

# Setup, Operation & Maintenance Manual

## 2200 Retro Fit Tails for 2100 Conveyors



## **Table of Contents**

Warnings – General Safety	2
Introduction	2
Product Description	3
Installation	
Drive End Retro Fit	4
Idler End Retro Fit	7

Preventative Maintenance & Adjustments	9
Service Parts	9

## Warnings – General Safety



## WARNING

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



## WARNING

Gearmotors may be HOT. DO NOT TOUCH Gearmotors.





riding on conveyor will cause severe injury. KEEP OFF CONVEYORS.





DO NOT OPERATE CONVEYORS IN AN EXPLOSIVE ENVIRONMENT.



## 

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

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



## 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 2100 Series conveyors are covered by Patent No. 5,174,435, 5,131,529 and corresponding patents and patent applications in other countries.

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

## **Product Description**

Refer to Figure 1 for typical drive end retro fit components.

Typical Components				
А	Slide bars	E	Taper screw	
В	Head plate screw	F	Bearing cover	
С	Drive Pulley	G	Head plates	
D	Output shaft	Н	Pulley bearings	



Figure 1

Refer to Figure 2 for typical idler end retro fit components.

Typical Components				
I	Slide bars	М	Bearing covers	
J	Head plate screw	Ν	Head plates	
К	Idler Pulley	0	Pulley bearings	
L	Taper screws			



Figure 2

#### Drive End Retro Fit



WARNING

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

performing maintenance.

#### Installation Component List

- A Slide Bars (2x)
- B Head plate screw (2x)
- C Drive pulley (1x)
- E Taper screw (1x)
- F Bearing cover (1x)
- G Head plates (2x)
- H Pulley Bearings (2x)
- 1. Typical components (Figure 3)





- 2. Remove conveyor belt and 2100 drive end tail assembly. Refer to manual 851–061, "2100 Series End Drive Conveyors," section "Conveyor Belt Replacement Procedure," for details.
- 3. Determine required orientation for output shaft (D of Figure 3).
- 4. Insert slide bars (A of Figure 3) into 2100 frame.
- 5. On head plate for desired output shaft side, insert bearing (H of Figure 4) into slot (I).





6. Twist bearing to fit into bearing enclosure.



Figure 5

7. Insert output shaft (D of Figure 6) of drive pulley (C of Figure 3) into bearing.



Figure 6

NOTE: Press on inner race (J of Figure 7) of bearing only. Use Dorner tool part number 450282 or equivalent to aide in press fit.





Figure 9

10. Twist bearing to fit into bearing enclosure.

#### Figure 7

With bearing installed in head plate, use a bearing 8. installation tool, (K of Figure 8), part number 450292, to press the bearing onto the drive shaft.



Figure 8

9. On remaining head plate, insert pulley bearing (H of Figure 9) into slot (I).



Figure 10

11. Loosely thread taper screw (E of Figure 3) into drive pulley (C).

NOTE: DO NOT tighten non-drive shaft bearing taper screw at this time.

12. With bearing installed in head plate, press bearing onto non-drive shaft (L of Figure 11).



Figure 11

13. Install pulley assembly on conveyor. On both sides of conveyor tighten fastening screws (N of Figures 12 and 13) to 60 in–lbs (7 Nm).



Figure 12



Figure 13

- 14. Insert screws (B of Figure 13) into both head plates. Tighten to 60 in–lbs (7 Nm)
- 15. With 4mm hex key wrench, tighten pulley taper screw (E) to 75 in–lbs (8.5 Nm). Steady pulley with second hex key wrench (O of Figure 14) inserted into pulley hole (M of Figure 11).



Figure 14

16. Install bearing cover (F of Figure 15) into head plate.



Figure 15

17. Install, tension, and track conveyor belt, refer to manual 851–452, "2200 Series End Drive Conveyors."

#### **Idler End Retro Fit**



## WARNING

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

#### Installation Component List

- Q Idler pulley (1x)
- R Pulley bearings (2x)
- S Head plates (2x)
- T Slide bars (2x)
- U Taper screws (2x)
- V Bearing covers (2x)
- W Head plate screw (2x)
- 1. Typical components (Figure 3)



Figure 16

- 2. Remove conveyor belt and 2100 idler end tail assembly. Refer to manual 851–061, "2100 Series End Drive Conveyors", section "Conveyor Belt Replacement Procedure." for details.
- 3. Insert slide bars (T of Figure 16) into 2100 frame.
- 4. On both head plates, insert bearings (R of Figure 17) into slot (X). Twist bearing to fit into bearing enclosure.



Loosely thread (2) taper screws (U of Figure 16) into pulley (Q).

5.

## **NOTE:** DO NOT tighten shaft bearing taper screws at this time.

6. With bearing installed in head plate, press bearing onto shaft (Y of Figure 18) of pulley. Repeat for both sides of pulley.



Figure 18

 Install pulley assembly on conveyor. On both sides of conveyor, hand tighten fastening screws (AA of Figures 19 and 20).



Figure 19



Figure 20

8. On both sides of pulley, use a 4mm hex-key wrench to tighten pulley taper screw (U of Figure 21) to 75 in-lbs (8.5 Nm). Steady pulley with second hex-key wrench (AB) inserted into pulley hole (Z of Figure 18).



Figure 21

- 9. On head plate opposite of pulley hole (Z of Figure 18), install screw (W of Figure 20). Tighten to 60 in–lbs (7Nm).
- 10. Install bearing covers (V of Figure 22) into head plate.



Figure 22

11. Install, tension and track conveyor belt, refer to manual 851–452, "2200 Series End Drive Conveyors."

### **Preventive Maintenance and Adjustment**

Refer to "2200 Series End Drive Conveyor" Setup, Operation and Maintenance manual, part number 851–452.

**Service Parts** 

Refer to "2200 Series End Drive Conveyor" Setup, Operation and Maintenance manual, part number 851–452.

### **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.

## DORNER®

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. <sup>©</sup>Dorner Mfg. Corp. 2000

DORNER MFG. CORP. 975 Cottonwood Ave., PO Box 20 Hartland, WI 53029-0020 USA USA TEL 1-800-397-8664 (USA) FAX 1-800-369-2440 (USA) Outside the USA:

TEL 1-262-367-7600, FAX 1-262-367-5827

DORNER Arnold-Sommerfeld-Ring 2 D-52499 Baesweiler Germany TEL (02401) 80 52 90 FAX (02401) 80 52 93

Internet: www.dorner.com

Printed in U.S.A.