



7350 Series Power Transfer

Installation, Maintenance and Parts Manual



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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 7350 Series conveyors have patents pending.

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

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

Warnings – General Safety

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 components.

- 1

Gearmotor
- 2

Power Transfer Belt
- 3

Driven Pulley
- 4

Tensioner
- 5

Timing Belt
- 6

Drive Pulley
- 7

Conveyor

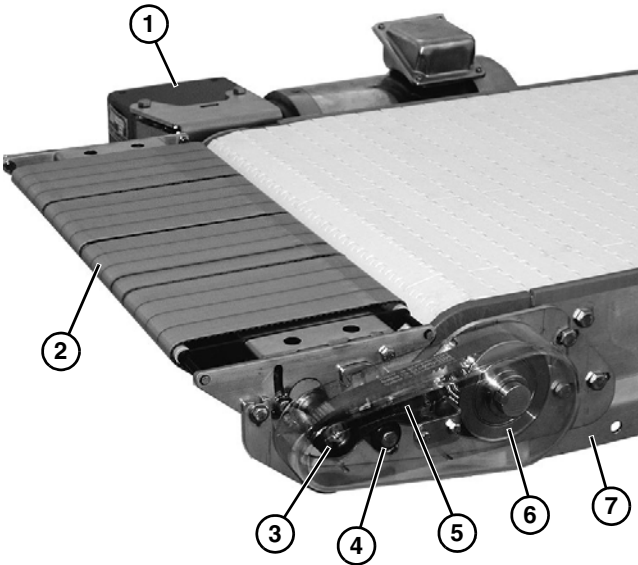
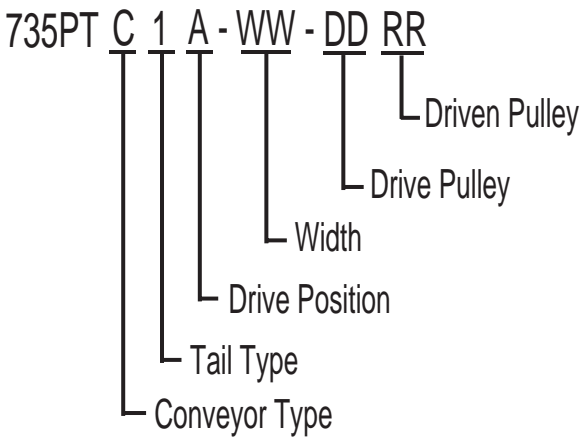


Figure 1

Specifications

7350 Power Transfer



Conveyor Belt Width	Flat belt and curve end drive conveyors 4" (102 mm) - 36" (914 mm) wide in 2" (51 mm) increments
Maximum Belt Speed	175 ft/minute (53 m/minute)

Required Tools

- Level
- 6 mm wrench
- 8 mm wrench
- 10 mm wrench
- 3/32" hex wrench
- 5/32" hex wrench

Power Transfer Assembly

NOTE

Drive tail with auxiliary shaft required.



WARNING



SEVERE HAZARD!

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

Typical components (**Figure 2**).

- | | |
|---|----------------------|
| 1 | Bent Transfer Plate |
| 2 | Frame Assembly |
| 3 | Power Transfer Belts |
| 4 | Driven Pulley |
| 5 | Tensioner |
| 6 | Drive Pulley |
| 7 | Belt |
| 8 | Cover |
| 9 | Transfer Plate |

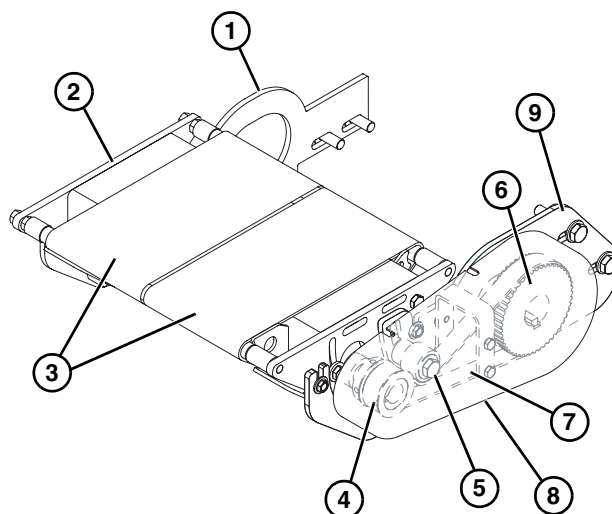


Figure 2

1. Determine mounting configuration:
 - a. For assembly on idler tail: Locate drive cover (**Figure 3, item 1**) on idler tail (opposite of auxiliary shaft). Remove two lower bolts (**Figure 3, item 2**).

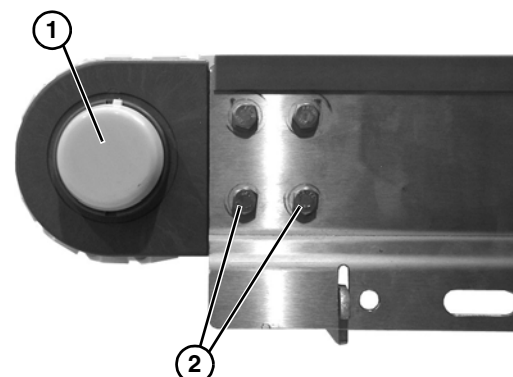


Figure 3

- b. For assembly on drive tail: Locate conveyor drive shaft (**Figure 4, item 1**). Remove two lower bolts (**Figure 4, item 2**).

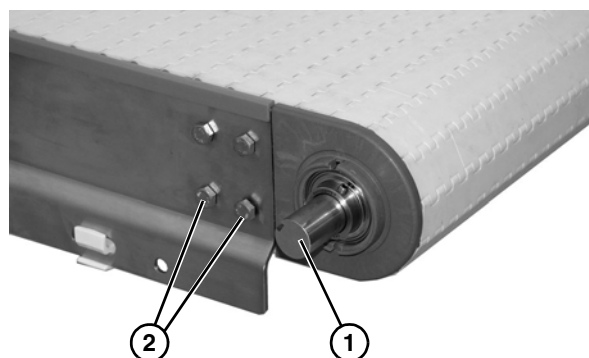


Figure 4

Installation

2. Install bent transfer plate (**Figure 5, item 1**) onto side of frame with two bolts (**Figure 5, item 2**) (just removed). Tighten bolts.

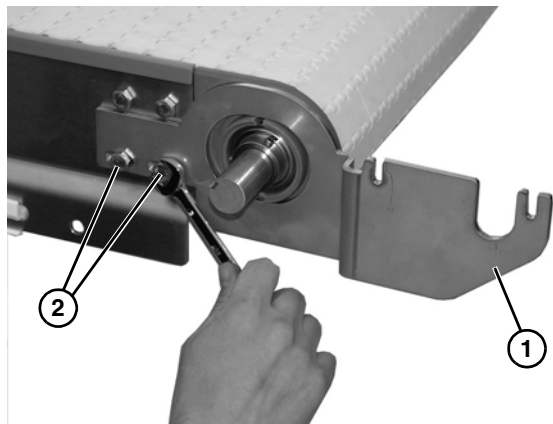


Figure 5

3. On opposite side of conveyor, remove three bolts (**Figure 6, item 1**).

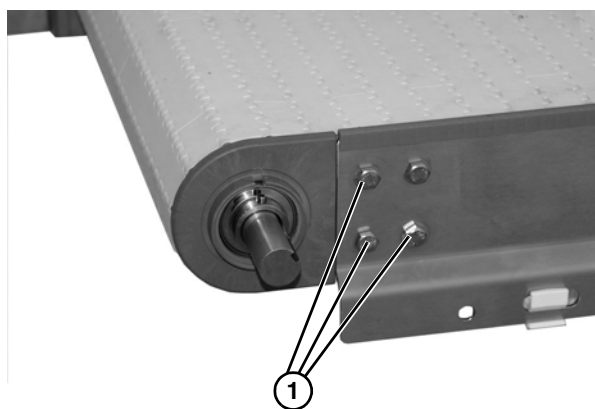


Figure 6

4. Insert three M6x20 bolts (**Figure 7, item 1**) through transfer plate (**Figure 7, item 2**), and install spacer (**Figure 7, item 3**) for each bolt (between transfer plate and conveyor).

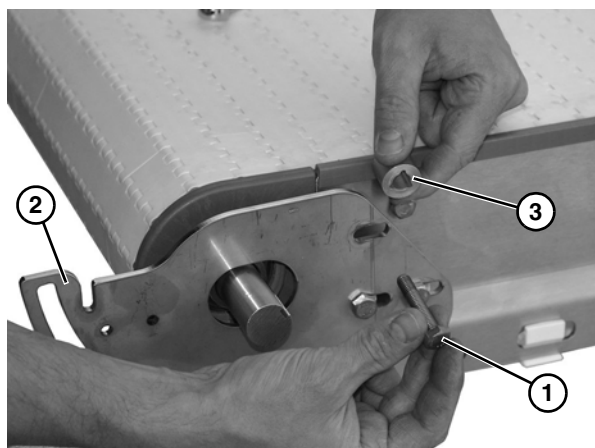


Figure 7

5. Tighten all three bolts (**Figure 8, item 1**) securing transfer plate (**Figure 8, item 2**) to conveyor frame.

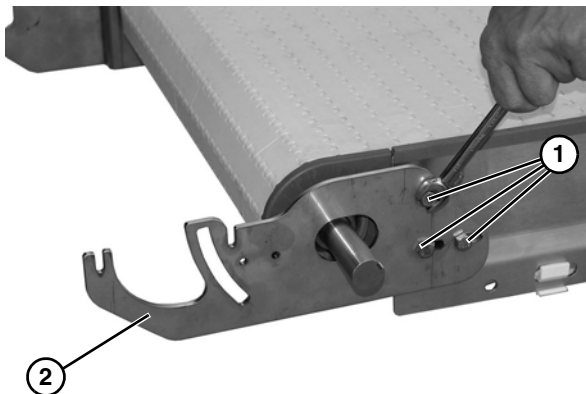


Figure 8

6. Install timing belt cover bracket (**Figure 9, item 1**) with two M6 bolts (**Figure 9, item 2**) to transfer plate.

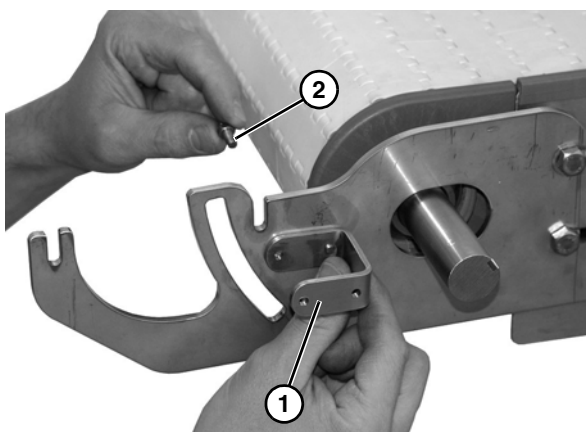


Figure 9

7. Install power transfer belt assembly (**Figure 10, item 1**) with flange bolts (**Figure 10, item 2**) installed onto slots (**Figure 10, item 3**) on each side bracket.

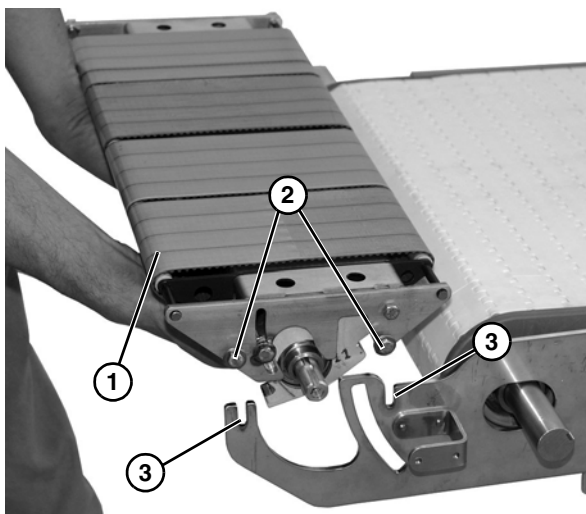


Figure 10

8. To adjust height, place level (**Figure 11, item 1**) or straight edge to level power transfer assembly (**Figure 11, item 2**) with conveyor belt (**Figure 11, item 3**). Tighten two bolts (**Figure 11, item 4**) to secure position.

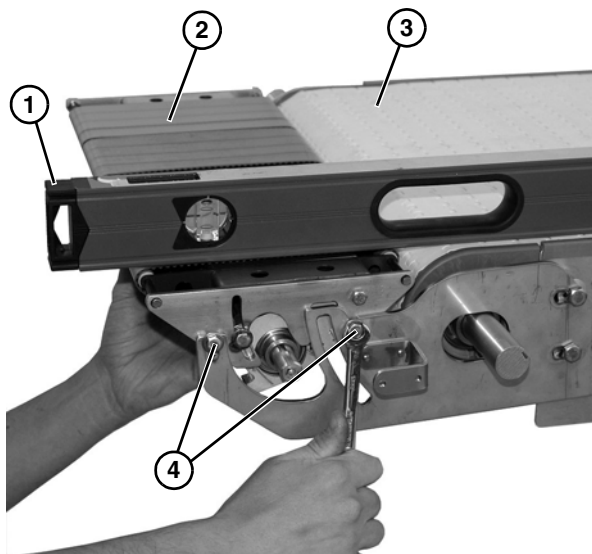


Figure 11

9. To adjust location, place level (**Figure 12, item 1**) or straight edge to level power transfer assembly (**Figure 12, item 2**) with conveyor belt (**Figure 12, item 3**). Be certain that there is a minimum 1/8 - 1/4 in. distance (**Figure 12, item 4**) between power transfer and conveyor belt, and tighten three bolts (**Figure 12, item 5**) to secure position.

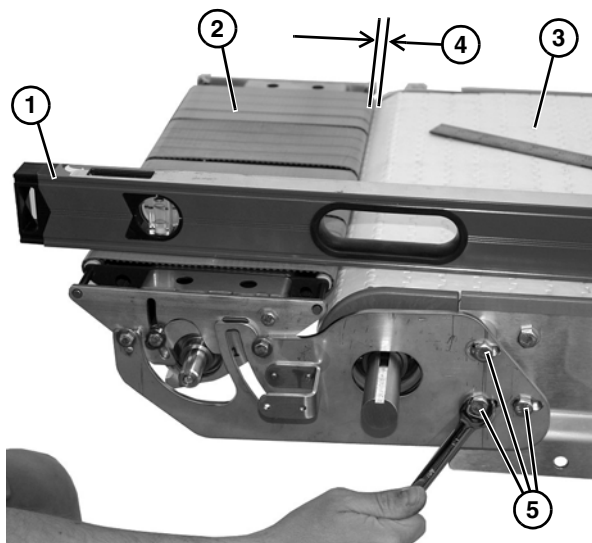


Figure 12

NOTE

*Before running power transfer, be certain that belts (**Figure 13, item 1**) are not riding on spacers (**Figure 13, item 2**).*

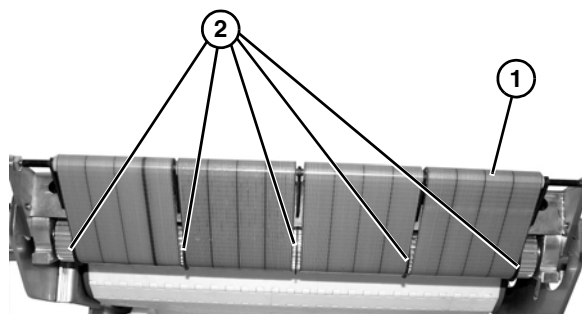


Figure 13

⚠ WARNING



**Drive shaft keyways may be sharp.
HANDLE WITH CARE.**

10. Install key (**Figure 14, item 1**) onto conveyor shaft (**Figure 14, item 2**).

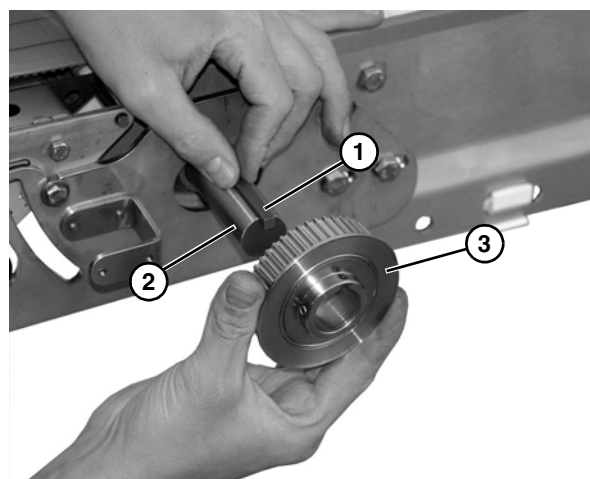


Figure 14

11. Install drive pulley (**Figure 14, item 3**) onto end of conveyor shaft.

Installation

12. Install key (Figure 15, item 1) onto power transfer assembly shaft (Figure 15, item 2).

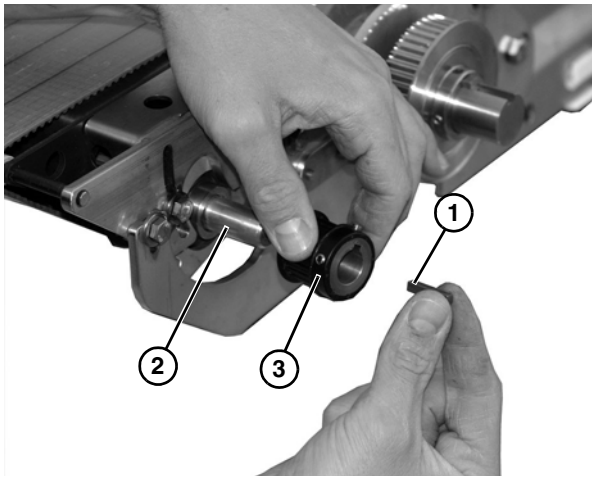


Figure 15

13. Install driven pulley (Figure 15, item 3) onto end of power transfer assembly shaft.
14. Wrap timing belt (Figure 16, item 1) around driven pulley (Figure 16, item 2) and drive pulley (Figure 16, item 3).

NOTE

You may need to slide driven pulley (Figure 16, item 2) off of shaft to install timing belt (Figure 16, item 1).

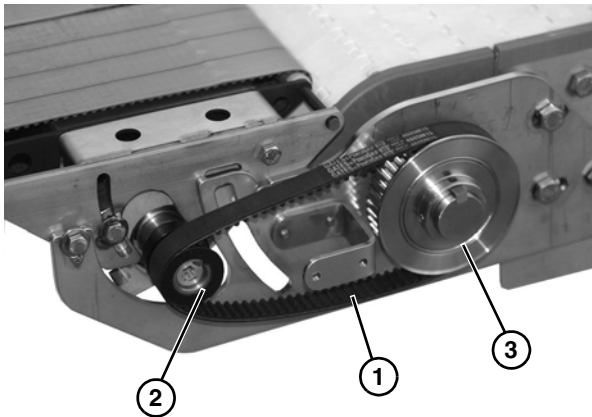


Figure 16

15. Install tensioner (Figure 17, item 1) with washer (Figure 17, item 2) onto bracket (Figure 17, item 3) with screw (Figure 17, item 4) and nut (Figure 17, item 5).

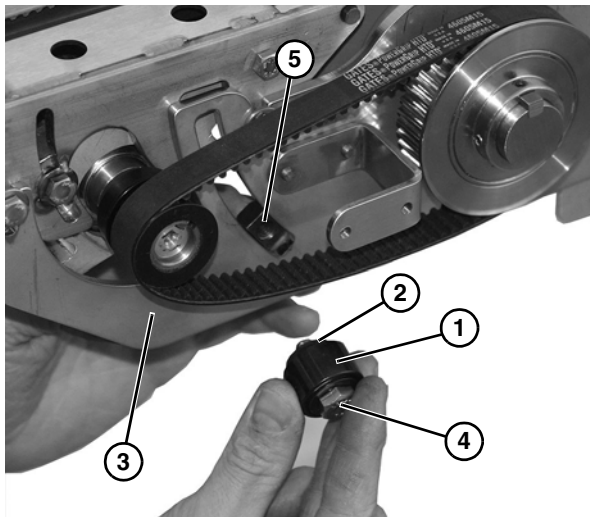


Figure 17

16. Using a straight edge, align driven pulley (Figure 18, item 1) with drive pulley (Figure 18, item 2) and tensioner (Figure 18, item 3), and tighten drive and driven pulley set screws.

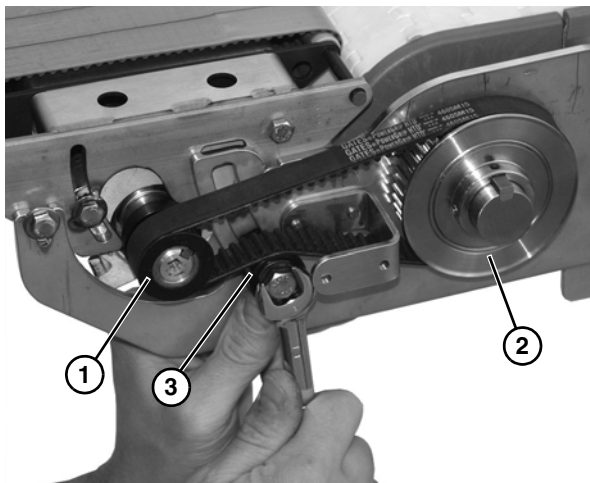


Figure 18

17. Depending upon belt travel (direction A or B), locate timing belt tensioner (**Figure 19, item 1**) as shown.

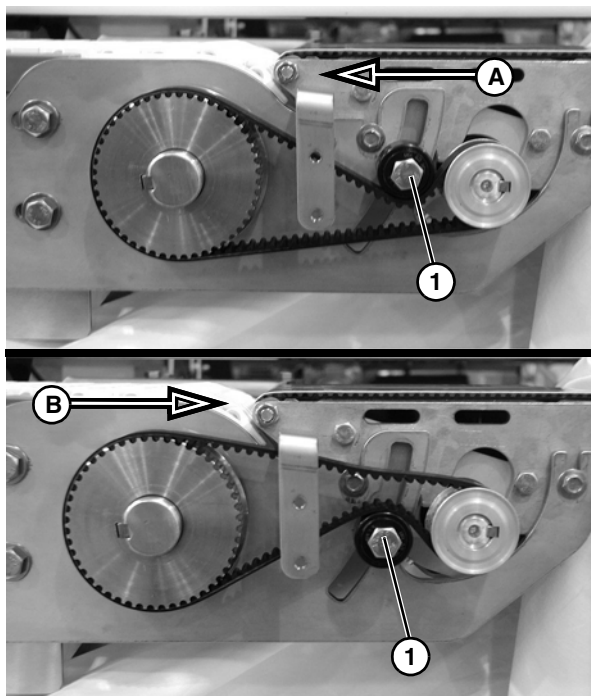


Figure 19

18. Tension timing belt to obtain 1/8" (3 mm) deflection for 6 lb (3 Kg) of force at timing belt mid-point (**Figure 20, item 1**). Tighten tensioner screw (**Figure 20, item 2**) to 110 in-lb (12 Nm).

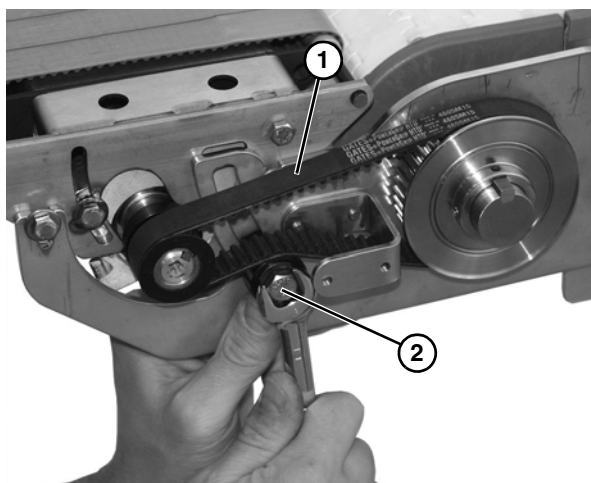


Figure 20

19. Install cover (**Figure 21, item 1**) with two (2) screws (**Figure 21, item 2**). Tighten screws to 35 in-lb (4 Nm).

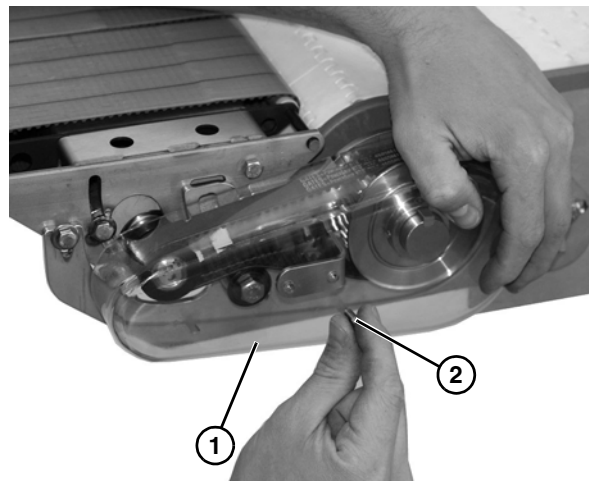


Figure 21

Drive Package Installation

For detailed assembly instructions, refer to the appropriate Drive Packages Manual:

- 851-679 Side Mount 90° Drive Package
- 851-681 Bottom Mount 90° Drive Package
- 851-682 Bottom Mount Parallel Shaft Drive Package

1. Attach the motor (**Figure 22, item 1**) to the conveyor output shaft (**Figure 22, item 2**).

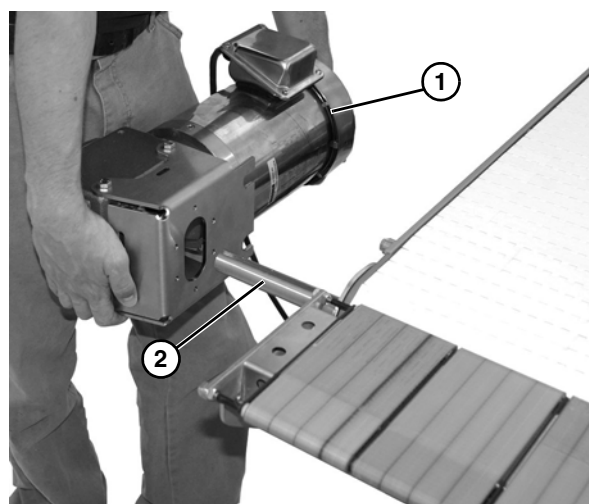


Figure 22

Preventive Maintenance and Adjustment

Required Tools

- Level
- 6 mm wrench
- 8 mm wrench
- 10 mm wrench
- 3/32" hex wrench
- 5/32" hex wrench

Checklist

- Keep service parts on hand. Refer to the "Service Parts" section starting on page 16 for recommendations.
- Replace any worn or damaged parts.

Cleaning

NOTE

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

⚠ 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.

⚠ WARNING



SEVERE HAZARD!

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

Lubrication

No lubrication is required. Replace bearings if 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

Preventive Maintenance and Adjustment

Timing Belt Replacement

⚠ WARNING

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

1. Remove two (2) screws (Figure 23, item 1) and cover (Figure 23, item 2).

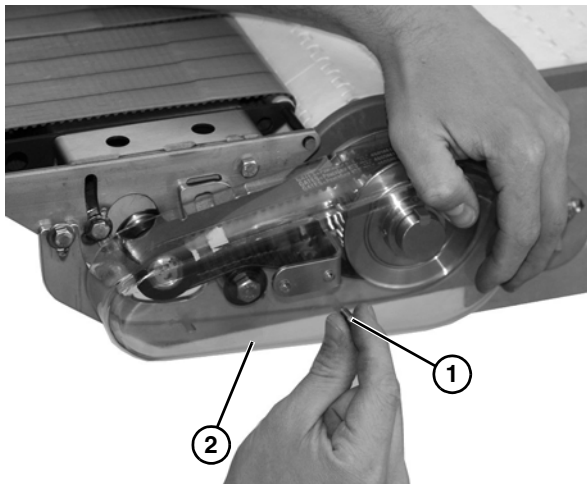


Figure 23

2. Loosen tensioner screw (Figure 24, item 1), and slide tensioner (Figure 24, item 2) downward.

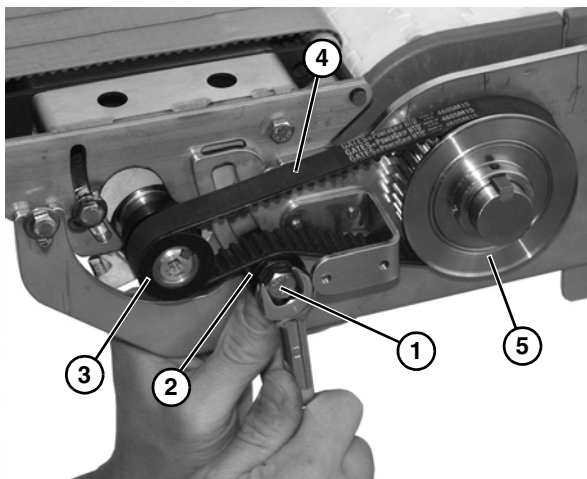


Figure 24

3. Slide driven pulley (Figure 24, item 3) outward and remove timing belt (Figure 24, item 4) from driven pulley and drive pulley (Figure 24, item 5).
4. Replace the old belt with a new one. Refer to install procedure in "Power Transfer Assembly" on page 5.

Belt Replacement

⚠ WARNING

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

1. Remove timing belt. Refer to "Timing Belt Replacement" on page 11.
2. Loosen two flanged screws (Figure 25, item 1).

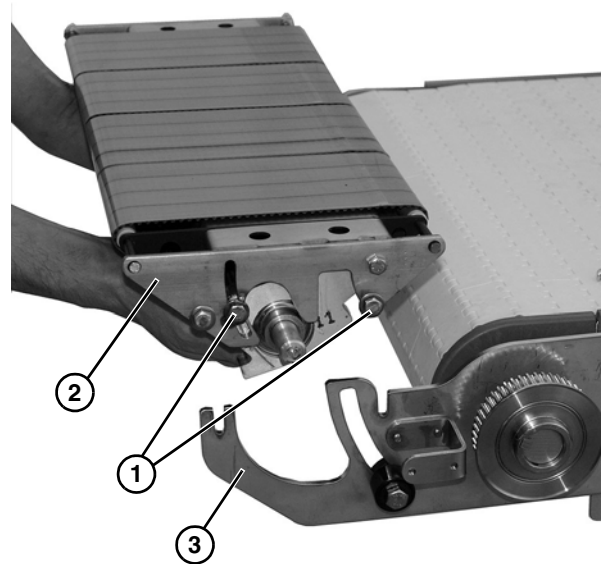


Figure 25

3. Lift power transfer assembly (Figure 23, item 2) from side plates (Figure 23, item 3).
4. Remove screw (Figure 26, item 1) and loosen screw (Figure 26, item 2). Shaft assembly will collapse, removing tension from the power transfer belts.

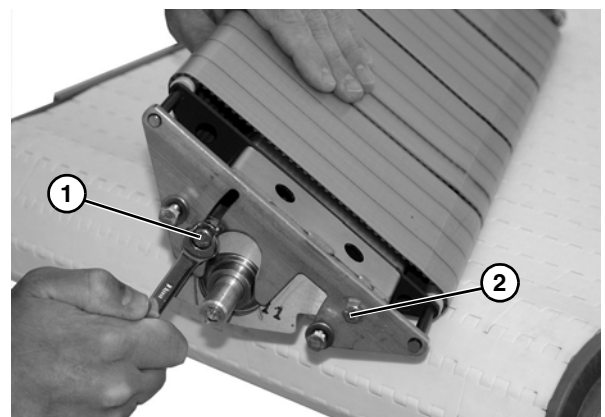


Figure 26

Preventive Maintenance and Adjustment

5. Remove belts (**Figure 27, item 1**) from power transfer assembly (**Figure 27, item 2**).

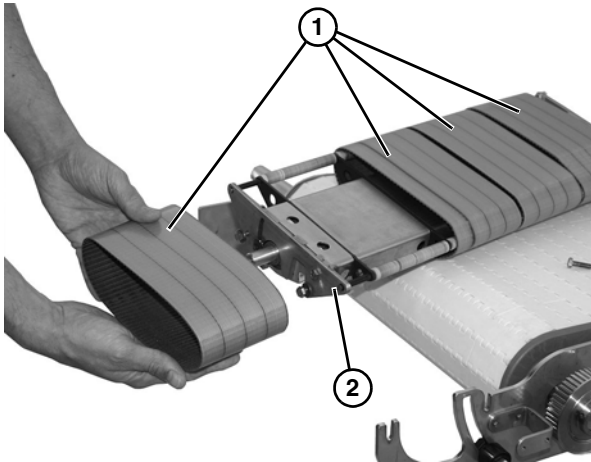


Figure 27

6. Replace the old belts with a new belts.
7. Lower inner power transfer bracket (**Figure 28, item 1**) from outer bracket (**Figure 28, item 2**), until belts are tight.

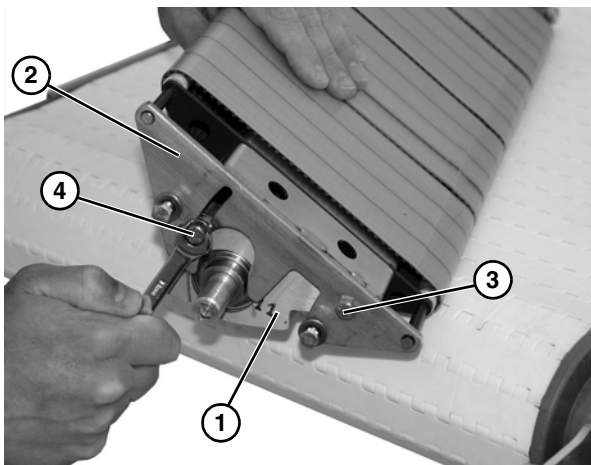


Figure 28

8. Tighten screw (**Figure 28, item 3**), and install and tighten screw (**Figure 28, item 4**).

9. Place level (**Figure 29, item 1**) or straight edge to level power transfer assembly (**Figure 29, item 2**) with conveyor belt (**Figure 29, item 3**).

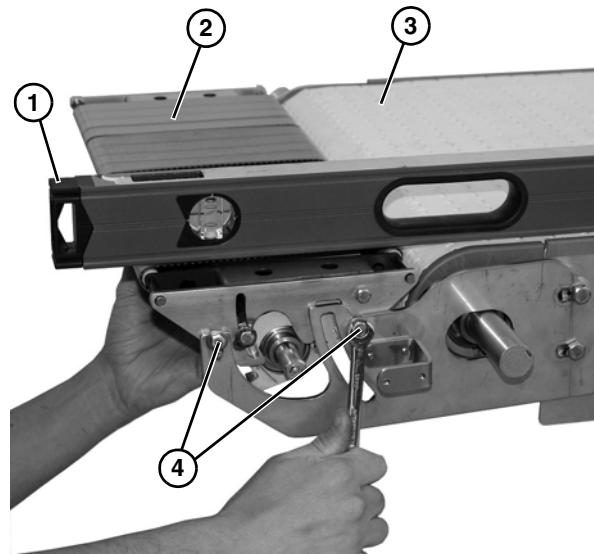


Figure 29

10. Tighten bolts (**Figure 29, item 4**) to secure position.

Roller Replacement

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

1. Remove belts. See “Belt Replacement” on page 11.
2. While holding onto inner nut (**Figure 30, item 1**), remove outer nut (**Figure 30, item 2**).

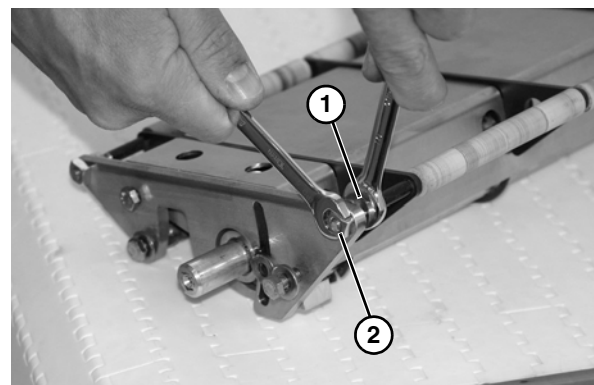


Figure 30

Preventive Maintenance and Adjustment

3. Slide rod (**Figure 31, item 1**) inward and remove the inner nut (**Figure 31, item 2**).

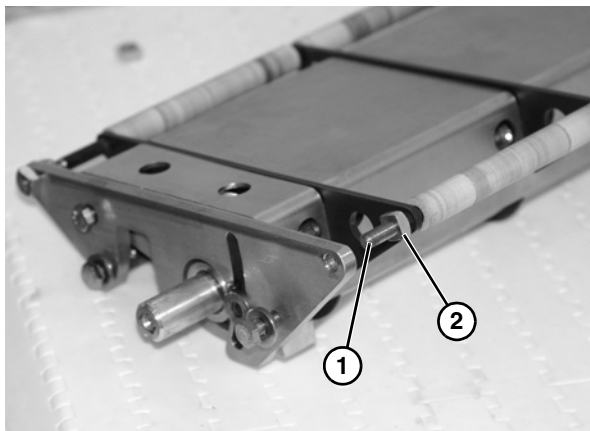


Figure 31

4. Remove rod (**Figure 32, item 1**) and rollers (**Figure 32, item 2**).

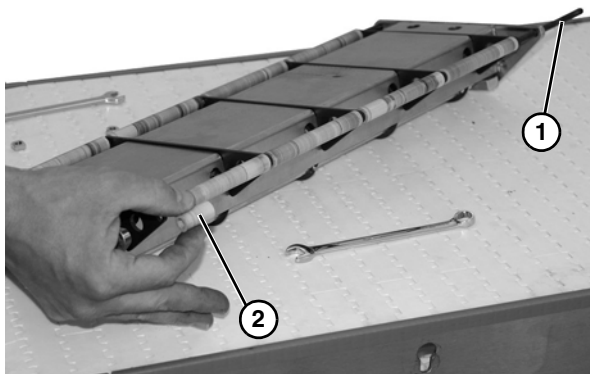


Figure 32

5. Repeat on opposite side.
6. Install rollers onto rod, reverse of removal.
7. Install inner nut (**Figure 33, item 1**) onto rod (**Figure 33, item 2**).

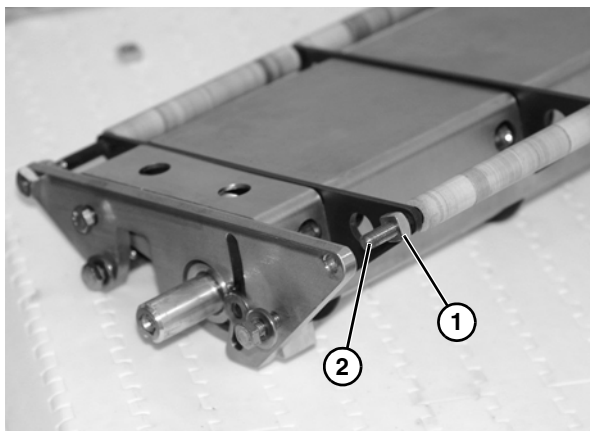


Figure 33

8. Install rods (**Figure 34, item 1**) so they remain flush with power transfer bracket surface (**Figure 34, item 2**).

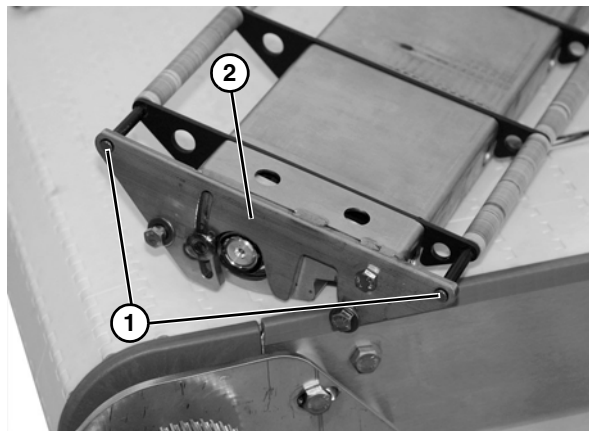


Figure 34

9. While holding onto inner nut (**Figure 35, item 1**), install and tighten outer nut (**Figure 35, item 2**).

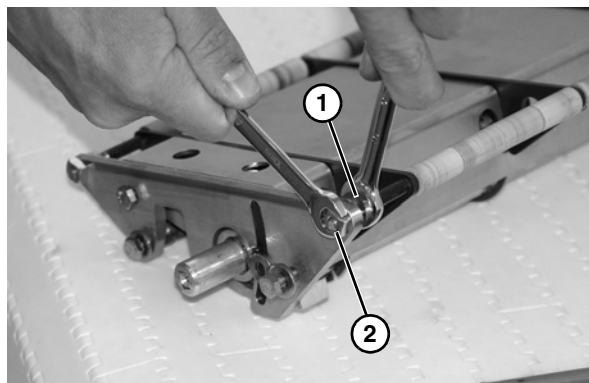


Figure 35

10. Install four belts. See "Belt Replacement" on page 11.

Preventive Maintenance and Adjustment

Bearing Replacement

WARNING



SEVERE HAZARD!

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

1. Remove four belts. See “Belt Replacement” on page 11.
2. Rotate assembly upside down on conveyor.
3. Remove screw (**Figure 36, item 1**). Repeat on opposite side.

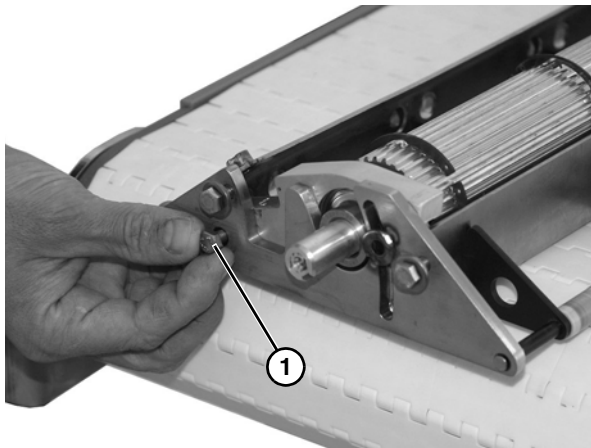


Figure 36

4. Remove shaft assembly (**Figure 37, item 1**) from power transfer frame (**Figure 37, item 2**).

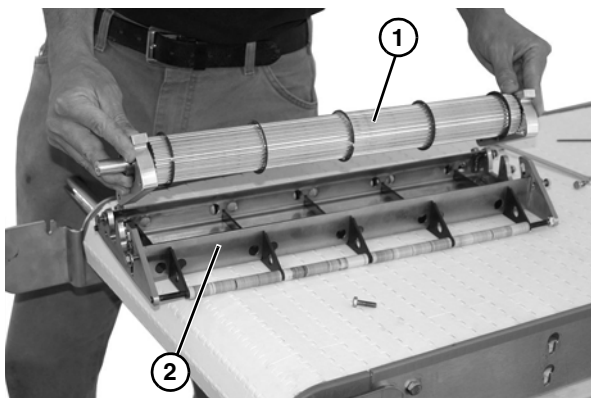


Figure 37

5. Remove bracket (**Figure 38, item 1**) from each side of shaft assembly by sliding it off the bearing. Be certain to note location and orientation of left and right sides.

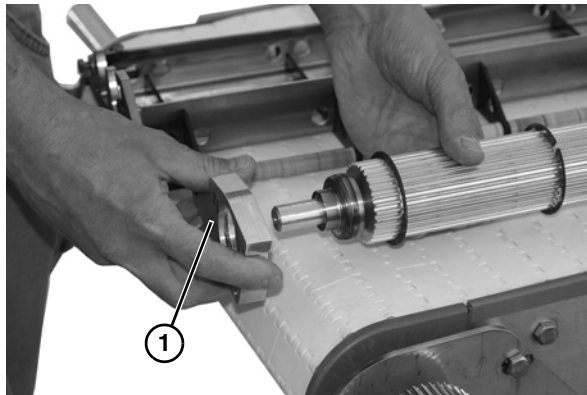


Figure 38

6. Loosen set screws (**Figure 39, item 1**) from bearing (**Figure 39, item 2**).

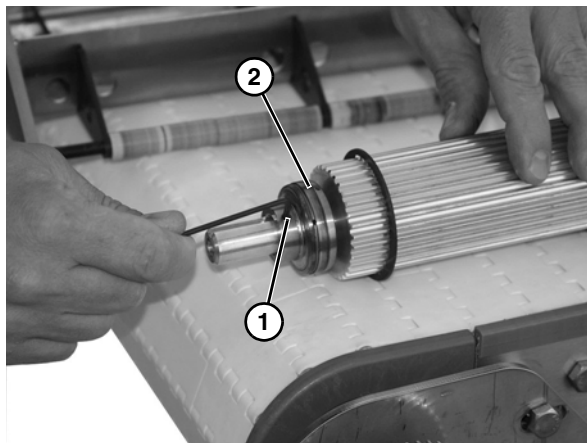


Figure 39

7. Remove bearing (**Figure 40, item 1**) from shaft (**Figure 40, item 2**).

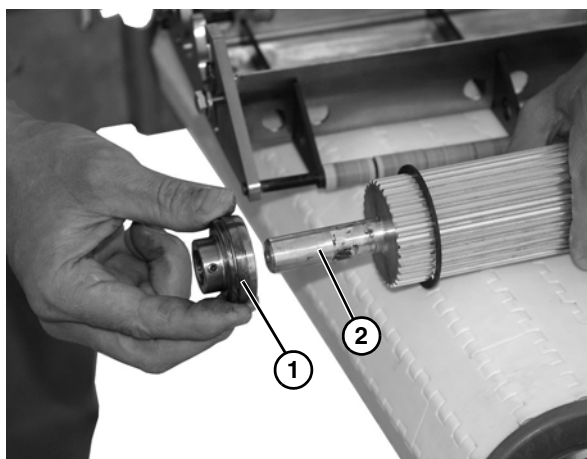


Figure 40

8. Install new bearing on each side.

Preventive Maintenance and Adjustment

9. Center shaft assembly, so that there is equal space between each bracket (**Figure 41, item 1**) and roller (**Figure 41, item 2**). Tighten set screws (**Figure 41, item 3**).

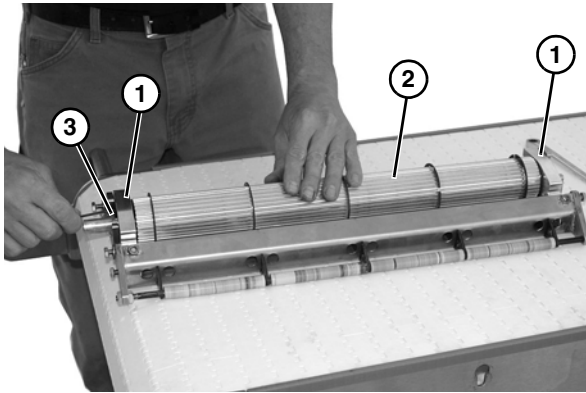


Figure 41

10. Install belts. Refer to "Belt Replacement" on page 11.

Position Adjustment

1. To adjust height, place level (**Figure 42, item 1**) or straight edge to level power transfer assembly (**Figure 42, item 2**) with conveyor belt (**Figure 42, item 3**). Tighten two bolts (**Figure 42, item 4**) to secure position.

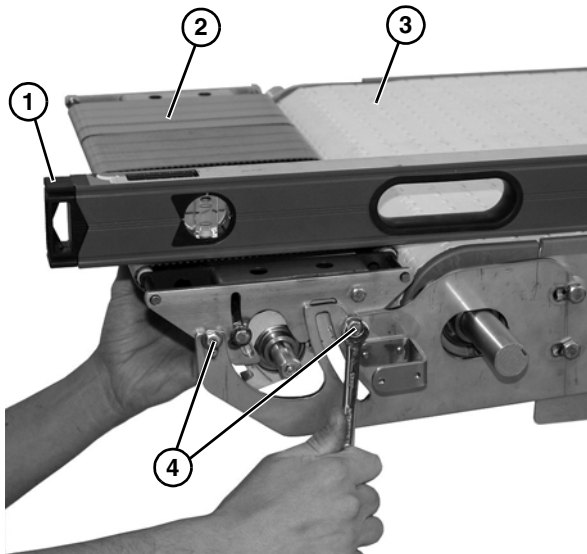


Figure 42

2. To adjust location, place level (**Figure 43, item 1**) or straight edge to level power transfer assembly (**Figure 43, item 2**) with conveyor belt (**Figure 43, item 3**). Be certain that there is a minimum 1/8 - 1/4 in. distance (**Figure 43, item 4**) between power transfer and conveyor belt, and tighten three bolts (**Figure 43, item 5**) to secure position.

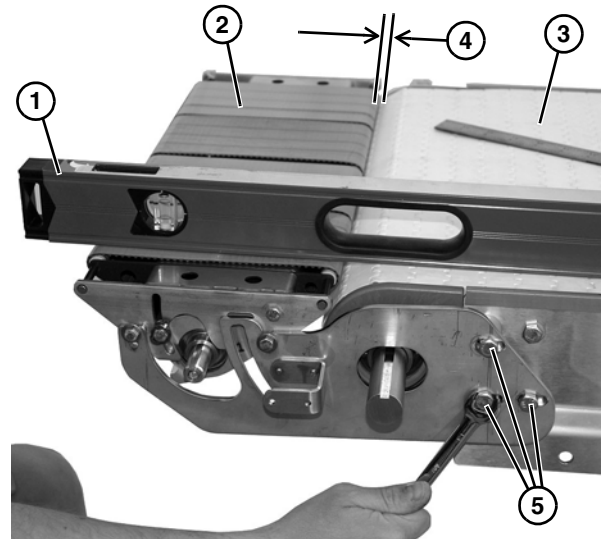


Figure 43

NOTE

*Before running power transfer, be certain that belts (**Figure 44, item 1**) are not riding on spacers (**Figure 44, item 2**).*

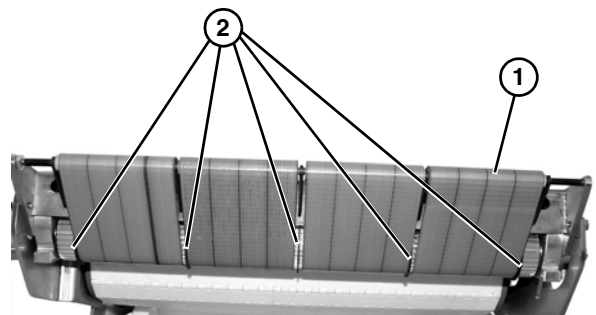



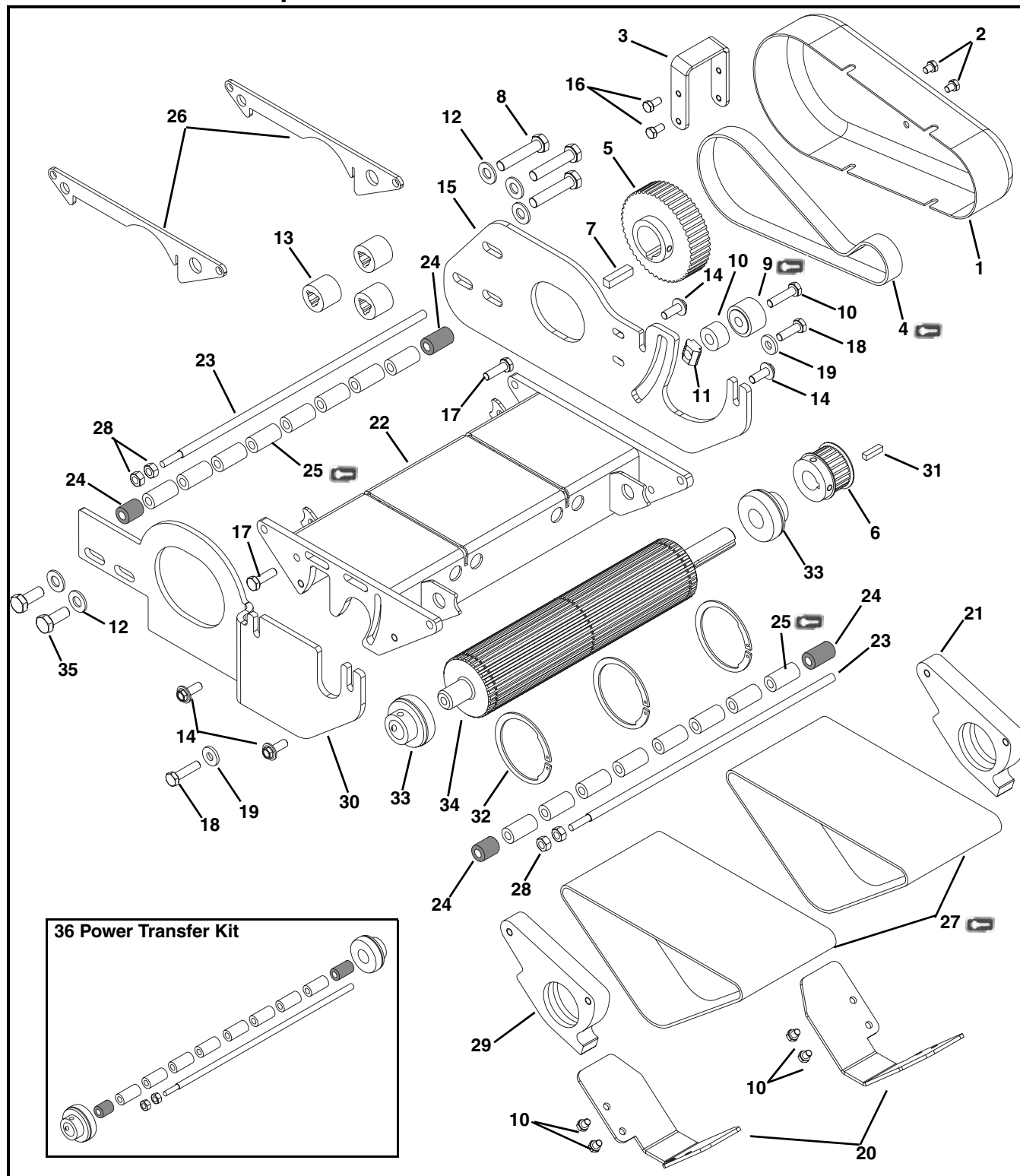
Figure 44



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.

Power Transfer Components



Item	Part Number	Description
1	509838	Cover
2	960506MSS	Hex Head Cap Screw, M5-.80 x 6 mm
3	509837	Cover Bracket
	814-097	Belt, for use with 48 Tooth Pulley
	814-415	Belt, for use with 30 Tooth Pulley
	814-108	Belt, for use with 60 Tooth Pulley
5	509855	Pulley, 48 Tooth
	509859	Pulley, 30 Tooth
	509860	Pulley, 60 Tooth
6	509856	Pulley, 22 Tooth
7	912-108SS	Key
8	960840MSS	Hex Head Cap Screw, M8-1.25 x 40 mm
9	802-046	Bearing Cam
10	450445	Cam Spacer
11	202390M	Cam Nut
12	911-208	Washer, 0.3125"
13	509839	Aluminum Spacer
14	960616MSSF	Hex Head Cap Screw, M6-1.00 x 16 mm
15	509833	Transfer Plate
16	960510MSS	Hex Head Cap Screw, M5-.80 x 10 mm
17	960620MSS	Hex Head Cap Screw, M6-1.00 x 20 mm
18	960625MSS	Hex Head Cap Screw, M6-1.00 x 25 mm
19	911-201	Washer, 0.25"
20	509851	Spindle Guard
21	509831	Bearing Retaining Block, Left Hand
22	509846- <u>WW</u>	Frame Assembly, for Straight Conveyors
	509847- <u>WW</u>	Frame Assembly, for Curve Conveyors
23	509840- <u>WW</u>	Roller Shaft for Straight Conveyors
	509841- <u>WW</u>	Roller Shaft for Curve Conveyors
24	509849- <u>LLL</u>	Plastic Spacer
25*	501087	Roller, 0.5" x 1.06"
26	509836	Support Plate
27* 	509850-100	Timing Belt, 100 mm wide
	509850-075	Timing Belt, 75 mm wide
	509850-050	Timing Belt, 50 mm wide
	509850-025	Timing Belt, 25 mm wide
28	990601MSS	Hex Nut
29	509832	Bearing Retaining Block, Right Hand
30	509835	Bent Transfer Plate, Right Hand
	509834	Bent Transfer Plate, Left Hand
31	912-080SS	Key
32	807-1852	Retaining Ring
33	802-180	Bearing
34	509842- <u>WW</u>	Pulley for Straight Conveyor
	509843- <u>WW</u>	Pulley for Curve Conveyor
35	960820MSS	Hex Head Cap Screw, M8-1.25 x 20 mm
36	735PT- <u>WW</u>	Power Transfer Kit (Includes items 23, 24, 25, 28, and 33)
<u>WW</u> = Conveyor width reference: 04 – 36 in 02 increments		
<u>LLL</u> = Spacer Length in inches with 3 decimal places.		
Example: Spacer Length = 0.25" LLL = 250		
*See table for timing belt and roller quantities per conveyor width.		

Timing Belt and Roller Quantity Chart		
Width	Roller Quantity - Item #25	Timing Belt Quantity - Item #27
4"	8	509850-075
6"	12	509850-100 & 509850-025
8"	16	509850-100 & 509850-075
10"	20	509850-100 (x2) & 509850-025
12"	24	509850-100 (x2) & 509850-075
14"	28	509850-100 (x3) & 509850-025
16"	32	509850-100 (x3) & 509850-075
18"	34	509850-100 (x4) & 509850-025
20"	38	509850-100 (x4) & 509850-075
22"	42	509850-100 (x5) & 509850-025
24"	44	509850-100 (x5) & 509850-075
26"	48	509850-100 (x6) & 509850-025
28"	52	509850-100 (x6) & 509850-075
30"	56	509850-100 (x7)
32"	60	509850-100 (x7) & 509850-050
34"	64	509850-100 (x8)
36"	68	509850-100 (x8) & 509850-050

Return Policy

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

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

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

Conveyors and conveyor accessories

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

Parts

Standard stock parts	30%
Plastic chain, 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 Customer Service Team will gladly help with your questions on Dorner products.

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

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



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

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