DORNER®

Installation Manual

Conversion of 2200 Tail Assemblies to New Design

Old Design

New Design

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Dorner has re-engineered the 2200 tail assembly, which includes the pulley and tail plates. The tail plates are the components that retain the pulley bearings and connect the pulley to the conveyor frame. The new design delivers added strength and easier bearing replacement.

The improved design incorporates new tail plates and pulleys while using the current bearings. The new tail plates are solid versus the current tail plate that has a thru hole with a dust cover. This solid design provides the improved tail plate strength. A clearance hole will be created in the proper tail plate for the conveyor drive shaft. The new pulleys now utilize pressed-on bearings versus the current taper screw design. Current tail plates and pulleys can not be inter-mixed with new tail plates and pulleys.

Effective October 1, 2004 all orders received for 2200 conveyors, parts kits and parts will incorporate this new design.

Warnings – General Safety

WARNING

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

DANGER

Climbing, sitting, walking or riding on conveyor will cause severe injury.

KEEP OFF CONVEYORS.

DANGER

DO NOT OPERATE CONVEYORS IN AN EXPLOSIVE ENVIRONMENT.

WARNING

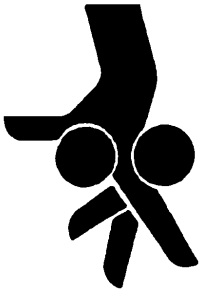
Exposed moving parts can cause severe injury.

LOCK OUT POWER before removing guards or performing maintenance.

WARNING

Gearmotors may be HOT.

DO NOT TOUCH Gearmotors.



WARNING

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.

WARNING

Loosening stand height or angle adjustment screws may cause conveyor sections to drop down, causing severe injury.

SUPPORT CONVEYOR SECTIONS PRIOR TO LOOSENING STAND HEIGHT OR ANGLE ADJUSTMENT SCREWS.

Introduction

IMPORTANT: 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.

Dorner's Limited Warranty applies.

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 .

Dorner 2200 series conveyors are covered by Patent Numbers 5,174,435, 6,298,981, 6,422,382 and corresponding patents and patent applications in other countries.

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

2200 Series End Drive Conveyor New Design Tail Installation Instructions

1. Locate new idler spindle and (1) RH and (1) LH head plate.

Figure 1

2. Loosen (4) idler end head plate clamp screws.

Figure 2

3. Collapse idler end.

Figure 3

4. Remove (4) idler end head plate clamp screws and remove old tail assembly through the conveyor belt.

Figure 4

5. Install a new head plate on one side of the conveyor.

Figure 5

6. Slide the new idler spindle through the belt and into the head plate on the opposite side.

Figure 6

7. Install the second head plate. Leave the (4) head plate mounting screws finger tight.

8. Locate the new drive spindle and (1) RH and (1) LH head plate.

Figure 7

9. Remove the drive cover. (Bottom drive shown, top drive similar.)

Figure 8

10. Loosen timing belt tensioner and remove timing belt.

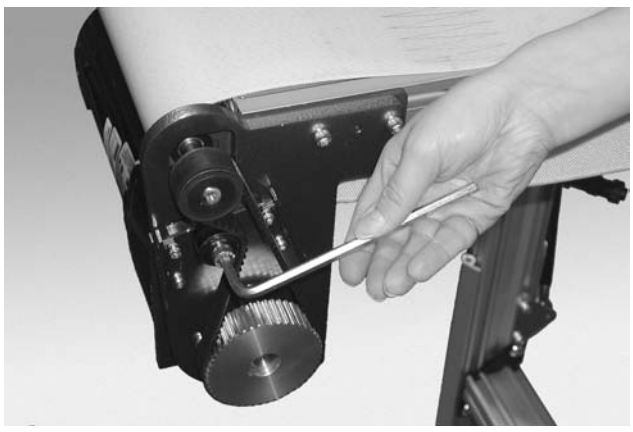


Figure 9

11. Loosen (2) set screws and remove timing belt pulley.

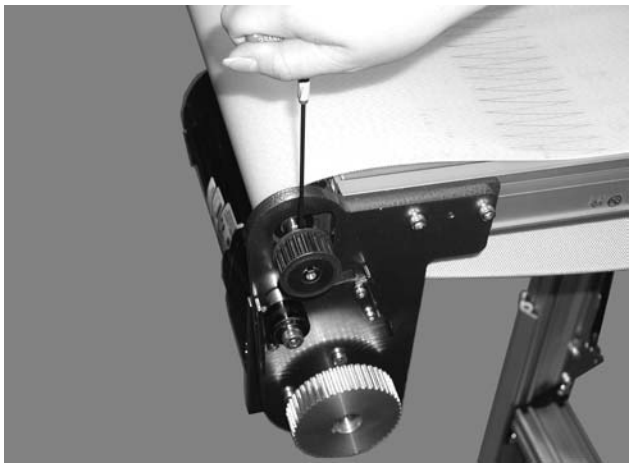


Figure 10

12. Remove (2) drive mounting screws and drive assembly.

Figure 11

13. Remove (2) head plate mounting screws from opposite side of conveyor.

Figure 12

14. Remove drive end tail assembly through the conveyor belt.

Figure 13

15. Install the new head plate on the non-drive shaft side of the conveyor.

Figure 14

16. Slide the new drive spindle through the conveyor belt and into the head plate on the opposite side.

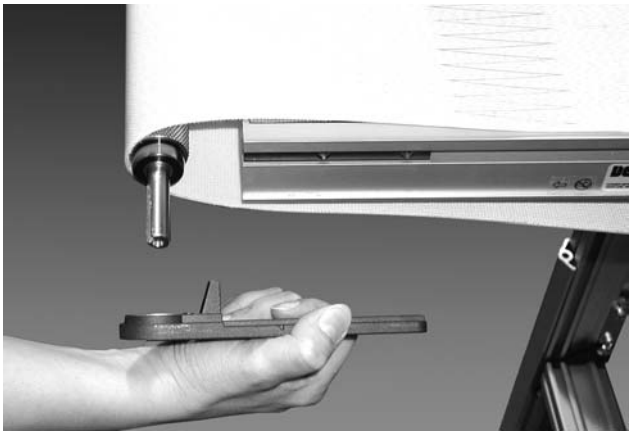


Figure 15

17. Install the second head plate on the drive shaft corner.

18. Re-install the drive mount assembly, timing belt pulley, timing belt and drive cover by reversing the previous steps.

19. Tighten conveyor belt. On tension end of the conveyor, identified with a  label (D of Figure 16), adjust head plate assembly (C): On both sides of conveyor, loosen fastening screws (A) and rotate pinion gear (E) to adjust head plate assembly.

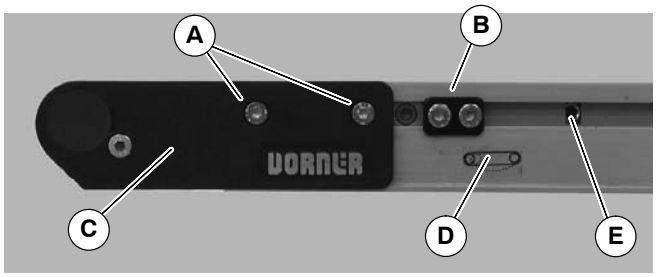


Figure 16

20. Adjust head plate assembly so end of conveyor frame aligns with or between the head plate tensioning marks (F & G of Figure 17). Replace belt if proper tensioning can not be obtained while aligning the end of the conveyor frame with or between the tensioning marks. See **NOTE**.

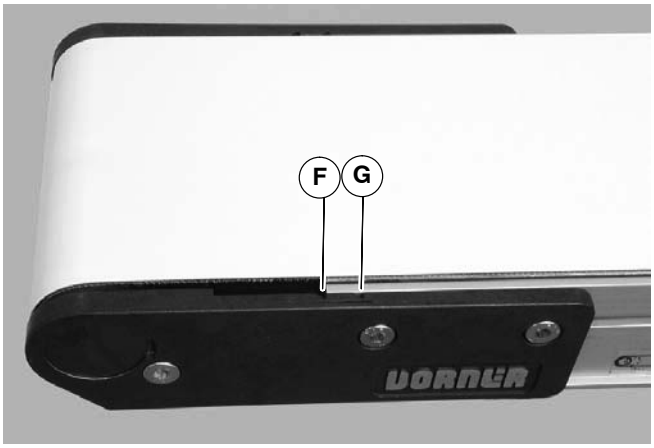


Figure 17

NOTE: On pinion gear, do not exceed a torque of 25 in-lb (2.8 Nm) for 2 – 12" (44 – 305mm) wide conveyors and 50 in-lb (4.5 Nm) for an 18 – 24" (457 – 610mm) wide conveyor. Over tensioning the conveyor belt could cause excessive pulley bearing load and early failure.

21. After adjusting proper tensioning, tighten fastening screws (A of Figure 16) on both sides of conveyor to 60 in-lb (7 Nm).

2200 Series Center Drive Conveyor New Design Tail Installation Instructions

1. Locate new idler spindle and (1) RH and (1) LH head plate.

Figure 18

2. Loosen (4) idler end head plate clamp screws.

Figure 19

3. Collapse idler end.

Figure 20

4. Remove (4) idler end head plate clamp screws and remove old tail assembly through the conveyor belt.

Figure 21

5. Install a new head plate on one side of the conveyor.

Figure 22

6. Slide the new idler spindle through the belt and into the head plate on the opposite side.

Figure 23

7. Install the second head plate. Leave the (4) head plate mounting screws finger tight.

8. Repeat steps 1 through 7 on the Fixed end tail assembly.

9. Tighten conveyor belt. On tension end of the conveyor, identified with a label (D of Figure 24), adjust head plate assembly (C): On both sides of conveyor, loosen fastening screws (A) and rotate pinion gear (E) to adjust head plate assembly.

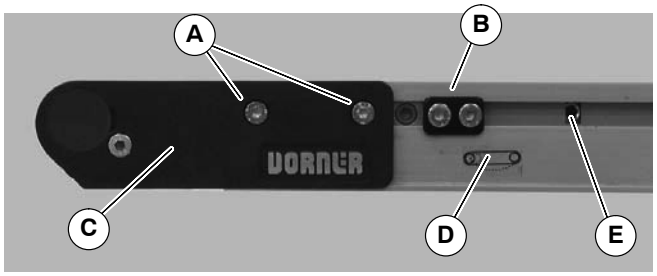


Figure 24

10. Adjust head plate assembly so end of conveyor frame aligns with or between the head plate tensioning marks (F & G of Figure 25). Replace belt if proper tensioning can not be obtained while aligning the end of the conveyor frame with or between the tensioning marks. See **NOTE**.

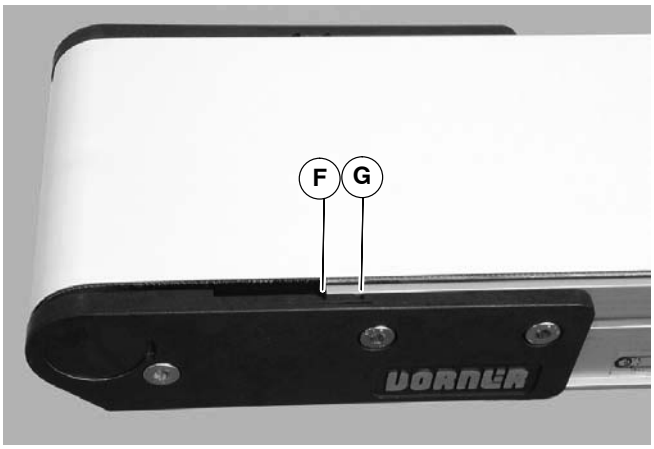


Figure 25

NOTE: On pinion gear, do not exceed a torque of 25 in-lb (2.8 Nm) for 2 – 12¨ (44 – 305mm) wide conveyors and 50 in-lb (4.5 Nm) for an 18 – 24¨ (457 – 610mm) wide conveyor. Over tensioning the conveyor belt could cause excessive pulley bearing load and early failure.

11. After adjusting proper tensioning, tighten fastening screws (A of Figure 24) on both sides of conveyor to 60 in-lb (7 Nm).

Return Policy

No returns will be accepted without prior written factory authorization. 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. 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 to reference.

There will be a 15% restocking charge on all new items returned for credit where Dorner was not at fault. These will not be accepted after 60 days from original invoice date. The restocking charge covers inspection, cleaning, disassembly, and reissuing 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. Feel free to contact Dorner for the name of your local representative. Our technical sales and service staff will gladly help with your questions on Dorner products.

For a copy of Dorner's Limited 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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