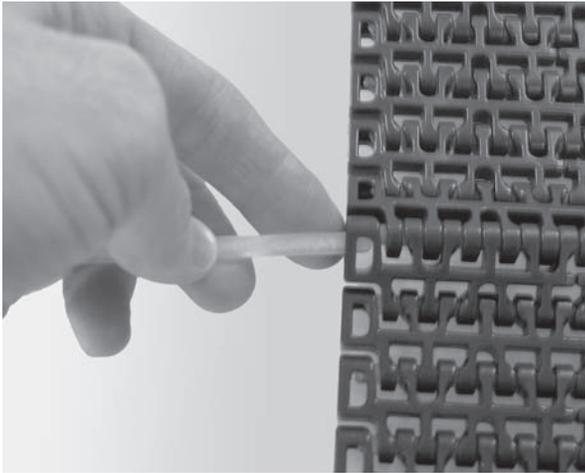


Figure 51

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.

⚠ 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 17.
3. Remove the belt.
4. Replace the damaged or worn belt. Refer to "Belt Installation" on page 12 and "Belt Return Installation" page 13.

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. Check belt for proper sag. Refer to step 7 of "Belt Installation" on page 12.
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 16.

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 16.
2. Remove the desired sprocket / puck by following these instructions:
 - A - Drive Sprocket Removal
 - B - Nose Bar Puck Removal
 - C - Idler Puck Removal

Preventive Maintenance and Adjustment

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 52, item 1**) that connect the gearmotor to the drive spindle using a hex wrench (**Figure 52, item 2**).

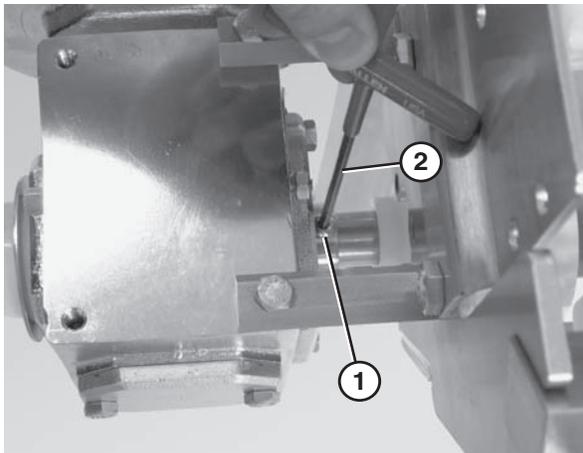


Figure 52

2. Remove the bolts that connect the motor to the drive assembly (**Figure 53**).
3. Remove the motor (**Figure 53, item 1**) from the drive assembly (**Figure 53, item 2**).

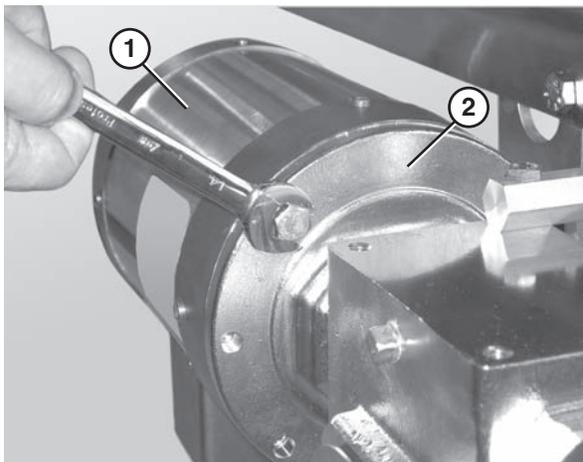


Figure 53

4. Unbolt the drive assembly and slide it off the bearing spindle (**Figure 54**).



Figure 54

5. Remove the bearing cover.
6. Loosen the 3 hole flange (**Figure 55, item 1**) with bearing fasteners using a hex wrench (**Figure 55, item 2**).

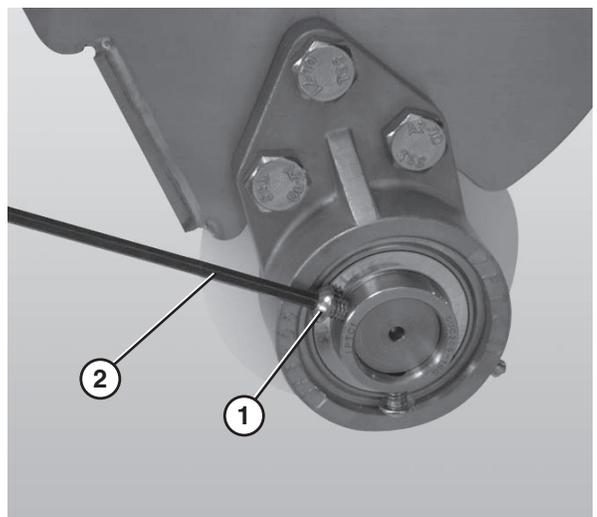


Figure 55

Preventive Maintenance and Adjustment

7. Disconnect the 3 hole flange bearing (Figure 56, item 1) from the nose bar drive weldment (Figure 56, item 2).

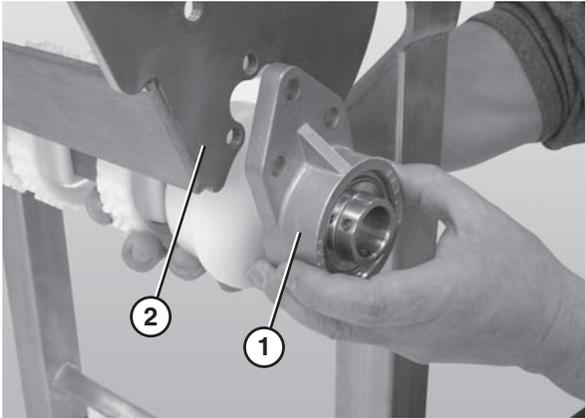


Figure 56

8. Lower the entire drive assembly.
9. Slide the 3 hole flange with bearing (Figure 57, item 1) and flanged puck (Figure 57, item 2) off the drive spindle.

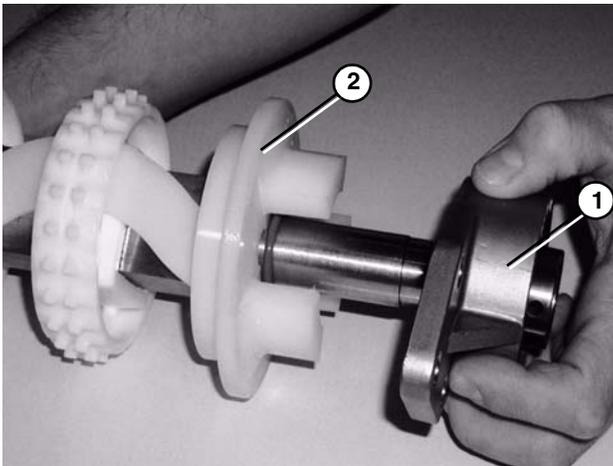


Figure 57

10. Slide the sprockets (Figure 58, item 1) and the sprocket alignment bar (Figure 58, item 2) off the drive spindle (Figure 58, item 3).

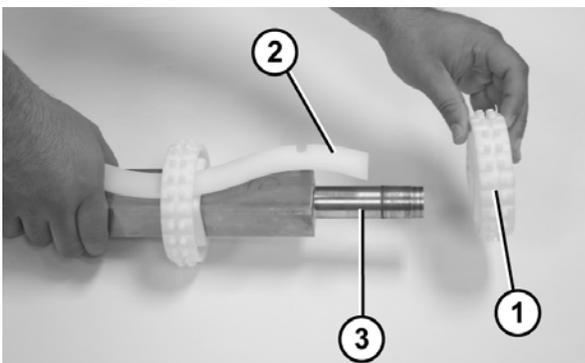


Figure 58

B - Idler Puck Removal

1. Remove the pull pins (Figure 59, item 1) from tip up hex shaft assembly (Figure 59, item 2).

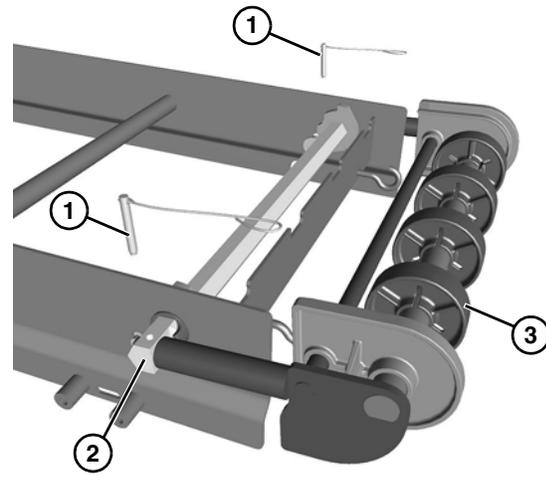


Figure 59

2. Slide the idler tail assembly (Figure 59, item 3) out of the tip up hex shaft assembly.
3. Remove the shaft assembly (Figure 60, item 1) from idler shaft (Figure 60, item 2) and pinch guard shaft (Figure 60, item 3).

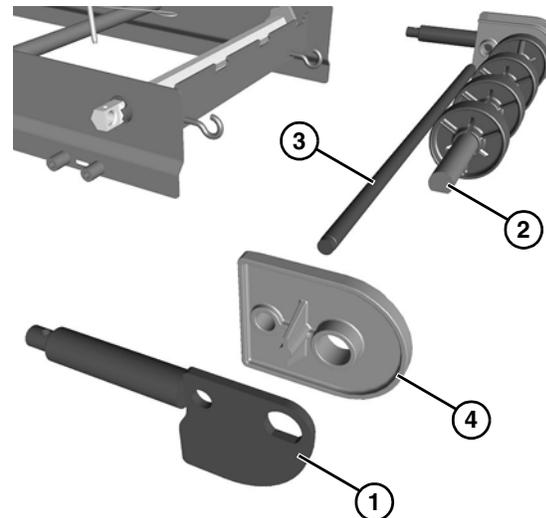


Figure 60

4. Remove tracking plate (Figure 60, item 4) from idler shaft and pinch guard shaft.
5. Remove pinch guard shaft (Figure 60, item 2).

Preventive Maintenance and Adjustment

- Slide the pucks (**Figure 61, item 1**) and alignment bar (**Figure 61, item 2**) off the idler shaft (**Figure 61, item 3**).

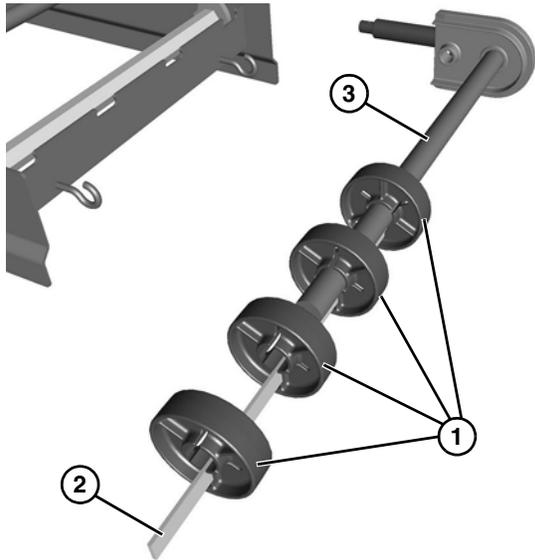


Figure 61

C - Nose Bar Puck Removal

- Slide the nose bar drive or transfer post (**Figure 62, item 1**) out of the nose bar drive weldment or idler hands (**Figure 62, item 2**).

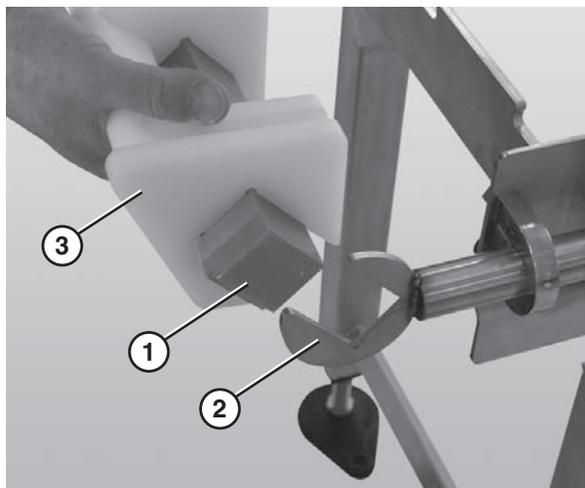


Figure 62

- Remove the nose bar tracking pucks (**Figure 62, item 3**), if applicable.

- Remove the nose bar wear strip (**Figure 63, item 3**).

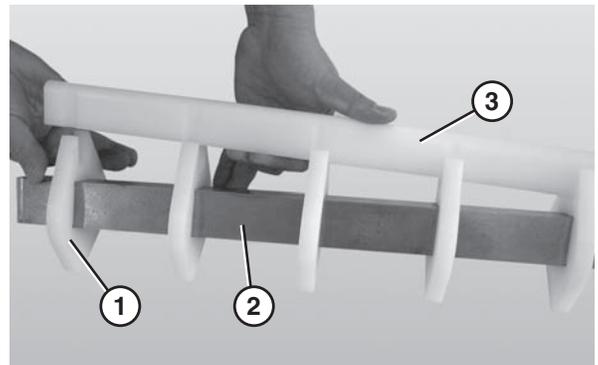


Figure 63

- Slide the nose bar pucks (**Figure 63, item 1**) off the nose bar shaft (**Figure 63, item 2**).

Reassembling Tail Assembly

Refer to the "Service Parts" section starting on page 24 for complete diagrams and lists of all tail assembly components.

Nose Bar Idler

- Slide the nose bar pucks (**Figure 64, item 1**) onto the nose bar drive post (**Figure 64, item 2**).

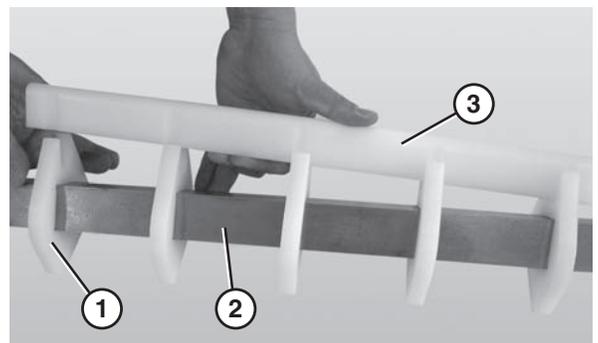


Figure 64

- Attach the nose bar wear strip (**Figure 64, item 3**).

Preventive Maintenance and Adjustment

3. Attach the nose bar tracking pucks (Figure 65, item 1) to the nose bar drive post (Figure 65, item 2).

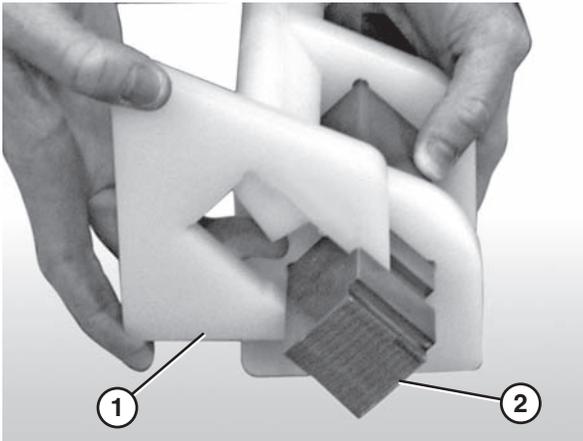


Figure 65

4. After all tracking pucks (Figure 66, item 3) are installed, slide the nose bar drive or transfer post (Figure 66, item 1) into the nose bar drive weldment or idler hands (Figure 66, item 2).

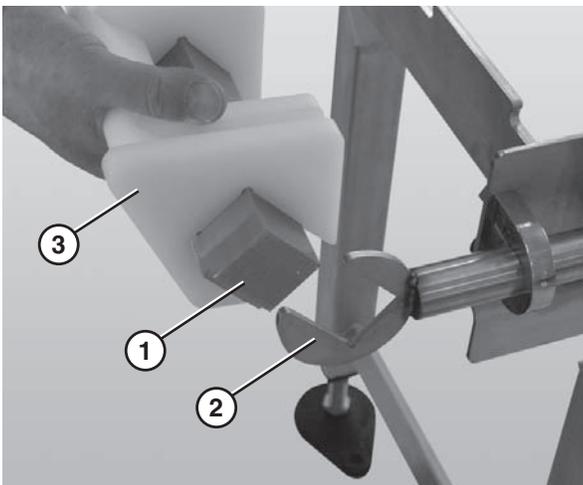


Figure 66

Idler Tail

1. Place the pucks (Figure 67, item 1) onto the alignment bar (Figure 67, item 2), and install onto the idler shaft (Figure 67, item 3).

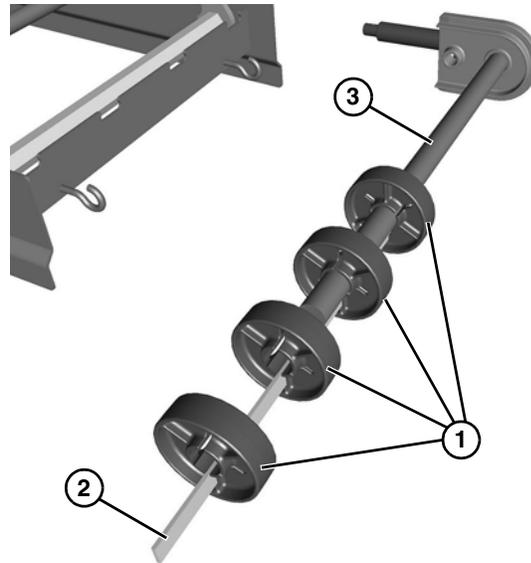


Figure 67

2. Slide all the idler pucks (Figure 67, item 1) along with alignment bar onto idler shaft (Figure 67, item 3).
3. Install the tracking plate (Figure 68, item 1) to each side onto idler shaft (Figure 68, item 2) and pinch guard shaft (Figure 68, item 3).

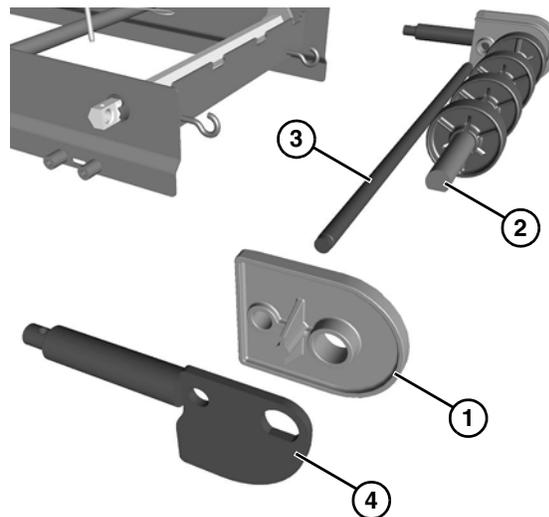


Figure 68

4. Install the shaft assembly (Figure 68, item 4).

Preventive Maintenance and Adjustment

Drive Tail

1. Assemble sprockets (**Figure 69, item 1**) to the slots of alignment bar (**Figure 69, item 2**), and install assembly onto drive spindle (**Figure 69, item 3**).

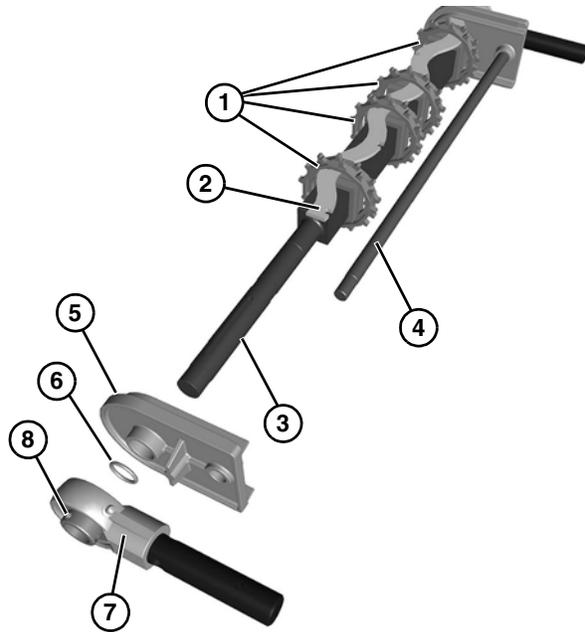


Figure 69

2. Install pinch guard shaft (**Figure 69, item 4**).
3. Slide the tracking plate (**Figure 69, item 5**) onto the drive spindle and pinch guard shaft.

NOTE

*When installing tracking plate, be certain O-ring (**Figure 69, item 6**) is installed.*

4. Slide the shaft assembly (**Figure 69, item 7**) onto the drive spindle and tighten set screws (**Figure 69, item 8**) on bearing.

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 70**).

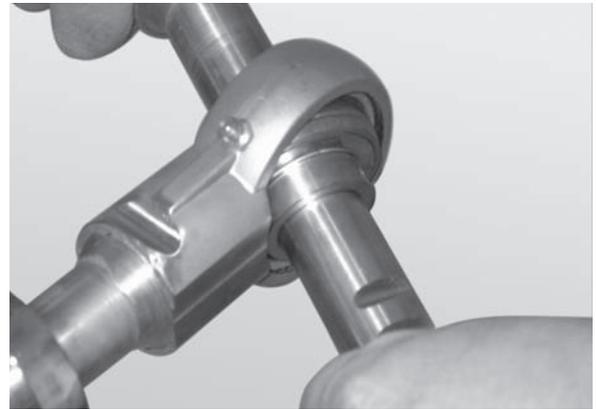


Figure 70

3. Apply lateral pressure to the rod until the bearing comes loose.
4. Remove the worn or damaged bearing (**Figure 71**).

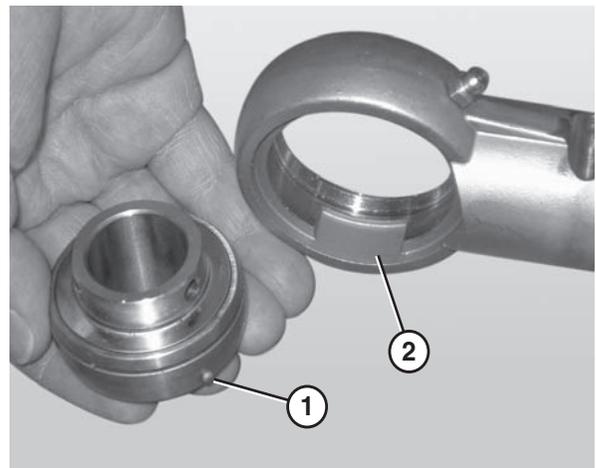


Figure 71

5. Replace the bearing.

NOTE

*When inserting the new bearing, make sure the anti-rotation notch (**Figure 71, item 1**) on the bearing lines up with the groove inside the housing (**Figure 71, 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:

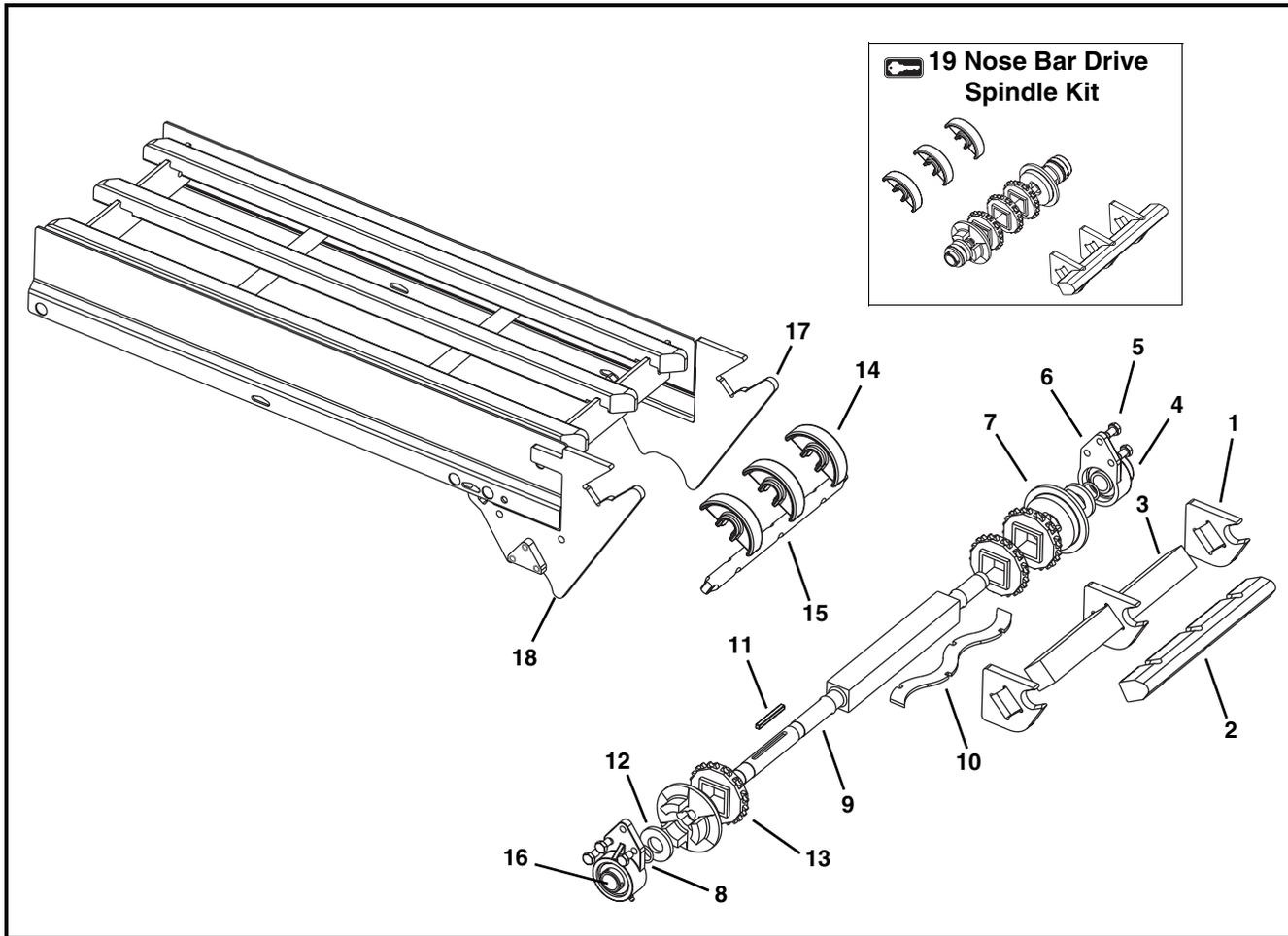
- For wearstrips, replace as needed, making sure wear strips are situated securely in the frame slots.
- For belt returns, Refer to “Belt Return Installation” on page 13.

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	5178WW	Nose Bar Drive Post
4	807-1454	Cover
5	961016MSS	Hex Head Cap Screw M10-1.5x16mm
6	500288	3 Hole Flange with Bearing
7	517201	Flange Puck
8	807-1588	O-Ring

Item	Part Number	Description
9	5179WW	Drive Spindle for Standard Belt
	5180WW	Drive Spindle for Specialty Intralox Belt
	5297WW	CE Drive Spindle for Standard Belt
	5299WW	CE Drive Spindle for Specialty Intralox Belt
10	5162WW	Sprocket Alignment Bar for Standard .50" Pitch Belt
	5163WW	Sprocket Alignment Bar for Specialty Intralox .60" Pitch Belt
11	912-111SS	Square Key .25" x 2.50"
12	501381	Washer, Puck Standoff

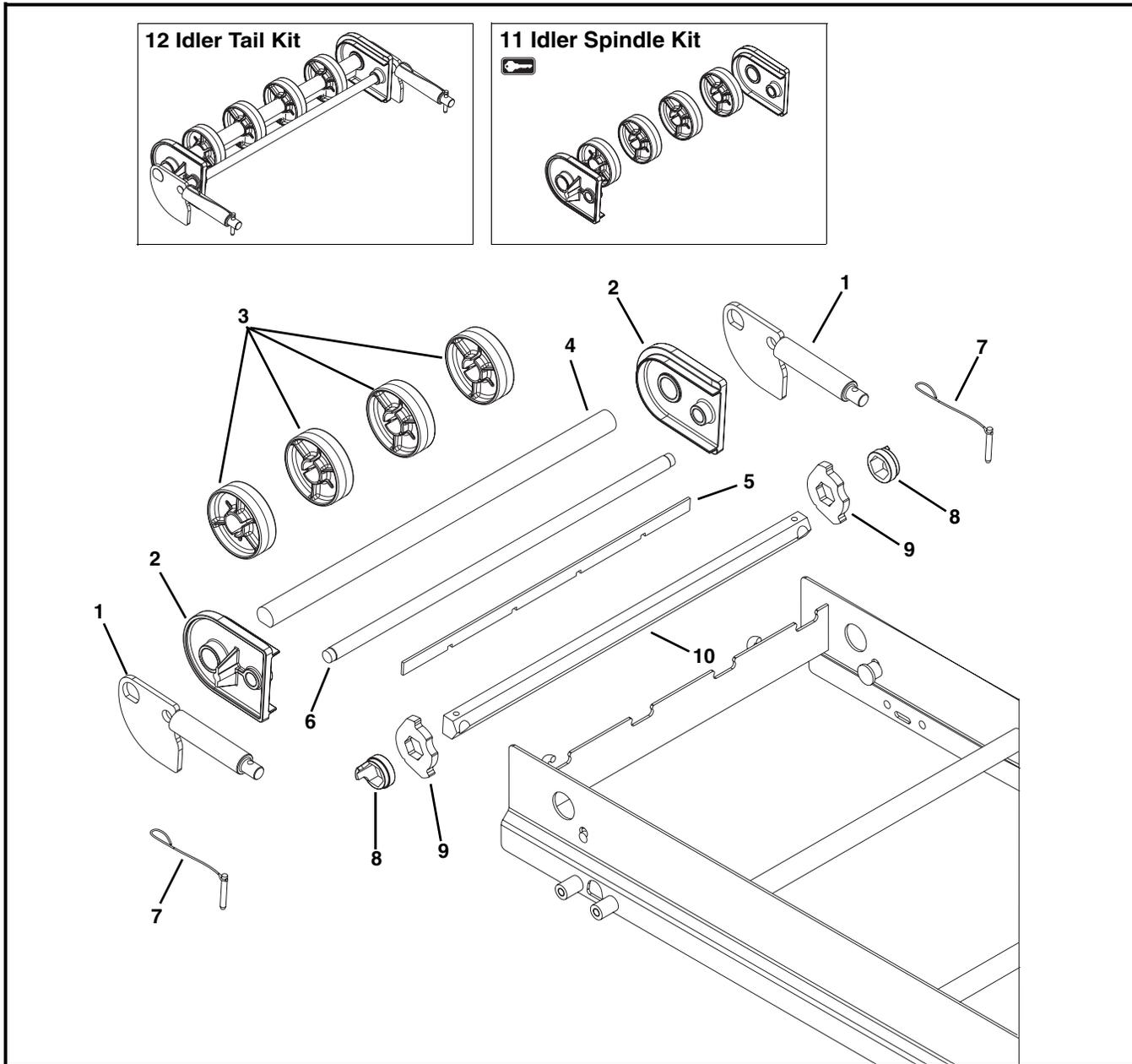
Service Parts

Item	Part Number	Description
13	807-1443	Sprocket for Standard .50" Pitch Belt
	807-1446	Sprocket for Specialty Intralox .60" Pitch Belt
14	500075	Belt Return
15	5039 WW	Return Shaft
16	802-162	Bearing
17	501490	Nose Bar Side Plate Assembly (D Mount Position Only)
18	501389	Nose Bar Side Plate Assembly (A Mount Position Only)
19	74UNBDD12- WW	Nose Bar Drive Spindle Kit when Conveyor is ordered with a Dorner Gearmotor Mounting Package for Standard .50" Pitch Belt (Includes Items 1, 2, 4, 7, 13, 14, and 16)
	74UNBDD11- WW	Nose Bar Drive Spindle Kit when Conveyor is ordered with a Dorner Gearmotor Mounting Package for Specialty Intralox .60" Pitch Belt (Includes Items 1, 2, 4, 7, 13, 14, and 16)
	74UNBDC12- WW	Nose Bar Drive Spindle Kit when Conveyor is ordered without a Dorner Gearmotor Mounting Package for Standard .50" Pitch Belt (Includes Items 1, 2, 4, 7, 13, 14, and 16)
	74UNBDC11- WW	Nose Bar Drive Spindle Kit when Conveyor is ordered without a Dorner Gearmotor Mounting Package for Specialty Intralox .60" Pitch Belt (Includes Items 1, 2, 4, 7, 13, 14, and 16)
WW = Conveyor width ref: 06 - 36 in 02 increments		
* When the conveyor is ordered with a Dorner gearmotor mounting package the shaft assembly is replaced with a gearmotor mounting bracket.		

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

Service Parts

Tip Up Idler End

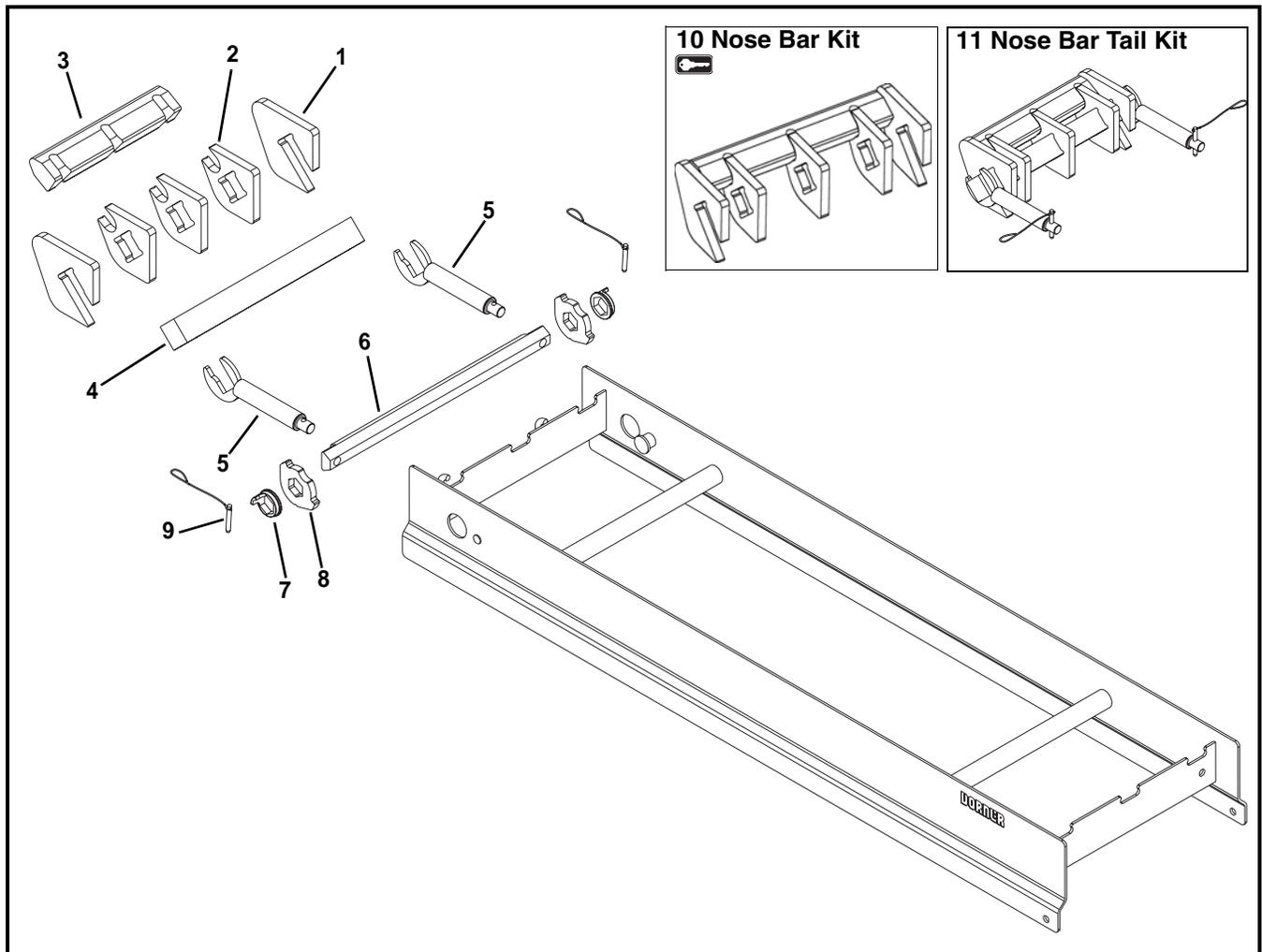


Item	Part Number	Description
1	506802	Idler Shaft Assembly
2	506327- <u>WW</u>	Tracking Plate for Standard Belt
	506332- <u>WW</u>	Tracking Plate for Specialty Intralox Belt
3	506297	Idler Puck
4	501189	Idler Shaft
5	506313- <u>WW</u>	Alignment Bar for Standard Belt
	506314- <u>WW</u>	Alignment Bar, for Specialty Intralox Belt
6	506396- <u>WW</u>	Pinch Guard Shaft
7	501489	Pin Assembly

Item	Part Number	Description
8	506307	Tip Up Sleeve
9	506356	Stop Key
10	506391- <u>WW</u>	Hex Bar
11	74UIX- <u>WW</u>	Idler Spindle Kit for Standard Belt (Includes Items 2 and 3)
	74UISX- <u>WW</u>	Idler Spindle Kit for Specialty Intralox Belt (Includes Items 2 and 3)
12	74UITX- <u>WW</u>	Idler Tail Kit for Standard Belt (Includes Items 1 through 7)
	74UITSX- <u>WW</u>	Idler Tail Kit for Specialty Intralox Belt (Includes Items 1 through 7)

WW = Conveyor width ref: 06 - 36 in 02 increments

Nose Bar Tip Up Idler End



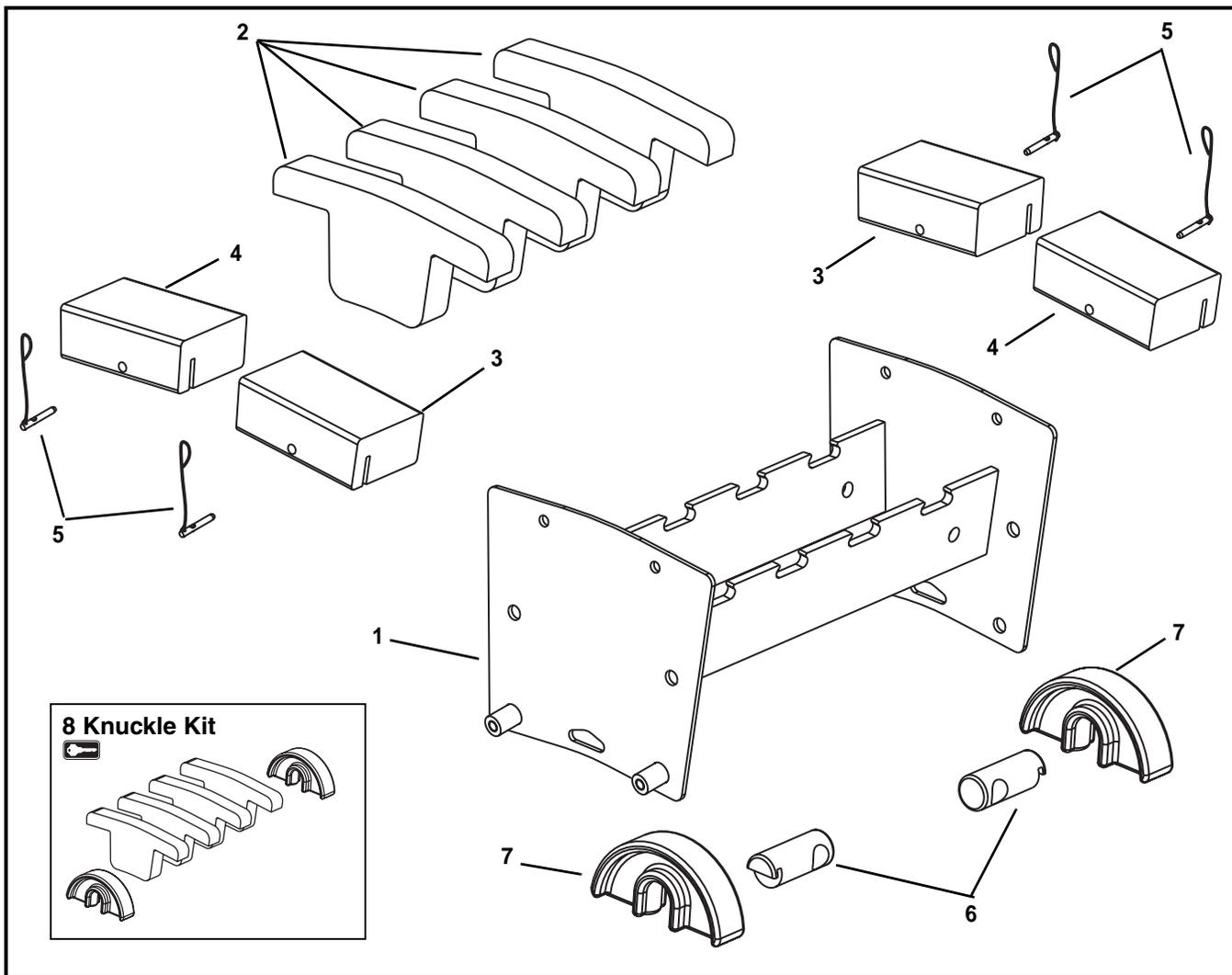
Item	Part Number	Description
1	500490	Nose Bar Tracking Puck
2	500278	Nose Bar Puck
3	5056WW	Wear Strip
4	5037WW	Nose Bar Transfer Post for Standard Belt
	5076WW	Nose Bar Transfer Post for Specialty Intralox Belt
5	509805	Nose Bar Idler Shaft
6	506391-WW	Hex Bar

Item	Part Number	Description
7	506307	Tip Up Sleeve
8	506356	Stop Key
9	501489	Pin Assembly
10	74UNB5X-WW	Nose Bar Kit (Includes Items 1 through 3)
11	74UNBT5X-WW	Nose Bar Tail Kit for Standard Belt (Includes Items 1 through 5 and 9)
	74UNBT5SX-WW	Nose Bar Tail Kit for Specialty Intralox Belt (Includes Items 1 through 5 and 9)

WW = Conveyor width ref: 06 - 36 in 02 increments

Service Parts

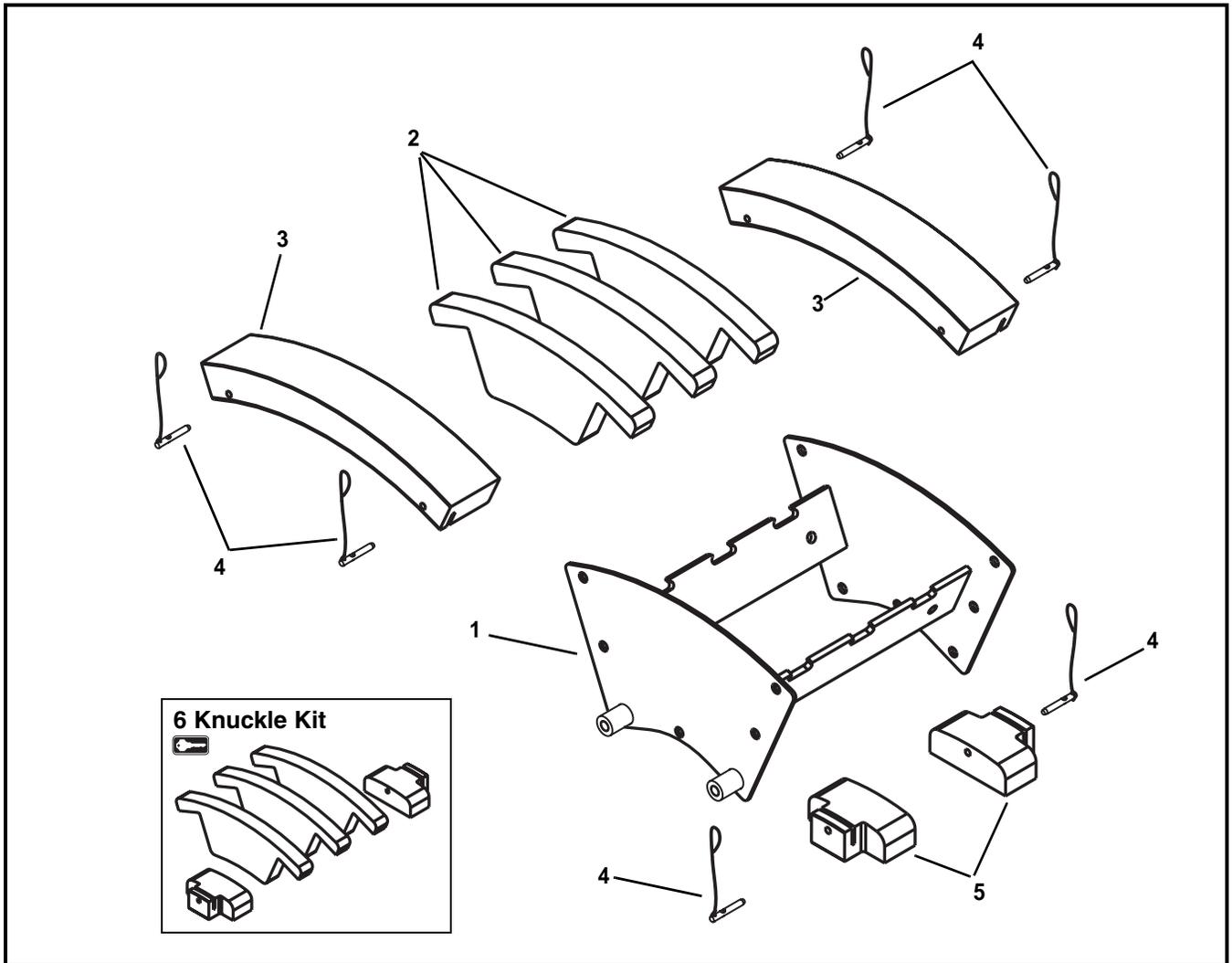
Upper Knuckle for 5° - 15°



Item	Part Number	Description
1	5236 <u>WW</u>	Frame Assembly for 5° Knuckle
	5237 <u>WW</u>	Frame Assembly for 10° Knuckle
	5238 <u>WW</u>	Frame Assembly for 15° Knuckle
2	501695- <u>AA</u>	Wear Strips for 5° - 15° Knuckle
3	501893- <u>AA</u>	1.5" Hold Down Guide for 5° - 15° Knuckle Right Hand 6"-16" wide
	501685- <u>AA</u>	1.5" Hold Down Guide for 5° - 15° Knuckle Right Hand 18"-24" wide
	501883- <u>AA</u>	3" Hold Down Guide for 5° - 15° Knuckle Right Hand 6"-16" wide
	501684- <u>AA</u>	3" Hold Down Guide for 5° - 15° Knuckle Right Hand 18"-24" wide

Item	Part Number	Description
4	501699- <u>AA</u>	1.5" Hold Down Guide for 5° - 15° Knuckle Left Hand 6"-16" wide
	501687- <u>AA</u>	1.5" Hold Down Guide for 5° - 15° Knuckle Left Hand 18"-24" wide
	501698- <u>AA</u>	3" Hold Down Guide for 5° - 15° Knuckle Left Hand 6"-16" wide
	501686- <u>AA</u>	3" Hold Down Guide for 5° - 15° Knuckle Left Hand 18"-24" wide
5	501676	Pull Pin
6	500196	Return Shaft
7	500075	Return Shoe
8	74UKL- <u>WW</u> - <u>AA</u>	Upper Knuckle Kit (Includes Items 2 and 7)
		<u>WW</u> = Conveyor width ref: 06 - 24 in 02 increments
		<u>AA</u> = Angle 05, 10 or 15

Upper Knuckle for 30°



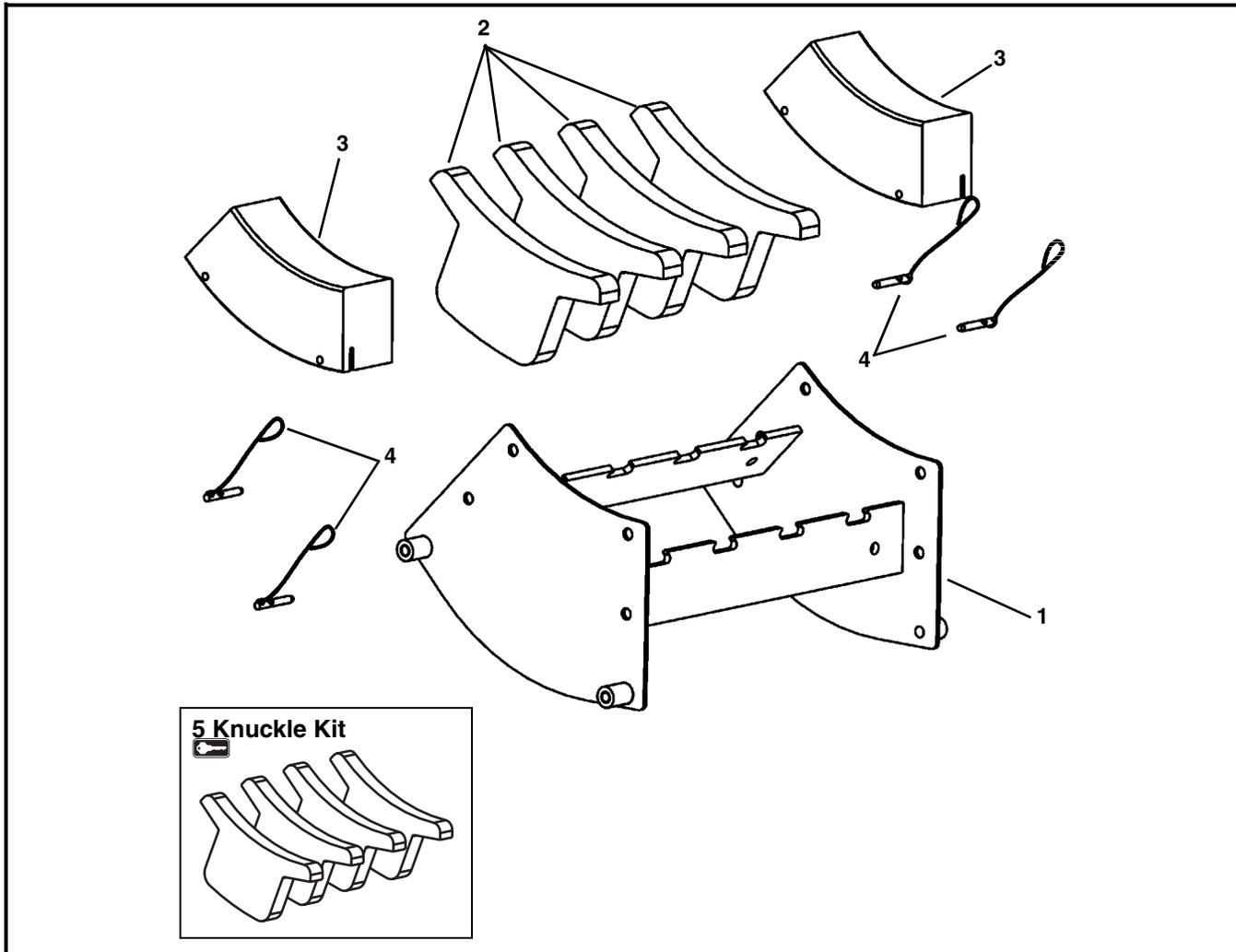
Item	Part Number	Description
1	5239WW	Frame Assembly for 30° Knuckle
2	501693-30	Wear Strips for 30° Knuckle
3	501697-30	1.5" Hold Down Guide for 30° Knuckle
	501879-30	3" Hold Down Guide for 30° Knuckle

Item	Part Number	Description
4	807-1553	Pull Pin
5	501683	Return Guide
6	74UKH-WW-30	Upper Knuckle Kit (Includes Items 2 and 5)

WW = Conveyor width ref: 06 - 24 in 02 increments

Service Parts

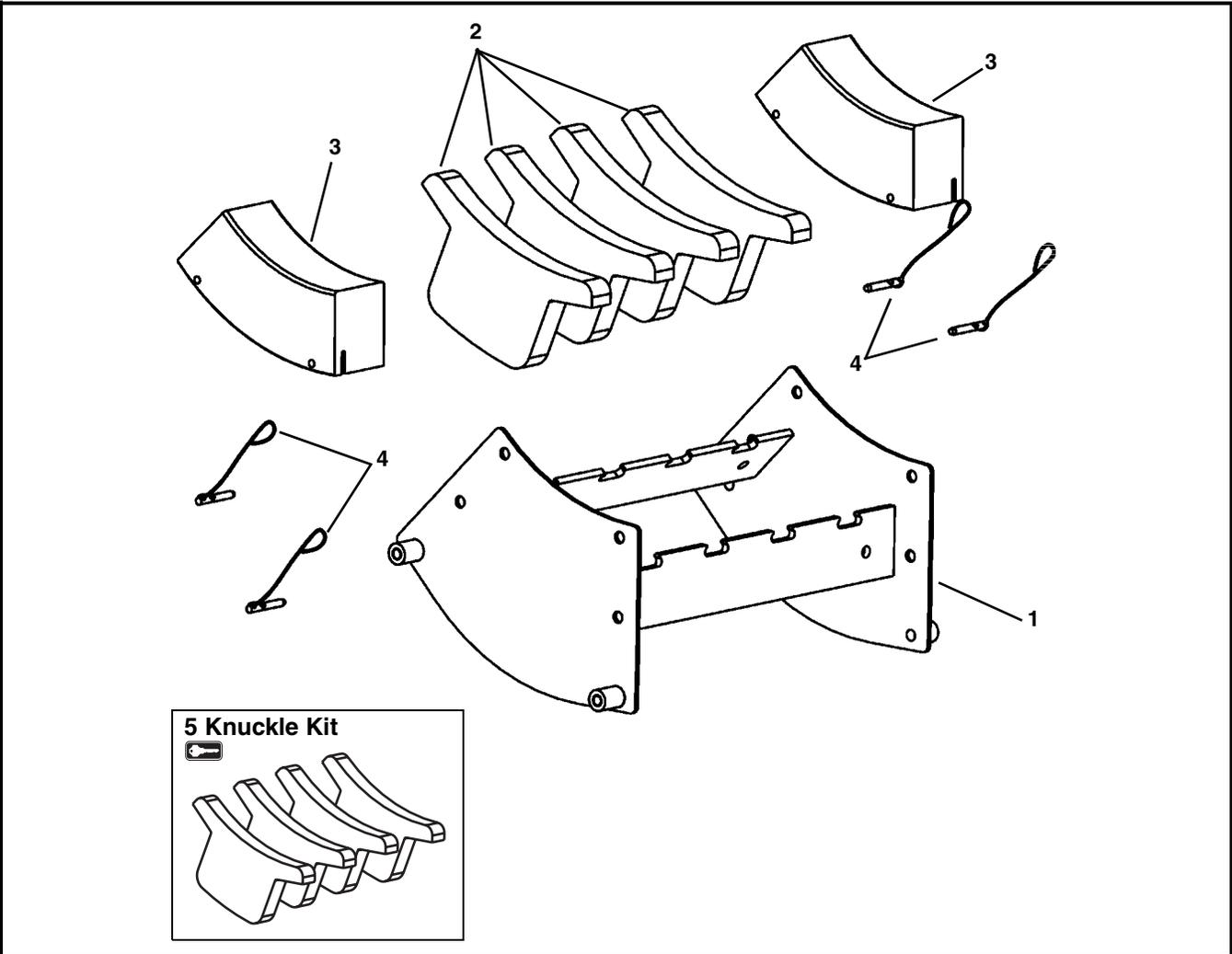
Lower Knuckle for 5° - 15°



Item	Part Number	Description
1	5230 <u>WW</u>	Frame Assembly for 5° Knuckle
	5231 <u>WW</u>	Frame Assembly for 10° Knuckle
	5232 <u>WW</u>	Frame Assembly for 15° Knuckle
2	501694- <u>AA</u>	Wear Strips for 5° - 15° Knuckle
3	501692- <u>AA</u>	1.5" Hold Down Guide for 5° - 15° Knuckle 6"-16" wide
	501974- <u>AA</u>	1.5" Hold Down Guide for 5° - 15° Knuckle 18"-24" wide
	501878- <u>AA</u>	3" Hold Down Guide for 5° - 15° Knuckle 6"-16" wide
	501973- <u>AA</u>	3" Hold Down Guide for 5° - 15° Knuckle 18"-24" wide

Item	Part Number	Description
4	501676	Pull Pin
5	74LKL- <u>WW</u> - <u>AA</u>	Lower Knuckle Kit (Includes Item 2)
<u>WW</u> = Conveyor width ref: 06 - 24 in 02 increments		
<u>AA</u> = Angle 05, 10 or 15		

Lower Knuckle for 30°



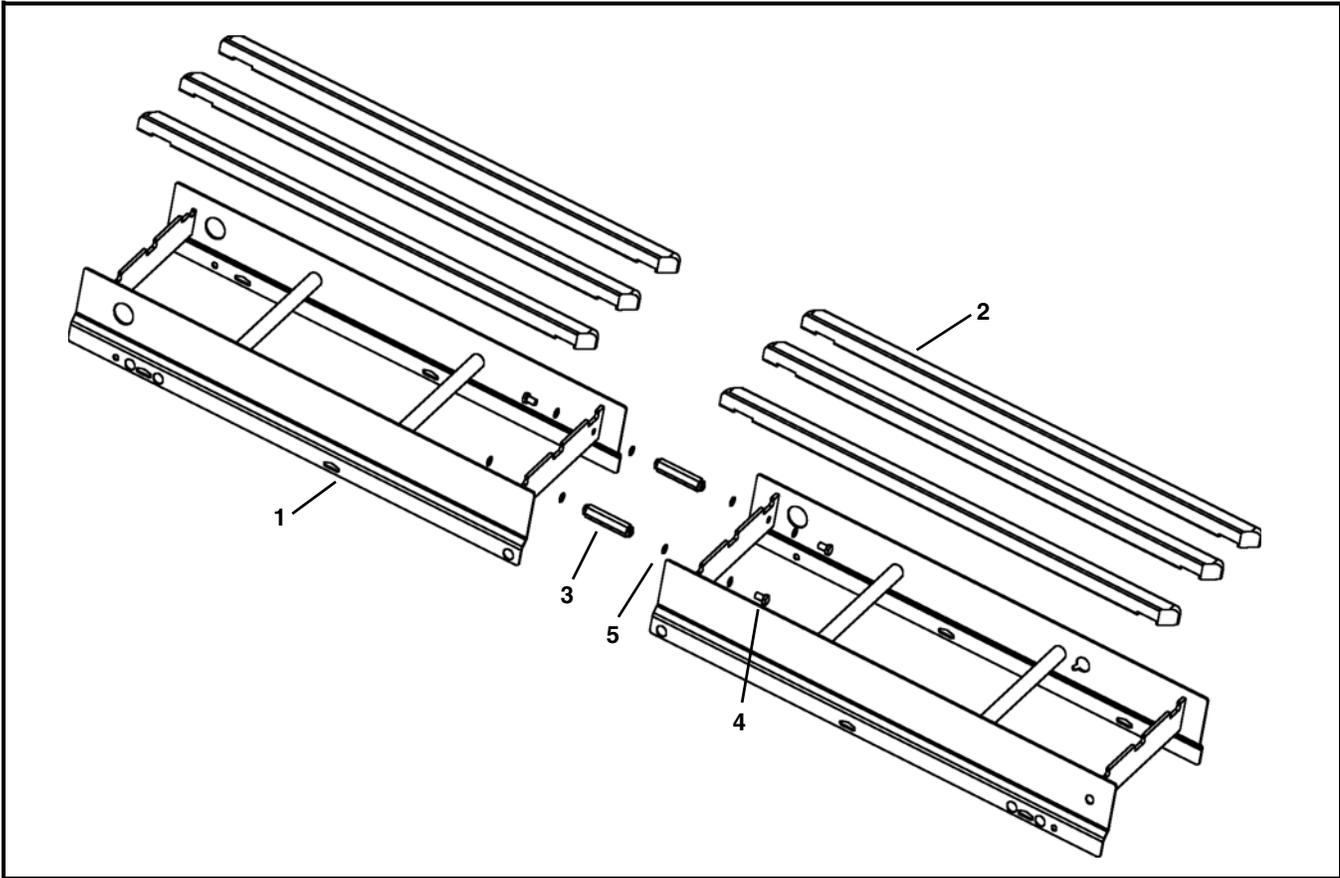
Item	Part Number	Description
1	5233WW	Frame Assembly for 30° Knuckle
2	501691-30	Wear Strips for 30° Knuckle
3	501692-30	1.5" Hold Down Guide for 30° Knuckle
	501878-30	3" Hold Down Guide for 30° Knuckle

Item	Part Number	Description
4	501676	Pin Assembly
5	74LKH-WW-30	Lower Knuckle Kit (Includes Item 2)

WW = Conveyor width ref: 06 - 24 in 02 increments

Service Parts

Conveyor Frame and Extension

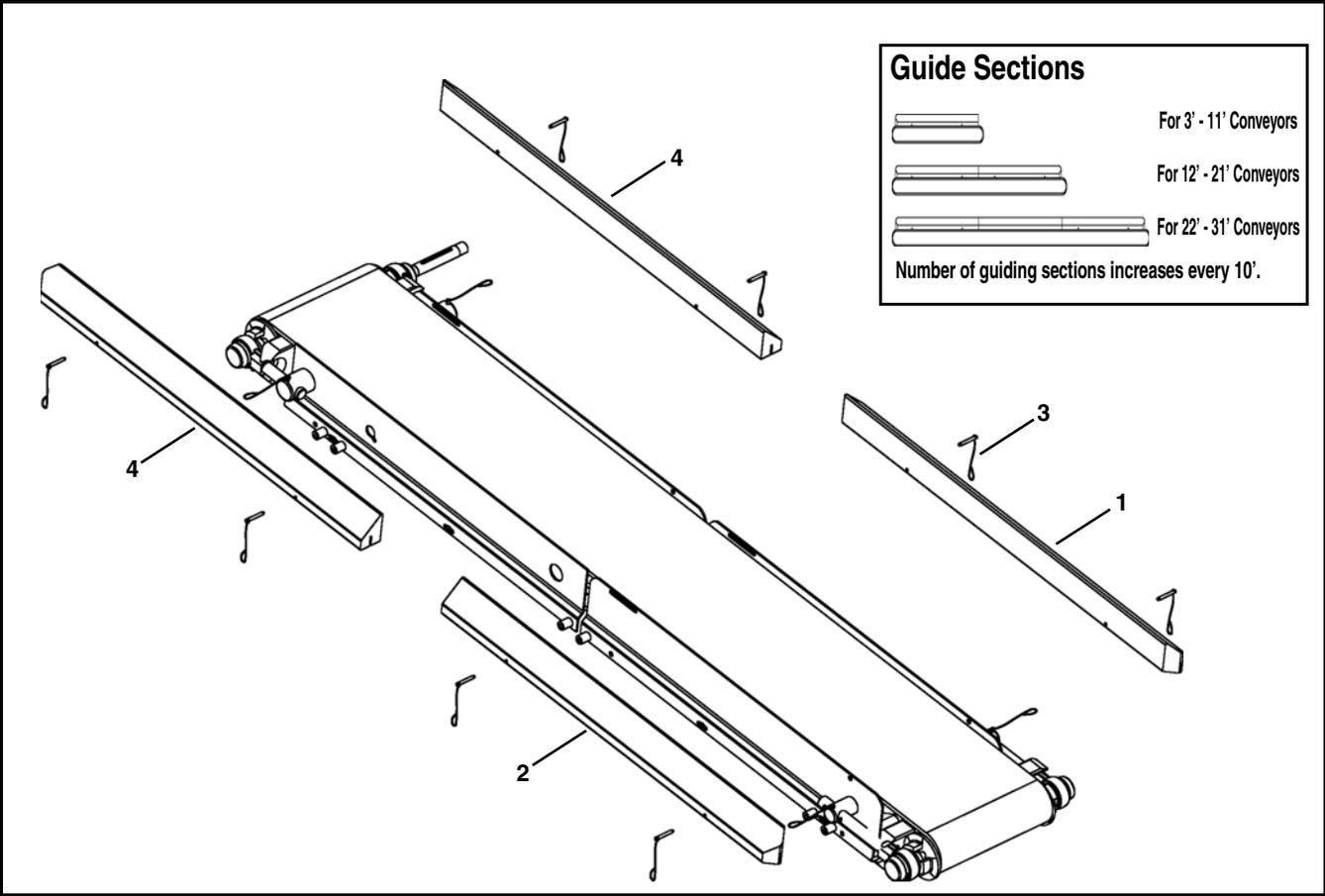


Item	Part Number	Description
1	-----	Consult Factory for Frame Part Number
2	501800-LLL	Straight Wear Strip
3	501190	Hex Post Connector
4	961016MSS	Hex Head Cap Screw M10-1.5 x 16mm
5	807-1616	O-Ring

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

		Wear Strip Quantity (Item 2)							
		Conveyor Length (LLL)							
		036-132	133-252	253-372	373-492	493-612	613-732	733-852	853-999
Conveyor Width (WWW)	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
	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	

3" (76 mm) High Sides

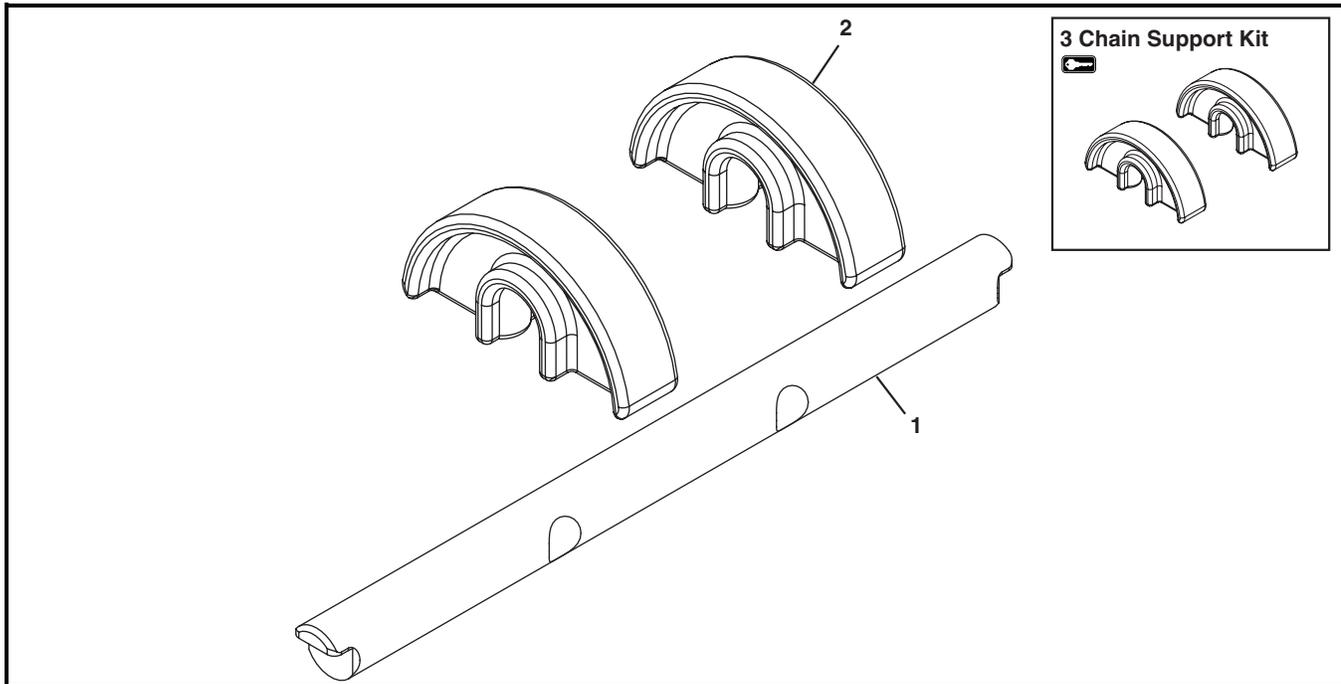


Item	Part Number	Description
1	503501- <u>LLLLL</u>	Right Hand High Side Guide
2	503601- <u>LLLLL</u>	Left Hand High Side Guide
3	501676	Pin Assembly

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

Service Parts

Flat Belt Returns

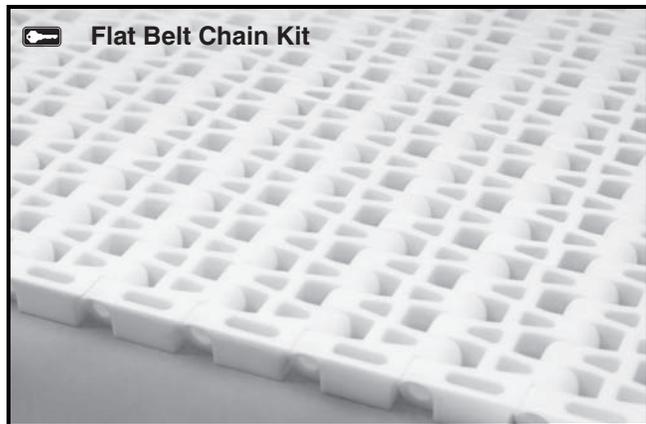


Item	Part Number	Description
1	5032WW	Return Shaft
2	500075	Chain Return Shoe

Item	Part Number	Description
3	74R-WW	Chain Support Kit (Includes Item 2)

WW = Conveyor width ref: 06 - 36 in 02 increments

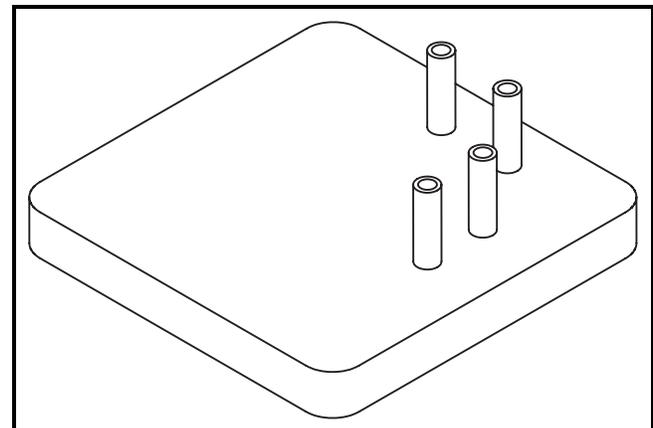
Flat Belt Chain Repair Kit



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 - 36 in 02 increments

Belt Removal Tool



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

Ordering a Replacement Chain

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

Example:

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

Order: Qty (43) of 74BB-WW

BB = Chain reference number

WW = Conveyor width ref: 06 - 36 in 02 increments

Configuring a Conveyor Part Number

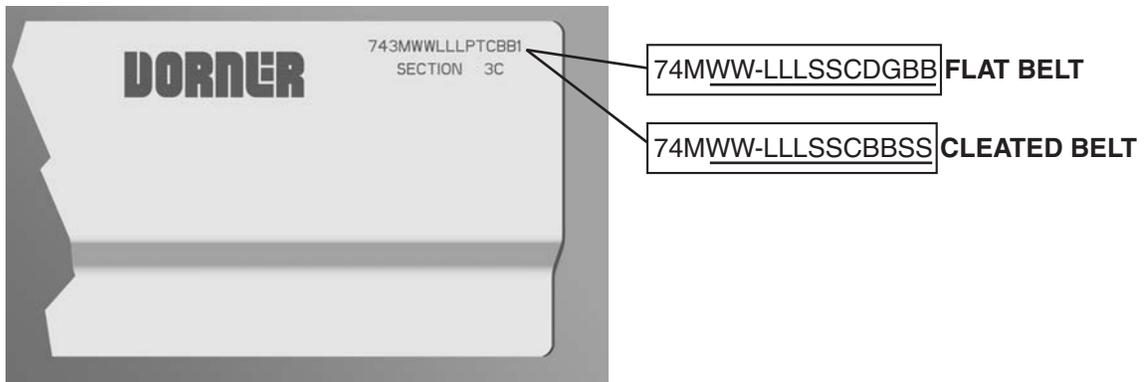


Figure 72

Flat Belt Conveyor

Refer to the model number on the conveyor frame (**Figure 72**). 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:

74M12-072CC1NA10

7400 Series end drive, cleated belt conveyor, 12" (305 mm) wide x 72" (1829 mm) long, stands located 18" (457 mm) 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 (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	30%
Plastic chain, 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 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.



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