7600 Series Center Drive Conveyors

Installation, Maintenance and Parts Manual

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851-605 Rev. A

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Introduction

⚠ CAUTION

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

Upon receipt of shipment:

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

The Dorner Limited Warranty applies.

Dorner 7600 Series conveyors have patents pending.

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

Dorner has convenient, pre-configured kits of Key Service Parts for all conveyor products. These time saving kits are easy to order, designed for fast installation, and guarantee you will have what you need when you need it. Key Parts and Kits are marked in the Service Parts section of this manual with the Performance Parts Kits logo .

⚠ DANGER

SEVERE HAZARD!

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

⚠ DANGER

EXPLOSION HAZARD!

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

⚠ WARNING

CRUSH HAZARD!

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

⚠ WARNING

CRUSH HAZARD!

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

⚠ WARNING

SEVERE HAZARD!

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

⚠ WARNING

BURN HAZARD!

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

⚠ WARNING

PUNCTURE HAZARD!

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

⚠ WARNING

SEVERE HAZARD!

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

Product Description

Refer to Figure 1 for typical conveyor components.

1	Conveyor
2	Gearmotor
3	Belt (Flat Belt Shown)
4	Support Stands
5	Motor Controller
6	Discharge End
7	Infeed End
8	Center Drive Module

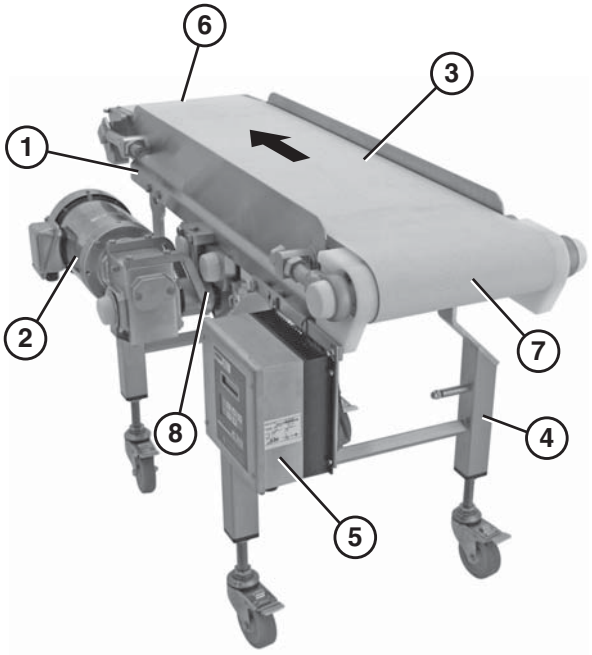
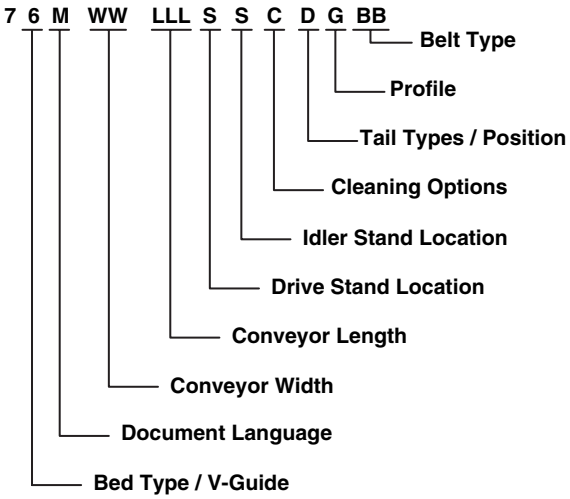


Figure 1

Specifications

Flat Belt 7600 Series Center Drive Conveyor



* Refer to “Ordering and Specifications” Catalog for details.

Conveyor Supports

Maximum Distances:

1 = Support Stand on Infeed End = 3 ft (914 mm)

2 = Between Support Stands = 8 ft (2438 mm)**

3 = Support Stand on Discharge End = 3 ft (914 mm)

** For conveyors longer than 10 ft (3.05 m), install support at frame joint.

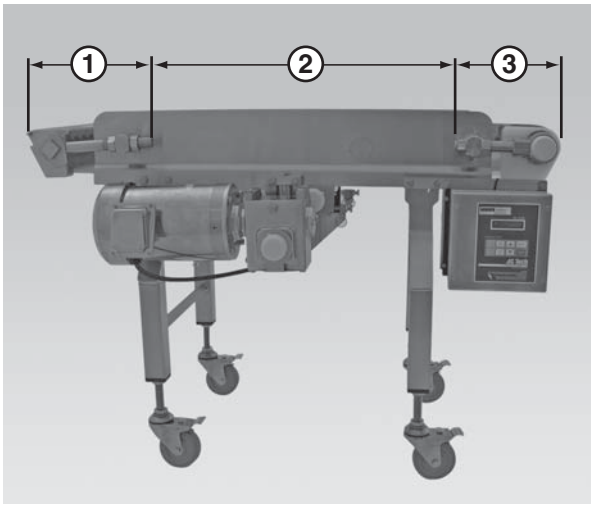


Figure 2

Specifications

Conveyor Width Reference (WW)	06 – 60 in 02 increments
Conveyor Belt Width	6" (152 mm) - 60" (1524 mm) in 2" (51 mm) increments
Maximum Conveyor Load	400 lbs. (181 kg)
Belt Travel	11.25" (286 mm) per revolution of pulley
Maximum Belt Speed	325 ft/minute (100 m/minute)
Belt Take-up	1.5" (38 mm)

Conveyor Length Reference (LLL)	048 - 480 in 001 increments
Conveyor Length	48" (1219 mm) - 480" (12192 mm) in 1" (25 mm) increments

IMPORTANT

Maximum conveyor loads are based on:

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

CAUTION

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

CAUTION

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

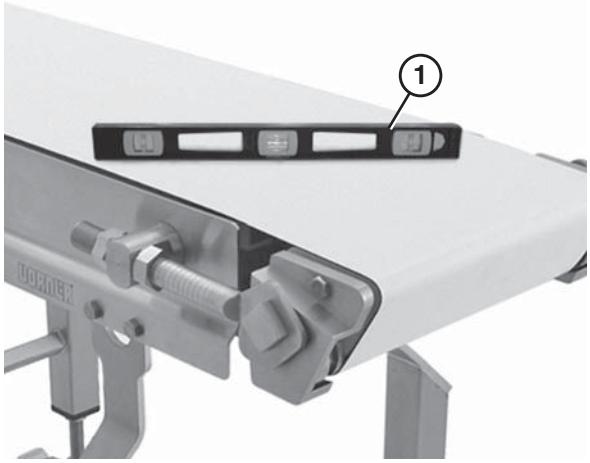


Figure 3

Required Tools

- Level
- Torque wrench

Recommended Installation Sequence

1. Assemble the conveyor (if required). Refer to "Conveyors up to 10 ft (3048 mm)" on page 6.
2. Attach the stands. Refer to "Stand Installation" on page 8.
3. Install the gearmotor. Refer to "Drive Package Installation" on page 9.

Conveyors up to 10 ft (3048 mm)

Belt Return Installation

Flat Belt

Typical Flat Belt Components (Figure 4)

1	Flat belt returns

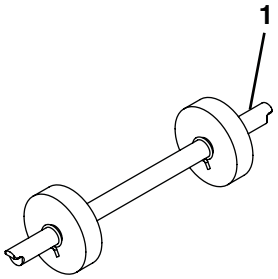


Figure 4

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

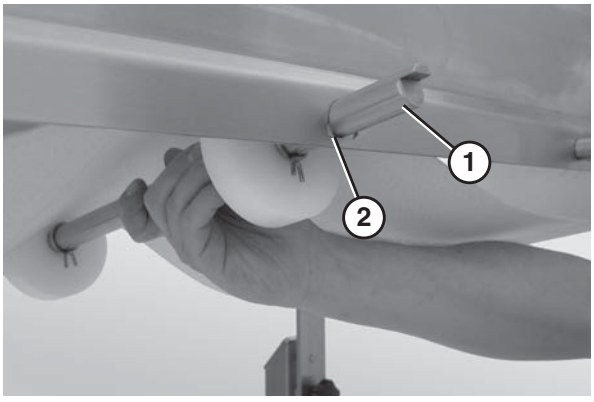


Figure 5

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

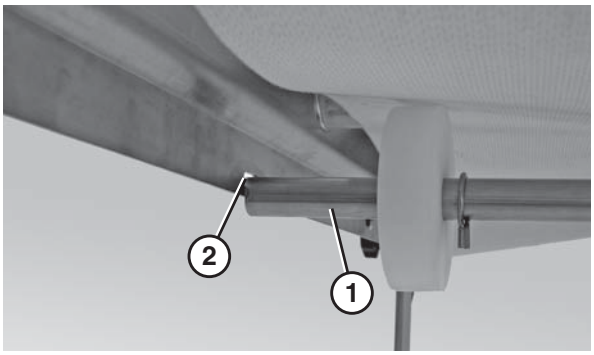


Figure 6

3. Repeat the procedure for all other belt returns.

Scraper Installation

Typical Scraper Components (Figure 7)

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)

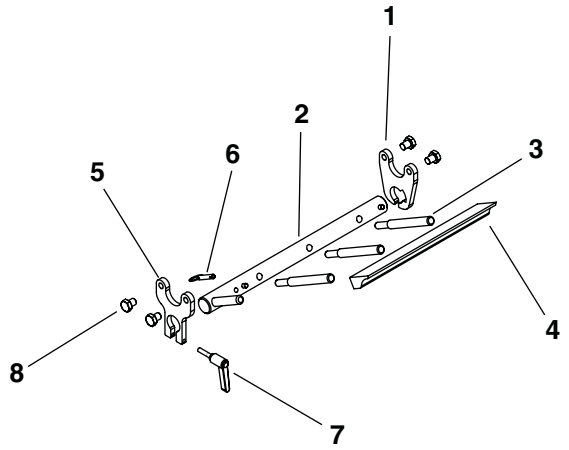


Figure 7

1. Attach the scraper adjust plate (Figure 7, item 1) and the scraper mount plate (Figure 7, item 5) to the frame using four M10-1.5 x 12mm hex head cap screws.
2. Slide the notched end of the scraper shaft (Figure 8, item 1) through the adjustment plate (Figure 8, item 2).

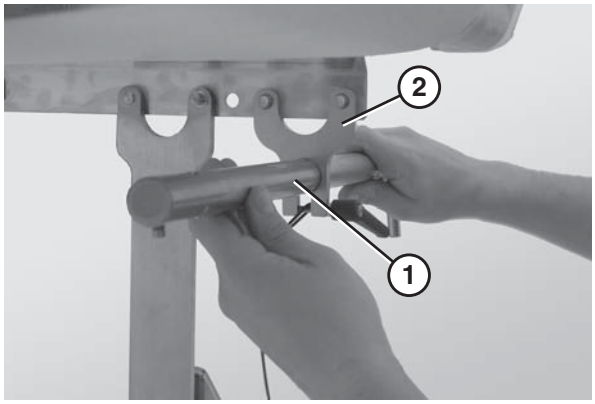


Figure 8

3. Insert the notched end of the scraper shaft (Figure 9, item 1) so that it is situated within the groove in the mounting plate (Figure 9, item 2).

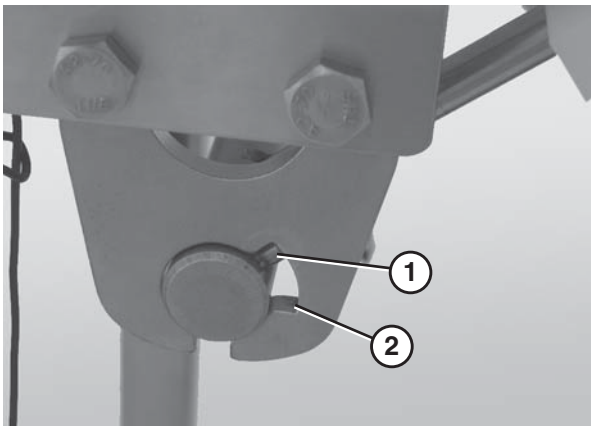


Figure 9

4. Attach the scraper bar holders (Figure 10, item 1) to the scraper shaft (Figure 10, item 2).

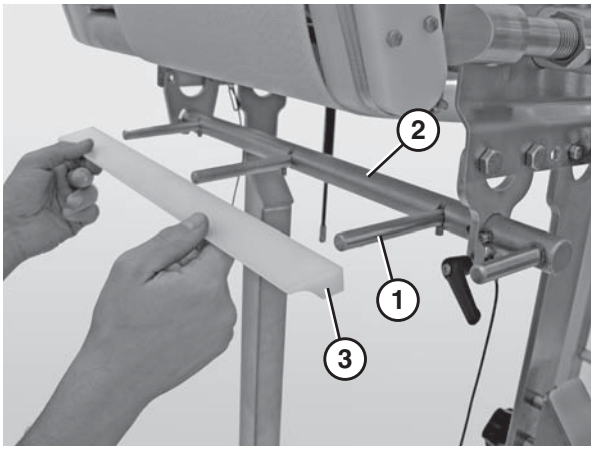


Figure 10

5. Attach the UWHM scraper (Figure 10, item 3) to the scraper bar holders (Figure 10, item 1).
6. Insert the pin (Figure 11, item 1) to lock the scraper bar in place (Figure 11, item 2).

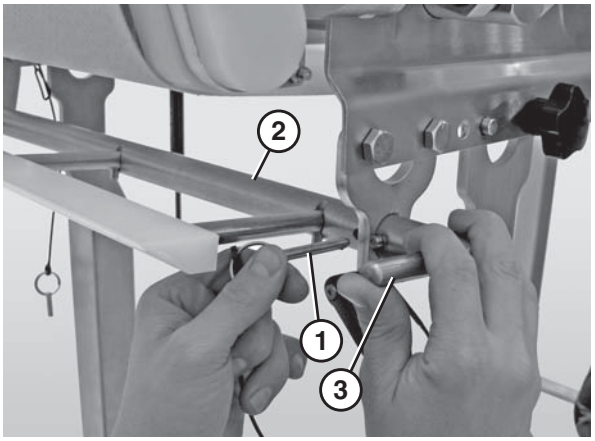


Figure 11

7. Adjust the scraper to the desired position using the scraper bar handle (Figure 11, item 3).

CAUTION

Apply minimal pressure between the scraper (Figure 12, item 1) and the belt (Figure 12, item 2).

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

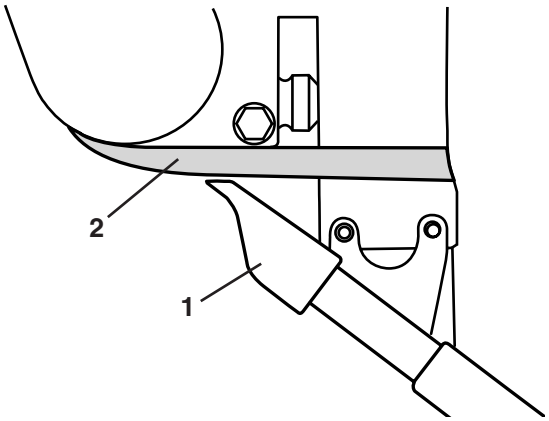


Figure 12

8. Secure the scraper by tightening the handle (Figure 13, item 1).

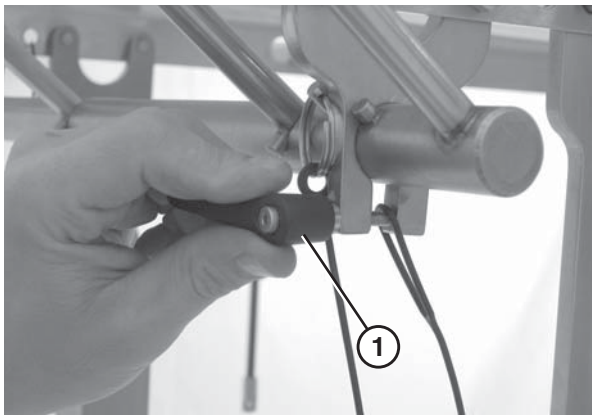


Figure 13

Stand Installation

Typical Stand Components (Figure 14)

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

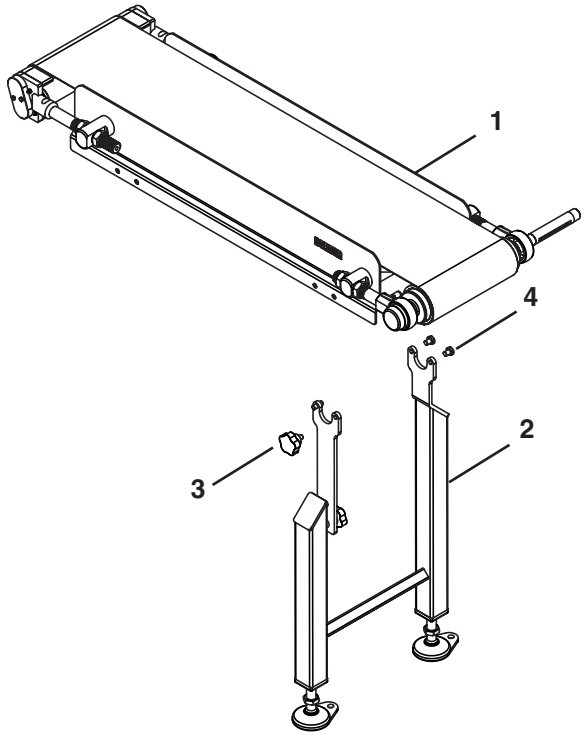


Figure 14

1. Properly support the conveyor.
2. Attach the non-quick release side of the stand (Figure 15, item 1) to the MOTOR SIDE of the conveyor (Figure 15, item 2) using two M10-1.5 x 12mm hex head cap screws (Figure 15, item 3).

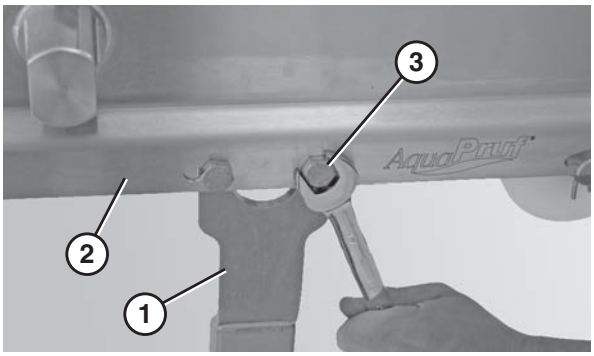


Figure 15

3. Attach the quick-release arm to the stand with the knob. (Figure 14, item 3).

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

Drive Package Installation

Typical Motor Components (Figure 16)

1	End drive package
2	Motor

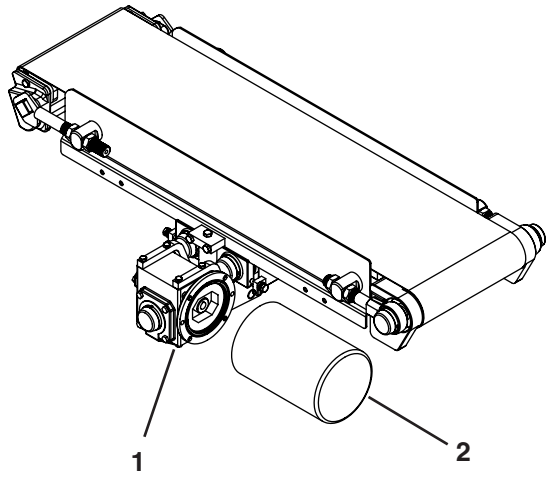


Figure 16

1. Attach the motor to the gear reducer (Figure 20).

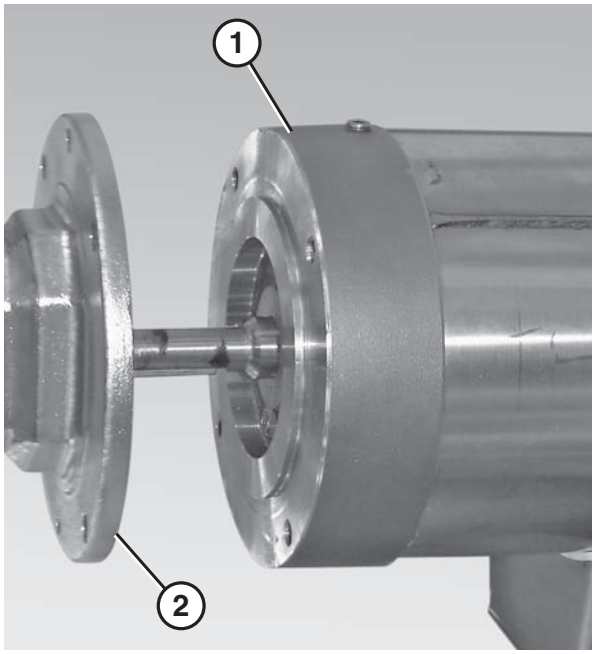


Figure 17

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

Conveyors Longer than 10 ft (3048 mm)

Connecting Components

Typical Connection Components (Figure 18)

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

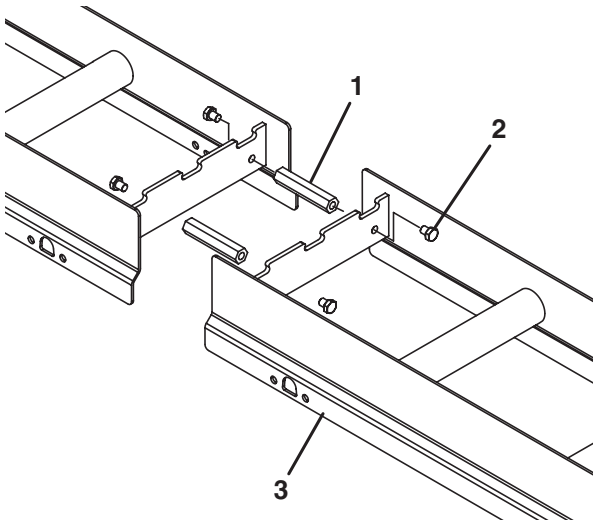


Figure 18

1. Locate the section number sequence etched on each section of frame (Figure 19, item 1).

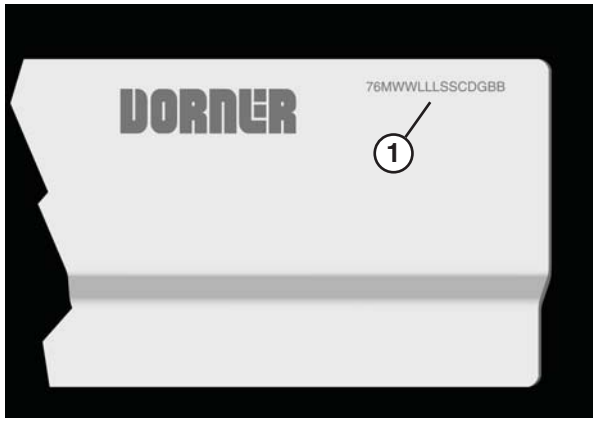


Figure 19

2. Position the frame sections in the correct order.
3. Connect the frame sections by bolting the hex post connectors (Figure 20, item 1) to the sections of frame.

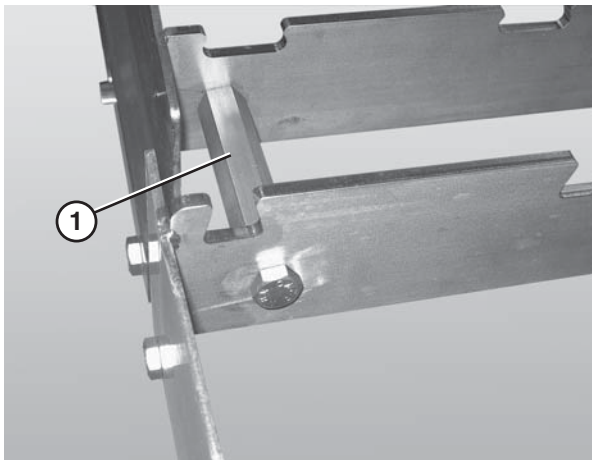


Figure 20

Wear Strip Installation

Standard Wear Strips

Typical Standard Wear Strips (Figure 21)

1	Wear Strips

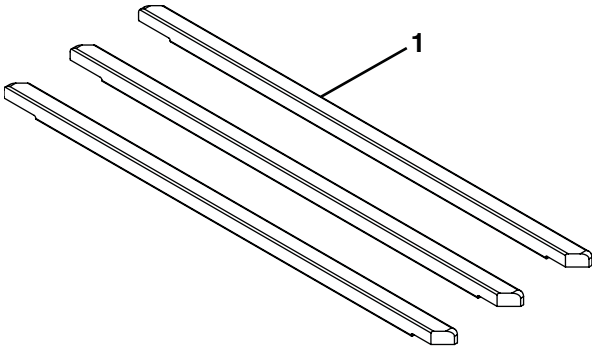


Figure 21

1. Position the wear strips (Figure 22, item 1) on the frame.

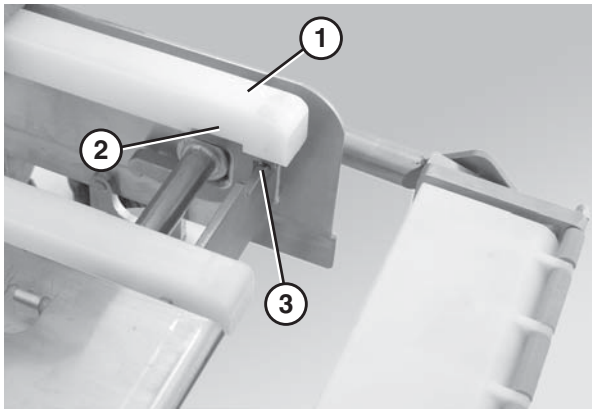


Figure 22

2. Make sure the slots in the wear strips (Figure 22, item 2) line up properly with the frame slots (Figure 22, item 3).

Stainless Steel Sheet Bed Plates (optional)

Typical Stainless Steel Sheet Bed Plates (Figure 23)

1	Bed Plates
2	Wear Strips

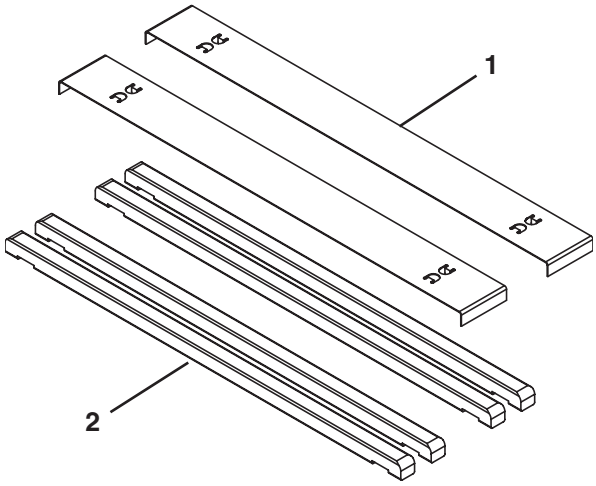


Figure 23

1. Attach the wear strips to the frame. Refer to “Standard Wear Strips” on page 10.
2. Place the sheet bed plates (Figure 24, item 1) over the wear strips (Figure 24, item 2).

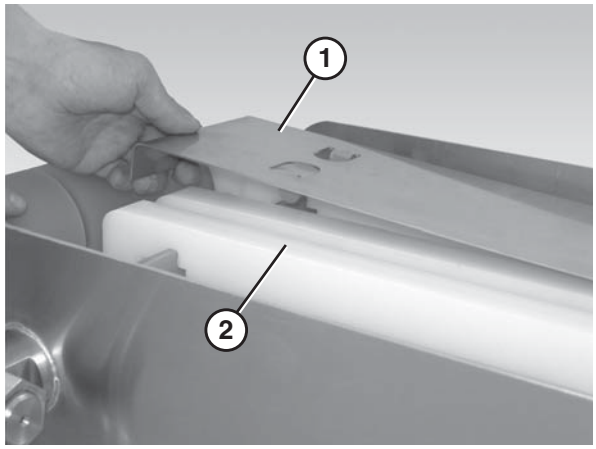


Figure 24

Lifter Installation

Typical Lifter Components (Figure 25)

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

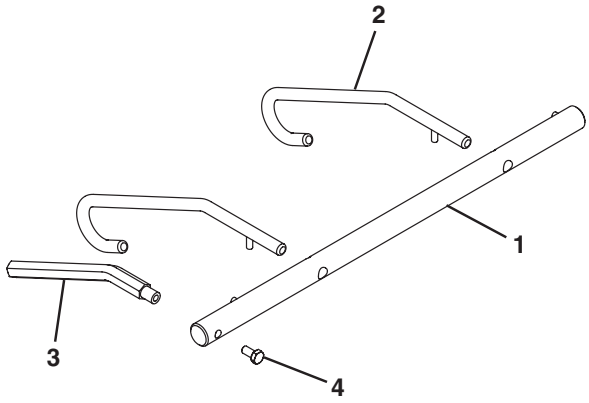


Figure 25

1. Slide the belt lift pivot bar (Figure 26, 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.

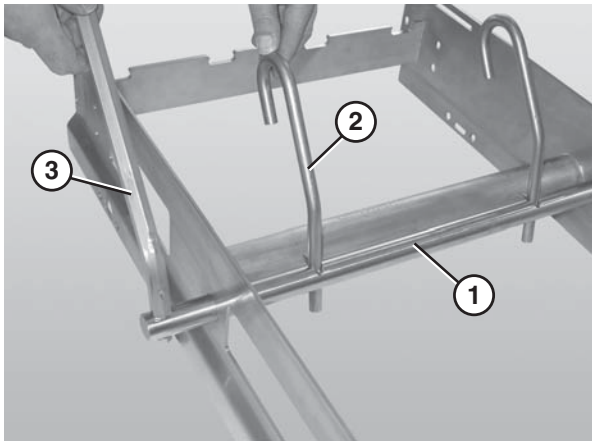


Figure 26

2. Attach the lifter bars (Figure 26, item 2) to the belt lift pivot bar (Figure 26, 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 26, item 3) to the belt lift pivot rod.

Belt Installation

Typical Standard Belt (Figure 27)

1	Belt

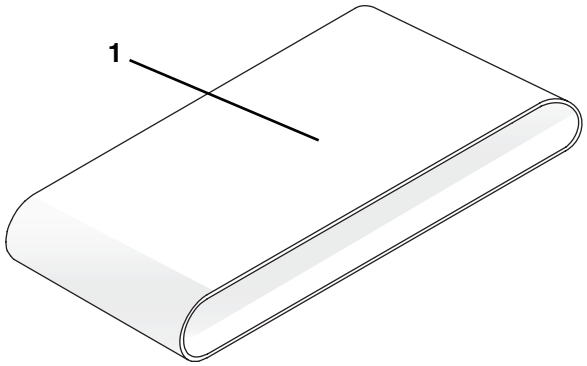


Figure 27

1. Place the idler tail (Figure 28, item 1) in the up position.

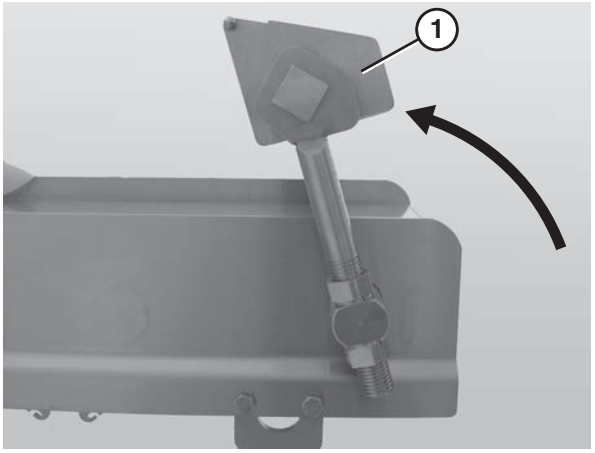


Figure 28

2. Remove the 2 pull pins (Figure 29, item 1) from the center drive side plate (Figure 29, item 2).

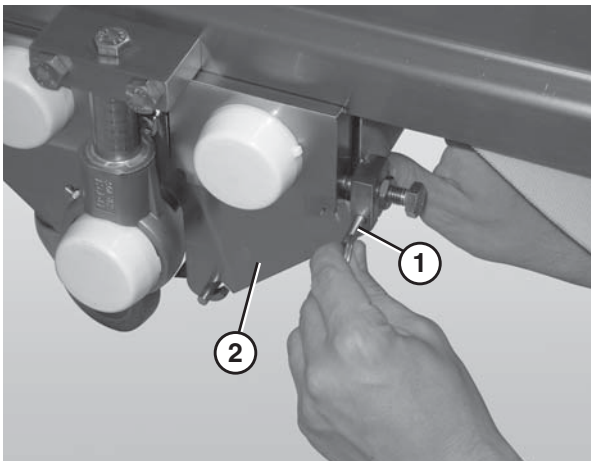


Figure 29

3. Lift up on the center drive guard (Figure 30, item 1) and remove it.

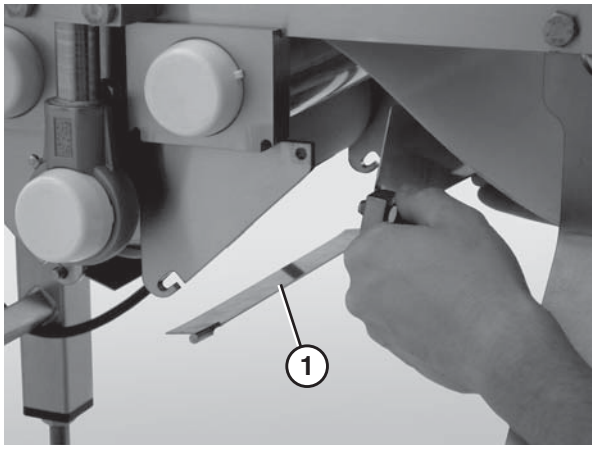


Figure 30

4. Slide the tension spindle assembly (Figure 31, item 1) out of the housing.

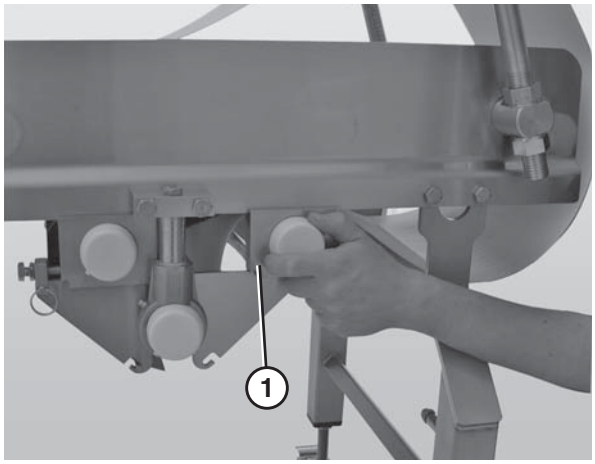


Figure 31

5. Repeat steps 2 - 4 on the other side of the drive assembly.

⚠ WARNING

SEVERE HAZARD!

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

6. Lower the quick release arm (Figure 32, 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."

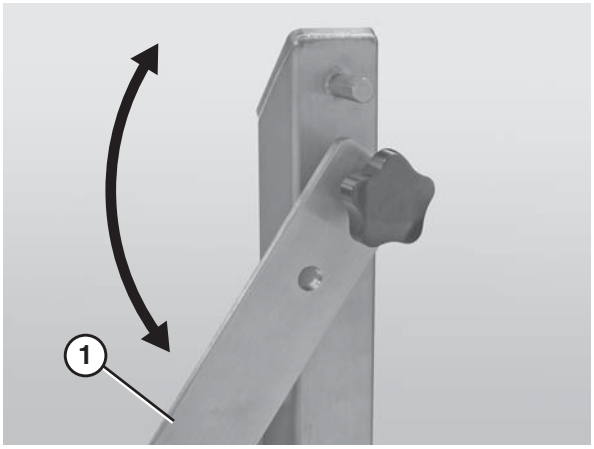


Figure 32

7. Slide the belt (Figure 33, item 1) on over the conveyor frame (Figure 33, item 2).

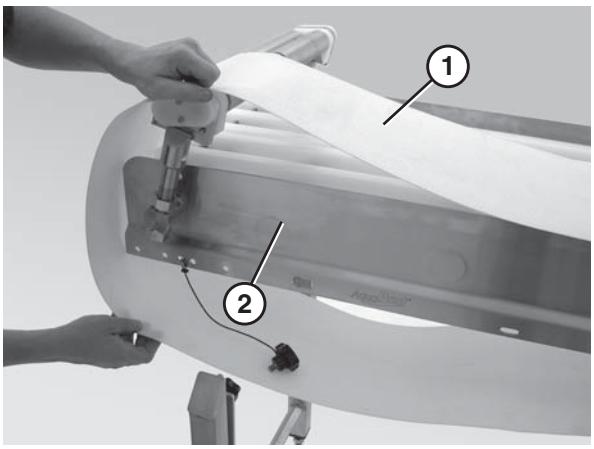


Figure 33

8. Secure the quick release arm on the stand and repeat steps 6 and 7 until the belt is around the entire length of the conveyor.
9. Slide the tension spindle assemblies (Figure 31, item 1) back into the housing.
10. Reattach the center drive guards (Figure 30, item 1).
11. Insert the pull pins (Figure 29, item 1).
12. Add tension to the belt by lowering the tip-up tail or by sliding the idler tail out and tightening the nuts. Refer to "Conveyor Belt Tensioning" on page 17.
13. Adjust the belt tracking as necessary. Refer to "Conveyor Belt Tracking" on page 18.

Belt Return Installation

Refer to “Belt Return Installation” on page 6.

Scraper Installation

Refer to “Scraper Installation” on page 7.

Guide Installation

Typical Guide Components (Figure 34)

1	Guide
2	Pull pin

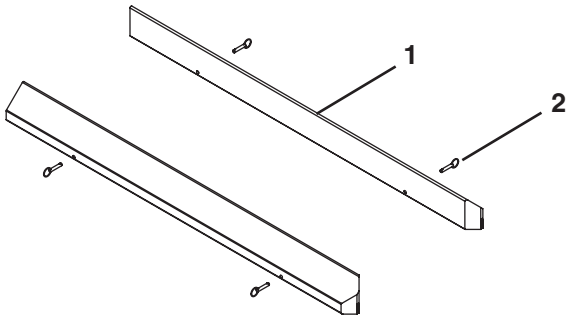


Figure 34

1. Position the guide (Figure 35, item 1) so that the flat surface is facing the belt and then slide the guide onto the frame rail (Figure 35, item 2).

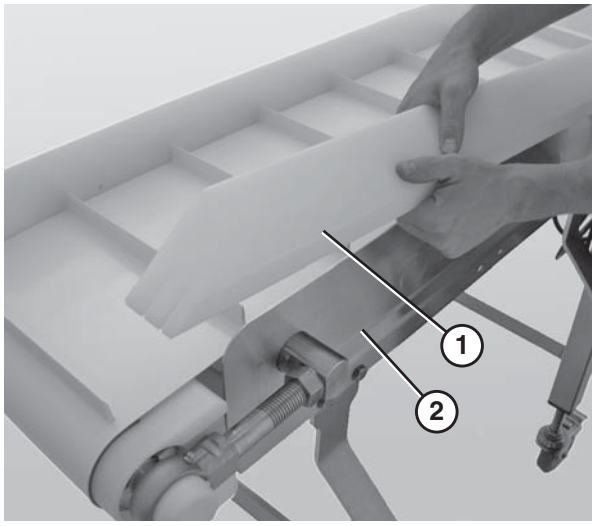


Figure 35

2. Line up the guide holes with the holes in the frame.
3. Insert the pull pins (Figure 36, item 1) into the holes in the guide (Figure 36, item 2).

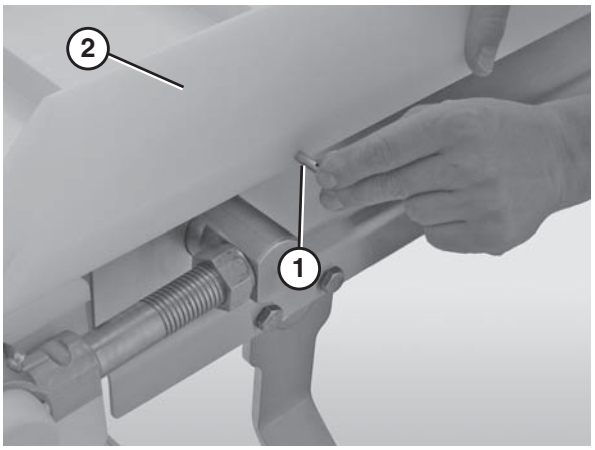


Figure 36

Stand Installation

Refer to “Stand Installation” on page 8.

Drive Package Installation

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

Required Tools

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

Routine Cleaning

⚠ WARNING

SEVERE HAZARD!

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

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

Standard Conveyors

1. Remove the guides, if applicable, by removing the pull pins (Figure 37, item 1) that connect the guide (Figure 37, item 2) to the frame.

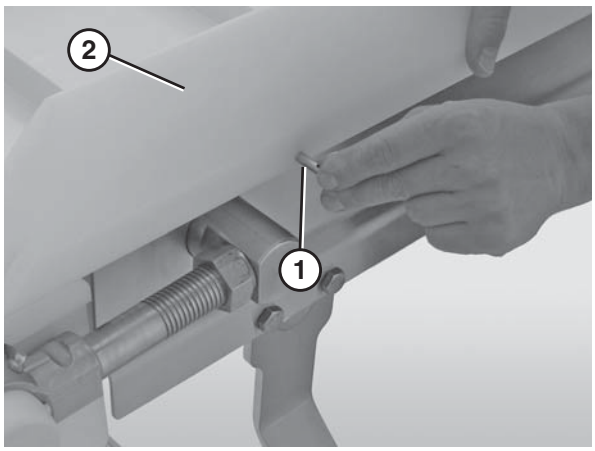


Figure 37

2. Place the tip up tail (Figure 38, item 1) in the up position.

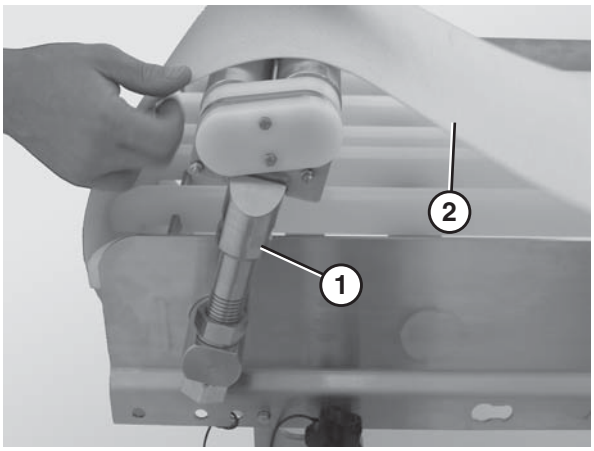


Figure 38

3. Lift up on the belt (Figure 38, item 2).

Conveyors with Lifters

1. Remove the guides, if applicable, by removing the pull pins (Figure 37, item 1) that connect the guide (Figure 37, item 2) to the frame.
2. Place the tip up tail in the up position.
3. Use the lifter handle (Figure 39, item 1) to raise the belt (Figure 39, item 2).

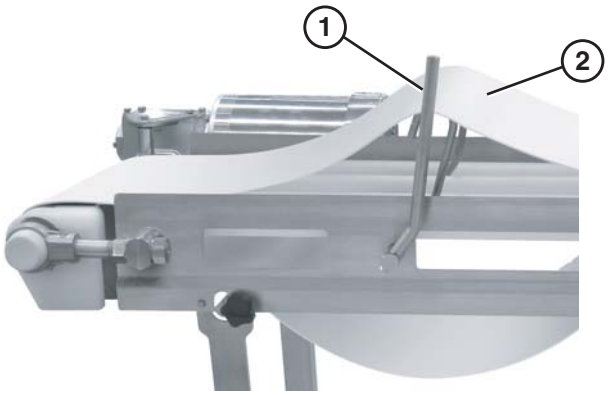


Figure 39

CAUTION

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

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 16.
- Refer to "Spindle Removal" on page 19.

Lubrication

Conveyor Bearings

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

NOTE

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

1. Add grease to the bearing using the zerk fitting (Figure 40, item 1) on the exterior of the bearing shaft assembly.

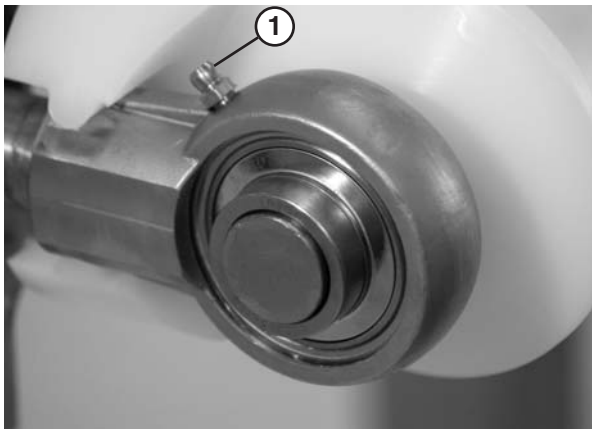


Figure 40

2. Replace the bearings if they become worn.

Wearstrips and Belt Returns

Replace the wearstrips and belt returns if they become worn.

For wearstrip and belt return installation instructions:

- Refer to "Wear Strip Installation" on page 10.
- Refer to "Belt Return Installation" on page 6.

Scraper

Replace the UHMW scraper if it becomes worn.

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

Maintaining the Conveyor Belt

Troubleshooting

NOTE

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

Inspect conveyor belt for:

- Surface cuts or wear

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

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

Skipping indicates:

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

Conveyor Belt Replacement

⚠ WARNING

SEVERE HAZARD!

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

Conveyors with Guides

1. Remove the pull pins (Figure 41, item 1) that connect the guide (Figure 41, item 2) to the frame.

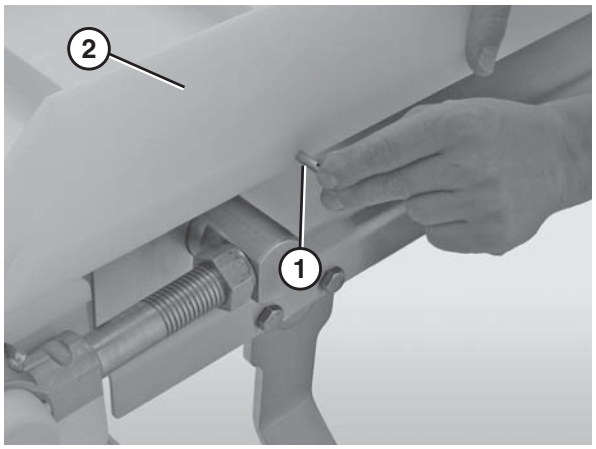


Figure 41

2. Remove the guide (Figure 42, item 1) from the conveyor (Figure 42, item 2).

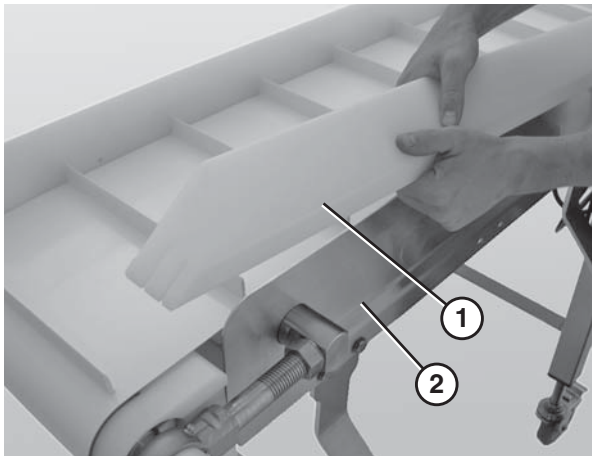


Figure 42

Standard Belts

1. Place the idler tail (Figure 43, item 1) in the up position.

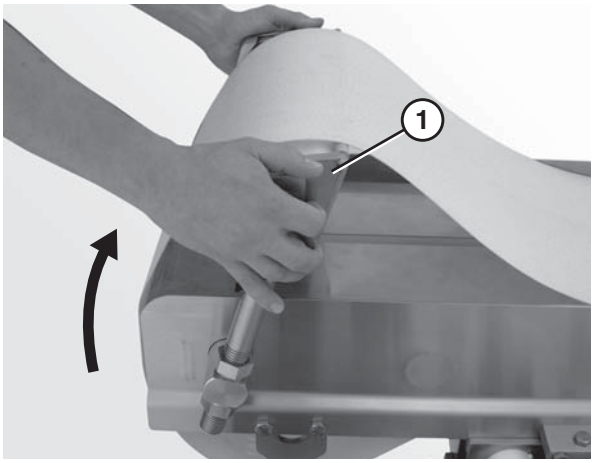


Figure 43

2. Remove the pull pins (Figure 44, item 1) from the center drive side plate (Figure 44, item 2).

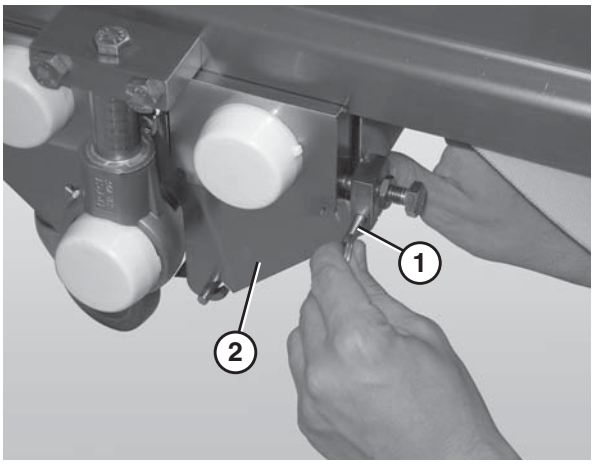


Figure 44

3. Lift up on the center drive guard (Figure 45, item 1) and remove it.

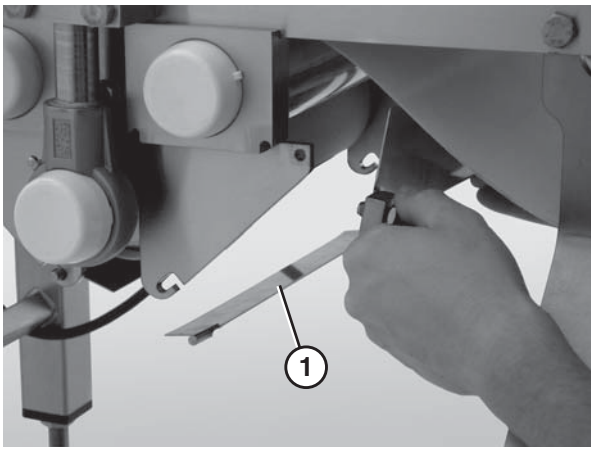


Figure 45

4. Slide the tension spindle assembly (Figure 46, item 1) out of the housing.

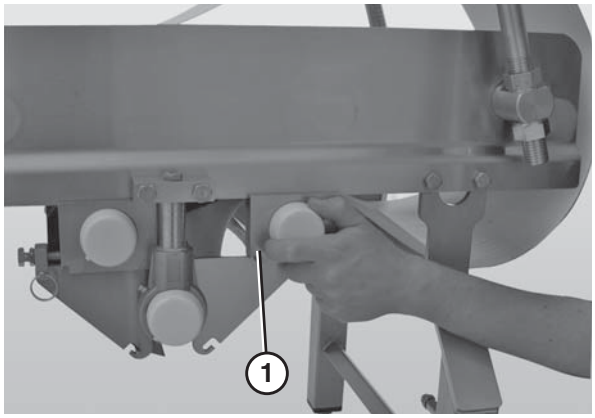


Figure 46

5. Repeat steps 2 - 4 on the other side of the drive assembly.

⚠ WARNING

SEVERE HAZARD!

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

6. Lower the quick release arm (Figure 47, 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."

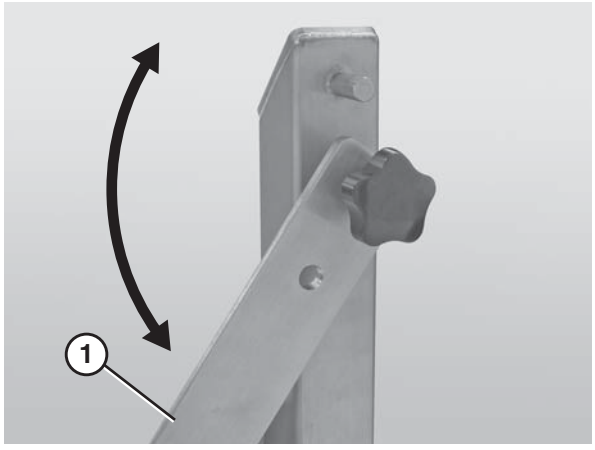


Figure 47

7. Slide the old belt (Figure 48, item 1) off the conveyor frame (Figure 48, item 2).

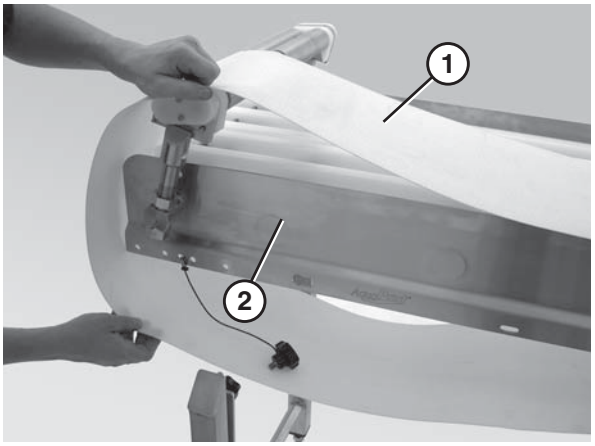


Figure 48

8. Secure the quick release arm on the stand and repeat steps 6 and 7 until the entire belt is off the conveyor.
9. Replace the old belt with a new one. Refer to "Belt Installation" on page 11.

Conveyor Belt Tensioning

⚠ WARNING

SEVERE HAZARD!

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

CAUTION

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

1. Loosen the back nuts (Figure 49, item 1) on both sides of the infeed tail shaft.

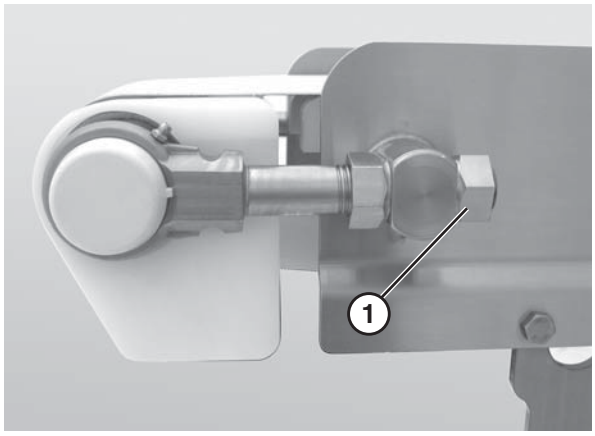


Figure 49

2. Turn the front nuts closest to the tail (Figure 50, item 1) clockwise in order increase tension on the belt.

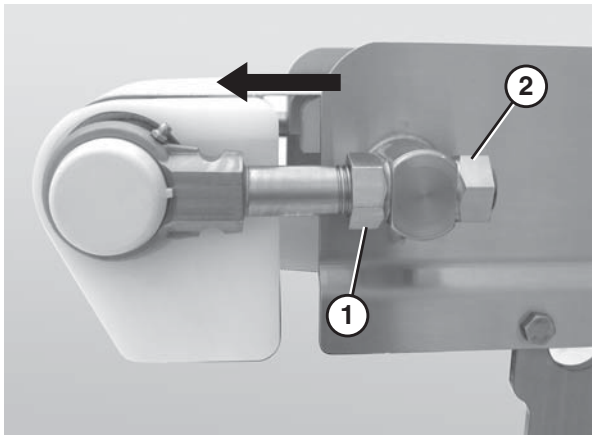


Figure 50

CAUTION

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

IMPORTANT

If the tail is fully extended, it may be necessary to tension the belt at the discharge end of the conveyor.

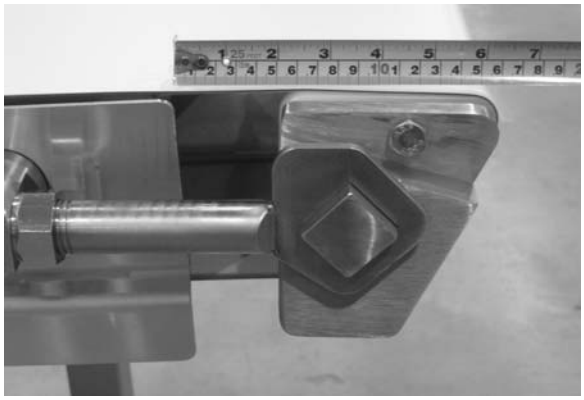


Figure 51

3. Tighten the back nuts (Figure 50, item 2) to secure the tail.

Conveyor Belt Tracking

For non v-guide belts - track at tails first for major adjustments and second at center drive. For v-guided belts - track at center drive.

Conveyor Belt Tracking at Tails

To adjust conveyor belt tracking at the tails:

1. Loosen the back nut (Figure 50, item 2) on the idler tail shaft that needs to be adjusted.
2. Tighten or loosen the front nut (Figure 50, item 1) on the idler tail shaft adjust the belt tracking.

CAUTION

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

   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 52).

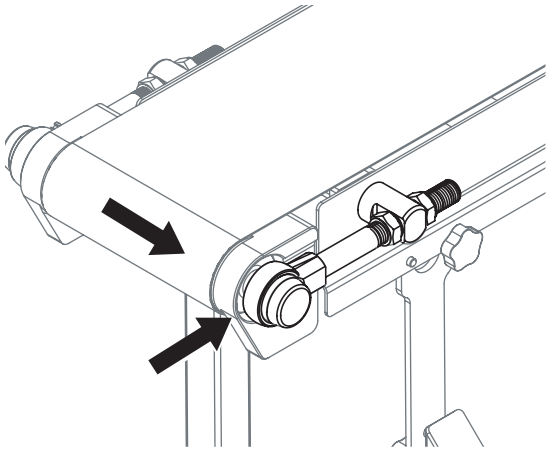


Figure 52

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 53).

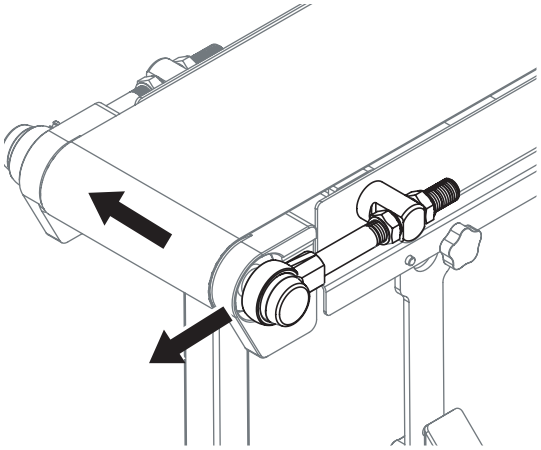


Figure 53

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

Conveyor Belt Tracking at Center Drive

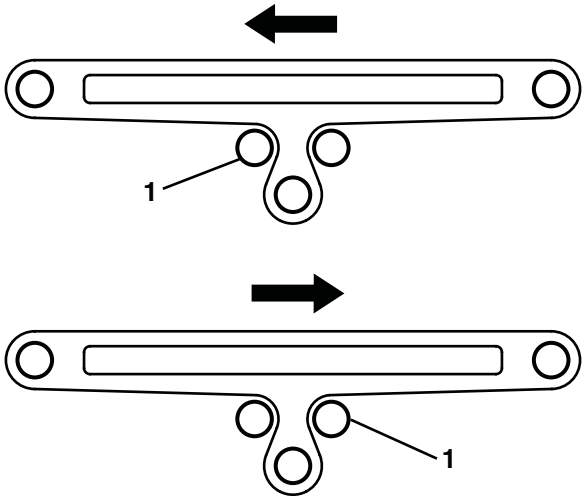


Figure 54

Tracking of belt through the center drive is done by adjusting the position of the infeed roller (Figure 54, item 1) on the center drive assembly.

To adjust conveyor belt tracking at the center drive:

1. Loosen the guide plate nuts (Figure 55, item 1) on the infeed side of the center drive assembly.

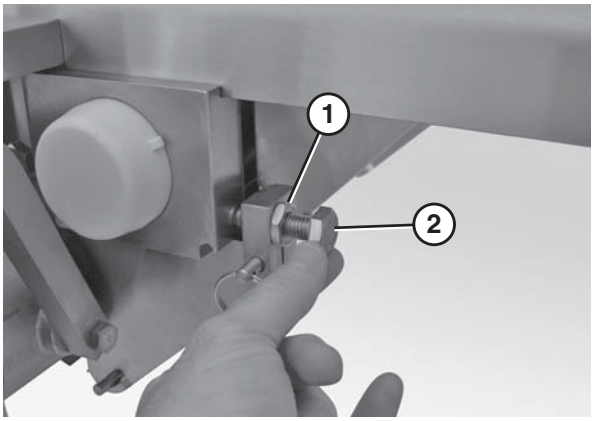


Figure 55

2. Tighten or loosen the guide plate bolts (Figure 55, item 2) on the infeed side of the drive assembly to adjust the belt tracking.
   a. Loosen the bolt to bring the belt closer to that side of the conveyor.
   b. Tighten the bolt to move the belt away from that side of the conveyor.
3. Tighten the guide plate nuts when finished.

IMPORTANT

Belt tracking will need to be readjusted if the direction of travel is changed.

Spindle Removal

⚠ WARNING

SEVERE HAZARD!

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

1. Remove the conveyor belt to access the spindles. Refer to “Conveyor Belt Replacement” on page 16.
2. Remove the spindle by following the instructions for the specific spindle type:

- A - Center 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

Preventive Maintenance and Adjustment

A - Center Drive Spindle Removal

⚠ WARNING

PUNCTURE HAZARD!

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

1. Place the idler tail (Figure 56, item 1) in the up position.

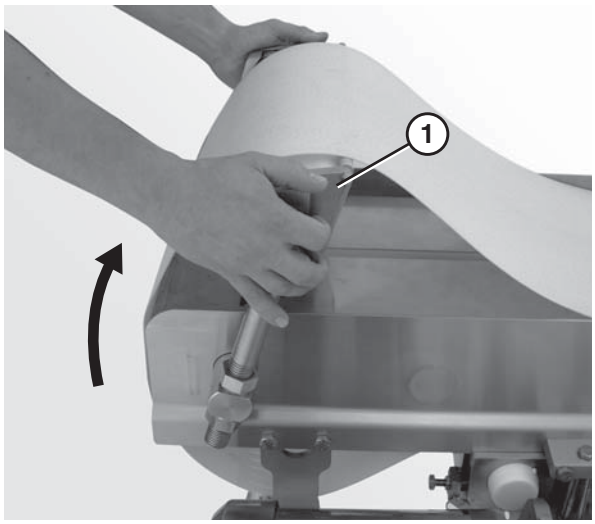


Figure 56

2. Remove the pull pins (Figure 57, item 1) from the center drive side plate (Figure 57, item 2).

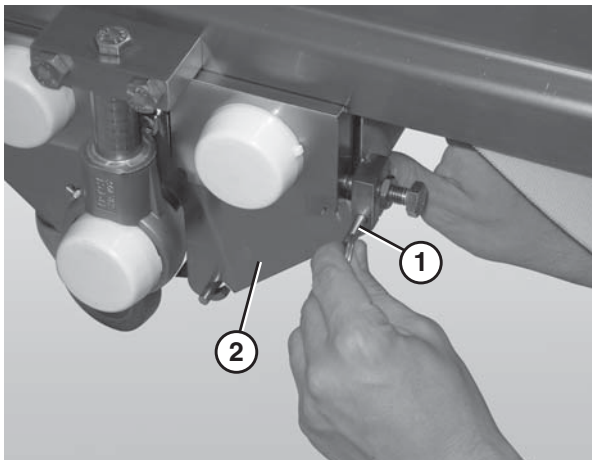


Figure 57

3. Lift up on the center drive guard (Figure 58, item 1) and remove it.

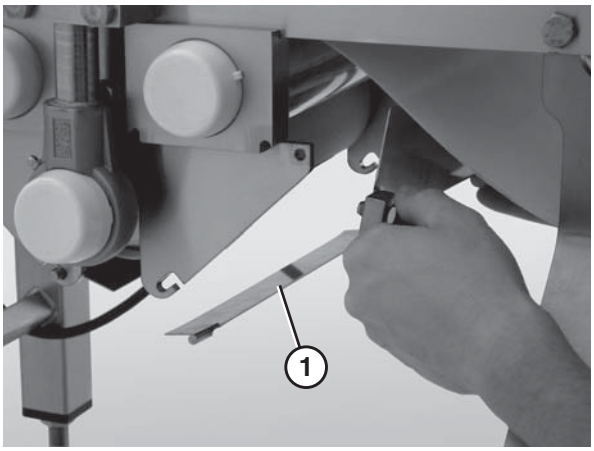


Figure 58

4. Slide the tension spindle assembly (Figure 59, item 1) out of the housing.

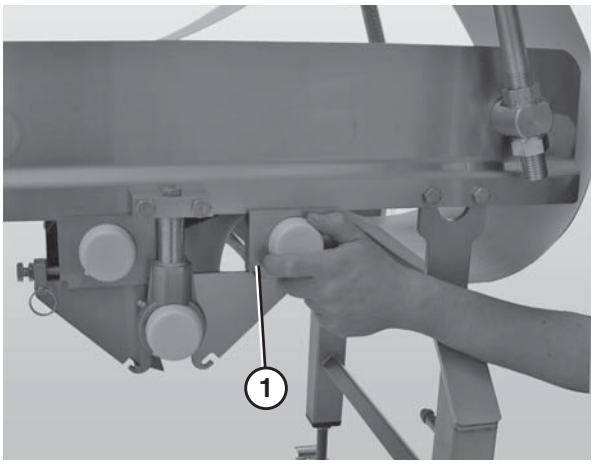


Figure 59

5. Repeat steps 2 - 4 on the other side of the drive assembly.

⚠ WARNING

CRUSH HAZARD!

- **SUPPORT MOTOR PRIOR TO LOOSENING THE BOLTS.**
- **Loosening motor bolts may cause it to drop down, causing serious injury.**

6. Remove the bolts (Figure 60, item 1) that connect the motor (Figure 60, item 2) to the gear reducer (Figure 60, item 3).

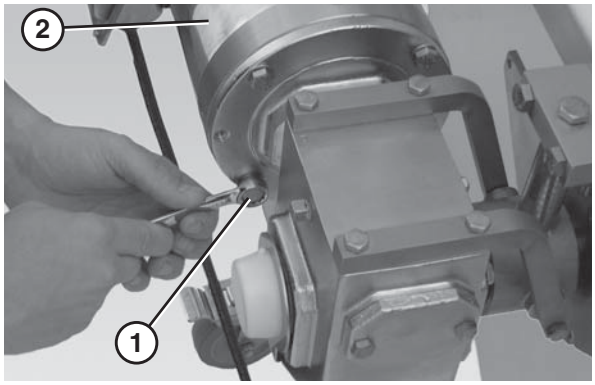


Figure 60

7. Disconnect the motor (Figure 61, item 1) from the gear reducer (Figure 61, item 2).

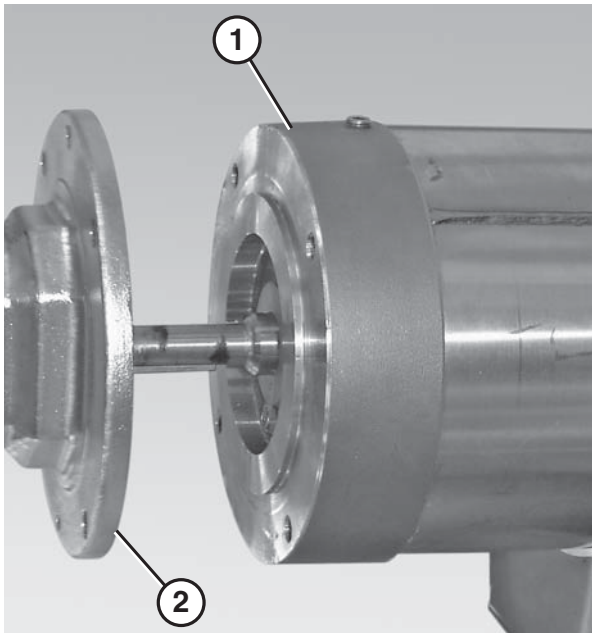


Figure 61

8. Remove the drive spindle cover (Figure 62, item 1).

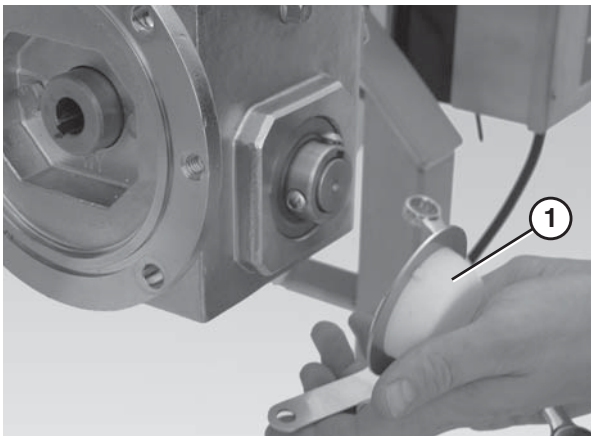


Figure 62

9. Use a 4 mm hex wrench to loosen the outside button head screws (Figure 63, item 1) and the inside button head screws (Figure 63, item 2) that connect the gearmotor to the drive spindle.

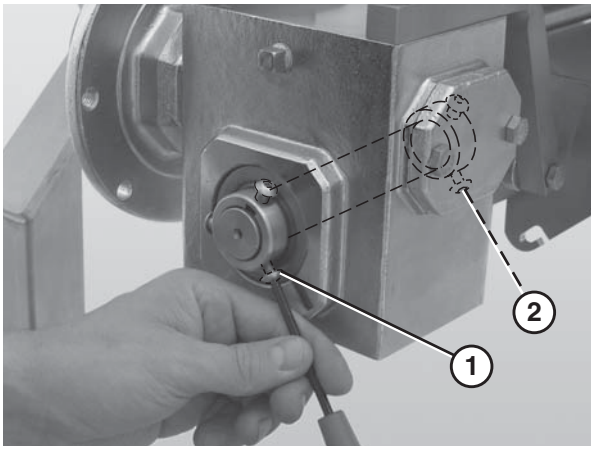


Figure 63

10. Remove the bolts (Figure 64, item 1) that connect the bent bars (Figure 64, item 2) to the drive mounting bracket (Figure 64, item 3).

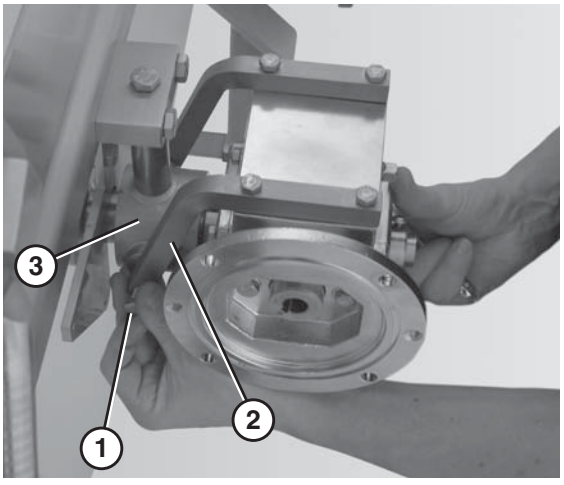


Figure 64

11. Slide the gear reducer (Figure 65, item 1) off the drive shaft (Figure 65, item 2).

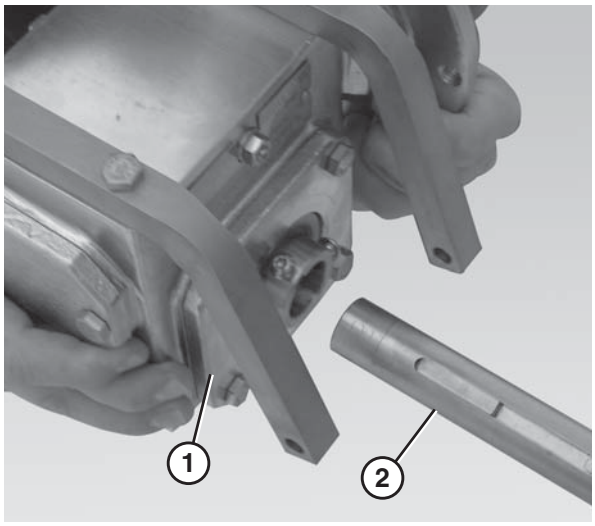


Figure 65

12. Remove the bearing cover (Figure 66, item 1) on the center drive shaft assembly (Figure 66, item 2).

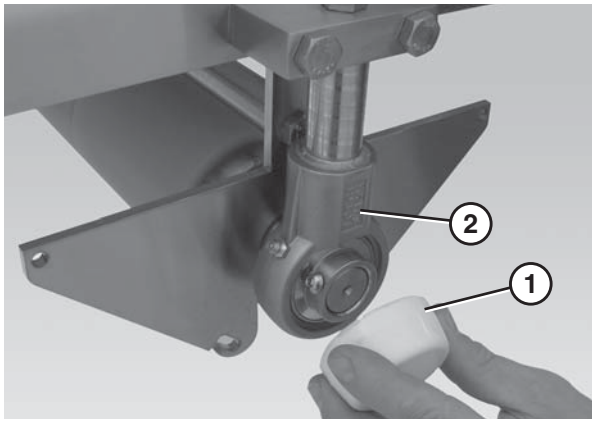


Figure 66

13. Use a 4 mm hex wrench to loosen the button head screws on the bearing (Figure 67, item 1).

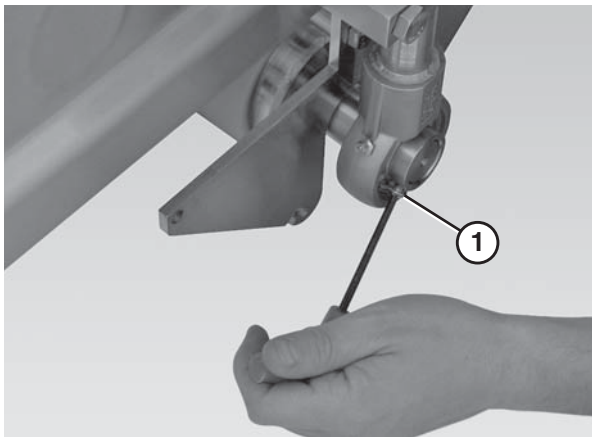


Figure 67

14. Remove the bolt (Figure 68, item 1) that connects the drive shaft assembly (Figure 68, item 2) to the block shaft mount (Figure 68, item 3).

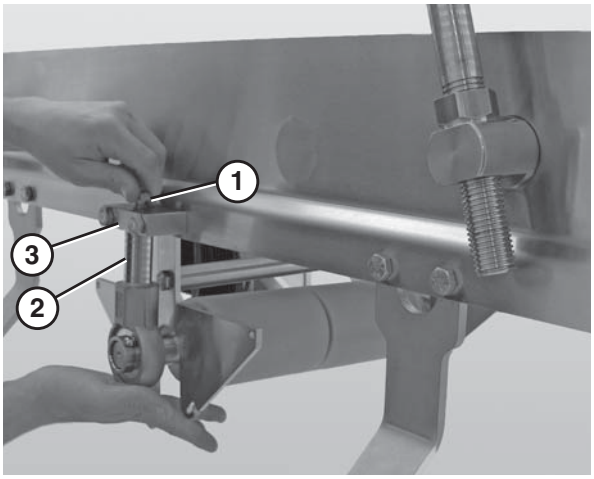


Figure 68

15. Lower the end of the drive shaft spindle (Figure 69, item 1) until it is clear of the side plate (Figure 69, item 2) and remove it.

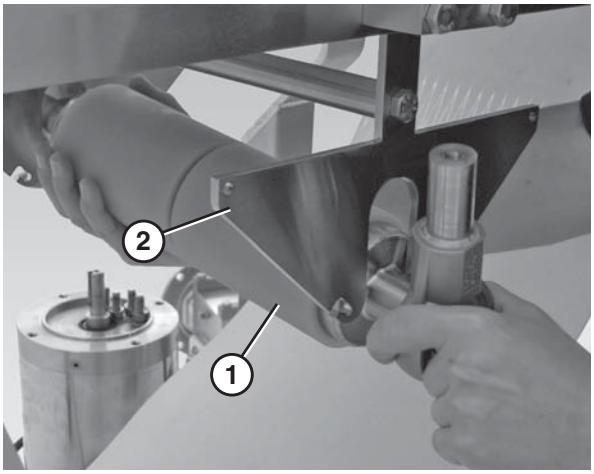


Figure 69

B - Idler Spindle Removal

1. Remove the back nuts (Figure 70, item 1) on both idler tail shafts.

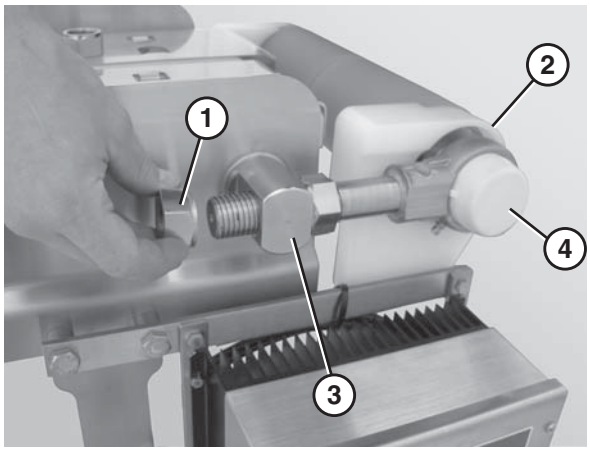


Figure 70

2. Slide the idler tail assembly (Figure 70, item 2) out of the take up blocks (Figure 70, item 3).
3. Remove the bearing covers (Figure 70, item 4).
4. Use a 4 mm hex wrench (Figure 71, item 1) to loosen the bearing shaft assembly fasteners (Figure 71, item 2).

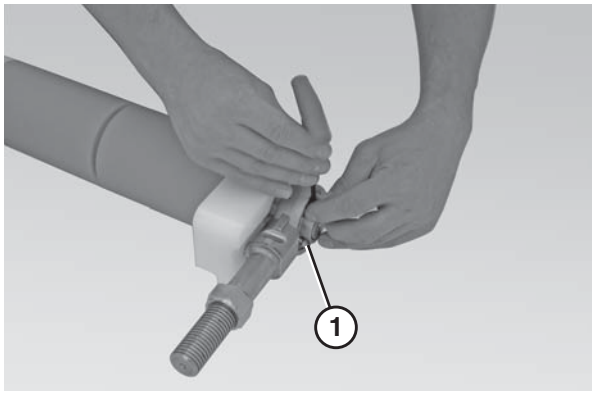


Figure 71

5. Remove the bearing shafts (Figure 72, item 1) and both pinch guards (Figure 72, item 2).

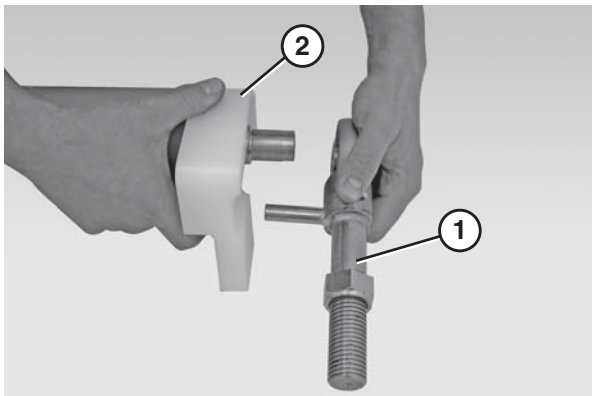


Figure 72

C - .5" Nose Bar Idler Spindle Removal

1. Remove the back nuts (Figure 73, item 1) on both discharge nose bar shafts.

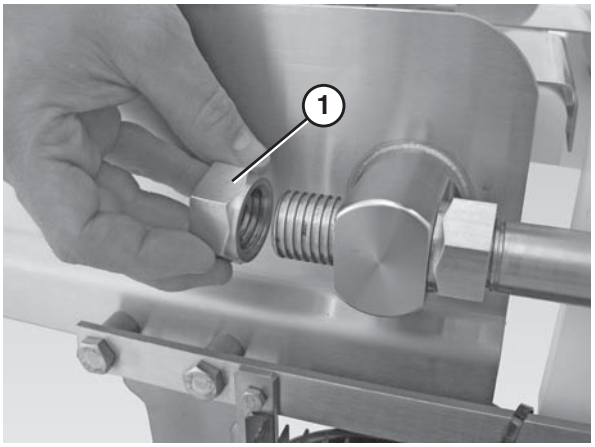


Figure 73

2. Slide the nose bar tail assembly (Figure 74, item 1) out of the take up blocks (Figure 74, item 2).

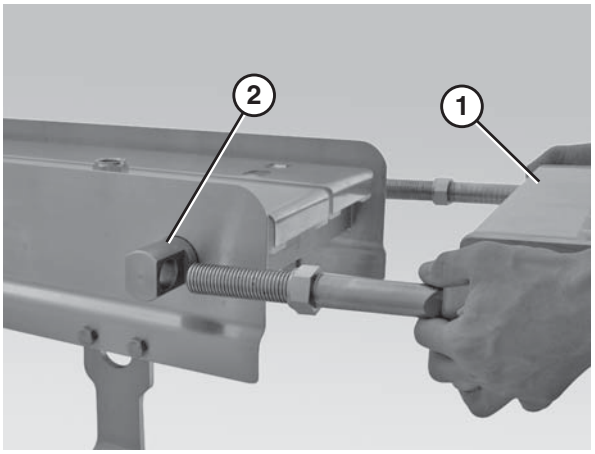


Figure 74

3. Slide the nose bar shafts (Figure 75, item 1) off of the nose bar weldment (Figure 75, item 2).

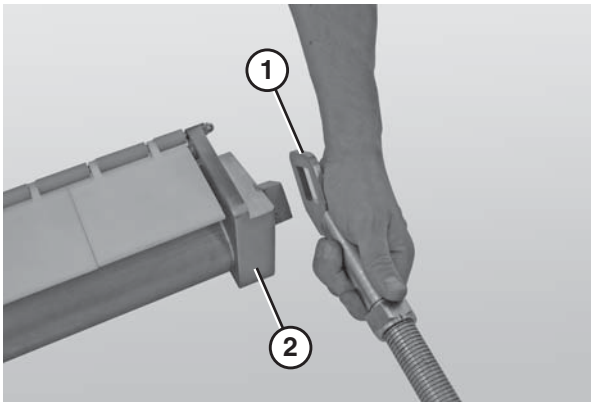


Figure 75

4. Use a 10 mm wrench to remove one of the acorn nuts (Figure 76, item 1) from the nose bar shaft.

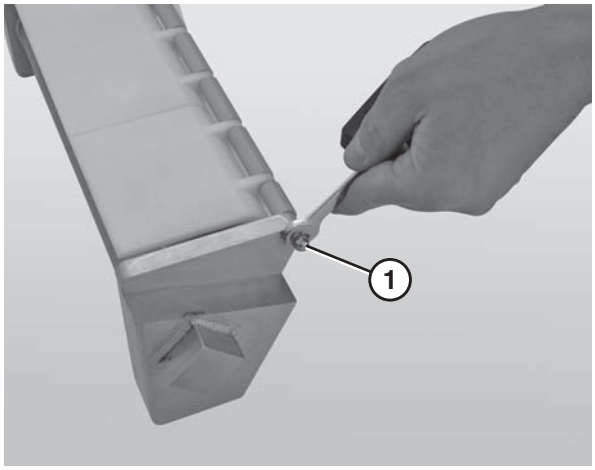


Figure 76

5. Remove the nose bar shaft (Figure 77, item 1), the rollers (Figure 77, item 2) and the roller mounts (Figure 77, item 3).

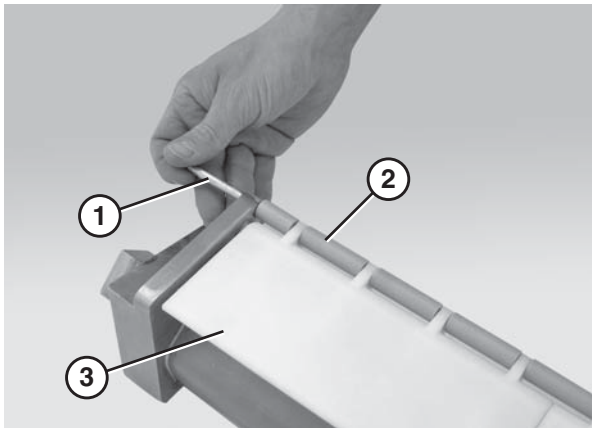


Figure 77

6. Remove the nose bar return spindle (Figure 78, item 1).

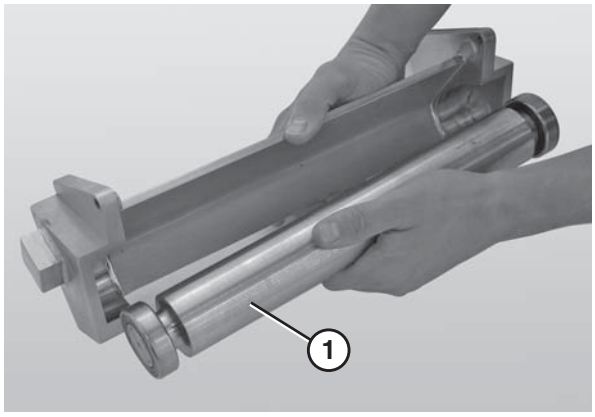


Figure 78

D - 1” Nose Bar Idler Spindle Removal

1. Remove the back nuts (Figure 79, item 1) on both discharge nose bar shafts.

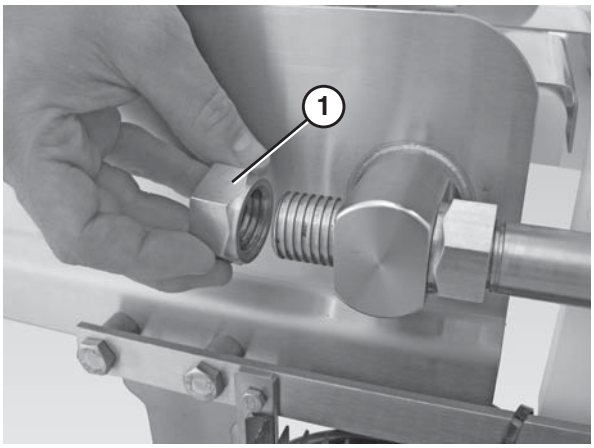


Figure 79

2. Slide the nose bar tail assembly (Figure 80, item 1) out of the take up blocks (Figure 80, item 2).

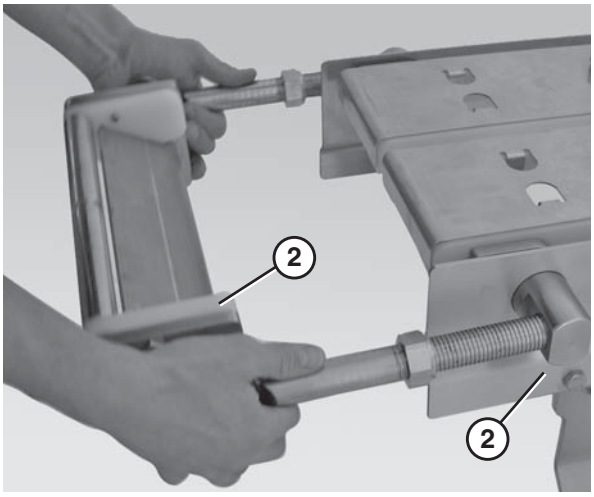


Figure 80

3. Slide the nose bar shafts (Figure 81, item 1) off of the nose bar weldment (Figure 81, item 2).

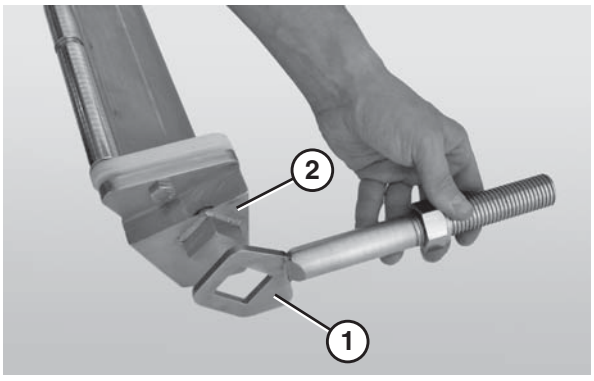


Figure 81

4. Use a 17 mm wrench to remove both pilot nose bolts (Figure 82, item 1) from the nose bar weldment (Figure 82, item 2).

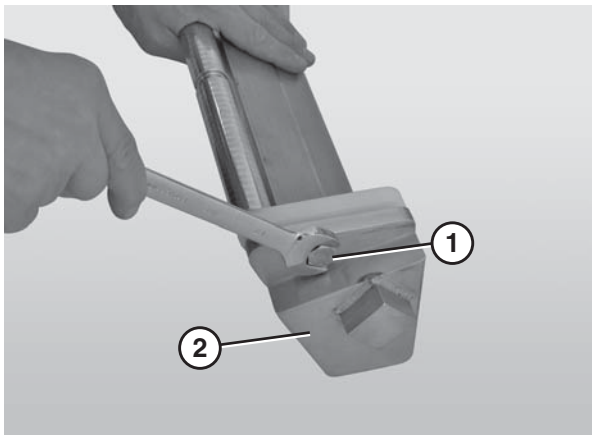


Figure 82

5. Slide the nose bar puck holders (Figure 83, item 1) and the nose bar spindle (Figure 83, item 2) off of the nose bar weldment (Figure 83, item 3).

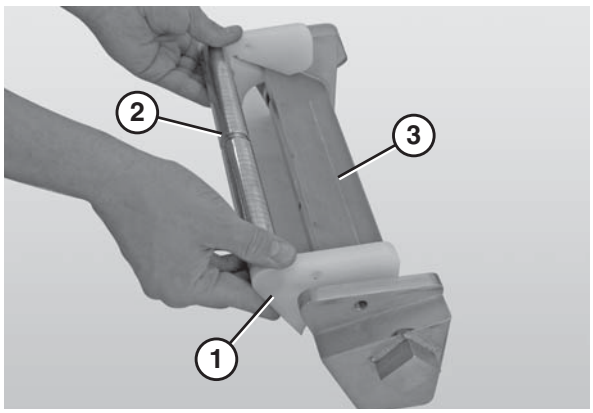


Figure 83

6. Remove the nose bar return spindle (Figure 84, item 1).

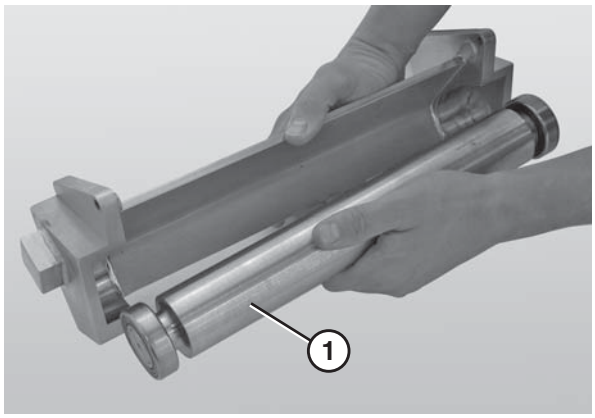


Figure 84

E - 1.875" Nose Bar Idler Spindle Removal

1. Slide the pinch guard blocks (Figure 85, item 1) off the nose bar spindles (Figure 85, item 2).

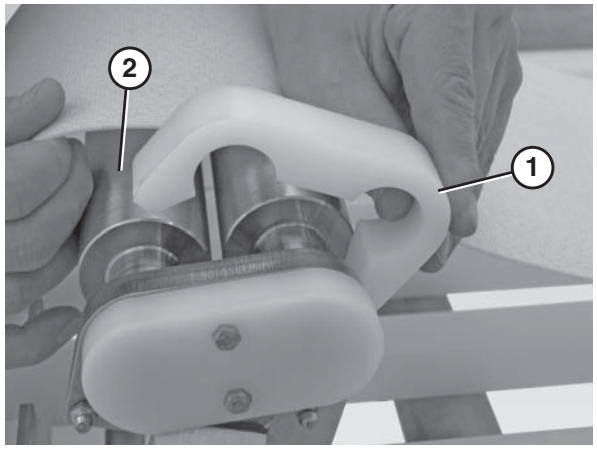


Figure 85

2. Remove the transfer bearing screws and the cover using an 8 mm wrench.

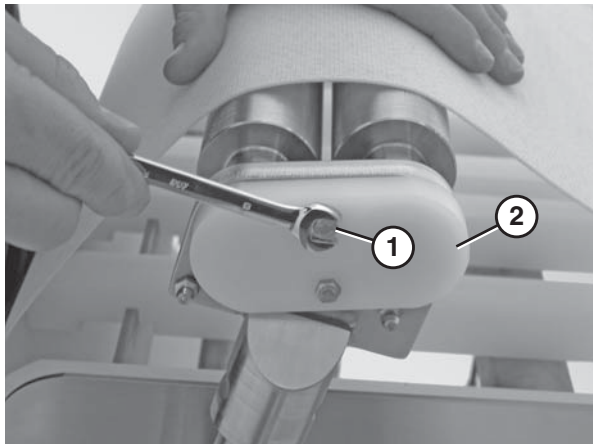


Figure 86

3. Remove the back nuts (Figure 87, item 1) on both discharge nose bar shafts.

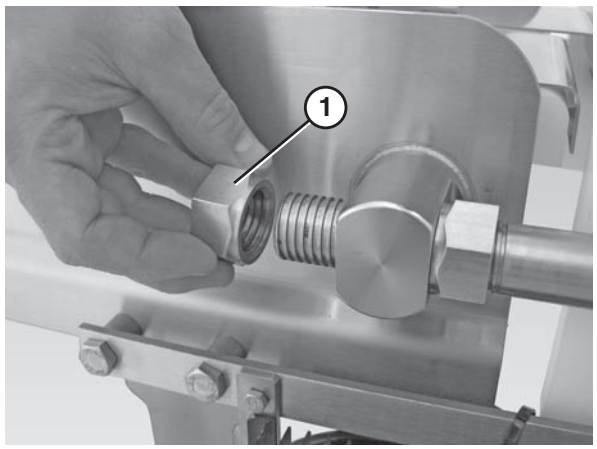


Figure 87

4. Slide the nose bar tail assembly (Figure 88, item 1) out of the take up blocks (Figure 88, item 2).

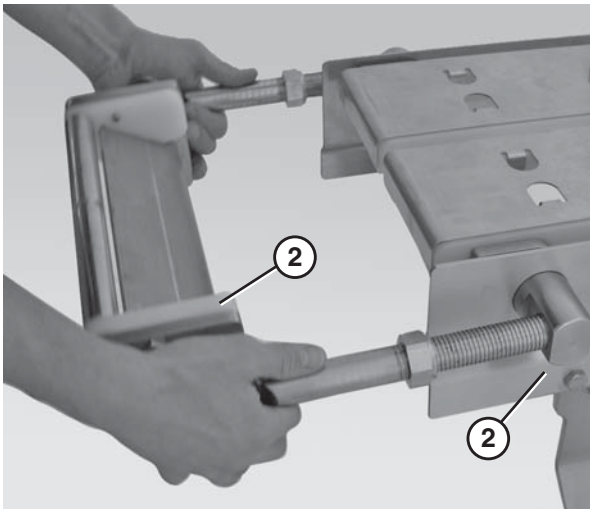


Figure 88

5. Use a 4 mm hex wrench to loosen all the bearing fasteners (Figure 89, item 1).

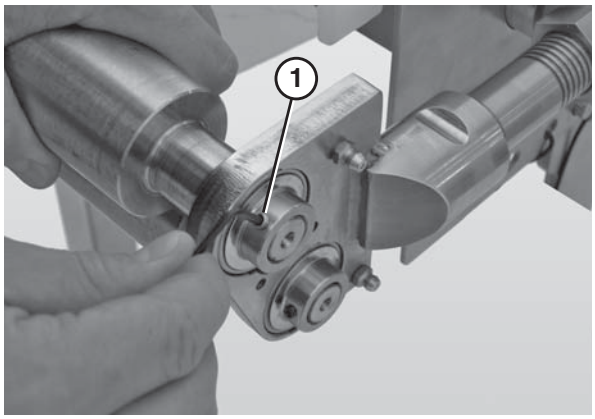


Figure 89

6. Slide the nose bar shafts (Figure 90, item 1) off the nose bar spindles (Figure 90, item 2).

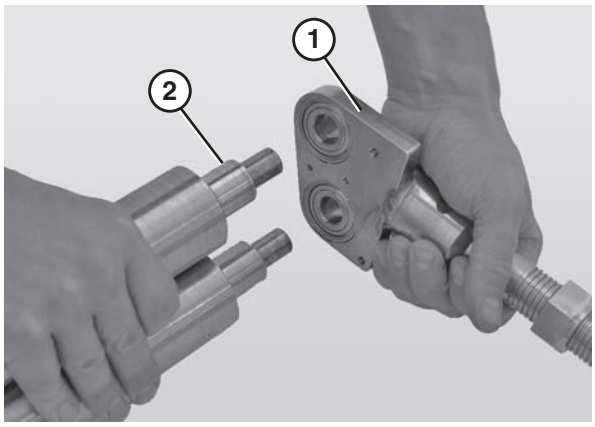


Figure 90

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 91, item 1).

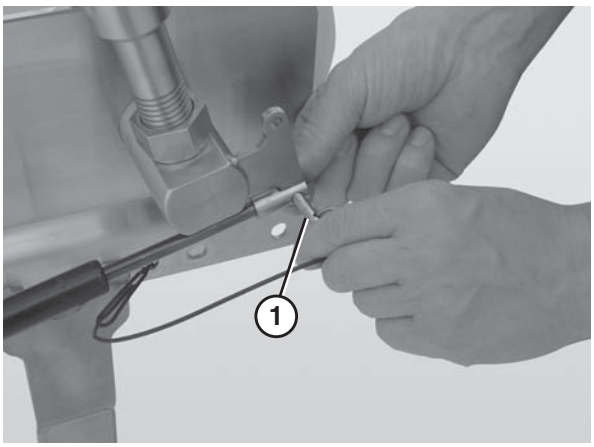


Figure 91

3. Remove the hex bolt (Figure 92, item 1) that connects the gas spring (Figure 92, item 2) to the gas spring standoff post (Figure 92, item 3).

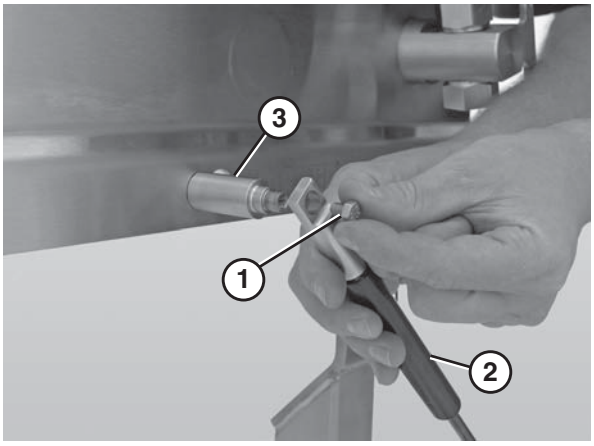


Figure 92

4. Remove the inside hex bolt that connects the standoff post (Figure 92, 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 93).

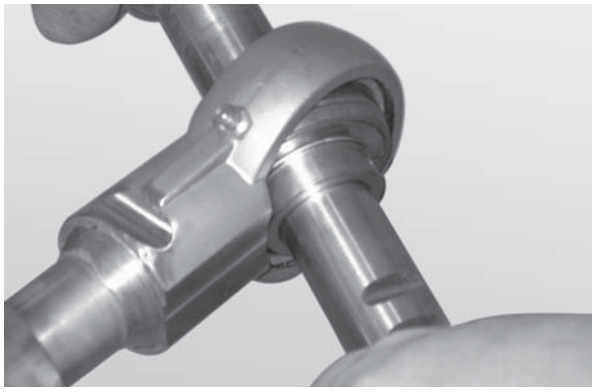


Figure 93

4. Apply lateral pressure to the rod until the bearing comes loose.
5. Remove the worn or damaged bearing (Figure 94).

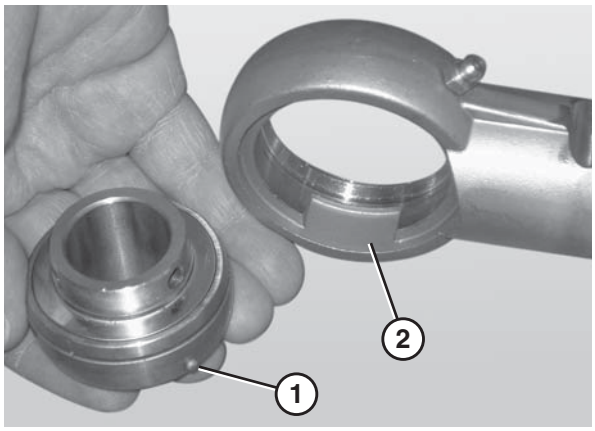


Figure 94

6. Replace the bearing.

NOTE

When inserting the new bearing, make sure the anti-rotation notch (Figure 94, item 1) on the bearing lines up with the groove inside the housing (Figure 94, item 2).

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

.5" and 1" Nose Bar Return Spindle Bearings

1. Remove the nose bar return spindle. Refer to "Spindle Removal" starting on page 19.
2. Using a bearing removal tool (Figure 95, item 1), remove the bearing (Figure 95, item 2).

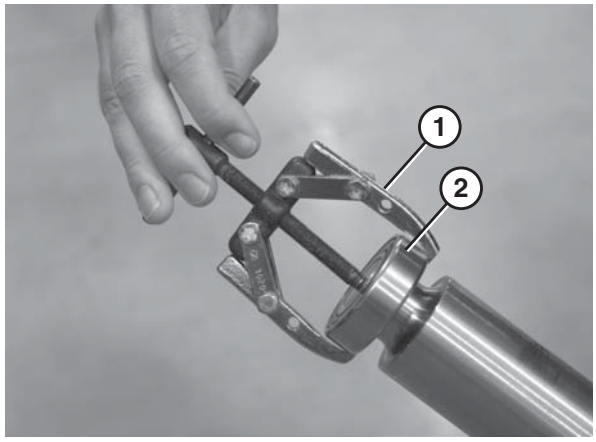


Figure 95

3. Replace the bearing.

1" Nose Bar Bearings

1. Remove the nose bar spindle. Refer to "Spindle Removal" starting on page 19.
2. Remove the nose bar puck holders (Figure 96, item 1).

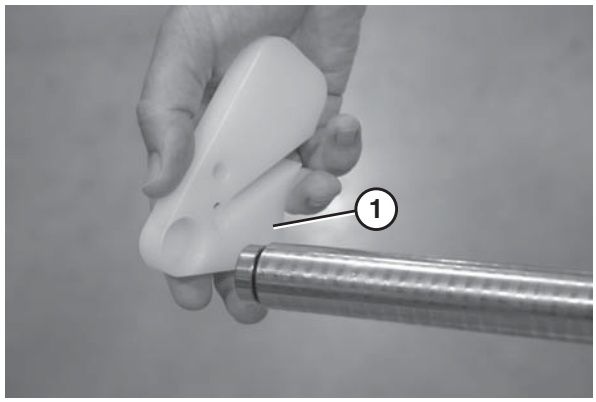


Figure 96

3. Using a bearing removal tool (Figure 97, item 1) remove the bearing (Figure 97, item 2).

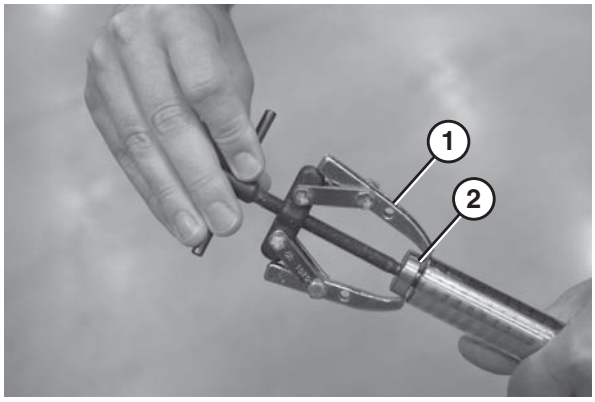


Figure 97

4. Replace the bearing.

1.875" Nose Bar Bearings

1. Remove the nose bar spindle. Refer to "Spindle Removal" starting on page 19.
2. Remove the bearing (Figure 98, item 1) from the nose bar shaft assembly (Figure 98, item 2).

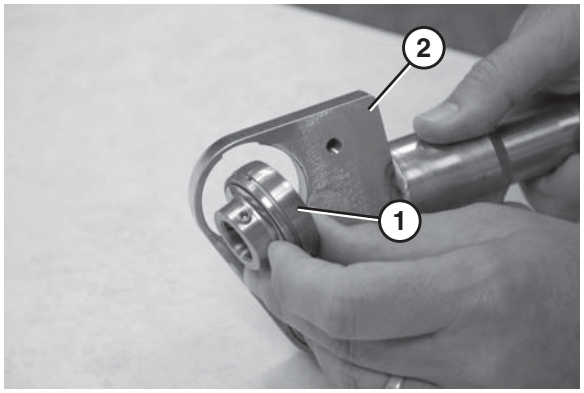


Figure 98

3. Replace the bearing.

Center Drive Tension Spindle Bearings

1. Remove the tension spindle. Refer to steps 1 - 5 in “A - Center Drive Spindle Removal” on page 20.
2. Remove the bearing cover (Figure 99, item 1).

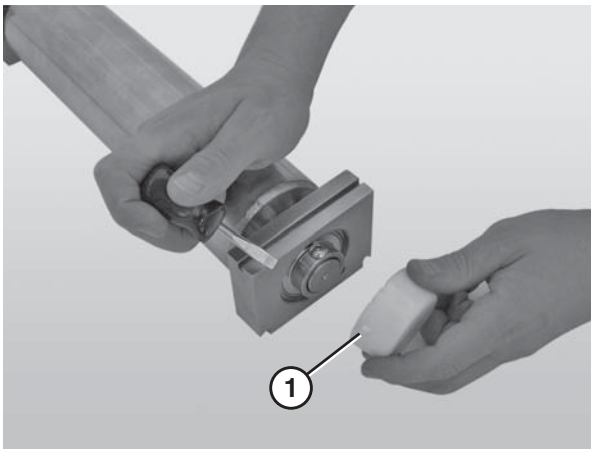


Figure 99

3. Use a 4 mm hex wrench to remove the button head screws that connect the bearing to the spindle (Figure 100, item 1).

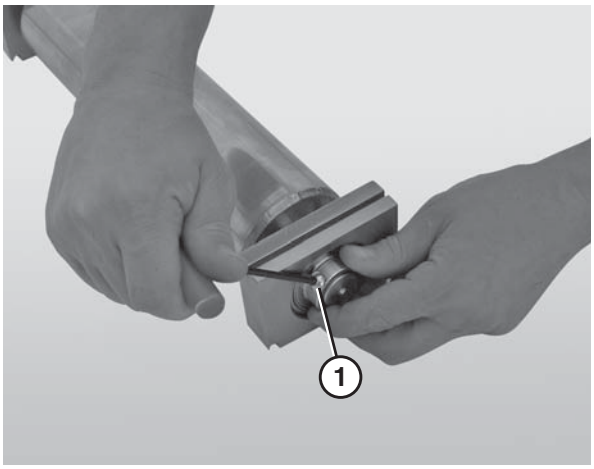


Figure 100

4. Slide the housing block (Figure 101, item 1) and bearing off of the tension spindle (Figure 101, item 2).

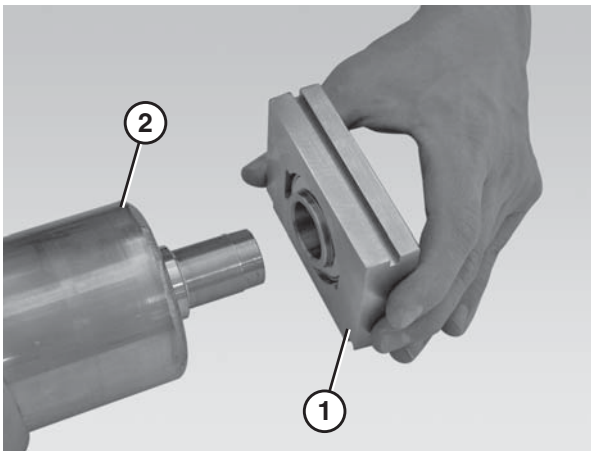


Figure 101

5. Remove the bearing (Figure 102, item 1) from the housing block (Figure 102, item 2).

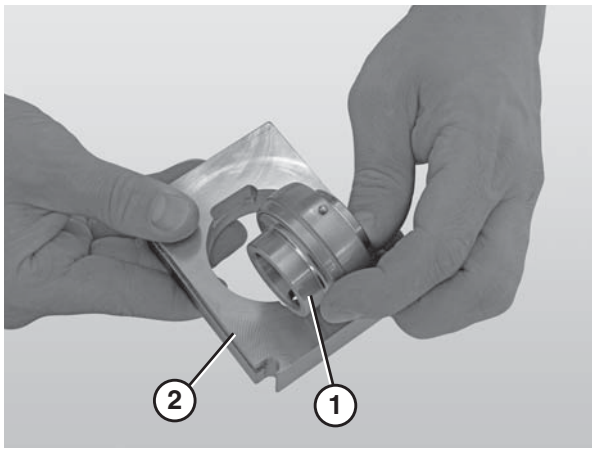
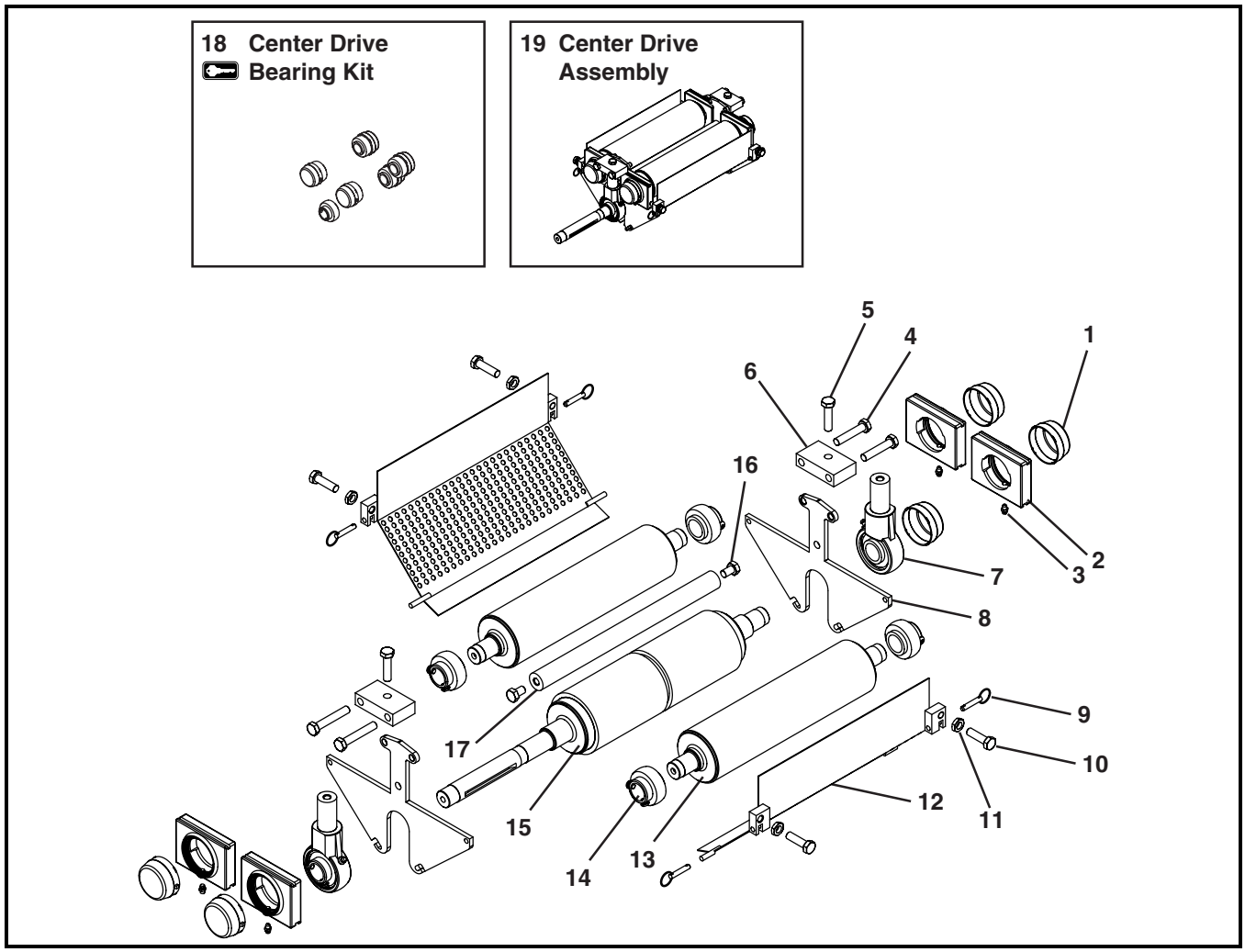


Figure 102

Service Parts

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

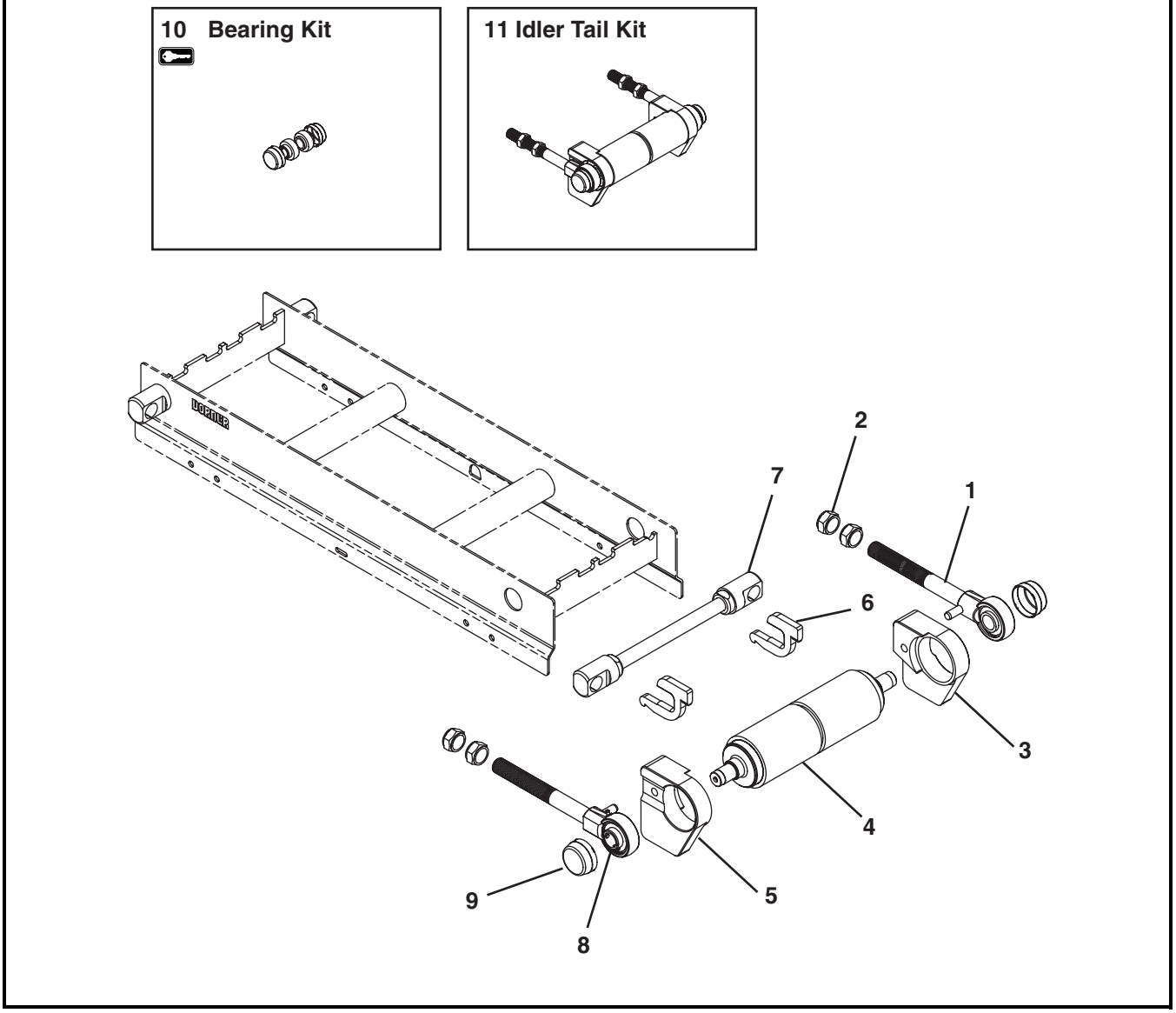
Center Drive Assembly Components



Item	Part Number	Description
1	807-1454	Bearing Cover
2	500683	Center Drive Housing Block
3	810-187	Zerk Fitting
4	961050MSS	Hex Head Cap Screw M10-1.50 x 50mm
5	961040MSS	Hex Head Cap Screw M10-1.50 x 40mm
6	500688	Center Drive Block Shaft Mount
7 *	500696	Center Drive Shaft Assembly with Bearing and Cover
8	500692	Center Drive Side Plate
9	807-1553	Pull Pin
10	961035MSS	Hex Head Cap Screw M10-1.50 x 35mm
11	991009MSS	Hex Nut
12	5094WW	Center Drive Guard Assembly

Item	Part Number	Description
13	5095WW	Center Drive Tension Spindle
14	802-162	Bearing
15	5096WW	Center Drive Spindle
16	961016MSS	Hex Head Cap Screw M10-1.50 x 16mm
17	5125WW	Center Drive Cross Member Post
18	76CD-WW	Center Drive Bearing Kit (Includes Items 1 and 14)
19	5127-WW	Center Drive Assembly (Includes Items 1 through 17)
WW = Conveyor width ref: 06 - 60 in 02 increments		
* When the conveyor is ordered with a Dorner gearmotor mounting package a shaft assembly is replaced with a gearmotor mounting bracket.		

Infeed End Components



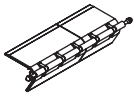
Item	Part Number	Description
1	500891	Idler Shaft Assembly with Bearing and Cover
2	500791	Nut
3	500694	Pinch Guard Right Hand
4	5104WW	Idler Spindle
5	500695	Pinch Guard Left Hand
6	500675	Key Stop

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

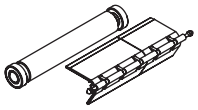
Service Parts

.5" Nose Bar Idler End

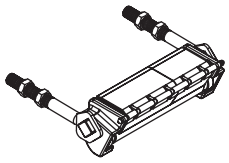
13 .5” Nose Bar Kit

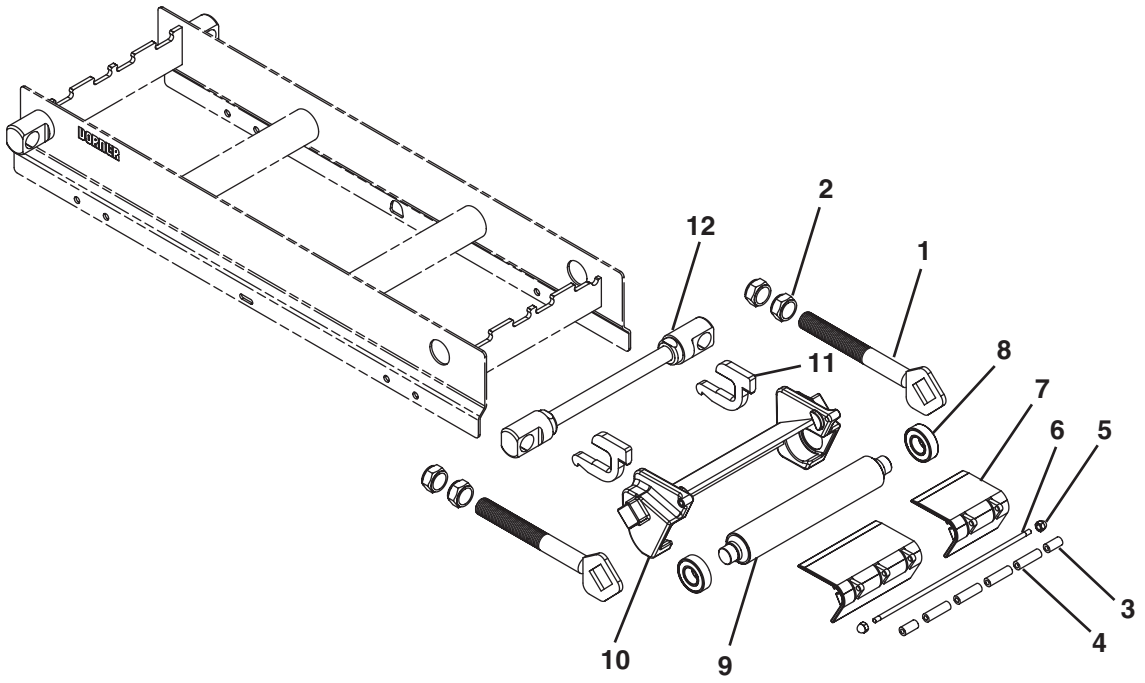


14 .5” Idler Spindle Kit



15 .5” Idler Tail Kit





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

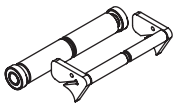
Item	Part Number	Description
10	5092WW	.5" Nose Bar Weldment Assembly
11	500675	Key Stop
12	5048WW	Tip Up Shaft Assembly
13	76NB5-WW	.5" Nose Bar Kit (Includes Items 3 through 7)
14	76NB-WW	.5" Idler Spindle Kit (Includes Items 3 through 9)
15	76NBT-WW	.5" Idler Tail Kit (Includes Items 1 through 10)
WW = Conveyor width ref: 06 - 60 in 02 increments		

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

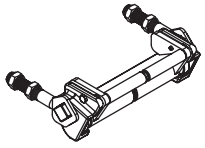
Service Parts

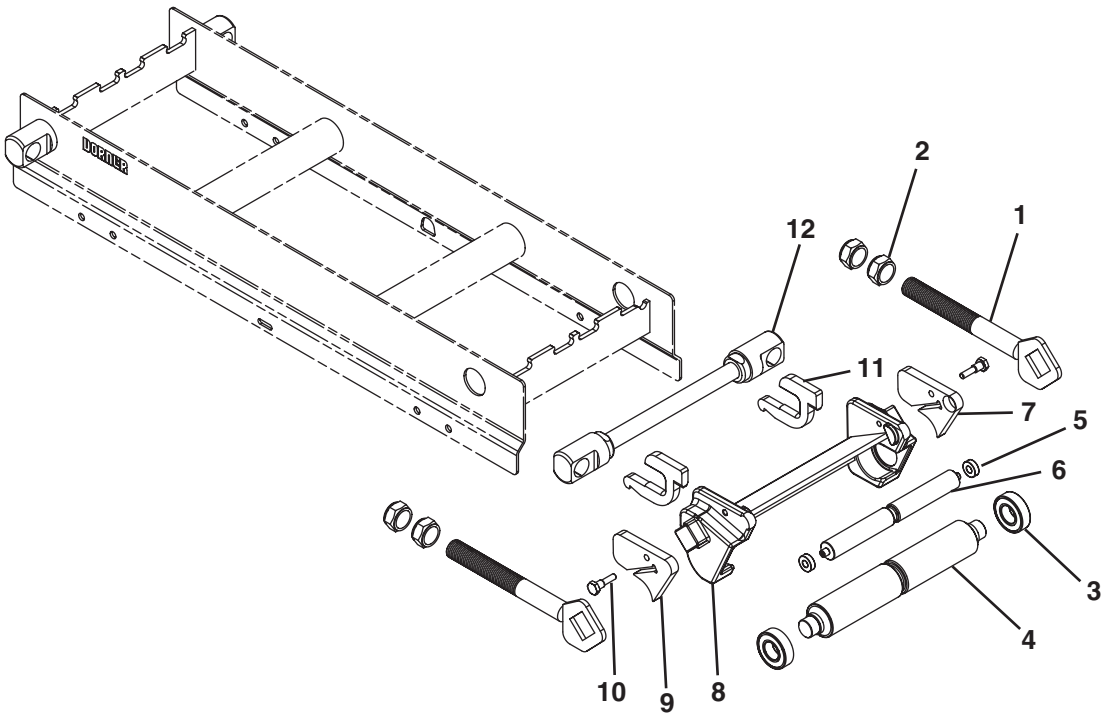
1" Nose Bar Idler End

13 1" Idler Spindle Kit



14 1" Idler Tail Kit

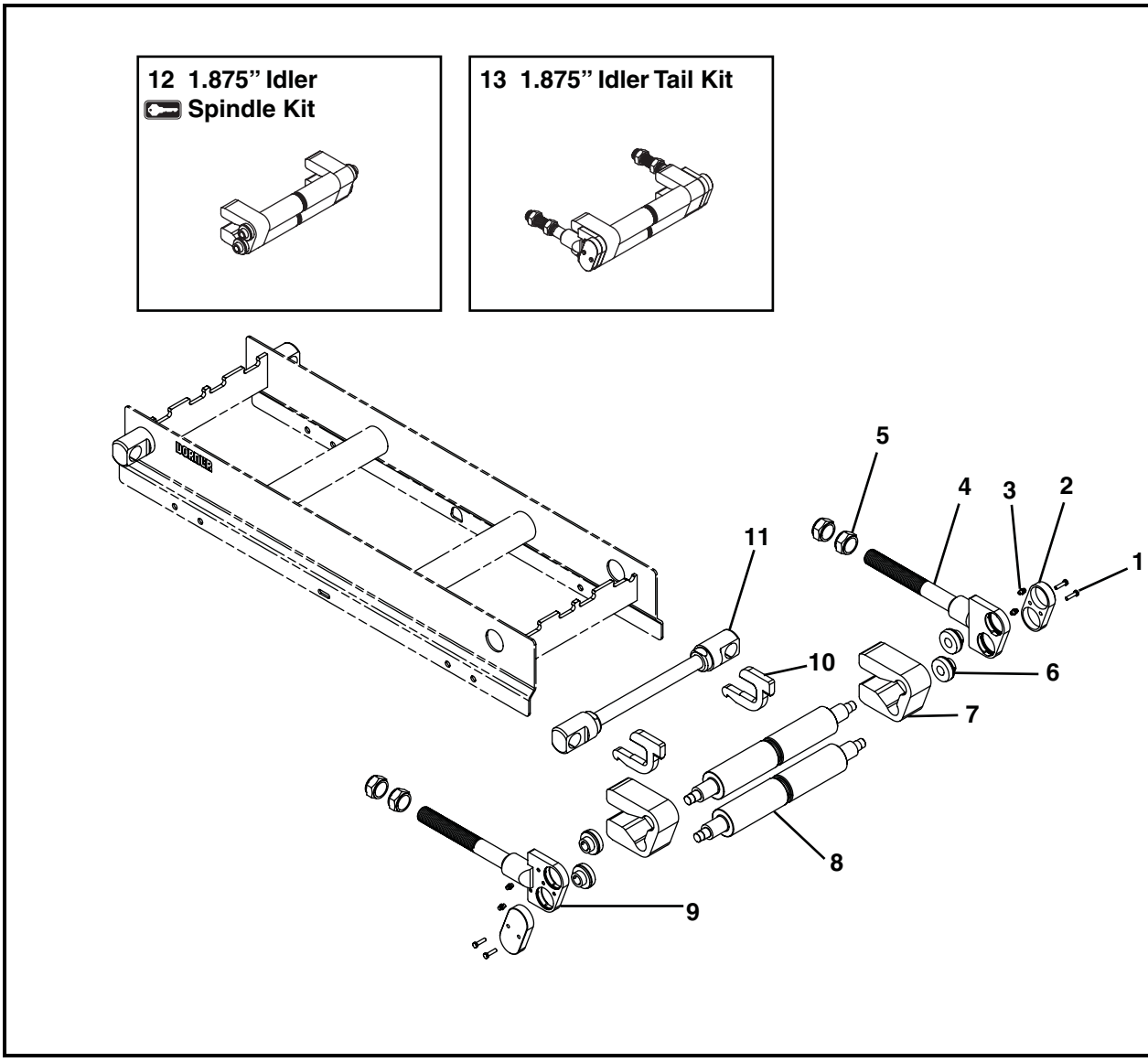




Item	Part Number	Description
1	500997	1" Nose Bar Shaft Assembly
2	500791	Nut
3	802-164	Return Spindle Bearing
4	5107WW	1" Nose Bar Return Spindle
5	802-123	Nose Bar Bearing
6	5051WW	1" Nose Bar Spindle
7	500975	Nose Bar Puck Holder Right Hand
8	5105WW	1" Nose Bar Weldment Assembly

Item	Part Number	Description
9	500976	Nose Bar Puck Holder Left Hand
10	501178	Pilot Nose Bolt
11	500675	Key Stop
12	5048WW	Tip Up Shaft Assembly
13	76NB1-WW	1" Idler Spindle Kit (Includes Items 3 through 7 and 9)
14	76NBT1-WW	1" Idler Tail Kit (Includes Items 1 through 10)
WW = Conveyor width ref: 06 - 60 in 02 increments		

1.875" Nose Bar Idler End

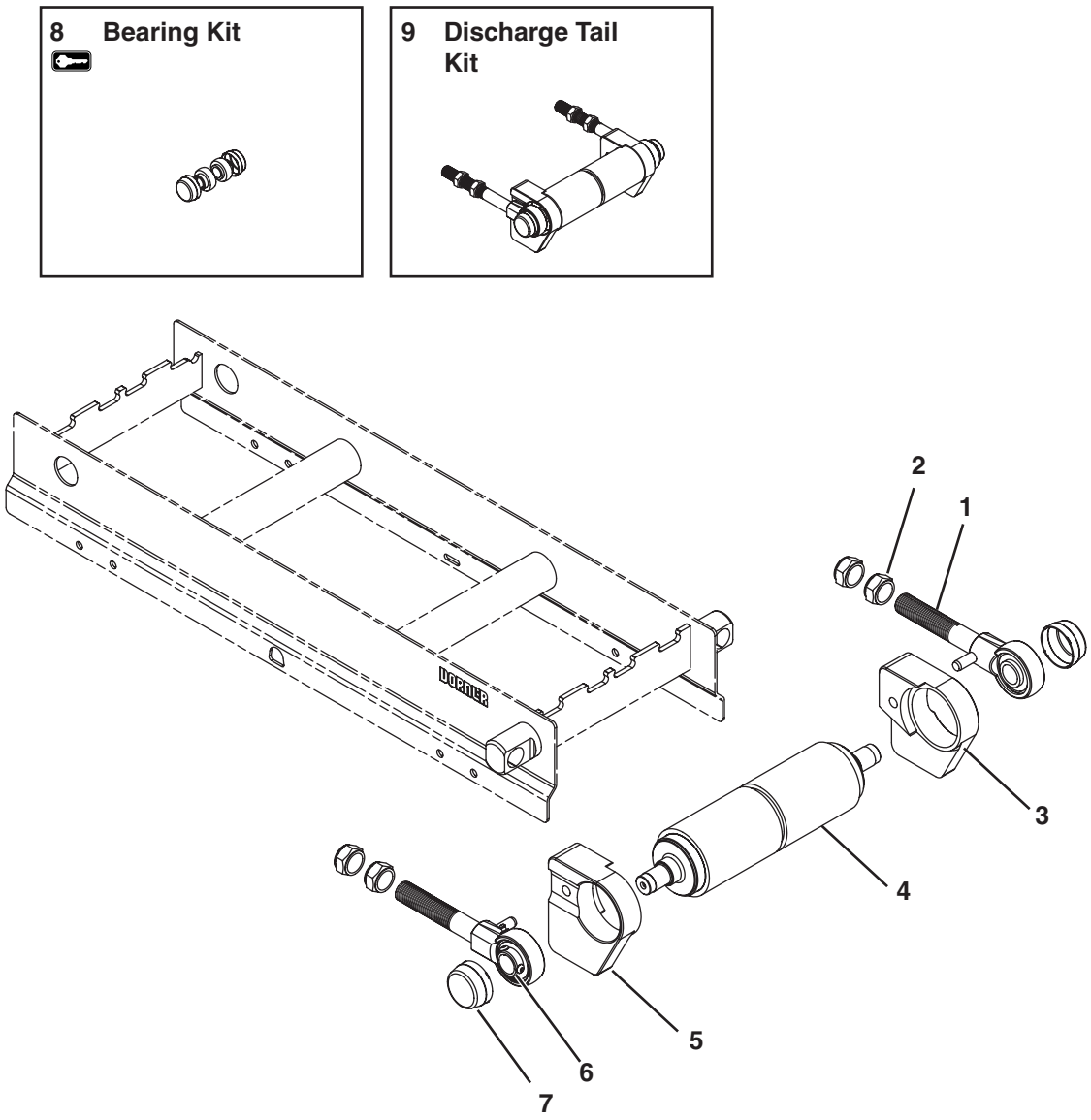


Item	Part Number	Description
1	960520MSS	Hex Head Cap Screw M5-0.8 x 20 mm
2	501085	Transfer Bearing Cover
3	810-187	Grease Fitting
4	501083	1.875" Nose Bar Shaft Assembly Right Hand
5	500791	Nut
6	802-171	Bearing
7	501081	Pinch Guard block
8	5101WW	1.875" Nose Bar Spindle

Item	Part Number	Description
9	501084	1.875" Nose Bar Shaft Assembly Left Hand
10	500675	Key Stop
11	5048WW	Tip Up Shaft Assembly
12	76NB2-WW	1.875" Idler Spindle Kit (Includes Items 6 through 8)
13	76NBT2-WW	1.875" Idler Tail Kit (Includes Items 1 through 9)
WW = Conveyor width ref: 06 - 60 in 02 increments		

Service Parts

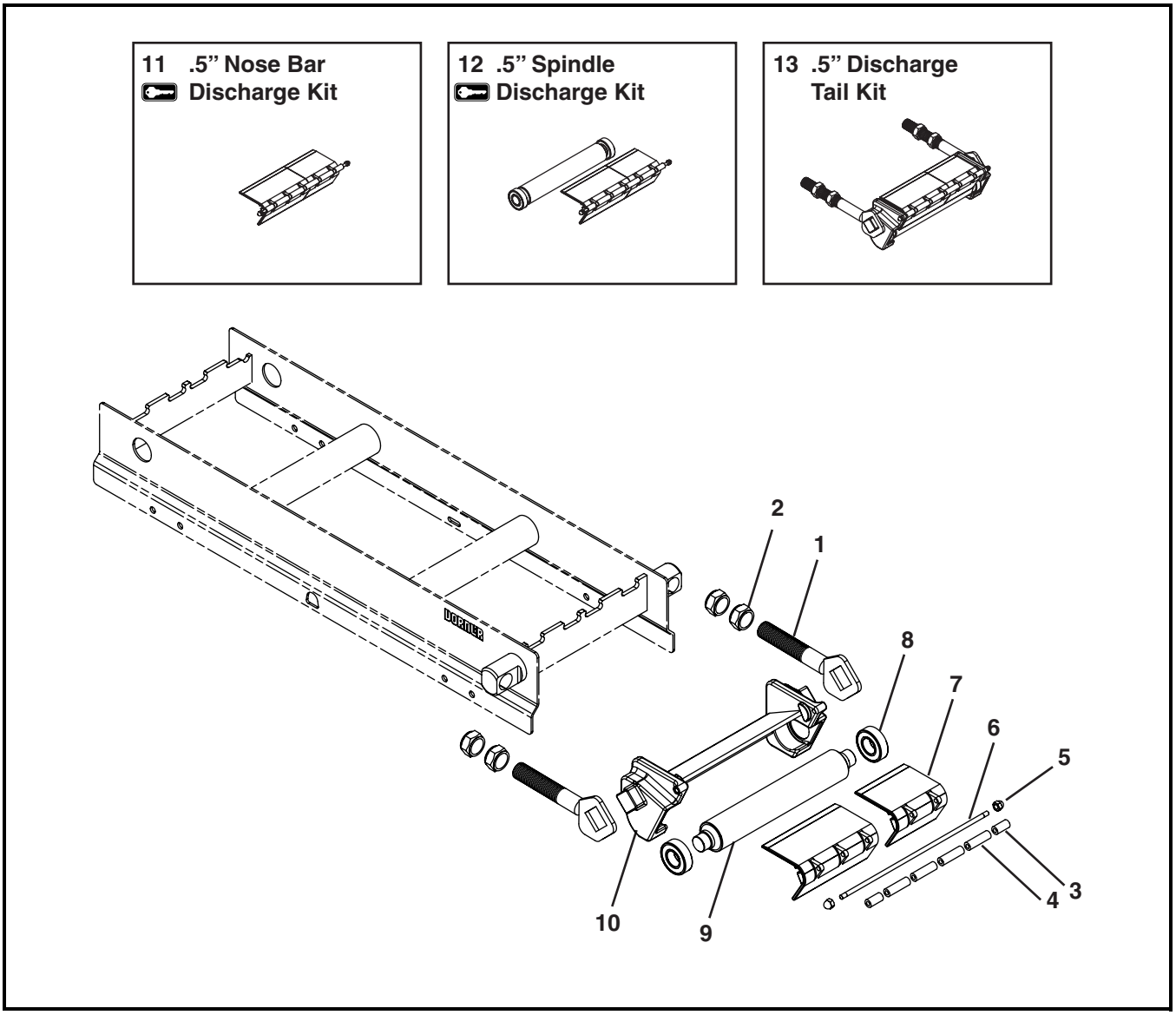
Discharge End



Item	Part Number	Description
1	500892	Discharge Shaft Assembly with Bearing and Cover
2	500791	Nut
3	500694	Pinch Guard Right Hand
4	5104WW	Idler Spindle
5	500695	Pinch Guard Left Hand
6	802-162	Bearing

Item	Part Number	Description
7	807-1454	Bearing Cover
8	76BK	Bearing Kit (Includes Items 6 and 7)
9	76SD-WW	Discharge Tail Kit (Includes Items 1 through 7)
WW = Conveyor width ref: 06 - 60 in 02 increments		

.5" Nose Bar Discharge End



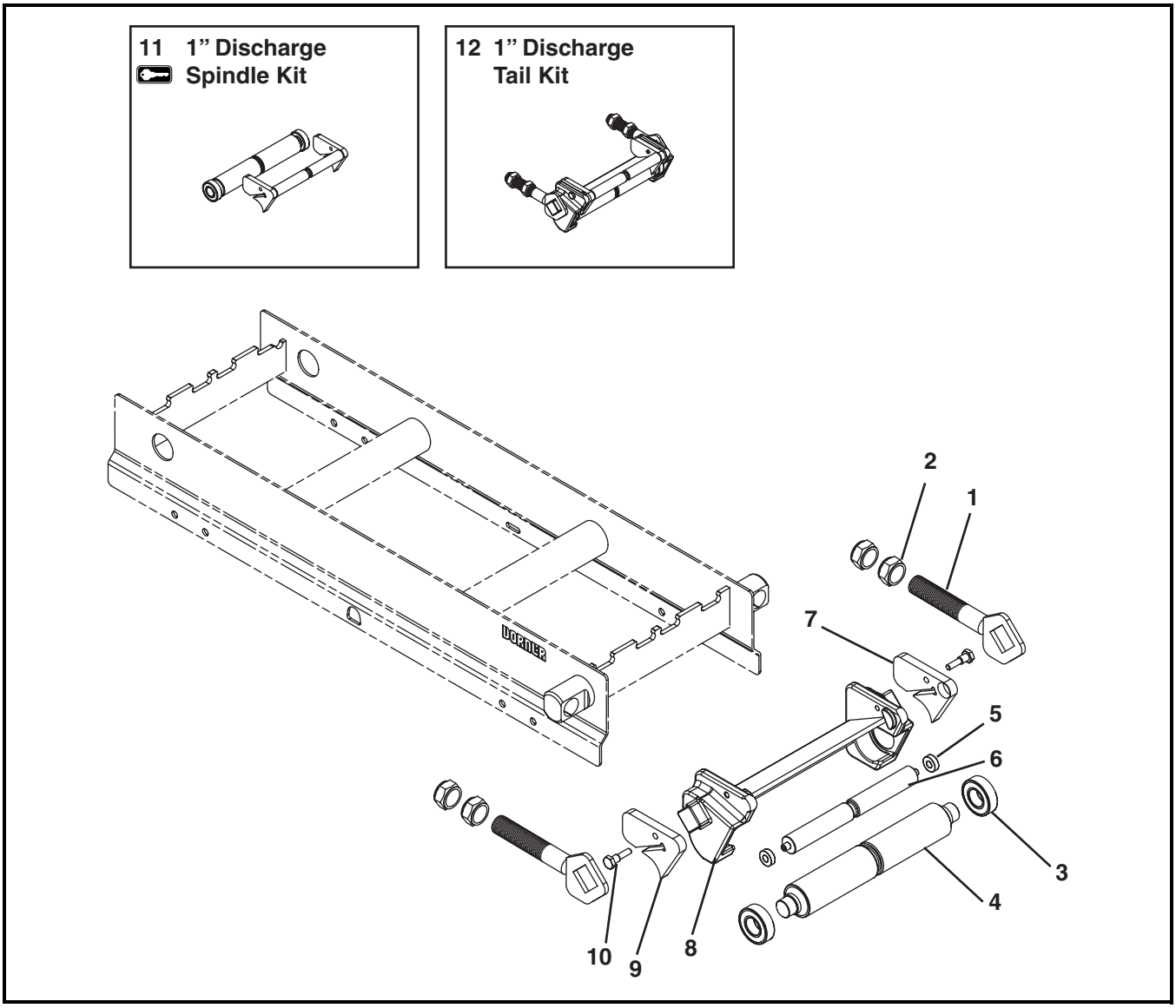
Item	Part Number	Description
1	501093	Discharge Nose Bar Shaft Assembly
2	500791	Nut
3	501087	Roller .5" x 1.06"
4	501086	Roller .5" x 1.72"
5	990608MSS	Acorn Nut
6	5099WW	Nose Bar Shaft
7	See Chart	Roller Mount
8	802-164	Return Spindle Bearing

Item	Part Number	Description
9	5097WW	.5" Nose Bar Return Spindle
10	5092WW	.5" Nose Bar Weldment Assembly
11	76NB5-WW	.5" Nose Bar Discharge Kit (Includes Items 3 through 7)
12	76NB-WW	.5" Spindle Discharge Kit (Included Items 3 through 9)
13	76NBD5-WW	.5" Discharge Tail Kit (Includes Items 1 through 10)
WW = Conveyor width ref: 06 - 60 in 02 increments		

Service Parts

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

1" Nose Bar Discharge End



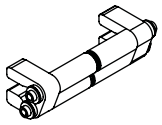
Item	Part Number	Description
1	501093	Discharge Nose Bar Shaft Assembly
2	500791	Nut
3	802-164	Return Spindle Bearing
4	5107WW	1" Nose Bar Return Spindle
5	802-123	Nose Bar Bearing
6	5051WW	1" Nose Bar Spindle
7	500975	Nose Bar Puck Holder Right Hand

Item	Part Number	Description
8	5105WW	1" Nose Bar Weldment Assembly
9	500976	Nose Bar Puck Holder Left Hand
10	501178	Pilot Nose Bolt
11	76NB1-WW	1" Discharge Spindle Kit (Includes Items 3 through 7 and 9)
12	76NBD1-WW	1" Discharge Tail Kit (Includes Items 1 through 10)
WW = Conveyor width ref: 06 - 60 in 02 increments		

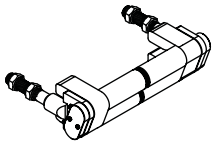
Service Parts

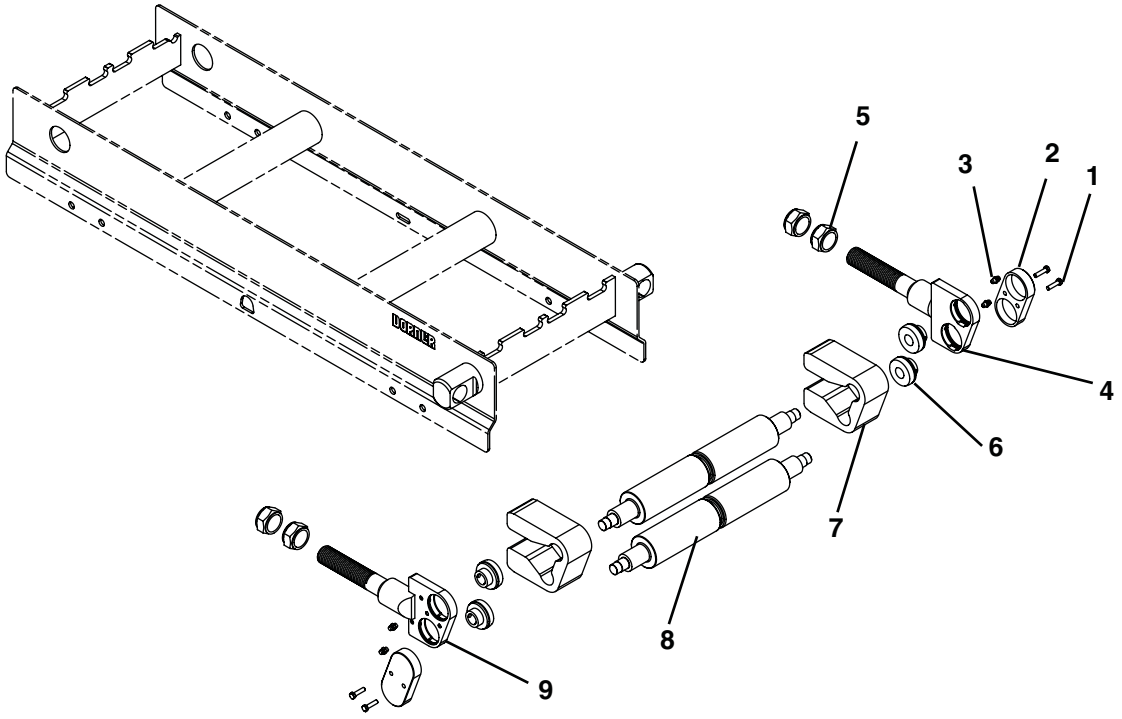
1.875" Nose Bar Discharge End

10 1.875" Discharge Spindle Kit



11 1.875" Discharge Tail Kit



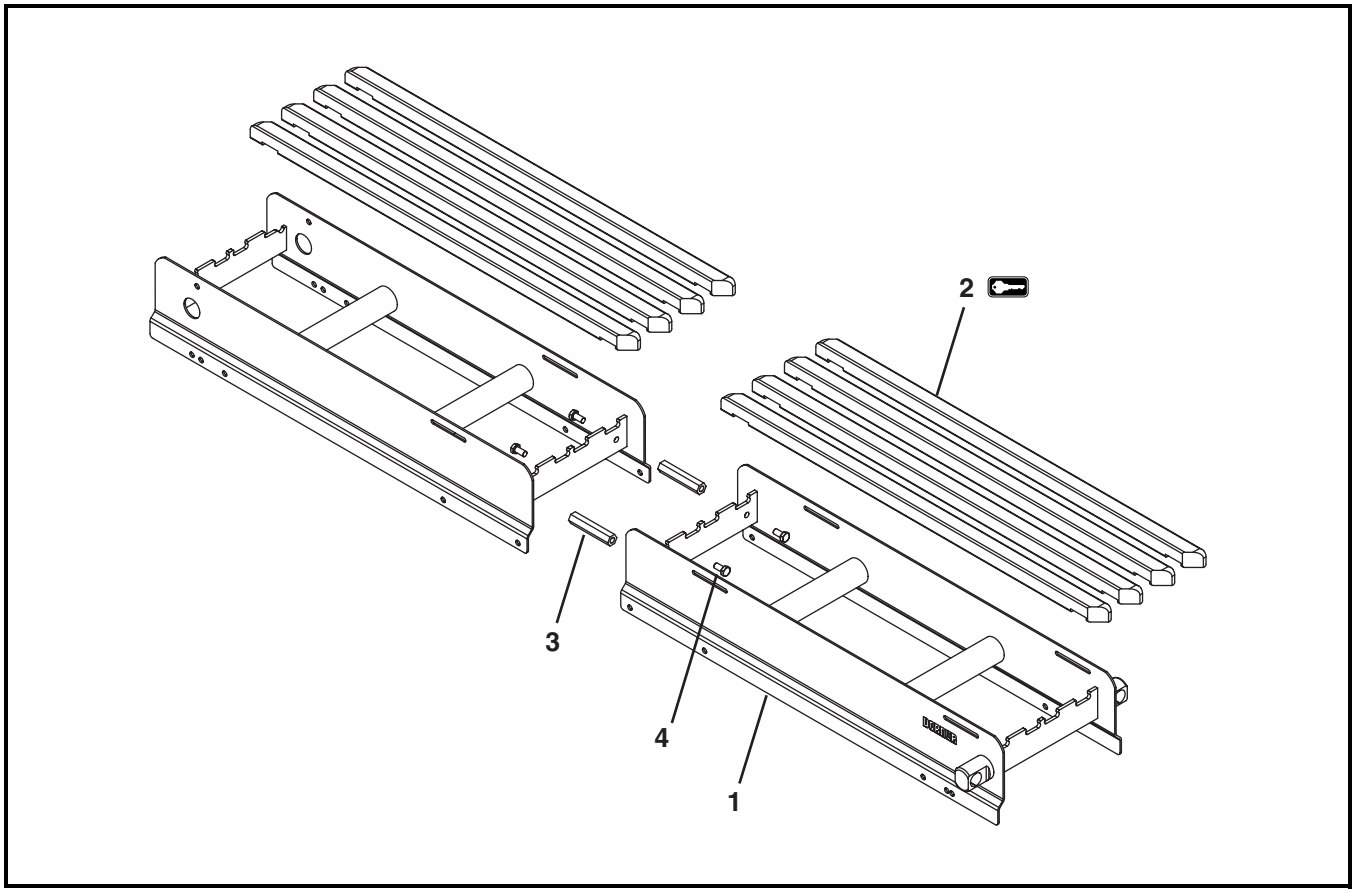


Item	Part Number	Description
1	960520MSS	Hex Head Cap Screw M5-0.8 x 20mm
2	501085	Transfer Bearing Cover
3	810-187	Grease Fitting
4	501089	1.875" Discharge Nose Bar Shaft Assembly Right Hand
5	500791	Nut
6	802-171	Bearing
7	501081	Pinch Guard block

Item	Part Number	Description
8	5101WW	1.875" Nose Bar Spindle
9	501090	1.875" Discharge Nose Bar Shaft Assembly Left Hand
10	76NB2-WW	1.875" Discharge Spindle Kit (Includes Items 6 through 8)
11	76NBD2-WW	1.875" Discharge Tail Kit (Includes Items 1 through 9)

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

Conveyor Frame and Extensions with Standard Wear Strips

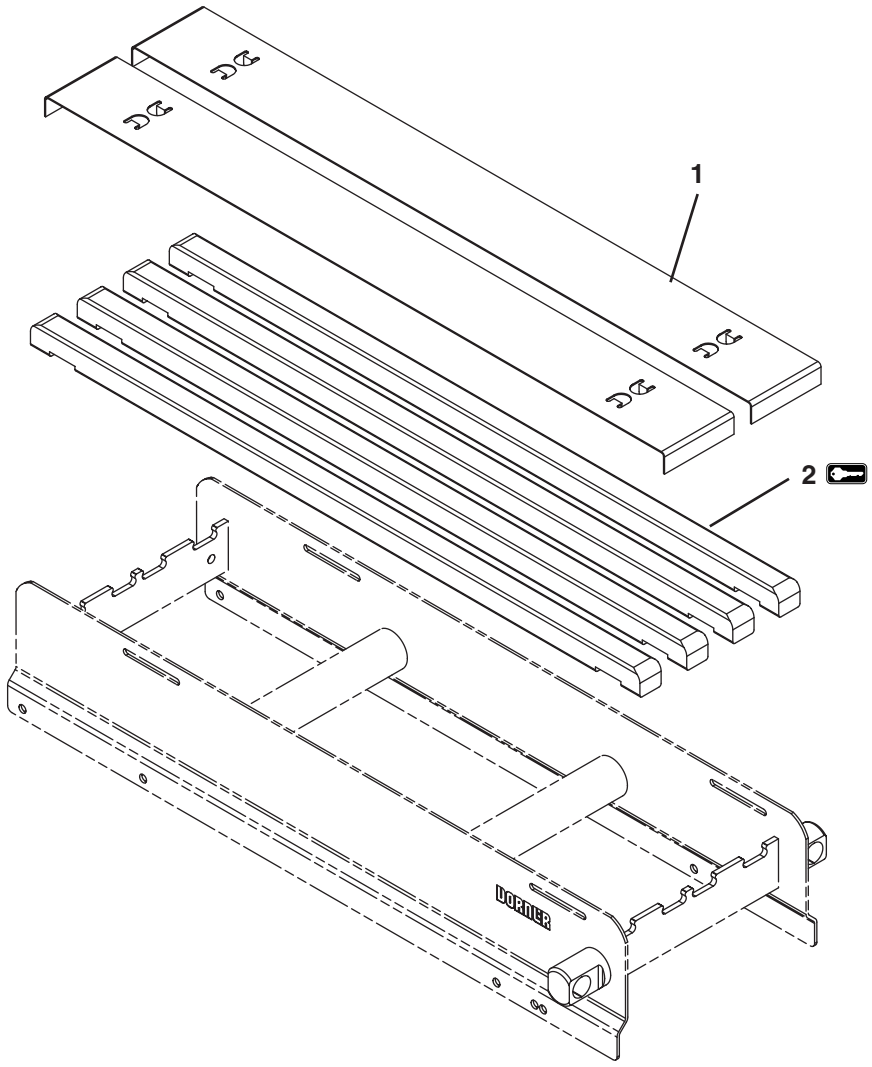


Item	Part Number	Description
1	------	Consult Factory for Frame Part Number
2	501800-LLL	Wear Strip

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

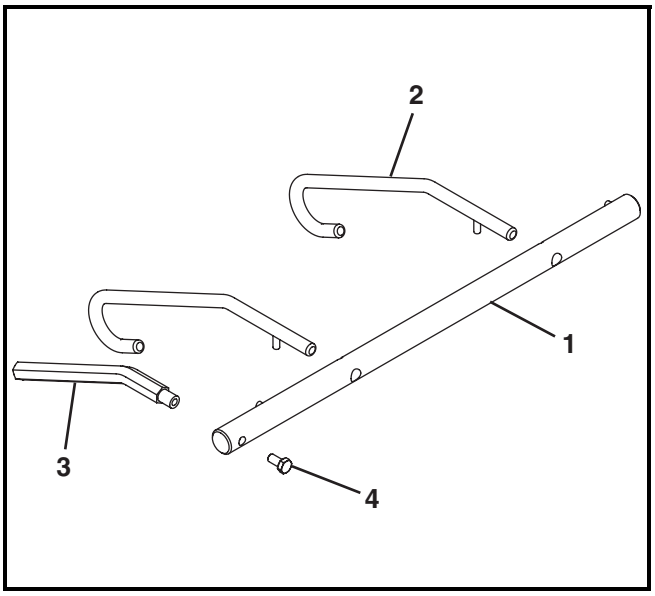
Service Parts

Wear Strips with Stainless Steel Sheet Bed Plate



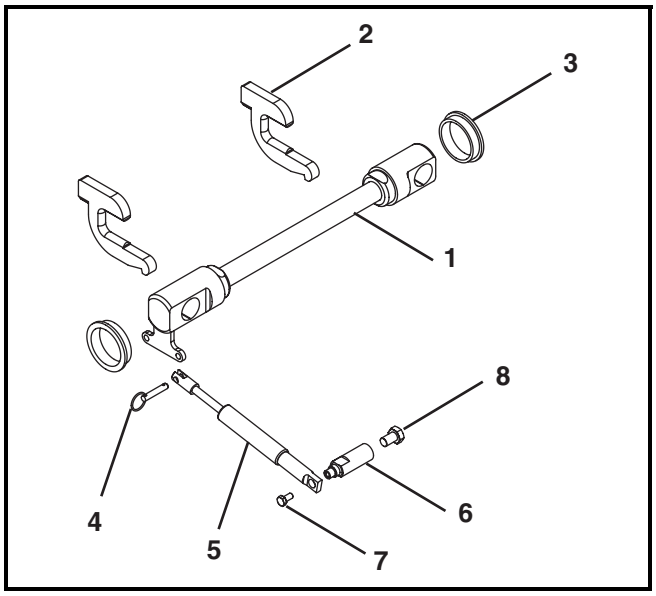
Item	Part Number	Description
1	5123WW-LLL	Bed Plate
2	501098-LLL	Wear Strip
WW = Conveyor width ref: 06 - 60 in 02 increments		
LLL = Conveyor length ref: 036 - 480 in 001 increments		

Lifters



Item	Part Number	Description
1	5054WW	Belt Lifter Shaft
2	500195	Belt Lifter
3	500491	Belt Lifter Handle
4	960812MSS	Hex Head Cap Screw M8-1.25 x 12 mm
WW = Conveyor width ref: 06 - 60 in 02 increments		

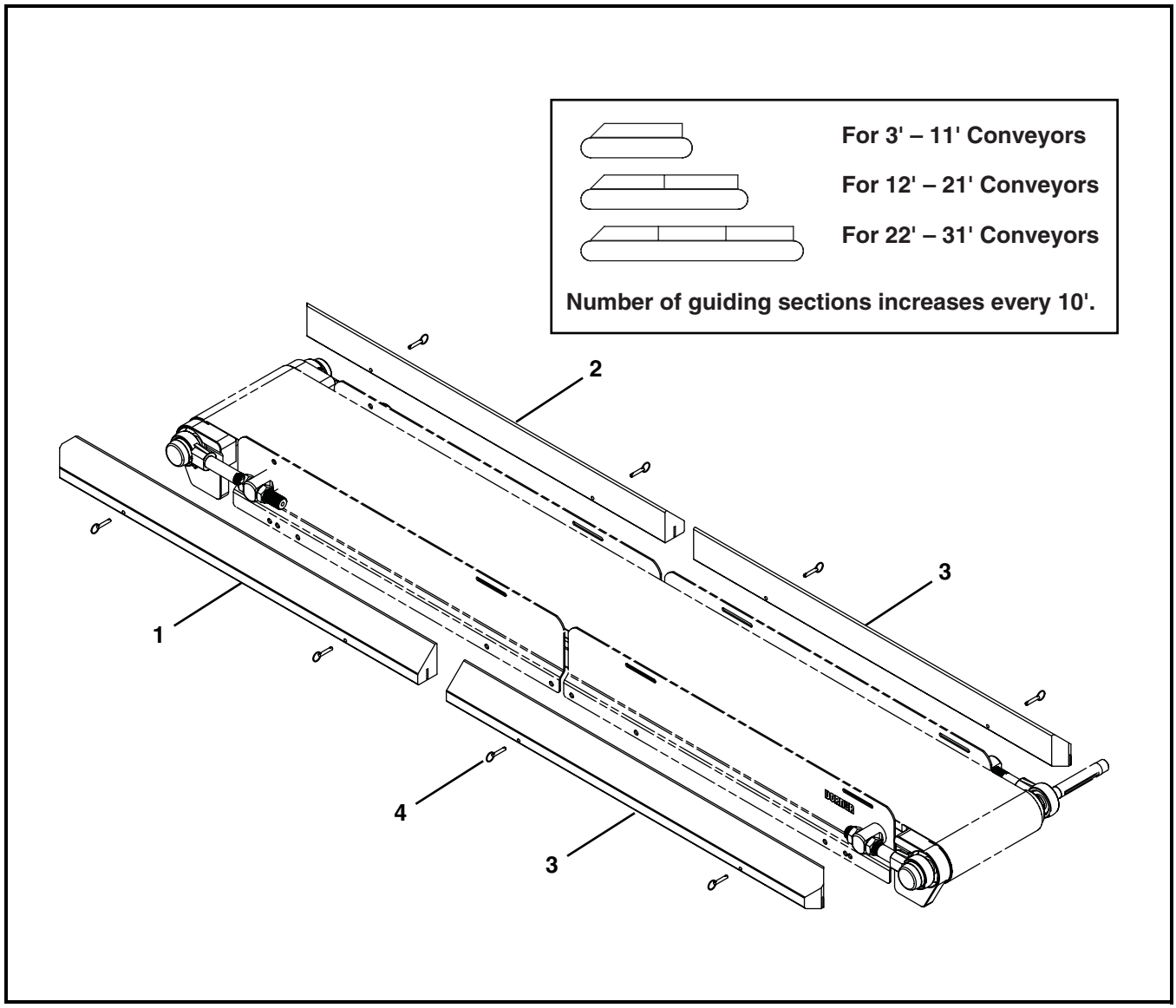
Gas Assisted Tip Up



Item	Part Number	Description
1	5049WW	Gas Assist Tip Up Shaft Assembly
2	500675	Key Stop
3	500895	Tip Up Bushing
4	807-1553	Pull Pin
5	807-1562	Gas Spring 70 lb. for Standard Tails 42"-60" wide or Nose Bar Tails 18"-30" wide
	807-1563	Gas Spring 130 lb. for Nose Bar Tails 32"-46" wide
	807-1564	Gas Spring 160 lb. for Nose Bar Tails 48"-60" wide
6	500794	Gas Spring Stand Off Post
7	960612MSS	Hex Head Cap Screw M6-1.00 x 12mm
8	961016MSS	Hex Head Cap Screw M10-1.50 x 16mm
WW = Conveyor width ref: 06 - 60 in 02 increments		

Service Parts

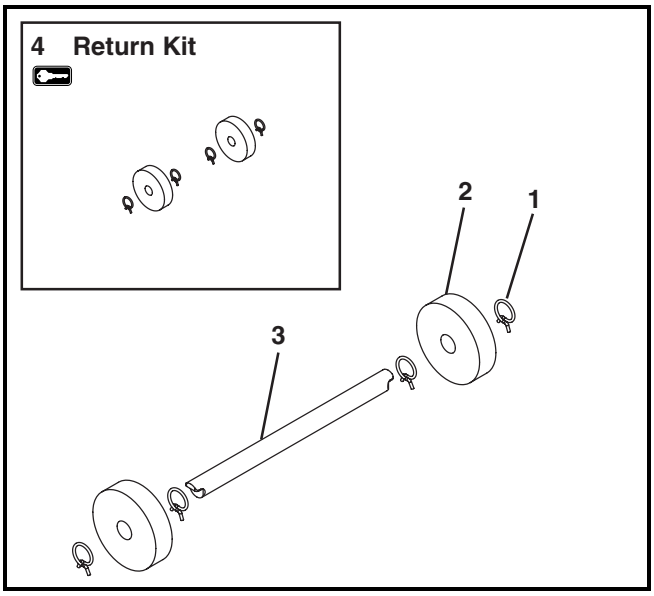
3" High Sides



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

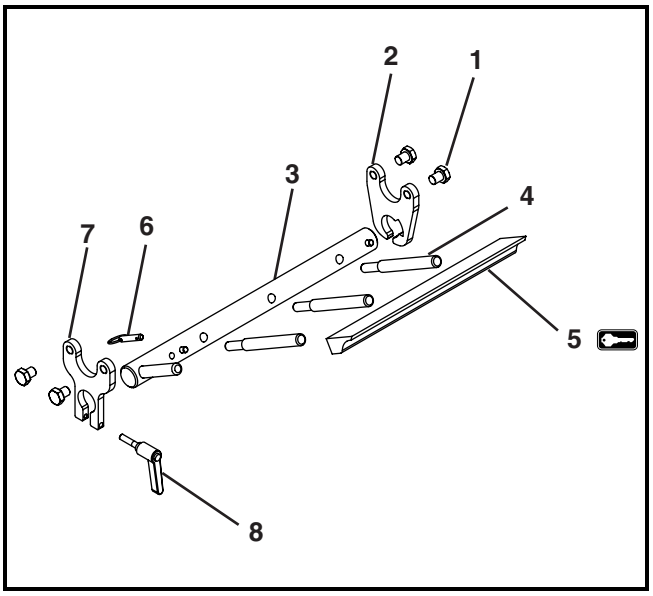
Item	Part Number	Description
3	503650-LLLLL	High Side Right Hand Guide for Conveyors over 11' Long
	503450-LLLLL	High Side Guide Square End
4	807-1553	Pull Pin
LLLLL = Guide Length in inches with 2 decimal places.		
Example: Guide Length = 95.25" LLLLL = 09525		

Flat Belt Returns



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

Scraper



Item	Part Number	Description
1	961012MSS	Hex Head Cap Screw M10-1.50 x 12 mm
2	500878	Scraper Adjust Plate
3	5102WW	Scraper Shaft Assembly
4	500881	Scraper Holder Bar
5	5047WW	Scraper Wear Bar
6	807-1553	Pull Pin
7	500879	Scraper Mount Plate
8	807-1318	Handle
WW = Conveyor width ref: 06 - 60 in 02 increments		

Configuring Conveyor Belt Part Number

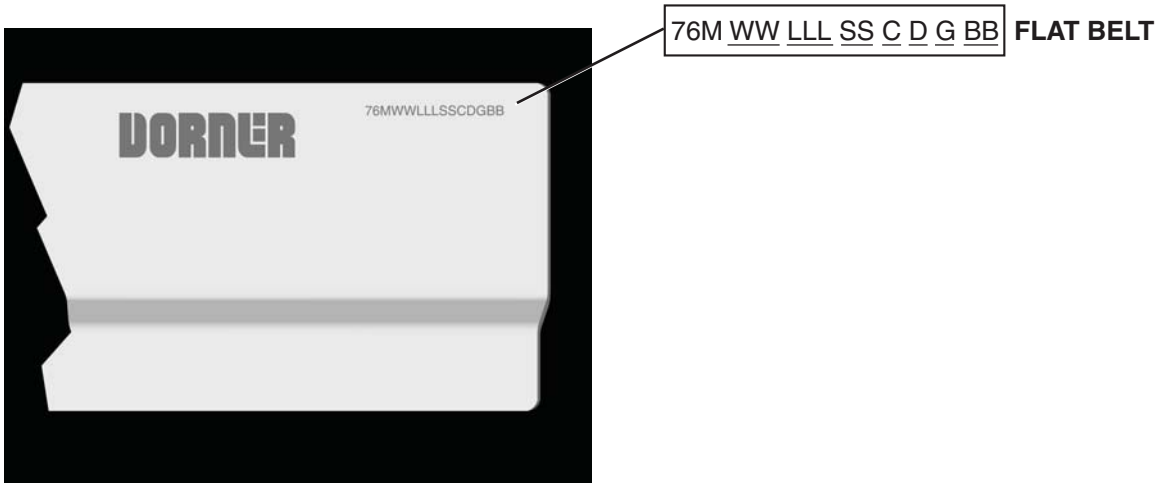


Figure 103

Flat Belt Part Number Configuration

Refer to model number on the conveyor frame (Figure 103). From the model number determine the conveyor width (WW), length (LLL) and belt type (BB). Use data to configure belt part number as indicated below. *Add “V” for v-guided belts.

76-WW LLL / BB V*

76-_____ / ___ V*

(Fill In)

Notes

Return Policy

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

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

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

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

Conveyors and conveyor accessories

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

Parts

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

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

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

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

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

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

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

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