

# 5200 Series Curved Nose Bar Drive Conveyors

Installation, Maintenance and Parts Manual



Featuring: *QwikSlot*<sup>™</sup> Attachment Method



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# Introduction

### **CAUTION**

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

Upon receipt of shipment:

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

The Dorner Limited Warranty applies.

Dorner 5200 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



# **Product Description**

Refer to (Figure 1) for typical conveyor components.

#### Typical Components

- 1 Conveyor
- 2 Gearmotor
- 3 Belt
- 4 Support Stands
- 5 Motor Controller
- 6 Drive End
- 7 Idler End



Figure 1

## **Specifications**

Conveyor Width Reference (WW)	08 – 36 in 02 increments
Conveyor Belt Width	8" (203 mm) - 36" (914 mm) in 2" (51 mm) increments
LPZ Conveyor Width Reference ( <u>WW</u> )	08 - 24 in 02 increments
LPZ Conveyor Belt Width	8" (103 mm) - 24" (610 mm) in 2" (51 mm) increments
Maximum Conveyor Load	20 lbs. / ft <sup>2</sup> (97 kg/ m <sup>2</sup> ) with a maximum of 500 lbs. (227 kg)
Belt Travel	12" (305 mm) per revolution of pulley
Maximum Belt Speed	250 ft/minute (76 m/minute)
Conveyor Length Reference (LLL)	036 – 999 in 001 increments
Conveyor Length	36" (914 mm) - 999" (25.4 m) in 1" (25 mm) increments
LPZ Section Length ( <u>LLL</u> )	024 - 288 in 001 increments
LPZ Section Length	24" (610 mm) - 288" (7315 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

# **Specifications**

### **5200 Series Curve Conveyor Modules**

#### 5200 Series Infeed / Idler Module



#### **5200 Series Curve Module**



#### 5200 Series Exit / Drive Module



# LPZ 5200 Series Curve Conveyor (Infeed Section to Curve)



#### **5200 Series Intermediate Module**



# LPZ 5200 Series Curve Conveyor (Infeed Section to Knuckle)



# Specifications

# LPZ 5200 Series Curve Conveyor (Mid Section Between Curve)



#### LPZ 5200 Series Curve Conveyor (Discharge Section to Curve)



# LPZ 5200 Series Curve Conveyor (Mid Section Between Knuckles)



#### LPZ 5200 Series Curve Conveyor (Discharge Section to Knuckle)



# LPZ 5200 Series Curve Conveyor (Curve Section)



# Specifications

### **Conveyor Supports**

#### Infeed / Idler Module:

- "A" = 3 ft (914 mm) maximum (See **Figure 2**)
- Modules 24" 47" long get 1 support stand
- All other lengths get 2 support stands, evenly spaced, plus an additional support stand at each straight section break (over 13' straight frame module)

#### **Intermediate Module:**

- Modules 24" 59" long get 1 support stand
- All other lengths get 2 support stands, evenly spaced, plus an additional support stand at each straight section break (modules over 13')

#### Exit / Drive Module:

- "B" = 3 ft (914 mm) maximum (See **Figure 2**)
- Modules 24" 47" long get 1 support stand
- All other lengths get 2 support stands, evenly spaced, plus an additional support stand at each straight section break (modules over 13')
- \*LPZ stand positions may vary, please consult factory.



Figure 2

#### **Curve Module:**

• Reference chart for support stand quantities, evenly spaced along curve (See Figure 3)

<u>Width</u>	8"	10"	12"	14"	16"	18"	20"	22"	24"	26"	28"	30"	32"	34"	36"
Degree															
15°	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
30°	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
45°	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1
60°	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
75°	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2
90°	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2
105°	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2
120°	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2
135°	1	1	1	1	1	1	2	2	2	2	2	2	2	3	3
150°	1	1	1	1	1	2	2	2	2	2	2	3	3	3	3
165°	1	1	1	1	2	2	2	2	2	2	3	3	3	3	3
180°	1	1	1	2	2	2	2	2	2	3	3	3	3	3	3

#### Figure 3

### CAUTION

Conveyor MUST be mounted straight, flat and level within confines of conveyor. Use a level (Figure 4, item 1) during setup.





### **Required Tools**

- Level
- Torque wrench
- 4 mm hex wrench
- 5 mm hex wrench

# Recommended Installation Sequence

- Assemble the conveyor (if required). Refer to "Conveyors Longer than 12 ft (3658 mm)" on page 8 or "All Conveyors" on page 9.
- 2. Attach the stands. Refer to "Stand Installation" on page 13.
- 3. Install the gearmotor. Refer to "Drive Package Installation" on page 13.

# Conveyors Longer than 12 ft (3658 mm)

### Frame Connecting Components

Typical Frame Connecting Components (Figure 5)

- 1 Bar Frame Connector
- 2 Drop-in Tee Bar
- 3 Conveyor frames
- 4 Plate Frame Connector
- 5 Low Head Cap Screw, M6 1.00 x 12 mm
- 6 Washer
- 7 Socket Head Screw, M6 1.00 x 20 mm



#### Figure 5

1. Locate and arrange conveyor sections by section labels (Figure 6, item 1).



#### Figure 6

- Install two bar frame connectors (Figure 5, item 1) and two drop-in tee bars (Figure 5, item 2) into one conveyor section (Figure 5, item 3).
- 3. Join both conveyor sections, and install plate frame connectors (Figure 5, item 4), and secure with M6x12 low head cap screws (Figure 5, item 5) on both sides. Tighten cap screws to 60 in-lb (7 Nm).
- 4. Install washers (Figure 5, item 6) and M6x20 socket head screws (Figure 5, item 7) into drop-in tee bar (Figure 5, item 2) on both sides as indicated. (Do not tighten hardware. This is for stand installation.)

#### NOTE

The stop plate (Figure 7, item 1) on the center wear strip (Figure 7, item 2) faces the drive end (Figure 7, item 3) of the conveyor.



Figure 7

### **LPZ Conveyors**

#### NOTE

Be sure all frame sections are properly supported during LPZ assembly.

#### Knuckles

 Attach upper knuckle to frame by loosening two socket head cap screws (Figure 8, item 1) on each side of upper knuckle assembly (Figure 8, item 2), and sliding T-Nuts into straight frame section (Figure 8, item 3).



Figure 8

 Attach lower knuckle to frame by loosening two socket head cap screws (Figure 9, item 1) on each side of lower knuckle assembly (Figure 9, item 2), and sliding T-Nuts into straight frame section (Figure 9, item 3).



3. Tighten all socket head cap screws to 60 in-lb (7 Nm).

### **All Conveyors**

#### **Curve Connecting Components**

Typical Curve Connecting Components (Figure 10)

- 1 Offset Connecting Plate, Left
- 2 Offset Connecting Plate, Right
- 3 Curved Section
- 4 Drop-in Tee Bar
- 5 Socket Head Screw, M6 1.00 x 16 mm
- 6 Straight Section



Figure 10

 For joining curved to straight sections, install left offset connecting plate (Figure 10, item 1) and right connecting plate (Figure 10, item 2) onto curved section (Figure 10, item 3) with two drop-in tee bars (Figure 10, item 4) and four M6x16 socket head screws

(Figure 10, item 5), making sure the straight frame section is flush to the curve section crossmember.

2. Secure straight section (**Figure 10, item 6**) onto curved section with the same hardware as previous step. Tighten all socket head screws to 60 in-lb (7 Nm).

### NOTE

The bottom of the straight frame sections (Figure 11, item 1) and curve frame sections (Figure 11, item 2) must be level.





### **Belt Installation**

Typical Belt Components (Figure 12)



Figure 12

### NOTE

Ensure the belt is running in the correct direction, with hole (*Figure 13, item 1*) towards conveyor motor.



Figure 13

1. Position the belt on the conveyor frame (Figure 14).



Figure 14

 Orient the belt direction such that the pin heads (Figure 15, item 1) are on the outside of the belt radius (Figure 15, item 2). The straight portion on the pin (Figure 15, item 3) will be on the inside radius.



Figure 15

- 3. Wrap belt around idler tail.
- 4. Install belt around lower frame section and above lower wear strips (Figure 16, item 1).



Figure 16

 On curve conveyors, install belt through wear strip (Figure 17, item 1) and install wear strip (Figure 17, item 2) on straight conveyor sections before installing and connecting belt.



Figure 17

6. Wrap the belt around the drive end of the conveyor, making sure the sprocket teeth have engaged the belt, with concave teeth (**Figure 18, item 1**) mating with rounded section (**Figure 18, item 2**) of belt.



Figure 18

7. Feed the ends of the belt through the top and bottom of the curved frame sections.

Bring the ends of the belt together (Figure 19). 8.



Figure 19

9. Insert the belt rod (Figure 20, item 1).



Figure 20

- 10. Push the belt rod in as far as possible.
- 11. Lightly tap the head of the rod with a hammer until it snaps into position.
- 12. Slide the top wear strips (Figure 21, item 1) with wide lip facing up, under the conveyor belt

(Figure 21, item 2) catching the bottom lip on conveyor frame, to cover the belt tabs.



Figure 21

### WARNING



Δ

#### **CRUSH HAZARD!** Failure to install the top wear strip in the proper orientation will result in a belt pinch point. Exposed moving parts can cause serious injury.



Figure 22

### NOTE

Top wear strips are left loose to facilitate ease of belt installation and/or removal.

#### **Stand Installation**

#### NOTE

For detailed assembly instructions, please see your appropriate support stand manual.

Typical stand components (Figure 23)

- 1 Conveyor Frame
- 2 Stand
- 3 M6 1.0 x 20 mm socket head cap screws (x4)



1. Properly support the conveyor.

2. Attach stands (**Figure 24, item 1**) to the bottom of the conveyor frame (**Figure 24, item 2**). Tighten socket head screws (**Figure 24, item 3**), on each side, to secure in place.



#### **Drive Package Installation**

#### NOTE

For detailed assembly instructions, refer to the appropriate Drive Packages Installation, Maintenance and Parts Manual.

1. Attach the motor (Figure 25, item 1) to the gear reducer (Figure 25, item 2).



#### Attachment of Accessories to the QwikSlot™



The QwikSlot is an attachment method for quickly attaching devices such as cable ties, conduit mounts, air lines, small junction boxes, etc. to the conveyor side frame. This greatly reduces the time to install a conveyor system.

- 1. Locate the appropriate fastener for attachment. The QwikSlot will accept #8-32 or M4-0.7 standard fasteners. The maximum depth of engagement is 0.25 inches.
- 2. Locate the QwikSlot. The Dorner 5200 series conveyor has (2) QwikSlot locations (**Figure 26**).



Figure 26

3. With a cordless drill or equivalent, insert the fastener and accessory device into the QwikSlot. **Figure 27** shows a wire tie clamp example. **Figure 28** shows an air line fitting example.



Figure 27



#### Figure 28

4. Confirm that the fastener is snug by hand tightening (**Figure 29**). Do not exceed 50 in.lb (6 Nm).



### **Required Tools**

- 4 mm hex wrench
- 5 mm hex wrench
- 6 mm hex wrench
- 8 mm hex wrench
- Punch and hammer (to remove belt rod)

### Checklist

- Keep service parts on hand. Refer to the "Service Parts" section starting on page 26 for recommendations.
- Replace any worn or damaged parts.

### Lubrication

No lubrication is required. Replace bearings if worn.

### Maintaining the Conveyor Belt

#### Troubleshooting

#### NOTE

Visit www.dorner.com for complete list of troubleshooting solutions.

Inspect conveyor belt for:

- Surface cuts or wear
- Skipping

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

- Sharp or heavy parts impacting belt
- Jammed parts
- Accumulated dirt
- Foreign material inside the conveyor
- Improperly positioned accessories

Skipping indicates:

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

### **Conveyor Belt Replacement**



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

#### **Replacing a Section of Belt**

 Use a punch and hammer to push the belt rod (Figure 30, item 1) out by striking the rod end opposite the retaining head.



2. Remove the belt rods on both sides of the section of belt being replaced.



Figure 30

3. Replace old section of belt.



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

#### **Replacing the Entire Belt**

 Use a punch and hammer to push the belt rod (Figure 31, item 1) out by striking the rod end opposite the retaining head.



Figure 31

- 2. Slide the old belt (**Figure 31, item 2**) off the conveyor frame.
- 3. Replace the old belt with a new one. Refer to "Belt Installation" on page 10.

### CAUTION

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

### **Conveyor Belt Tensioning**



installation. A proper length of belt can be installed by interlocking the ends by hand without excess links.

1. Remove one or more belt links to take up tension. Refer to "Replacing a Section of Belt" on page 15.

### Wear Strips

Replace the wear strips if they become worn.

Typical Standard Wear Strips (Figure 32)

- 1 Wear Strip, Center
- 2 Wear Strips, Lower Side
- 3 Wear Strips, Lower Side
- 4 Stop Plate, Center Wear Strip





#### Removal

1. Remove upper wear strips (Figure 33, item 1) from top of frame assembly.



2. Remove lower wear strips (Figure 34, item 1), and if necessary, lower belt return (Figure 34, item 2) from lower frame assembly.



Figure 34

3. Remove two screws (**Figure 35**, **item 1**) from each clamp on center frame channel.



Figure 35

4. Remove center frame channel (**Figure 36, item 1**), making sure to keep each clamp matched with channel of each cross member (**Figure 36, item 2**).



5. Remove the center wear strip (Figure 37, item 1) from the center frame channel (Figure 37, item 2).



#### Installation

#### NOTE

The stop plate (Figure 38, item 1) on the center wear strip (Figure 38, item 2) faces the drive end (Figure 38, item 3) of the conveyor.



Figure 38

Install components reverse of removal.

### **Spindle Removal**



Remove conveyor belt to access spindle(s). See "Replacing the Entire Belt" on page 16. Remove the desired spindle following the corresponding instructions below:

- A Nose Bar Drive Spindle Removal
- **B** Idler Spindle Removal
- C Nose Bar Idler Spindle Removal

#### A – Nose Bar Drive Spindle Removal



- 1. Remove the gearmotor. For detailed instructions, refer to the appropriate drive package manual.
- 2. Remove socket head bolt (Figure 39, item 1) on each side of drive tail assembly (Figure 39, item 2).



Figure 39

3. Lower roller assembly (Figure 40, item 1) from drive tail assembly (Figure 40, item 2).



Figure 40

4. Loosen the four socket head screws (**Figure 41, item 1**). Repeat on opposite side.



#### Figure 41

- 5. Remove the drive tail assembly (**Figure 41, item 2**) from the frame (**Figure 41, item 3**).
- 6. On the non-drive side, remove four socket head screws (Figure 42, item 1) and cover (Figure 42, item 2).



Figure 42

7. Loosen the bearing collar set screw (Figure 43, item 1) and remove bearing collar (Figure 43, item 2).



#### Figure 43

 Remove three socket head screws (Figure 43, item 1), and remove plate and drive terminal assembly (Figure 43, item 2) from drive spindle (Figure 43, item 3) and crossmember (Figure 43, item 4).



Figure 44

- 9. Remove drive spindle (**Figure 43, item 3**), from opposite side plate and drive terminal assembly (**Figure 43, item 5**).
- 10. Remove retaining clip (Figure 45, item 1) and flanged puck (Figure 45, item 2) from drive spindle.



Figure 45

11. Slide entire sprocket assembly slightly outward, and remove the first sprocket (**Figure 46, item 1**) off the drive spindle and alignment bar (**Figure 46, item 2**).



#### Figure 46

- 12. Remove remaining sprockets (**Figure 46, item 3**) off the alignment bar as you slide entire assembly off the drive spindle (**Figure 46, item 4**).
- To assemble sprockets onto drive spindle, slide one sprocket (Figure 47, item 1) onto alignment bar (Figure 47, item 2) and slide assembly onto drive spindle (Figure 47, item 3).



#### Figure 47

- 14. Install second sprocket (**Figure 47, item 4**) and subsequent sprockets one by one, while sliding entire assembly onto alignment bar and spindle.
- 15. Check drive terminal assembly (Figure 48, item 1) for wear. If worn, remove two low head cap screws (Figure 48, item 2) and low head cap screw (Figure 48, item 3) and replace.



Figure 48

### NOTE

When reinstalling the drive spindle tail assembly, the terminal assembly (Figure 49, item 1) should mate flush with the conveyor frame (Figure 49, item 2).



Figure 49

#### **B** – Idler Spindle Removal

- 1. Be sure the conveyor is supported.
- 2. On one side of conveyor, loosen the four socket head screws (**Figure 50**, item 1). Repeat on opposite side.



Figure 50

3. Remove idler tail assembly (Figure 50, item 2).

 Remove socket head screw (Figure 51, item 1) from plate (Figure 51, item 2) and center of spindle shaft (Figure 51, item 3). Repeat procedure on opposite side.



Figure 51

 Remove the spindle shaft assembly: remove the clip ring (Figure 52, item 1) and washer (Figure 52, item 2) from one side of the spindle assembly.





6. Slide the shaft assembly (Figure 53, item 1) out of the pulley (Figure 53, item 2).



Figure 53

 Check idler terminal assembly (Figure 54, item 1) for wear. If worn, remove two low head cap screws (Figure 54, item 2) and replace.



Figure 54

### NOTE

When reinstalling the idler spindle tail assembly, the idler terminal assembly (*Figure 55, item 1*) should mate flush with the conveyor frame (*Figure 55, item 2*).



Figure 55

#### **C** – Nose Bar Idler Spindle Removal

- 1. Be sure the conveyor is supported.
- 2. On one side of conveyor, loosen the four socket head screws (**Figure 56**, **item 1**). Repeat on opposite side.



Figure 56

- 3. Remove idler tail assembly (Figure 56, item 2).
- 4. Remove two low head cap screws (**Figure 57, item 1**) from plate (**Figure 57, item 2**). Repeat procedure on opposite side.



#### Figure 57

5. Remove upper nut (**Figure 58, item 1**) and spacer from end of axle shaft assembly.



Figure 58

6. Remove lower nut (**Figure 58, item 2**) and spacer from lower axle shaft assembly.

7. Slide the support plate (**Figure 59, item 1**) off of both axle shafts.





- 8. Remove washer (**Figure 59**, **item 2**) off of lower and upper axle shafts.
- 9. Remove roller assembly (Figure 60, item 1) and washer (Figure 60, item 2) from axle shaft (Figure 60, item 3).



Figure 60

10. Remove remaining roller assembly components (Figure 60, item 4) on opposite side.

11. Check idler terminal assembly on each side (Figure 61, item 1) for wear. If worn, replace.



12. Remove and replace wear guides (**Figure 61, item 2**) if worn. When replacing, secure onto pins on each support plate.

### NOTE

When reinstalling the idler spindle tail assembly, the idler terminal assembly (*Figure 62, item 1*) should mate flush with the conveyor frame (*Figure 62, item 2*).



Figure 62

### **Spindle Replacement**

#### **Drive Spindle**

To replace the drive spindle, reverse the "A - Nose Bar Drive Spindle Removal" procedure on page 18.

#### **Idler Spindle**

To replace the idler spindle, reverse the "B - Idler Spindle Removal" procedure on page 20.

### **Bearing Replacement**



#### **Drive Bearing Removal and Replacement**



#### Removal

1. Turn bearing (Figure 63, item 1) to align with slots (Figure 63, item 2) in bearing housing. Then remove bearing.





#### Replacement

- 1. Inspect bearing housing bearing surface. If worn or damaged, replace. See "Service Parts" on page 26.
- 2. Insert bearing (**Figure 64, item 1**) into housing slot: Locate anti–rotation nub (**Figure 64, item 2**) to align with slot (**Figure 64, item 3**), and twist bearing into housing.



Figure 64

### **Maintenance of Knuckles**

#### Lower Knuckle

 Remove cap screw (Figure 65, item 1), washer, and spacer on side of lower knuckle assembly (Figure 65, item 2), and remove hold down guide (Figure 65, item 3). Repeat on opposite side.



Figure 65

2. Remove two socket cap screws (Figure 66, item 1) for all four hold down guards (Figure 66, item 2) on side of lower knuckle assembly (Figure 66, item 3).



Figure 66

- 3. Replace parts as necessary.
- 4. Install parts reverse of removal.

#### **Upper Knuckle**

1. Remove socket head cap screw (**Figure 67, item 1**), on each side of upper knuckle assembly, and remove shaft and sprocket assembly (**Figure 67, item 2**).



Figure 67

2. Remove three sprockets (Figure 68, item 1) off of shaft (Figure 68, item 2).



Figure 68

3. Remove socket cap screw (**Figure 69, item 1**) for each belt guide (**Figure 69, item 2**) on side of upper knuckle assembly. Repeat on opposite side.



Figure 69

- 4. Replace parts as necessary.
- 5. Install parts reverse of removal.

# NOTES

### 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	52BKD	Drive Bearing Kit (Qty 2)				
2	807-1444	Sprocket				
3	915-240	Retaining Ring				
4	300139	Shaft Cover				
5	352248	Tail Plate				
6	352111	Sprocket Alignment Retainer Key				
7	352212- <u>WW</u>	Drive Spindle				
8	352213- <u>WW</u>	Sprocket Alignment Bar				
9	352257	Drive Terminal Assembly Left Hand				
10	352258	Drive Terminal Assembly Right Hand				
11	300150M	Drop-In Tee Bar				
12	352038- <u>WW</u>	Spindle Kit				
13	52BKNBC	Bearing Kit				
14	352127	Wear Guide				
15	352245- <u>WW</u>	Roller Rod				
16	352247	Support Plate				
17	352250- <u>WW</u>	Crossmember				
18	500990	Return Disk				
19	807-1151	Clamp				
20	352267- <u>WW</u>	Spacer Cover				
21	913-405	Pin				
22	920893M	Low Head Cap Screw,				
		M8-1.25 x 16 mm				
23	920616M	Socket Head Screw, M6-1.00 x 16 mm				
24	920895M	Low Head Cap Screw,				
		M8-1.25 x 25 mm				
25	921218M	Socket Head Screw,				
		M12-1.75 x 18 mm				
26	352270-WW	Pinch Guard				
27	920410M	Socket Head Screw, M4- 0.10 x 10mm				
28	52CNBDT-WW	Drive Spindle Kit				
		(Includes Items 2, 3, 6, 8, 12 and 13)				
<u>WW</u> =	Conveyor width ret	ference: 08 – 60 in 02 increments				

### **Idler End Components**



Item	Part Number	Description
1	352033- <u>WW</u>	Idler Pulley Assembly
2	352110	Cover Plate
3	352223	Idler Terminal Assembly Left Hand
4	352224	Idler Terminal Assembly Right Hand

Item	Part Number	Description
5	300150M	Drop-In Tee Bar
6	920616M	Socket Head Screw, M6-1.00 x 16 mm
7	920895M	Low Head Cap Screw, M8-1.25 x 25 mm
8	352034- <u>WW</u>	Idler Wand Assembly
<u>WW</u> =	Conveyor width re	ference: 08 – 36 in 02 increments

### Nose Bar Idler End Components



Item	PartNumber	Description
1	300150M	Drop-In Tee Bar
2	352038- <u>WW</u>	Spindle Kit, with Bearings
3	352259	Nose Bar Terminal Assembly, Left Hand
4	352260	Nose Bar Terminal Assembly, Right Hand
5	52BKNBC	Bearing Kit
6	352128	Wear Guide
7	352246	Support Plate
8	352249	Tail Plate

Item	PartNumber	Description
9	352251- <u>WW</u>	Crossmember
10	913-405	Pin
11	920616M	Socket Head Screw, M6-1.00 x 16 mm
12	920893M	Low Head Cap Screw, M8-1.25 x 25 mm
13	352268- <u>WW</u>	Spacer
14	352266	Transfer Shoe
15	352269- <u>WW</u>	Shoe Spacer
<u>WW</u> =	Conveyor width	reference: 08 – 36 in 02 increments

## Frame Assembly



tem	Part Number	Description	lt	em	Part Number	Description
1	352100- <u>LLLLL</u>	Side Rail	9		352107	Center Wearstrip Stop Plate
2	352201- <u>WW</u>	Cross Support Rail	10	0	901-133	Button Head Cap Screw,
3	352108	Pan Screw, M580 x 20 mm			1/4-20 x 0.88"	
4	352102- <u>LLLLL</u>	Center Bed Rail	1	1	960498M	Hex Head Cap Screw, M470 x 12 mm
5	352103- <u>LLLLL</u>	Center Wearstrip	14			
6	352210- <u>LLLLL</u>	Top Wearstrip		<u>WW</u> = Conveyor width reference: $08 - 36$ in 02 increments		
7	352105- <u>LLLLL</u>	Return Wearstrip		<u>LLLLL</u> = Length in inches with 2 decimal places.		
8	352106	Center Bed Rail Hold Down Clip		engtr	Example: Length	= 95.25" <u>LLLLL</u> = 09525





Item	Part Number	Description
1	352203- <u>WW-DDD</u>	Inner Guide
2	352204-WW-DDD	Outer Guide
3	See Chart #3	Inner Spine
4	See Chart #4	Outer Spine
5	352202- <u>WW</u>	Cross Support Rail
6	352207- <u>WW</u>	End Cross Support Rail
7	352209- <u>WW</u>	7.5° Cross Support Rail
8	352208- <u>LLLLL</u>	Top Wearstrip
9	352273	7.5° Inner Connecting Plate Assembly
10	352271	15° Inner Connecting Plate Assembly
11	352200- <u>SSSSS</u>	Side Rail
12	352226	Guide Alignment Plate
13	352227	Offset Connecting Plate, Right
14	352228	Offset Connecting Plate, Left
15	920530M	Socket Head Screw, M580x30mm
16	920416M	Socket Head Screw, M470x16mm
17	352274	7.5° Outer Connecting Plate Assembly
18	300150M	Drop-In Tee Bar
19	920616M	Socket Head Screw, M6-1x16mm
20	352272	15° Outer Connecting Plate Assembly
21	350075- <u>LLLLL</u>	Return Wear Strips (LPZ only)
22	352335	Return Bracket (LPZ only)
23	639971M	T-Nut (LPZ only)
24	920612M	Socket Head Screw M6- 1 x 12mm
<u>WW</u> =	Conveyor width refere	ence: 08 – 36 in 02 increments
	= Degree of curve	
_	e Example: Curve = 3	
	= Length in inches wi	
	<u>S</u> =: Length in inches v	
-	n Example: Length = 9	
Length	n Example: Length = 6	5.873" <u>SSSSS</u> = 06873

Chart #3					
Degree	Part Number				
15°	352231- <u>WW</u> (x2)				
30°	352233- <u>WW</u> (x2)				
45°	352235- <u>WW</u> (x2)				
60°	352237- <u>WW</u> (x2)				
75°	352239- <u>WW</u> & 352237- <u>WW</u>				
90°	352239- <u>WW</u> (x2)				
105°	352237- <u>WW</u> (x2) & 352243- <u>WW</u>				
120°	352239- <u>WW</u> (x2) & 352241- <u>WW</u>				
135°	352239- <u>WW</u> (x2) & 352243- <u>WW</u>				
150°	352239- <u>WW</u> (x2) & 352241- <u>WW</u> (x2)				
165°	352239- <u>WW</u> (x2), 352241- <u>WW</u> & 352243- <u>WW</u>				
180°	352239- <u>WW</u> (x2) & 352243- <u>WW</u> (x2)				

Chart #4			
Degree	Part Number		
15°	352232- <u>WW</u> (x2)		
30°	352234- <u>WW</u> (x2)		
45°	352236- <u>WW</u> (x2)		
60°	352238- <u>WW</u> (x2)		
75°	352240- <u>WW</u> & 352238- <u>WW</u>		
90°	352240- <u>WW</u> (x2)		
105°	352238- <u>WW</u> (x2) & 352244- <u>WW</u>		
120°	352240- <u>WW</u> (x2) & 352242- <u>WW</u>		
135°	352240- <u>WW</u> (x2) & 352244- <u>WW</u>		
150°	352240- <u>WW</u> (x2) & 352242- <u>WW</u> (x2)		
165°	352240- <u>WW</u> (x2), 352242- <u>WW</u> & 352244- <u>WW</u>		
180°	352240- <u>WW</u> (x2) & 352244- <u>WW</u> (x2)		

### Upper Knuckle - Low Side



Item	Part Number	Description
1	807-1754	Sprocket
2	807-1759	Screw, M5 x 10 mm
3	352322	Top Stop Nut
4	352323	Bottom Stop Nut
5	352328	Belt Guide
6	325329- <u>AA</u>	Side Plate
7	352339- <u>WW</u>	Shaft
8	352334- <u>AA</u>	Lowside guide

Item	Part Number	Description	
9	920630M	Socket Head Screw, M6-1.00 x 30 mm	
10	920893M	Low Head Cap Screw, M8-1.25 x 16 mm	
11	52NO- <u>WW</u>	Upper Knuckle Kit (Includes Items 1, 5 and 9)	
<u>WW</u> =	<u>WW</u> = Conveyor width reference: 08 – 24 in 02 increments		
<u>AA</u> = Angle 05, 10, 15 and 30			

### Upper Knuckle - High Side



ltem	Part Number	Description	Item	Part Number	Description
1	807-1754	Sprocket	12	920410M	Socket Head Screw, M470 x 10 mm
2	352322	Top Stop Nut	13	920616M	Socket Head Screw, M6-1.00 x 16 mm
3	352323	Bottom Stop Nut	14	920630M	Socket Head Screw, M6-1.00 x 30 mm
4	352328	Belt Guide	15	920691M	Low Head Cap Screw,
5	325329- <u>AA</u>	Side Plate			M6-1.00 x 10 mm
6	352332- <u>AA</u>	High Side Mounting Guide Left Hand	16	920893M	Low Head Cap Screw,
7	352333- <u>AA</u>	High Side Mounting Guide Right Hand		50110 14/14/	M8-1.23 x 16 mm
8	352339- <u>WW</u>	Shaft	17	52NO- <u>WW</u>	Upper Knuckle Kit (Includes Items 1,4 and 14)
9	352343- <u>AA</u> -L	High Side Guide Left Hand		Conveyor width re	eference: 08 – 24 in 02 increments
10	352343- <u>AA</u> -R	High Side Guide Right Hand	$\underline{AA} = \text{Angle 05, 10, 15 and 30}$		
11	352346	Wearstrip		angio 00, 10, 10 a	

### Lower Knuckle



ltem	Part Number	Description
1	807-1760	Washer
2	352321- <u>AA</u>	Side Plate
3	352322	Top Stop Nut
4	352323	Bottom Stop Nut
5	352324	Hold Down Guide
6	352325-L	Hold Down Guard Assembly Left Hand
7	352325-R	Hold Down Guard Assembly Right Hand
8	352327	Stub Shaft
9	352328	Belt Guide
10	352337	Hold Down Spacer

Item	Part Number	Description	
11	352340	Return Block Guide	
12	352346	Wearstrip	
13	920410M	Socket Head Screw, M470 x 10 mm	
14	920616M	Socket Head Screw, M6-1.00 x 16 mm	
15	920630M	Socket Head Screw, M6-1.00 x 30 mm	
16	920893M	Low Head Cap Screw, M8-1.23 x 16 mm	
17	807-1884	Sheet Metal Screw, #14 x 1.25"	
18	52HI	Lower Knuckle Kit (Includes Items 5, 9, 11 and 15)	
$\underline{AA} = A$	<u>AA</u> = Angle 05, 10, 15 and 30		

### **Connecting Assembly**



### **Flat Belt Returns**



Item	Part Number	Description
1	352220- <u>WW</u>	Returns - Straight Sections of Conveyor
	352211- <u>WW</u>	Returns - Curved Sections of Conveyor
<u>WW</u> = Conveyor width ref: 18 - 36 in 02 increments		

### **Stand Mount Kit**



Item	Part Number	Description
1	300150M	Drop-In Tee Bar
2	605279P	Washer
3	920620M	Socket Head Screw, M6-1.00 x 20 mm

### **High Speed Shoe Kit**



 1
 352316-WW
 Shoe kit for straight conveyors

 WW = Conveyor width ref: 18 - 36 in 02 increments

### LPZ High Speed Shoe Kit



Item	Part Number	Description
1	352338	Shoe Assembly
2	352345	Shoe Plate
3	300150M	Drop-In Tee Bar
4	920616M	Socket Head Screw, M6-1.00 x 16 mm

Fully Adjustable Guiding (Straight Module)



Item	Part Number	Description
1	807-948	Shaft Cap
2	807-652	Cross Block
3	200830M	Drop-In Tee Bar
4	202004M	Mounting Bracket
5	202027M	Vertical Mounting Guide Shaft
6	202028M	Horizontal Mounting Guide Shaft

Item	Part Number	Description
7	674175MP	Square Nut, M6-1.00
8	920612M	Socket Head Screw, M6-1.00 x 12 mm
9	920616M	Socket Head Screw, M6-1.00 x 16 mm
10	381300- <u>LLLLL</u>	Aluminum Profile Guide
11	614068P	Extruded Guide (Per Foot)
LLLLL = Length in inches with 2 decimal places.		
Length Example: Length = 95.25" LLLLL = 09525		

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### Fully Adjustable Guiding (Curve Module)



Item	Part Number	Description
1	807-948	Shaft Cap
2	807-652	Cross Block
3	200830M	Drop-In Tee Bar, Outer Curve
4	202004M	Mounting Bracket, Outer Curve
5	920612M	Socket Head Screw, M6-1.00x12 mm
6	202027M	Mounting Guide Shaft
7	920616M	Socket Head Screw, M6-1.00x16 mm
8	920692M	Low Head Cap Screw, M6-1.00x16 mm
9	200830M	Drop-In Tee Bar, Inner Curve (12" through 36" wide)

Item	Part Number	Description
10	325303	Mounting Bracket, Inner Curve (8" and 10" wide)
	202004M	Mounting Bracket, Inner Curve (12" through 36" wide)
11	920512M	Socket Head Screw, M580x12 mm for inner curve (8" and 10" wide)
	920616M	Socket Head Screw, M6-1.00x12 mm for inner curve (12" through 36" wide)
12	234014	U-Channel Guide, 4' Long

### Tool-Less Fully Adjustable Guiding (Straight Module)



Item	Part Number	Description
1	807-948	Shaft Cap
2	807-1470	Cross Block
3	200830M	Drop-In Tee Bar
4	202004M	Mounting Bracket
5	202027M	Vertical Mounting Guide Shaft
6	202028M	Horizontal Mounting Guide Shaft
7	674175MP	Square Nut, M6-1.00

Item	Part Number	Description	
8	920612M	Socket Head Screw, M6-1.00 x 12 mm	
9	920616M	Socket Head Screw, M6-1.00 x 16 mm	
10	381400- <u>LLLLL</u>	Aluminum Profile Guide	
11	614068P	068P Extruded Guide (Per Foot)	
LLLLL = Length in inches with 2 decimal places.			
Length Example: Length = 95.25" LLLLL = 09525			



### **Tool-Less Fully Adjustable Guiding (Curve Module)**

807-948	Shaft Cap
807-1470	Cross Block
200830M	Drop-In Tee Bar, Outer Curve
202004M	Mounting Bracket, Outer Curve
920612M	Socket Head Screw, M6-1.00x12 mm
202027M	Mounting Guide Shaft
920616M	Socket Head Screw, M6-1.00x16 mm
920692M	Low Head Cap Screw, M6-1.00x16 mm
200830M	Drop-In Tee Bar, Inner Curve (12" through 36" wide)
	807-1470 200830M 202004M 920612M 202027M 920616M 920692M

Item	Part Number	Description
10	325303	Mounting Bracket, Inner Curve (8" and 10" wide)
	202004M	Mounting Bracket, Inner Curve (12" through 36" wide)
11	920512M	Socket Head Screw, M580x12 mm for inner curve (8" and 10" wide)
	920616M	Socket Head Screw, M6-1.00x12 mm for inner curve (12" through 36" wide)
12	234014	U-Channel Guide, 4' Long

### **Ordering a Replacement Chain**

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

#### Example:

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

Order: Qty (43) of 52MT-WW

MT = Chain reference number

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

### Flat Belt Chain Repair Kit



Item	Part Number	Description
1	52MT- <u>WW</u>	Flat Belt Chain Repair kit (Includes 1 ft (305 mm) of flat belt chain and assembly pins)
WW = Conveyor width ref: 08 - 36 in 02 increments		

# NOTES

## **Return Policy**

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

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

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

#### Conveyors and conveyor accessories

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

#### Parts

Standard stock parts Plastic chain, cleated and specialty belts

30% non-returnable items

Returns will not be accepted after 60 days from original invoice date. The return charge covers inspection, cleaning, disassembly, disposal and reissuing of components to inventory. If a replacement is needed prior to evaluation of returned item, a purchase order must be issued. Credit (if any) is issued only after return and evaluation is complete.

Dorner has representatives throughout the world. Contact Dorner for the name of your local representative. Our Customer Service Team will gladly help with your questions on Dorner products.

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

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



Dorner Mfg. Corp. reserves the right to change or discontinue products without notice. All products and services are covered in accordance with our standard warranty. All rights reserved. © Dorner Mfg. Corp. 2010

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