



7600 Series CE End Drive Conveyors

Installation, Maintenance and Parts Manual



Flat Belt Conveyor



Cleated Belt Conveyor

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Introduction

A 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.

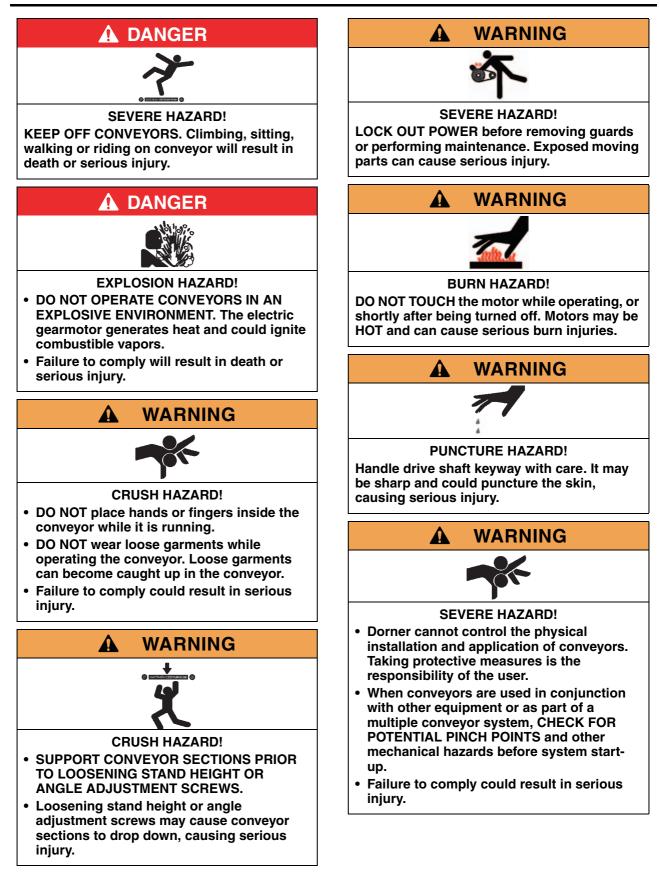
The Dorner Limited Warranty applies.

Dorner AquaPruf conveyors are covered by Patent Numbers 7,207,435, 7,246,697, 7,383,944, additional patent pending applications, and corresponding patents 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

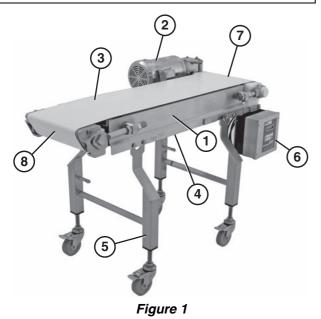


Product Description

Refer to (Figure 1) for typical conveyor components.

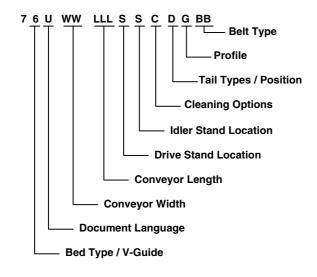
Typical Components

- 1 Conveyor
- 2 Gearmotor
- 3 Belt (Flat Belt Shown)
- 4 Return
- 5 Support Stands
- 6 Motor Controller
- 7 Drive End
- 8 Idler End

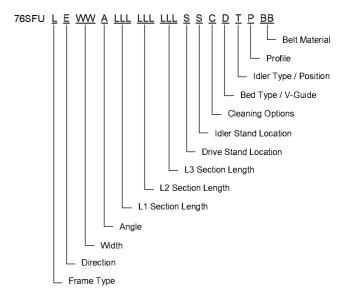


Specifications

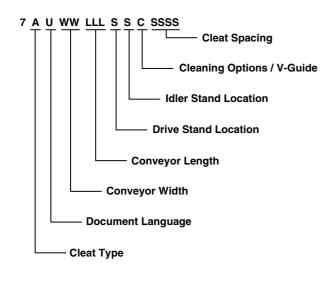
Flat Belt 7600 Series Conveyor



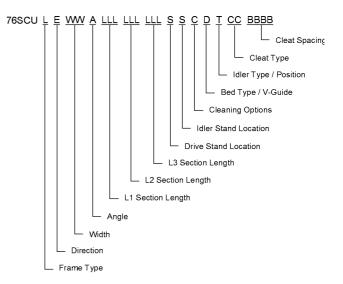
Flat Belt 7600 Series LPZ Conveyor



Cleated Belt 7600 Series Conveyor



Cleated Belt 7600 Series LPZ Conveyor



Specifications

Conveyor Supports

Maximum Distances:

- 1 = Support Stand on Idler End = 914 mm
- 2 = Between Support Stands = 2438 mm**
- 3 = Support Stand on Drive End = 914 mm
 - ** For conveyors longer than 3.05 m, install support at frame joint.

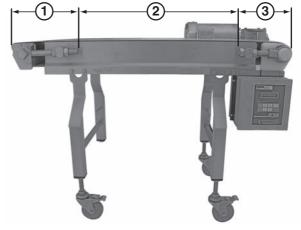


Figure 2

Specifications

Conveyor Width Reference (WW)	06 – 60 in 02 increments
Conveyor Belt Width	6" (152 mm) - 60" (1524 mm) in 2" (51 mm) increments
Maximum Conveyor Load	181 kg (400 lbs.)
Belt Travel	286 mm (11.25") per revolution of pulley
Maximum Belt Speed	100 m/minute (325 ft/minute)
Belt Take-up	38 mm (1.5")
Conveyor Length Reference (LLL)	036 – 480 in 001 increments
Conveyor Length	36" (914 mm) - 480" (12192 mm) in 1" (25 mm) increments
LPZ Section Lengths (LLL)	024 – 252 in 001 increments
LPZ Section Length	24" (610 mm) – 252" (6401 mm) in 1" (25 mm) increments
Total LPZ Conveyor Length	(L1 +L2 + L3) = Maximum 11.6 m (38') long conveyor

IMPORTANT

Maximum conveyor loads are based on:

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

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

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

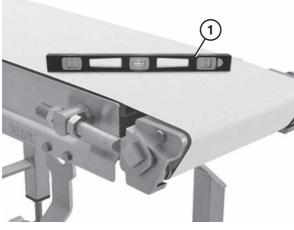


Figure 3

Required Tools

- Level
- Torque wrench

Recommended Installation Sequence

- 1. Assemble the conveyor (if required). Refer to "All Conveyors" on page 12.
- 2. Attach the stands. Refer to "Stand Installation" on page 14.
- 3. Install the gearmotor. Refer to "Drive Package Installation" on page 15.

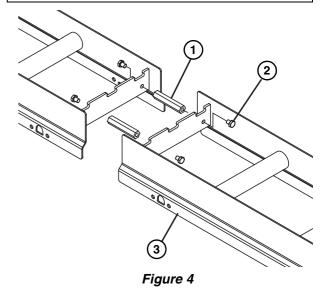
Conveyors Longer than 3048 mm

Connecting Components

Typical Connection Components (Figure 4)

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

3



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

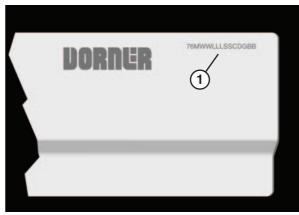
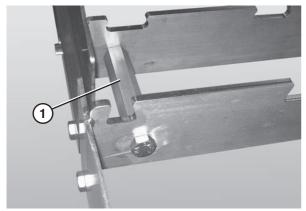


Figure 5

2. Position the frame sections in the correct order.

3. Connect the frame sections by bolting the hex post connectors (Figure 6, item 1) to the sections of frame.

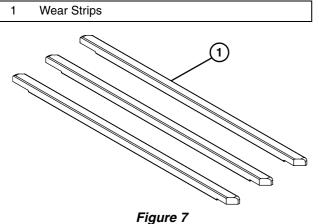




Wear Strip Installation

Standard Wear Strips

Typical Standard Wear Strips (Figure 7)



1. Position the wear strips (**Figure 8, item 1**) on the frame.

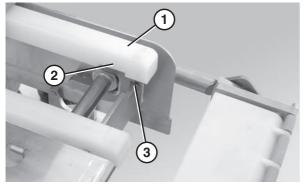
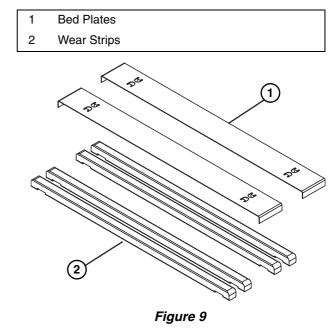


Figure 8

2. Make sure slots in the wear strips (Figure 8, item 2) line up properly with frame slots (Figure 8, item 3).

Stainless Steel Sheet Bed Plates (Optional)

Typical Stainless Steel Sheet Bed Plates (Figure 9)



- 1. Attach the wear strips to the frame. Refer to "Standard Wear Strips" on page 8.
- 2. Place the sheet bed plates (Figure 10, item 1) over the wear strips (Figure 10, item 2).

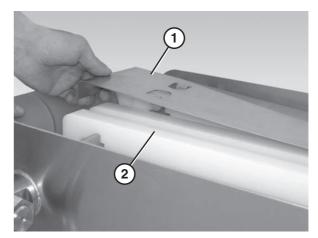


Figure 10

Lifter Installation

Typical Lifter Components (Figure 11)

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

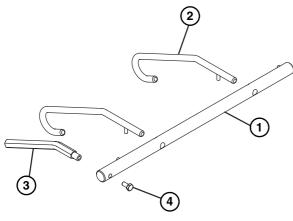


Figure 11

1. Slide the belt lift pivot bar (**Figure 12, item 1**) through the designated holes in the frame. The pins on the belt lift pivot bar should be located inside the frame side rails.

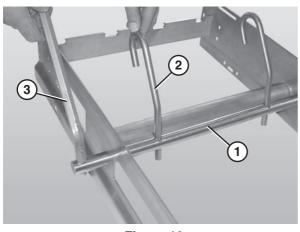


Figure 12

- 2. Attach the lifter bars (Figure 12, item 2) to the belt lift pivot bar (Figure 12, item 1). Make sure the hooked ends of the lifter bars are facing down when resting against the frame.
- 3. Attach the lifter handle (**Figure 12, item 3**) to the belt lift pivot rod.

Belt Installation

Typical Standard Belt (Figure 13)

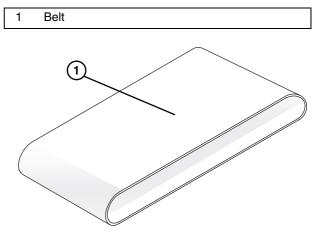


Figure 13

1. Place the idler tail (**Figure 14, item 1**) in the UP position.

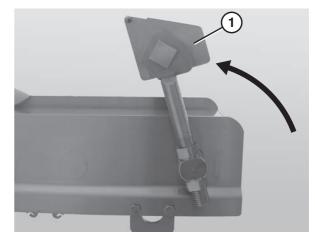


Figure 14



• Disconnecting more than one pivot bracket at a time or not bolting the stands to the floor can cause the conveyor to tip and may result in serious injury.

2. Lower the quick release arm (Figure 15, item 1) on one of the stands. *Note: if the conveyor is not equipped with Quick Release (QR Type) stands, it will be necessary to remove the entire stand.* For detailed instructions, refer to the "Sanitary Support Stands Installation, Maintenance and Parts Manual."

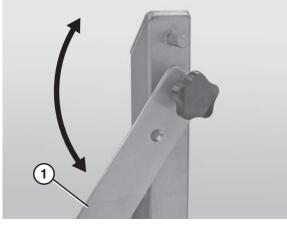


Figure 15

3. Slide the belt (Figure 16, item 1) on over the conveyor frame (Figure 16, item 2).

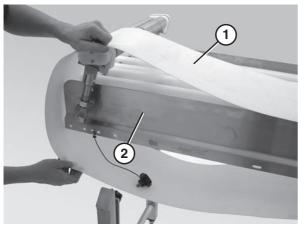


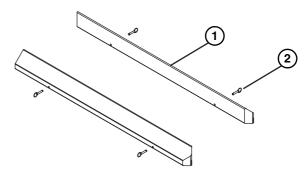
Figure 16

- 4. Secure the quick release arm on the stand and repeat steps 2 and 3 until the belt is around the entire length of the conveyor.
- 5. Add tension to the belt by lowering the tip-up tail or by sliding the idler tail out and tightening the nuts. Refer to "Conveyor Belt Tensioning" on page 19.
- 6. Adjust the belt tracking as necessary. Refer to "Conveyor Belt Tracking" on page 19.

Guide Installation

Typical Guide Components (Figure 17)

- 1 Guide
- 2 Pull pin





1. Position the guide (**Figure 18, item 1**) so that the flat surface is facing the belt and then slide the guide onto the frame rail (**Figure 18, item 2**).

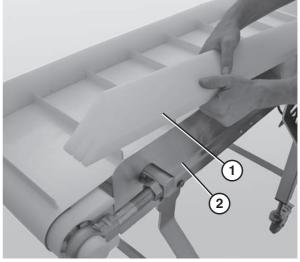


Figure 18

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

3. Insert the pull pins (Figure 19, item 1) into the holes in the guide (Figure 19, item 2).

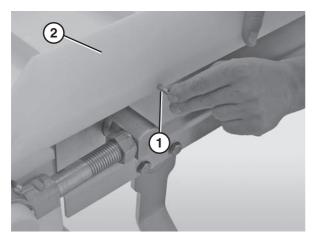


Figure 19

LPZ Conveyors

Knuckles

1. Attach upper knuckle (Figure 20, item 1) to frame (Figure 20, item 2) with hex rods (Figure 20, item 3) and bolts (Figure 20, item 4).

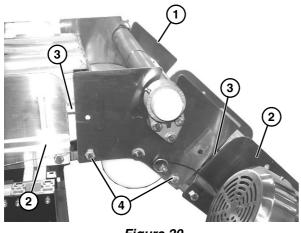


Figure 20

2. Attach lower knuckle (Figure 21, item 1) to frame (Figure 21, item 2) with hex rods (Figure 21, item 3), and bolts (Figure 21, item 4).

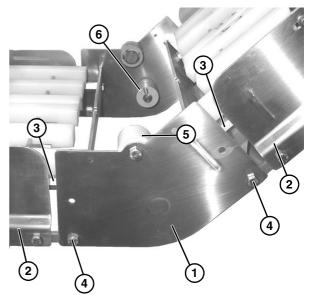


Figure 21

- 3. Install hold down sleeve bearing (**Figure 21, item 5**), and secure with cap screw. Repeat on opposite side.
- 4. Install return sleeve bearing (**Figure 21, item 6**), and secure with clamp. Repeat on opposite side.

Belt

1. Slide belt (**Figure 22, item 1**) over knuckles and onto top and bottom of wear strips.

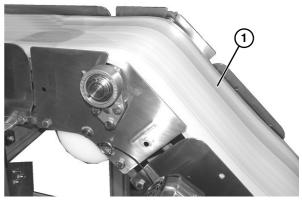
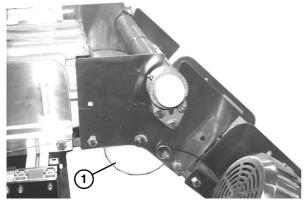


Figure 22

Guides

Install the belt return (Figure 23, item 1). 1.





Slide the guides (Figure 24, item 2) onto the knuckle 2. frame, and secure with two pull pins (Figure 24, item 3).

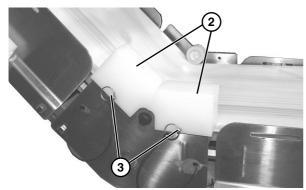


Figure 24

Repeat for opposite side of conveyor. 3.

All Conveyors

Belt Return Installation

Flat Belt

Typical Flat Belt Components (Figure 25)

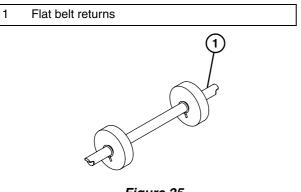
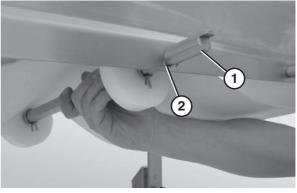


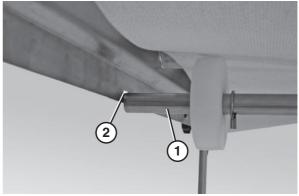
Figure 25

1. Slide the return shaft (Figure 26, item 1) up and through the large slot (Figure 26, item 2) in the frame.





2. Push up on the return shaft (Figure 27, item 1) and slide the notched end of the shaft through the small slot (Figure 27, item 2) on the opposite side of the frame.



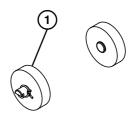


Repeat the procedure for all other belt returns. 3.

Cleated Belt

Typical Cleated Belt Components (Figure 28)

1 Cleated belt returns





 Insert the notched end of the return shaft (Figure 29, item 1) through the small hole (Figure 29, item 2) in the inside of the conveyor frame.

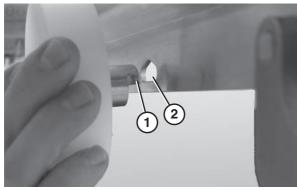


Figure 29

2. Repeat the procedure for all other belt returns.

Scraper Installation

Typical Scraper Components (Figure 30)

1	Scraper adjust plate
---	----------------------

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

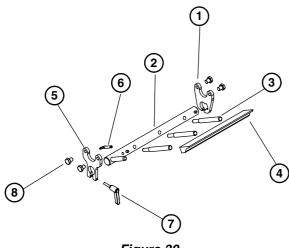


Figure 30

1. Attach the scraper adjust plate (Figure 30, item 1) and the scraper mount plate (Figure 30, item 5) to the frame using four M10-1.5 x 12 mm hex head cap screws.

 Slide the notched end of the scraper shaft (Figure 31, item 1) through the adjustment plate (Figure 31, item 2).

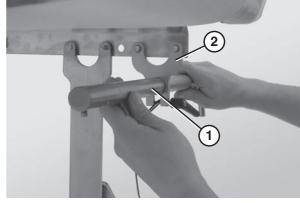


Figure 31

 Insert the notched end of the scraper shaft (Figure 32, item 1) so that it is situated within the groove in the mounting plate (Figure 32, item 2).

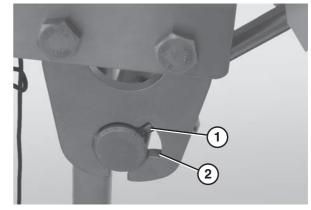


Figure 32

4. Attach the scraper bar holders (Figure 33, item 1) to the scraper shaft (Figure 33, item 2).

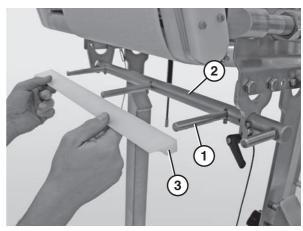


Figure 33

5. Attach the UWHM scraper (Figure 33, item 3) to the scraper bar holders (Figure 33, item 1).

6. Insert the pin (Figure 34, item 1) to lock the scraper bar in place (Figure 34, item 2).

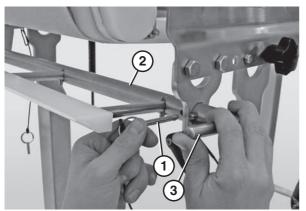


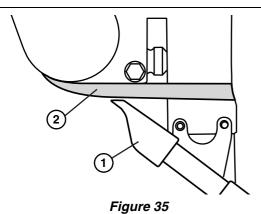
Figure 34

7. Adjust the scraper to the desired position using the scraper bar handle (**Figure 34, item 3**).

CAUTION

Apply minimal pressure between the scraper (Figure 35, item 1) and the belt (Figure 35, item 2).

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



Secure the scraper by tightening the handle (**Figure 36, item 1**).

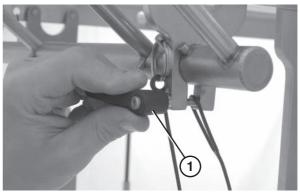


Figure 36

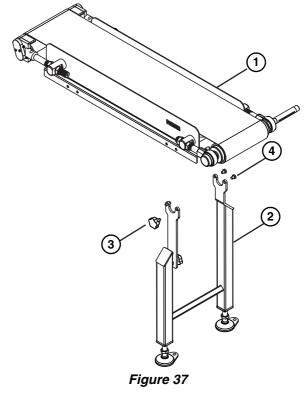
Stand Installation

Typical Stand Components (Figure 37)

1 Conveyor

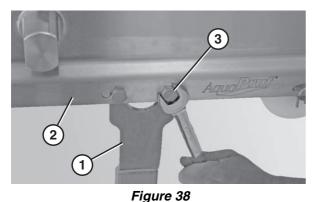
8.

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



1. Properly support the conveyor.

 Attach the non-quick release side of the stand (Figure 38, item 1) to the MOTOR SIDE of the conveyor (Figure 38, item 2) using two M10-1.5 x 12mm hex head cap screws (Figure 38, item 3).



3. Attach the quick-release arm to the stand with the knob (Figure 37, item 3).

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

Drive Package Installation

Typical Motor Components (Figure 39) (end drive shown)

 1. Attach the motor (Figure 40, item 1) to the gear reducer (Figure 40, item 2).

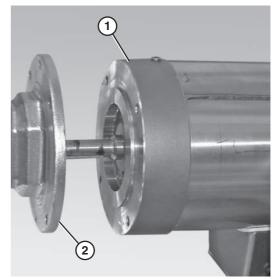


Figure 40

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

Required Tools

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

Checklist

- Keep service parts on hand. Refer to the "Service Parts" section starting on page 30 for recommendations.
- Replace any worn or damaged parts.

Cleaning

NOTE

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

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

Routine Cleaning



Dorner recommends cleaning the inside and the outside of the conveyor on a daily basis. Refer to the following steps to access the inside of the conveyor.

Standard Conveyors

 Remove the guides, if applicable, by removing the pull pins (Figure 41, item 1) that connect the guide (Figure 41, item 2) to the frame.

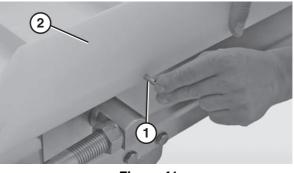
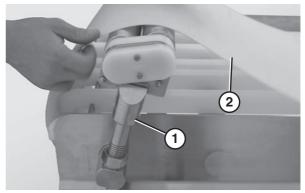


Figure 41

2. Place the tip up tail (**Figure 42, item 1**) in the up position.





3. Lift up on the belt (Figure 42, item 2).

Conveyors with Lifters

- Remove the guides, if applicable, by removing the pull pins (Figure 43, item 1) that connect the guide (Figure 43, item 2) to the frame.
- 2. Place the tip up tail in the up position.
- 3. Use the lifter handle (Figure 43, item 1) to raise the belt (Figure 43, item 2).

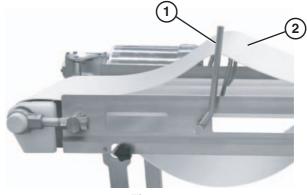


Figure 43

CAUTION

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

Δ

Periodic Cleaning

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

- For conveyor disassembly and reassembly instructions:
- Refer to "Conveyor Belt Replacement" on page 17.
- Refer to "Spindle Removal" on page 20.

Lubrication

Conveyor Bearings

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

NOTE

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

1. Add grease to the bearing using the zerk fitting (Figure 44, item 1) on the exterior of the bearing shaft assembly.

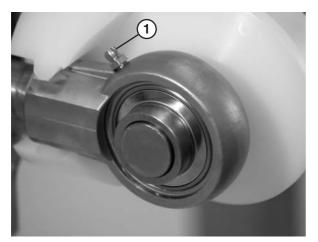


Figure 44

2. Replace the bearings if they become worn.

Wearstrips and Belt Returns

Replace the wearstrips and belt returns if they become worn.

For wearstrip and belt return installation instructions:

- Refer to "Wear Strip Installation" on page 8.
- Refer to "Belt Return Installation" on page 12.

Scraper

Replace the UHMW scraper if it becomes worn.

Refer to "Scraper Installation" on page 13 for scraper installation instructions.

Maintaining the Conveyor Belt

Troubleshooting

NOTE

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

Inspect conveyor belt for:

· Surface cuts or wear

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

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

Skipping indicates:

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

Conveyor Belt Replacement



or performing maintenance. Exposed moving parts can cause serious injury.

Conveyors with Guides

1. Remove the pull pins (Figure 45, item 1) that connect the guide (Figure 45, item 2) to the frame.

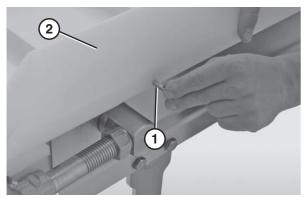


Figure 45

2. Remove the guide (Figure 46, item 1) from the conveyor (Figure 46, item 2).

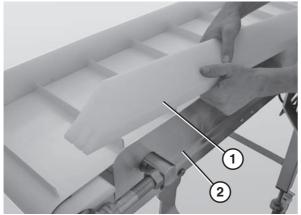


Figure 46

Standard Belts

1. Place the idler tail (**Figure 47, item 1**) in the UP position.

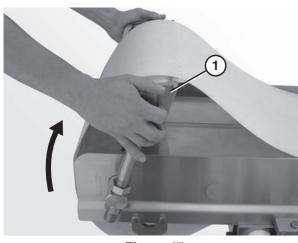
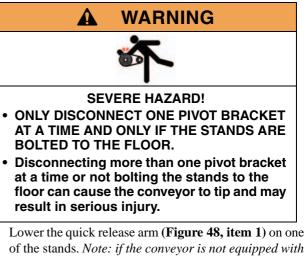


Figure 47



 Lower the quick release arm (Figure 48, item 1) on one of the stands. Note: if the conveyor is not equipped with Quick Release (QR Type) stands, it will be necessary to remove the entire stand. For detailed instructions, refer to the "Sanitary Support Stands Installation, Maintenance and Parts Manual."

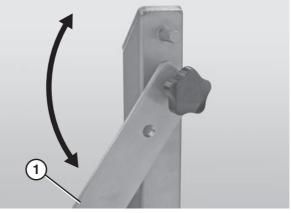


Figure 48

3. Slide the old belt (**Figure 49, item 1**) off the conveyor frame (**Figure 49, item 2**).

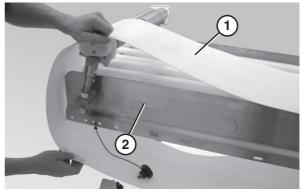


Figure 49

- 4. Secure the quick release arm on the stand and repeat steps 2 and 3 until the entire belt is off the conveyor.
- 5. Replace the old belt with a new one. Refer to "Belt Installation" on page 9.

Conveyor Belt Tensioning



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

1. Loosen the back nuts (Figure 50, item 1) on both sides of the idler tail shaft.

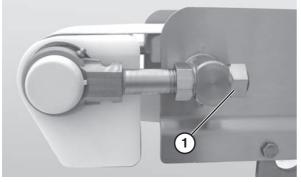


Figure 50

 Turn the front nuts closest to the tail (Figure 51, item 1) clockwise in order to increase tension on the belt.

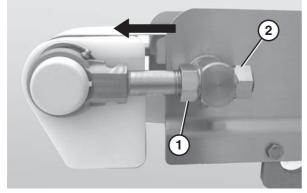


Figure 51

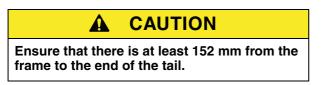




Figure 52

3. Tighten the back nuts (Figure 51, item 2) to secure the tail.

Conveyor Belt Tracking

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

For v-guide belts, track until the bulge in the conveyor belt (Figure 53, item 1) lies flat.



Figure 53

To adjust conveyor belt tracking:

- 1. Loosen the back nut (**Figure 51**, **item 2**) on the idler tail shaft that needs to be adjusted.
- 2. Tighten or loosen the front nut (**Figure 51, item 1**) on the idler tail shaft adjust the belt tracking.

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

a. Loosen the nut to shorten the length of the idler tail shaft and bring the belt closer to that side of the conveyor (**Figure 54**).

Figure 54

b. Tighten the nut to increase the length of the idler tail shaft and move the belt away from that side of the conveyor (**Figure 55**).

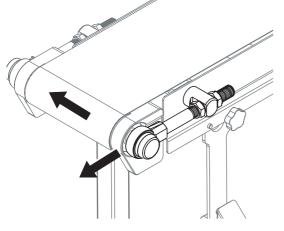


Figure 55

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

Spindle Removal



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

- 1. Remove the conveyor belt to access the spindles. Refer to "Conveyor Belt Replacement" on page 17.
- 2. Remove the spindle by following the instructions for the specific spindle type:
- A Drive Spindle Removal
- B Idler Spindle Removal
- C .5" Nose Bar Idler Spindle Removal
- D 1" Nose Bar Idler Spindle Removal
- E 1.875" Nose Bar Idler Spindle Removal

A - Drive Spindle Removal



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

1. Remove the plastic cap on the end of the motor and remove the socket head screw(Figure 56, item 1) and the bore plug (Figure 56, item 2).

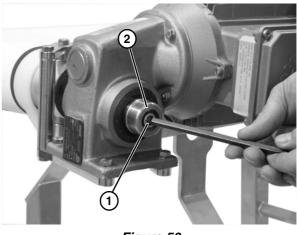
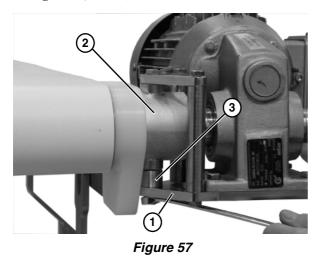


Figure 56

 Remove the bottom gearhead mounting bar (Figure 57, item 1) from the motor mounting bracket (Figure 57, item 2). Remove spacer (Figure 57, item 3).



 Remove the top gearhead mounting bar (Figure 58, item 1) from the motor mounting bracket (Figure 58, item 2).

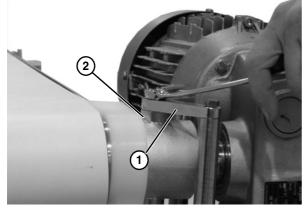


Figure 58

4. Slide the gearmotor assembly (**Figure 59, item 1**) off of the drive spindle (**Figure 59, item 2**).

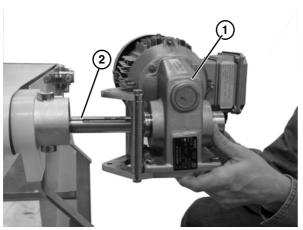


Figure 59

5. Remove the drive spindle key (**Figure 60, item 1**) from the drive spindle keyway (**Figure 60, item 2**).

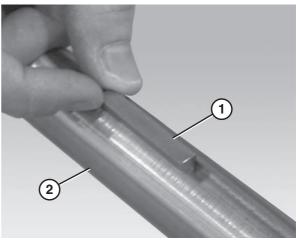


Figure 60

6. Remove the back nut (**Figure 61, item 1**) on both drive tail shafts (**Figure 61, item 2**).

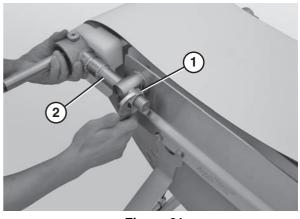


Figure 61

7. Slide the drive tail assembly (Figure 62, item 1) out of the take up blocks (Figure 62, item 2).

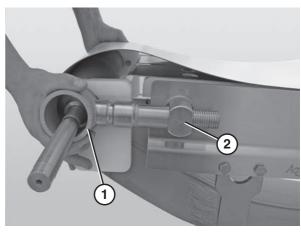


Figure 62

8. Slide the motor support bracket (**Figure 63, item 1**) off the drive spindle (**Figure 63, item 2**).

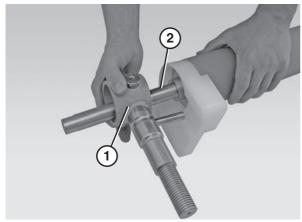


Figure 63

9. Use a 4 mm hex wrench to loosen the bearing fasteners (Figure 64, item 1).

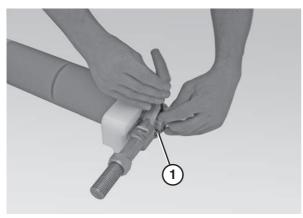


Figure 64

10. Remove the bearing shaft (Figure 65, item 1) and both pinch guards (Figure 65, item 2).

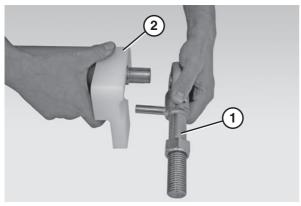


Figure 65

B - Idler Spindle Removal

1. Remove the back nuts (Figure 66, item 1) on both idler tail shafts.

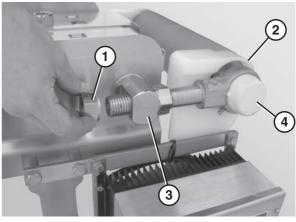
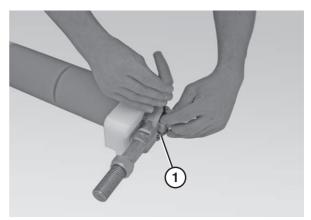


Figure 66

- 2. Slide the idler tail assembly (**Figure 66, item 2**) out of the take up blocks (**Figure 66, item 3**).
- 3. Remove the bearing covers (Figure 66, item 4).
- 4. Use a 4 mm hex wrench to loosen the bearing shaft assembly fasteners (**Figure 67, item 1**).





5. Remove the bearing shafts (Figure 68, item 1) and both pinch guards (Figure 68, item 2).

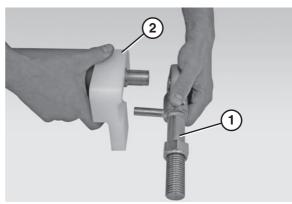


Figure 68

C - .5" Nose Bar Idler Spindle Removal

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

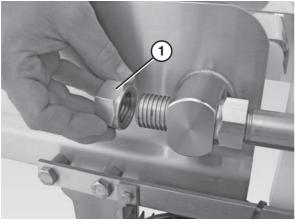


Figure 69

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

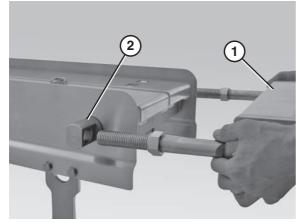


Figure 70

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

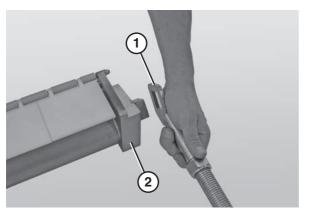


Figure 71

4. Use a 10 mm wrench to remove one of the acorn nuts (**Figure 72, item 1**) from the nose bar shaft.

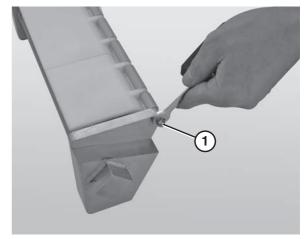


Figure 72

5. Remove the nose bar shaft (Figure 73, item 1), the rollers (Figure 73, item 2) and the roller mounts (Figure 73, item 3).

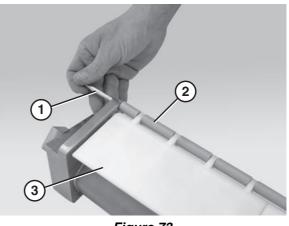


Figure 73

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

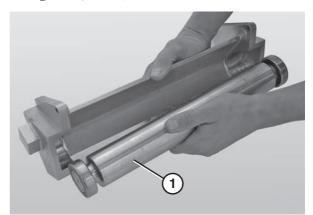


Figure 74

D - 1" Nose Bar Idler Spindle Removal

1. Remove the back nuts (**Figure 75, item 1**) on both discharge nose bar shafts.

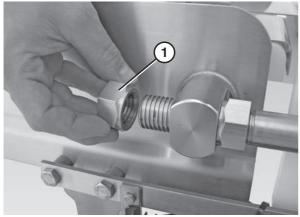


Figure 75

2. Slide the nose bar tail assembly (**Figure 76, item 1**) out of the take up blocks (**Figure 76, item 2**).

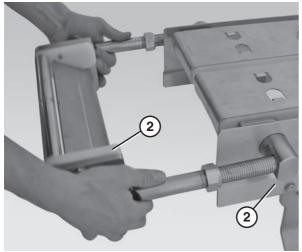


Figure 76

3. Slide the nose bar shafts (**Figure 77, item 1**) off of the nose bar weldment (**Figure 77, item 2**).

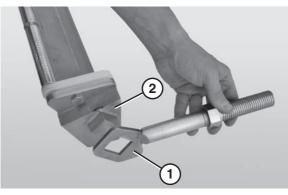
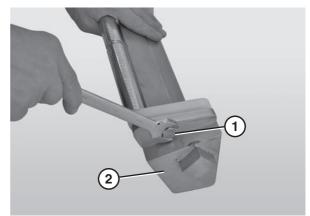


Figure 77

 Use a 17 mm wrench to remove both pilot nose bolts (Figure 78, item 1) from the nose bar weldment (Figure 78, item 2).





5. Slide the nose bar puck holders (Figure 79, item 1) and the nose bar spindle (Figure 79, item 2) off of the nose bar weldment (Figure 79, item 3).

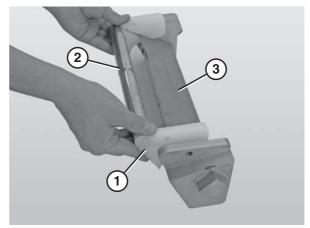


Figure 79

6. Remove the nose bar return spindle (Figure 80, item 1).

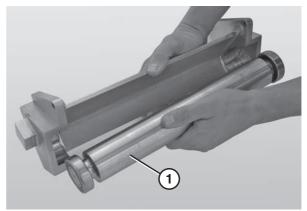


Figure 80

E - 1.875" Nose Bar Idler Spindle Removal

1. Slide the pinch guard blocks (Figure 81, item 1) off the nose bar spindles (Figure 81, item 2).

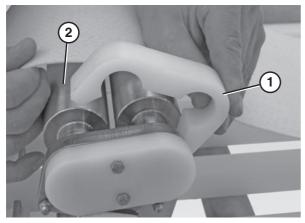


Figure 81

 Remove the transfer bearing screws (Figure 82, item 1) and the cover (Figure 82, item 2) using an 8 mm wrench.

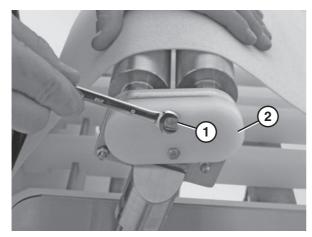


Figure 82

3. Remove the back nuts (**Figure 83, item 1**) on both discharge nose bar shafts.

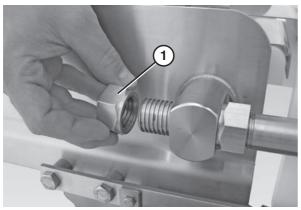


Figure 83

4. Slide the nose bar tail assembly (Figure 84, item 1) out of the take up blocks (Figure 84, item 2).

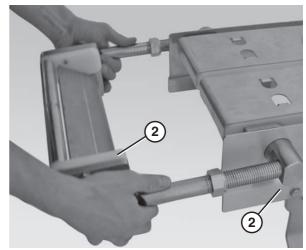


Figure 84

5. Use a 4 mm hex wrench to loosen all the bearing fasteners (Figure 85, item 1).

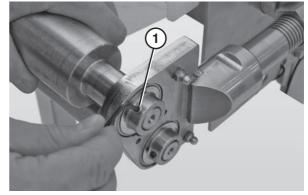


Figure 85

6. Slide the nose bar shafts (**Figure 86, item 1**) off the nose bar spindles (**Figure 86, item 2**).

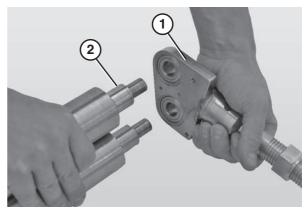


Figure 86

Reassembling Tail Assemblies

Refer to the "Service Parts" section starting on page 30 for complete diagrams and lists of all tail assembly components.

Gas Assist Replacement

- 1. Raise the tip up tail.
- 2. Remove the pull pin (Figure 87, item 1).

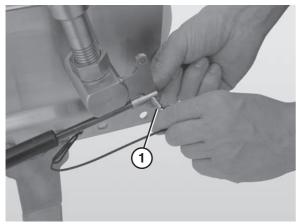


Figure 87

3. Remove the hex bolt (Figure 88, item 1) that connects the gas spring (Figure 88, item 2) to the gas spring standoff post (Figure 88, item 3).

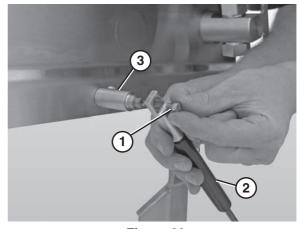


Figure 88

4. Remove the inside hex bolt that connects the standoff post (**Figure 88, item 3**) to the frame.

Bearing Replacement

Standard Bearings

- 1. Secure the bearing shaft.
- 2. Remove the bearing cover.
- 3. Insert the rod end of another bearing shaft through the bearing orifice (**Figure 89**).

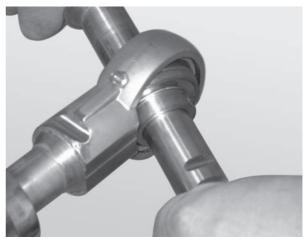


Figure 89

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

5. Remove the worn or damaged bearing (Figure 90, item).

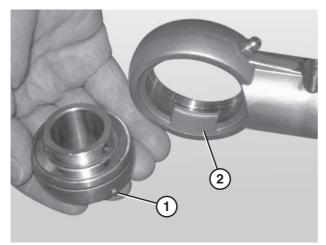


Figure 90

6. Replace the bearing.

NOTE

When inserting the new bearing, make sure the anti-rotation notch (Figure 90, item 1) on the bearing lines up with the groove inside the housing (Figure 90, item 2).

.5" and 1" Nose Bar Return Spindle Bearings

- 1. Remove the nose bar return spindle. Refer to "Spindle Removal" starting on page 20.
- 2. Using a bearing removal tool (**Figure 91, item 1**), remove the bearing (**Figure 91, item 2**).

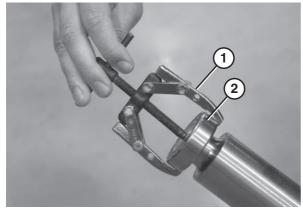


Figure 91

3. Replace the bearing.

1" Nose Bar Bearings

- 1. Remove the nose bar spindle. Refer to "Spindle Removal" starting on page 20.
- 2. Remove the nose bar puck holders (Figure 92, item 1).

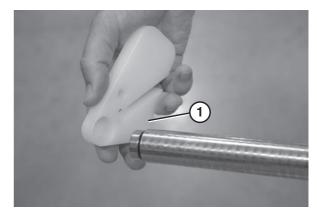


Figure 92

3. Using a bearing removal tool (Figure 93, item 1) remove the bearing (Figure 93, item 2).

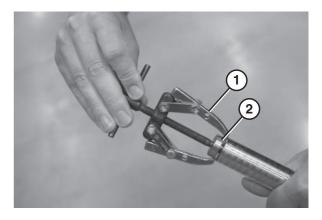


Figure 93

4. Replace the bearing.

1.875" Nose Bar Bearings

- 1. Remove the nose bar spindle. Refer to "Spindle Removal" starting on page 20.
- 2. Remove the bearing (Figure 94, item 1) from the nose bar shaft assembly (Figure 94, item 2).

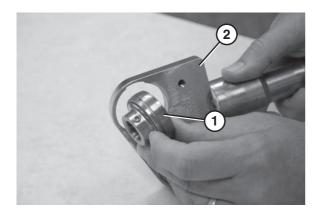


Figure 94

3. Replace the bearing.

LPZ Knuckles

Wearstrips and Belt Returns

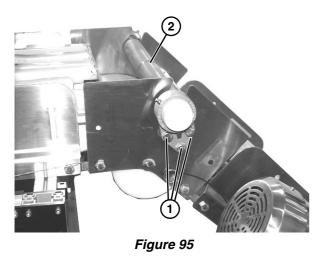
Replace the wearstrips and belt returns if they become worn.

For wearstrip and belt return installation instructions:

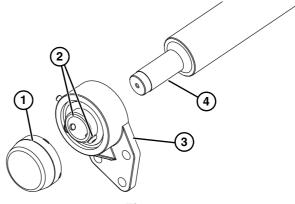
- For wearstrips, replace as needed, making sure wear strips are situated securely in the frame slots.
- For belt returns, refer to "Belt Return Installation" on page 12.

Removal

1. Remove three bolts (**Figure 95, item 1**) on each side, and remove spindle assembly (**Figure 95, item 2**) from knuckle.



2. Remove the bearing cover (Figure 96, item 1).





- 3. Use a hex wrench to loosen the bearing shaft assembly fasteners (**Figure 96, item 2**).
- 4. Slide the bearing flange assembly (Figure 96, item 3), off the spindle shaft end (Figure 96, item 4).

Installation

1. Slide the bearing flange assembly (**Figure 97, item 1**), onto the spindle shaft end (**Figure 97, item 2**).

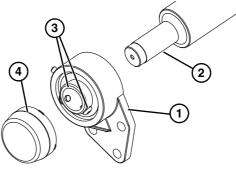
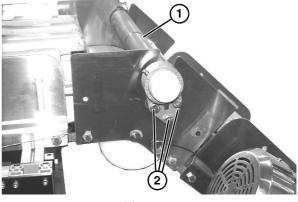


Figure 97

- 2. Use a hex wrench to tighten the bearing shaft assembly fasteners (Figure 97, item 3).
- 3. Install the bearing cover (Figure 97, item 4).
- Insert spindle assembly (Figure 98, item 1) onto knuckle, and attach with three bolts (Figure 98, item 2).



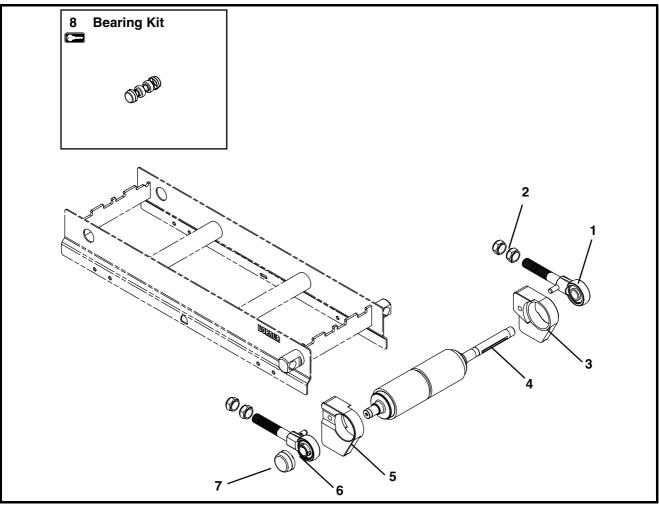


NOTES

NOTE

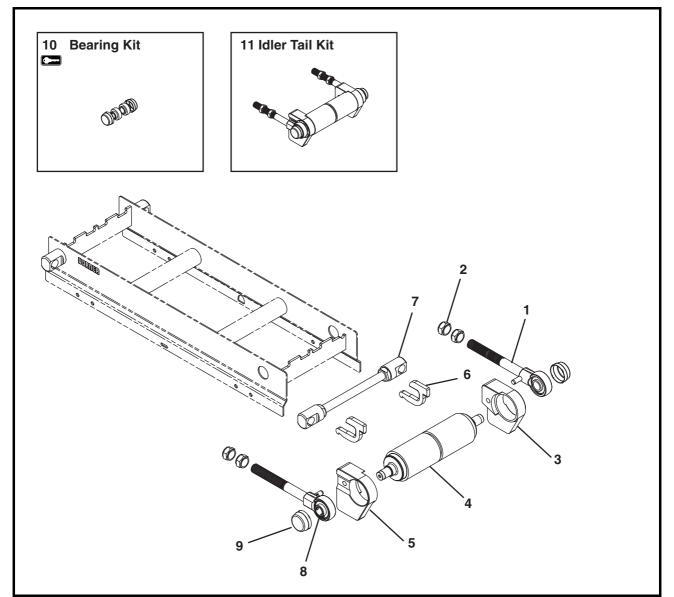
For replacement parts other than those shown in this section, contact an authorized Dorner Service Center or the factory. Key Service Parts and Kits are identified by the Performance Parts Kits logo 📼 . Dorner recommends keeping these parts on hand.

Drive End Components



Item	Part Number	Description	Item	Part Number	Description	
1 *	500892	Drive Shaft Assembly with Bearing and Cover	8	76BDK	Bearing Kit when Conveyor is ordered with a Dorner Gearmotor Mounting Package	
2	500791	Nut			(Includes Items 6 and 7)	
3	500694	Pinch Guard Right Hand		76BCK	Bearing Kit when Conveyor is ordered without a Dorner Gearmotor Mounting	
4	5291 <u>WW</u>	Drive Spindle			Package (Includes Items 6 and 7)	
5	500695	Pinch Guard Left Hand	<u>WW</u> = Conveyor width ref: 06 - 60 in 02 increments			
6	802-162	Bearing		* When the conveyor is ordered with a Dorner gearmotor mounting		
7	807-1454	Bearing Cover	packa	package a shaft assembly is replaced with a gearmotor mounting bracket.		

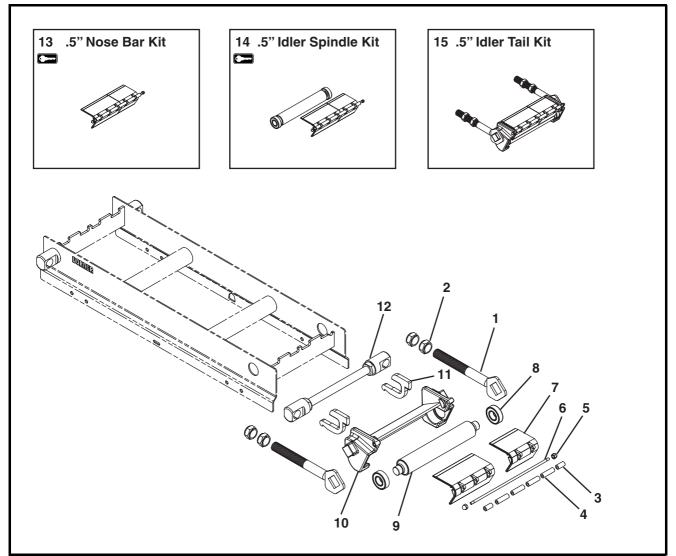
Idler End Components



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

Item	Part Number	Description	
7	5048 <u>WW</u>	Tip Up Shaft Assembly	
8	802-162	Bearing	
9	807-1454	Bearing Cover	
10	76BK- <u>WW</u>	Bearing Kit (Includes Items 8 and 9)	
11	76ST- <u>WW</u>	Idler Tail Kit (Includes Items 1 through 5)	
<u>WW</u> =	WW = Conveyor width ref: 06 - 60 in 02 increments		

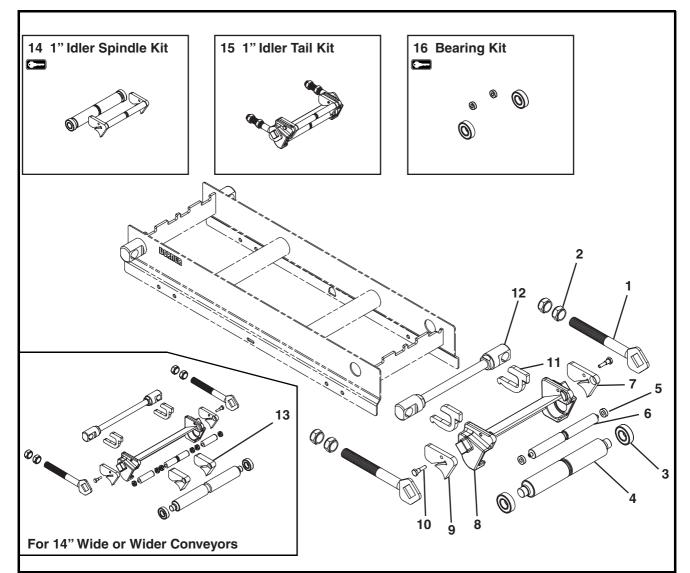
.5" Nose Bar Idler End



em	Part Number	Description	Item	Part Number	
1	500997	.5" Nose Bar Shaft Assembly	10	5092 <u>WW</u>	
2	500791	Nut	11	500675	
3	501087	Roller .5" x 1.06"	12	5048 <u>WW</u>	
4	501086	Roller .5" x 1.72"	13	76NB5- <u>WW</u>	
5	990608MSS	Acorn Nut			
6	5099 <u>WW</u>	Nose Bar Shaft	14	76NB- <u>WW</u>	
7	See Chart	Roller Mount			
8	802-164	Return Spindle Bearing	15	76NBT- <u>WW</u>	
9	5097 <u>WW</u>	.5" Nose Bar Return Spindle	<u> </u>	Conveyor width	

Item 7: Roller Mount		
Width	Part Number	
152 mm	501078	
203 mm	501077	
254 mm	501078 & 501079	
305 mm	501077 & 501079	
356 mm	501077 & 501078	
406 mm	501077 (x2)	
457 mm	501077, 501078 & 501079	
508 mm	501077 (x2) & 501079	
559 mm	501077 (x2) & 501076	
610 mm	501077 (x3)	
660 mm	501077 (x2), 501078 & 501079	
711 mm	501077 (x3) & 501079	
762 mm	501077 (x3) & 501078	
813 mm	501077 (x4)	
864 mm	501077 (x3), 501078 & 501079	
914 mm	501077 (x4) & 501079	
965 mm	501077 (x4) & 501078	
1016 mm	501077 (x5)	
1067 mm	501077 (x4), 501078 & 501079	
1118 mm	501077 (x5) & 501079	
1168 mm	501077 (x5) & 501078	
1219 mm	501077 (x6)	
1270 mm	501077 (x5), 501078 & 501079	
1321 mm	501077 (x6) & 501079	
1372 mm	501077 (x6) & 501078	
1422 mm	501077 (x7)	
1473 mm	501077 (x6), 501078 & 501079	
1524 mm	501077 (x7) & 501079	

1" Nose Bar Idler End

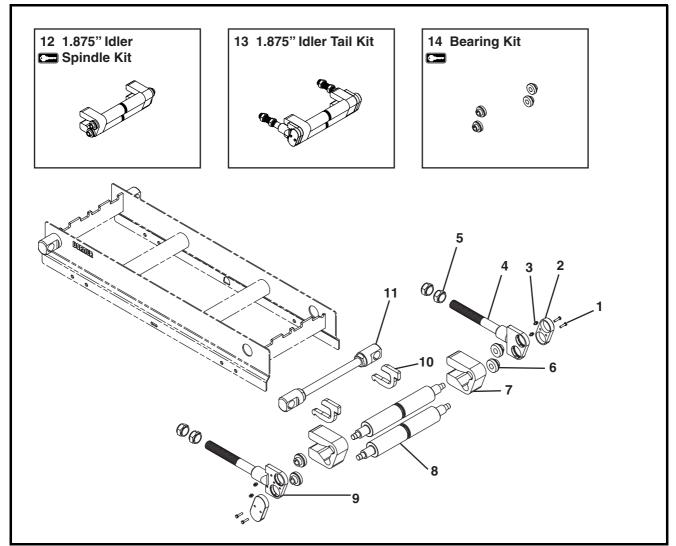


Item	Part Number	Description
1	500997	1" Nose Bar Shaft Assembly
2	500791	Nut
3	802-164	Return Spindle Bearing
4	5107 <u>WW</u>	1" Nose Bar Return Spindle
5	802-123	Nose Bar Bearing
6	See Chart	1" Nose Bar Spindle
7	500975	Nose Bar Puck Holder, Right Hand
8	5105 <u>WW</u>	1" Nose Bar Weldment Assembly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

Item	Part Number	Description	
11	500675	Key Stop	
12	5048 <u>WW</u>	Tip Up Shaft Assembly	
13	500977	Nose Bar Puck Holder, Center	
14	76NB1- <u>WW</u>	1" Idler Spindle Kit (Includes Items 3 through 7 and 9)	
15	76NBT1- <u>WW</u>	1" Idler Tail Kit (Includes Items 1 through 10)	
16	76BK1- <u>WW</u>	Bearing Kit (Includes Items 3 and 5)	
<u>WW</u> = Conveyor width ref: 06 - 60 in 02 increments			

Item 6: 1" Nose Bar Spindle		
Width	Part Number	
152 mm	505107	
203 mm	505108	
254 mm	505109	
305 mm	505110	
356 mm	505103 (x2) & 505107	
406 mm	505103 (x2) & 505108	
457 mm	505103 (x2) & 505109	
508 mm	505103 (x2) & 505110	
559 mm	505104 (x2) & 505107	
610 mm	505104 (x2) & 505108	
660 mm	505104 (x2) & 505109	
711 mm	505104 (x2) & 505110	
762 mm	505106 (x2) & 505107	
813 mm	505106 (x2) & 505108	
864 mm	505106 (x2) & 505109	
914 mm	505106 (x2) & 505110	
965 mm	505104 (x4) & 505107	
1016 mm	505104 (x4) & 505108	
1067 mm	505104 (x4) & 505109	
1118 mm	505104 (x4) & 505110	
1168 mm	505105 (x4) & 505107	
1219 mm	505105 (x4) & 505108	
1270 mm	505105 (x4) & 505109	
1321 mm	505105 (x4) & 505110	
1372 mm	505106 (x4) & 505107	
1422 mm	505106 (x4) & 505108	
1473 mm	505106 (x4) & 505109	
1524 mm	505106 (x4) & 505110	

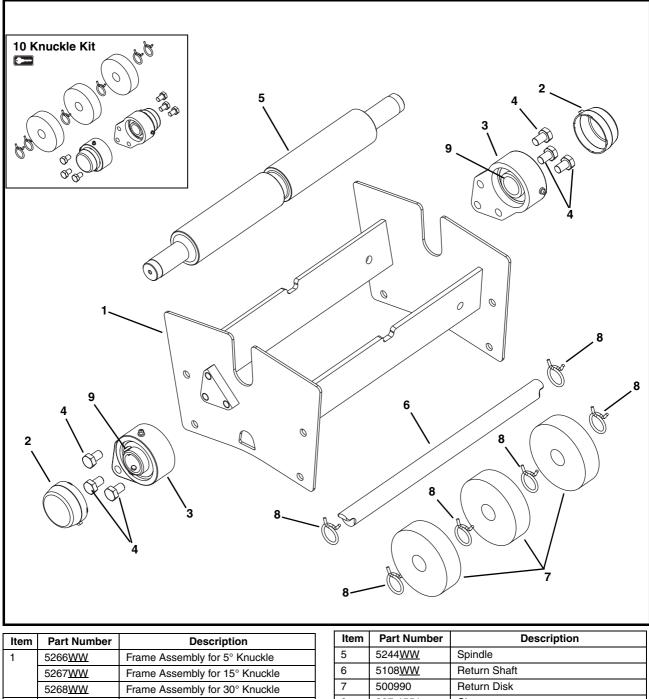
1.875" Nose Bar Idler End



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

Item	Part Number	Description
10	500675	Key Stop
11	5048 <u>WW</u>	Tip Up Shaft Assembly
12	76NB2- <u>WW</u>	1.875" Idler Spindle Kit (Includes Items 6 through 8)
13	76NBT2- <u>WW</u>	1.875" Idler Tail Kit (Includes Items 1 through 9)
14	76BK2- <u>WW</u>	Bearing Kit (Includes Item 6)
<u>WW</u> = Conveyor width ref: 06 - 60 in 02 increments		

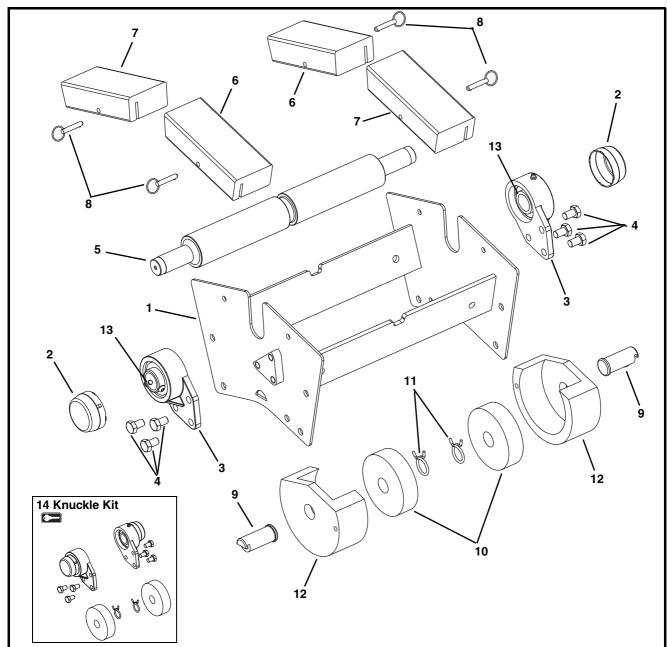
Upper Knuckle for Flat Belt Conveyors



	5267 <u>WW</u>	Frame Assembly for 15° Knuckle
	5268 <u>WW</u>	Frame Assembly for 30° Knuckle
2	807-1454	Bearing Cover
3	500288	3 Hole Flange with Bearing
4	961016MSS	Hex Head Cap Screw, M10-1.5 x 20 mm

Item	Part Number	Description
5	5244 <u>WW</u>	Spindle
6	5108 <u>WW</u>	Return Shaft
7	500990	Return Disk
8	807-1551	Clamp
9	802-162	Bearing
10	76UKBK- <u>WW</u> Upper Knuckle Kit (Includes items 2, 3, 4, 7, and 8)	
<u>WW</u> = Conveyor length ref: 06 - 24 in 02 increments		

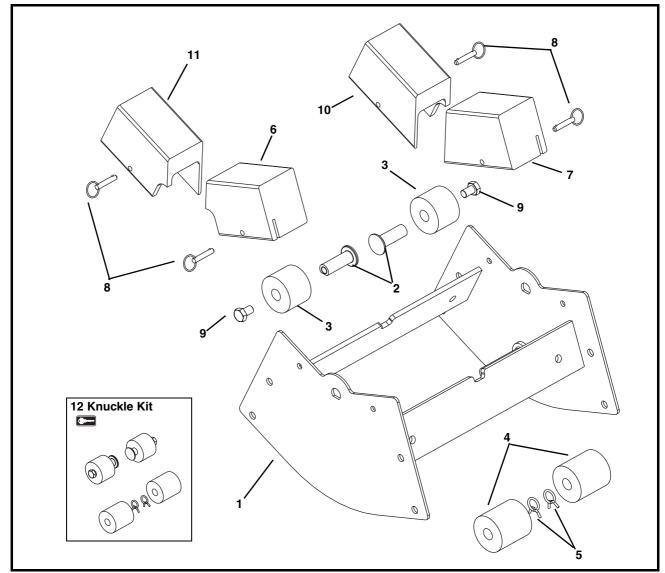
Upper Knuckle for Cleated Belt Conveyors



Item	Part Number	Description
1	5251 <u>WW</u>	Frame Assembly for 30° Knuckle
	5252 <u>WW</u>	Frame Assembly for 45° Knuckle
	5253 <u>WW</u>	Frame Assembly for 60° Knuckle
2	807-1454	Bearing Cover
3	500288	3 Hole Flange with Bearing
4	961016MSS	Hex Head Cap Screw M10-1.5 x 20 mm
5	5244 <u>WW</u>	Spindle
6	501788- <u>AA</u>	28 mm Hold Down Guide, for Knuckle Right Hand
	501787- <u>AA</u>	76 mm Hold Down Guide, for Knuckle Right Hand

Item	Part Number	Description	
7	501978- <u>AA</u>	28 mm Hold Down Guide,	
		for Knuckle Left Hand	
	501977- <u>AA</u>	76 mm Hold Down Guide,	
		for Knuckle Left Hand	
8	807-1553	Pull Pin	
9	501097	Return Shaft	
10	500990	Return Disk	
11	807-1551	Clamp	
12	501896- <u>AA</u>	Return Guards	
13	802-162	Bearing	
14	76UKBK	Upper Knuckle Kit	
		(Includes items 2, 3, 4, 10, and 11)	
<u>WW</u> =	WW = Conveyor length ref: 06 - 24 in 02 increments		
<u>AA</u> =	<u>AA</u> = Angle 30, 45 or 60		

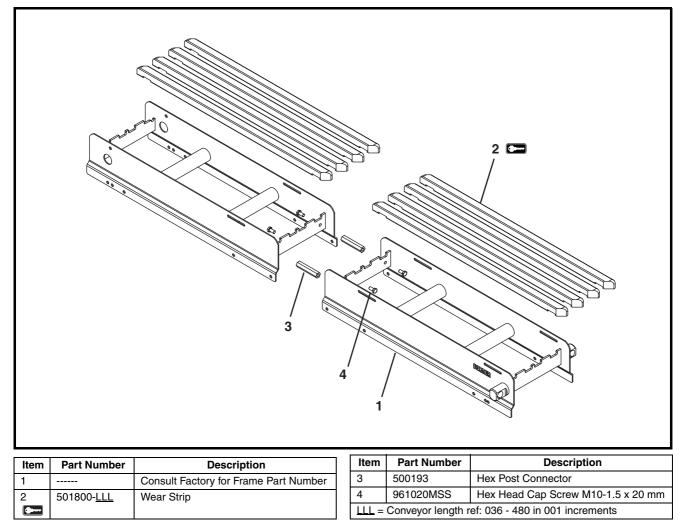
Lower Knuckle for Cleated Belt Conveyors



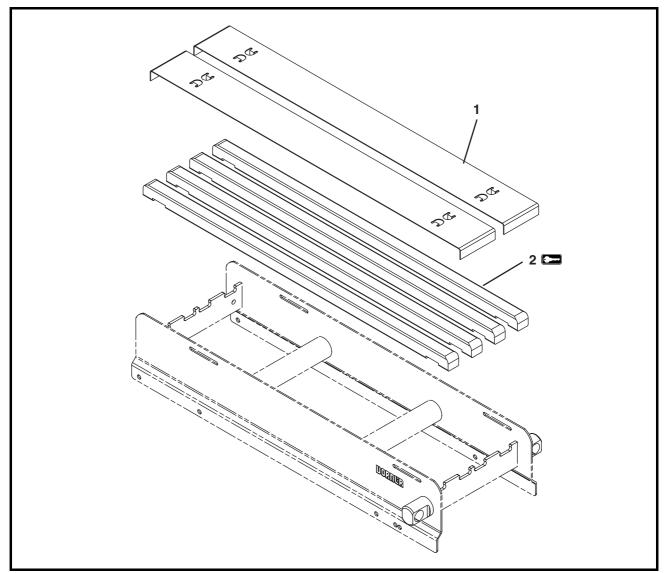
Item	Part Number	Description
1	5245 <u>WW</u>	Frame Assembly for 30° Knuckle
	5246 <u>WW</u>	Frame Assembly for 45° Knuckle
	5247 <u>WW</u>	Frame Assembly for 60° Knuckle
2	501792	Hold Down Shaft
3	801-135	Hold Down Sleeve Bearing
4	801-136	Return Sleeve Bearing
5	807-1682	Clamp
6	501795- <u>AA</u>	Hold Down Guide for Knuckle Right Hand
7	501796- <u>AA</u>	Hold Down Guide for Knuckle Left Hand
8	807-1553	Pull Pin

Item	Part Number	Description	
9	961016MSS	Hex Head Cap Screw, M10-1.5x16 mm	
10	501795-AA	Hold Down Guide for Knuckle - Right Hand Cleated Belt Only	
	501790-AA	Hold Down Guide for Knuckle - Right Hand Sidewall Cleated Belt Only	
11	501796-AA	Hold Down Guide for Knuckle - Left Hand Cleated Belt Only	
	501793-AA	Hold Down Guide for Knuckle- Left Hand Sidewall Cleated Belt Only	
12	76LKBK	Lower Knuckle Kit (Includes items 2, 3, 4, 5, and 9)	
WW = Conveyor length ref: 06 - 24 in 02 increments			
<u>AA</u> = Angle 30, 45 or 60			

Conveyor Frame and Extensions with Standard Wear Strips



Wear Strips with Stainless Steel Sheet Bed Plate



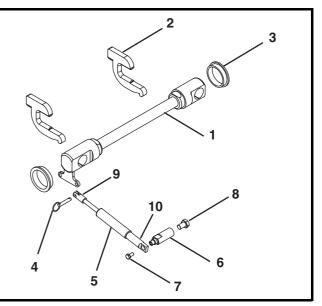
Part Number	Description		
5123 <u>WW</u> - <u>LLL</u>	Bed Plate		
501098- <u>LLL</u>	Wear Strip		
WW = Conveyor width ref: 06 - 60 in 02 increments			
LLL = Conveyor length ref: 036 - 480 in 001 increments			
	5123 <u>WW</u> - <u>LLL</u> 501098- <u>LLL</u> Conveyor width re		

Lifters

$\begin{array}{c} 2 \\ 3 \\ 4 \end{array}$

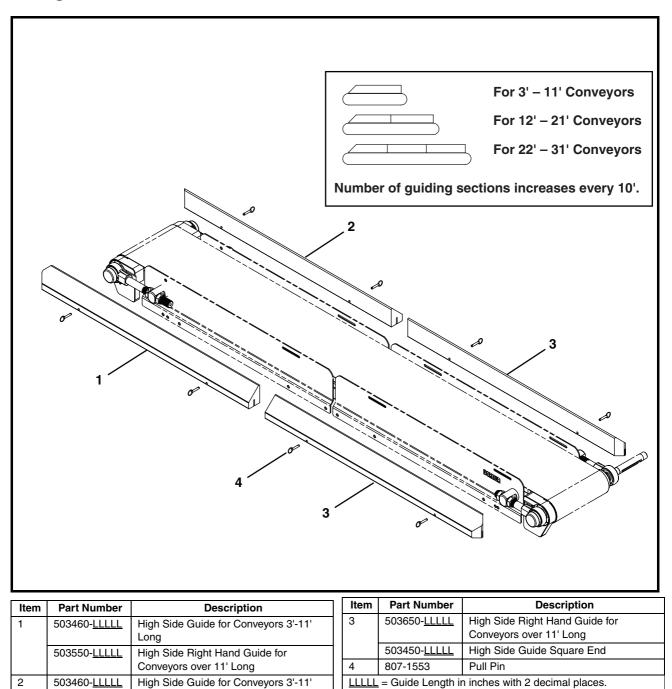
Item	Part Number	Description	
1	5121 <u>WW</u>	Belt Lifter Shaft	
2	500195	Belt Lifter	
3	500491	Belt Lifter Handle	
4 960812MSS Hex Head Cap Screw, M8-1.25 x 12 mm			
WW = Conveyor width ref: 06 - 60 in 02 increments			

Gas Assisted Tip Up



Item	Part Number	Description	
1	5049 <u>WW</u>	Gas Assist Tip Up Shaft Assembly	
2	500675	Key Stop	
3	500895	Tip Up Bushing	
4	807-1553	Pull Pin	
5	807-1562	Gas Spring 70 lb., for Standard Tails 42"-60" wide or Nose Bar Tails 18"-30" wide	
	807-1563	Gas Spring 130 lb., for Nose Bar Tails 32"-46" wide	
	807-1564	Gas Spring 160 lb., for Nose Bar Tails 48"-60" wide	
6	500794	Gas Spring Stand Off Post	
7	960616MSS	Hex Head Cap Screw, M6-1.00 x 16 mm	
8	961016MSS	Hex Head Cap Screw, M10-1.50 x 16 mm	
9	500792	Gas Spring Clevis	
10	500793	Gas Spring Eyelet	
<u>WW</u> =	Conveyor width re	ef: 06 - 60 in 02 increments	

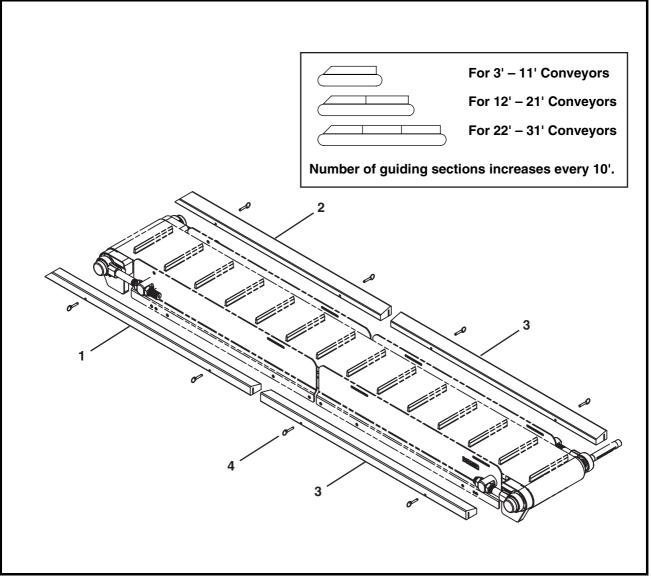
3" High Sides



Example: Guide Length = 95.25" LLLLL = 09525

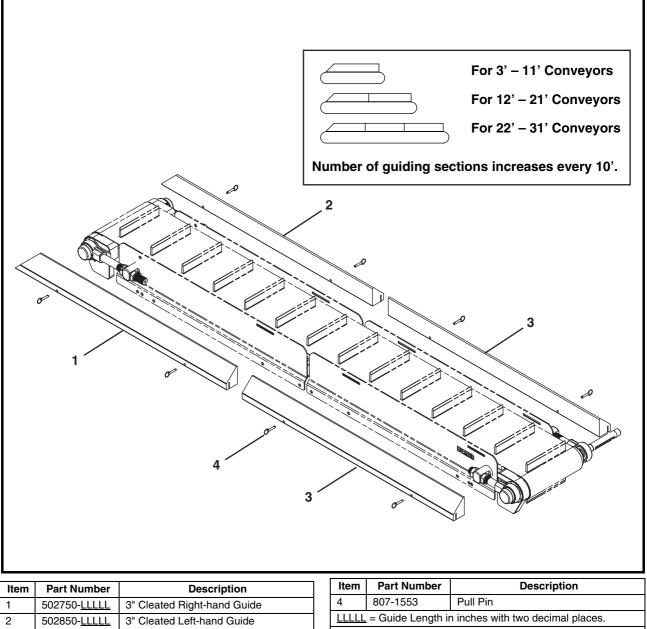
Long

1" Cleated Guides



Item	Part Number	Description	Item	Part Number	Description
1	502450- <u>LLLLL</u>	1" Cleated Right-hand Guide	4	807-1553	Pull Pin
2	502460- <u>LLLLL</u>	1" Cleated Left-hand Guide	LLLLL	_ = Guide Length i	n inches with two decimal places.
3	502350- <u>LLLLL</u>	1" Cleated Guide Square End	Exam	ple: Guide Length	= 95.25" <u>LLLLL</u> = 09525

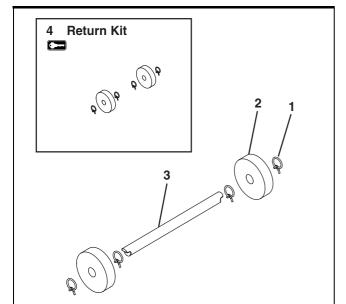
3" Cleated Guides



-		
3	502650- <u>LLLLL</u>	3" Cleated Guide Square End

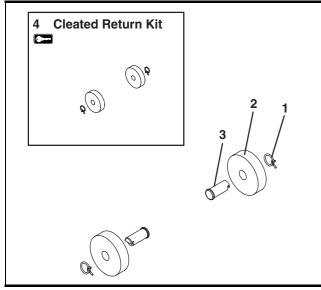
Item	Part Number	Description
4	807-1553	Pull Pin
LLLLL = Guide Length in inches with two decimal places.		
Example: Guide Length = 95.25" LLLLL = 09525		

Flat Belt Returns



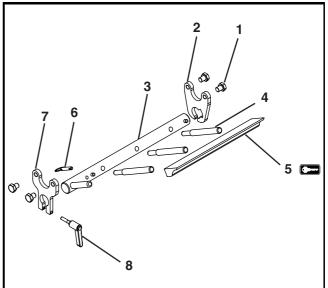
Item	Part Number	Description		
1	807-1551	Clamp		
2	500990	Return Disk		
3	5108 <u>WW</u>	Return Shaft		
4	76R- <u>WW</u>	Return Kit (Includes Items 1 and 2)		
<u>WW</u> = Conveyor width ref: 06 - 60 in 02 increments				

Cleated Belt Return



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

Scraper



Item	Part Number	Description	
1	961012MSS	Hex Head Cap Screw M10-1.50 x	
		12 mm	
2	500878	Scraper Adjust Plate	
3	5102 <u>WW</u>	Scraper Shaft Assembly	
4	500881	Scraper Holder Bar	
5	5047 <u>WW</u>	Scraper Wear Bar	
6	807-1553	Pull Pin	
7	500879	Scraper Mount Plate	
8	807-1559	Handle	
WW = Conveyor width ref: 06 - 60 in 02 increments			

Configuring Conveyor Belt Part Number

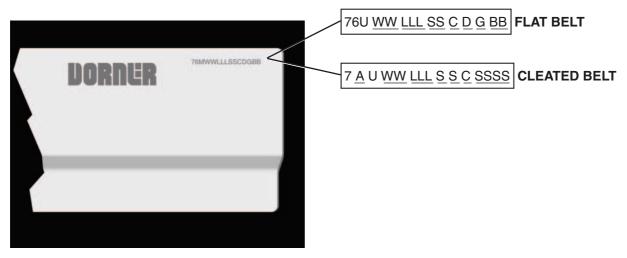
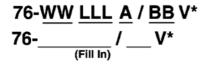


Figure 99

Flat Belt Part Number Configuration

Refer to model number on the conveyor frame (**Figure 99**). From the model number determine the conveyor width (<u>WW</u>), length (<u>LLL</u>), drive/tail types (A) and belt type (<u>BB</u>). Use data to configure belt part number as indicated below. *Add "V" for v-guided belts.



Cleated Belt Part Number Configuration

Refer to model number on the conveyor frame (**Figure 99**). From the model number determine the conveyor width (<u>WW</u>), length (<u>LLL</u>), cleat type (<u>C</u>) and cleat spacing (<u>SSSS</u>). Use data to configure belt part number as indicated below. *Add "V" for v-guided belts.

76- <u>WW</u> I	<u>_LL C</u>	<u>SSSSS</u>	V*
76		V	*
	(Fill In)		

Return Policy

Returns must have prior written factory authorization or they will not be accepted. Items that are returned to Dorner without authorization will not be credited nor returned to the original sender. When calling for authorization, please have the following information ready for the Dorner factory representative or your local distributor: 1. Name and address of customer. Dorner part number(s) of item(s) being returned. 3. Reason for return. 4. Customer's original order number used when ordering the item(s). 5. Dorner or distributor invoice number. A representative will discuss action to be taken on the returned items and provide a Returned Goods Authorization number for reference. There will be a return charge on all new undamaged items returned for credit where Dorner was not at fault. Dorner is not responsible for return freight on such items. Conveyors and conveyor accessories Standard catalog conveyors 30% MPB Series, cleated and specialty belt conveyors 50% 7400 & 7600 Series conveyors non-returnable items Engineered special products case by case Drives and accessories 30% Sanitary stand supports non-returnable items Parts Standard stock parts 30% MPB, cleated and specialty belts non-returnable items Returns will not be accepted after 60 days from original invoice date. The return charge covers inspection, cleaning, disassembly, disposal and reissuing of components to inventory. If a replacement is needed prior to evaluation of returned item, a purchase order must be issued. Credit (if any) is issued only after return and evaluation is complete.

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

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



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