

# 2200 Series Modular Belt Conveyors

## Installation, Maintenance & Parts Manual





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CE

**Original Instructions** 

**Record Conveyor Serial Number Here** 

851-873-EU Rev. B

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2200 Series Modular Belt Conveyors

### Introduction

#### IMPORTANT

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.

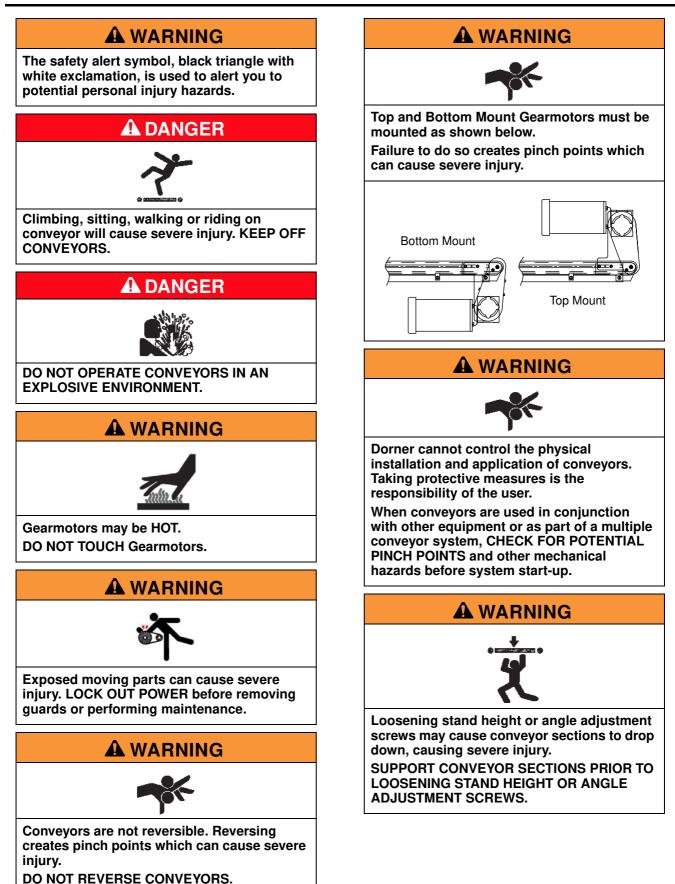
Dorner's Limited Warranty applies.

Dorner 2200 series conveyors are covered by Patent Numbers 5,174,435, 6,298,981, 6,422,382 and corresponding patents and patent applications in other countries.

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

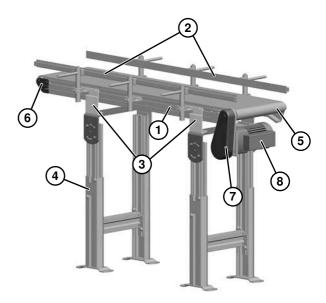
## Warnings – General Safety



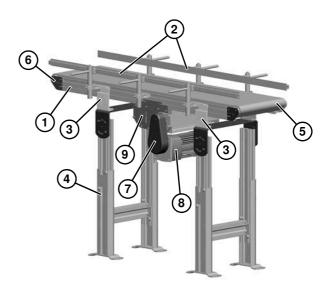
## **Product Description**

Refer to Figure 1 for typical conveyor components.

- 1 Conveyor
- 2 Guiding
- 3 Mounting Brackets
- 4 Support Stand
- 5 Drive End
- 6 Idler/Tension End
- 7 Gearmotor Mounting Package
- 8 Gearmotor
- 9 Center Drive Box (Center Drive Units)



End Drive Conveyor Figure 1

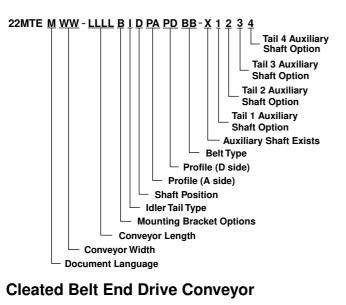


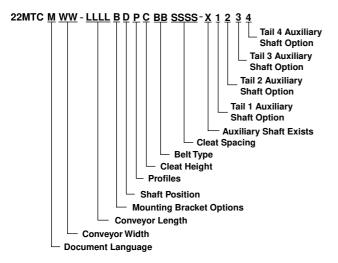
Center Drive Conveyor Figure 2

## Specifications

### Models:

#### Flat Belt End Drive Conveyor





#### 22MTD M WW-LLLL BE ID PAPD BB-LL Tail 4 Auxiliary Shaft Option Tail 3 Auxiliary Shaft Option Tail 2 Auxiliary Shaft Option Tail 1 Auxiliary Shaft Option Auxiliary Shaft Exists **Drive Distance from** Exit Tail Belt Type Profile (D side) Profile (A side) Shaft Position Infeed Tail Type **Discharge Tail Type** Mounting Bracket Options **Conveyor Length Conveyor Width** Document Language

\* See Engineering Manual for details.

Center drive location to be at center of first frame section. Minimum center drive conveyor length is 91 cm.

#### Flat Belt Center Drive Conveyor

## **Specifications**

### **Conveyor Supports:**

#### **Maximum Distances:**

1 = 457 mm\*\*

2 = 1829 mm\*\*\*

\*\* For Heavy Load Bottom Mount Package, mount support under gear head.

\*\*\* For conveyors longer than 3048 mm, install support at joint.

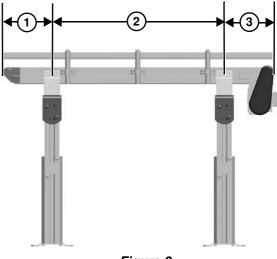


Figure 3

### **Conveyor Specifications:**

Standard Micropitch Belts						
Conveyor Width Reference (WW)	04	06	08	12	18	24
Conveyor Belt Width	102 mm	152 mm	203 mm	305 mm	457 mm	610 mm
Conveyor Length Reference (LLLL)	01500 to 3000 in 001 increments					
Conveyor Length	457 mm to 9144 mm in 3 mm increments					
Belt Travel	136 mm per revolution of pulley					
End / Center Drive Maximum Belt Speed*	76.2 m/minute					
iDrive Maximum Belt Speed*	27.4 m/minute					

Standard Metalworking Belts						
Conveyor Width Reference (WW)	03	06	09	12	18	24
Conveyor Belt Width	76 mm	152 mm	229 mm	305 mm	457 mm	610 mm
Conveyor Length Reference (LLLL)	01500 to 3000 in 001 increments					
Conveyor Length	457 mm to 9144 mm in 3 mm increments					
Belt Travel	150 mm per revolution of pulley					
End / Center Drive Maximum Belt Speed*	76.2 m/minute					
iDrive Maximum Belt Speed*	27.4 m/minute					

\* See Engineering Manual for details.

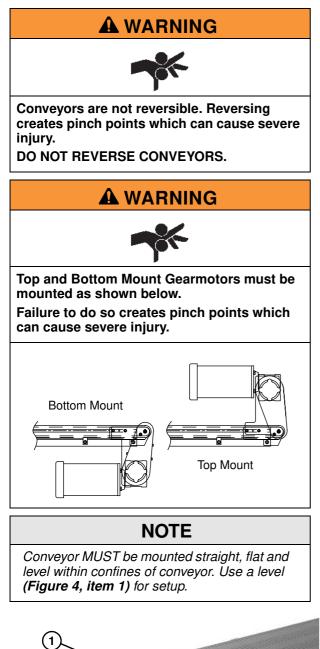




Figure 4

#### **Required Tools**

- Hex-key wrenches: 4 mm, 5 mm
- Level
- Torque wrench
- 2.4 mm wide flat blade screwdriver

# Recommended Installation Sequence

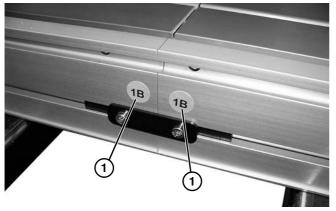
- Install support stands (see accessory instructions)
- Assemble conveyor frame (if required)
- Attach mounting brackets to conveyor frame and stands
- Install belt
- Mount gearmotor mounting package (see accessory instructions)
- Attach guides/accessories. (See "Service Parts" section beginning on page 26 for details.)

### Conveyors Up to 3048 mm

No assembly is required. Install mounting brackets. Refer to "Mounting Brackets" on page 9.

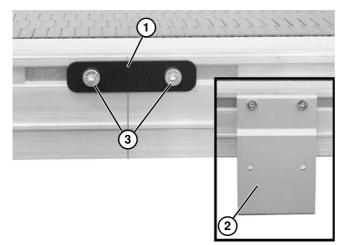
### Conveyors Longer Than 3658 mm

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



#### Figure 5

 Join conveyor sections and install connector brackets (Figure 6, item 1) or connector/mount brackets (Figure 6, item 2) and screws (Figure 6, item 3) on both sides as indicated.

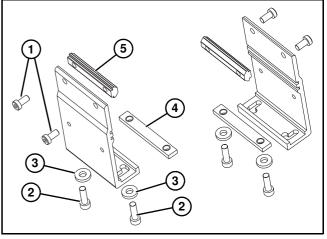


#### Figure 6

3. Tighten screw (Figure 6, item 3) to 7 Nm on both sides of conveyor.

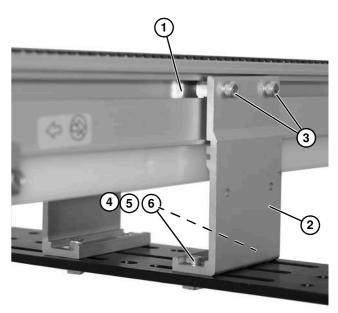
#### **Mounting Brackets**

1. Locate brackets. Exploded view shown in Figure 7.



#### Figure 7

- Remove screws (Figure 7, item 1 & 2), washers (Figure 7, item 3), connector bars (Figure 7, item 4) and T-bars (Figure 7, item 5) from brackets.
- Insert T-bars (Figure 7, item 5) into conveyor side slots (Figure 8, item 1). Fasten brackets (Figure 8, item 2) to conveyor with mounting screws (Figure 8, item 3).

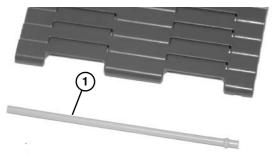


#### Figure 8

- 4. Fasten brackets to support stand with mounting screws (Figure 8, item 4), washers (Figure 8, item 5) and nuts (Figure 8, item 6).
- 5. Tighten screws (Figure 8, item 3 & 4) to 7 Nm.

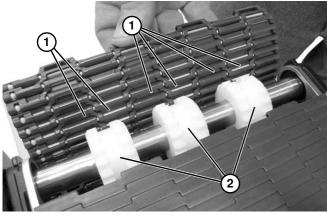
### **Installing Plastic Belt**

Locate the conveyor belt retaining rod (Figure 9, item 1).

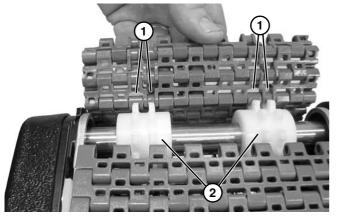


#### Figure 9

Align the belt grooves (Figure 10, item 1) or (Figure 11, item 1) to the evenly spaced sprockets (Figure 10, item 2) or (Figure 11, item 2) on the drive end of the conveyor.



Micropitch Belt Figure 10



Metalworking Belt Figure 11

3. Feed belt into bottom wear strips (Figure 12, item 1) and pull through to the far end.

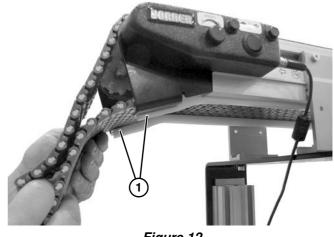


Figure 12

 Splice the belt together by pushing the plastic rod (Figure 13, item 1) through the side hole on the rod retaining side of belt.

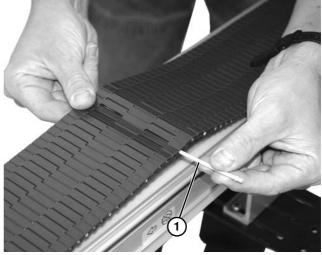


Figure 13

### **Guide Clips**

1. Install guide clip assembly (Figure 14, item 1) into conveyor t-slot (Figure 14, item 2) as shown.

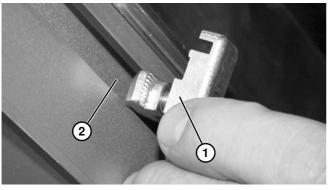


Figure 14

2. Tighten screw (Figure 15, item 1) making sure t-bar (Figure 15, item 2) rotates and engages inside of t-slot.

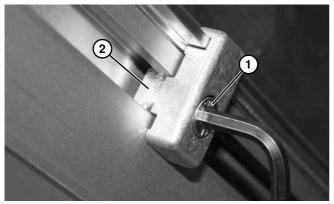


Figure 15

### **Adjustable Guides**

1. Install guide bracket assembly (Figure 16, item 1) into the conveyor t-slot (Figure 16, item 2).

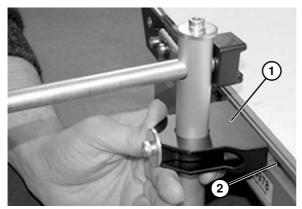


Figure 16

2. Tighten screws (Figure 17, item 1) making sure t-nut (Figure 17, item 2) rotates and engages inside of the t-slot.

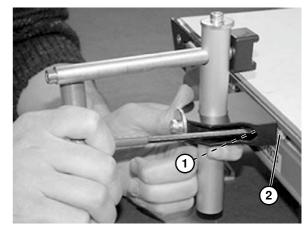


Figure 17

3. Loosen screw (Figure 18, item 1) on end of shaft (Figure 18, item 2) to remove clip (Figure 19, item 1).

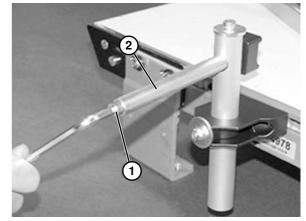


Figure 18

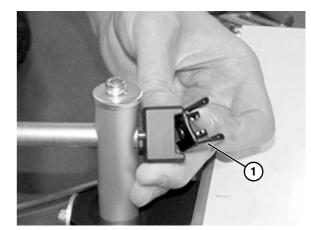


Figure 19

4. Snap clip (Figure 20, item 1) onto guide rail (Figure 20, item 2).

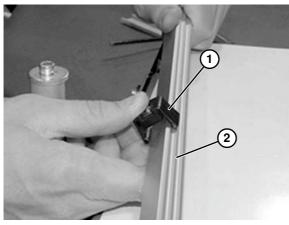


Figure 20

5. Reassemble clip (Figure 21, item 1) and attach to shaft (Figure 21, item 2). Tighten screw (Figure 18, item 1) on end of shaft.

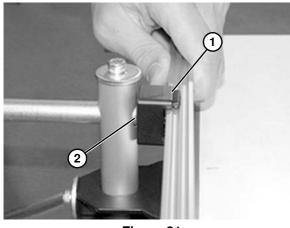


Figure 21

6. Adjust rail width with top screw (Figure 22, item 1).

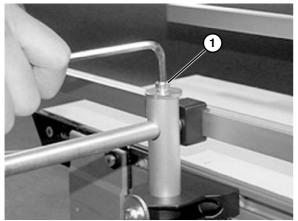


Figure 22

7. Adjust rail height with lower screw (Figure 23, item 1).

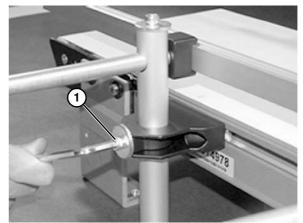


Figure 23

### **Required Tools**

#### **Standard Tools**

- Hex-key wrenches: 2.5 mm, 4 mm, 5 mm
- 2.4 mm wide flat blade screw driver
- Arbor press
- Adjustable wrench to 25 mm wide

#### **Special Tools**

- 807-1078 Sealed Bearing Removal Tool
- 450293 Sealed Bearing Installation Tool

### Checklist

- Keep service parts on hand (see "Service Parts" section for recommendations)
- Keep supply of belt cleaner
- Clean entire conveyor while disassembled
- Replace worn or damaged parts

### Lubrication

No lubrication is required. Replace bearings if worn.

### **Maintaining Conveyor Belt**

#### Troubleshooting

Inspect conveyor belt for:

- Surface cuts or wear
- Tooth skipping
- Loose links

Surface cuts and wear indicate:

- Sharp or heavy parts impacting belt
- · Jammed parts
- Foreign material inside the conveyor
- Improperly positioned accessories
- Bolt-on guiding is pinching belt

Stalling or skipping belt indicates:

- Belt stretching
- Conveyor belt or drive timing belt are not properly tensioned
- · Worn sprocket or impacted dirt on drive pulley
- Intermittent jamming or drive train problems

#### Cleaning

#### IMPORTANT

Do not use belt cleaners that contain alcohol, acetone, Methyl Ethyl Ketone (MEK) or other harsh chemicals.

Use mild soap and water to clean the belt and conveyor. Do not soak the belt.

### **Conveyor Belt Replacement**



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

#### **Conveyor Belt Replacement Sequence**

- Remove old conveyor belt
- · Install new conveyor belt

#### **Belt Removal**

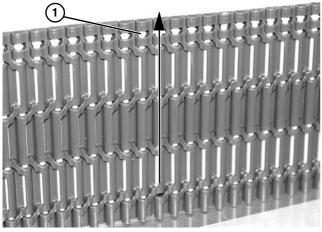
### IMPORTANT

You may need to slightly raise the underside of the conveyor belt to properly drive pin out of slots.

### NOTE

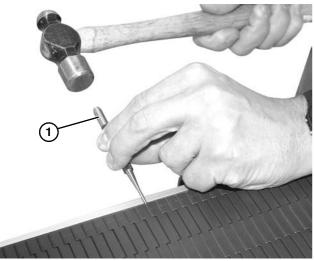
For Micropitch Belts follow steps 1, 2, 3, 6 and 7. For Metalworking Belts follow steps 4, 5, 6 and 7.

1. Choose one link on either end of the conveyor to remove belt pin. Locate end of rod without retaining feature (Figure 24, item 1).



Micropitch Belt Figure 24

2. Insert punch (Figure 25, item 1) into non-retaining side of belt, pushing rod out.



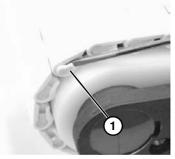
Micropitch Belt Figure 25

3. Remove rod (Figure 26, item 1) and separate belt.



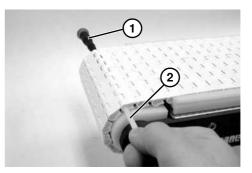
### Micropitch Belt Figure 26

4. Choose one link on the idler end of chain to remove endcaps. With a 2.4 mm flat blade screwdriver, pry under tab of end caps (Figure 27, item 1) and remove end cap. Repeat for opposite side of conveyor.



Metalworking Belt Figure 27

5. Insert screwdriver (Figure 28, item 1) into one side of belt, pushing rod (Figure 28, item 2) out. Remove rod and separate belt.



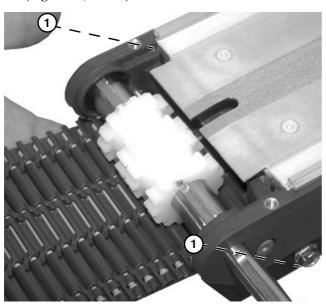
Metalworking Belt Figure 28

6. Pull back topside of belt to the drive end of the conveyor. See Figure 29.



Figure 29

7. Remove belt by pulling belt out of bottom wear strips (Figure 30, item 1).





#### **Belt Installation**

1. See "Installing Plastic Belt" page 10.

### **Conveyor Belt Tension**



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

#### NOTE

The Modular Belt Conveyor is designed to operate with minimal belt tension. Conveyor will come with proper amount of belt sag at drive end of conveyor belt. See Figure 31. As belt stretches, it may be necessary to remove links to avoid too much belt sag. See Figure 32.

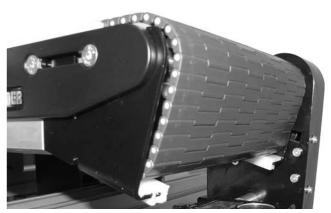
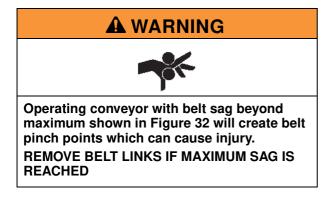


Figure 31



Figure 32



#### **Removal of Belt Links**

#### **IMPORTANT**

You may need to slightly raise the underside of the conveyor belt to properly drive pin out of slots.

#### **Micropitch Belts**

1. Choose one link on either end of the conveyor to remove belt pin. Locate end of rod without retaining feature (Figure 33, item 1).

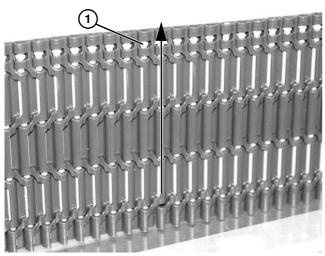


Figure 33

2. Insert punch (Figure 34, item 1) into non-retaining side of belt, pushing rod out.

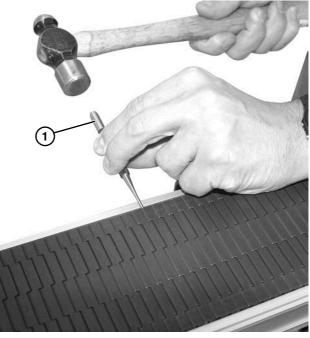


Figure 34

3. Remove rod (Figure 35, item 1) and separate belt.

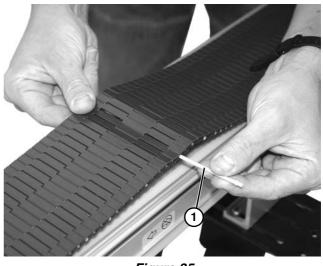


Figure 35

 Determine the number of links to be removed. Start with 1 link and remove more as needed. If additional tensioning is required repeat steps 1 - 3.

5. Splice the belt together by pushing the plastic rod (Figure 36, item 1) through the side hole on the rod retaining side of belt.

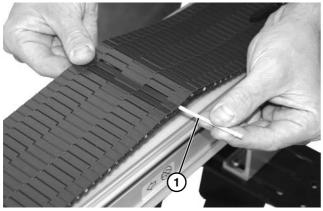


Figure 36

6. Review belt sag at drive end to ensure it stays within the sag area of the tail. If additional tensioning is required repeat steps 1 - 5.

#### **Metalworking Belts**

1. Choose one link on the idler end of chain to remove endcaps. With a 2.4 mm flat blade screwdriver, pry under tab of end caps (Figure 37, item 1) and remove end cap. Repeat for opposite side of conveyor.

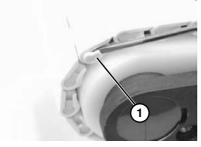


Figure 37

2. Insert screwdriver (Figure 38, item 1) into one side of belt, pushing rod (Figure 38, item 2) out. Remove rod and separate belt.

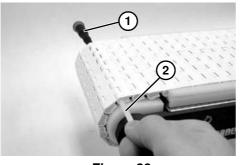


Figure 38

- 3. Determine the number of links to be removed. Start with 1 link and remove more as needed. If additional tensioning is required repeat steps 1 and 2.
- 4. Splice the belt together by pushing the plastic rod (Figure 39, item 1) through the side hole.

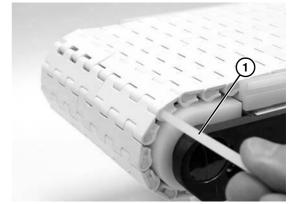


Figure 39

5. Insert rod retaining end caps (Figure 40, item 1) on both sides of belt.

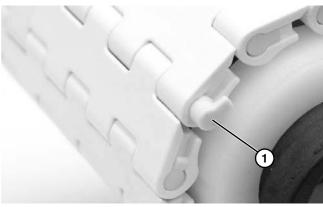


Figure 40

6. Review belt sag at drive end to ensure it stays within the sag area of the tail. If additional tensioning is required repeat steps 1 - 5.

### **Pulley Removal**



Remove conveyor belt to access pulley(s). See "Conveyor Belt Replacement" on page 13. Remove the desired pulley following the corresponding instructions below:

- A End Drive Conveyor
- B Center Drive Conveyor

#### A – End Drive Conveyor



- 1. Remove belt from drive tail. See "Belt Removal" on page 14.
- 2. Remove upper wear strips (Figure 41, item 1) from end drive.

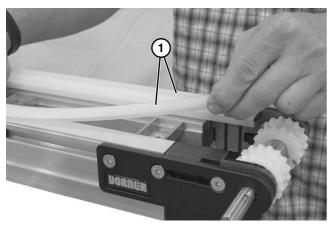
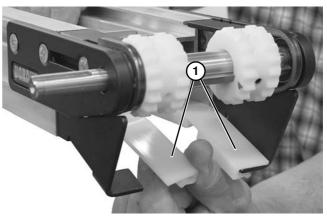


Figure 41

3. Remove lower wear strips (Figure 42, item 1) from end drive.





4. Loosen two fastening screws (Figure 43, item 1) on both sides of conveyor.

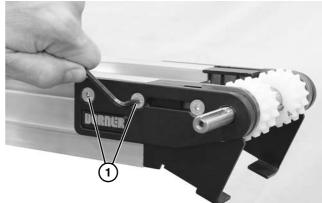


Figure 43

5. Remove end drive (Figure 44, item 1) from conveyor.



Figure 44

6. Remove headplate (Figure 45, item 1) and spindle (Figure 45, item 2).

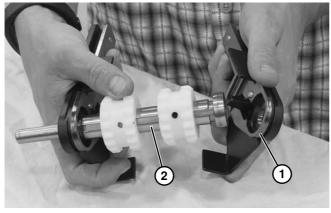


Figure 45

- 7. Remove and replace worn bearings and sprockets. See "Bearing and Sprocket Removal and Replacement" on page 21.
- 8. Reassemble in reverse order.

#### **B** – Center Drive Conveyor

1. Loosen screw (Figure 46, item 1) on each side of conveyor.

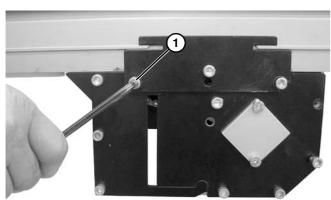
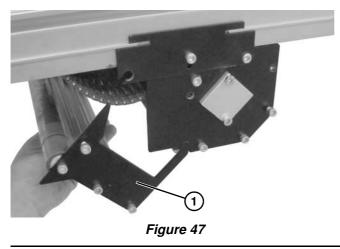


Figure 46

2. Lower bracket (Figure 47, item 1).



3. Remove screw (Figure 48, item 1) on both sides of bracket and remove takeup roller (Figure 48, item 2).

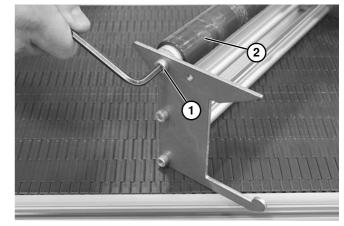


Figure 48

- 4. Remove belt from drive tail. See "Belt Removal" on page 14.
- Loosen screw (Figure 49, item 1) on both sides of the conveyor to remove center drive module (Figure 49, item 2).

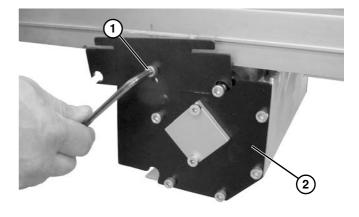


Figure 49

6. Remove two screws (Figure 50, item 1) on both sides of the center drive module.

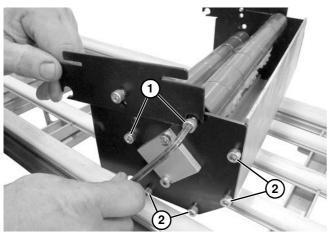


Figure 50

- 7. Remove four screws (Figure 50, item 2) from the nonmotor side of the center drive module.
- 8. Remove side plate (Figure 51, item 1).

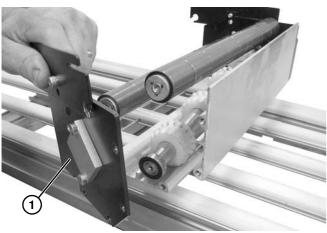


Figure 51

9. Remove drive shaft (Figure 52, item 1).

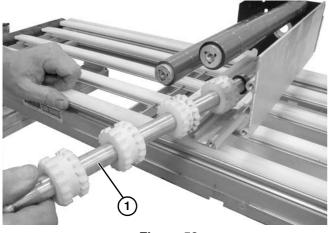
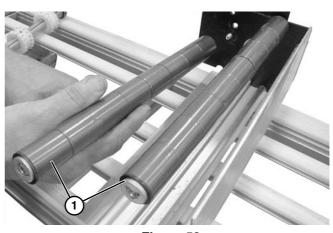


Figure 52

- 10. Remove and replace worn bearings and sprockets. See "Bearing and Sprocket Removal and Replacement" on page 21.
- 11. Remove shafts (Figure 53, item 1), replace if worn.



### Figure 53

12. Reassemble in reverse order.

#### NOTE

Please take note of the idler assembly locations. The center idler assembly uses the lower hole (Figure 54, item 1) for Micropitch conveyor belts (Types 01-02) and the upper holes (Figure 54, item 2) for Metalworking conveyor belts (Types 30-42).

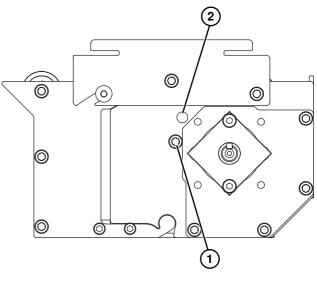


Figure 54

2200 Series Modular Belt Conveyors

# Bearing and Sprocket Removal and Replacement

#### Removal

- Remove drive pulley. For end drive pulley see section "A – End Drive Conveyor." For center drive pulley see section "B – Center Drive Conveyor."
- Use bearing removal tool (807-1078) (Figure 55, item 1) to remove bearings from drive pulley.

#### IMPORTANT

You must replace with a new bearing after it is removed from the shaft.

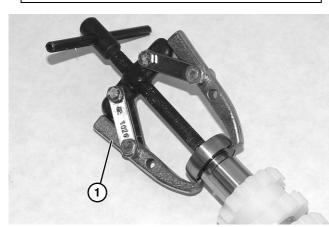


Figure 55

3. Slide free moving sprocket(s) (Figure 56, item 1) off the end of pulley (Figure 56, item 2).

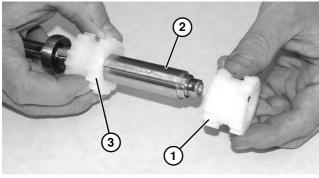


Figure 56

4. Measure location of fixed sprocket (Figure 56, item 3), loosen set screw, and remove fixed sprocket.

#### Replacement

- 1. Inspect headplate bearing surface. If worn or damaged, replace headplate. See "Service Parts" on page 26.
- Install required quantity of free moving sprockets (Figure 57, item 1) onto drive pulley (Figure 57, item 2).

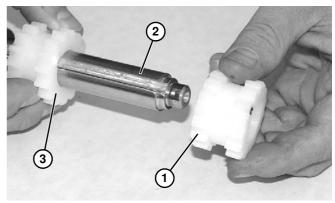


Figure 57

- 3. Install fixed sprocket (Figure 57, item 3) at the same location it was removed, making sure it engages the belt. Tighten set screw.
- 4. Press new bearing onto drive pulley using installation tool 450293 (Figure 58, item 1).

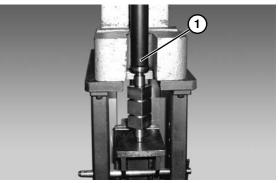


Figure 58

### **Idler End Wear Items**



Remove conveyor belt to access pulley(s). See "Conveyor Belt Replacement" on page 13. Remove the desired pulley following the corresponding instructions below:

- A Standard Idler Tail
- B Nose Bar Idler Tail

#### A - Standard Idler Tail

1. On both sides of conveyor, remove fastening screw (Figure 59, item 1).

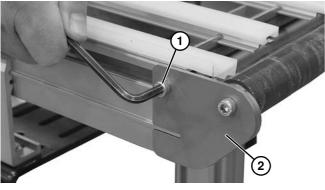


Figure 59

- 2. Remove idler tail (Figure 59, item 2) from conveyor.
- 3. Remove screw (Figure 60, item 1) and headplate (Figure 60, item 2).

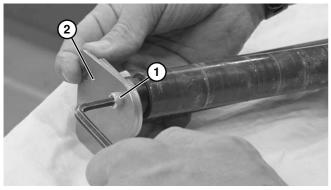
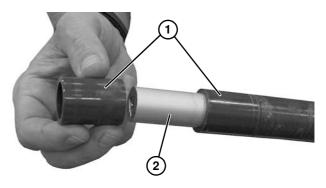


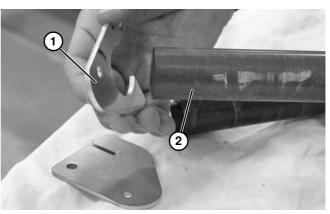
Figure 60

4. Slide idler sleeves (Figure 61, item 1) off the end of the idler shaft (Figure 61, item 2). If equipped, remove second idler shaft and remove idler sleeves.



#### Figure 61

5. If equipped, remove retaining plates (Figure 62, item 1) off the ends of the wear bar (Figure 62, item 2). Inspect bar surface. If worn or damaged, replace bar. See "Service Parts" on page 26.



#### Figure 62

6. When re-installing idler tail (Figure 63, item 1) with wear bar, make sure that the flat end (Figure 63, item 2) of the wear bar is flush against the conveyor (Figure 63, item 3).

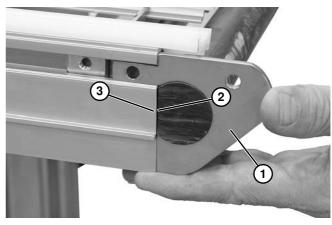


Figure 63

2200 Series Modular Belt Conveyors

#### B - Nose Bar Idler Tail

1. On both sides of conveyor, remove two fastening screws (Figure 64, item 1).

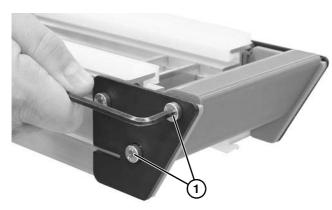


Figure 64

2. Remove bar (Figure 65, item 1), flip 180°, and reinstall bar.

Bar may be flipped 180° to use second wear surface (**Figure 65, item 2**).

NOTE

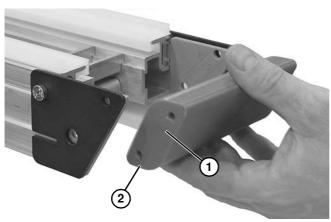


Figure 65

#### Frame Wear Strip Replacement



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

- 1. Remove conveyor belt. See "Belt Removal" section on page 14.
- 2. Remove upper wear strips (Figure 66, item 1).

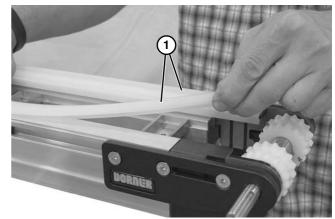


Figure 66

3. Remove lower wear strips (Figure 67, item 1).

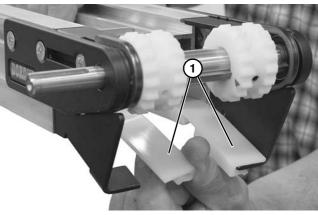


Figure 67

### **Center Rail Replacement**



- 1. Remove conveyor belt. See "Belt Removal" section on page 14.
- 2. Slide center rail (Figure 68, item 1) from frame assembly (Figure 68, item 2).

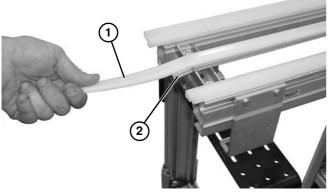


Figure 68

3. Install new center rail.

#### Tail Plate Shaft Knockout Removal

- 1. Determine which tail plate or plates require the removal of the hole knockout slug for the drive shaft.
  - Position A or B = 205370-LH
  - Position C or D = 205370-RH
- 2. Set tail plate (Figure 69, item 1) flat side down over washer (Figure 69, item 2) or hole in workbench that has a minimum diameter of 16 mm.

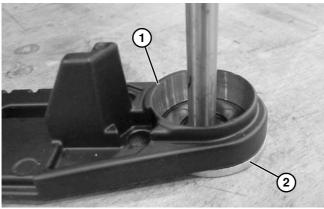


Figure 69

 Use a hammer and punch (6 mm - 13 mm diameter) (Figure 70, item 1) or long bolt to knock out slug (Figure 74, item 1) for shaft backing up tail plate with washer.

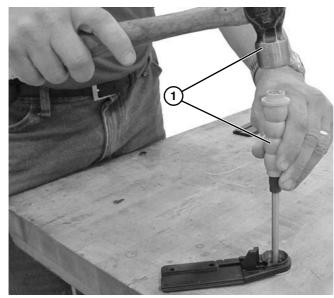


Figure 70

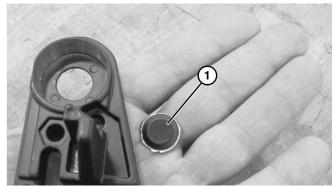


Figure 71

4. Repeat the same operation to knockout (Figure 73, item 1) for alignment screw hole using 3 mm - 5 mm punch (Figure 72, item 1) or M5 - M6 bolt.

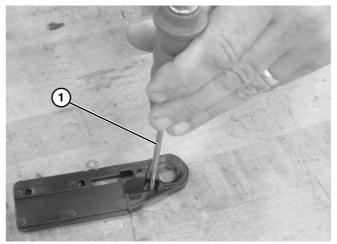


Figure 72

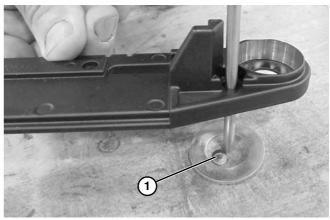
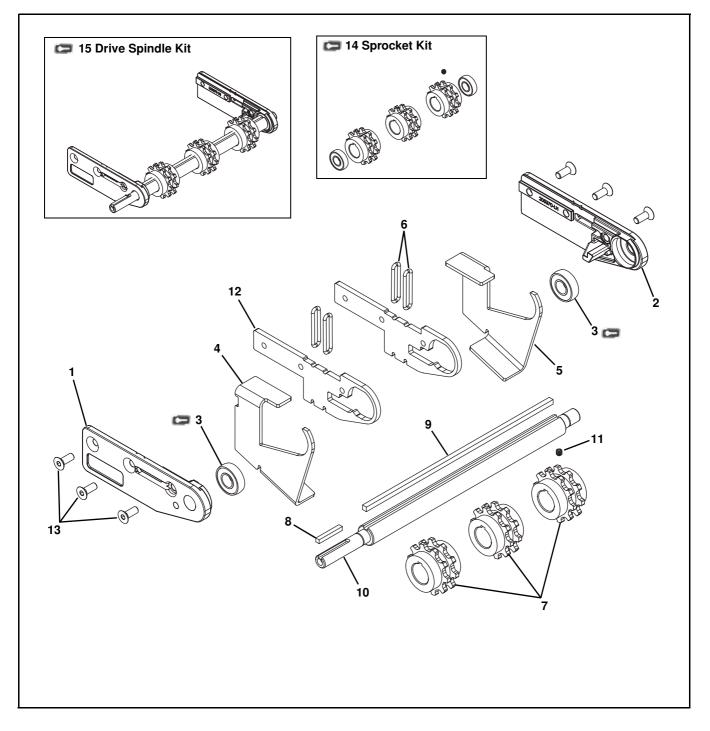


Figure 73

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.

### **End Drive Tail**

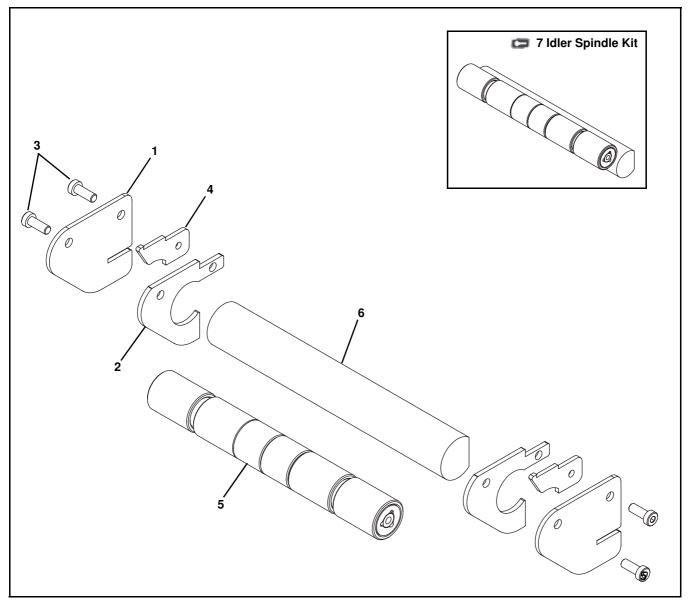


Item	Part Number	Description
1	205370-RH	Headplate, Right Hand for Metalworking Conveyors and 04 wide Micropitch Conveyors
	207140-RH	Headplate, Right Hand for 08 - 24 wide Micropitch Conveyors
2	205370-LH	Headplate, Left Hand for Metalworking Conveyors and 04 wide Micropitch Conveyors
	207140-LH	Headplate, Left Hand for 08 - 24 wide Micropitch Conveyors
3	22BK2	Bearing Kit (2 Pack)
	22BK4	Bearing Kit (4 Pack)
4	206792	Pinch Tail, Right Hand
5	206791	Pinch Tail, Left Hand
6	812-091	O-Ring
7	203765	Sprocket for Micropitch Conveyors
	203766	Sprocket for Metalworking Conveyors
8	980428M	Square Key, 4 mm x 28 mm
9	201433- <u>WW</u>	Sprocket Key
10	206023K- <u>WW</u>	Spindle (One Keyed Shaft)
	206194KK- <u>WW</u>	Dual Shaft Spindle (Two Keyed Shafts)
	206194KS- <u>WW</u>	Common Drive Spindle (Keyed Shaft & Stub Shaft)
	206194SS- <u>WW</u>	Common Drive Spindle - Mid Conveyor (Two Stub Shafts)
	206023S- <u>WW</u>	Common Drive Spindle - End Conveyor (One Stub Shaft)
11	970606M	Cup Set Screw, M6-1.00 x 6 mm
12	206790	Nutbar Tail
13	930616M	Flat Head Screw, M6-1.00 x 16 mm
14	22V2MB1S- <u>WW</u>	Sprocket Kit for Micropitch Conveyors (Includes Items 3, 7, & 11)
	22V2MB2S- <u>WW</u>	Sprocket Kit for Metalworking Conveyors (Includes Items 3, 7, & 11)

Item	Part Number	Description
15 D	22V2MB1FO- <u>WW</u>	Spindle Kit for Micropitch Conveyors (One Keyed Shaft) (Includes Items 1, 2, 3, 7, 8, 9, 10 & 11)
	22V2MB1FK- <u>WW</u>	Dual Shaft Spindle Kit for Micropitch Conveyors (Two Keyed Shafts) (Includes Items 1, 2, 3, 7, 8, 9, 10 & 11)
	22V2MB1FS- <u>WW</u>	Common Drive Spindle Kit for Micropitch Conveyors (Keyed Shaft & Stub Shaft) (Includes Items 1, 2, 3, 7, 8, 9, 10 & 11)
	22V2MB1FE- <u>WW</u>	Common Drive Spindle Kit for Micropitch Conveyors - Mid Conveyor (2 Stub Shafts) (Includes Items 1, 2, 3, 7, 8, 9, 10 & 11)
	22V2MB1FC- <u>WW</u>	Common Drive Spindle Kit for Micropitch Conveyors - End Conveyor (One Stub Shaft) (Includes Items 1, 2, 3, 7, 8, 9, 10 & 11)
	22V2MB2FO- <u>WW</u>	Spindle Kit for Metalworking Conveyors (One Keyed Shaft) (Includes Items 1, 2, 3, 7, 8, 9, 10 & 11)
	22V2MB2FK- <u>WW</u>	Dual Shaft Spindle Kit for Metalworking Conveyors (Two Keyed Shafts) (Includes Items 1, 2, 3, 7, 8, 9, 10 & 11)
	22V2MB2FS- <u>WW</u>	Common Drive Spindle Kit for Metalworking Conveyors (Keyed Shaft & Stub Shaft) (Includes Items 1, 2, 3, 7, 8, 9, 10 & 11)
	22V2MB2FE- <u>WW</u>	Common Drive Spindle Kit for Metalworking Conveyors - Mid Conveyor (2 Stub Shafts) (Includes Items 1, 2, 3, 7, 8, 9, 10 & 11)
	22V2MB2FC- <u>WW</u>	Common Drive Spindle Kit for Metalworking Conveyors - End Conveyor (One Stub Shaft) (Includes Items 1, 2, 3, 7, 8, 9, 10 & 11)
* <u>WW</u> =	= Conveyor width refer	ence: 03, 04, 06, 08, 09, 12, 18, 24

\* See page 7 for cross-reference to width reference and conveyor width.

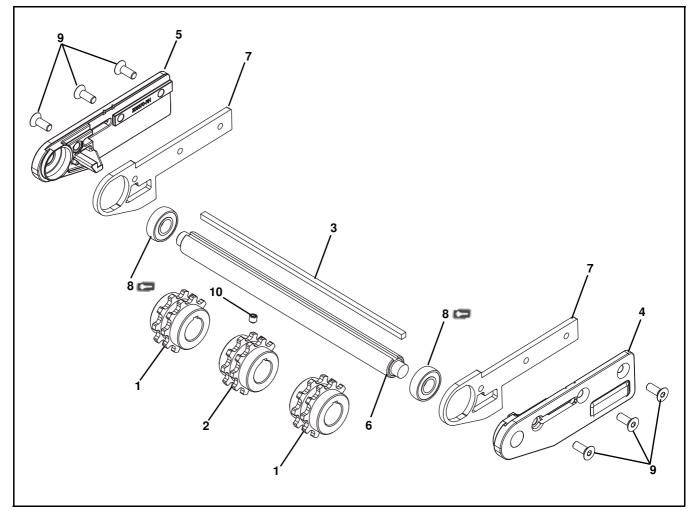
### Idler Tail for Conveyors up to 6096 mm Long



Item	Part Number	Description	
1	206794	Tail Plate	
2	206793	Pinch Plate	
3	950616M	Low Head Cap Screw, M6-1.00 x 16 mm	
4	203796	Slide-In Nut	
5	205428- <u>WW</u>	Idler Assembly	
6	203698- <u>WW</u>	Wear Bar	
7	22V2MBT- <u>WW</u>	Idler Spindle Kit (Includes Items 5 & 6)	
* <u>WW</u> =	* <u>WW</u> = Conveyor width reference: 03, 04, 06, 08, 09, 12, 18, 24		

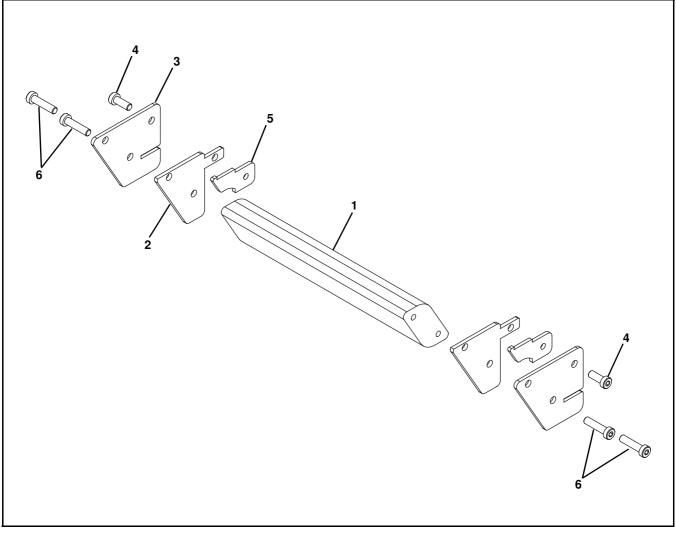
\* See page 7 for cross-reference to width reference and conveyor width.

### Idler Tail for Conveyors Over 6096 mm Long



Item	Part Number	Description	
1	203765P	Sprocket for Micropitch Conveyors	
	203766P	Sprocket for Metalworking Conveyors	
2	203765	Sprocket for Micropitch Conveyors	
	203766	Sprocket for Metalworking Conveyors	
3	201433- <u>WW</u>	Sprocket Key	
4	205370-LH	Head Plate, Left Hand	
5	205370-RH	Head Plate, Right Hand	
6	206023- <u>WW</u>	Spindle	
7	208244	Idler Nutbar	
8	22BK2	Bearing Kit (2 Pack)	
	22BK4	Bearing Kit (4 Pack)	
9	930616M	Flat Head Screw, M6-1.00 x 16 mm	
10	970606M	Cup Set Screw, M6-1.00 x 6 mm	
<u>WW</u> =	<u>WW</u> = Conveyor width reference: 03, 04, 06, 08, 09, 12, 18, 24		

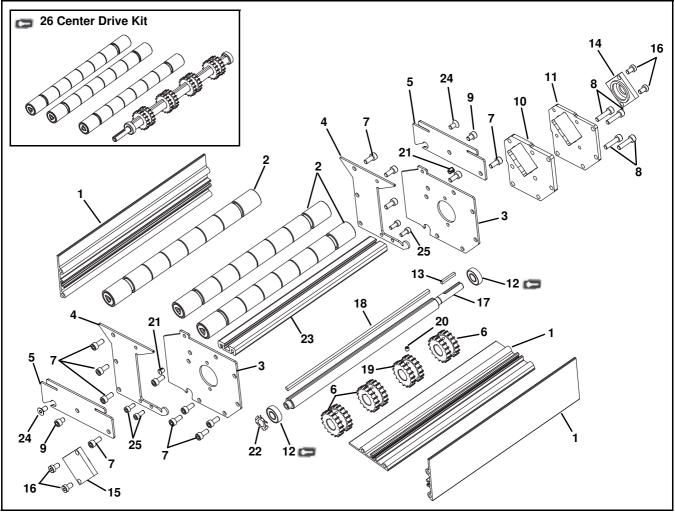
### Nose Bar Idler Tail



Item	Part Number	Description	
1	206027- <u>WW</u>	Static Bar	
2	206796	Pinch Plate	
3	206797	Tail Plate	
4	950616M	Low Head Cap Screw,	
		M6-1.00 x 16 mm	
5	203796	Slide-In Nut	
6	950625M	Low Head Cap Screw,	
		M6-1.00 x 25mm	
* <u>WW</u> =	* <u>WW</u> = Conveyor width reference: 04, 06, 08, 12, 18, 24		

\* See page 7 for cross-reference to width reference and conveyor width.

### **Center Drive Module**

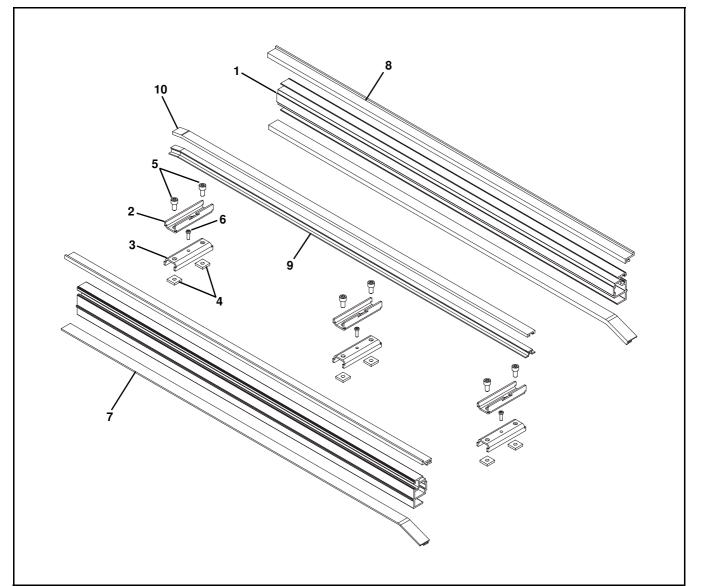


Item	Part Number	Description
1	205425- <u>WW</u>	Support Rail
2	205428- <u>WW</u>	Idler Assembly
3	205444	Motor Side Plate
4	205445	Tension Side Plate
5	203598	Clamp Plate
6	203765P	Sprocket for Micropitch Conveyors
	203766P	Sprocket for Metalworking
		Conveyors
7	920614M	Socket Head Screw,
		M6-1.00 x 14 mm
8	920625M	Socket Head Screw,
		M6-1.00 x 25 mm
9	920608M	Socket Head Screw,
		M6-1.00 x 8 mm
10	205446	Inside Mounting Plate
11	205447	Outside Mounting Plate
12	22BK2	Bearing Kit (2 Pack)
	22BK4	Bearing Kit (4 Pack)
13	980428M	Square Key, 4 mm x 28 mm
14	203628	Mounting Block with Hole
15	203728	Mounting Block
16	950610M	Low Head Cap Screw,
		M6-1.00 x 10 mm

Item	Part Number	Description
17	206023K- <u>WW</u>	Spindle (One Keyed Shaft)
	206194KK- <u>WW</u>	Dual Shaft Spindle
		(Two Keyed Shafts)
18	201433- <u>WW</u>	Sprocket Key
19	203765	Sprocket w/Set Screw Hole, for
		Micropitch Conveyors
	203766	Sprocket w/Set Screw Hole, for
		Metalworking Conveyors
20	970606M	Cup Set Screw, M6-1.00 x 6 mm
21	807-3063	Plug
22	807-2108	Spring Disk
23	210846- <u>LLLLL</u>	Rail
24	930612M	Flat Head Screw, M6-1.00 x 12 mm
25	920512M	Socket Head Screw,
		M5-0.80 x 12 mm
26	22V2MB1CD- <u>WW</u>	Center Drive Kit for Micropitch
		Conveyors (Includes Items 2, 6, 9,
		12, 17 & 18)
	22V2MB2CD- <u>WW</u>	Center Drive Kit for Metalworking
		Conveyors (Includes Items 2, 6, 9,
		12, 17 & 18)
<u>WW</u> =	Conveyor width refere	ence: 03, 04, 06, 08, 09, 12, 18, 24
		s with 2 decimal places
Length	<pre>n Example: Length = 3</pre>	5.25" <u>LLLLL</u> = 03525

2200 Series Modular Belt Conveyors

### Frame Assembly

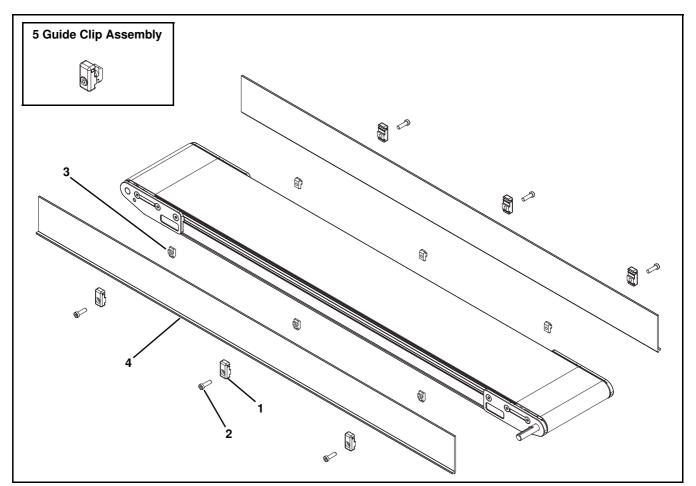


Item	Part Number	Description
1	206507- <u>LLLLL</u>	Side Rail, End Drive
		Conveyors
	205401RH- <u>LLLLL-YYYYY</u>	Side Rail, Center Drive
		Conveyors, Right Hand
	205401RH- <u>LLLLL-YYYYY</u>	Side Rail, Center Drive
		Conveyors, Left Hand
2	203642- <u>WW</u>	Top Connecting Clip
3	203641- <u>WW</u>	Bottom Connecting Clip
4	834-014	Slide-In Nut
5	950816M	Low Head Screw,
		M8-1.25 x 16 mm
6	950516M	Low Head Cap Screw,
		M5-0.80 x 16 mm
7	807-1102- <u>LLLLL</u>	Wear Strip
8	807-2845- <u>LLLLL</u>	J-Leg
9	203638- <u>LLLLL</u>	Mid Support
10	614068P- <u>LLLLL</u>	Guide

Item Part Number Description		Description
* <u>WW</u> = Conveyor width reference: 03, 04, 06, 08, 09, 12, 18, 24		
LLLLL = Part length in inches with 2 decimal places		
<u>YYYYY</u> = Length from end of center drive cut out to discharge		
end of frame with 2 decimal places		
Length Example: Length = 35.25 inches LLLLL = 03525		

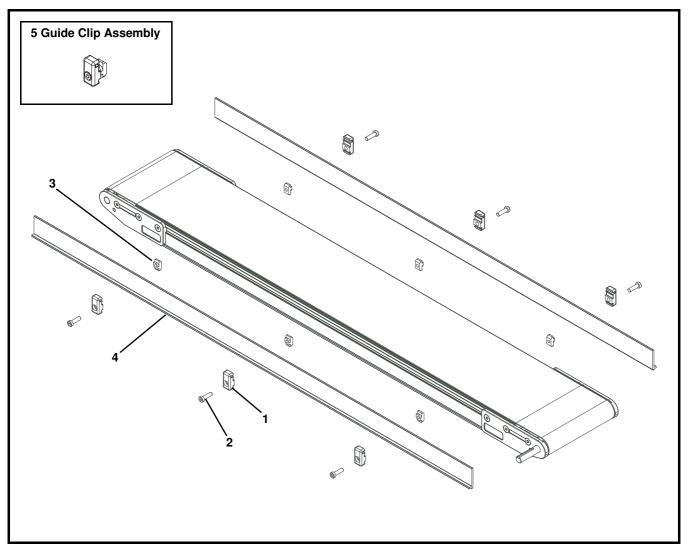
\* See page 7 for cross-reference to width reference and conveyor width.

### #04 Profile - 76 mm Aluminum Side



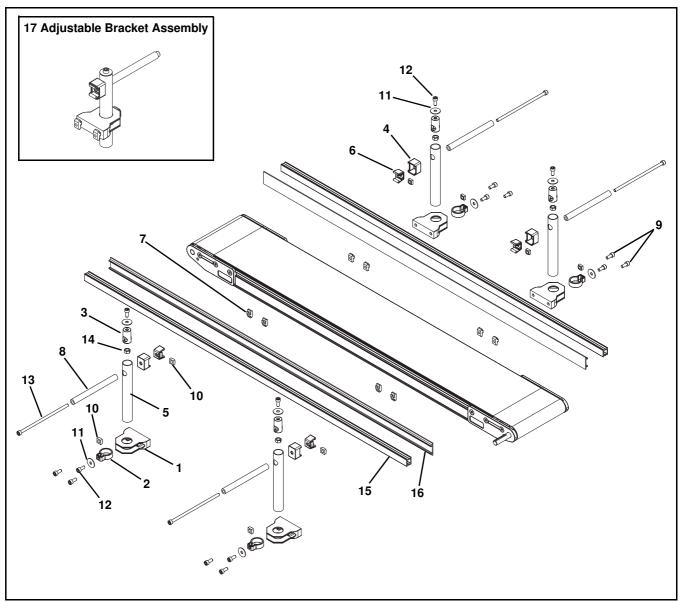
Item	Part Number	Description
1	206503	Guide Clip
2	807-2878	Low Head Cap Screw, M6-1.00 x 16 mm
3	206685	T-Nut
4	206514- <u>LLLLL</u>	76 mm Guides
	GTB04A04	76 mm Guides 1219 mm long
	GTB04A08	76 mm Guides 2438 mm long
5	203661	Guide Clip Assembly (Includes items 1, 2, and 3)
LLLLL = part length in inches with 2 decimal places		
Length Example: Length = 35.25 inches LLLLL = 03525		

### #05 Profile - 38 mm Aluminum Side



Item	Part Number	Description
1	206503	Guide Clip
2	807-2878	Low Head Cap Screw, M6-1.00 x 16 mm
3	206685	T-Nut
4	206513- <u>LLLLL</u>	38 mm Guides
	GTB05A04	38 mm Guides 1219 mm long
	GTB05A08	38 mm Guides 2438 mm long
5	203661	Guide Clip Assembly (Includes items 1, 2, and 3)
LLLLL = part length in inches with 2 decimal places		
Length Example: Length = 35.25 inches LLLLL = 03525		

### #13, 33 & 43 Profile - Adjustable Guiding

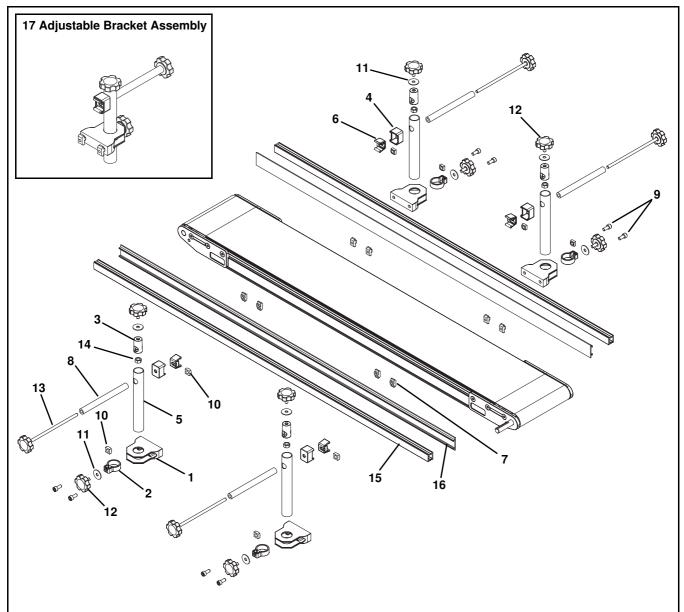


Item	Part Number	Description
1	206380	Base
2	206381	Base Clamp
3	206382	Insert Clamp
4	206383	Guide Ring
5	206385	Tube
6	206397	Clip
7	206685	T-Nut
8	206692	Guide Tube
9	807-2859	Nylon Cap Screw, M6 x 16 mm
10	990603M	Square Nut, M6-1.0
11	911-710	Washer
12	920616M	Socket Head Screw,
		M6-1.00 x 16 mm
13	9206150M	Socket Head Screw,
		M6-1.00 x 150 mm

Item	Part Number	Description	
14	990601M	Hex Nut	
15	834-238- <u>LLLLL</u>	Guide Rail	
	GTB13A04	Guide Rail 1219 mm long	
	GTB13A08	Guide Rail 2438 mm long	
16	834-241	33 mm UHMW Guiding (per 305 mm)	
	GTB13B04	33 mm UHMW Guiding 1219 mm long	
	GTB13B08	33 mm UHMW Guiding 2438 mm long	
	206683	51 mm UHMW Guiding (per 305 mm)	
	GTB13C04	51 mm UHMW Guiding 1219 mm long	
	GTB13C08	51 mm UHMW Guiding 2438 mm long	
17	206686	Adjustable Bracket Assembly	
		(Includes Items 1 through 14)	
LLLLL = part length in inches with 2 decimal places			
Length	Length Example: Length = 35.25 inches LLLLL = 03525		

2200 Series Modular Belt Conveyors

### #14, 34 & 44 Profile - Tool-Less Adjustable Guiding



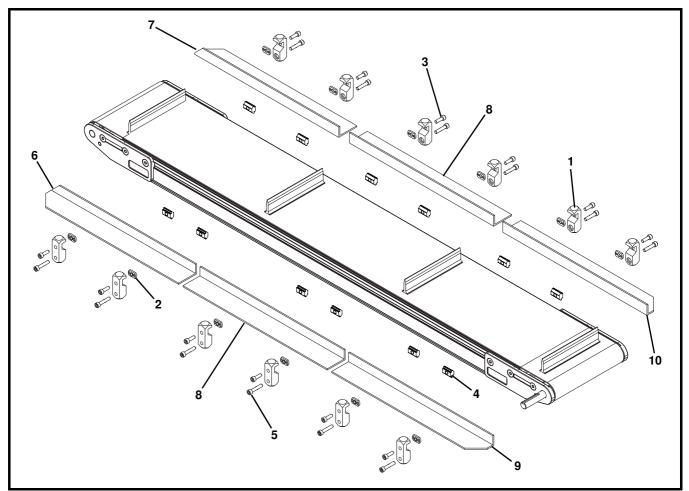
Item	Part Number	Description
1	206380	Base
2	206381	Base Clamp
3	206382	Insert Clamp
4	206383	Guide Ring
5	206385	Tube
6	206397	Clip
7	206685	T-Nut
8	206692	Guide Tube
9	807-2859	Nylon Cap Screw, M6 x 16 mm
10	990603M	Square Nut, M6-1.0
11	911-710	Washer
12	206698	Knob, 12 mm
13	206697	Knob, 150 mm
14	990601M	Hex Nut

Item	Part Number	Description
15	834-238- <u>LLLLL</u>	Guide Rail
	GTB13A04	Guide Rail 1219 mm long
	GTB13A08	Guide Rail 2438 mm long
16	834-241	33 mm UHMW Guiding (per 305 mm)
	GTB13B04	33 mm UHMW Guiding 1219 mm long
	GTB13B08	33 mm UHMW Guiding 2438 mm long
	206683	51 mm UHMW Guiding (per 305 mm)
	GTB13C04	51 mm UHMW Guiding 1219 mm long
	GTB13C08	51 mm UHMW Guiding 2438 mm long
17	206687	Tool-Less Adjustable Bracket Assembly (Includes Items 1 through 14)
LLLLL = part length in inches with 2 decimal places		
Length Example: Length = 35.25 inches LLLLL = 03525		

2200 Series Modular Belt Conveyors

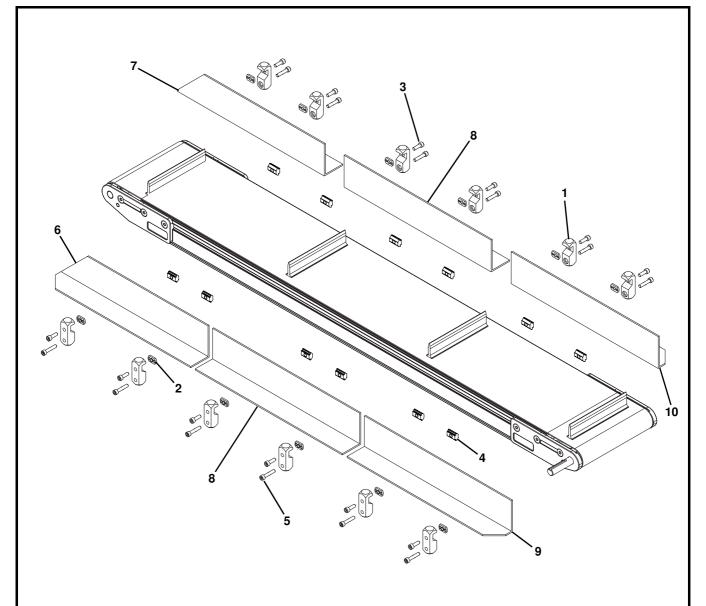
Dorner Mfg. Corp.

### 25 mm Cleated Profiles



Item	Part Number	Description	
1	207161	Clamping Block	
2	807-2005	Weld Nut	
3	920618M	Socket Head Screw, M6-1.00 x 18 mm	
4	639971M	Drop-In Tee Bar	
5	920630M	Socket Head Screw, M6-1.00 x 30 mm	
6	204603- <u>LLLLL</u>	One Piece Guiding Right Hand (for Conveyors up to 12 long)	
	204603D- <u>LLLLL</u>	One Piece Guiding Right Hand Drive Side (for Conveyors up to 12 long)	
	204603- <u>LLLLL</u>	Infeed Guiding Right Hand	
7	204602- <u>LLLLL</u>	One Piece Guiding Left Hand (for Conveyors up to 12 long)	
	204602D- <u>LLLLL</u>	One Piece Guiding Left Hand Drive Side (for Conveyors up to 12 long)	
	204602- <u>LLLLL</u>	Infeed Guiding Left Hand	
8	204601- <u>LLLLL</u>	Mid Guiding	
9	204601- <u>LLLLL</u>	Exit Guiding Right Hand	
	204601D- <u>LLLLL</u>	Exit Guiding Right Hand Drive Side	
10	204601- <u>LLLLL</u>	Exit Guiding Left Hand	
	204601A- <u>LLLLL</u>	Exit Guiding Left Hand Drive Side	
LLLLL = Part length in inches with 2 decimal places			
Length	Length Example: Length = 35.25 inches LLLLL = 03525		

### 51 mm Cleated Profiles



Item	Part Number	Description
1	207161	Clamping Block
2	807-2005	Weld Nut
3	920618M	Socket Head Screw, M6-1.00 x 18 mm
4	639971M	Drop-In Tee Bar
5	920630M	Socket Head Screw, M6-1.00 x 30 mm
6	208103- <u>LLLLL</u>	One Piece Guiding Right Hand (for Conveyors up to 12 long)
	208103D- <u>LLLLL</u>	One Piece Guiding Right Hand Drive Side (for Conveyors up to 12 long)
	208103- <u>LLLLL</u>	Infeed Guiding Right Hand
7	208102- <u>LLLLL</u>	One Piece Guiding Left Hand (for Conveyors up to 12 long)
	208102D- <u>LLLLL</u>	One Piece Guiding Left Hand Drive Side (for Conveyors up to 12 long)
	208102- <u>LLLLL</u>	Infeed Guiding Left Hand

Item	Part Number	Description
8	208101- <u>LLLLL</u>	Mid Guiding
9	208101- <u>LLLLL</u>	Exit Guiding Right Hand
	208101D- <u>LLLLL</u>	Exit Guiding Right Hand Drive Side
10	208101- <u>LLLLL</u>	Exit Guiding Left Hand
	208101A- <u>LLLLL</u>	Exit Guiding Left Hand Drive Side
LLLLL = Part length in inches with 2 decimal places		
Length Example: Length = 35.25 inches LLLLL = 03525		

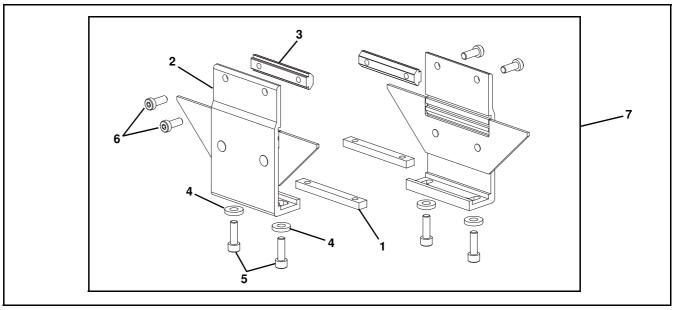
### Flat Belt Mounting Brackets

|--|

Item	Part Number	Description
1	202303	Connector Bar
2	202394	Stand Mount
3	300150M	Drop-in Tee Bar
4	605279P	Washer

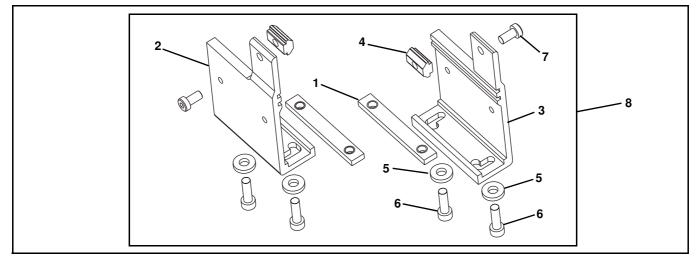
Item	Part Number	Description
5	920620M	Socket Head Screw, M6 - 1.00 x 20 mm
6	950616M	Low Head Cap Screw, M6-1.00 x 16 mm
7	202389	Stand Mount Assembly

### **Cleated Belt Mounting Brackets**



Item	Part Number	Description	Iter	n	Part Number	Description
1	202303	Connector Bar	5		920620M	Socket Head Screw, M6 - 1.00 x 20 mm
2	207529	Cleated Stand Bracket Assembly	6		950616M	Low Head Cap Screw,
3	300150M	Drop-in Tee Bar				M6-1.00 x 16 mm
4	605279P	Washer	7		207526	Cleated Stand Mount Assembly

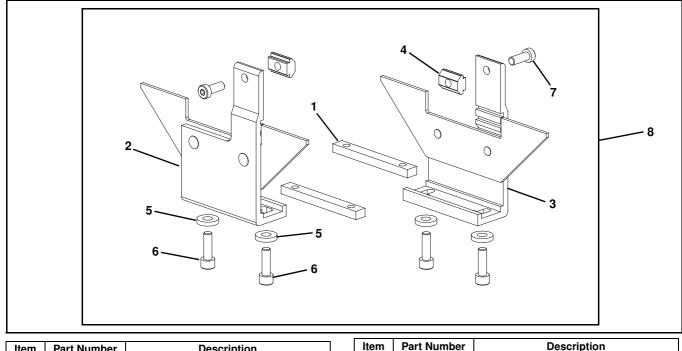
### Flat Belt Mounting Brackets for Short Conveyors



Item	Part Number	Description
1	202303	Connector Bar
2	202304	610 mm Stand Mount, Left Hand
3	202305	610 mm Stand Mount, Right Hand
4	639971M	Drop-in Tee Bar

Item	Part Number	Description
5	605279P	Washer
6	920620M	Socket Head Screw, M6 - 1.00 x 20 mm
7	950616M	Low Head Cap Screw, M6 - 1.00 x 16 mm
8	202392	Stand Mount Assembly

### **Cleated Belt Mounting Brackets for Short Conveyors**



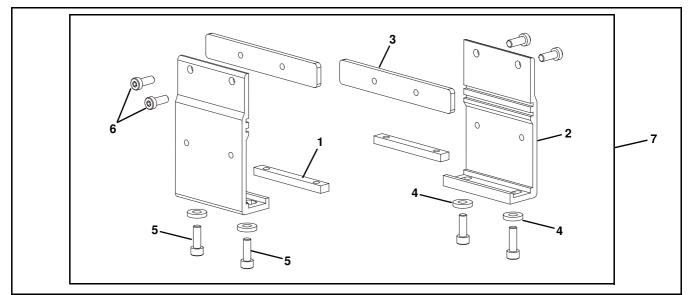
Item	Part Number	Description
1	202303	Connector Bar
2	207530	610 mm Cleated Stand Bracket Assembly, Left Hand
3	207531	610 mm Cleated Stand Bracket Assembly, Right Hand
4	639971M	Drop-in Tee Bar

Item	Part Number	Description
5	605279P	Washer
6	920620M	Socket Head Screw, M6 - 1.00 x 20 mm
7	950616M	Low Head Cap Screw, M6 - 1.00 x 16 mm
8	207527	Cleated Stand Mount Assembly

2200 Series Modular Belt Conveyors

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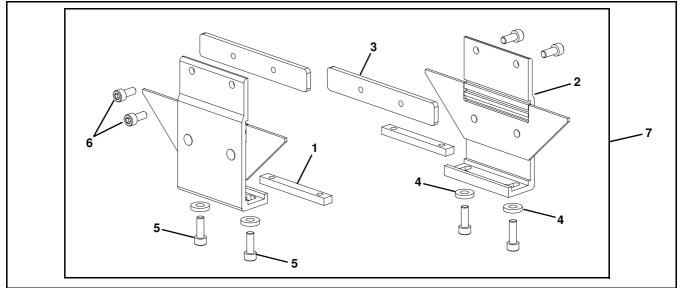
### Flat Belt Connecting Assembly with Stand Mount



Item	Part Number	Description	
1	202303	Connector Bar	
2	202394	Stand Mount	
3	206520	Frame Connector	
4	605279P	Washer	

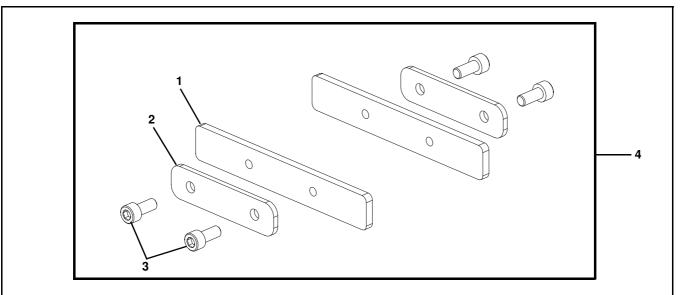
Item	Part Number	Description
5	920620M	Socket Head Screw, M6-1.00 x 20 mm
6	920614M	Socket Head Screw, M6-1.00 x 14 mm
7	203771	Connecting Stand Mount Assembly

### **Cleated Belt Connecting Assembly with Stand Mount**



Item	Part Number	Description
1	202303	Connector Bar
2	207529	Cleated Stand Bracket Assembly
3	206520	Frame Connector
4	605279P	Washer
5	920620M	Socket Head Screw, M6-1.00 x 20 mm
6	920614M	Socket Head Screw, M6-1.00 x 14 mm
7	207528	Cleated Stand Mount Assembly

## Connecting Assembly without Stand Mount



Item	Part Number	Description
1	206520	Connecting Bar
2	240859	Plate
3	920614M	Socket Head Screw, M6-1.00 x 14 mm
4	206519	Connecting Assembly

### **Micropitch Conveyor Belting**

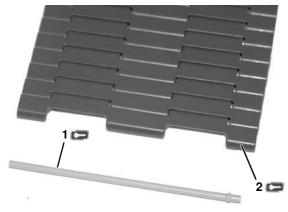


Figure 74

Item	Part Number	Description		
10	807-2103	102 mm Belt Rod		
	807-3011	152 mm Belt Rod		
	807-2104	203 mm Belt Rod		
	807-2105	305 mm Belt Rod		
	807-2400	457 mm Belt Rod		
	807-2106	610 mm Belt Rod		
2 🗁	2P- <u>WW/BB</u>	Micropitch Belting per 305 mm		
* <u>WW</u> = Conveyor width reference: 04, 06, 08, 12, 18, 24				
<u>BB</u> = Be	<u>BB</u> = Belt Types 01, 02			

\* See page 7 for cross-reference to width reference and conveyor width.

### Metalworking Conveyor Belting

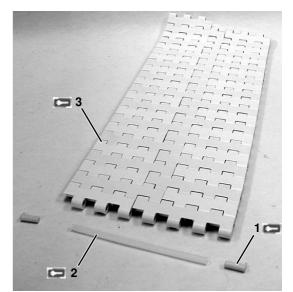


Figure 75

Item	Part Number	Description		
1 🖸	807-1118	Retaining Pin for Metalworking Belt Only		
2	807-1113	76 mm Belt Rod for Metalworking Belt		
	807-3021	152 mm Belt Rod for Metalworking Belt		
	807-3013	229 mm Belt Rod for Metalworking Belt		
	807-3014	305 mm Belt Rod for Metalworking Belt		
	807-3015	457 mm Belt Rod for Metalworking Belt		
	807-3016	610 mm Belt Rod for Metalworking Belt		
3 🗖	22P- <u>WW/BB</u>	Metalworking Belt per 305 mm		
* <u>WW</u> =	* <u>WW</u> = Conveyor width reference: 03, 06, 09, 12, 18, 24			
<u>BB</u> = Be	<u>BB</u> = Belt Types: 30, 31, 32, 40, 41, 42			

\* See page 7 for cross-reference to width reference and conveyor width.

## **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. Include part serial number if available.

A representative will discuss action to be taken on the returned items and provide a Returned Materials 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.

	Product Type								
	Standard Products								Engineered to order parts
Product Line	Conveyors	Gearmotors & Mounting Packages	Support Stands	Accessories	Spare Parts (non-belt)	Spare Belts - Standard Flat Fabric	Spare Belts - Cleated & Spec. Fabric	Spare Belts - Plastic Chain	All equipment and parts
1100 Series									
2200 Series	30% return fee for all products except:								case-by-case
3200 Series	50% return fee for conveyors with modular belt, cleated belt or speciality belts All Electrical items are assigned original manufacturers return policy.					non-returnable			
Pallet Systems									
FlexMove/SmartFlex									
GAL Series									
All Electrical									
7100 Series									
7200/7300 Series	50% return fee for all products								
AquaGard 7350 Series Version 2									
GES Series									
AquaGard 7350/7360 Series	non-returnable								
AquaPruf Series									

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 Dorner, an authorized sales channel or visit our website: www.dorner.com.

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

## www.dorner.com





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