



# 7600 Series End Drive Conveyors

## Installation, Maintenance and Parts Manual



Flat Belt Conveyor



Cleated Belt Conveyor

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](http://www.dorner.com/service_manuals.asp)

# Table of Contents

Introduction .....	2	Troubleshooting .....	15
Warnings – General Safety .....	3	Conveyor Belt Replacement .....	15
Product Description .....	4	Conveyors with Guides .....	16
Specifications .....	4	Standard Belts .....	16
Flat Belt 7600 Series Conveyor .....	4	Conveyor Belt Tensioning .....	17
Cleated Belt 7600 Series Conveyor .....	4	Conveyor Belt Tracking .....	17
Conveyor Supports .....	5	Spindle Removal .....	18
Specifications .....	5	A - Drive Spindle Removal .....	18
Installation .....	6	B - Idler Spindle Removal .....	20
Required Tools .....	6	C - .5" Nose Bar Idler Spindle Removal .....	21
Recommended Installation Sequence .....	6	D - 1" Nose Bar Idler Spindle Removal .....	22
Conveyors up to 10 ft (3048 mm) .....	6	E - 1.875" Nose Bar Idler Spindle Removal .....	23
Belt Return Installation .....	6	Reassembling Tail Assemblies .....	24
Flat Belt .....	6	Gas Assist Replacement .....	24
Cleated Belt .....	7	Bearing Replacement .....	24
Scraper Installation .....	7	Standard Bearings .....	24
Stand Installation .....	9	.5" and 1" Nose Bar Return Spindle Bearings .....	25
Drive Package Installation .....	9	1" Nose Bar Bearings .....	25
Conveyors Longer than 10 ft (3048 mm) .....	10	1.875" Nose Bar Bearings .....	25
Connecting Components .....	10	Service Parts .....	26
Wear Strip Installation .....	10	Drive End Components .....	26
Standard Wear Strips .....	10	Idler End Components .....	27
Stainless Steel Sheet Bed Plates (optional) .....	11	.5" Nose Bar Idler End .....	28
Lifter Installation .....	11	1" Nose Bar Idler End .....	30
Belt Installation .....	12	1.875" Nose Bar Idler End .....	32
Belt Return Installation .....	13	Conveyor Frame and Extensions with Standard Wear	
Scraper Installation .....	13	Strips .....	33
Guide Installation .....	13	Wear Strips with Stainless Steel Sheet Bed Plate .....	34
Stand Installation .....	13	Lifters .....	35
Drive Package Installation .....	13	Gas Assisted Tip Up .....	35
Preventive Maintenance and Adjustment .....	14	3" High Sides .....	36
Required Tools .....	14	1" Cleated Guides .....	37
Checklist .....	14	3" Cleated Guides .....	38
Cleaning .....	14	Flat Belt Returns .....	39
Routine Cleaning .....	14	Cleated Belt Return .....	39
Standard Conveyors .....	14	Scraper .....	39
Conveyors with Lifters .....	14	Configuring Conveyor Belt Part Number .....	40
Periodic Cleaning .....	15	Flat Belt Part Number Configuration .....	40
Lubrication .....	15	Cleated Belt Part Number Configuration .....	40
Conveyor Bearings .....	15	Notes .....	41
Wearstrips and Belt Returns .....	15	Return Policy .....	42
Scraper .....	15		
Maintaining the Conveyor Belt .....	15		

## 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 7600 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 .


# 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 (Flat Belt Shown)
4	Return
5	Support Stands
6	Motor Controller
7	Drive End
8	Idler End

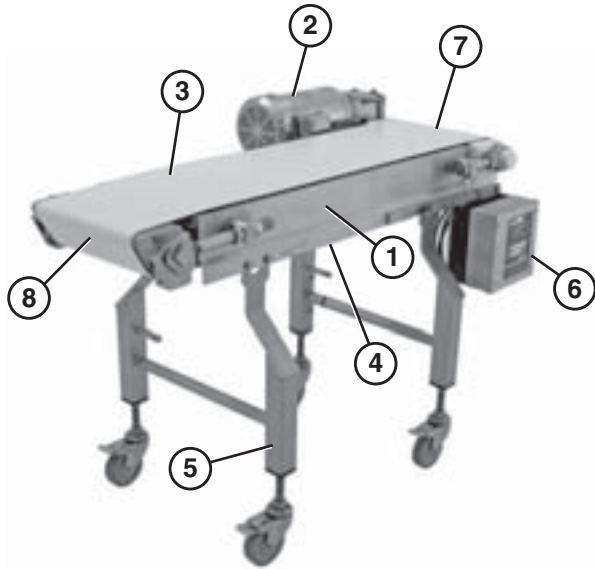
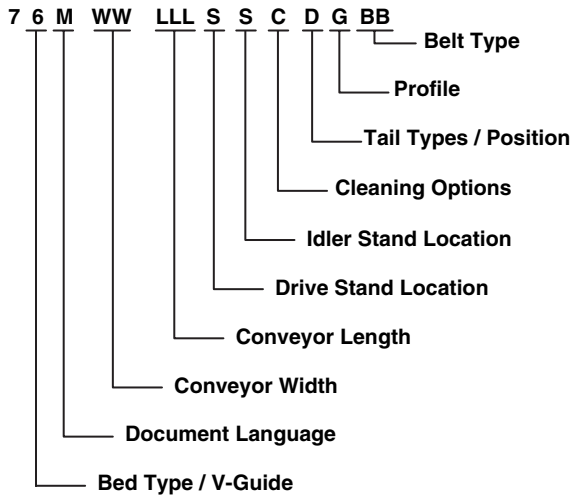


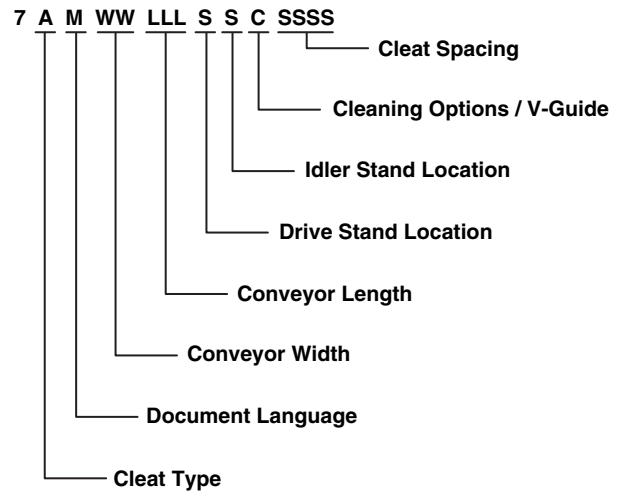
Figure 1

# Specifications

## Flat Belt 7600 Series Conveyor



## Cleated Belt 7600 Series Conveyor



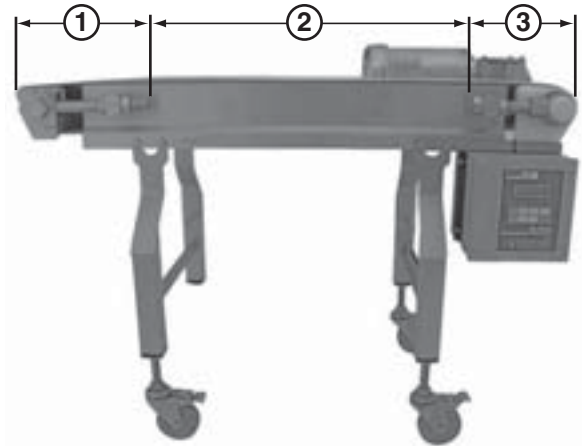
\* Refer to "Ordering and Specifications" Catalog for details.

## Conveyor Supports

### Maximum Distances:

- 1 = Support Stand on Idler End = 3 ft (914 mm)
- 2 = Between Support Stands = 8 ft (2438 mm)\*\*
- 3 = Support Stand on Drive End = 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 – 60 in 02 increments
Conveyor Belt Width	6" (152 mm) - 60" (1524 mm) in 2" (51 mm) increments
Maximum Conveyor Load	400 lbs. (181 kg)
Belt Travel	11.25" (286 mm) per revolution of pulley
Maximum Belt Speed	325 ft/minute (100 m/minute)
Belt Take-up	1.5" (38 mm)
Conveyor Length Reference ( <u>LLL</u> )	036 – 999 in 001 increments
Conveyor Length	36" (914 mm) - 480" (12192 mm) in 1" (25 mm) increments

### IMPORTANT

*Maximum conveyor loads are based on:*

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

# Installation

## CAUTION

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

## CAUTION

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

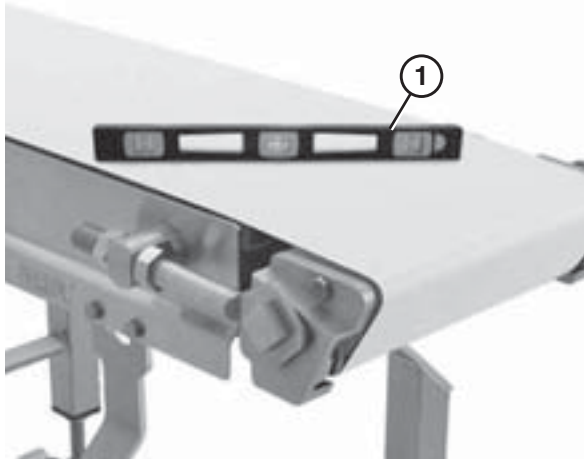


Figure 3

## Required Tools

- Level
- Torque wrench

## Recommended Installation Sequence

1. Assemble the conveyor (if required). Refer to “Conveyors up to 10 ft (3048 mm)” on page 6.
2. Attach the stands. Refer to “Stand Installation” on page 9.
3. Install the gearmotor. Refer to “Drive Package Installation” on page 9.

## Conveyors up to 10 ft (3048 mm)

### Belt Return Installation

#### Flat Belt

Typical Flat Belt Components (Figure 4)

- |   |                   |
|---|-------------------|
| 1 | Flat belt returns |
|---|-------------------|

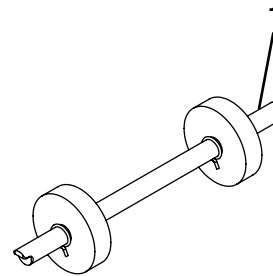


Figure 4

1. Slide the return shaft (Figure 5, item 1) up and through the large slot (Figure 5, item 2) in the frame.

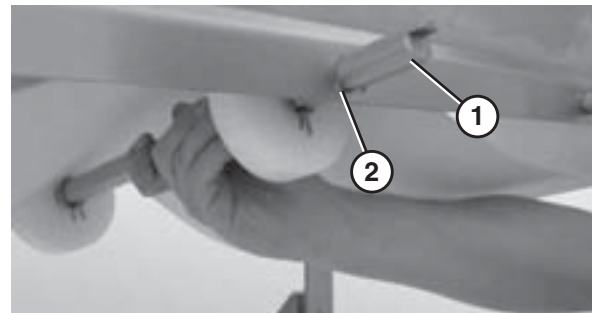


Figure 5

2. Push up on the return shaft (Figure 6, item 1) and slide the notched end of the shaft through the small slot (Figure 6, item 2) on the opposite side of the frame.

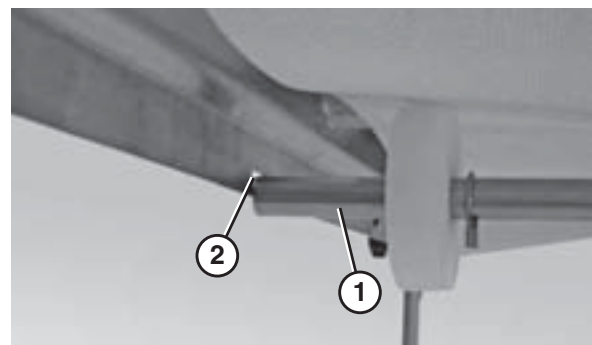


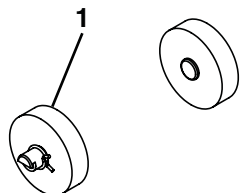
Figure 6

3. Repeat the procedure for all other belt returns.

## Cleated Belt

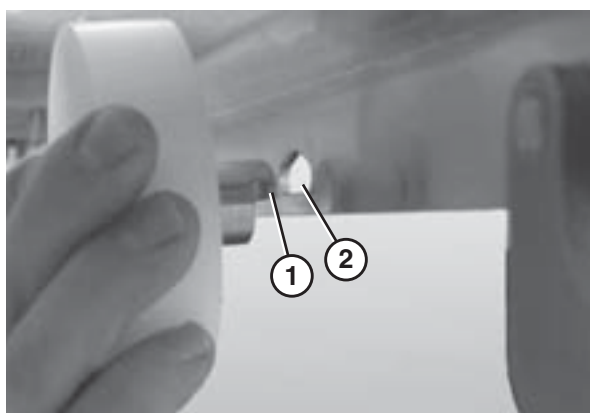
Typical Cleated Belt Components (Figure 7)

1	Cleated belt returns
---	----------------------



**Figure 7**

1. Insert the notched end of the return shaft (Figure 8, item 1) through the small hole (Figure 8, item 2) in the inside of the conveyor frame.



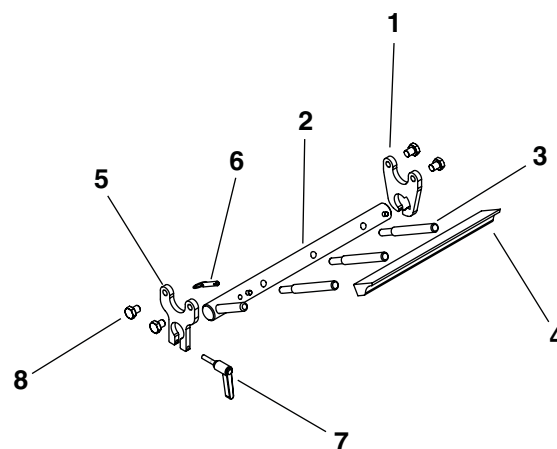
**Figure 8**

2. Repeat the procedure for all other belt returns.

## Scraper Installation

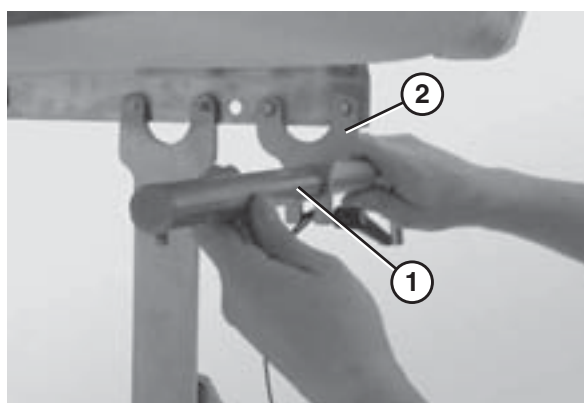
Typical Scraper Components (Figure 9)

1	Scraper adjust plate
2	Scraper shaft
3	Scraper bar holder
4	UHMW scraper
5	Scraper mount plate
6	Pull pin
7	Handle
8	M10-1.50 hex head cap screws (x4)



**Figure 9**

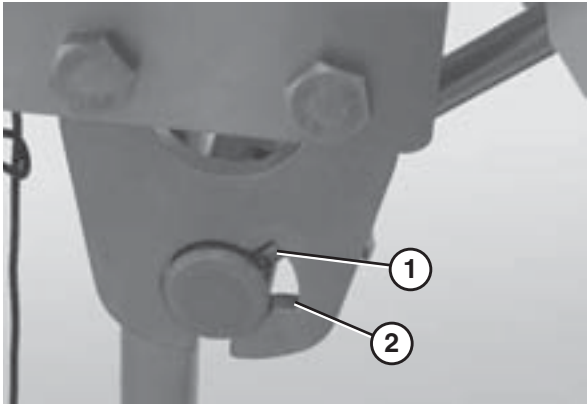
1. Attach the scraper adjust plate (Figure 9, item 1) and the scraper mount plate (Figure 9, item 5) to the frame using four M10-1.5 x 12mm hex head cap screws.
2. Slide the notched end of the scraper shaft (Figure 10, item 1) through the adjustment plate (Figure 10, item 2).



**Figure 10**

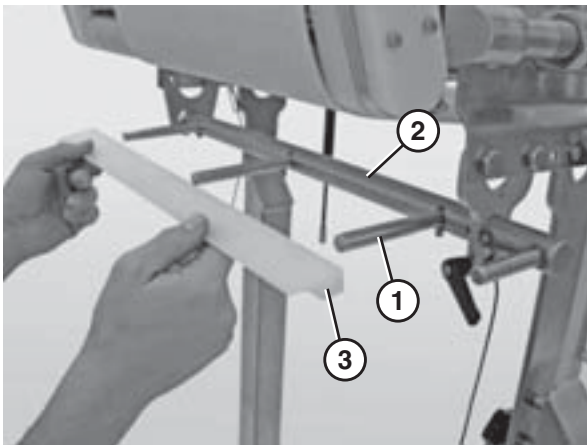
# Installation

3. Insert the notched end of the scraper shaft (Figure 11, item 1) so that it is situated within the groove in the mounting plate (Figure 11, item 2).



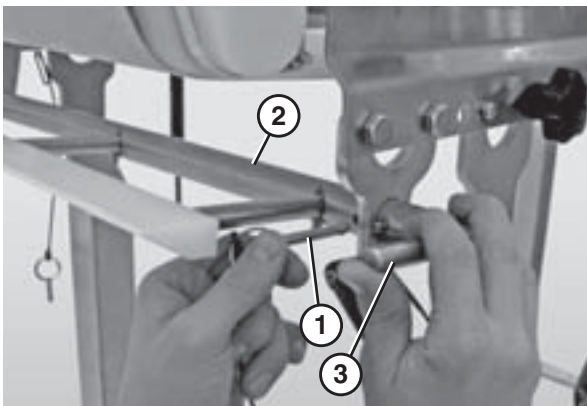
**Figure 11**

4. Attach the scraper bar holders (Figure 12, item 1) to the scraper shaft (Figure 12, item 2).



**Figure 12**

5. Attach the UWHM scraper (Figure 12, item 3) to the scraper bar holders (Figure 12, item 1).
6. Insert the pin (Figure 13, item 1) to lock the scraper bar in place (Figure 13, item 2).



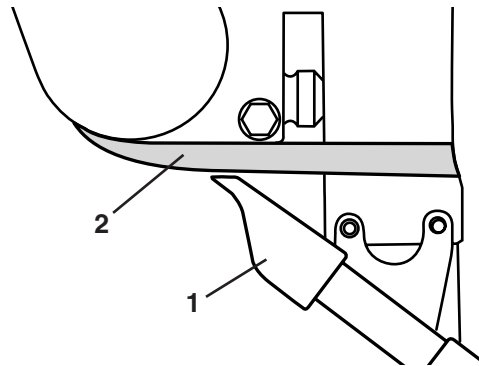
**Figure 13**

7. Adjust the scraper to the desired position using the scraper bar handle (Figure 13, item 3).

## CAUTION

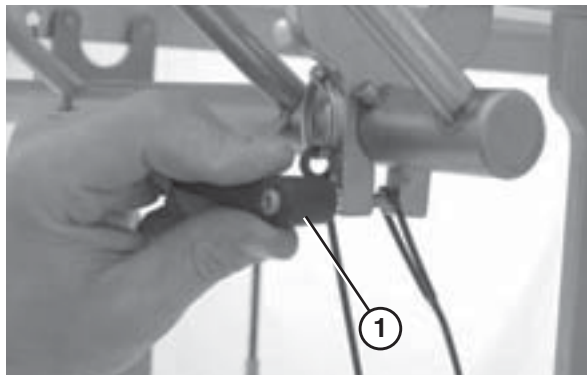
Apply minimal pressure between the scraper (Figure 14, item 1) and the belt (Figure 14, item 2).

Positioning the scraper so that it is digging into the belt will increase resistance, cause unnecessary strain on the motor and lead to premature belt failure.



**Figure 14**

8. Secure the scraper by tightening the handle (Figure 15, item 1).



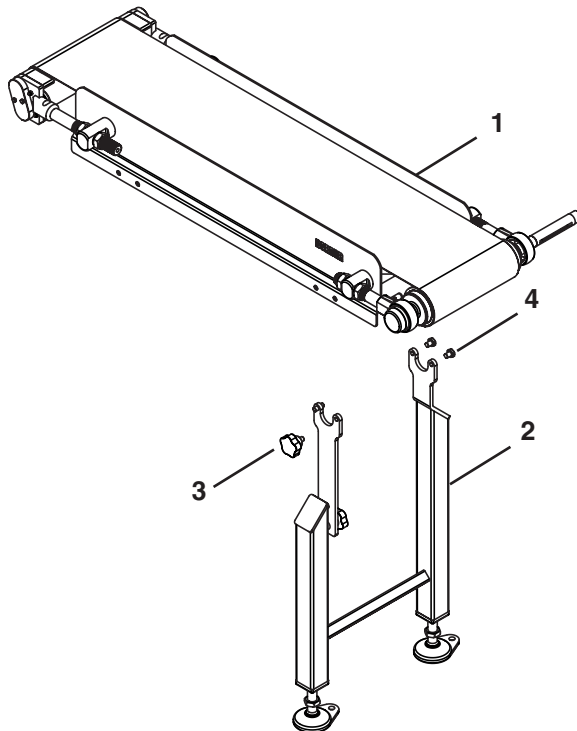
**Figure 15**



## Stand Installation

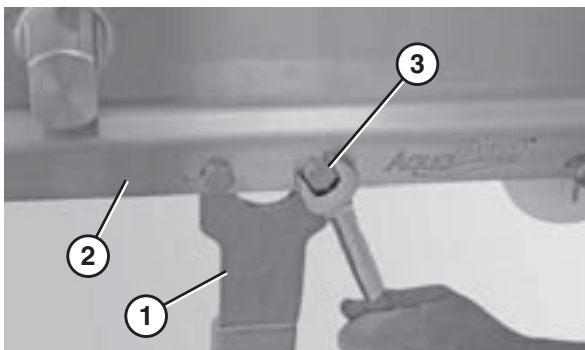
Typical Stand Components (Figure 16)

1	Conveyor
2	Stand
3	Knob
4	M10-1.50 x 12 mm hex head cap screws (x2)



**Figure 16**

1. Properly support the conveyor.
2. Attach the non-quick release side of the stand (Figure 17, item 1) to the MOTOR SIDE of the conveyor (Figure 17, item 2) using two M10-1.5 x 12mm hex head cap screws (Figure 17, item 3).



**Figure 17**

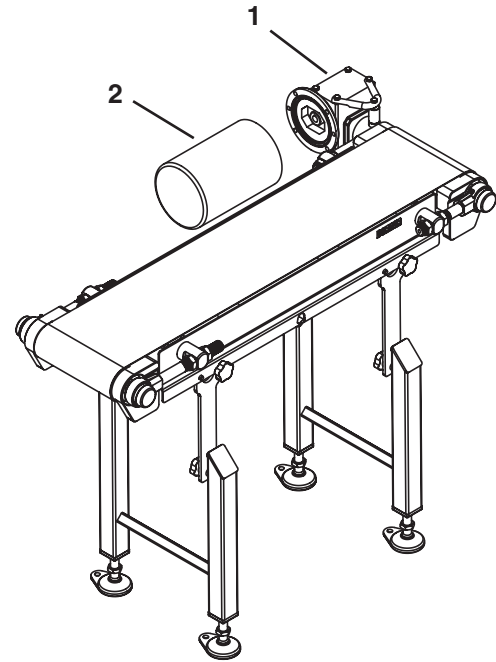
3. Attach the quick-release arm to the stand with the knob. (Figure 16, item 3).

For detailed assembly instructions, refer to the “Sanitary Support Stands Installation, Maintenance and Parts Manual.”

## Drive Package Installation

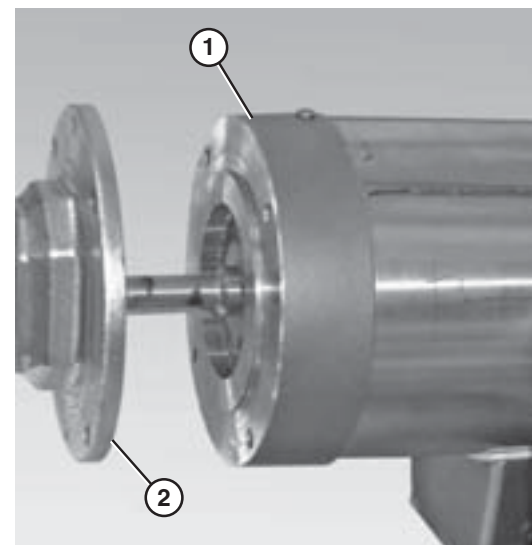
Typical Motor Components (Figure 18) (end drive shown)

1	End drive package
2	Motor



**Figure 18**

1. Attach the motor to the gear reducer (Figure 19).



**Figure 19**

For detailed assembly instructions, refer to the “7600 Series End Drive Packages Installation, Maintenance and Parts Manual.”

# Installation

## Conveyors Longer than 10 ft (3048 mm)

### Connecting Components

Typical Connection Components (Figure 20)

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

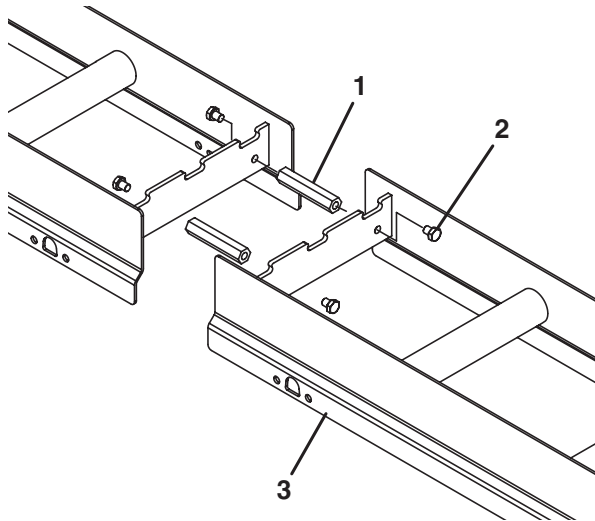


Figure 20

1. Locate the section number sequence etched on each section of frame (Figure 21, item 1).



Figure 21

2. Position the frame sections in the correct order.

3. Connect the frame sections by bolting the hex post connectors (Figure 22, item 1) to the sections of frame.

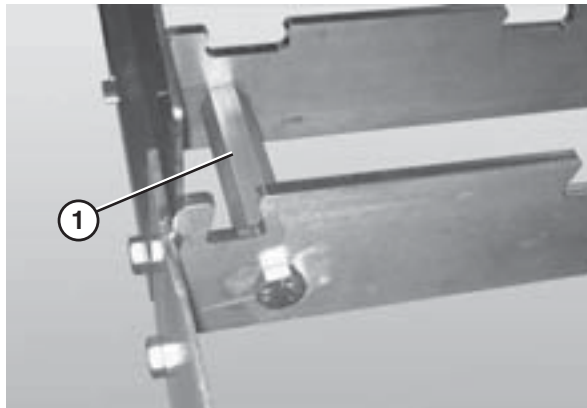


Figure 22

### Wear Strip Installation

#### Standard Wear Strips

Typical Standard Wear Strips (Figure 23)

1	Wear Strips
---	-------------

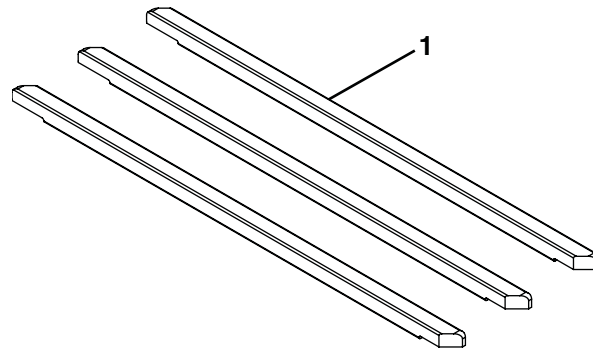


Figure 23

1. Position the wear strips (Figure 24, item 1) on the frame.

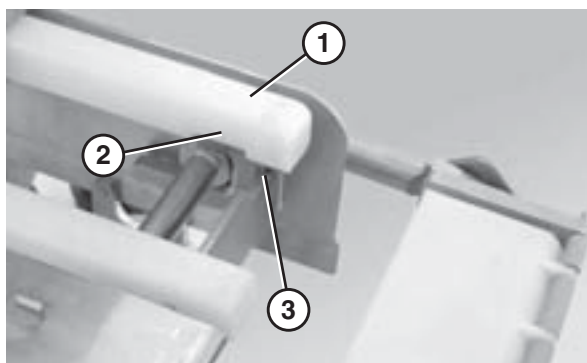


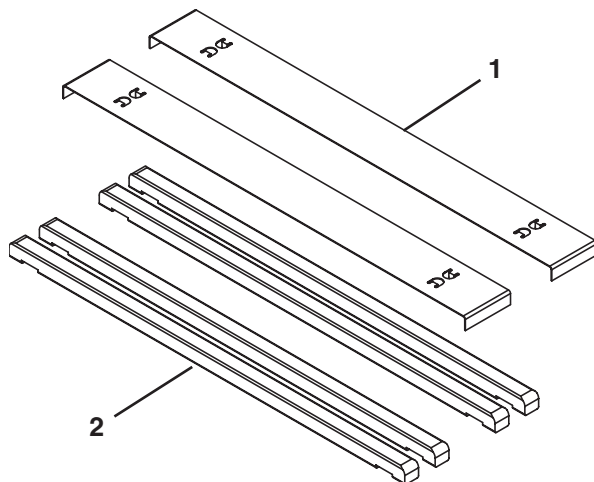
Figure 24

2. Make sure the slots in the wear strips (Figure 24, item 2) line up properly with the frame slots (Figure 24, item 3).

## Stainless Steel Sheet Bed Plates (optional)

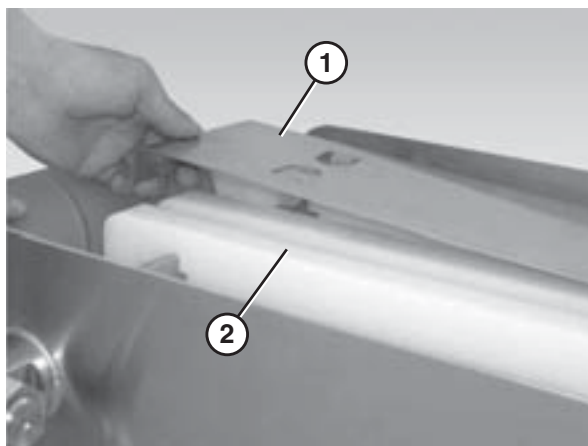
Typical Stainless Steel Sheet Bed Plates (Figure 25)

1	Bed Plates
2	Wear Strips



**Figure 25**

1. Attach the wear strips to the frame. Refer to “Standard Wear Strips” on page 10.
2. Place the sheet bed plates (Figure 26, item 1) over the wear strips (Figure 26, item 2).

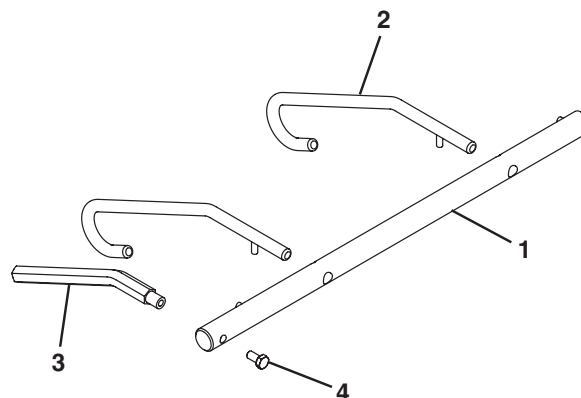


**Figure 26**

## Lifter Installation

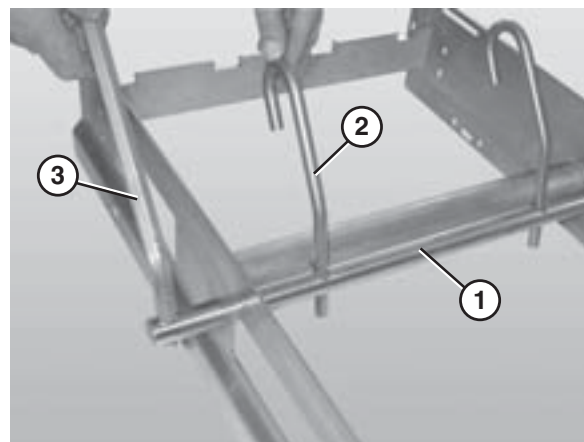
Typical Lifter Components (Figure 27)

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



**Figure 27**

1. Slide the belt lift pivot bar (Figure 28, item 1) through the designated holes in the frame. The pins on the belt lift pivot bar should be located inside the frame side rails.



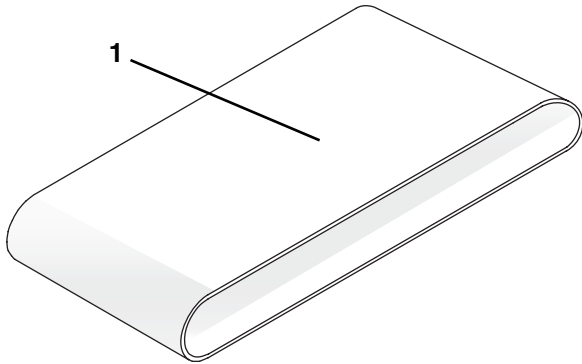
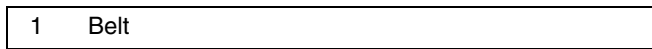
**Figure 28**

2. Attach the lifter bars (Figure 28, item 2) to the belt lift pivot bar (Figure 28, 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 28, item 3) to the belt lift pivot rod.

# Installation

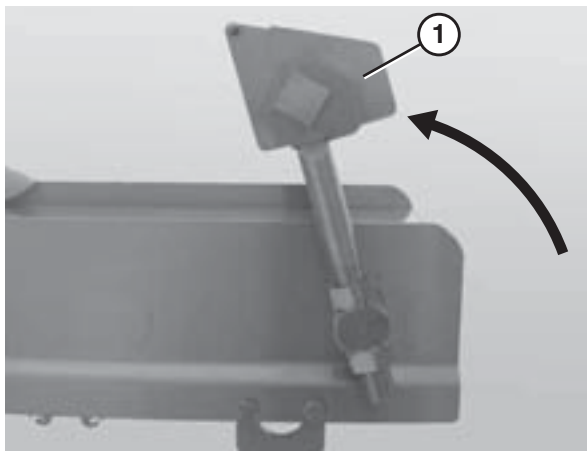
## Belt Installation

Typical Standard Belt (Figure 29)



**Figure 29**

1. Place the idler tail (Figure 30, item 1) in the UP position.



**Figure 30**

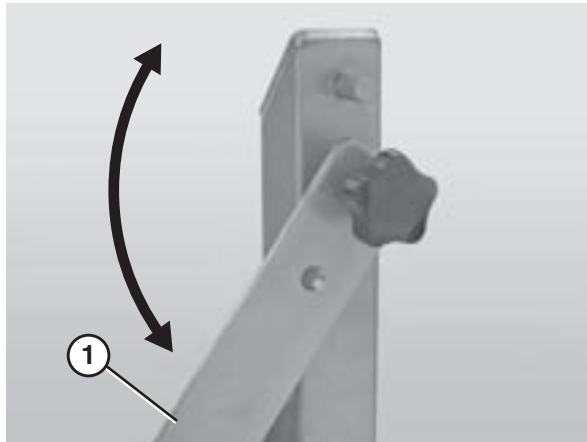
### **⚠ WARNING**



#### **SEVERE HAZARD!**

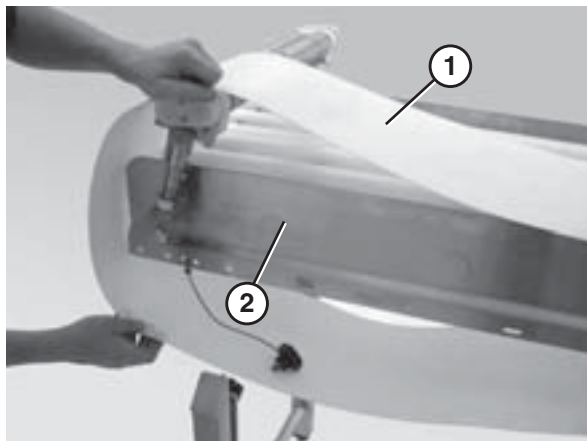
- **ONLY DISCONNECT ONE PIVOT BRACKET AT A TIME AND ONLY IF THE STANDS ARE BOLTED TO THE FLOOR.**
- **Disconnecting more than one pivot bracket at a time or not bolting the stands to the floor can cause the conveyor to tip and may result in serious injury.**

2. Lower the quick release arm (Figure 31, item 1) on one of the stands. *Note: if the conveyor is not equipped with Quick Release (QR Type) stands, it will be necessary to remove the entire stand.* For detailed instructions, refer to the “Sanitary Support Stands Installation, Maintenance and Parts Manual.”



**Figure 31**

3. Slide the belt (Figure 32, item 1) on over the conveyor frame (Figure 32, item 2).



**Figure 32**

4. Secure the quick release arm on the stand and repeat steps 2 and 3 until the belt is around the entire length of the conveyor.
5. Add tension to the belt by lowering the tip-up tail or by sliding the idler tail out and tightening the nuts. Refer to “Conveyor Belt Tensioning” on page 17.
6. Adjust the belt tracking as necessary. Refer to “Conveyor Belt Tracking” on page 17.

## Belt Return Installation

Refer to “Belt Return Installation” on page 6.

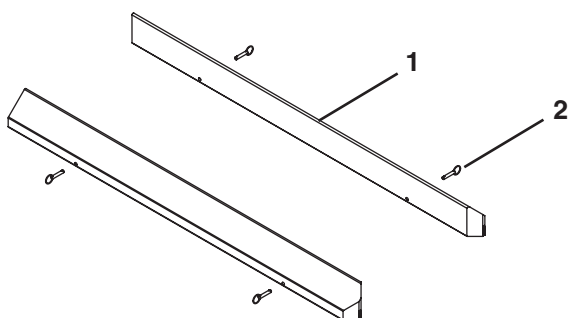
## Scraper Installation

Refer to “Scraper Installation” on page 7.

## Guide Installation

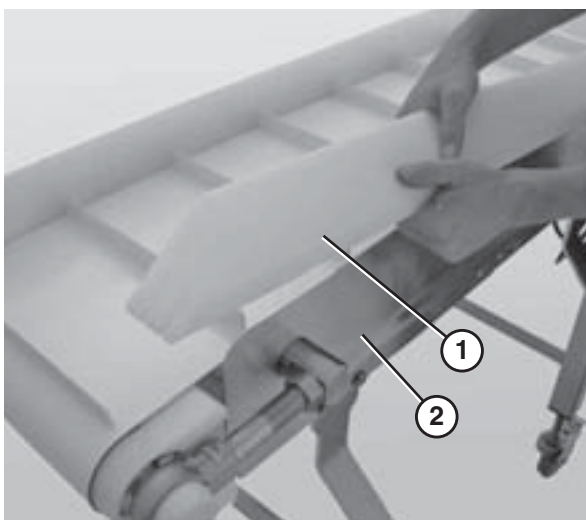
Typical Guide Components (Figure 33)

1	Guide
2	Pull pin



**Figure 33**

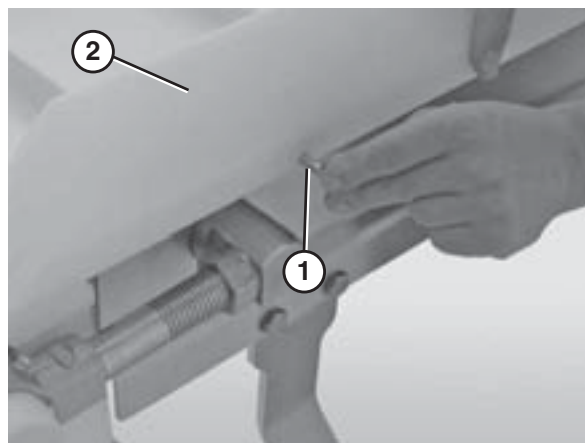
1. Position the guide (Figure 34, item 1) so that the flat surface is facing the belt and then slide the guide onto the frame rail (Figure 34, item 2).



**Figure 34**

2. Line up the guide holes with the holes in the frame.

3. Insert the pull pins (Figure 35, item 1) into the holes in the guide (Figure 35, item 2).



**Figure 35**

## Stand Installation

Refer to “Stand Installation” on page 9.

## Drive Package Installation

To install the gearmotor, refer to “Drive Package Installation” on page 9.

# Preventive Maintenance and Adjustment

## Required Tools

- 14 mm wrench (or adjustable wrench)
- 4 mm or 5/32 in. hex wrench (for bearing shaft assembly fasteners)
- 8 mm wrench
- 10 mm wrench
- 17 mm wrench
- 3 mm hex wrench
- 5 mm hex wrench

## 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

### Routine Cleaning

<b>⚠ WARNING</b>

<b>SEVERE HAZARD!</b> <b>LOCK OUT POWER</b> 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 36, item 1) that connect the guide (Figure 36, item 2) to the frame.

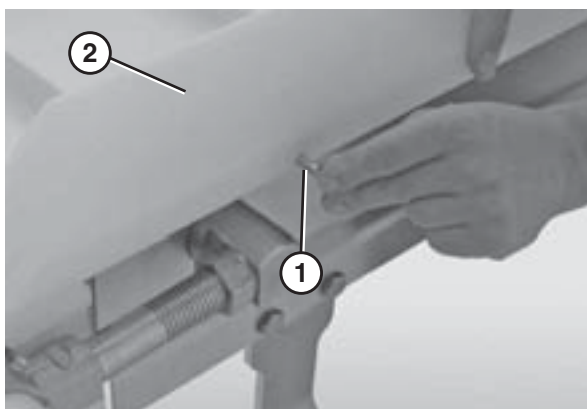


Figure 36

2. Place the tip up tail (Figure 37, item 1) in the up position.

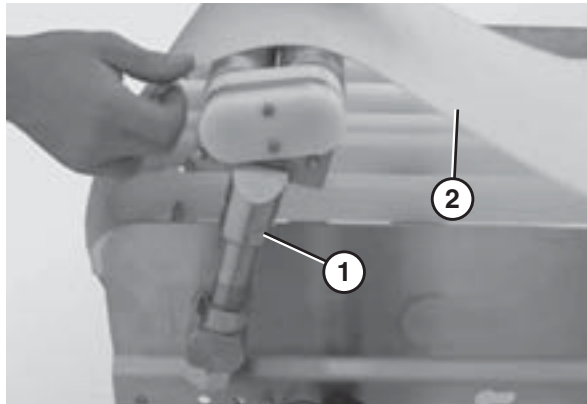


Figure 37

3. Lift up on the belt (Figure 37, item 2).

### Conveyors with Lifters

1. Remove the guides, if applicable, by removing the pull pins (Figure 36, item 1) that connect the guide (Figure 36, item 2) to the frame.
2. Place the tip up tail in the up position.
3. Use the lifter handle (Figure 38, item 1) to raise the belt (Figure 38, item 2).

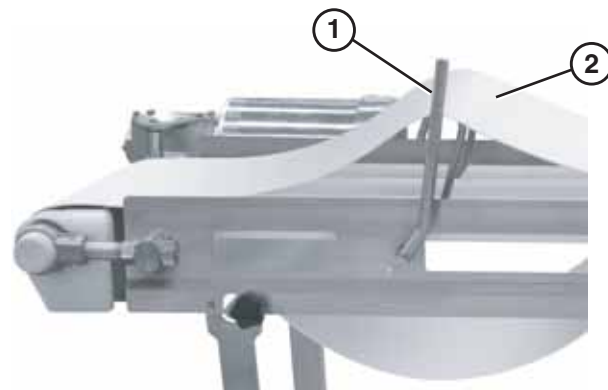


Figure 38

## CAUTION

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

# Preventive Maintenance and Adjustment

## 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 15.
- Refer to “Spindle Removal” on page 18.

## 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 39, item 1) on the exterior of the bearing shaft assembly.



Figure 39

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 10.
- Refer to “Belt Return Installation” on page 6.

## Scraper

Replace the UHMW scraper if it becomes worn.

Refer to “Scraper Installation” on page 7 for scraper installation instructions.

## Maintaining the Conveyor Belt

### Troubleshooting

#### NOTE

*Visit [www.dorner.com](http://www.dorner.com) for complete list of troubleshooting solutions.*

Inspect conveyor belt for:

- Surface cuts or wear

Damage to the belt, surface cuts and / or wear indicate:

- Sharp or heavy parts impacting belt
- Jammed parts
- Accumulated dirt
- Foreign material inside the conveyor
- Improperly positioned accessories
- Excessive load on belt
- Dirt impacted on spindle
- Excessive or improper side loading
- Improper tracking

Skipping indicates:

- Excessive load on belt
- Worn spindle or impacted dirt on drive spindle
- Improper tracking

## Conveyor Belt Replacement

#### ⚠ WARNING



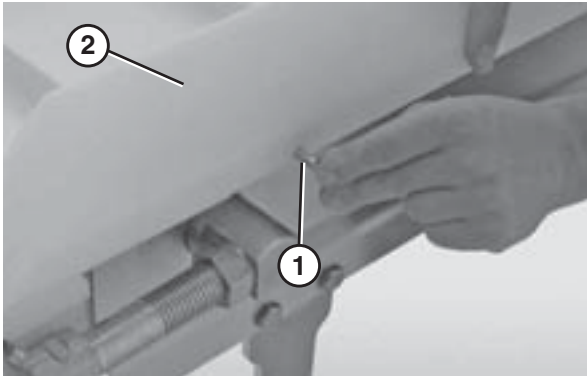
#### SEVERE HAZARD!

**LOCK OUT POWER** before removing guards or performing maintenance. Exposed moving parts can cause serious injury.

# Preventive Maintenance and Adjustment

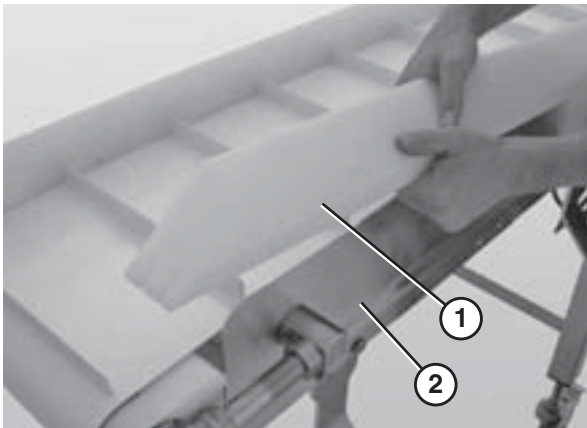
## Conveyors with Guides

1. Remove the pull pins (Figure 40, item 1) that connect the guide (Figure 40, item 2) to the frame.



**Figure 40**

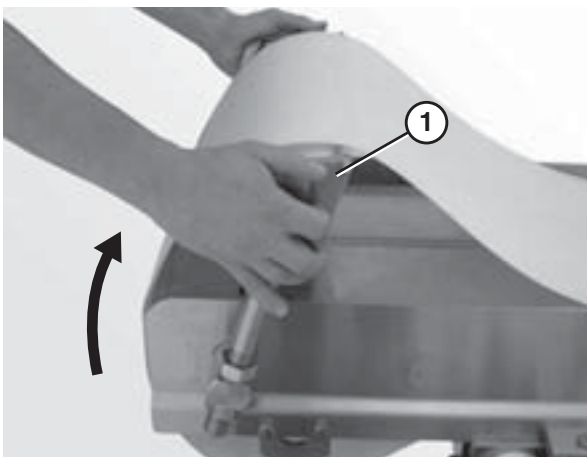
2. Remove the guide (Figure 41, item 1) from the conveyor (Figure 41, item 2).



**Figure 41**

## Standard Belts

1. Place the idler tail (Figure 42, item 1) in the UP position.

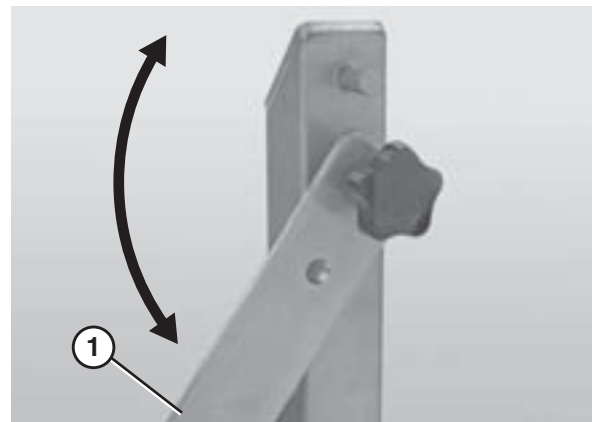


**Figure 42**

<b>⚠ WARNING</b>

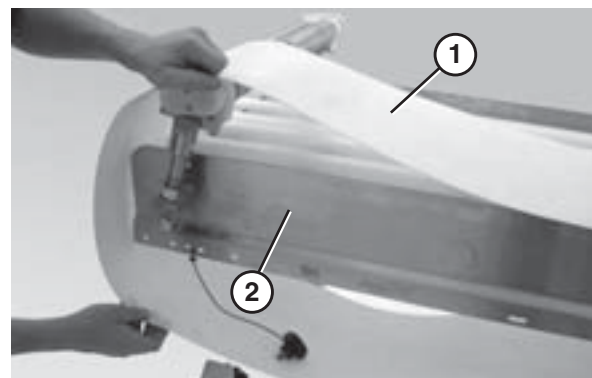
<b>SEVERE HAZARD!</b>
<ul style="list-style-type: none"><li>• <b>ONLY DISCONNECT ONE PIVOT BRACKET AT A TIME AND ONLY IF THE STANDS ARE BOLTED TO THE FLOOR.</b></li><li>• <b>Disconnecting more than one pivot bracket at a time or not bolting the stands to the floor can cause the conveyor to tip and may result in serious injury.</b></li></ul>

2. Lower the quick release arm (Figure 43, item 1) on one of the stands. *Note: if the conveyor is not equipped with Quick Release (QR Type) stands, it will be necessary to remove the entire stand.* For detailed instructions, refer to the “Sanitary Support Stands Installation, Maintenance and Parts Manual.”



**Figure 43**

3. Slide the old belt (Figure 44, item 1) off the conveyor frame (Figure 44, item 2).



**Figure 44**

4. Secure the quick release arm on the stand and repeat steps 2 and 3 until the entire belt is off the conveyor.
5. Replace the old belt with a new one. Refer to “Belt Installation” on page 12.



# Preventive Maintenance and Adjustment

## Conveyor Belt Tensioning

### ⚠ WARNING



### SEVERE HAZARD!

LOCK OUT POWER before removing guards or performing maintenance. Exposed moving parts can cause serious injury.

### CAUTION

Over-tensioning of conveyor may stretch conveyor belt and reduce bearing life.

1. Loosen the back nuts (Figure 45, item 1) on both sides of the idler tail shaft.

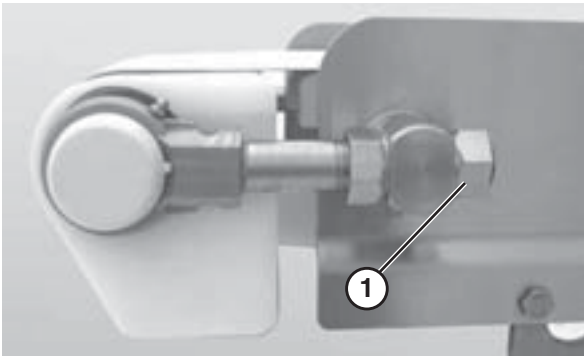


Figure 45

2. Turn the front nuts closest to the tail (Figure 46, item 1) clockwise in order to increase tension on the belt.

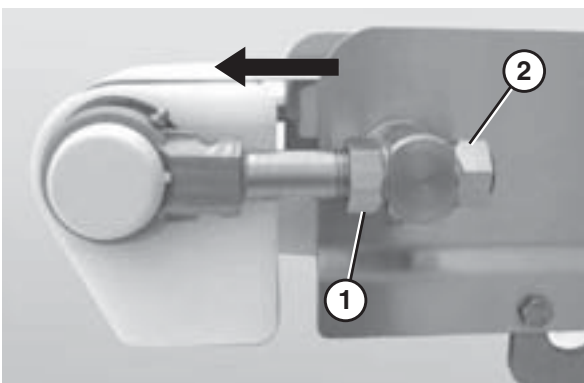


Figure 46

### CAUTION

Ensure that there is at least 6" (152 mm) from the frame to the end of the tail.



Figure 47

3. Tighten the back nuts (Figure 46, item 2) to secure the tail.

## Conveyor Belt Tracking

Adjust the lengths of the idler tail shafts to correct conveyor belt tracking.

For v-guide belts, track until the bulge in the conveyor belt (Figure 48, item 1) lies flat.

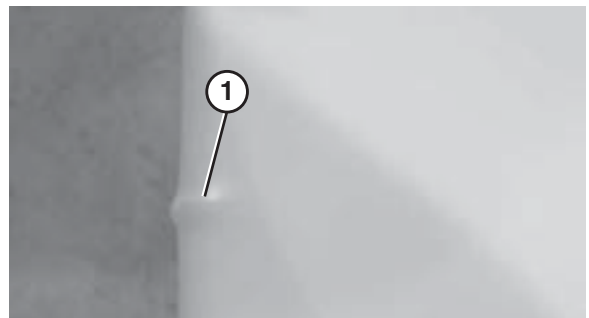


Figure 48

To adjust conveyor belt tracking:

1. Loosen the back nut (Figure 46, item 2) on the idler tail shaft that needs to be adjusted.
2. Tighten or loosen the front nut (Figure 46, item 1) on the idler tail shaft adjust the belt tracking.

### CAUTION

Ensure that there is at least 6" (152 mm) from the frame to the end of the tail.

# Preventive Maintenance and Adjustment

- a. Loosen the nut to shorten the length of the idler tail shaft and bring the belt closer to that side of the conveyor (Figure 49).

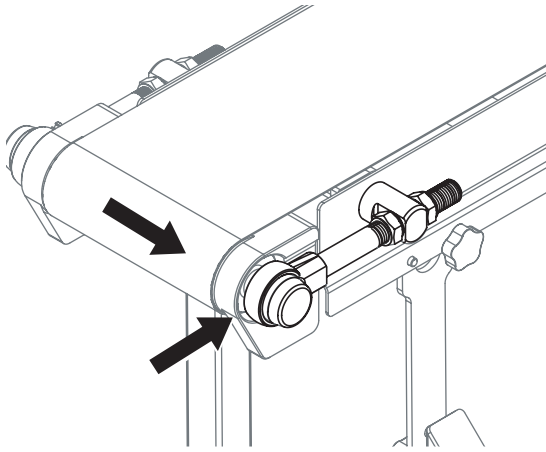


Figure 49

- b. Tighten the nut to increase the length of the idler tail shaft and move the belt away from that side of the conveyor (Figure 50).

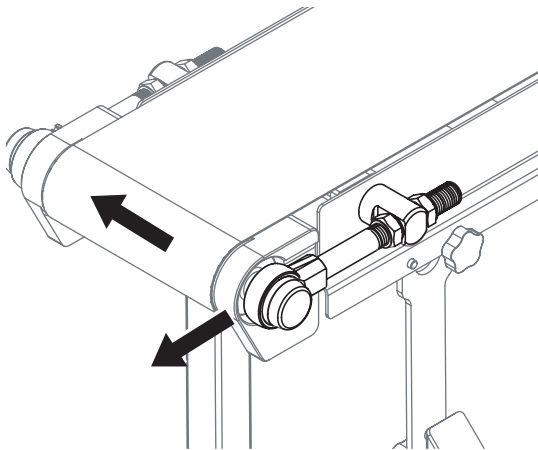


Figure 50

3. Tighten the back nut on the idler tail shaft when finished.

## Spindle 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 spindles. Refer to “Conveyor Belt Replacement” on page 15.
2. Remove the spindle by following the instructions for the specific spindle type:
  - A - Drive Spindle Removal
  - B - Idler Spindle Removal
  - C - .5" Nose Bar Idler Spindle Removal
  - D - 1" Nose Bar Idler Spindle Removal
  - E - 1.875" Nose Bar Idler Spindle Removal

### A - Drive Spindle Removal

### ⚠ WARNING



### PUNCTURE HAZARD!

Handle drive shaft keyway with care. It may be sharp and could puncture the skin, causing serious injury.

1. Remove the drive spindle cover (Figure 51, item 1).

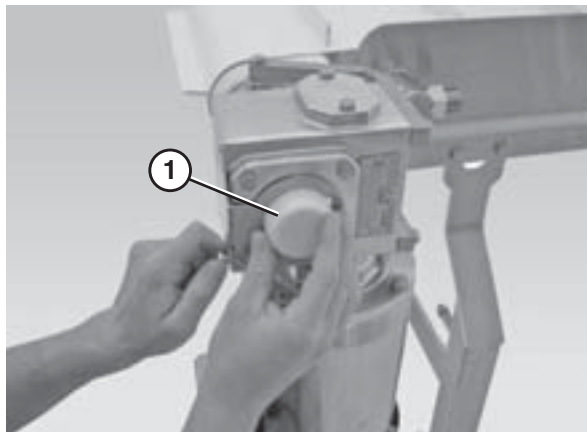


Figure 51

# Preventive Maintenance and Adjustment

2. Use a 5 mm hex wrench to loosen the outside button head screws (Figure 52, item 1) and the inside button head screws (Figure 52, item 2) that connect the gearmotor to the drive spindle.

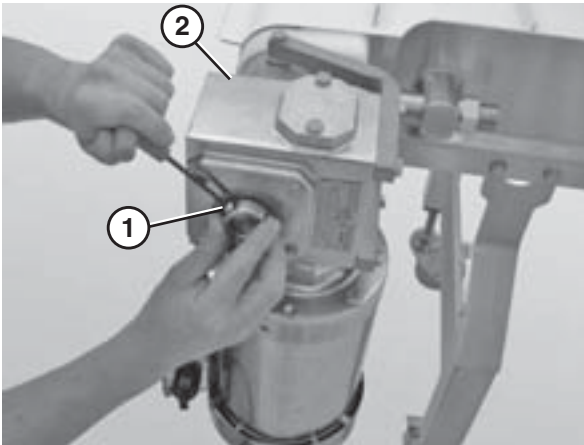


Figure 52

4. Remove the bolts (Figure 54, item 1) that connect the gear reducer (Figure 54, item 2) to the motor support bracket (Figure 54, item 3) and slide the gear reducer off the drive spindle.

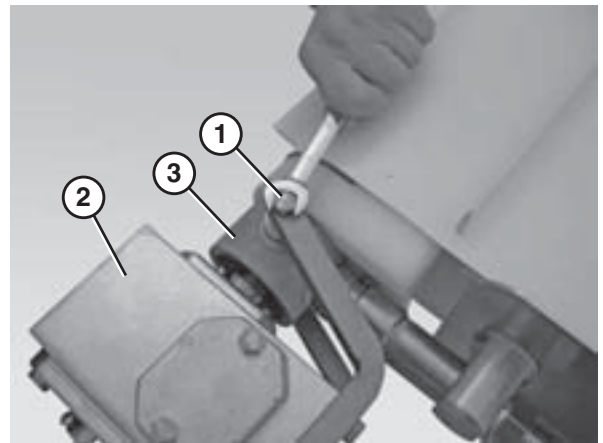


Figure 54

<b>⚠ WARNING</b>
<b>CRUSH HAZARD!</b>
<ul style="list-style-type: none"><li>• <b>SUPPORT MOTOR PRIOR TO LOOSENING THE BOLTS.</b></li><li>• <b>Loosening motor bolts may cause it to drop down, causing serious injury.</b></li></ul>

3. Remove the bolts (Figure 53, item 1) that connect the motor (Figure 53, item 2) to the gear reducer (Figure 53, item 3) and remove the motor (vertical mount drive package shown).

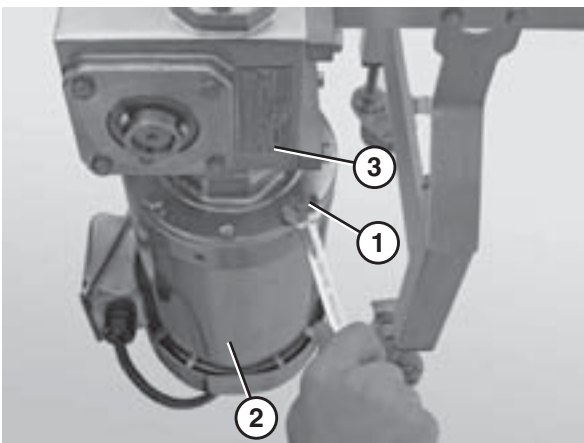


Figure 53

5. Remove the back nut (Figure 55, item 1) on both drive tail shafts (Figure 55, item 2).

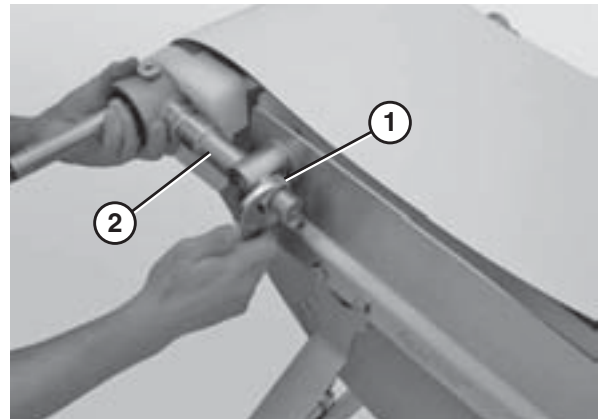


Figure 55

6. Slide the drive tail assembly (Figure 56, item 1) out of the take up blocks (Figure 56, item 2).

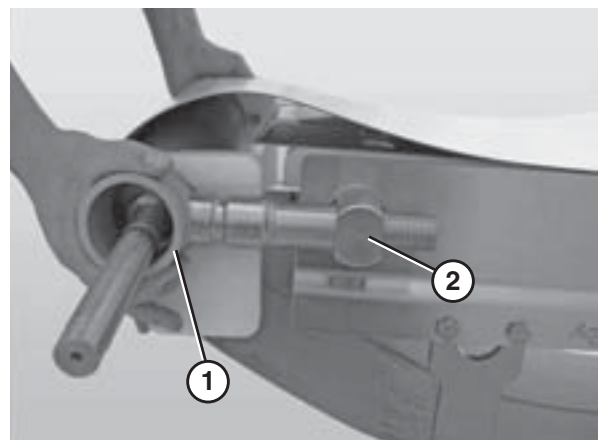
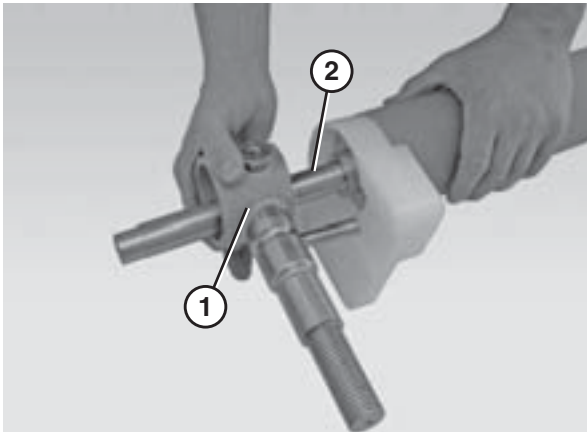


Figure 56

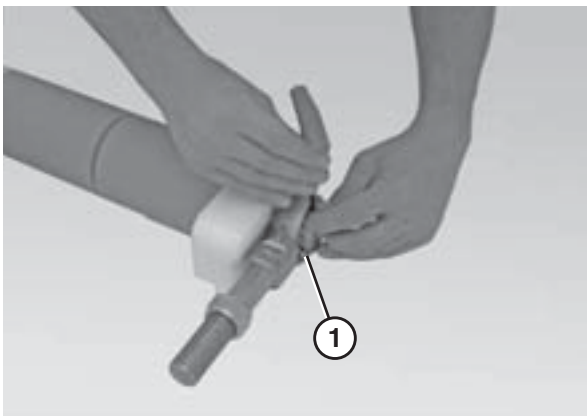
# Preventive Maintenance and Adjustment

- Slide the motor support bracket (Figure 57, item 1) off the drive spindle (Figure 57, item 2).



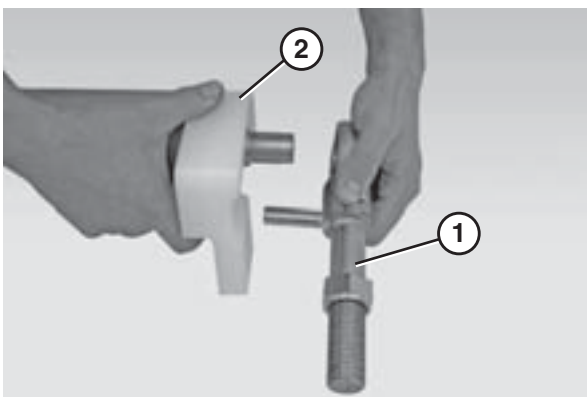
**Figure 57**

- Use a 4 mm hex wrench to loosen the bearing fasteners (Figure 58, item 1).



**Figure 58**

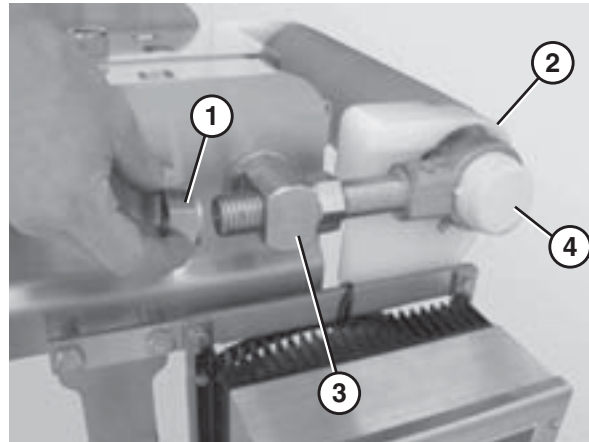
- Remove the bearing shaft (Figure 59, item 1) and both pinch guards (Figure 59, item 2).



**Figure 59**

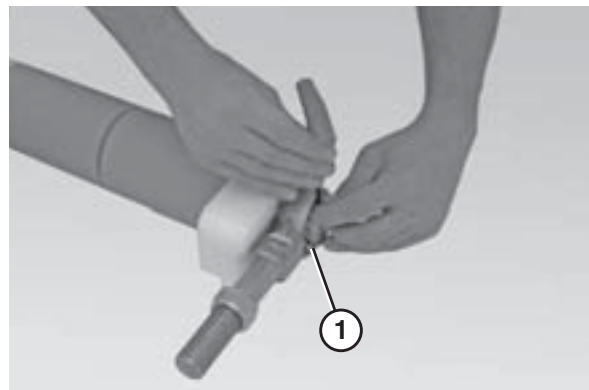
## B - Idler Spindle Removal

- Remove the back nuts (Figure 60, item 1) on both idler tail shafts.



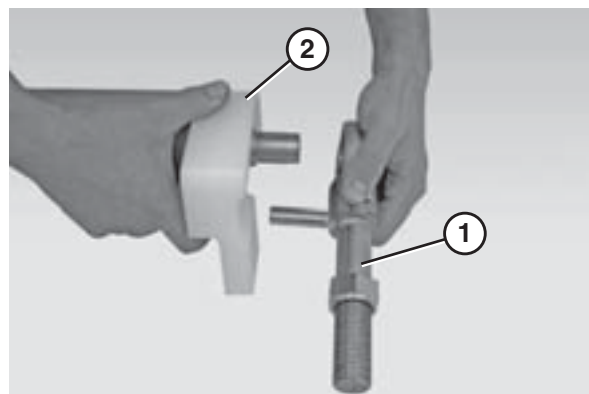
**Figure 60**

- Slide the idler tail assembly (Figure 60, item 2) out of the take up blocks (Figure 60, item 3).
- Remove the bearing covers (Figure 60, item 4).
- Use a 4 mm hex wrench (Figure 61, item 1) to loosen the bearing shaft assembly fasteners (Figure 61, item 2).



**Figure 61**

- Remove the bearing shafts (Figure 62, item 1) and both pinch guards (Figure 62, item 2).

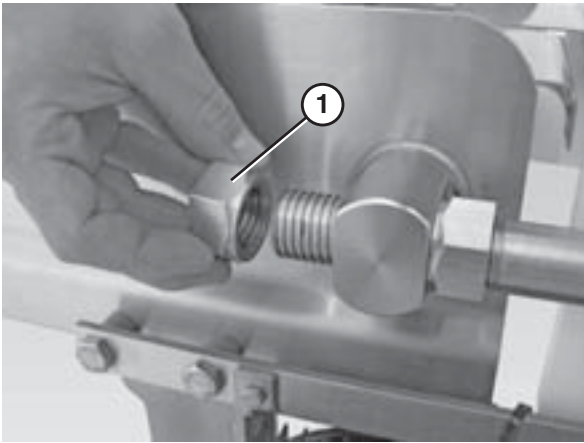


**Figure 62**

# Preventive Maintenance and Adjustment

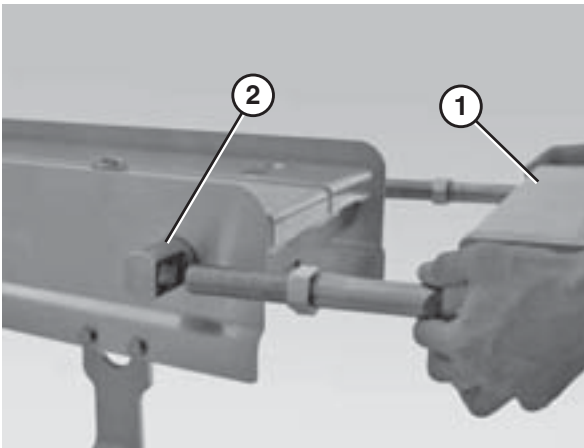
## C - .5" Nose Bar Idler Spindle Removal

1. Remove the back nuts (Figure 63, item 1) on both discharge nose bar shafts.



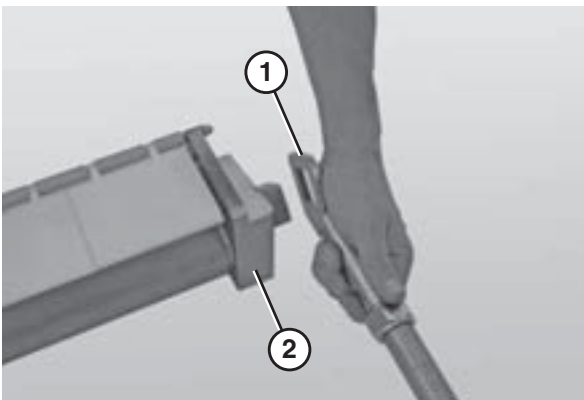
**Figure 63**

2. Slide the nose bar tail assembly (Figure 64, item 1) out of the take up blocks (Figure 64, item 2).



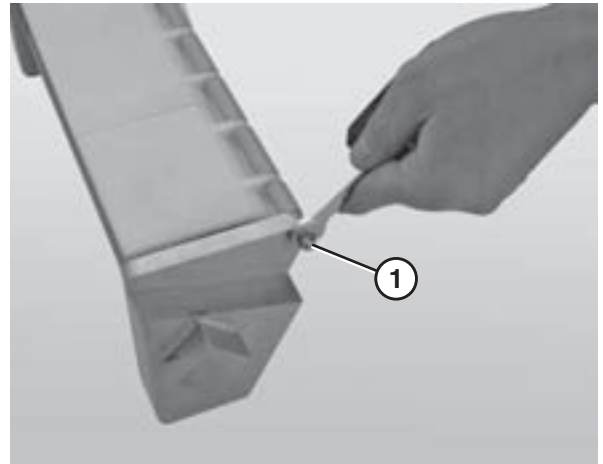
**Figure 64**

3. Slide the nose bar shafts (Figure 65, item 1) off of the nose bar weldment (Figure 65, item 2).



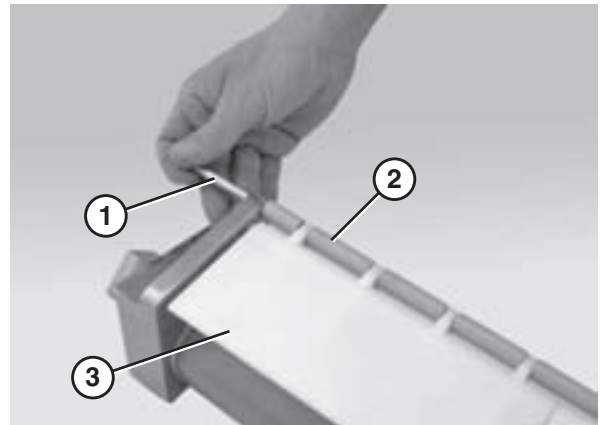
**Figure 65**

4. Use a 10 mm wrench to remove one of the acorn nuts (Figure 66, item 1) from the nose bar shaft.



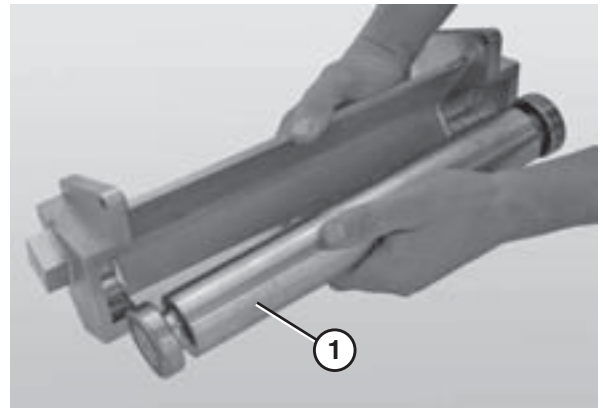
**Figure 66**

5. Remove the nose bar shaft (Figure 67, item 1), the rollers (Figure 67, item 2) and the roller mounts (Figure 67, item 3).



**Figure 67**

6. Remove the nose bar return spindle (Figure 68, item 1).

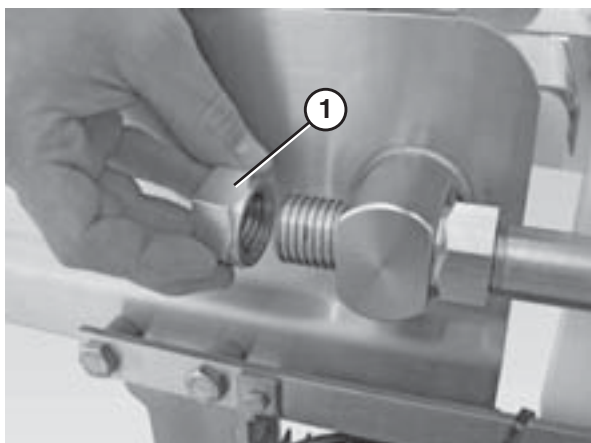


**Figure 68**

# Preventive Maintenance and Adjustment

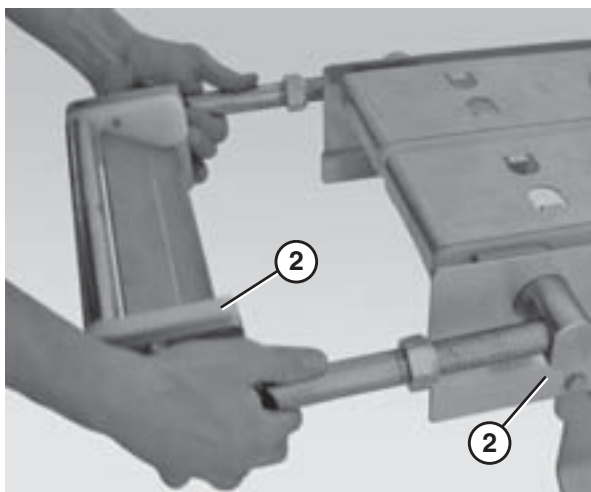
## D - 1" Nose Bar Idler Spindle Removal

1. Remove the back nuts (Figure 69, item 1) on both discharge nose bar shafts.



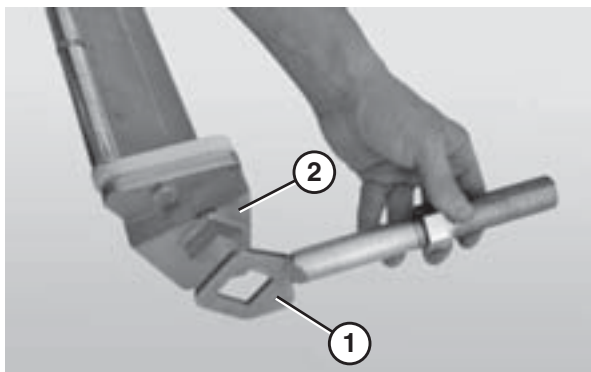
**Figure 69**

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



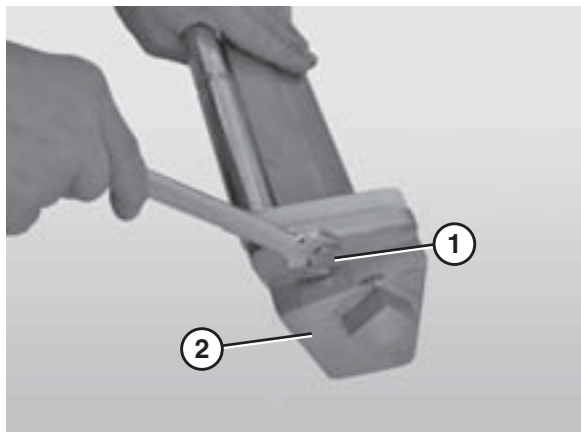
**Figure 70**

3. Slide the nose bar shafts (Figure 71, item 1) off of the nose bar weldment (Figure 71, item 2).



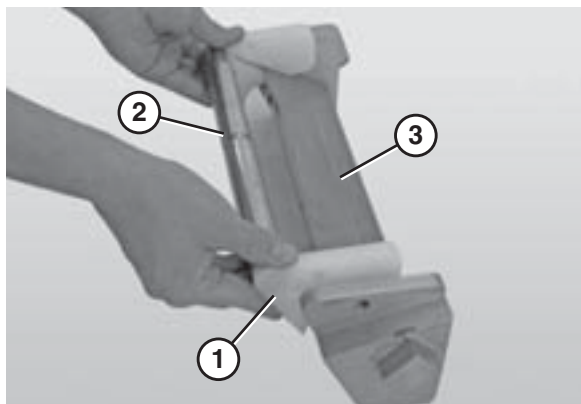
**Figure 71**

4. Use a 17 mm wrench to remove both pilot nose bolts (Figure 72, item 1) from the nose bar weldment (Figure 72, item 2).



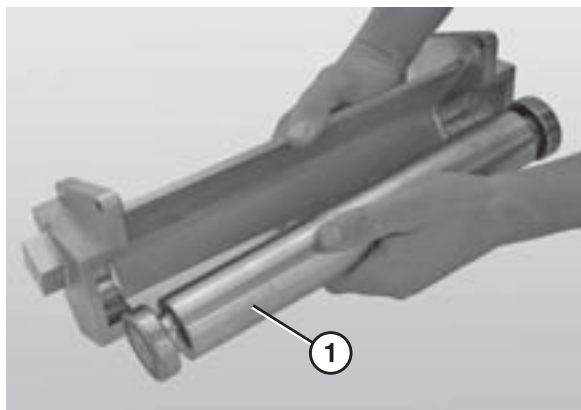
**Figure 72**

5. Slide the nose bar puck holders (Figure 73, item 1) and the nose bar spindle (Figure 73, item 2) off of the nose bar weldment (Figure 73, item 3).



**Figure 73**

6. Remove the nose bar return spindle (Figure 74, item 1).

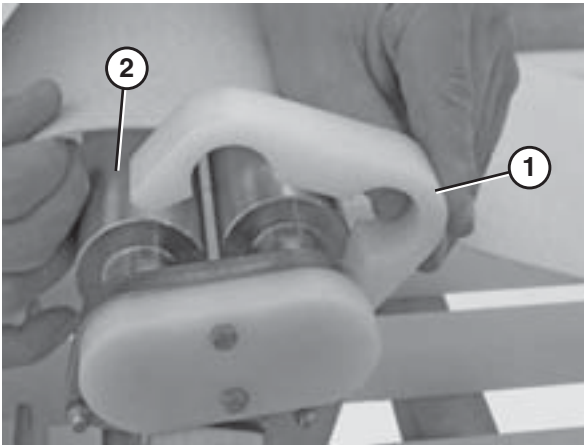


**Figure 74**

# Preventive Maintenance and Adjustment

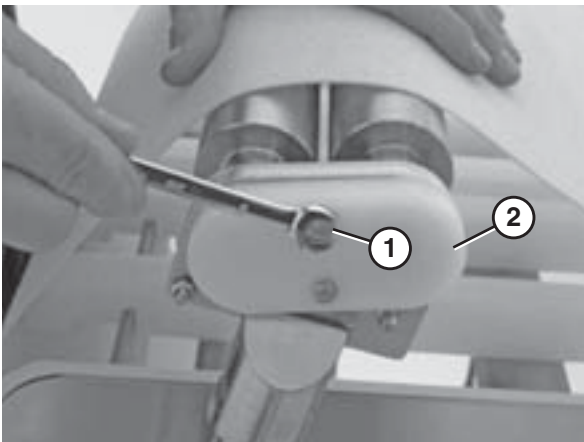
## E - 1.875" Nose Bar Idler Spindle Removal

1. Slide the pinch guard blocks (Figure 75, item 1) off the nose bar spindles (Figure 75, item 2).



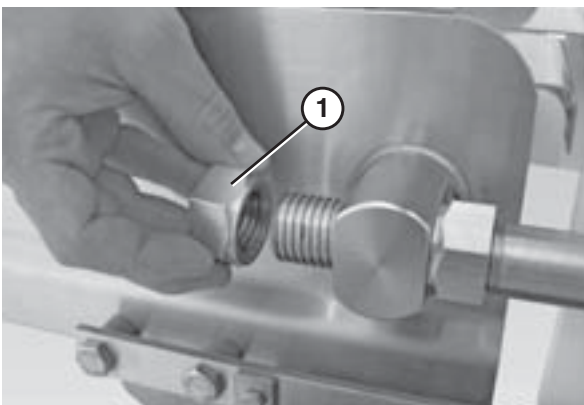
**Figure 75**

2. Remove the transfer bearing screws (Figure 76, item 1) and the cover (Figure 76, item 2) using an 8 mm wrench.



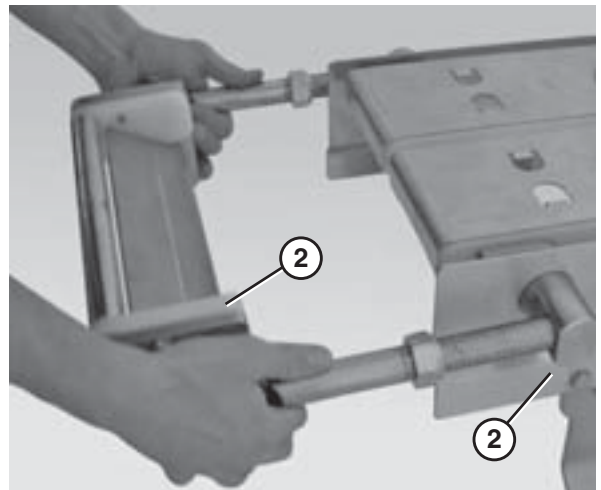
**Figure 76**

3. Remove the back nuts (Figure 77, item 1) on both discharge nose bar shafts.



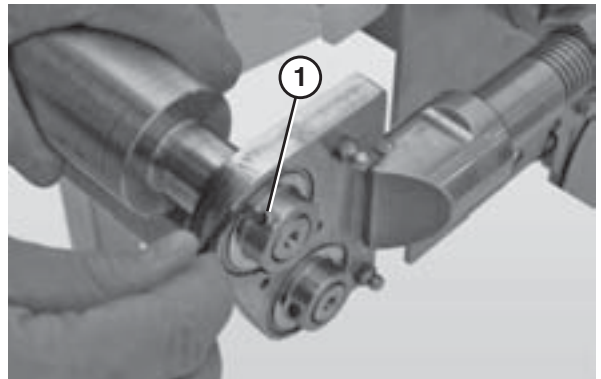
**Figure 77**

4. Slide the nose bar tail assembly (Figure 78, item 1) out of the take up blocks (Figure 78, item 2).



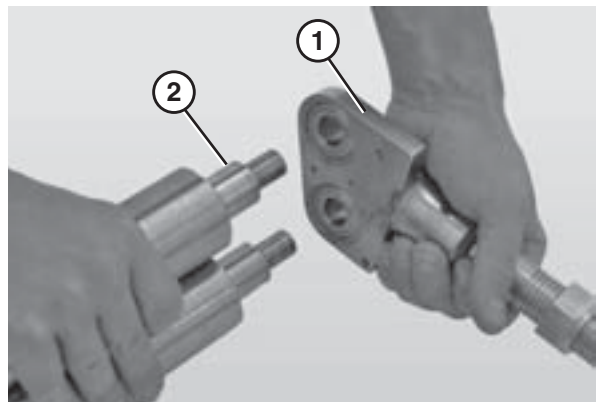
**Figure 78**

5. Use a 4 mm hex wrench to loosen all the bearing fasteners (Figure 79, item 1).



**Figure 79**

6. Slide the nose bar shafts (Figure 80, item 1) off the nose bar spindles (Figure 80, item 2).



**Figure 80**

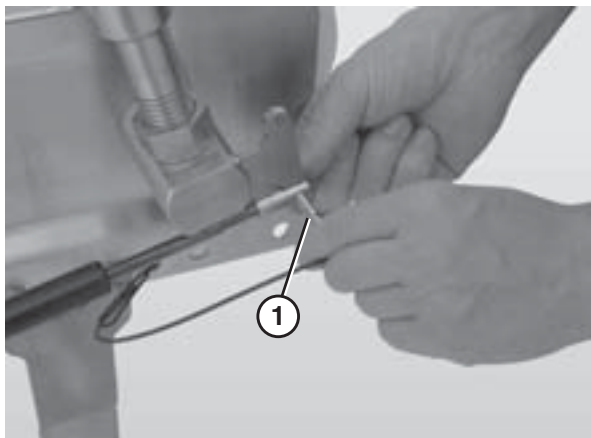
# Preventive Maintenance and Adjustment

## Reassembling Tail Assemblies

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

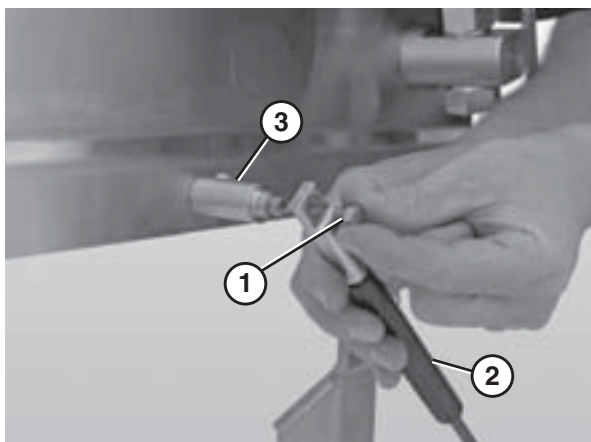
## Gas Assist Replacement

1. Raise the tip up tail.
2. Remove the pull pin (Figure 81, item 1).



**Figure 81**

3. Remove the hex bolt (Figure 82, item 1) that connects the gas spring (Figure 82, item 2) to the gas spring standoff post (Figure 82, item 3).



**Figure 82**

4. Remove the inside hex bolt that connects the standoff post (Figure 82, item 3) to the frame.

## Bearing Replacement

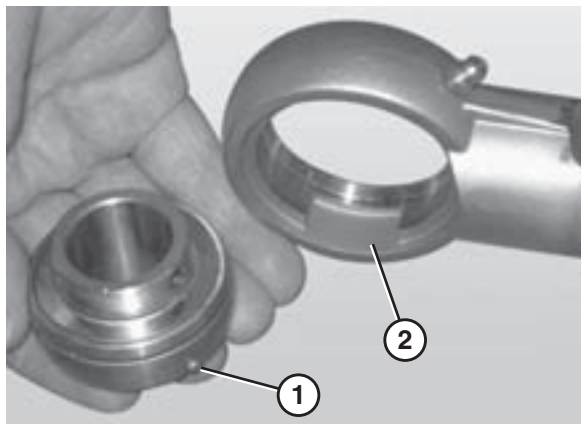
### Standard Bearings

1. Secure the bearing shaft.
2. Remove the bearing cover.
3. Insert the rod end of another bearing shaft through the bearing orifice (Figure 83).



**Figure 83**

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



**Figure 84**

6. Replace the bearing.

### NOTE

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

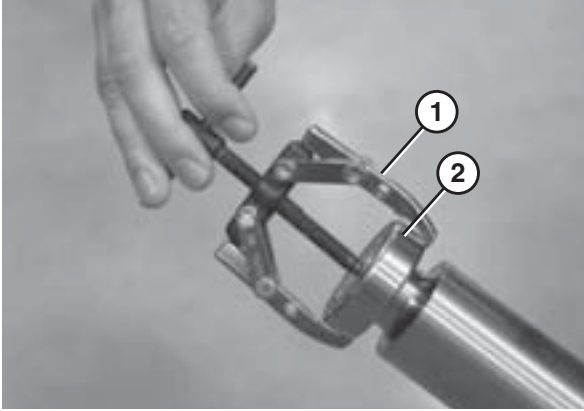
7. Use a hex wrench to tighten the bearing shaft assembly fasteners to 54 in-lbs. Check after 24 hours of conveyor use.



# Preventive Maintenance and Adjustment

## .5" and 1" Nose Bar Return Spindle Bearings

1. Remove the nose bar return spindle. Refer to "Spindle Removal" starting on page 18.
2. Using a bearing removal tool (Figure 85, item 1), remove the bearing (Figure 85, item 2).

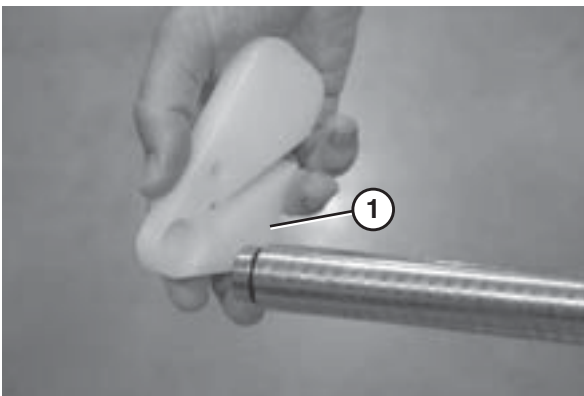


**Figure 85**

3. Replace the bearing.

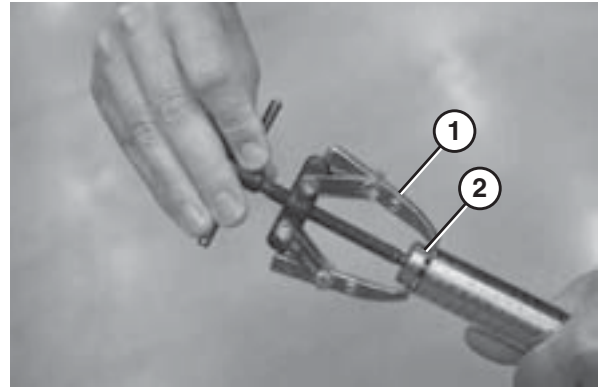
## 1" Nose Bar Bearings

1. Remove the nose bar spindle. Refer to "Spindle Removal" starting on page 18.
2. Remove the nose bar puck holders (Figure 86, item 1).



**Figure 86**

3. Using a bearing removal tool (Figure 87, item 1) remove the bearing (Figure 87, item 2).

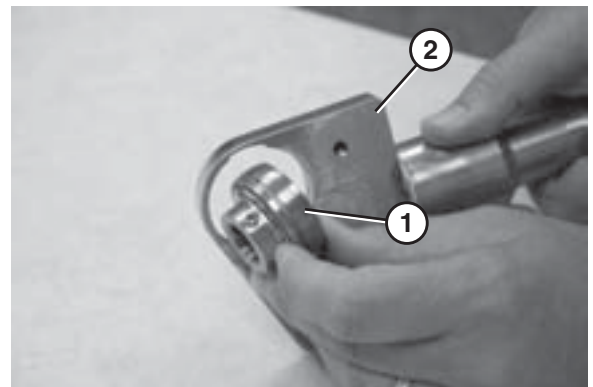


**Figure 87**

4. Replace the bearing.

## 1.875" Nose Bar Bearings

1. Remove the nose bar spindle. Refer to "Spindle Removal" starting on page 18.
2. Remove the bearing (Figure 88, item 1) from the nose bar shaft assembly (Figure 88, item 2).




**Figure 88**

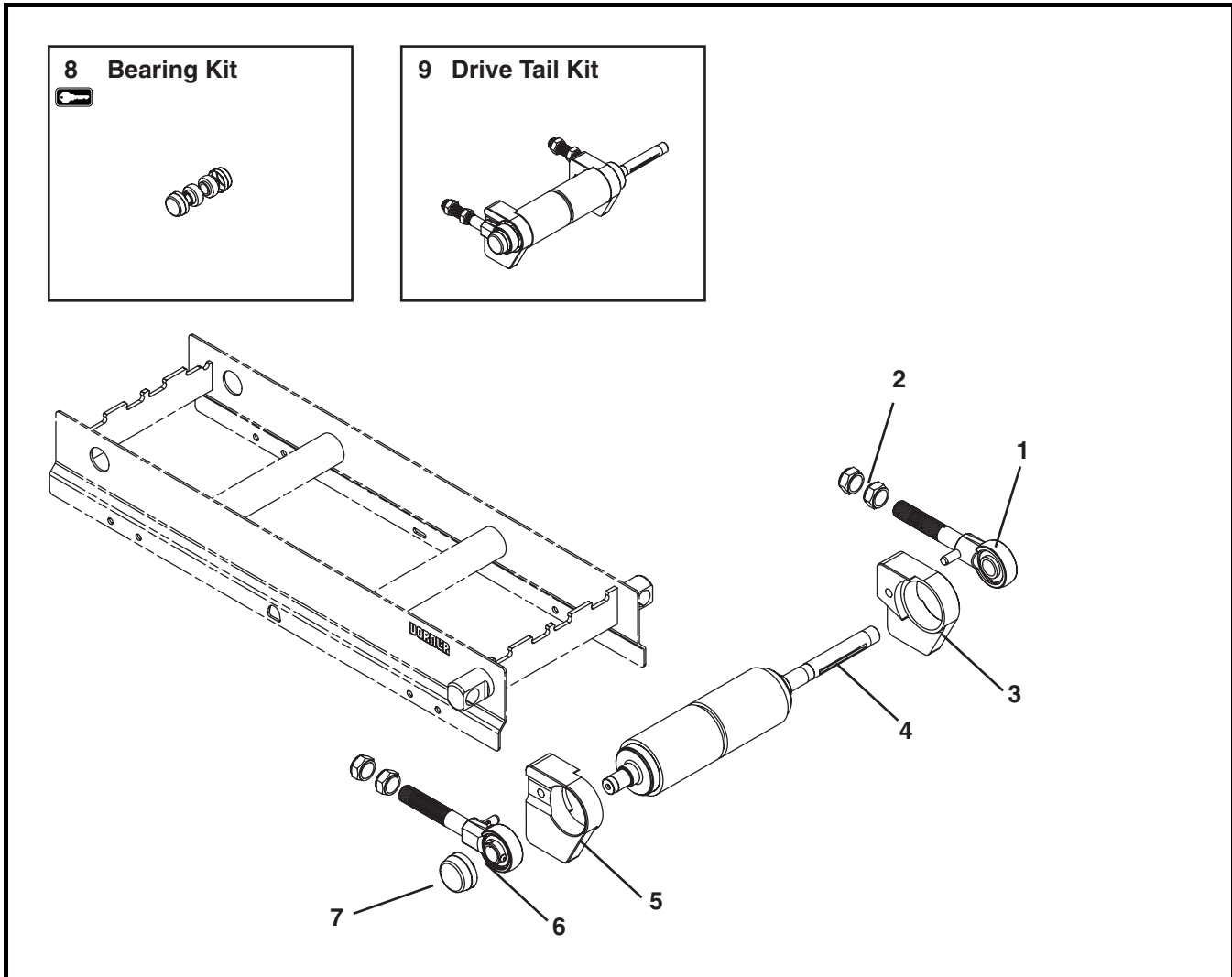
3. Replace the bearing.

# Service Parts


## NOTE

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

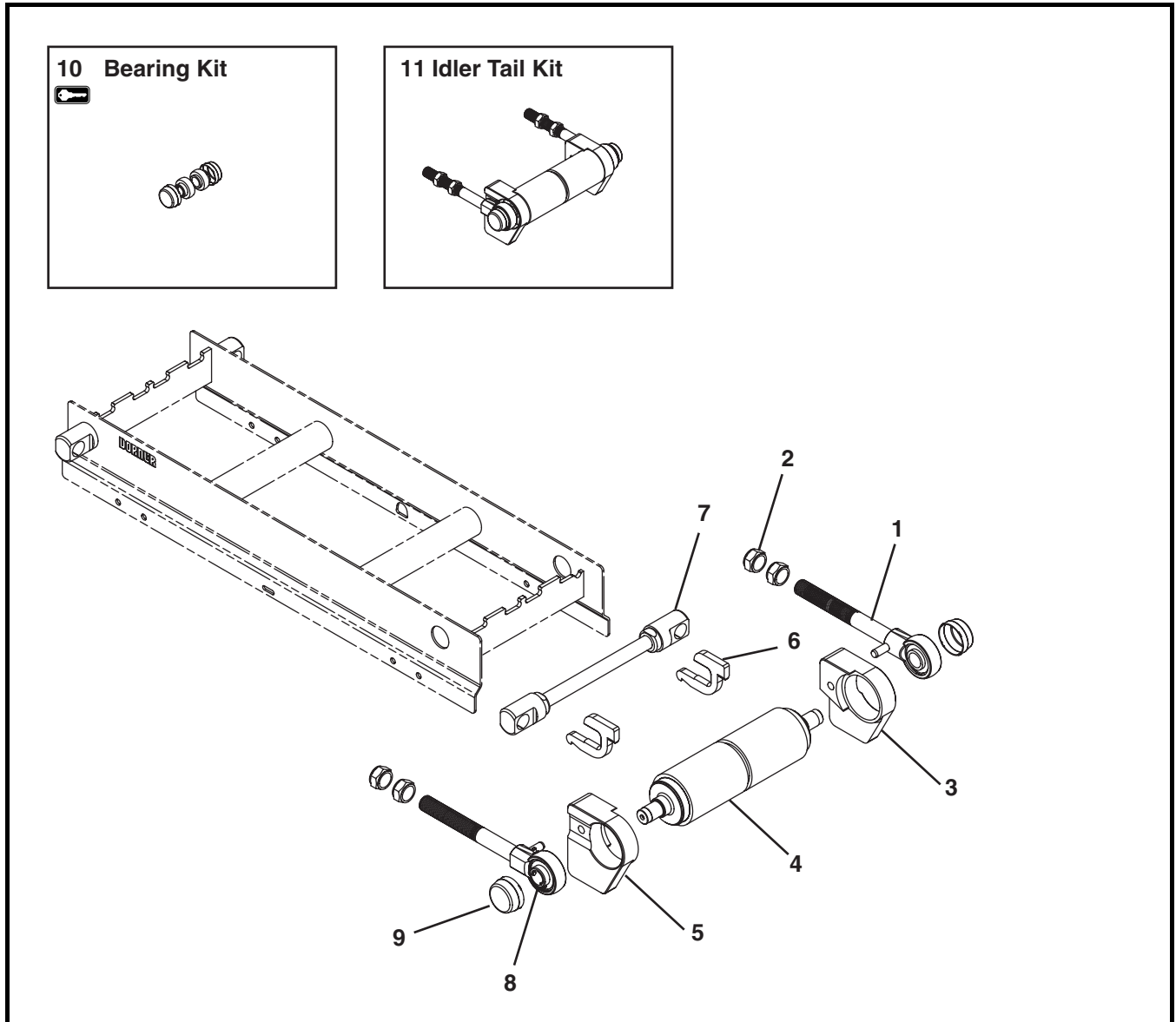
## Drive End Components




Item	Part Number	Description
1 *	500892	Drive Shaft Assembly with Bearing and Cover
2	500791	Nut
3	500694	Pinch Guard Right Hand
4	5103WW	Drive Spindle
5	500695	Pinch Guard Left Hand
6	802-162	Bearing
7	807-1454	Bearing Cover

Item	Part Number	Description
8 	76BK	Bearing Kit (Includes Items 6 and 7)
9	76DT-WW	Drive Tail Kit (Includes Items 1 through 7)
WW = Conveyor width ref: 06 - 60 in 02 increments		
* When the conveyor is ordered with a Dorner gearmotor mounting package a shaft assembly is replaced with a gearmotor mounting bracket.		

## Idler End Components



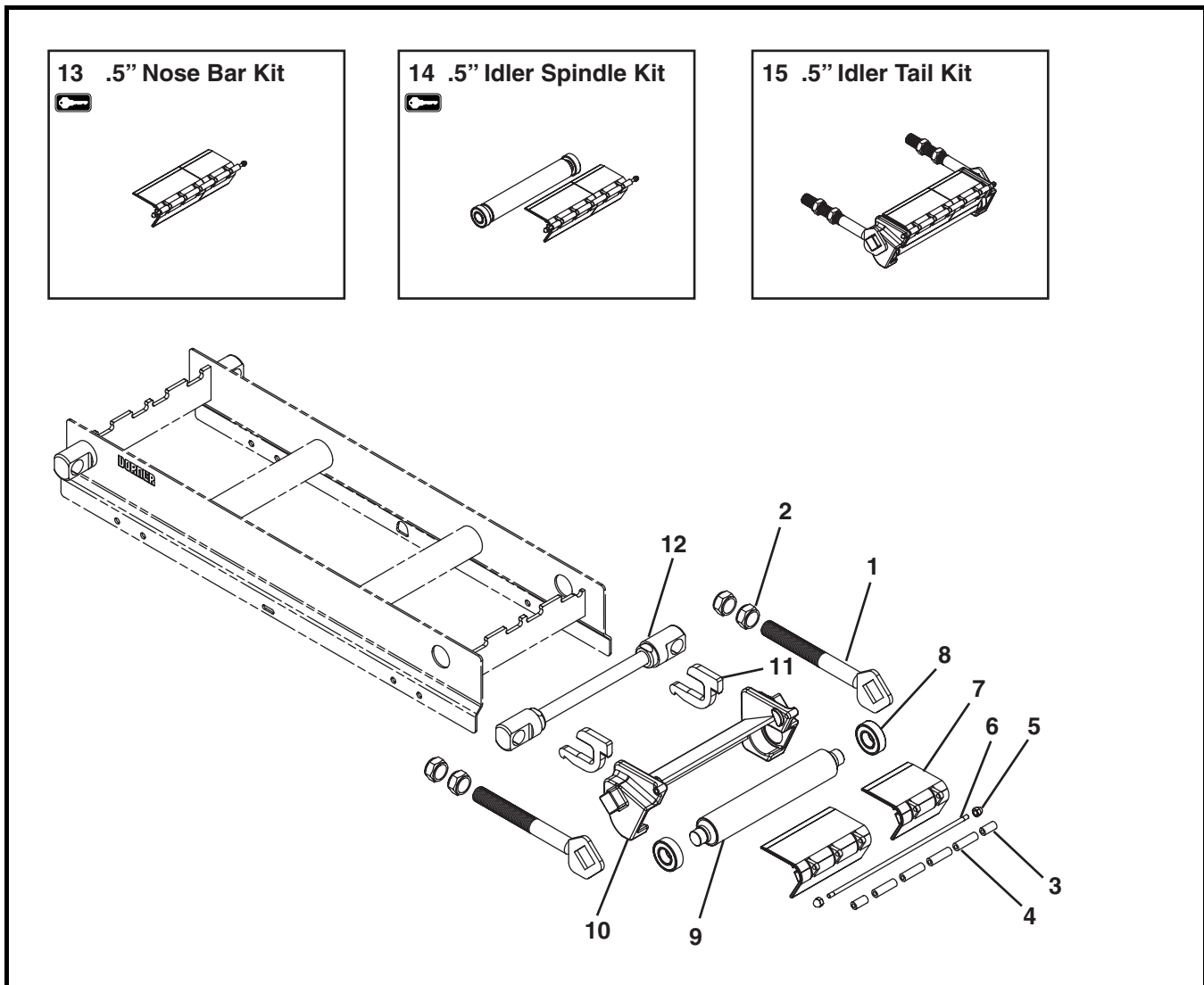
Item	Part Number	Description
1	500891	Idler Shaft Assembly with Bearing and Cover
2	500791	Nut
3	500694	Pinch Guard Right Hand
4	5104WW	Idler Spindle
5	500695	Pinch Guard Left Hand
6	500675	Key Stop

Item	Part Number	Description
7	5048WW	Tip Up Shaft Assembly
8	802-162	Bearing
9	807-1454	Bearing Cover
10	76BK	Bearing Kit (Includes Items 8 and 9)
		
11	76ST-WW	Idler Tail Kit (Includes Items 1 through 5, 8 and 9)

WW = Conveyor width ref: 06 - 60 in 02 increments

# Service Parts

## .5" Nose Bar Idler End



Item	Part Number	Description
1	500997	.5" Nose Bar Shaft Assembly
2	500791	Nut
3	501087	Roller .5" x 1.06"
4	501086	Roller .5" x 1.72"
5	990608MSS	Acorn Nut
6	5099WW	Nose Bar Shaft
7	See Chart	Roller Mount
8	802-164	Return Spindle Bearing
9	5097WW	.5" Nose Bar Return Spindle

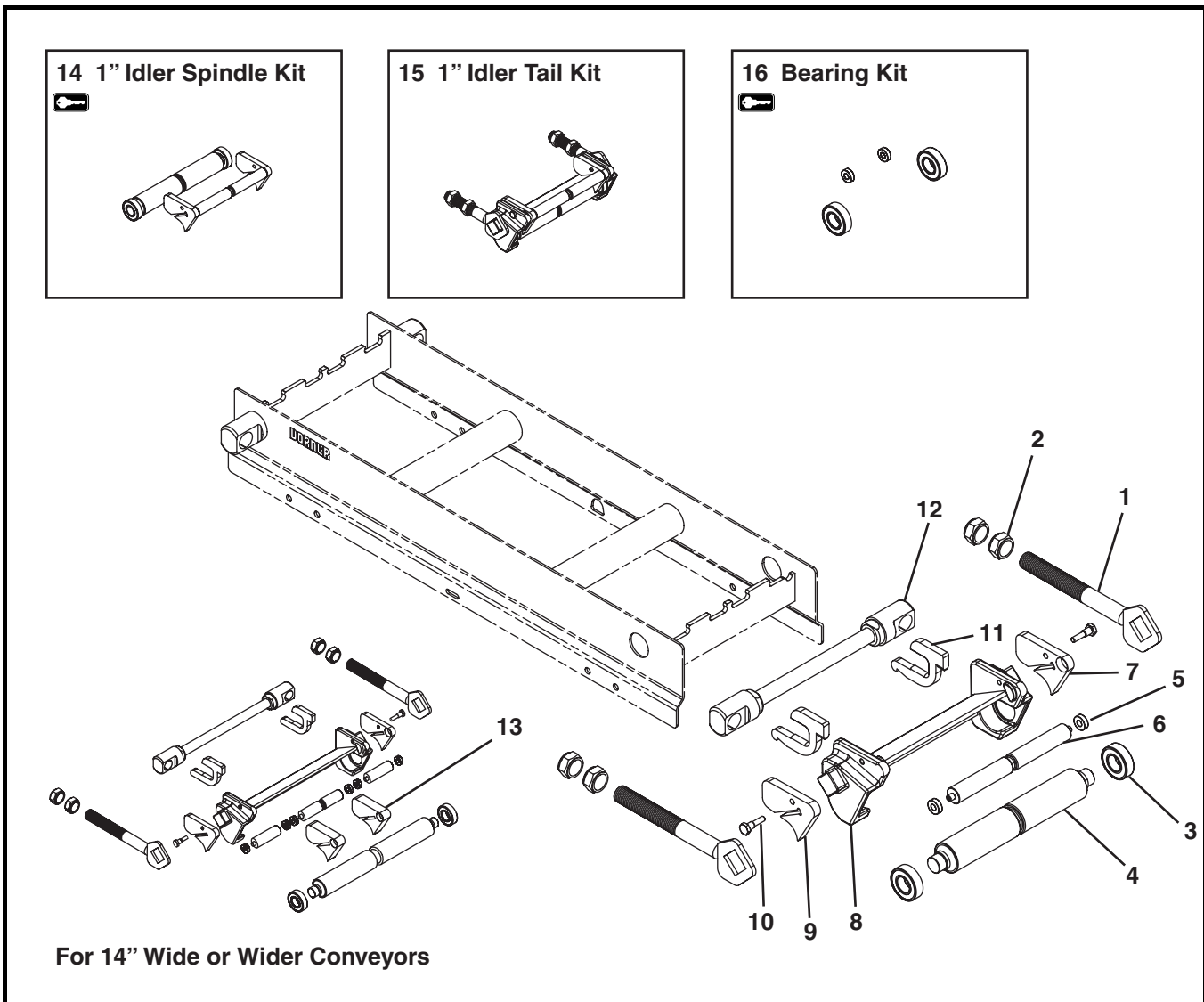
Item	Part Number	Description
10	5092WW	.5" Nose Bar Weldment Assembly
11	500675	Key Stop
12	5048WW	Tip Up Shaft Assembly
13	76NB5-WW	.5" Nose Bar Kit (Includes Items 3 through 7)
14	76NB-WW	.5" Idler Spindle Kit (Includes Items 3 through 9)
15	76NBT-WW	.5" Idler Tail Kit (Includes Items 1 through 10)

WW = Conveyor width ref: 06 - 60 in 02 increments

Item 7: Roller Mount	
Width	Part Number
6" (152 mm)	501078
8" (203 mm)	501077
10" (254 mm)	501078 & 501079
12" (305 mm)	501077 & 501079
14" (356 mm)	501077 & 501078
16" (406 mm)	501077 (x2)
18" (457 mm)	501077, 501078 & 501079
20" (508 mm)	501077 (x2) & 501079
22" (559 mm)	501077 (x2) & 501076
24" (610 mm)	501077 (x3)
26" (660 mm)	501077 (x2), 501078 & 501079
28" (711 mm)	501077 (x3) & 501079
30" (762 mm)	501077 (x3) & 501078
32" (813 mm)	501077 (x4)
34" (864 mm)	501077 (x3), 501078 & 501079
36" (914 mm)	501077 (x4) & 501079
38" (965 mm)	501077 (x4) & 501078
40" (1016 mm)	501077 (x5)
42" (1067 mm)	501077 (x4), 501078 & 501079
44" (1118 mm)	501077 (x5) & 501079
46" (1168 mm)	501077 (x5) & 501078
48" (1219 mm)	501077 (x6)
50" (1270 mm)	501077 (x5), 501078 & 501079
52" (1321 mm)	501077 (x6) & 501079
54" (1372 mm)	501077 (x6) & 501078
56" (1422 mm)	501077 (x7)
58" (1473 mm)	501077 (x6), 501078 & 501079
60" (1524 mm)	501077 (x7) & 501079

# Service Parts

## 1" Nose Bar Idler End



For 14" Wide or Wider Conveyors

Item	Part Number	Description
1	500997	1" Nose Bar Shaft Assembly
2	500791	Nut
3	802-164	Return Spindle Bearing
4	5107WW	1" Nose Bar Return Spindle
5	802-123	Nose Bar Bearing
6	See Chart	1" Nose Bar Spindle
7	500975	Nose Bar Puck Holder, Right Hand
8	5105WW	1" Nose Bar Weldment Assembly
9	500976	Nose Bar Puck Holder, Left Hand
10	501178	Pilot Nose Bolt

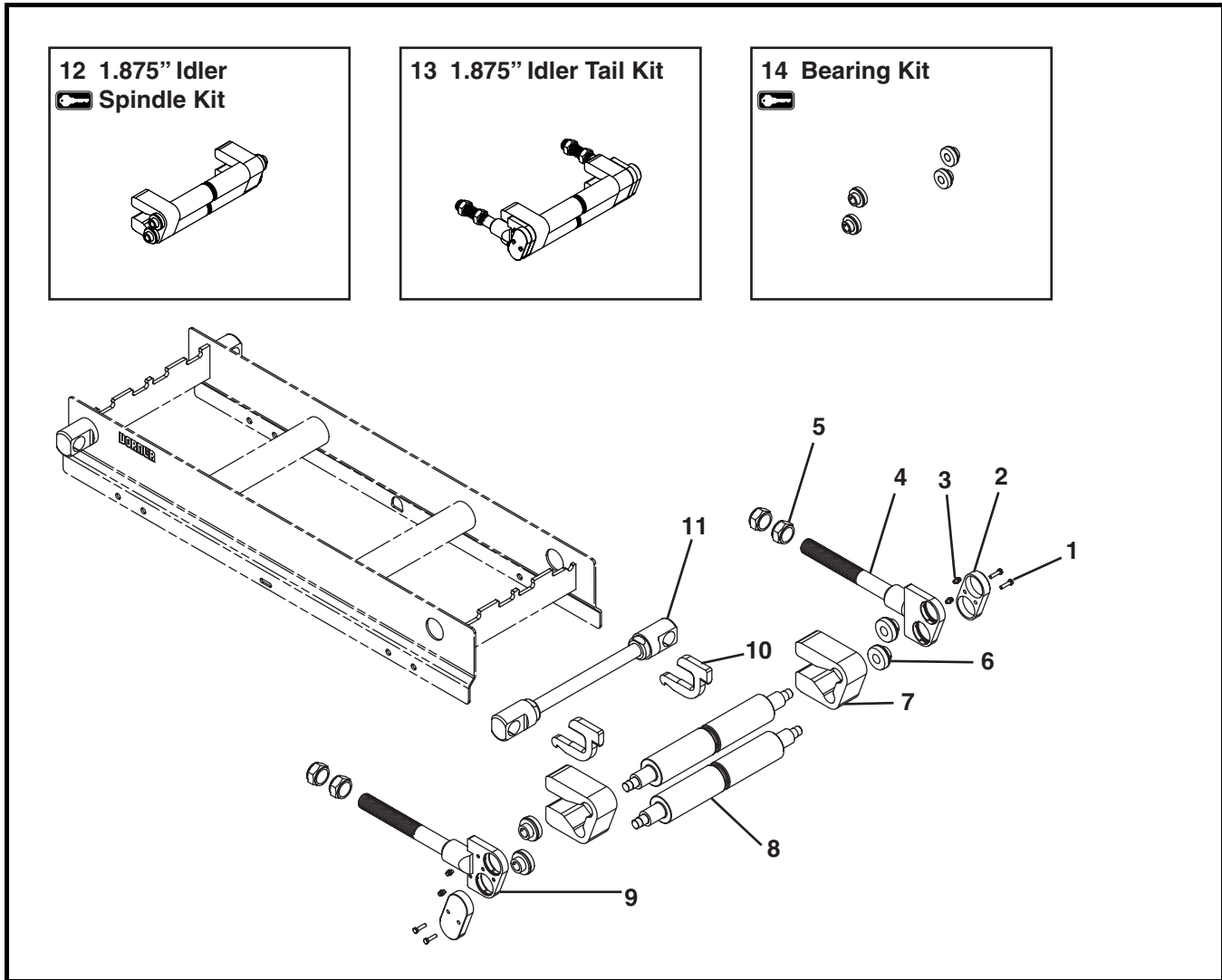
Item	Part Number	Description
11	500675	Key Stop
12	5048WW	Tip Up Shaft Assembly
13	500977	Nose Bar Puck Holder, Center
14	76NB1-WW	1" Idler Spindle Kit (Includes Items 3 through 7 and 9)
15	76NBT1-WW	1" Idler Tail Kit (Includes Items 1 through 10)
16	76BK1	Bearing Kit (Includes Items 3 and 5)

WW = Conveyor width ref: 06 - 60 in 02 increments

Item 6: 1" Nose Bar Spindle	
Width	Part Number
6" (152mm)	505107
8" (203mm)	505108
10" (254mm)	505109
12" (305mm)	505110
14" (356mm)	505103 (x2) & 505107
16" (406mm)	505103 (x2) & 505108
18" (457mm)	505103 (x2) & 505109
20" (508mm)	505103 (x2) & 505110
22" (559mm)	505104 (x2) & 505107
24" (610mm)	505104 (x2) & 505108
26" (660mm)	505104 (x2) & 505109
28" (711mm)	505104 (x2) & 505110
30" (762mm)	505106 (x2) & 505107
32" (813mm)	505106 (x2) & 505108
34" (864mm)	505106 (x2) & 505109
36" (914mm)	505106 (x2) & 505110
38" (965mm)	505104 (x4) & 505107
40" (1016mm)	505104 (x4) & 505108
42" (1067mm)	505104 (x4) & 505109
44" (1118mm)	505104 (x4) & 505110
46" (1168mm)	505105 (x4) & 505107
48" (1219mm)	505105 (x4) & 505108
50" (1270mm)	505105 (x4) & 505109
52" (1321mm)	505105 (x4) & 505110
54" (1372mm)	505106 (x4) & 505107
56" (1422mm)	505106 (x4) & 505108
58" (1473mm)	505106 (x4) & 505109
60" (1524mm)	505106 (x4) & 505110

# Service Parts

## 1.875" Nose Bar Idler End



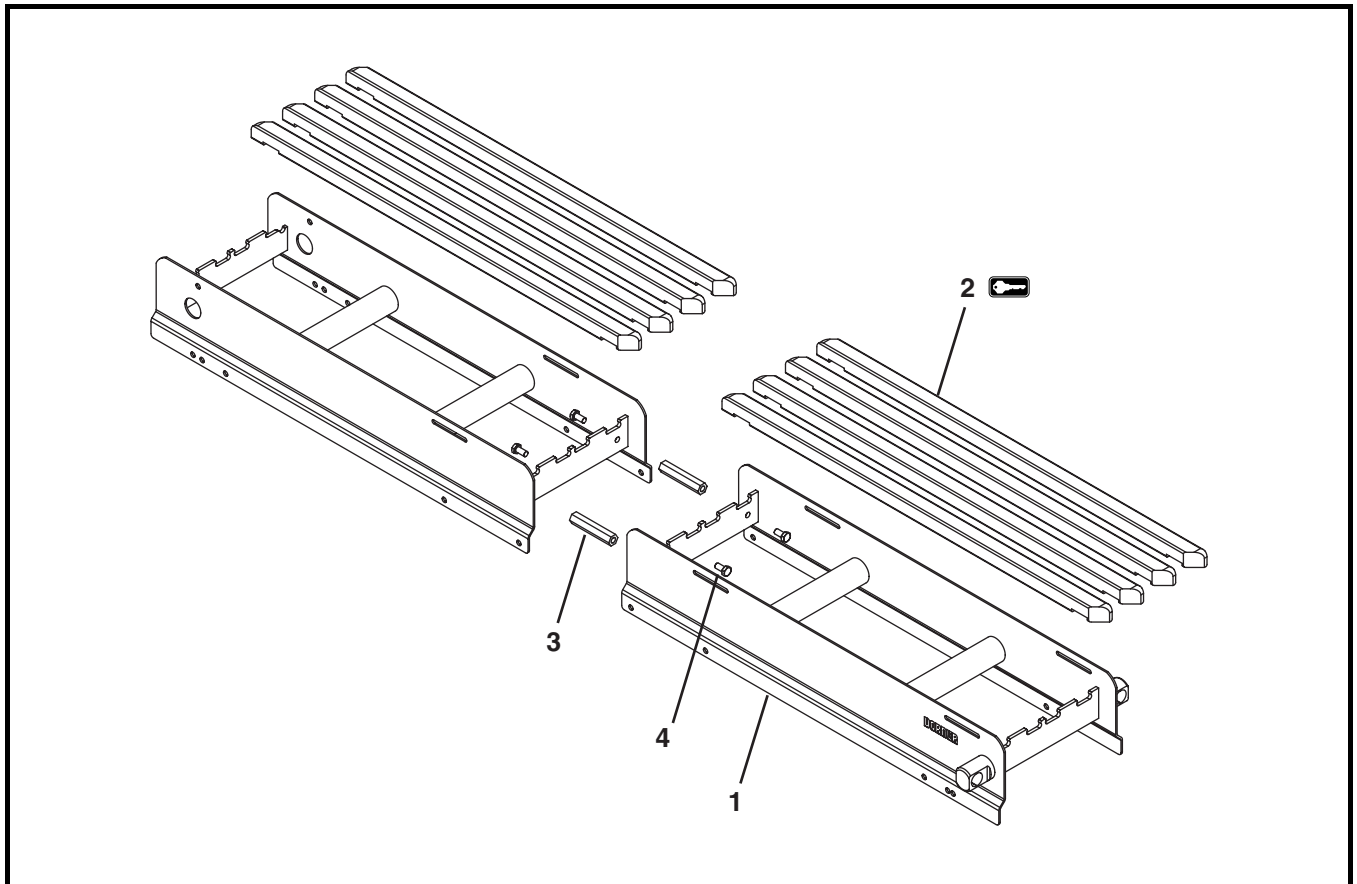
Item	Part Number	Description
1	960520MSS	Hex Head Cap Screw M5-0.8 x 20 mm
2	501085	Transfer Bearing Cover
3	810-187	Grease Fitting
4	501083	1.875" Nose Bar Shaft Assembly Right Hand
5	500791	Nut
6	802-171	Bearing
7	501081	Pinch Guard block
8	5101WW	1.875" Nose Bar Spindle
9	501084	1.875" Nose Bar Shaft Assembly Left Hand

Item	Part Number	Description
10	500675	Key Stop
11	5048WW	Tip Up Shaft Assembly
12	76NB2-WW	1.875" Idler Spindle Kit (Includes Items 6 through 8)
13	76NBT2-WW	1.875" Idler Tail Kit (Includes Items 1 through 9)
14	76BK2	Bearing Kit (Includes Item 6)

WW = Conveyor width ref: 06 - 60 in 02 increments



## Conveyor Frame and Extensions with Standard Wear Strips

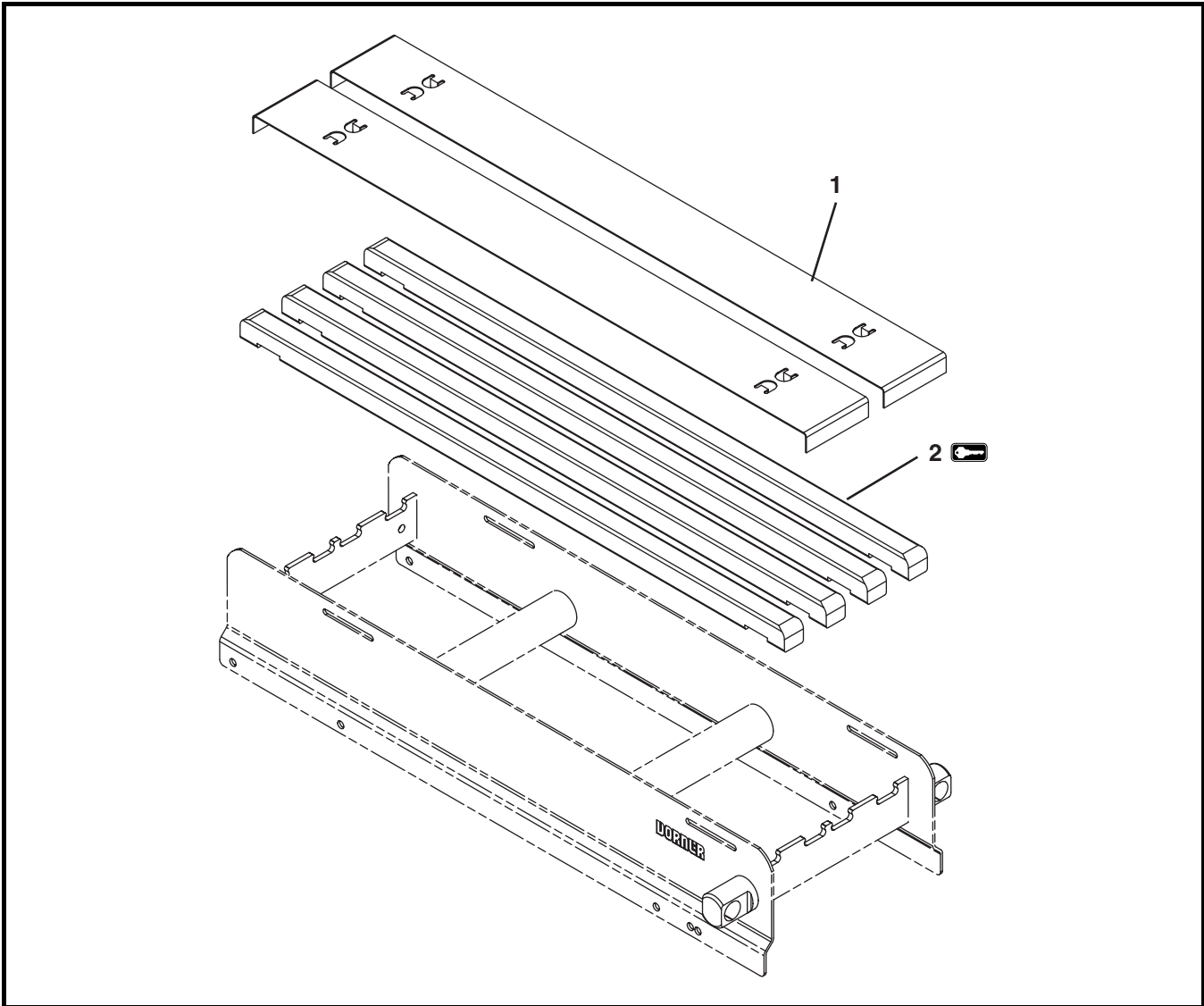



Item	Part Number	Description
1	-----	Consult Factory for Frame Part Number
2	501800-LLL	Wear Strip

Item	Part Number	Description
3	500193	Hex Post Connector
4	961020MSS	Hex Head Cap Screw M10-1.5 x 20 mm
LLL = Conveyor length ref: 036 - 480 in 001 increments		

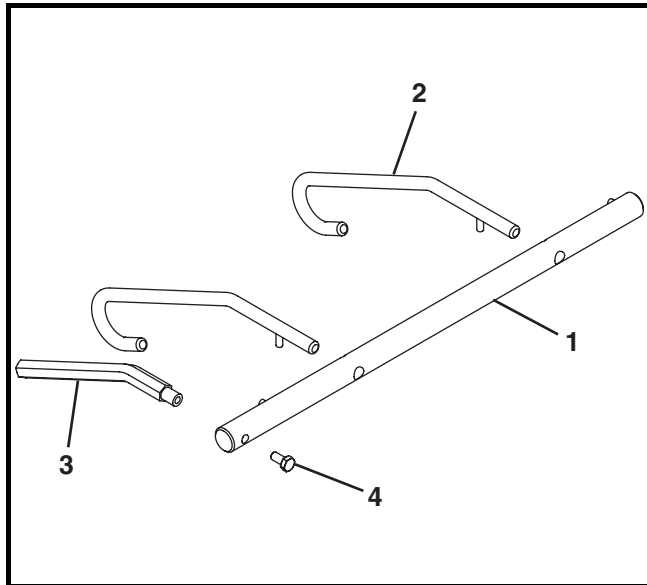
# Service Parts

## Wear Strips with Stainless Steel Sheet Bed Plate



Item	Part Number	Description
1	5123WW-LLL	Bed Plate
2	501098-LLL	Wear Strip
		
WW = Conveyor width ref: 06 - 60 in 02 increments		
LLL = Conveyor length ref: 036 - 480 in 001 increments		

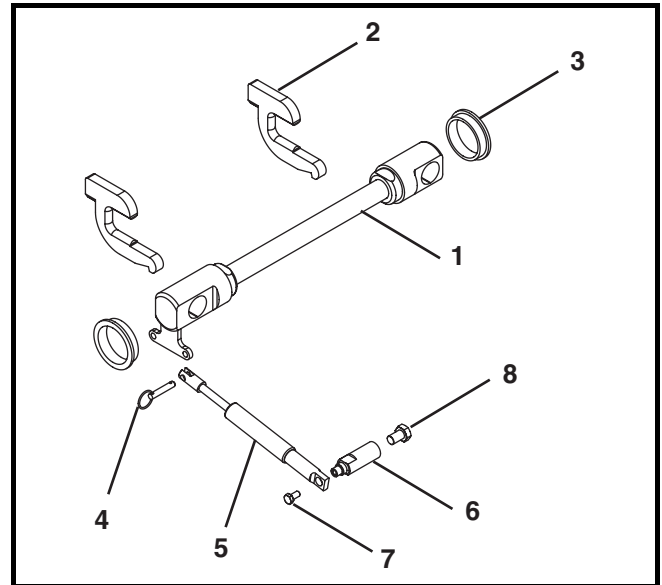
## Lifters



Item	Part Number	Description
1	5054WW	Belt Lifter Shaft
2	500195	Belt Lifter
3	500491	Belt Lifter Handle
4	960812MSS	Hex Head Cap Screw M8-1.25 x 12 mm

WW = Conveyor width ref: 06 - 60 in 02 increments

## Gas Assisted Tip Up

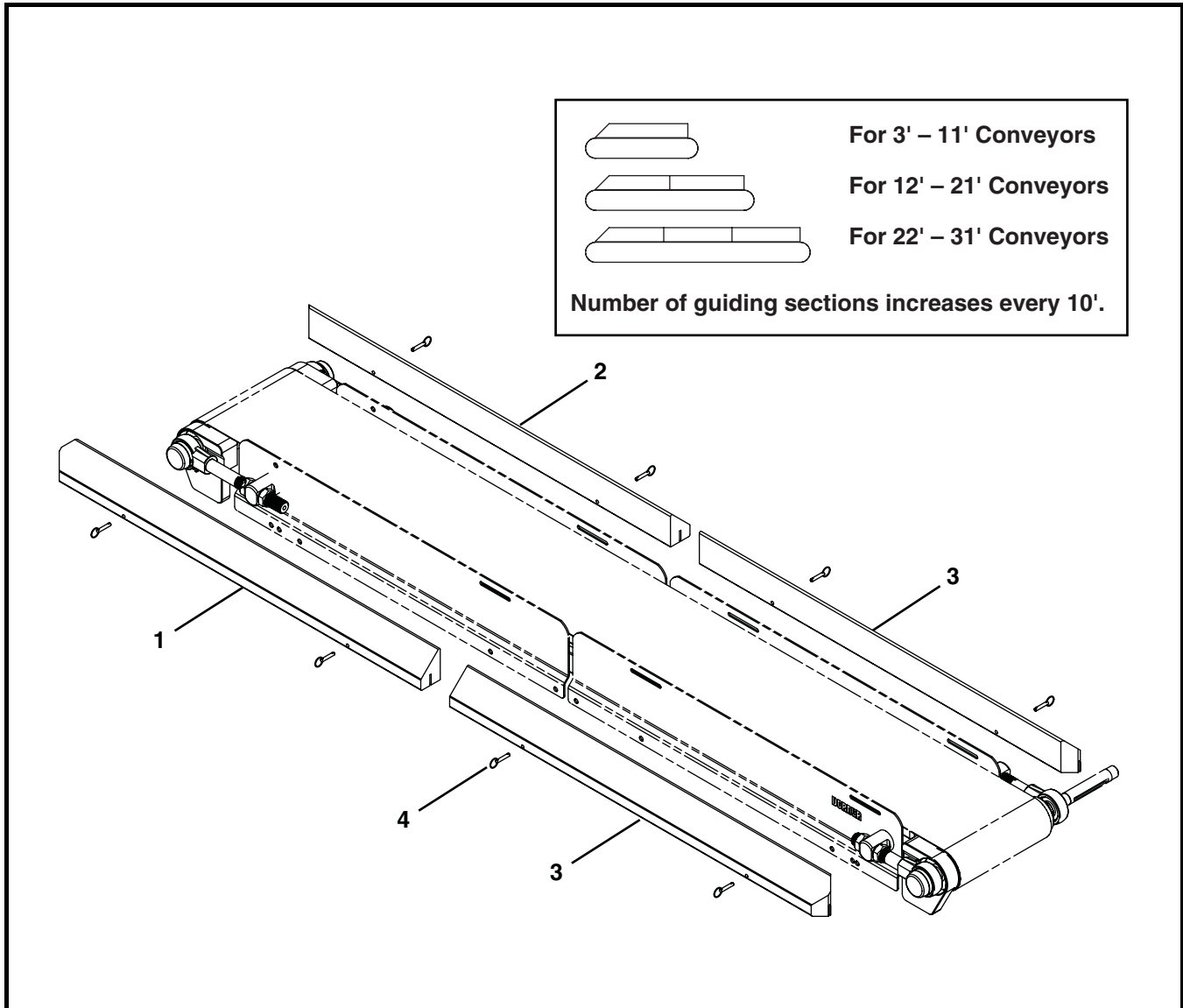


Item	Part Number	Description
1	5049WW	Gas Assist Tip Up Shaft Assembly
2	500675	Key Stop
3	500895	Tip Up Bushing
4	807-1553	Pull Pin
5	807-1562	Gas Spring 70 lb. for Standard Tails 42"-60" wide or Nose Bar Tails 18"-30" wide
	807-1563	Gas Spring 130 lb. for Nose Bar Tails 32"-46" wide
	807-1564	Gas Spring 160 lb. for Nose Bar Tails 48"-60" wide
6	500794	Gas Spring Stand Off Post
7	960612MSS	Hex Head Cap Screw M6-1.00 x 12 mm
8	961016MSS	Hex Head Cap Screw M10-1.50 x 16 mm

WW = Conveyor width ref: 06 - 60 in 02 increments

# Service Parts

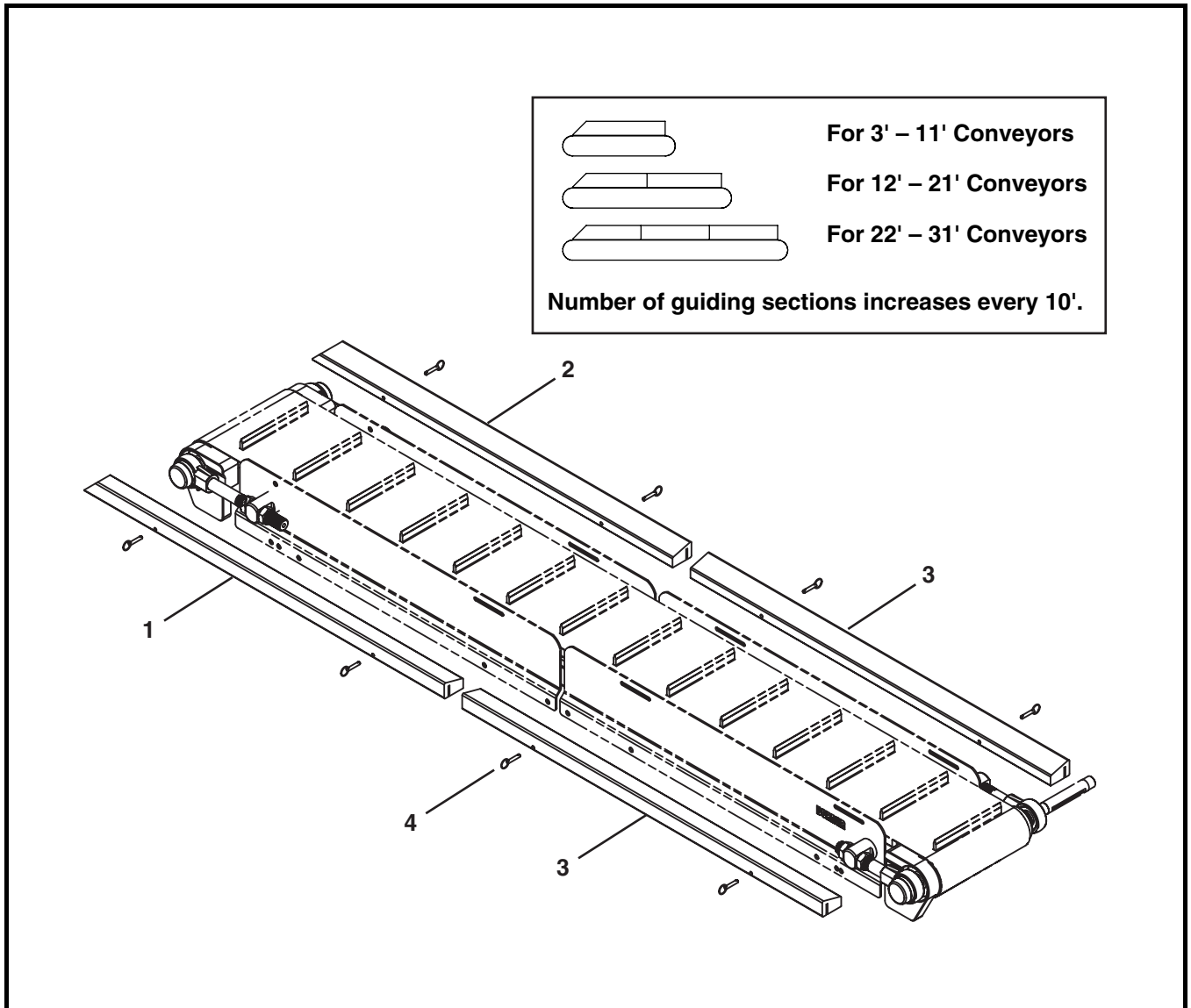
## 3" High Sides



Item	Part Number	Description
1	503460-LLLLL	High Side Guide for Conveyors 3'-11' Long
	503550-LLLLL	High Side Right Hand Guide for Conveyors over 11' Long
2	503460-LLLLL	High Side Guide for Conveyors 3'-11' Long

Item	Part Number	Description
3	503650-LLLLL	High Side Right Hand Guide for Conveyors over 11' Long
	503450-LLLLL	High Side Guide Square End
4	807-1553	Pull Pin
LLLLL = Guide Length in inches with 2 decimal places.		
Example: Guide Length = 95.25" LLLLL = 09525		

## 1" Cleated Guides

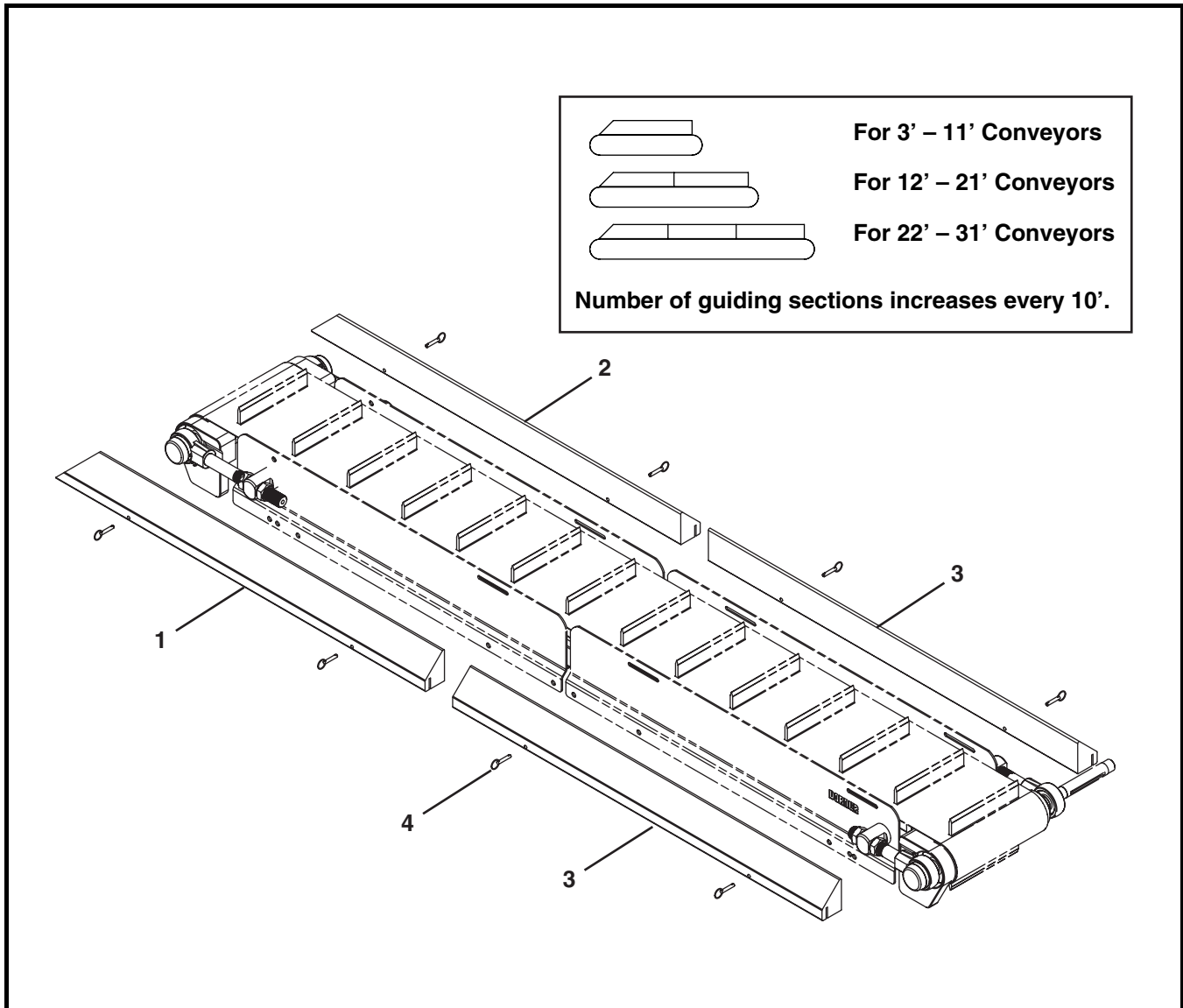


Item	Part Number	Description
1	502450-LLLLL	1" Cleated Right-hand Guide
2	502460-LLLLL	1" Cleated Left-hand Guide
3	502350-LLLLL	1" Cleated Guide Square End

Item	Part Number	Description
4	807-1553	Pull Pin
LLLLL = Guide Length in inches with two decimal places.		
Example: Guide Length = 95.25" LLLLL = 09525		

# Service Parts

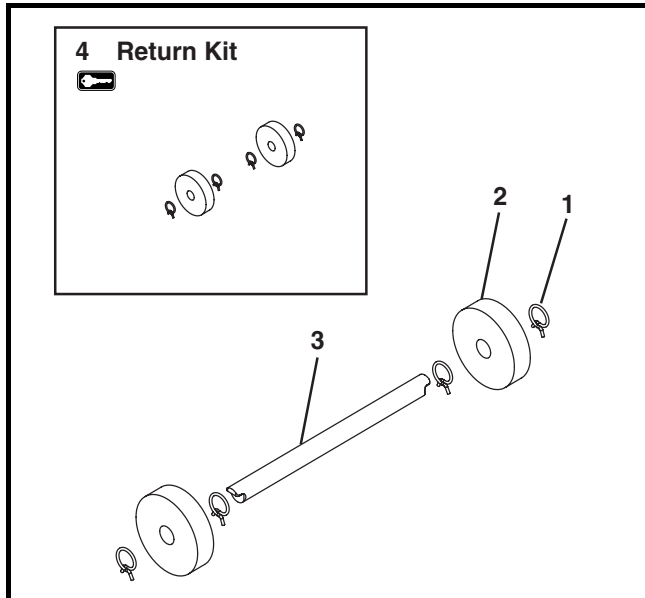
## 3" Cleated Guides



Item	Part Number	Description
1	502750-LLLLL	3" Cleated Right-hand Guide
2	502850-LLLLL	3" Cleated Left-hand Guide
3	502650-LLLLL	3" Cleated Guide Square End

Item	Part Number	Description
4	807-1553	Pull Pin
LLLLL = Guide Length in inches with two decimal places.		
Example: Guide Length = 95.25" LLLLL = 09525		

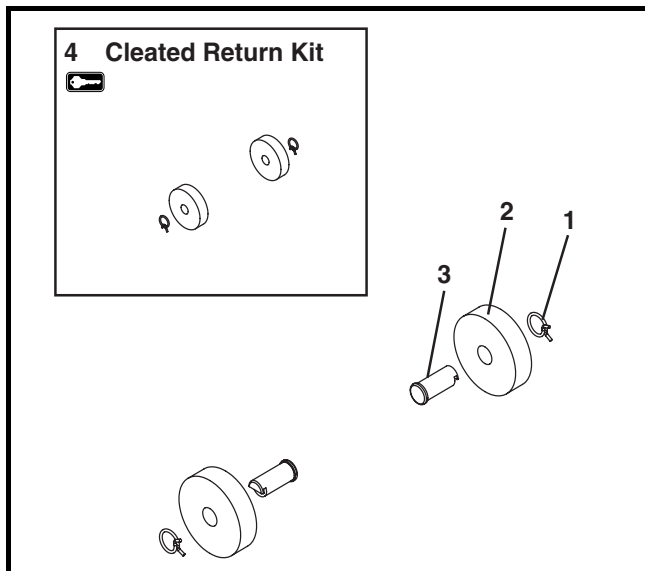
## Flat Belt Returns



Item	Part Number	Description
1	807-1551	Clamp
2	500990	Return Disk
3	5108WW	Return Shaft
4	76R-WW	Return Kit (Includes Items 1 and 2)

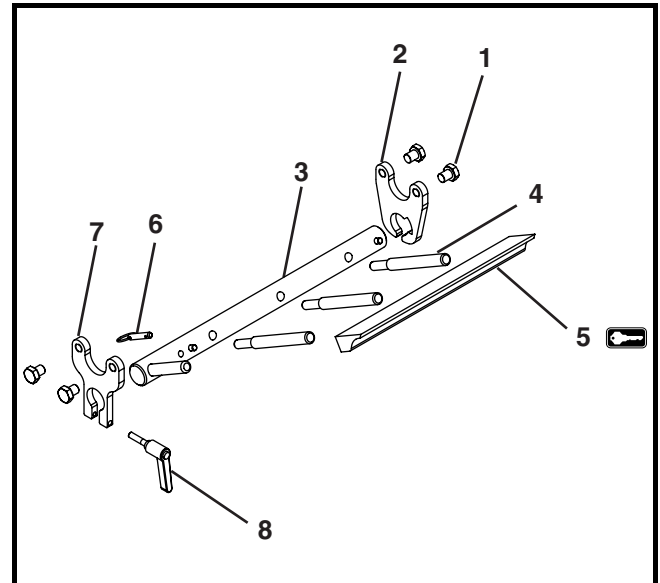
WW = Conveyor width ref: 06 - 60 in 02 increments

## Cleated Belt Return



Item	Part Number	Description
1	807-1551	Clamp
2	500990	Return Disk
3	501097	Cleated Return Shaft
4	76CR	Cleated Return Kit (Includes Items 1 and 2)

## Scraper



Item	Part Number	Description
1	961012MSS	Hex Head Cap Screw M10-1.50 x 12 mm
2	500878	Scraper Adjust Plate
3	5102WW	Scraper Shaft Assembly
4	500881	Scraper Holder Bar
5	5047WW	Scraper Wear Bar
6	807-1553	Pull Pin
7	500879	Scraper Mount Plate
8	807-1318	Handle

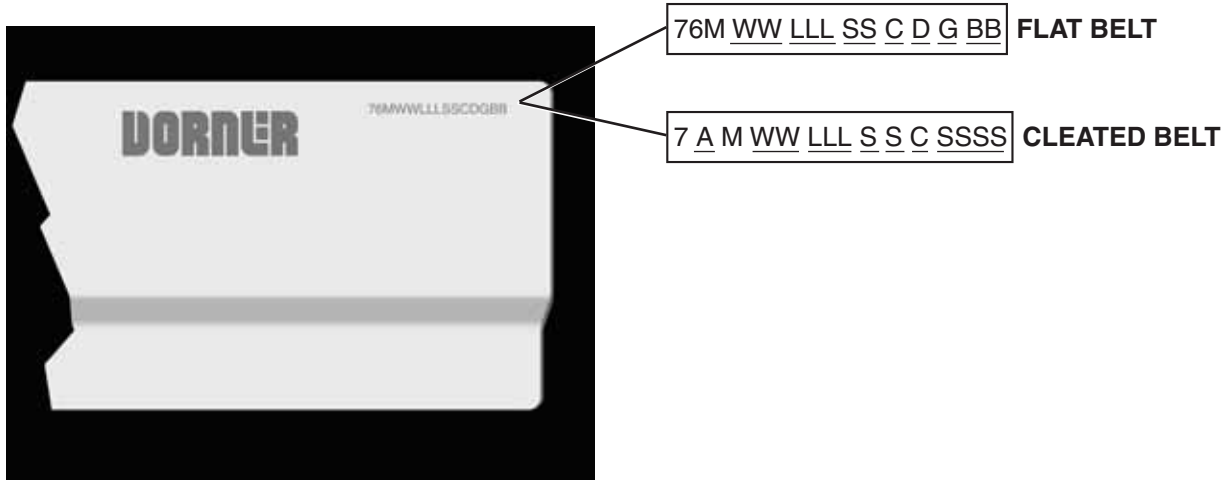
WW = Conveyor width ref: 06 - 60 in 02 increments

---

# Service Parts

---

## Configuring Conveyor Belt Part Number



**Figure 89**

### Flat Belt Part Number Configuration

Refer to model number on the conveyor frame (Figure 89). From the model number determine the conveyor width (WW), length (LLL) and belt type (BB). Use data to configure belt part number as indicated below. \*Add “V” for v-guided belts.

**76-WW LLL / BB V\***  
76- \_\_\_\_\_ / \_\_\_\_ V\*  
(Fill In)

### Cleated Belt Part Number Configuration

Refer to model number on the conveyor frame (Figure 89). From the model number determine the conveyor width (WW), length (LLL), cleat type (C) and cleat spacing (SSSS). Use data to configure belt part number as indicated below. \*Add “V” for v-guided belts.

**76-WW LLL C SSSS V\***  
76- \_\_\_\_\_ V\*  
(Fill In)





# Return Policy

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

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

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

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

## **Conveyors and conveyor accessories**

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

## **Parts**

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

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

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

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

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

For a copy of Dorner's Warranty, contact factory, distributor, service center or visit our website at [www.dorner.com](http://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. 2006

DORNER MFG. CORP.  
975 Cottonwood Ave., PO Box 20  
Hartland, WI 53029-0020 USA  
USA  
TEL 1-800-397-8664 (USA)  
FAX 1-800-369-2440 (USA)  
Internet: [www.dorner.com](http://www.dorner.com)

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