



# AquaPruf<sup>®</sup> Modular Belt Conveyors

Installation, Maintenance and Parts Manual



For other service manuals visit our website at: www.dornerconveyors.com/manuals-literature

**Record Conveyor Serial Number Here** 

# **Table of Contents**

Introduction	. 3
Warnings – General Safety	. 4
Product Description	. 5
Specifications	
AquaPruf Modular Belt Conveyors	
Flat Belt End Drive Conveyors	
Cleated Belt End Drive Conveyors	
Cleated Belt LPZ Conveyors	
Conveyor Supports	. 8
Specifications	. 8
Torque Specifications	
Installation	
Required Tools	
Conveyors Longer than 3048 mm (10 ft)	
Connecting Components	
Z-Frame Conveyors	. ) 10
Upper Knuckles	10
Lower Knuckles	
Stand Installation	
Belt Installation	
Belt Returns	
Flat Belt Returns 650 mm Wide and Wider	
Cleated Belt and Flat Belt Returns	
Under 650 mm Wide	15
Guide Installation	16
Fixed Guides	
Adjustable Guides	
Drive Package Installation	
Preventive Maintenance and Adjustment	
Required Tools	
Checklist	
Cleaning	
Lubrication	
Conveyor Bearings	
Maintaining the Conveyor Belt	
Troubleshooting	
Conveyor Belt Replacement	20
Tail Height Adjustment	20
Wear Strip Replacement	21
Drive Replacement	21
Standard Drive Tail	
Nose Bar Drive Tail	
Motorized Pulley Drive Tail	
Nose Bar Drive and Idler Puck Replacement	
Idler Puck and Spindle Replacement	28
Nose Bar Idler Spindle Replacement	30
Bearing Replacement	31
Drive Tail Bearing Replacement	32
Nose Bar Drive Bearing Removal and Replacement.	
Maintenance of Knuckles	
Lower Knuckle	
Upper Knuckle	
Belt Return Maintenance	
Flat Belt Returns 650 mm Wide and Wider	34
Cleated Belt and Flat Belt Returns	25
Under 650 mm Wide	
Service Parts	
Motorized Pulley Drive Tail	38

Nose Bar Drive Tail	40
Idler Tail	42
Nose Bar Idler Tail	43
Frame Assembly	
Upper Knuckle	
Lower Knuckle	40
Connecting Assembly	4′
Belt Lifters for Standard Conveyors	48
Belt Lifters for Ultimate 3A Conveyors	
75 mm Tall UHMW High Sides	
152 mm Tall UHMW High Sides	52
Fully Adjustable Round Guides	54
Tool-Less Fully Adjustable Round Guides	5:
75 mm Tall Stainless Steel High Sides	
152 mm Tall Stainless Steel High Sides	5
Flat Belt Returns 650 mm Wide and Wider	60
Cleated Belt and Flat Belt Returns	
Under 650 mm Wide	6
Ordering a Replacement Chain	62
Flat Belt Chain Repair Kit	
Cleated Belt Chain Repair Kit	
Notes	
Return Policy	

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

Dorner has convenient, pre-configured kits of Critical 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. Recommended Critical Service Parts and Kits are marked in the Service Parts section of this manual with the Key Service Parts symbol

# Warnings – General Safety

# **WARNING**

The safety alert symbol, black triangle with white exclamation, is used to alert you to potential personal injury hazards.

# **A** DANGER



#### **SEVERE HAZARD!**

KEEP OFF CONVEYORS. Climbing, sitting, walking or riding on conveyor will result in death or serious injury.

# **WARNING**



#### SEVERE HAZARD!

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

# **▲** WARNING



#### **BURN HAZARD!**

DO NOT TOUCH the motor while operating, or shortly after being turned off. Motors may be HOT and can cause serious burn injuries.

# **WARNING**



#### **PUNCTURE HAZARD!**

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

# DANGER



#### **EXPLOSION HAZARD!**

- DO NOT OPERATE CONVEYORS IN AN EXPLOSIVE ENVIRONMENT. The electric gearmotor generates heat and could ignite combustible vapors.
- Failure to comply will result in death or serious injury.

# **WARNING**



#### **CRUSH HAZARD!**

- DO NOT place hands or fingers inside the conveyor while it is running.
- DO NOT wear loose garments while operating the conveyor. Loose garments can become caught up in the conveyor.
- Failure to comply could result in serious injury.

# ♠ WARNING



#### **CRUSH HAZARD!**

- SUPPORT CONVEYOR SECTIONS PRIOR TO LOOSENING STAND HEIGHT OR ANGLE ADJUSTMENT SCREWS.
- Loosening stand height or angle adjustment screws may cause conveyor sections to drop down, causing serious injury.

# WARNING



#### **SEVERE HAZARD!**

- Dorner cannot control the physical installation and application of conveyors. Taking protective measures is the responsibility of the user.
- When conveyors are used in conjunction with other equipment or as part of a multiple conveyor system, CHECK FOR POTENTIAL PINCH POINTS and other mechanical hazards before system start-up.
- Failure to comply could result in serious injury.

# **Product Description**

Refer to (Figure 1) for typical conveyor components.

- 1 Conveyor
- 2 Guides (If Equipped)
- 3 Belt
- 4 Support Stands
- 5 Controller
- 6 Drive End
- 7 Idler End
- 8 Gearmotor

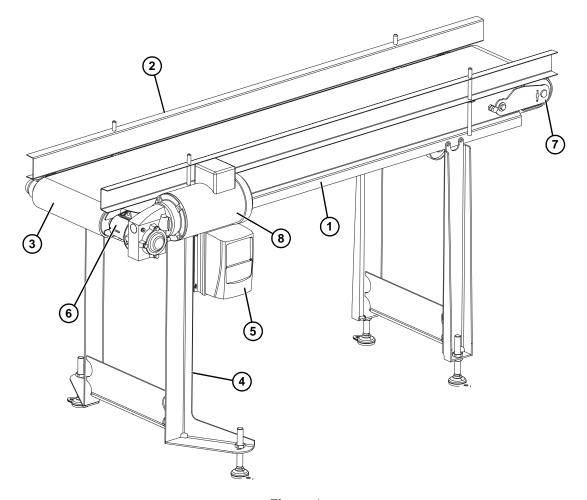
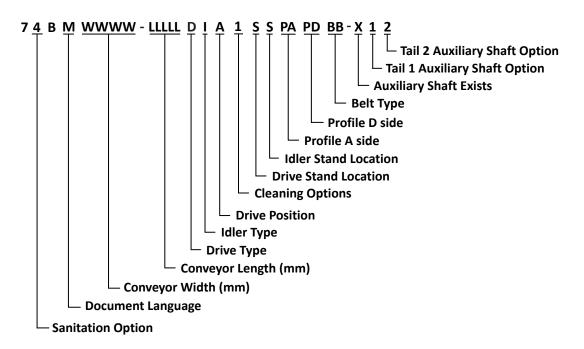


Figure 1

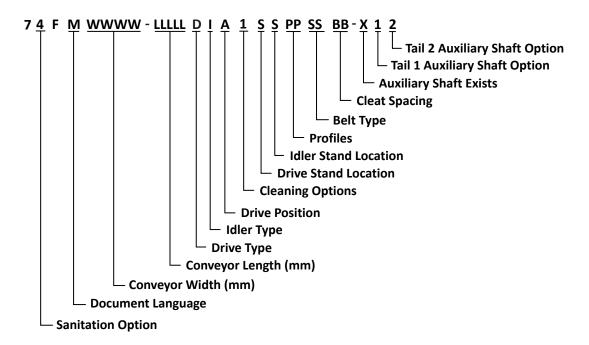
# **Specifications**

# **AquaPruf Modular Belt Conveyors**

# **Flat Belt End Drive Conveyors**

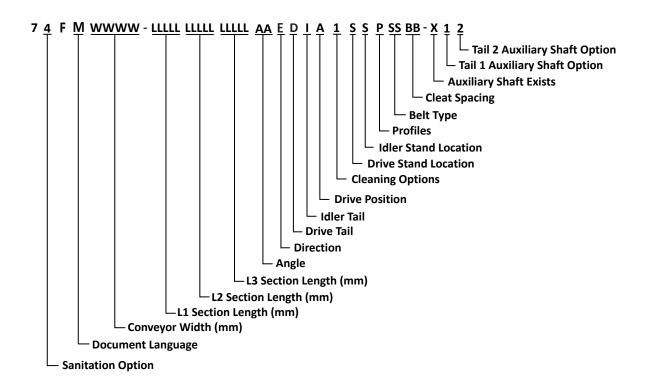


# **Cleated Belt End Drive Conveyors**



# **Specifications**

# **Cleated Belt LPZ Conveyors**

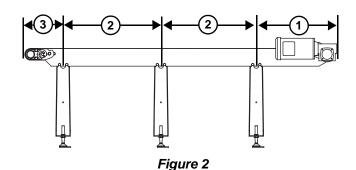


# **Specifications**

# **Conveyor Supports**

#### **Maximum Distances:**

- 1 = Support Stand on Drive End = 610 mm (24")
- 2 = Between Support Stands = 2997 mm (118")\*\*
- 3 = Support Stand on Idler End = 762 mm (30")
- \*\* For conveyors longer than 3048 mm (10 ft), install stand mount kit at frame joint.



# **Specifications**

Conveyor Width Reference ( <u>WWWW</u> )	0150, 0200, 0250, 0300, 0350, 0400, 0450, 0500, 0550, 0600, 0650, 0700, 0750, 0800, 0850, 0900, 0950, 1000, 1050, 1100, 1150, 1200
Conveyor Belt Width	150 mm (5.9"), 200 mm (7.9"), 250 mm (9.8"), 300 mm (11.8"), 350 mm (13.8"), 400 mm (15.8"), 450 mm (17.7"), 500 mm (19.7"), 550 mm (21.7"), 600 mm (23.6"), 650 mm (25.6"), 700 mm (27.6"), 750 mm (29.5"), 800 mm (31.5"), 850 mm (33.5"), 900 mm (35.4"), 950 mm (37.4"), 1000 mm (39.4"), 1050 mm (41.3"), 1100 mm (43.3"), 1150 mm (45.3"), 1200 mm (47.2")
Maximum Conveyor Load (See NOTE Below)	98 kg/ m <sup>2</sup> (20 lbs. / ft <sup>2</sup> ) with a maximum of 340 kg (750 lbs.)
Belt Travel	305 mm (12") per revolution of pulley
Maximum Belt Speed	79 m/minute (260 ft/minute)
Conveyor Length Reference (LLLLL)	0915 – 12190 in 00005 increments
Conveyor Length	915 mm (36") - 12190 mm (480") in 5 mm (.20") increments

LPZ Section Width	200 mm (7.9"), 250 mm (9.8"), 300 mm (11.8"), 350 mm (13.8"), 400 mm (15.8"), 450 mm (17.7"), 500 mm (19.7"), 550 mm (21.7"), 600 mm (23.6")
LPZ Section Length	610 mm (24") - 6100 mm (240") in 5 mm (.20") increments
Total LPZ Conveyor Length	L1 + L2 + L3 = Maximum 12190 mm (480") 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

# **Torque Specifications**

	Flat Head		Socket Head		Button/Low Head		Set Screw	
	Size	Torque	Size	Torque	Size	Torque	Size	Torque
M4 x 0.7	2.5 mm	3.4 Nm (30 in lbs)	3 mm	5.9 Nm (52 in lbs)	2.5 mm	2.9 Nm (26 in lbs)	2 mm	2.1 Nm (19 in lbs)
M5 x 0.8	3 mm	6.9 Nm (61 in lbs)	4 mm	12.0 Nm (106 in lbs)	3 mm	5.9 Nm (52 in lbs)	2.5 mm	4.7 Nm (42 in lbs)
M6 x 1.0	4 mm	12.0 Nm (106 in lbs)	5 mm	20.3 Nm (180 in lbs)	4 mm	10.0 Nm (89 in lbs)	3 mm	7.7 Nm (68 in lbs)
M8 x 1.25	5 mm	28.0 Nm (248 in lbs)	6 mm	48.8 Nm (432 in lbs)	5 mm	24.0 Nm (212 in lbs)	4 mm	17.8 Nm (158 in lbs)
M10 x 1.5	6 mm	56.0 Nm (496 in lbs)	8 mm	97.5 Nm (863 in lbs)	6 mm	48.0 Nm (425 in lbs)	5 mm	35.0 Nm (310 in lbs)

# **A** CAUTION

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

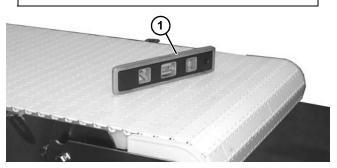


Figure 3

# **Required Tools**

- Level
- · Torque wrench
- 5/32" hex wrench
- 6 mm hex wrench
- 8 mm hex wrench
- 10 mm wrench
- · 13 mm wrench
- 14 mm wrench
- 17 mm wrench
- 19 mm wrench
- Punch and hammer (to install belt rod)

# Recommended Installation Sequence

- 1. Assemble the conveyor (if required). Refer to "Conveyors Longer than 3048 mm (10 ft)" on page 9.
- 2. Attach the stands. Refer to "Stand Installation" on page 12.
- 3. Install the belt. Refer to "Belt Installation" on page 12.
- 4. Install the gearmotor. Refer to "Drive Package Installation" on page 17.

# **NOTE**

For 3-A compliance, a conveyor cover or shield must be installed over the conveyor that is easily cleaned, self-draining, and located to prevent liquid or other contaminants from draining or dropping into the container or product, or onto the conveyor belt. Multiple covers can be used if necessary, with overlapping edges. Cover(s) should be fabricated from stainless steel or FDA certified plastic material, and the bottom of the cover(s) must be smooth, with no crevices or exposed threads.

# Conveyors Longer than 3048 mm (10 ft)

# **Connecting Components**

Typical connecting components (Figure 4).

- I Connector (x2)
- 2 Hex Head Cap Screw (x8)
- 3 Conveyor Frame Sections

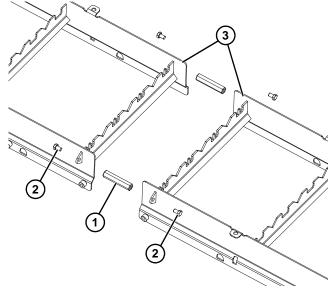


Figure 4

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

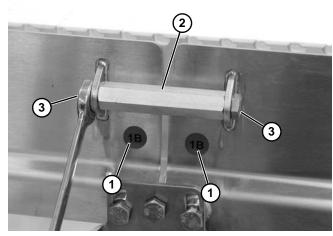


Figure 5

2. Join both conveyor frame sections and install connector (Figure 5, item 2) with two screws (Figure 5, item 3). Repeat on opposite side. Tighten screws 28-32 Nm (20-24 ft-lbs).

# **Z-Frame Conveyors**

## **NOTE**

Be sure all frame sections are properly supported during *Z-Frame* assembly.

# **Upper Knuckles**

Typical upper knuckle components (Figure 6).

- 1 Connector (x4)
- 2 Hex Head Cap Screw (x8)
- 3 Upper Knuckle Assembly

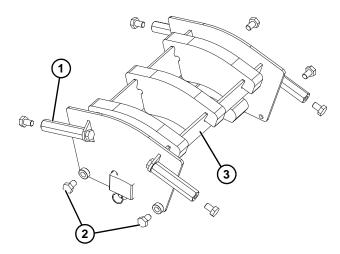


Figure 6

 Attach upper knuckle (Figure 7, item 1) to frame using two screws (Figure 7, item 2) and a connector (Figure 7, item 3) on each side of the upper knuckle assembly.

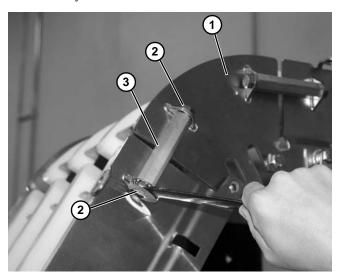


Figure 7

 Install spacer (Figure 8, item 1) between frame (Figure 8, item 2) and upper knuckle plate (Figure 8, item 3). Secure with screw (Figure 8, item 4).

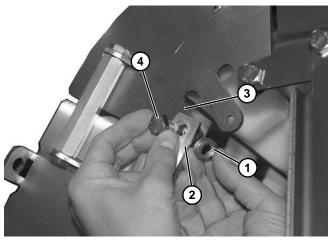


Figure 8

3. Tighten all screws (**Figure 9, item 1)** to 28-32 Nm (20-24 ft-lbs).

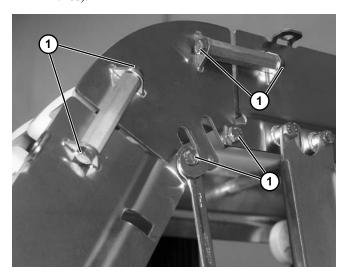


Figure 9

## **Lower Knuckles**

Typical lower knuckle components (Figure 10).

- 1 Connector (x4)
- 2 Hex Head Cap Screw (x8)
- 3 Lower Knuckle Assembly

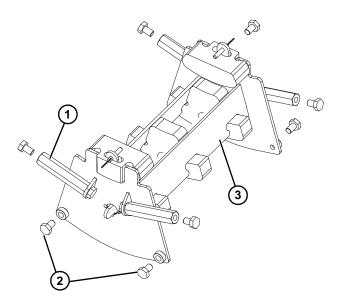


Figure 10

1. Attach lower knuckle (Figure 11, item 1) to frame using two screws (Figure 11, item 2) and a connector (Figure 11, item 3) on each side of the upper knuckle assembly.

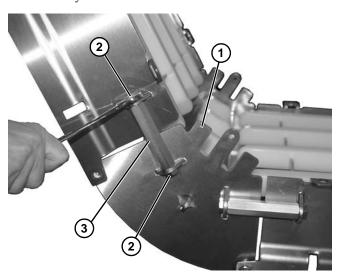


Figure 11

 Install spacer (Figure 12, item 1) between frame (Figure 12, item 2) and lower knuckle plate (Figure 12, item 3). Secure with screw (Figure 12, item 4).

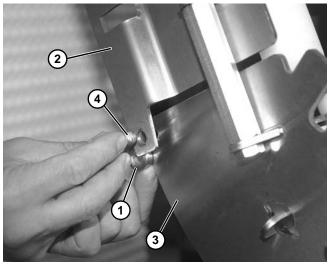


Figure 12

3. Tighten all screws **(Figure 13, item 1)** to 28-32 Nm (20-24 ft-lbs).

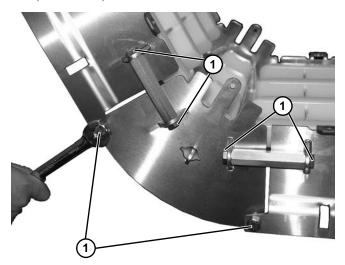


Figure 13

# **Stand Installation**

## **NOTE**

For detailed assembly instructions, please see support stand manual 851-948.

Typical stand components (Figure 14).

- 1 Conveyor Frame
- 2 Stand
- 3 Screw (x4)

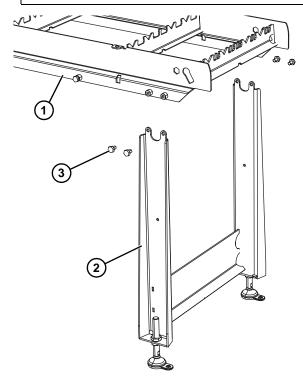


Figure 14

- 1. Position the stands on a flat, level surface.
- 2. Attach the stands (**Figure 15, item 1**) to the frame. Tighten screws to 28-32 Nm (20-24 ft-lbs).

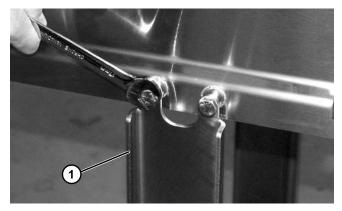


Figure 15

# **Belt Installation**

Typical belt components (Figure 16).

- 1 Chain Belt
- 2 Belt Rod

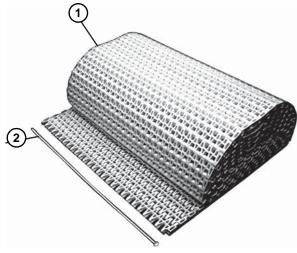


Figure 16

1. Position the belt on the conveyor frame (Figure 17).



Figure 17

- 2. Wrap belt around idler tail.
- 3. Wrap the belt (Figure 18, item 1) around the drive end (Figure 18, item 2) of the conveyor.



Figure 18

4. Make sure that the sprocket teeth have engaged the belt, with concave teeth (Figure 19, item 1) mating with rounded section (Figure 19, item 2) of belt and drive teeth (Figure 19, item 3) mating with flat surface (Figure 19, item 4) of belt.

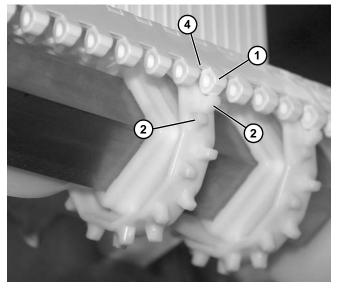


Figure 19

5. For Z-Frame conveyors, guide the belt under the return shoes (**Figure 20**, **item 1**) in the lower knuckles.

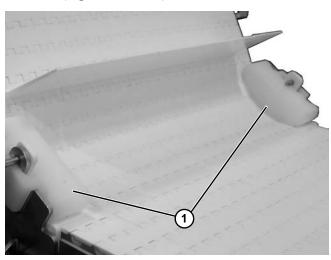


Figure 20

6. For Z-Frame conveyors, remove pull pin (Figure 21, item 1) and return shoe (Figure 22, item 1) on each side of upper knuckle. Guide the belt (Figure 22, item 2) under the return shoes and install each return shoe with pull pin.

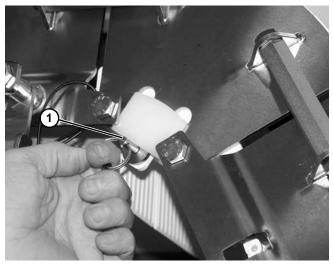


Figure 21

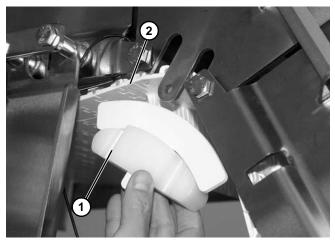


Figure 22

7. Bring the ends of the belt together (Figure 23).

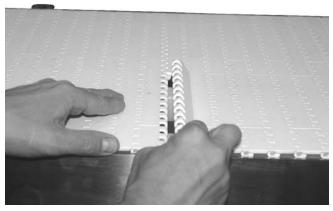


Figure 23

8. Insert the belt rod (Figure 24, item 1).

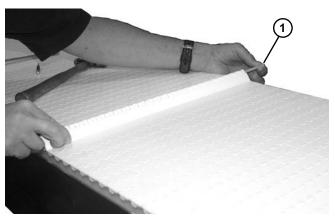


Figure 24

- 9. Push the belt rod in as far as possible.
- 10. Lightly tap the head of the rod with a hammer and punch (Figure 25, item 1) until it snaps into position.



Figure 25

## **Belt Returns**

#### Flat Belt Returns 650 mm Wide and Wider

Typical flat return components (Figure 26).

- 1 Shaft
- 2 Retaining Plate
- 3 Puck

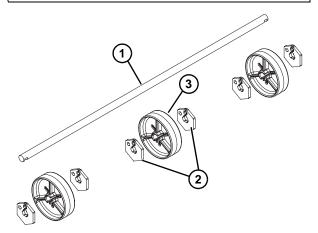


Figure 26

- 1. Install pucks with retainer plates on both sides.
  - a. Insert an 8 mm (Figure 27, item 1) and 6 mm (Figure 27, item 2) hex wrench into the retainer plate.

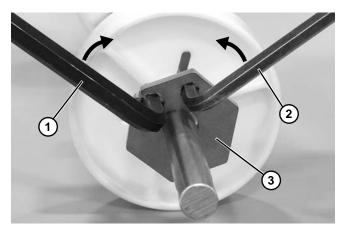


Figure 27

b. Move wrenches toward each other to open the retainer plate (**Figure 27, item 3**) and install onto the shaft. Position retainer plate where needed.

c. To lock the retainer plate (Figure 28, item 1) in place, move the wrenches (Figure 28, item 2) away from each other.

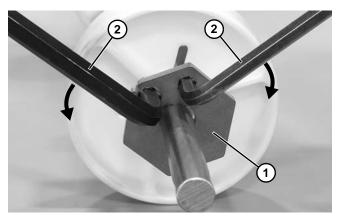


Figure 28

2. Repeat step 1 as needed.

## **NOTE**

When assembling pucks (Figure 29, item 1) with retainer plates (Figure 29, item 2), make certain that there is a minimum of 38 mm (1.5") of clearance (Figure 29, item 3) on each end.

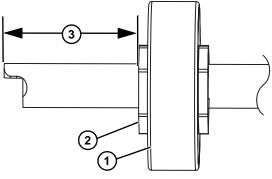


Figure 29

3. Install belt return assembly (Figure 30, item 1) onto the slotted holes (Figure 30, item 2) on each side of conveyor frame.

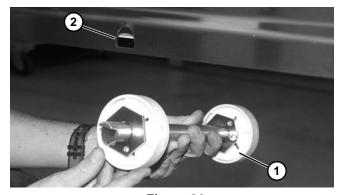


Figure 30

4. Check belt sag by measuring from the bottom of conveyor frame (**Figure 31**). Belt sag should not exceed 2" (51 mm).

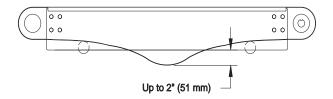


Figure 31

# **CAUTION**

Belt sag should not exceed 2" (51 mm) from the bottom of the conveyor frame.

# Cleated Belt and Flat Belt Returns Under 650 mm Wide

Typical return components (Figure 32).

- 1 Spacer
- 2 Puck
- 3 Stub Shaft
- 4 O-Ring

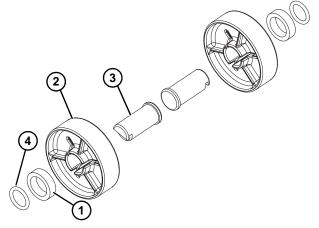


Figure 32

Insert the notched end of the return shaft
 (Figure 33, item 1) through the small hole
 (Figure 33, item 2) in the inside of the conveyor frame.

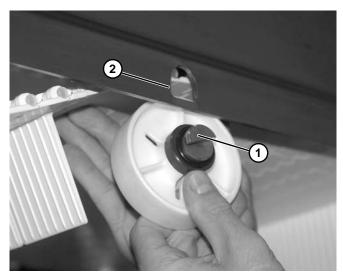


Figure 33

- 2. Repeat the procedure for all other belt returns.
- 3. Check belt sag by measuring from the bottom of conveyor frame (Figure 34). Belt sag should not exceed 2" (51 mm).

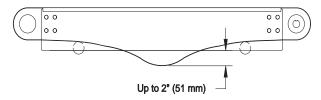


Figure 34

# **A** CAUTION

Belt sag should not exceed 2" (51 mm) from the bottom of the conveyor frame.

## **Guide Installation**

#### **Fixed Guides**

1. Install guide post (Figure 35, item 1) through conveyor side frame tab (Figure 35, item 2), making sure slotted portion (Figure 35, item 3) of post is fully seated into the bottom (Figure 35, item 4) of frame. Tap to lock in place.

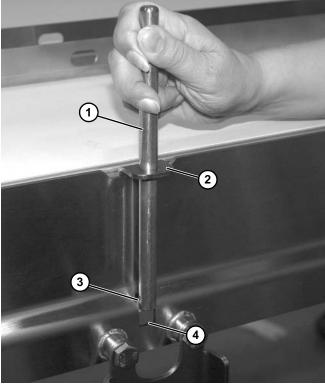


Figure 35

- Repeat for remaining guide posts required for your conveyor size.
- 3. Install guide (Figure 36, item 1) onto the guide posts (Figure 36, item 2).

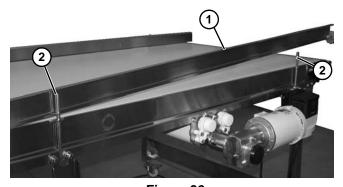


Figure 36

## **NOTE**

For UHMW guides, install guides with horizontal side (Figure 37, item 1) down.

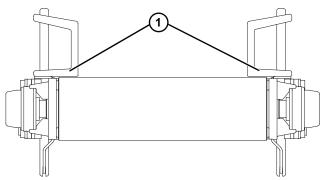


Figure 37

# **NOTE**

To remove guide posts, tap from underneath with a hammer to release from conveyor frame (Figure 38).

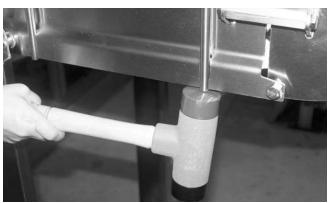


Figure 38

4. Repeat on the opposite side of conveyor.

#### **Adjustable Guides**

 Install guide rail (Figure 39, item 1) onto brackets (Figure 39, item 2). Tighten screw (Figure 39, item 3) to secure.

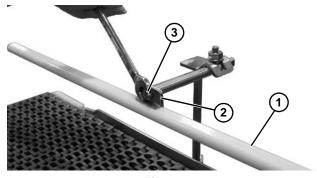


Figure 39

2. Loosen nut (Figure 40, item 1), and adjust the guide post (Figure 40, item 2) height, as needed. Tighten nut.

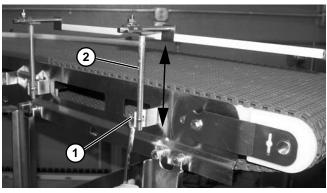


Figure 40

3. Loosen nut (Figure 41, item 1), and adjust the horizontal guide post (Figure 41, item 2) and guide rail, as needed. Tighten nut.

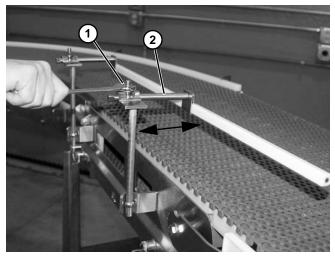


Figure 41

4. Repeat, as needed for remaining guiding brackets.

# **Drive Package Installation**

#### **NOTE**

For detailed assembly instructions, please see drive packages manual 851-947.

# **Required Tools**

- 1/8" hex wrench
- 3/8" wrench
- · 4 mm hex wrench
- 5 mm hex wrench
- 6 mm hex wrench
- 8 mm hex wrench
- · 10 mm wrench
- 13 mm wrench
- Punch and hammer (to remove belt rod)
- · Flat head screwdriver

#### Checklist

- Keep critical service parts on hand. Refer to the "Service Parts" section starting on page 36 for recommendations.
- · Replace any worn or damaged parts.

# Cleaning

For detailed cleaning instructions, refer to the 851-950 AquaPruf Cleaning manual.

#### NOTE

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

# **A** CAUTION

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





#### **SEVERE HAZARD!**

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

## 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.

Add grease to the bearing using the zerk fitting (Figure 42, item 1) on the exterior of the motor mount.

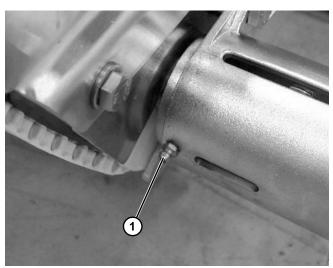


Figure 42

2. Replace the bearings if they become worn.

# **Maintaining the Conveyor Belt**

# **Troubleshooting**

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**

# **WARNING**



#### **SEVERE HAZARD!**

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

1. Remove guides (Figure 43, item 1) when required.

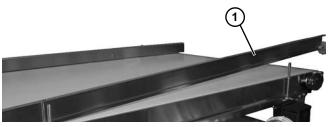


Figure 43

2. Remove belt returns (**Figure 44, item 1**) from slotted holes (**Figure 44, item 2**) on each side of conveyor frame at location you are separating belt.

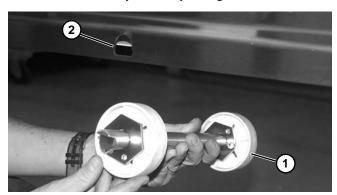


Figure 44

3. Rotate idler end (Figure 45, item 1) upward as shown.

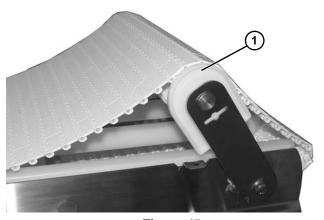


Figure 45

4. Use a punch and hammer to push the belt rod out by striking the rod end opposite the retaining head (Figure 46).



Figure 46

5. Remove the belt rod (**Figure 47**, **item 1**) and slide the old belt off the conveyor frame.



Figure 47

6. Replace the old belt with a new one. Refer to "Belt Installation" on page 12.

# **A** CAUTION

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

# **Conveyor Belt Tensioning**





#### **SEVERE HAZARD!**

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

#### NOTE

Belt should not be stretched during 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.

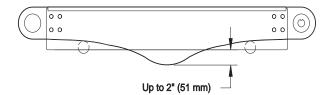


Figure 48

# **A** CAUTION

Belt sag should not exceed 2" (51 mm) from the bottom of the conveyor frame (Figure 48).

# **Tail Height Adjustment**

# **▲** WARNING

#### SEVERE HAZARD!

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

- 1. To adjust tail height, rotate idler tail:
- Rotate idler end so that hex bar (Figure 49, item 1) fits into notched area (Figure 49, item 2).
- Adjust dimpled side (Figure 49, item 3) of hex bar into one of four locations (Figure 49, item 4) (labeled 1-4 on conveyor).

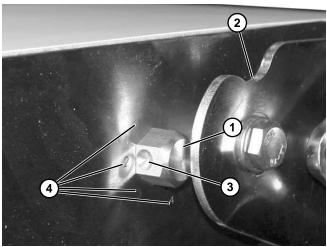


Figure 49

#### NOTE

Each rotation of hex bar is approximately 2.5 mm (0.10") of elevation change of tail. The elevation of change of tail is as follows (Figure 49):

- Dimple at position labeled 4 = TAIL AT HIGHEST
- Dimple at position labeled 1 = TAIL AT LOWEST
- Rotate idler tail (Figure 50, item 1) up as shown. Pull out and rotate dimpled end of hex bar (Figure 50, item 2) into one of four locations (Figure 50, item 3) marked on the side of conveyor frame.

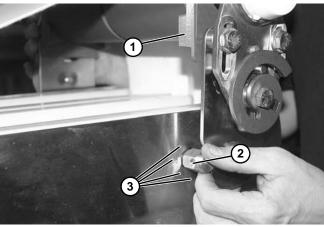


Figure 50

3. Lower idler end and verify proper adjustment.

# **Wear Strip Replacement**

Replace the wear strips if they become worn. Typical standard wear strips (Figure 51).

#### 1 Wear Strips

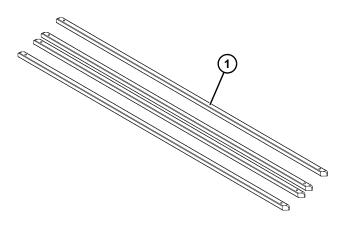


Figure 51

- 1. Remove conveyor belt. Refer to "Conveyor Belt Replacement" on page 19.
- 2. Remove worn wear strips (**Figure 52**, **item 1**) from the frame notches.

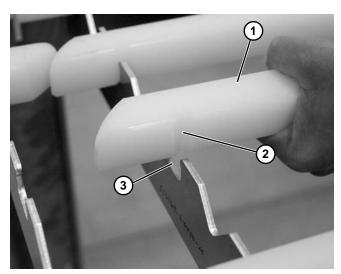


Figure 52

3. Attach new wear strips by installing with the rounded slot (Figure 52, item 2) in wearstrip into the slot (Figure 52, item 3) on the crossmember.

## **NOTE**

Verify that all wearstrips are installed with curved ends (Figure 53, item 1) in the direction of travel (Figure 53).

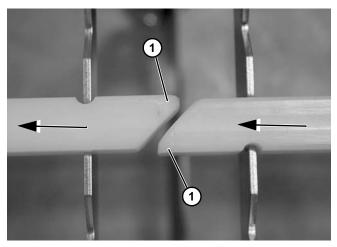


Figure 53

# **Drive Replacement**



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



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

## **Standard Drive Tail**

1. Loosen the four screws (Figure 54, item 1). Rotate and remove the gearmotor. (For further detailed instructions, refer to drive package manual 851-947.)



Figure 54

- Open conveyor belt. Refer to "Conveyor Belt Replacement" on page 19.
- 3. Remove the headplate screws (**Figure 55**, **item 1**) on both sides of the conveyor.

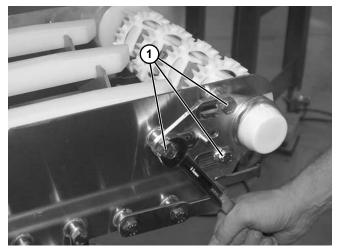


Figure 55

4. Remove drive tail assembly (Figure 56, item 1).

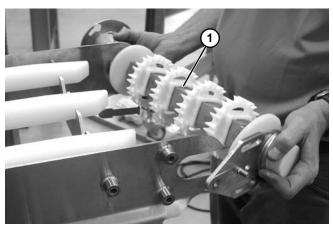


Figure 56

5. Remove bearing cover (Figure 57, item 1).

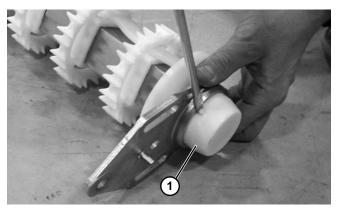


Figure 57

6. Loosen two set screws (Figure 58, item 1).

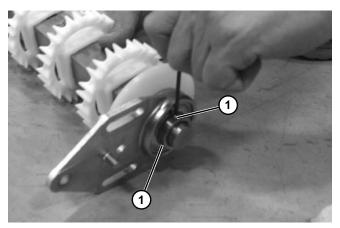


Figure 58

7. Slide the headplate with bearing (Figure 59, item 1) off the shaft. Replace bearing if worn. Refer to "Bearing Replacement" on page 31.

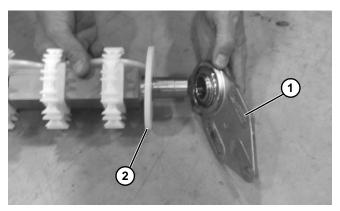


Figure 59

- 8. Remove guard puck (**Figure 59, item 2**) from end of drive spindle.
- Slide entire sprocket assembly slightly outward, and remove the first sprocket (Figure 60, item 1) off the drive spindle and alignment key (Figure 60, item 2).

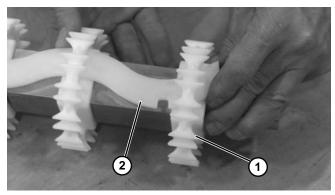


Figure 60

10. Remove remaining sprockets (**Figure 61, item 1**) off the alignment key (**Figure 61, item 2**) while sliding the entire assembly off the drive spindle (**Figure 61, item 3**).

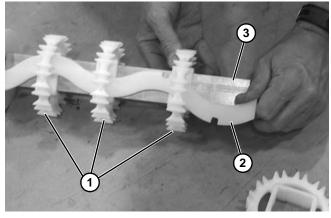


Figure 61

11. Replace components, as needed (Figure 62).

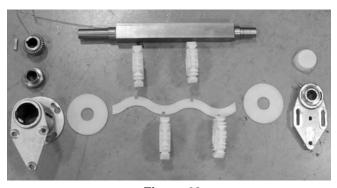


Figure 62

12. Install parts in reverse order of removal.

#### NOTE

To reassemble please note the placement of the sprockets on the alignment key.

#### **Nose Bar Drive Tail**

1. Loosen the four screws (Figure 63, item 1). Rotate and remove the gearmotor. (For further detailed instructions, refer to drive package manual 851-947.)

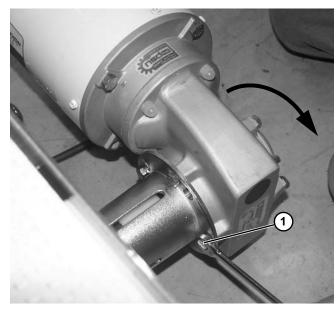


Figure 63

2. Open conveyor belt. Refer to "Conveyor Belt Replacement" on page 19.

3. Using a hex key wrench through slotted access (Figure 64, item 1) of motor mount, loosen two set screws (Figure 64, item 2) from the center drive gear.

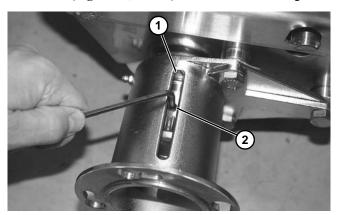


Figure 64

4. Remove drive gear (Figure 65, item 1) and key (Figure 65, item 2) from the center drive shaft.

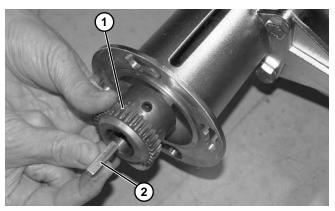


Figure 65

 Using a hex key wrench through slotted access (Figure 66, item 1) of motor mount, loosen two set screws (Figure 66, item 2) securing bearing onto drive spindle.

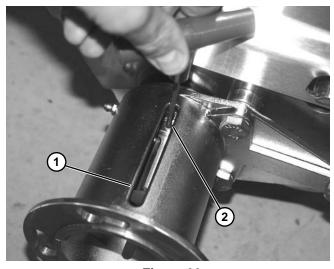


Figure 66

6. Loosen three screws (**Figure 67, item 1**) securing motor mount onto side plate.

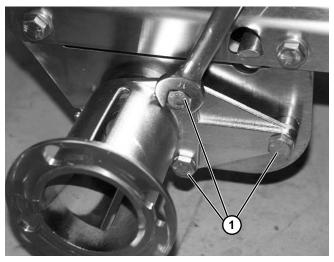


Figure 67

7. Remove two screws (Figure 68, item 1) and spacers (Figure 68, item 2) from motor mount.

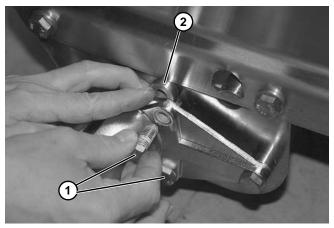


Figure 68

8. Remove remaining screw (Figure 69, item 1) securing motor mount (Figure 69, item 2) onto side plate (Figure 69, item 3).

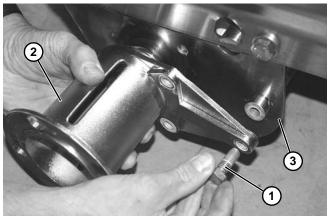


Figure 69

9. Remove motor mount (Figure 70, item 1) from side plate (Figure 70, item 2).

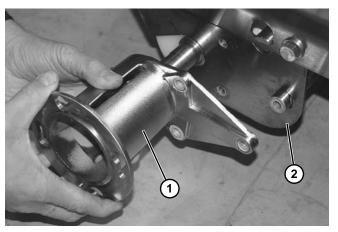


Figure 70

- 10. Remove bearing from motor mount (**Figure 70, item 1**). (See "Bearing Replacement" on page 31".)
- 11. On opposite side, remove bearing cap (Figure 71, item 1).



Figure 71

12. Using a hex key wrench, loosen two set screws (Figure 72, item 1) on bearing.

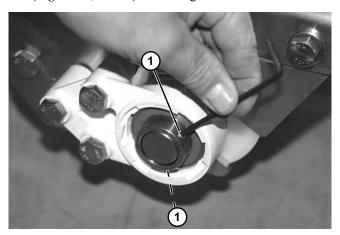


Figure 72

13. Remove three screws (**Figure 73, item 1**) securing bearing housing onto conveyor frame.

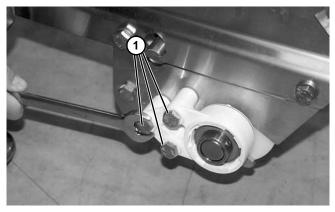


Figure 73

14. Remove bearing housing (Figure 74, item 1) from frame and spindle shaft (Figure 74, item 2).

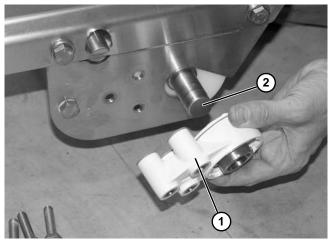


Figure 74

15. Remove drive spindle assembly (Figure 75, item 1) from side plates (Figure 75, item 2).

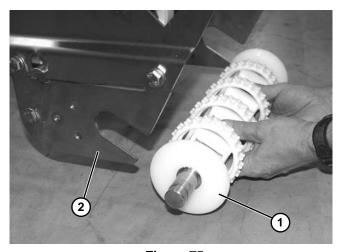


Figure 75

16. Remove guard puck (**Figure 76**, **item 1**) from both ends of drive spindle.

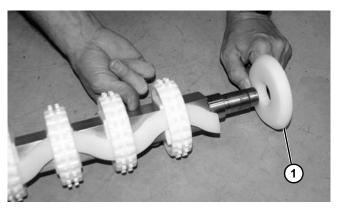


Figure 76

17. Slide entire sprocket assembly slightly outward, and remove the first sprocket (Figure 77, item 1) off the drive spindle and alignment key (Figure 77, item 2).

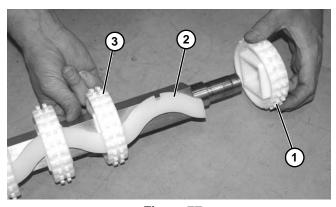


Figure 77

- 18. Remove remaining sprockets (Figure 77, item 3) off the alignment key while sliding the entire assembly off the drive spindle.
- 19. Replace components, as needed (Figure 78).

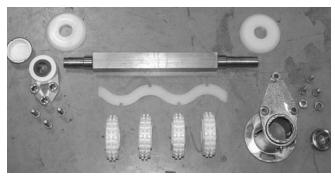


Figure 78

20. Install parts in reverse order of removal.

# **NOTE**

To reassemble please note the placement of the sprockets on the alignment key.

# **Motorized Pulley Drive Tail**

- 1. Open conveyor belt. Refer to "Conveyor Belt Replacement" on page 19.
- 2. Raise spindle guard (Figure 79, item 1) on each side of conveyor.

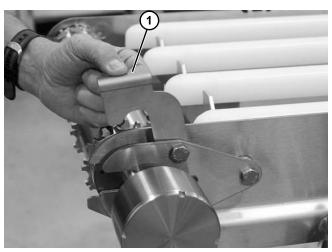
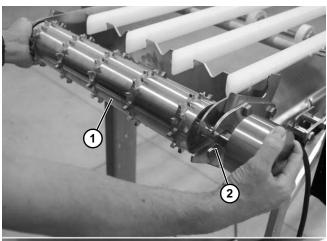


Figure 79

3. Rotate drive assembly (Figure 80, item 1) in slot (Figure 80, item 2) of frame bracket.



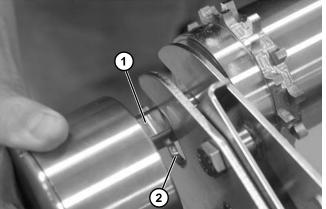


Figure 80

4. Remove drive assembly (**Figure 81**, **item 1**) from conveyor.

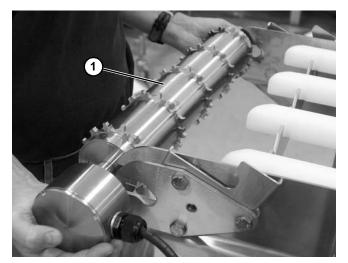


Figure 81

- 5. Replace entire drive assembly.
- 6. Install parts in reverse order of removal.

# Nose Bar Drive and Idler Puck Replacement



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

- 1. Open conveyor belt. Refer to "Conveyor Belt Replacement" on page 19.
- 2. Remove return strip (Figure 82, item 1) on idler end.

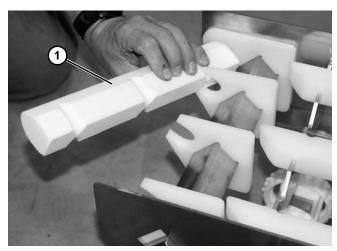


Figure 82

3. Lift up on support bar (Figure 83, item 1) so that slotted area (Figure 83, item 2) clears frame.

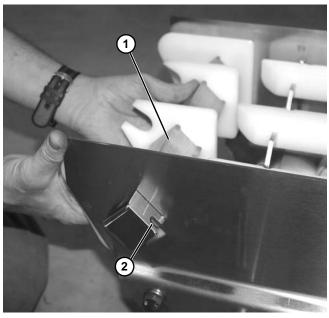


Figure 83

4. Continue pulling support bar (Figure 84, item 1) from frame, while sliding off pucks (Figure 84, item 2) and tracking pucks (Figure 84, item 3).

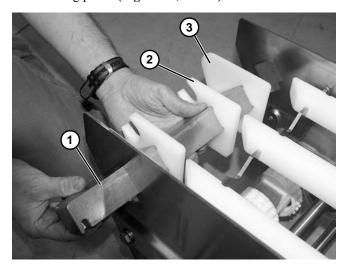


Figure 84

 Remove support bar (Figure 85, item 1) and remaining pucks and tracking puck (Figure 85, item 2) from frame.

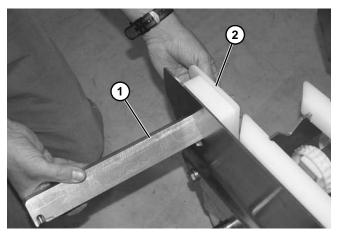


Figure 85

6. Replace pucks and tracking pucks if worn (Figure 86).

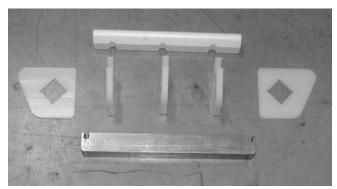


Figure 86

- 7. Install parts in reverse order of removal.
- 8. Repeat steps 1-7 to replace components on drive end of conveyor.

# **Idler Puck and Spindle Replacement**



#### SEVERE HAZARD

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

#### NOTE

Idler tails are equipped with plain bushing pucks. Replace when worn.

- 1. Open conveyor belt. Refer to "Conveyor Belt Replacement" on page 19.
- 2. Remove screw (Figure 87, item 1) and washer (Figure 87, item 2) on each side of idler end.

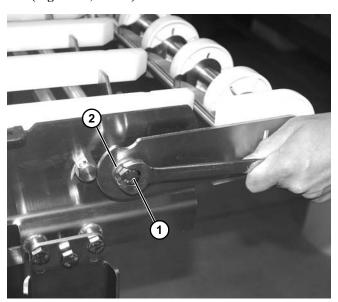


Figure 87

#### NOTE

Make note of curved notch (Figure 88, item 1) and notched end (Figure 88, item 2) of tail plate before removing assembly.

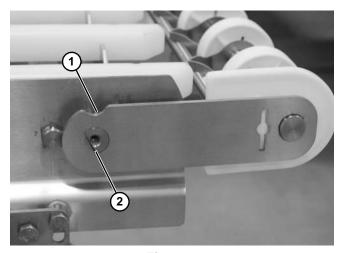


Figure 88

3. Remove idler assembly (Figure 89, item 1) from each tip up assembly stud (Figure 89, item 2) on conveyor frame.

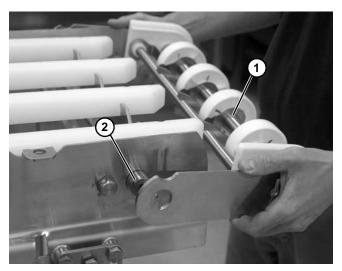


Figure 89

4. Place entire assembly on work surface (Figure 90).

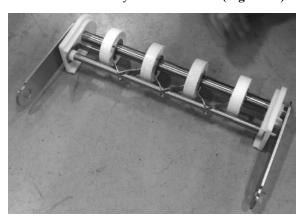


Figure 90

5. Remove tail plate (Figure 91, item 1) from assembly, making note of orientation of tab (Figure 91, item 2) and mating surfaces of puck rod (Figure 91, item 4) and tail plate.

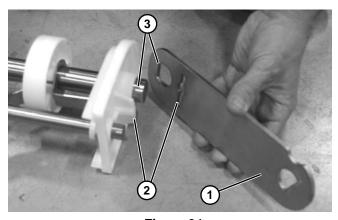


Figure 91

6. Remove tracking plate (Figure 92, item 1) from puck rod (Figure 92, item 2) and idler shaft (Figure 92, item 3).

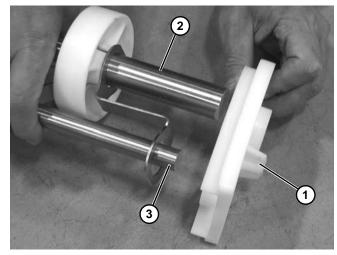


Figure 92

7. Remove outside idler puck end spacer (Figure 93, item 1).

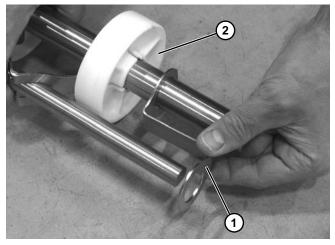


Figure 93

- 3. Slide off the puck (Figure 93, item 2) from the puck rod
- Remove U-spacer (Figure 94, item 1) from puck rod and idler shaft.

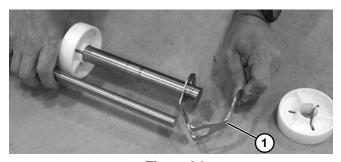


Figure 94

10. Repeat as needed to remove remaining pucks.

11. Replace components, as needed (Figure 95).

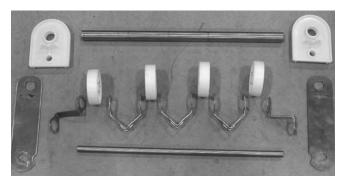


Figure 95

12. Install parts in reverse order of removal.

#### NOTE

To reassemble please note the placement of the inside U-spacers and outside end spacers between pucks.

# Nose Bar Idler Spindle Replacement



#### **SEVERE HAZARD!**

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

- Open conveyor belt. Refer to "Conveyor Belt Replacement" on page 19.
- 2. Remove screw (Figure 96, item 1) and washer (Figure 96, item 2) on each side of nose bar idler end.

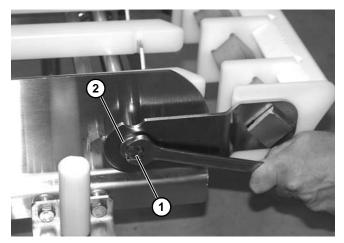


Figure 96

## **NOTE**

Make note of curved notch (Figure 97, item 1) and notched end (Figure 97, item 2) on each end of tail plate before removing assembly.

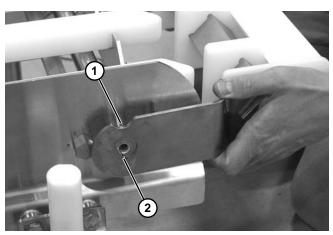


Figure 97

3. Remove nose bar idler assembly (Figure 98, item 1) from each end of tip up assembly (Figure 98, item 2) on conveyor frame.

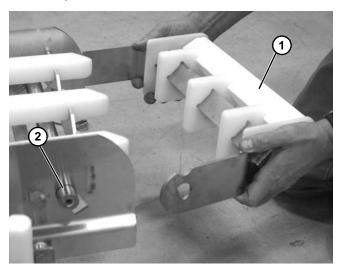


Figure 98

4. Place entire assembly on work surface.

5. Remove the return strip (Figure 99, item 1) by removing mating notches (Figure 99, item 2) in return strip from notches (Figure 99, item 3) in pucks.

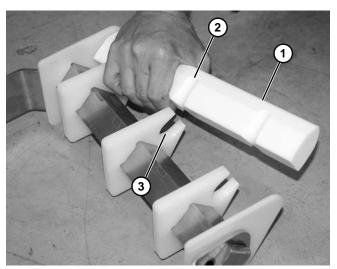


Figure 99

6. Rotate and remove the tail plate (Figure 100, item 1) from support bar (Figure 100, item 2).

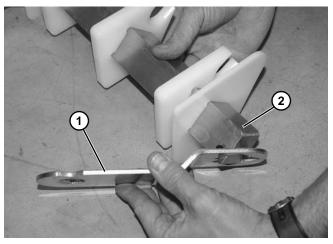


Figure 100

7. Remove the tracking puck (**Figure 101, item 1**) from support bar.

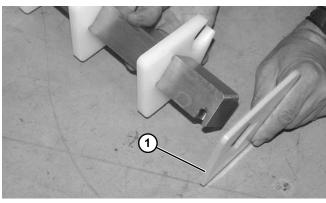


Figure 101

8. Remove the pucks (Figure 102, item 1) from support bar

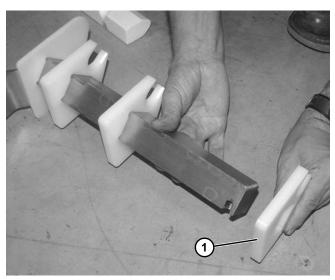


Figure 102

- Repeat as needed to remove remaining pucks and tracking puck.
- 10. Replace components, as needed (Figure 103).

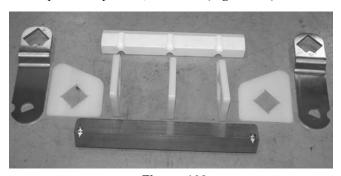


Figure 103

11. Install parts in reverse order of removal.

#### NOTE

To reassemble please note the placement of the pucks, tracking pucks, and tail plate before installing onto support bar.

# **Bearing Replacement**



#### SEVERE HAZARD!

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

# **Drive Tail Bearing Replacement**



#### **PUNCTURE HAZARD!**

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

- 1. Remove bearing housing. refer to "Standard Drive Tail" on page 22. Follow steps 1 through 6.
- Turn bearing (Figure 104, item 1) to align with slots (Figure 104, item 2) and anti-rotation nub (Figure 104, item 3), as shown, in bearing housing. Then remove bearing.

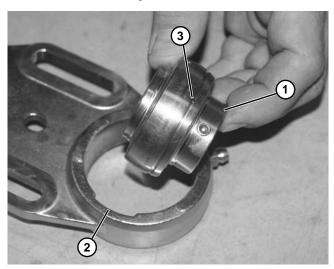


Figure 104

- 3. Inspect bearing housing bearing surface. Replace if worn or damaged. Refer to "Service Parts" on page 36.
- Insert bearing (Figure 104, item 1) into housing slot.
   Locate anti-rotation nub (Figure 104, item 3) to align with slot (Figure 104, item 2) and twist bearing into housing.

# Nose Bar Drive Bearing Removal and Replacement



**PUNCTURE HAZARD!** 

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

- 1. Remove motor mount. Refer to "Nose Bar Drive Tail" on page 23. Follow steps 1 through 9.
- Turn bearing (Figure 105, item 1) to align with slots (Figure 105, item 2) and anti-rotation nub (Figure 105, item 3), as shown, in motor mount. Then remove bearing.

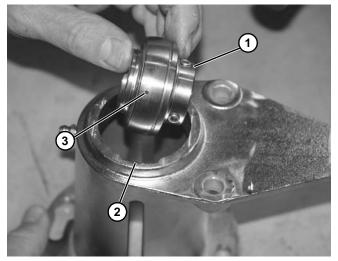


Figure 105

- 3. Inspect motor mount bearing surface. Replace if worn or damaged. Refer to "Service Parts" on page 36.
- 4. Install in reverse order of removal.

# **Maintenance of Knuckles**

# MARNING WARNING

**SEVERE HAZARD!** 

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

#### **Lower Knuckle**

- 1. Remove belt. Refer to "Conveyor Belt Replacement" on page 19.
- 2. Remove pull pin (**Figure 106, item 1**) and return shoe (**Figure 106, item 2**) on each side of conveyor on lower knuckle plate.

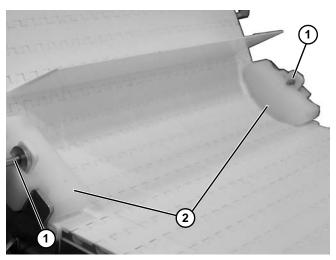


Figure 106

3. Rotate plate (Figure 107, item 1) on the side of the lower knuckle.

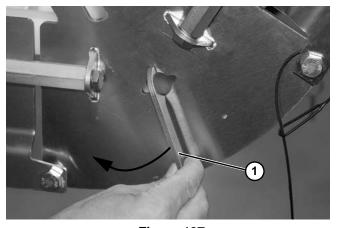


Figure 107

4. Pull out on plate (Figure 108, item 1) on the side of the lower knuckle. While pulling out plate, remove the lower knuckle wear bars (Figure 109, item 1) from notches (Figure 109, item 2) on bracket of knuckle.

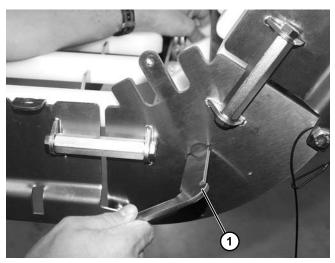


Figure 108

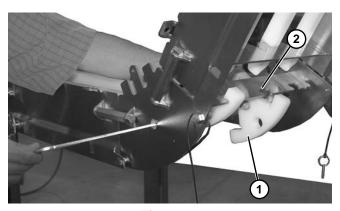


Figure 109

- 5. Replace parts as necessary.
- 6. Install parts in reverse order of removal.

# **Upper Knuckle**

- Remove belt. Refer to "Conveyor Belt Replacement" on page 19.
- 2. Remove pull pin (Figure 110, item 1), return shoe (Figure 111, item 1), and knuckle guide (Figure 111, item 2) on each side of upper knuckle.

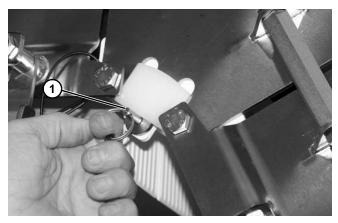


Figure 110

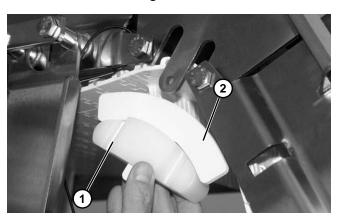


Figure 111

3. Remove the upper knuckle wear bars (Figure 112, item 1) from notches (Figure 112, item 2) on bracket of upper knuckle.

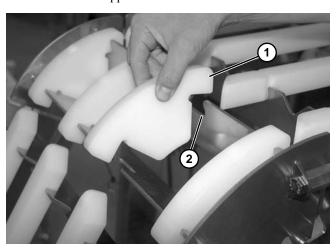


Figure 112

- Replace parts as necessary.
- 5. Install parts in reverse order of removal.

#### **Belt Return Maintenance**



**SEVERE HAZARD!** 

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

#### Flat Belt Returns 650 mm Wide and Wider

1. Remove belt return assembly (Figure 113, item 1) from slotted holes (Figure 113, item 2) on each side of conveyor frame.

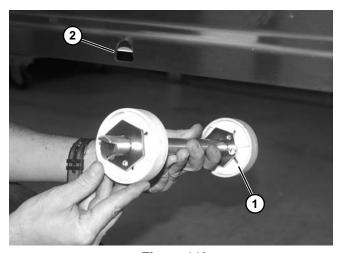


Figure 113

2. Insert an 8 mm (Figure 114, item 1) and 6 mm (Figure 114, item 2) hex wrench into the retainer plate.

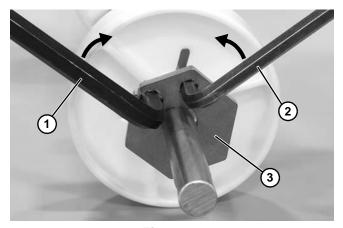


Figure 114

- 3. Move wrenches toward each other to unlock the retainer plate (**Figure 114**, **item 3**) and remove from the shaft.
- 4. Remove puck (Figure 115, item 1) from the shaft.



Figure 115

- 5. Repeat steps 3 through 5 as needed.
- 6. Install new pucks with retainer plates on both sides.
  - a. Insert an 8 mm (Figure 116, item 1) and 6 mm (Figure 116, item 2) hex wrench into the retainer plate.

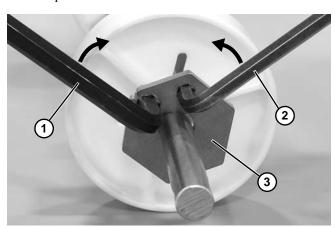


Figure 116

- b. Move wrenches toward each other to open the retainer plate (**Figure 116**, **item 3**) and install onto the shaft. Position retainer plate where needed.
- c. To lock the retainer plate (Figure 117, item 1) in place, move the wrenches (Figure 117, item 2) away from each other.

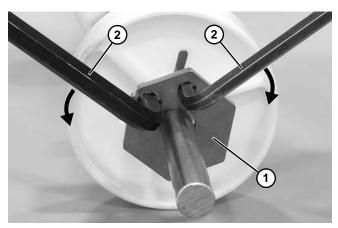


Figure 117

#### NOTE

When assembling pucks (Figure 118, item 1) with retainer plates (Figure 118, item 2), make certain that there a minimum of 38 mm (1.5") of clearance (Figure 118, item 3) on each end.

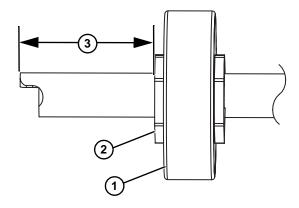


Figure 118

7. Install belt return assembly in reverse order of removal.

# Cleated Belt and Flat Belt Returns Under 650 mm Wide

Remove the notched end of the return shaft
 (Figure 119, item 1) from the small hole
 (Figure 119, item 2) in the inside of the conveyor frame.

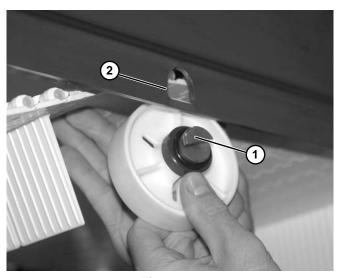


Figure 119

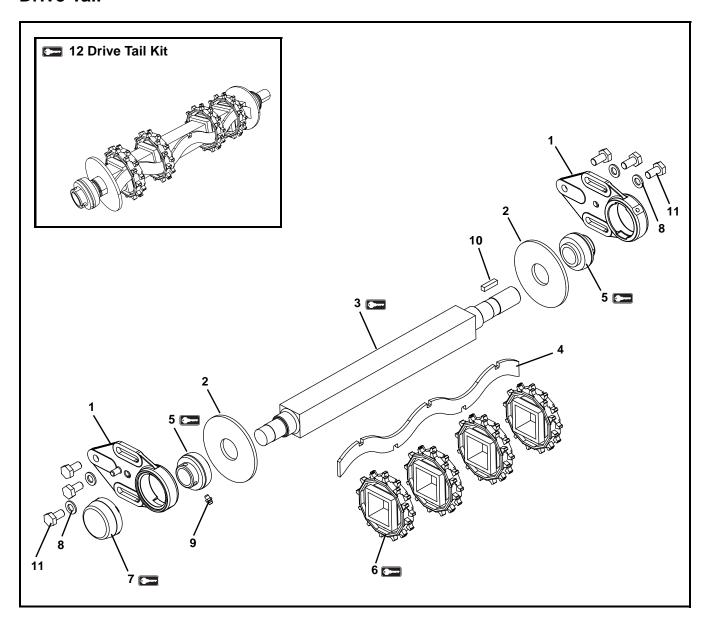
- 2. Repeat the procedure for all other belt returns.
- 3. Remove puck from stub shaft.
- 4. Replace worn or damaged parts.
- 5. Install parts in reverse order of removal.

# **Service Parts**

# **NOTE**

For replacement parts other than those shown in this section, contact an authorized Dorner distributor or Dorner directly. Recommended Critical Service Parts and Kits are identified by the Key Service Parts symbol . Dorner recommends keeping these parts on hand.

# **Drive Tail**



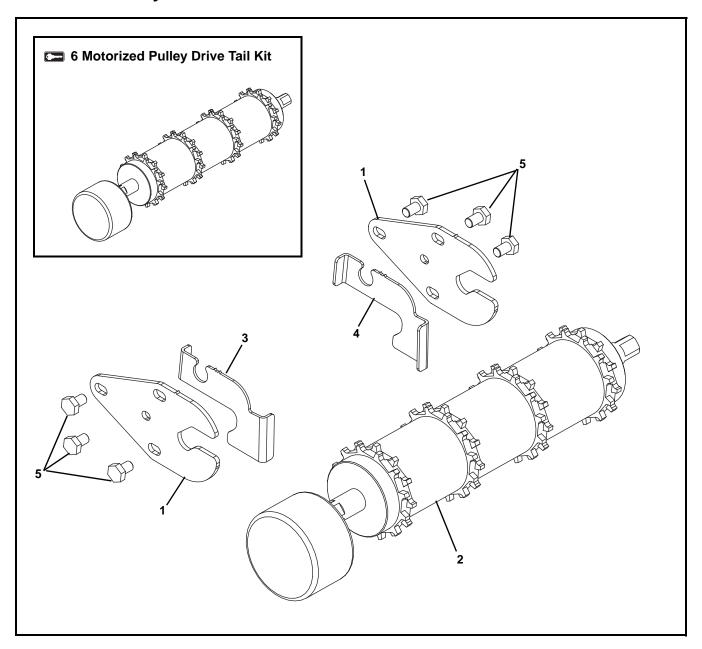
Item	Part Number	Description
1	529901-M	Bearing Housing
2	529995	Guard Puck
3	530294-K0- <u>WWWW</u> N	Drive Spindle for Standard
•		Conveyors
	530294-K0- <u>WWWW</u> Y	Drive Spindle for Ultimate 3A
		Conveyors
	530294-KK- <u>WWWW</u> N	Dual Shaft Drive Spindle for
		Standard Conveyors
	530294-KK- <u>WWWW</u> Y	Dual Shaft Drive Spindle for
		Ultimate 3A Conveyors
4	530378- <u>WWWW</u> -M	Sprocket Alignment Key for 25 mm Pitch Chain
	F20270 \A/\A/\A/\A/\A/	
	530370- <u>WWWW</u> -M	Sprocket Alignment Key for 13 mm Pitch Chain
5	802-162	Bearing
<b>-</b>	002-102	Bearing
	807-1444	Consolicate for OF rese Ditah
6	807-1444	Sprockets for 25 mm Pitch Chain
	807-1443	Sprockets for 13 mm Pitch
	007-1440	Chain
7	807-1454	Bearing Cap
		· · · · · · · · · · · · · · · ·
8	851-1880	Washer
9	810-187	Grease Fitting
10	912-108SS	Square Key, .25" x 1.00"
11	961020MSS	Hex Head Cap Screw,
		M10-1.50 x 20 mm

Item	Part Number	Description
12	530868- <u>WWWW</u> N	Drive Tail Kit for 25 mm Pitch Chain for Standard Conveyors (Includes Items 2, 3, 4, 5, 6, and 10)
	530868- <u>WWWW</u> Y	Drive Tail Kit for 25 mm Pitch Chain for Ultimate 3A Conveyors (Includes Items 2, 3, 4, 5, 6, and 10)
	530869- <u>WWWW</u> N	Dual Shaft Drive Tail Kit for 25 mm Pitch Chain for Standard Conveyors (Includes Items 2, 3, 4, 5, 6, and 10)
	530869- <u>WWWW</u> Y	Dual Shaft Drive Tail Kit for 25 mm Pitch Chain for Ultimate 3A Conveyors (Includes Items 2, 3, 4, 5, 6, and 10)
	530897- <u>WWWW</u> N	Drive Tail Kit for 13 mm Pitch Chain for Standard Conveyors (Includes Items 2, 3, 4, 5, 6, and 10)
	530897- <u>WWWW</u> Y	Drive Tail Kit for 13 mm Pitch Chain for Ultimate 3A Conveyors (Includes Items 2, 3, 4, 5, 6, and 10)
	530898- <u>WWWW</u> N	Dual Shaft Drive Tail Kit for 13 mm Pitch Chain for Standard Conveyors (Includes Items 2, 3, 4, 5, 6, and 10)
100000	530898- <u>WWWW</u> Y	Dual Shaft Drive Tail Kit for 13 mm Pitch Chain for Ultimate 3A Conveyors (Includes Items 2, 3, 4, 5, 6, and 10)

WWWW = Conveyor width reference in mm 0150 - 1200 in 50 mm increments

See Specifications chart on page 8 for conveyor belt widths.

### **Motorized Pulley Drive Tail**

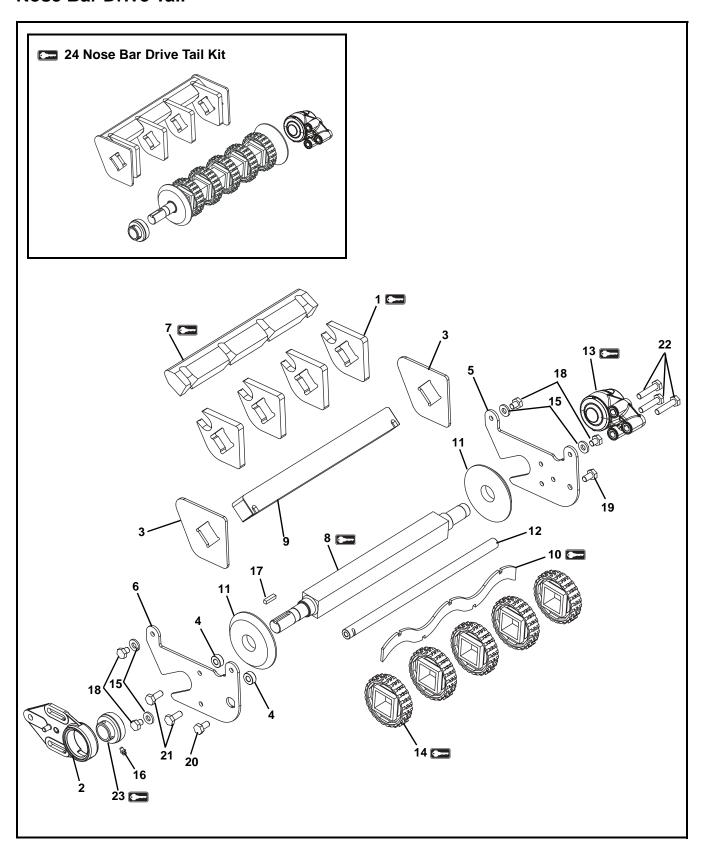


Item	Part Number	Description
1	529895	Mount Plate
2	530363- <u>WWWW</u> -M	Motorized Pulley
3	530374-LH	Spindle Guard, Left Hand
4	530374-RH	Spindle Guard, Right Hand
5	961016MSS	Hex Head Cap Screw, M10-1.50 x 16 mm
6	530870- <u>WWWW</u> N	Motorized Pulley Drive Tail Kit (Includes item 2)

 $\underline{WWWW}$  = Conveyor width reference in mm 0150 - 1200 in 50 mm increments

See Specifications chart on page 8 for conveyor belt widths.

#### Nose Bar Drive Tail

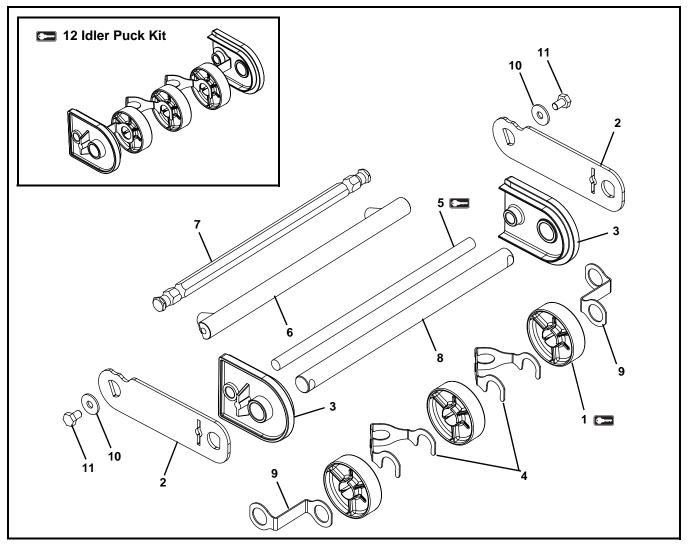


Item	Part Number	Description
1	500278	Nose Bar Puck
2	529901-M	Bearing Housing
3	530082	Tracking Puck
4	530171	Spacer
5	530293-B	Side Plate, Bearing Side
6	530293-M	Side Plate, Motor Side
7	530296- <u>WWWW</u> -M	Return Strip
8	530299-KB- <u>WWWW</u>	Spindle
9	530090- <u>WWWW</u> -M	Support Bar
10	530370- <u>WWWW</u> -M	Sprocket Alignment Key
11	530365	Guard Puck
12	530368- <u>WWWW</u> -M	Tie Rod
13	802-432	Bearing
14	807-1443	Sprocket
15	807-1821	Washer
16	810-187	Grease Fitting
17	912-108SS	Square Key, .25" x 1.00"
18	961012MSS	Hex Head Cap Screw,
		M10-1.50 x 12 mm
19	961018MSS	Hex Head Cap Screw,
		M10-1.50 x 18 mm
20	961020MSS	Hex Head Cap Screw,
		M10-1.50 x 20 mm
21	961025MSS	Hex Head Cap Screw,
		M10-1.50 x 25 mm
22	961045MSS	Hex Head Cap Screw,
		M10-1.50 x 45 mm
23	802-162	Bearing
24	530871- <u>WWWW</u>	Nose Bar Drive Tail Kit
		(Includes Items 1, 3, 7, 8, 10,
		11, 13, 14, 17, and 23)
WWWW = Conveyor width reference in mm 0150 - 1200 in 50		

 $\underline{WWWW}$  = Conveyor width reference in mm 0150 - 1200 in 50 mm increments

See Specifications chart on page 8 for conveyor belt widths.

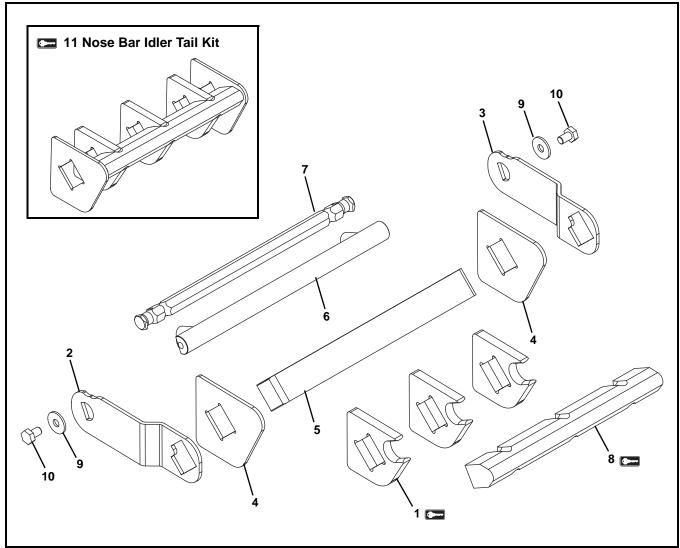
#### **Idler Tail**



Item	Part Number	Description
1	506297	Idler Puck
2	529775	Tail Plate
3	529898	Tracking Plate
4	530387	U-Spacer for Standard Conveyors
	530993- <u>WW</u>	U-Spacer for Ultimate 3A Conveyors
5	529980- <u>WWWW</u> N	Idler Shaft for Standard Conveyors
	529980- <u>WWWW</u> Y	Idler Shaft for Ultimate 3A Conveyors
6	530169- <u>WWWW</u> -M	Tip Up Assembly
7	530292- <u>WWWW</u> N	Hex Bar Stop for Standard Conveyors
	530292- <u>WWWW</u> Y	Hex Bar Stop for Ultimate 3A
		Conveyors
8	530386- <u>WWWW</u> -M	Puck Rod
9	530388-A	End Spacer, 39 mm wide
	530388-B	End Spacer, 64 mm wide
	530388-C	End Spacer, 15 mm wide
	530933- <u>WW</u>	End Spacer for Ultimate 3A Conveyors
	532251-00056	End Spacer for Ultimate 3A Conveyors (0150 and 0250 widths only)

Item	Part Number	Description	
10	911-723	Washer	
11	961016MSS	Hex Head Cap Screw,	
		M10-1.50 x 16 mm	
12	530872- <u>WWWW</u> N	Idler Puck Kit for Standard Conveyors	
		(Includes items 1, 3, 4, and 9)	
	530872- <u>WWWW</u> Y	Idler Puck Kit for Ultimate 3A	
		Conveyors (Includes items 1, 3, 4, and	
		9)	
<u>WW</u> =	<u>WW</u> = Part length in mm.		
Example: Part length = 28 mm <u>WW</u> = 28			
WWW	WWWW = Conveyor width reference in mm 0150 - 1200 in 50 mm		
increm	increments		
See Specifications chart on page 8 for conveyor belt widths.			
Service parts can be obtained through your distributor or directly			
from Dorner Mfg. Corp. (800) 397-8664 or			
custon	customerservice@dorner.com		
		_	

#### **Nose Bar Idler Tail**



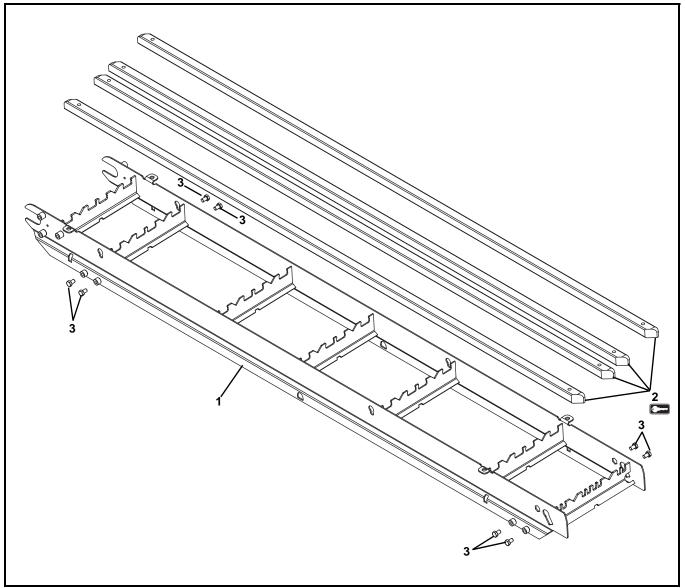
Item	Part Number	Description
1	500278	Nose Bar Puck
2	530081-LH	Tail Plate, Left Hand
3	530081-RH	Tail Plate, Right Hand
4	530082	Tracking Puck
5	530090- <u>WWWW</u> -M	Support Bar
6	530169- <u>WWWW</u> -M	Tip Up Assembly
7	530292- <u>WWWW</u> A	Hex Bar Stop
8	530296- <u>WWWW</u> -M	Return Strip

Item	Part Number	Description
9	807-1958	Washer
10	961016MSS	Hex Head Cap Screw, M10-1.50 x 16 mm
11	530873- <u>WWWW</u>	Nose Bar Idler Tail Kit (Includes items 1, 4, and 8)
WWWW = Conveyor width reference in mm 0150 - 1200 in 50		

<u>WWWW</u> = Conveyor width reference in mm 0150 - 1200 in 50 mm increments

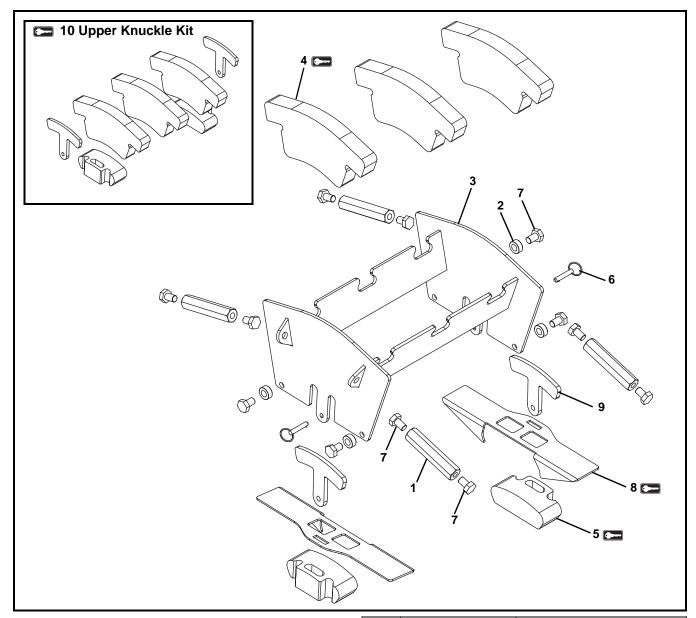
See Specifications chart on page 8 for conveyor belt widths.

#### **Frame Assembly**



Item	Part Number	Description	
1		Consult Factory for Frame Part Number	
2	530295-A- <u>LLLLL</u> -M	Wear Strip for Multiple Piece Frames	
	530295-B- <u>LLLLL</u> -M	Wear Strip for Single Piece Frames	
3	961016MSS	Hex Head Cap Screw, M10-1.50 x 16 mm	
See S	See Specifications chart on page 8 for conveyor belt widths.		
LLLLL	LLLLL = Part length in mm.		
Example: Part length = 1000 mm LLLLL = 01000			
Service parts can be obtained through your distributor or directly from Dorner Mfg. Corp. (800) 397-8664 or customerservice@dorner.com			

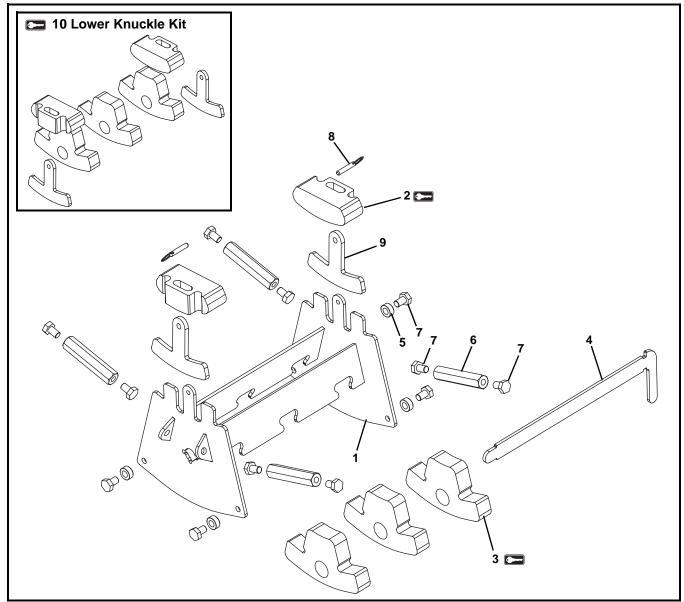
## **Upper Knuckle**



Item	Part Number	Description
1	500193	Hex Post
2	529147	Spacer
3	530617- <u>AA</u> - <u>WWWW</u> N	Knuckle Frame for Standard Conveyors
	530617- <u>AA</u> - <u>WWWW</u> Y	Knuckle Frame for Ultimate 3A Conveyors
4	530623- <u>AA</u>	Wear Bar
5	520695	Return Shoe for 30°- 40° Knuckles
	530695	Return Shoe for 45°- 60° Knuckles
6	807-5064	Quick Release Pin
7	961016MSS	Hex Head Cap Screw, M10-1.50 x 16 mm

Item	Part Number	Description	
8	530799- <u>AA</u>	Shoe Guard for 30°- 40° Knuckles	
	530798- <u>AA</u>	Shoe Guard for 45°- 60° Knuckles	
9	530784	Knuckle Guide	
10	530874- <u>AA</u> - <u>WWWW</u> N	Upper Knuckle Kit for Standard Conveyors (Includes items 4, 5, and 9)	
	530874- <u>AA</u> - <u>WWWW</u> Y	Upper Knuckle Kit for Ultimate 3A Conveyors (Includes items 4, 5, and 9)	
AA = A	AA = Angle 30, 35, 40, 45, 50, 55, 60		
	<u>WWWW</u> = Conveyor width reference in mm 0150 - 1200 in 50 mm increments		
See Sp	See Specifications chart on page 8 for conveyor belt widths.		
from D	Service parts can be obtained through your distributor or directly from Dorner Mfg. Corp. (800) 397-8664 or customerservice@dorner.com		

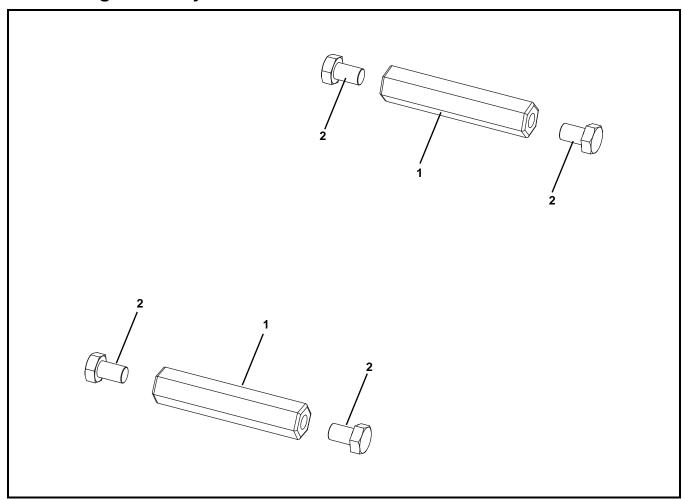
#### **Lower Knuckle**



Item	Part Number	Description
1	530690- <u>AA</u> - <u>WWWW</u> N	Knuckle Frame for Standard
		Conveyors
	530690- <u>AA</u> - <u>WWWW</u> Y	Knuckle Frame for Ultimate 3A
		Conveyors
2	520695	Return Shoe for 30°- 40°
•		Knuckles
	530695	Return Shoe for 45°- 60°
		Knuckles
3	530682- <u>AA</u>	Wear Guides
4	530672- <u>WWWW</u> N	Retaining Bar for Standard
		Conveyors
	530672- <u>WWWW</u> Y	Retaining Bar for Ultimate 3A
		Conveyors
5	529147	Spacer
6	500193	Hex Post

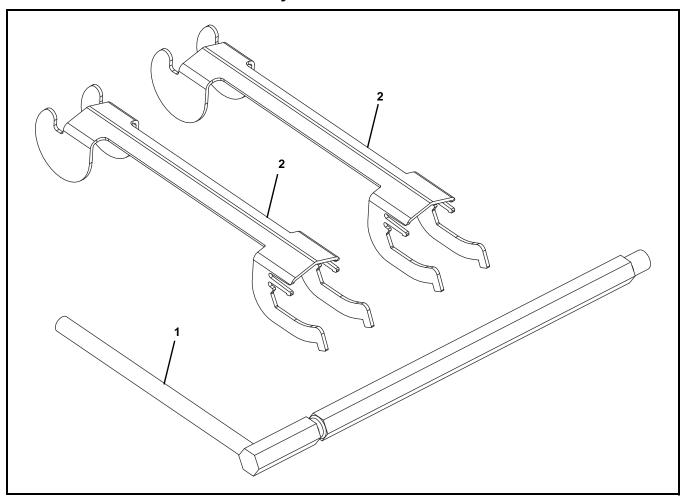
Item	Part Number	Description	
		•	
7	961016MSS	Hex Head Cap Screw,	
		M10-1.50 x 16 mm	
8	807-5064	Quick Release Pin for	
		Standard Conveyors	
9	530784	Knuckle Guide	
10	530875- <u>AA</u> - <u>WWWW</u> N	Lower Knuckle Kit for Standard	
<b>(</b>		Conveyors	
		(Includes items 2, 3, and 9)	
	530875- <u>AA</u> - <u>WWWW</u> Y	Lower Knuckle Kit for Ultimate	
		3A Conveyors	
		(Includes items 2, 3, and 9)	
AA = A	<u>AA</u> = Angle 30, 35, 40, 45, 50, 55, 60		
WWW	WWWW = Conveyor width reference in mm 0150 - 1200 in 50 mm		
increments			
Servic	Service parts can be obtained through your distributor or directly		
from E	from Dorner Mfg. Corp. (800) 397-8664 or		
custor	customerservice@dorner.com		

### **Connecting Assembly**



Item	Part Number	Description	
1	500193	Connectors	
2	961016MSS	Hex Head Cap Screw, M10-1.50 x 16 mm	

#### **Belt Lifters for Standard Conveyors**

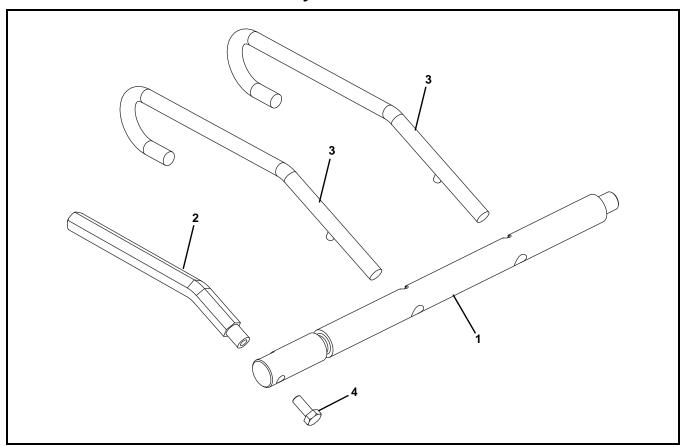


Item	Part Number	Description
1	530766- <u>WWWW</u> N	Lifter Bar
2	530605	Lifter

WWWW = Conveyor width reference in mm 0150 - 1200 in 50 mm increments

See Specifications chart on page 8 for conveyor belt widths.

#### **Belt Lifters for Ultimate 3A Conveyors**



Item	Part Number	Description
1	530286- <u>WWWW</u> Y	Lifter Bar
2	500491	Lifter Handle
3	501376	Lifter
4	960820MSS	Hex Head Cap Screw, M8-1.25 x 20 mm

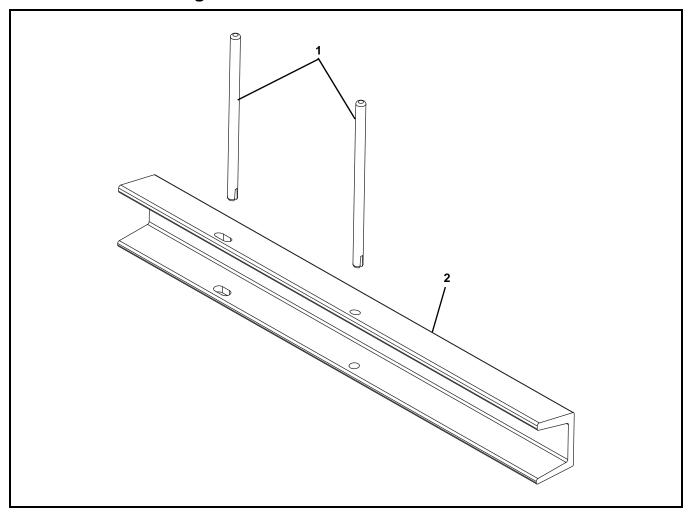
 $\underline{WWWW}$  = Conveyor width reference in mm 0150 - 1200 in 50 mm increments

See Specifications chart on page 8 for conveyor belt widths.

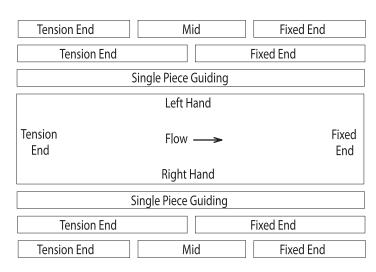
Service parts can be obtained through your distributor or directly from Dorner Mfg. Corp. (800) 397-8664 or

customerservice@dorner.com

#### 75 mm Tall UHMW High Sides



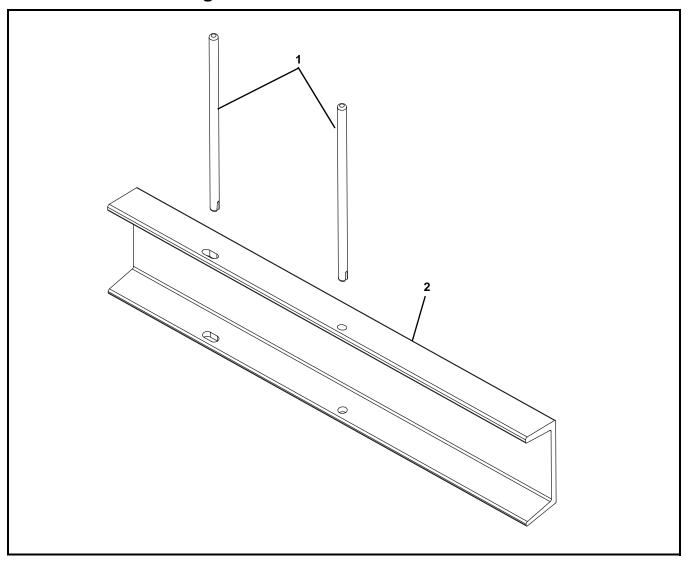
Item 2 Guide Section Description



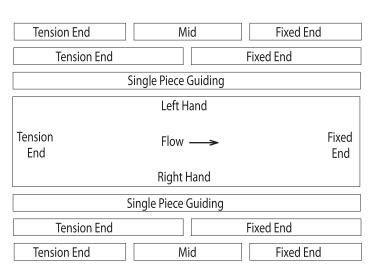
Item	Part Number	Description	
1	529796-02480-M	Guide Post	
2	530666-EE-7A <u>LLLLL</u>	Single Piece Guiding for Flat Belt Conveyors, Left Hand	
	530666-EE-7D <u>LLLLL</u>	Single Piece Guiding for Flat Belt Conveyors, Right Hand	
	530666-FE-7ALLLLL	Tension End Guiding for Flat Belt Multi Section Conveyors, Left Hand	
	530666-EF-7D <u>LLLLL</u>	Tension End Guiding for Flat Belt Multi Section Conveyors, Right Hand	
	530666-FF-7A <u>LLLLL</u>	Mid Guiding for Flat Belt Multi Section Conveyors, Left Hand	
	530666-FF-7D <u>LLLLL</u>	Mid Guiding for Flat Belt Multi Section Conveyors, Right Hand	
	530666-EF-7ALLLLL	Fixed End Guiding for Flat Belt Multi Section Conveyors, Left Hand	
	530666-FE-7D <u>LLLLL</u>	Fixed End Guiding for Flat Belt Multi Section Conveyors, Right Hand	
	530686-EA-7A <u>LLLLL</u>	Single Piece Guiding for Cleated Belt Conveyors, Left Hand	
	530686-AE-7D <u>LLLLL</u>	Single Piece Guiding for Cleated Belt Conveyors, Right Hand	
	530686-FA-7A <u>LLLLL</u>	Tension End Guiding for Cleated Belt Multi Section Conveyors, Left Hand	
	530686-AF-7D <u>LLLLL</u>	Tension End Guiding for Cleated Belt Multi Section Conveyors, Right Hand	
	530686-FF-7A <u>LLLLL</u>	Mid Guiding for Cleated Belt Multi Section Conveyors, Left Hand	
	530686-FF-7D <u>LLLLL</u>	Mid Guiding for Cleated Belt Multi Section Conveyors, Right Hand	
	530686-EF-7A <u>LLLLL</u>	Fixed End Guiding for Cleated Belt Multi Section Conveyors, Left Hand	
	530686-FE-7D <u>LLLLL</u>	Fixed End Guiding for Cleated Belt Multi Section Conveyors, Right Hand	
LLLLL = Part length in mm.			
Exam	Example: Part length = 1000 mm LLLLL = 01000		
Service parts can be obtained through your distributor or directly from Dorner Mfg. Corp. (800) 397-8664 or customerservice@dorner.com			

AquaPruf® Modular Belt Conveyors

#### 152 mm Tall UHMW High Sides



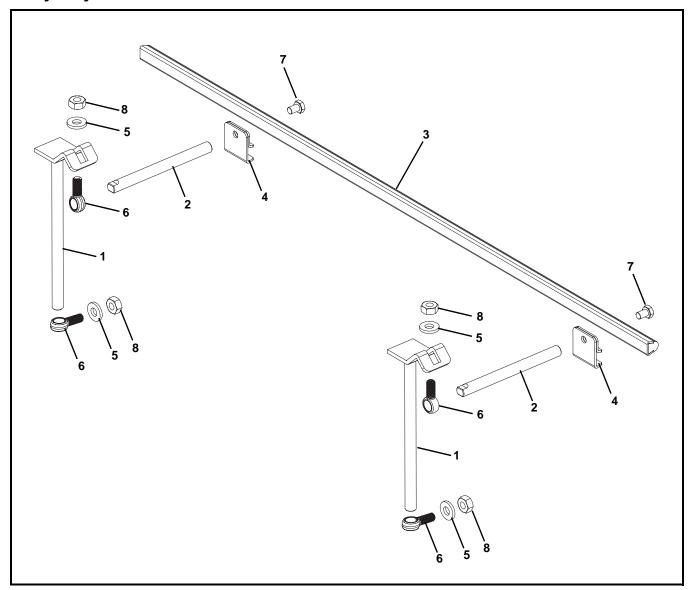
Item 2 Guide Section Description



Item	Part Number	Description	
1	529796-03250-M	Guide Post	
2	530666-EE-8A <u>LLLLL</u>	Single Piece Guiding for Flat Belt Conveyors, Left Hand	
	530666-EE-8D <u>LLLLL</u>	Single Piece Guiding for Flat Belt Conveyors, Right Hand	
	530666-FE-8A <u>LLLLL</u>	Tension End Guiding for Flat Belt Multi Section Conveyors, Left Hand	
	530666-EF-8D <u>LLLLL</u>	Tension End Guiding for Flat Belt Multi Section Conveyors, Right Hand	
	530666-FF-8A <u>LLLLL</u>	Mid Guiding for Flat Belt Multi Section Conveyors, Left Hand	
	530666-FF-8D <u>LLLLL</u>	Mid Guiding for Flat Belt Multi Section Conveyors, Right Hand	
	530666-EF-8ALLLLL	Fixed End Guiding for Flat Belt Multi Section Conveyors, Left Hand	
	530666-FE-8D <u>LLLLL</u>	Fixed End Guiding for Flat Belt Multi Section Conveyors, Right Hand	
	530686-EA-8A <u>LLLLL</u>	Single Piece Guiding for Cleated Belt Conveyors, Left Hand	
	530686-AE-8D <u>LLLLL</u>	Single Piece Guiding for Cleated Belt Conveyors, Right Hand	
	530686-FA-8A <u>LLLLL</u>	Tension End Guiding for Cleated Belt Multi Section Conveyors, Left Hand	
	530686-AF-8D <u>LLLLL</u>	Tension End Guiding for Cleated Belt Multi Section Conveyors, Right Hand	
	530686-FF-8A <u>LLLLL</u>	Mid Guiding for Cleated Belt Multi Section Conveyors, Left Hand	
	530686-FF-8D <u>LLLLL</u>	Mid Guiding for Cleated Belt Multi Section Conveyors, Right Hand	
	530686-EF-8A <u>LLLLL</u>	Fixed End Guiding for Cleated Belt Multi Section Conveyors, Left Hand	
	530686-FE-8D <u>LLLLL</u>	Fixed End Guiding for Cleated Belt Multi Section Conveyors, Right Hand	
LLLLL = Part length in mm.			
Exam	Example: Part length = 1000 mm LLLLL = 01000		
Service parts can be obtained through your distributor or directly from Dorner Mfg. Corp. (800) 397-8664 or customerservice@dorner.com			

AquaPruf® Modular Belt Conveyors

#### **Fully Adjustable Round Guides**



Item	Part Number	Description
1	509876	Vertical Post Assembly
2	532300	Guide Post
3	532167- <u>LLLLL</u>	Round Guide Rail
4	807-015	Rail Clamp
5	807-1821	Washer
6	807-1994	Eye Bolt, M10 x 1.50
7	960812MSS	Hex Head Cap Screw, M8-1.25 x 12 mm
8	991001MSS	Hex Nut, M10 - 1.50

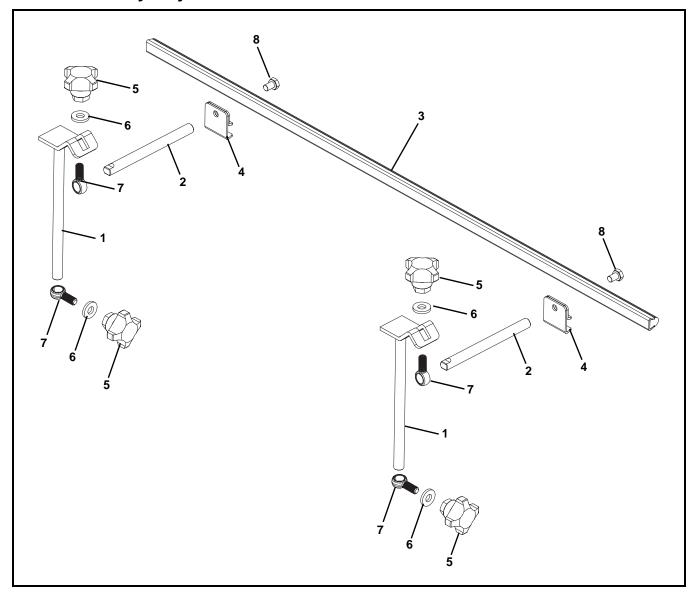
<u>LLLLL</u> = Part length in mm.

Example: Part length = 1000 mm LLLLL = 01000

Service parts can be obtained through your distributor or directly from Dorner Mfg. Corp. (800) 397-8664 or

customerservice@dorner.com

#### **Tool-Less Fully Adjustable Round Guides**



Item	Part Number	Description	
1	509876	Vertical Post Assembly	
2	532300	Guide Post	
3	532167- <u>LLLLL</u>	Round Guide Rail	
4	807-015	Rail Clamp	
5	807-1057	Handle	
6	807-1821	Washer	
7	807-1994	Eye Bolt, M10 x 1.50	
8	960812MSS	Hex Head Cap Screw,	
		M8-1.25 x 12 mm	
	TITLE Best breeds to see		

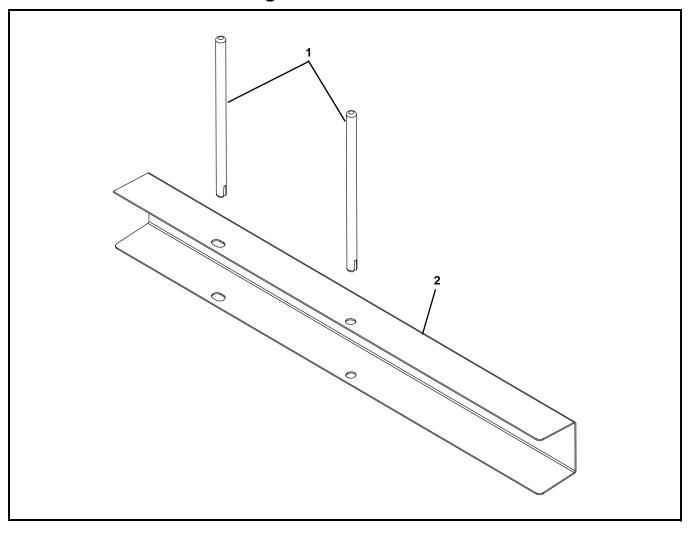
<u>LLLLL</u> = Part length in mm.

Example: Part length = 1000 mm LLLLL = 01000

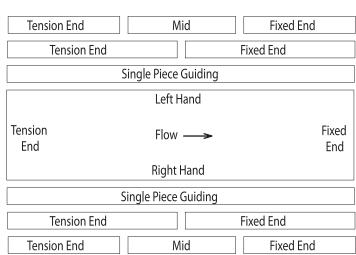
Service parts can be obtained through your distributor or directly from Dorner Mfg. Corp. (800) 397-8664 or

customerservice@dorner.com

#### 75 mm Tall Stainless Steel High Sides



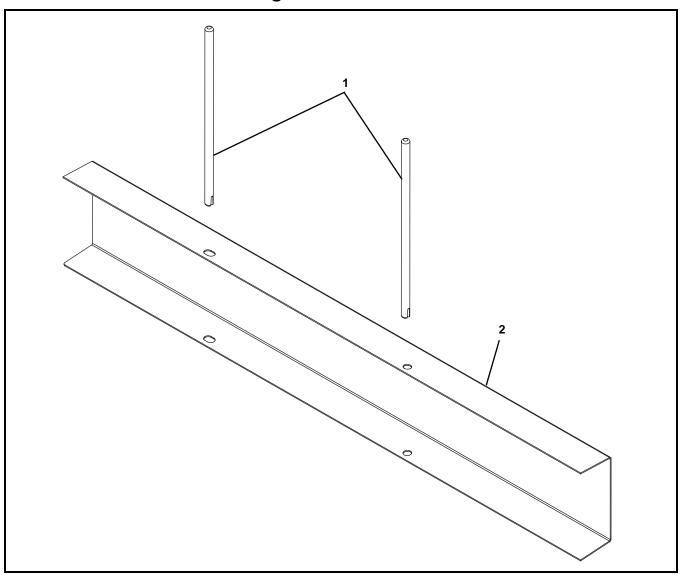
Item 2 Guide Section Description



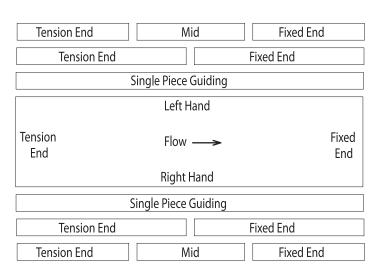
29796-02480-M 30364-EE-7ALLLLL 30364-EE-7DLLLLL 30364-FE-7ALLLLL	Guide Post Single Piece Guiding for Flat Belt Conveyors, Left Hand Single Piece Guiding for Flat Belt Conveyors, Right Hand Tension End Guiding for Flat Belt Multi Section Conveyors, Left	
30364-EE-7D <u>LLLLL</u> 30364-FE-7A <u>LLLLL</u>	Conveyors, Left Hand Single Piece Guiding for Flat Belt Conveyors, Right Hand Tension End Guiding for Flat Belt Multi Section Conveyors, Left	
30364-FE-7A <u>LLLLL</u>	Conveyors, Right Hand  Tension End Guiding for Flat Belt Multi Section Conveyors, Left	
	Multi Section Conveyors, Left	
00364 EE 7DIIIII	Hand	
00304-EF-7D <u>LLLLL</u>	Tension End Guiding for Flat Belt Multi Section Conveyors, Right Hand	
0364-FF-7A <u>LLLLL</u>	Mid Guiding for Flat Belt Multi Section Conveyors, Left Hand	
0364-FF-7D <u>LLLLL</u>	Mid Guiding for Flat Belt Multi Section Conveyors, Right Hand	
30364-EF-7ALLLLL	Fixed End Guiding for Flat Belt Multi Section Conveyors, Left Hand	
30364-FE-7D <u>LLLLL</u>	Fixed End Guiding for Flat Belt Multi Section Conveyors, Right Hand	
30627-EA-7A <u>LLLLL</u>	Single Piece Guiding for Cleated Belt Conveyors, Left Hand	
30627-AE-7D <u>LLLLL</u>	Single Piece Guiding for Cleated Belt Conveyors, Right Hand	
30627-FA-7A <u>LLLLL</u>	Tension End Guiding for Cleated Belt Multi Section Conveyors, Left Hand	
30627-AF-7D <u>LLLLL</u>	Tension End Guiding for Cleated Belt Multi Section Conveyors, Right Hand	
30627-FF-7A <u>LLLLL</u>	Mid Guiding for Cleated Belt Multi Section Conveyors, Left Hand	
30627-FF-7D <u>LLLLL</u>	Mid Guiding for Cleated Belt Multi Section Conveyors, Right Hand	
30627-EF-7A <u>LLLLL</u>	Fixed End Guiding for Cleated Belt Multi Section Conveyors, Left Hand	
30627-FE-7D <u>LLLLL</u>	Fixed End Guiding for Cleated Belt Multi Section Conveyors, Right Hand	
	Consult Factory for LPZ Conveyor Guiding Part Numbers	
<u>LLLLL</u> = Part length in mm.		
Example: Part length = 1000 mm <u>LLLLL</u> = 01000		
Service parts can be obtained through your distributor or directly from Dorner Mfg. Corp. (800) 397-8664 or customerservice@dorner.com		
	20364-FF-7DLLLLL 20364-FF-7DLLLLL 20364-FE-7DLLLLL 20364-FE-7DLLLLL 203627-EA-7ALLLLL 203627-FA-7ALLLLL 203627-FF-7DLLLLL	

AquaPruf® Modular Belt Conveyors

#### 152 mm Tall Stainless Steel High Sides



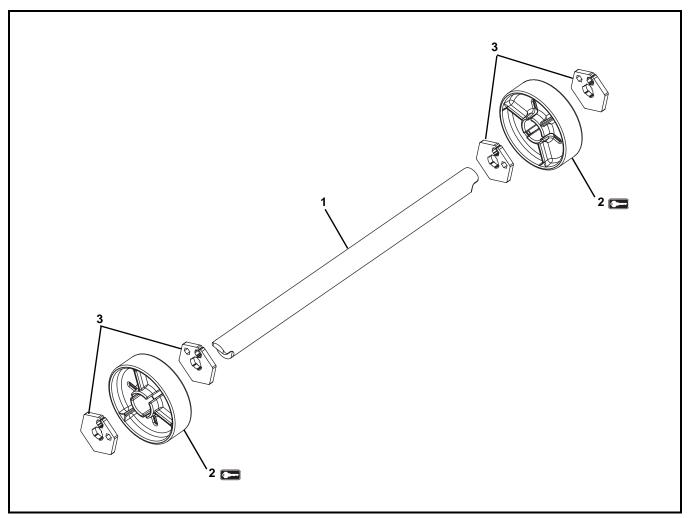
Item 2 Guide Section Description



Item	Part Number	Description	
1	529796-03250-M	Guide Post	
2	530364-EE-8A <u>LLLLL</u>	Single Piece Guiding for Flat Belt Conveyors, Left Hand	
	530364-EE-8D <u>LLLLL</u>	Single Piece Guiding for Flat Belt Conveyors, Right Hand	
	530364-FE-8A <u>LLLLL</u>	Tension End Guiding for Flat Belt Multi Section Conveyors, Left Hand	
	530364-EF-8D <u>LLLLL</u>	Tension End Guiding for Flat Belt Multi Section Conveyors, Right Hand	
	530364-FF-8A <u>LLLLL</u>	Mid Guiding for Flat Belt Multi Section Conveyors, Left Hand	
	530364-FF-8D <u>LLLLL</u>	Mid Guiding for Flat Belt Multi Section Conveyors, Right Hand	
	530364-EF-8ALLLLL	Fixed End Guiding for Flat Belt Multi Section Conveyors, Left Hand	
	530364-FE-8D <u>LLLLL</u>	Fixed End Guiding for Flat Belt Multi Section Conveyors, Right Hand	
	530627-EA-8A <u>LLLLL</u>	Single Piece Guiding for Cleated Belt Conveyors, Left Hand	
	530627-AE-8D <u>LLLLL</u>	Single Piece Guiding for Cleated Belt Conveyors, Right Hand	
	530627-FA-8A <u>LLLLL</u>	Tension End Guiding for Cleated Belt Multi Section Conveyors, Left Hand	
	530627-AF-8D <u>LLLLL</u>	Tension End Guiding for Cleated Belt Multi Section Conveyors, Right Hand	
	530627-FF-8A <u>LLLLL</u>	Mid Guiding for Cleated Belt Multi Section Conveyors, Left Hand	
	530627-FF-8D <u>LLLLL</u>	Mid Guiding for Cleated Belt Multi Section Conveyors, Right Hand	
	530627-EF-8A <u>LLLLL</u>	Fixed End Guiding for Cleated Belt Multi Section Conveyors, Left Hand	
	530627-FE-8D <u>LLLLL</u>	Fixed End Guiding for Cleated Belt Multi Section Conveyors, Right Hand	
		Consult Factory for LPZ Conveyor Guiding Part Numbers	
	<u>LLLLL</u> = Part length in mm.		
	Example: Part length = 1000 mm <u>LLLLL</u> = 01000		
Service parts can be obtained through your distributor or directly from Dorner Mfg. Corp. (800) 397-8664 or customerservice@dorner.com			
from Dorner Mfg. Corp. (800) 397-8664 or			

AquaPruf® Modular Belt Conveyors

#### Flat Belt Returns 650 mm Wide and Wider

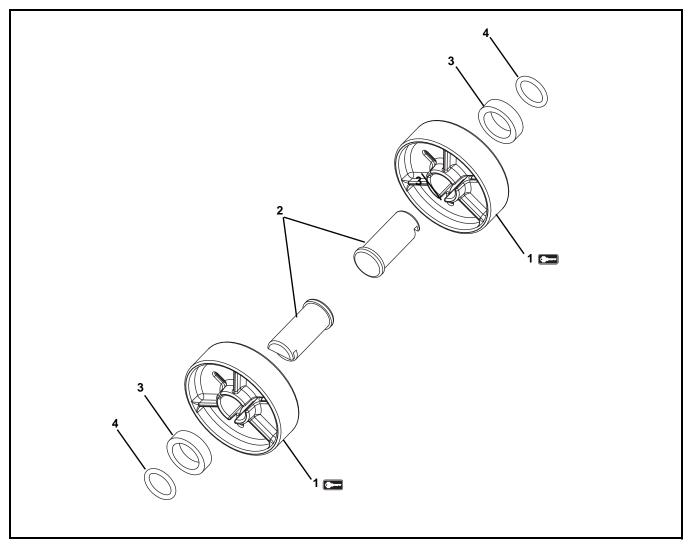


Item	Part Number	Description	
1	530178- <u>WWWW</u> -M	Return Shaft	
2	506296	Puck	
•			
3	517575	Retaining Plate	
14/14/14	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		

 $\underline{WWWW}$  = Conveyor width reference in mm 0650 - 1200

See Specifications chart on page 8 for conveyor belt widths.

#### Cleated Belt and Flat Belt Returns Under 650 mm Wide



Item	Part Number	Description
1	506296	Puck
2	501097	Shaft
3	530273	Spacer
4	812-107	O-Ring

#### **Ordering a Replacement Chain**

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

#### Example:

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

Order: Qty (43) of 74BB-WWWW

 $\underline{BB}$  = Chain reference number (Refer to belt type in part number. See Pages 6-7 for details.)

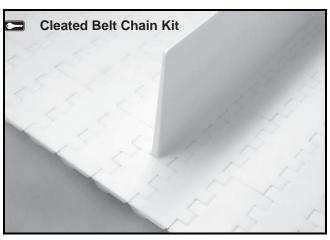
<u>WWWW</u> = Conveyor width ref: 0150-1200 in 50 mm increments

#### Flat Belt Chain Repair Kit



Item	Part Number	Description					
1	74 <u>BB-WWWW</u>	Flat Belt Chain Repair Kit (Includes 1 ft					
		(305 mm) of flat belt chain and assembly pins)					
BB = Chain Reference number							
WWWW = Conveyor width ref: 0150 - 1200 in 50 mm increments							

#### **Cleated Belt Chain Repair Kit**



Item	Part Number	Description					
1	74 <u>BB</u> - <u>WWWW</u> - <u>SS</u>	Cleated Belt Chain Repair Kit					
		(Includes cleats on 1 ft (305mm) of					
		belt chain and assembly pins)					
BB = Chain Reference number							
<u>WWWW</u> = Conveyor width ref: 0150 - 1200 in 50 mm increments							
SS = Cleat Spacing							

## **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.
- Customer's original order number used when ordering the item(s). 4.
- Dorner or distributor invoice number. Include part serial number if available.

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

	Product Type								
	Standard Products							Engineered to order parts	
Product Line	Conveyors	Gearmotors & Mounting Packages	Support Stands	Accessories	Spare Parts (non-belt)	Spare Belts - Standard Flat Fabric	Spare Belts - Cleated & Spec. Fabric	Spare Belts - Plastic Chain	All equipment and parts
1100 Series				•	•				
2200 Series	30% return fee for all products except:								
3200 Series	50% return fee for conveyors with modular belt,								
Pallet Systems	cleated belt or speciality belts								
FlexMove/SmartFlex									
GAL Series	All Electrical items are assigned original manufacturers return policy.					urnable	case-by-case		
All Electrical		Tion-returnable						case by case	
7100 Series									
7200/7300 Series									
AquaGard 7350 Series Version 2	50% return fee for all products								
GES Series	1								
AquaGard 7350/7360 Series	non-returnable								
AquaPruf Series	1								

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

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

For a copy of Dorner's Warranty, contact Dorner, an authorized sales channel or visit our website: www.dorner.com.

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

# ww.dorner.com













#### O Dorner Mfg. Corp. 2021. All Rights Reserved.

#### **Dorner – North & South America**

Dorner - U.S.A. Headquarters

975 Cottonwood Ave Hartland, WI 53029, USA (800) 397-8664

(262) 367-7600 info@dorner.com

Dorner - Canada

100-5515 North Service Road Burlington, Ontario L7L 6G6 Canada (289) 208-7306 info@dorner.com

#### Dorner - Latin America

Carretera a Nogales #5297, Nave 11. Parque Industrial Nogales Zapopan, Jalisco C.P. 45222 México

+52.33.30037400 | info.latinamerica@dorner.com

#### Dorner - Europe

Dorner - Germany Karl-Heinz-Beckurts-Straße 7 52428 Jülich. Germany

+49 (0) 2461/93767-0 info.europe@dorner.com

#### Dorner - France

8 rue des Frères Caudron 78140 Velizy-Villacoublay +33 (0)1 84 73 24 27

info.france@dorner.com

#### Dorner - Asia

128 Jalan Permatang Damar Laut, Bayan Lepas 11960 Penang, Malaysia

+604-626-2948 | info.asia@dorner.com