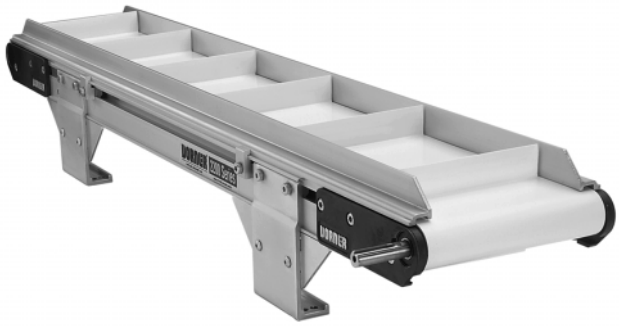
DORNER®

⚠ Important Service Bulletin

2200 Series Idler Spindle Replacement Kit 7049WW and 2200 Series Drive Spindle Replacement Kit 7049AWW and 7049DWW



Instructions

1. Perform the required service on the 2200 series spindle. For idler spindle replacement see page 2. For drive spindle replacement see page 4. If any questions arise while performing this service, call the Dorner Service Manager at 1–800–397–8664 (1–262–367–7600 outside the U.S.).
2. Complete the form on the back of this document. (A separate, duplicate form was included for your convenience). Fax this completed form to 1–800–369–2440 (1–262–367–5827).

In appreciation for your efforts, the warranty for all 2200 series conveyors serviced will be extended for 1 year from the date the service was performed.

Installation

Required Tools

- Hex key wrenches
  - 4 mm
  - 5 mm
- Torque wrench to 80 in–lbs (9 N–m)
- Small Flat–Blade Screwdriver

Idler Spindle Replacement

WARNING

Exposed moving parts can cause severe injury.

LOCK OUT POWER before removing guards or performing maintenance.

1. Locate Components (Figure 1).

Components List	
A	Idler Spindle (1x)
B	Taper Screws (2x)
C	Bearings (2x)

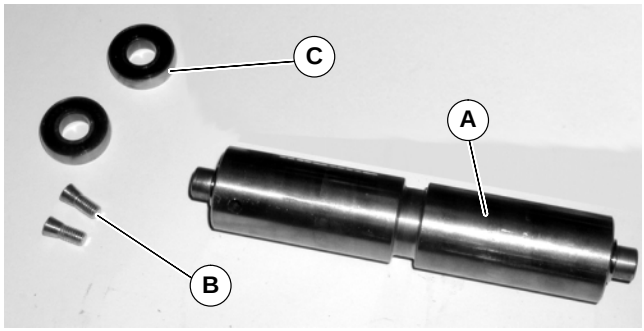


Figure 1

2. On tension end of the conveyor, identified with a  label (D of Figure 2), push in idler end assembly (E): On both sides of conveyor, loosen and move cam tracking assemblies (F) (if equipped, for non v–guided belts) away from head plates, then loosen fastening screws (G) and push idler end assembly inward.

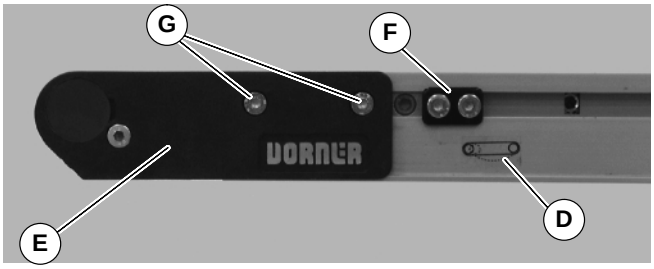


Figure 2

3. With the small flat blade screwdriver, remove bearing cover (H of Figure 3) on both sides of conveyor.

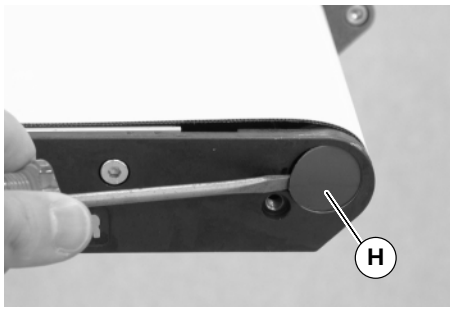


Figure 3

4. Remove (2) headplate mounting screws (G of Figure 2). Remove idler end assembly (I of Figure 4).

Figure 4

5. With 4mm hex-key wrench, loosen pulley taper screw (B of Figure 5). Steady pulley with second hex-key wrench (J) inserted into pulley hole. Repeat procedure for opposite side of pulley.

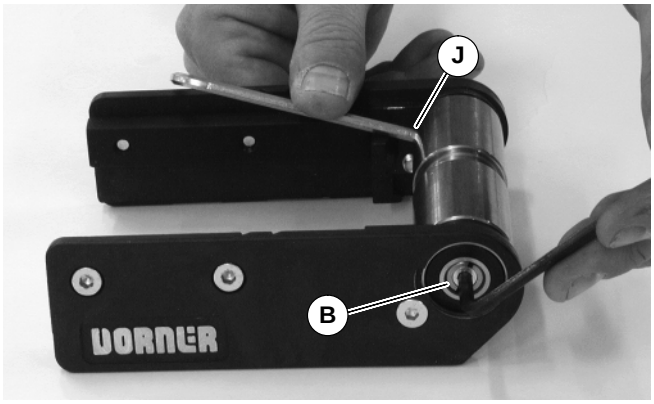


Figure 5

6. Pull head plates with bearings off from the pulley.
7. Turn bearing (C of Figure 6) to align with slots (K) in head plate. Then remove bearing.

Figure 6

8. Clean and inspect head plate bearing surface. If damaged, replace head plate. See “Service Parts” on page 11.

9. Insert new bearing (C of Figure 7) into head plate slot and twist bearing to fit into bearing enclosure.

Figure 7

10. With bearing installed in head plate, press bearing on to shaft (L of Figure 8) of pulley. Repeat for both sides of pulley.

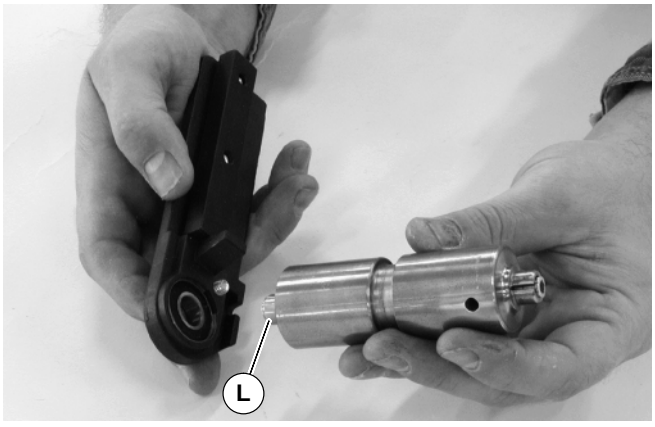


Figure 8

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

11. Install idler end assembly on conveyor. On both sides of conveyor, hand tighten fastening screws (G of Figure 9).

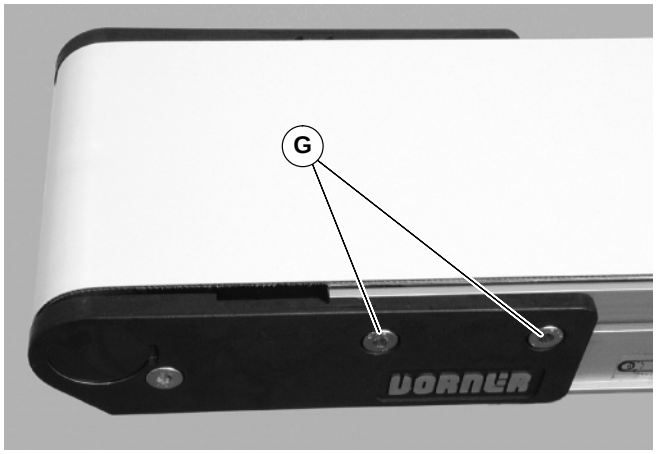


Figure 9

12. On both sides of pulley, use a 4mm hex-key wrench to tighten pulley taper screw (B of Figure 10) to 75 in-lb (8.5 Nm). Steady pulley with second hex-key wrench (J) inserted into pulley hole.

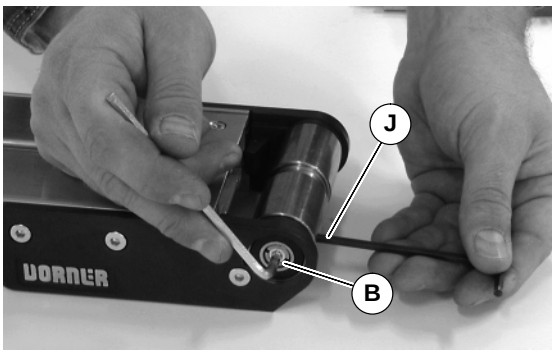


Figure 10

13. Install bearing covers (H of Figure 11).

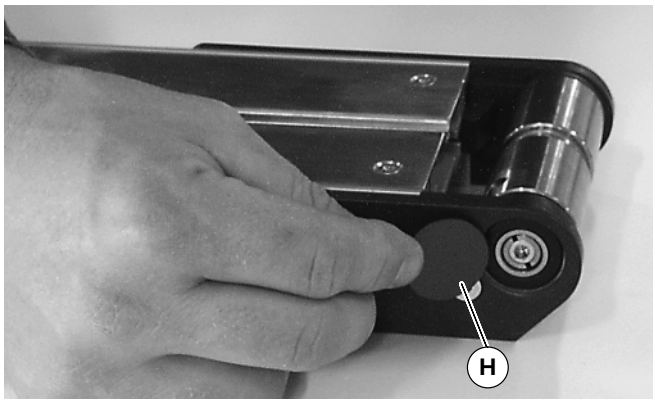


Figure 11

14. Tension conveyor belt. See “Tensioning Conveyor Belt” section on page 8.
15. Track conveyor belt. See “Tracking Conveyor Belt” section on page 9.
16. Complete the form on the back of this document. Fax this completed form to 1–800–369–2440 (1–262–367–5827 outside the U.S.).

    In appreciation for your efforts, the warranty for the 2200 Series conveyor serviced will be extended for 1 year from the date the service was performed.

Drive Spindle Replacement

WARNING

Exposed moving parts can cause severe injury.

LOCK OUT POWER before removing guards or performing maintenance.

WARNING

Exposed moving parts can cause severe injury.

DO NOT MAKE TABLE ADJUSTMENTS WITH CONVEYOR RUNNING.

1. Locate components (Figure 12).

Components List	
M	Drive Spindle/Headplate Assembly (1x)
B	Taper Screws (1x)
C	Bearing (1x)

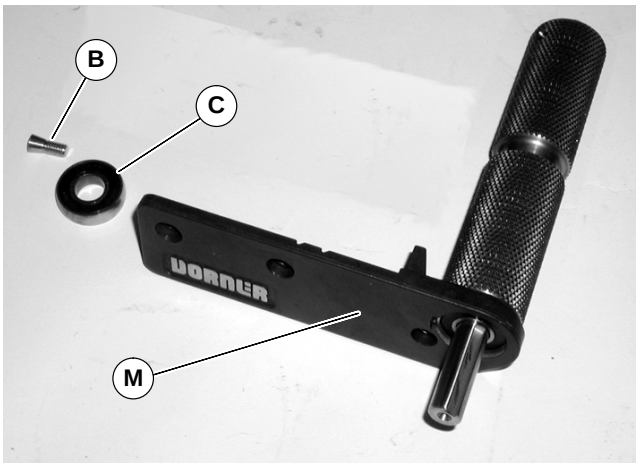


Figure 12

2. On tension end of the conveyor, identified with a  label (D of Figure 2), push in idler end assembly (E): On both sides of conveyor, loosen and move cam tracking assemblies (F) (if equipped, for non v–guided belts) away from head plates, then loosen fastening screws (G) and push idler end assembly inward.

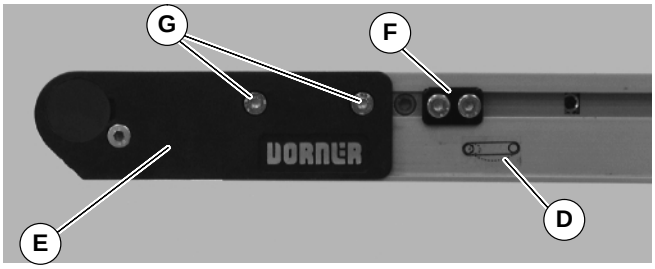


Figure 13

3. Remove the gearmotor mounting package assembly. See the appropriate sections below

A – Light load side mounting package
B – Standard load side mounting package
C – Top or bottom mounting package

A – Light Load Side Mounting Package

a. Remove (4) motor mounting screws (N of figure 14).

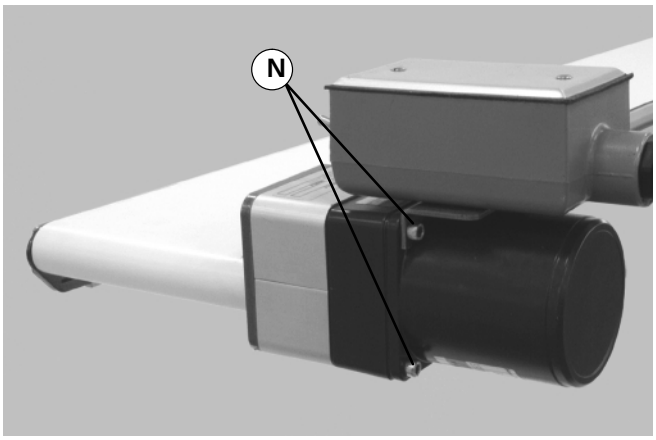


Figure 14

b. Loosen (2) set screws (O of Figure 15) on timing belt pulley (P).

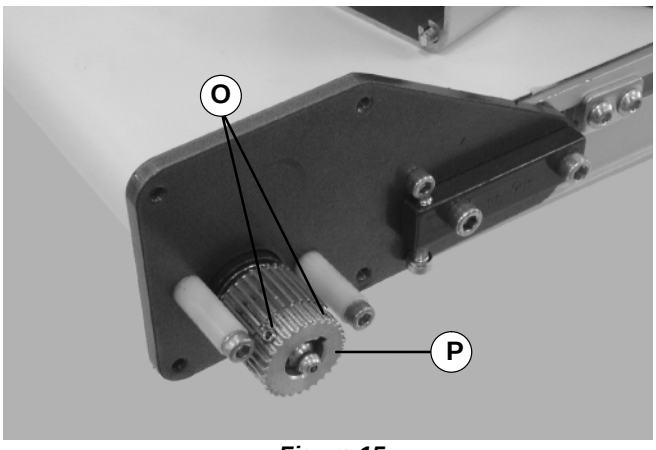


Figure 15

c. Remove timing belt pulley (P).

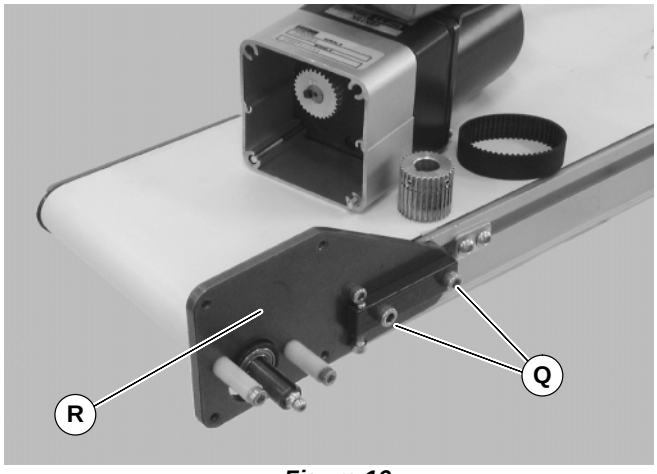


Figure 16

d. Remove (2) mounting screws (Q of Figure 16). Remove side drive mount bracket (R).

B – Standard Load Side Mounting Package

a. With a flat blade screwdriver, remove cap (S of Figure 17).

b. Loosen (2) set screws on the coupling (T).

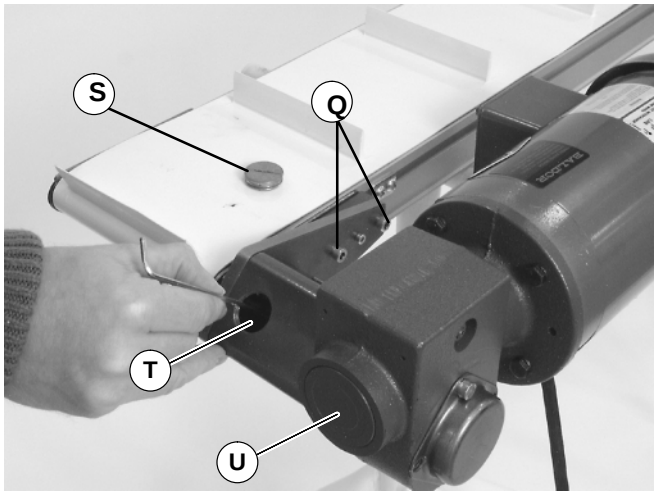


Figure 17

c. Remove (2) motor mounting screws (Q of Figure 17). Remove mounting bracket with gearmotor (U).

C – Top or Bottom Mounting Package

NOTE: Bottom mounting package shown. Top mounting package similar.

a. Remove four (4) screws (V of Figure 18) and remove cover (W).

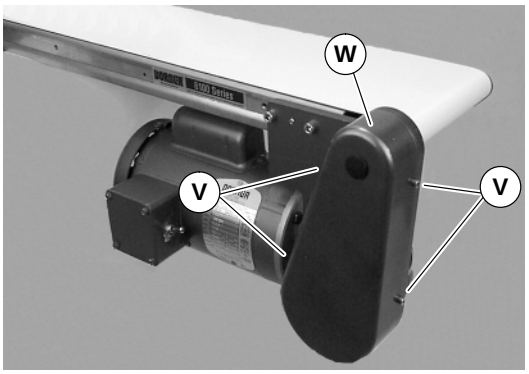


Figure 18

b. Loosen tensioner (X of Figure 19).

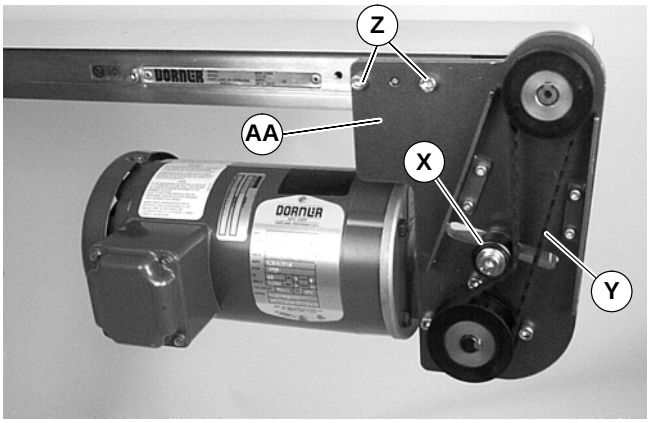


Figure 19

c. If timing belt does not slide over pulley flange, loosen driven pulley set screws (AB of Figure 20) and remove pulley with belt (Y).

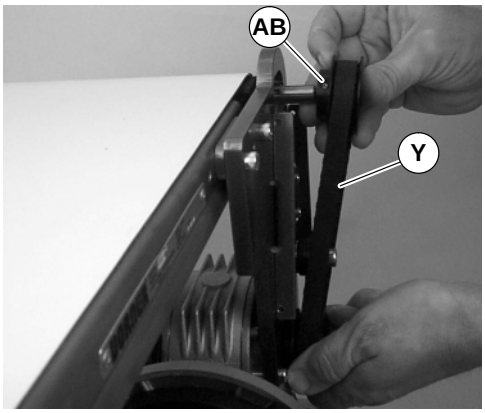


Figure 20

d. Remove (2) mounting screws (Z of Figure 19). Remove mounting package with gearmotor (AA).

4. Remove (2) headplate mounting screws (AC of Figure 21) from opposite side of drive pulley. Remove drive pulley/headplate assembly (AD).

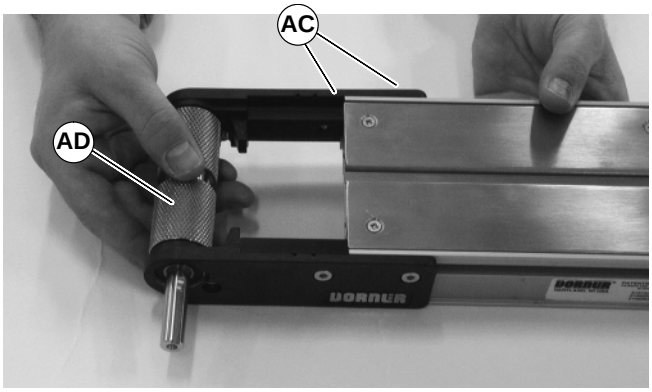


Figure 21

5. Remove bearing cover (H of Figure 22) from side opposite of drive shaft.

Figure 22

6. On side opposite of drive shaft, loosen pulley taper screw (B of Figure 23) with 4mm hex-key wrench. Steady pulley with second hex-key wrench (J) inserted into pulley hole.

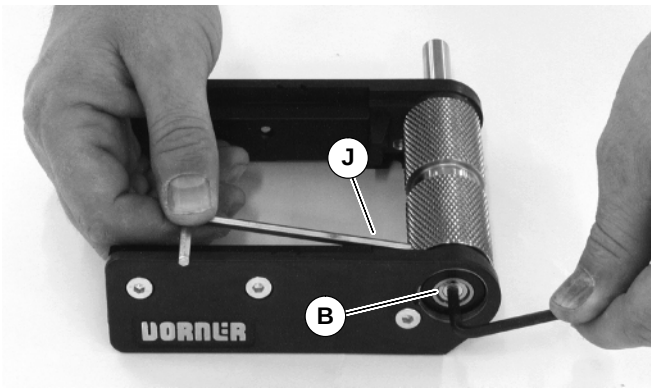


Figure 23

7. On side opposite of drive shaft, pull head plate with bearings off from the pulley.
8. Turn bearing (C of Figure 6) to align with slots (K) in head plate. Then remove bearing.

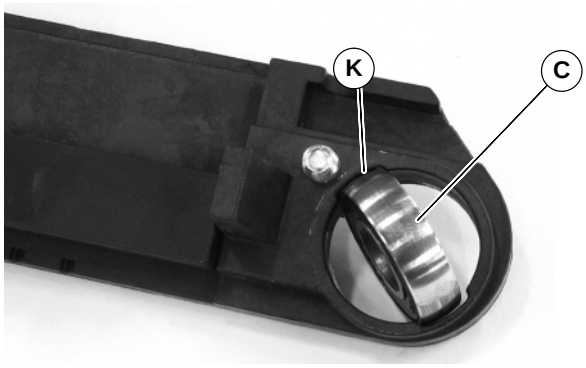


Figure 24

9. Clean and inspect head plate bearing surface. If damaged, replace head plate. See “Service Parts” on page 11.
10. Insert new bearing (C of Figure 7) into head plate slot and twist bearing to fit into bearing enclosure.

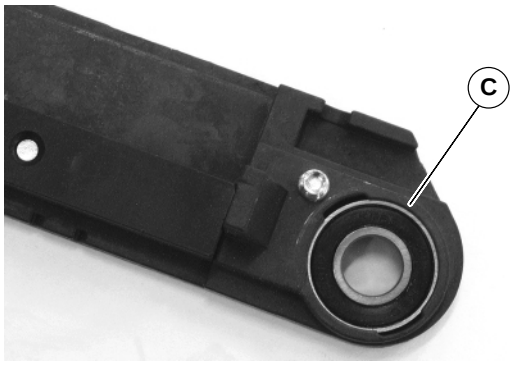


Figure 25

11. With bearing installed in head plate, press bearing on to non-drive shaft (AE of Figure 26) of pulley.

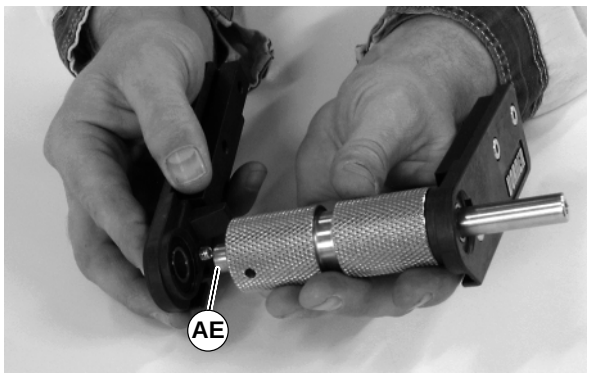


Figure 26

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

12. Install pulley assembly on conveyor. On both sides of conveyor tighten fastening screws (G of Figure 27) to 60 in-lb (7 Nm).

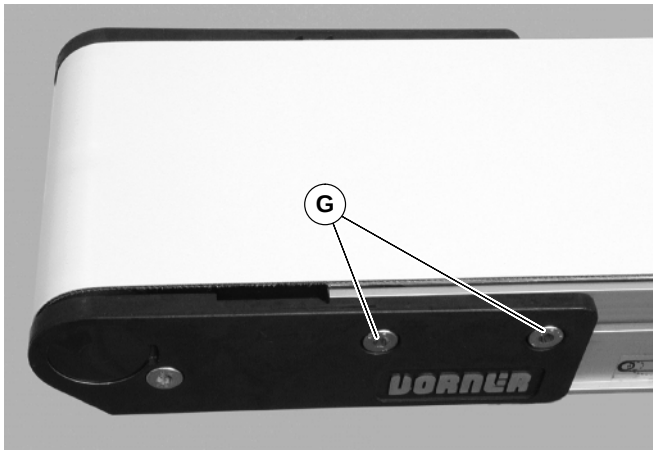


Figure 27

13. With 4mm hex-key wrench, tighten pulley taper screw (B of Figure 28) to 75 in-lb (8.5 Nm). Steady pulley with second hex-key wrench (J) inserted into pulley hole.

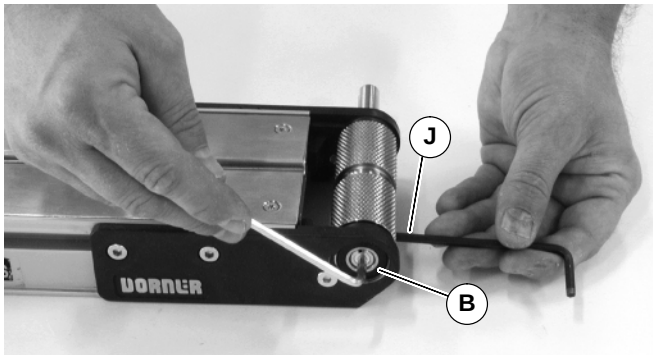


Figure 28

Installation

14. Install bearing covers (H of Figure 29).

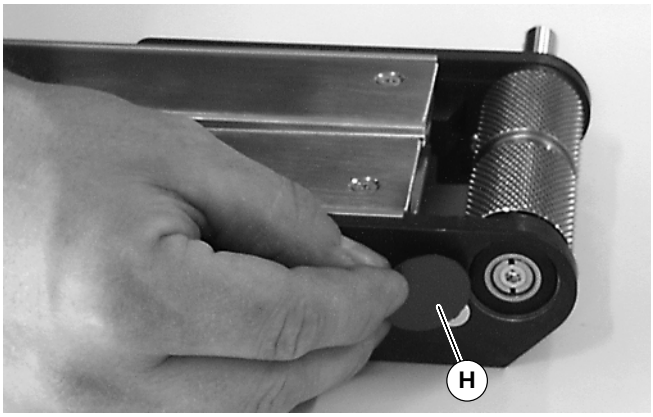


Figure 29

15. Tension conveyor belt. See “Tensioning Conveyor Belt” section on page 8.

16. Re–install the gearmotor mounting package assembly. See the appropriate sections below and reverse the removal procedure

A – Light load side mounting package. See page 5.

B – Standard load side mounting package. See page 5.

C – Top or bottom mounting package. See page 6.

17. Track conveyor belt. See “Tracking Conveyor Belt” section on page 9.

Conveyor Belt Tensioning

Conveyor Belt Tensioning

WARNING

Exposed moving parts can cause severe injury.

LOCK OUT POWER before removing guards or performing maintenance.

Conveyors with 1.25¨ (32 mm) Diameter Pulleys

1. On tension end of the conveyor, identified with a label (D of Figure 30), adjust head plate assembly (E): On both sides of conveyor, loosen fastening screws (G) and rotate pinion gear (AF) to adjust head plate assembly.

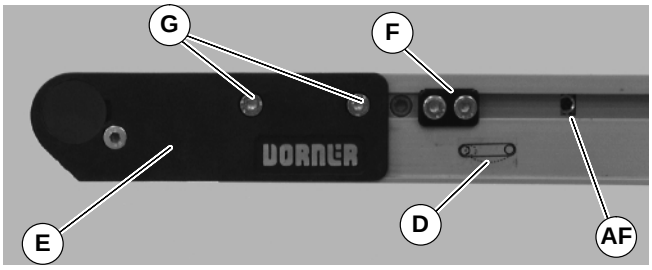


Figure 30

2. Adjust head plate assembly so end of conveyor frame aligns with or between the head plate tensioning marks (AG & AH of Figure 31). 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**.

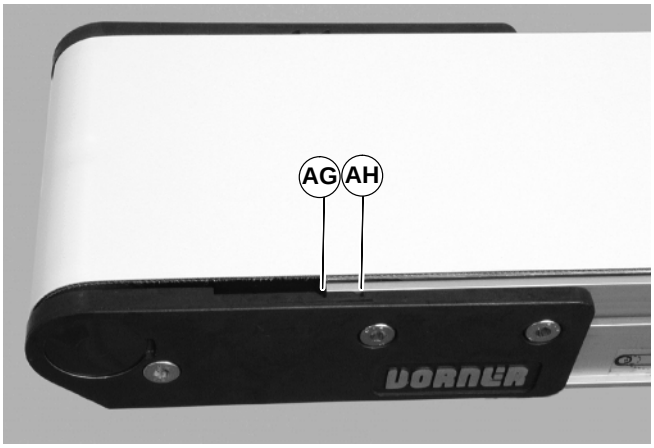


Figure 31

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.

3. After adjusting proper tensioning, tighten fastening screws (G of Figure 30) on both sides of conveyor to 60 in-lb (7 Nm).

4. If equipped with cam tracking assemblies (F of Figure 30), position against head plates and adjust belt tracking. Refer to “Conveyor Belt Tracking” on page 9.

Conveyor Belt Tracking

V-Guided Belts

V-guided belts do not require tracking adjustment.

Non V-Guided Belts

Non V-guided belt conveyors are equipped with belt tracking cam assemblies (F of Figure 32) for belt tracking adjustment.

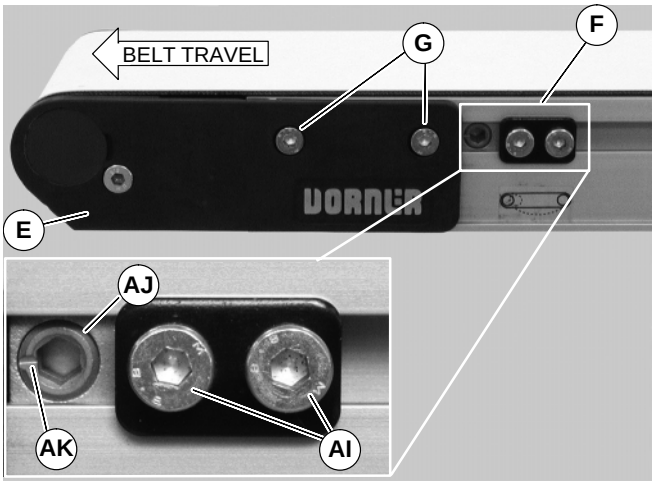


Figure 32

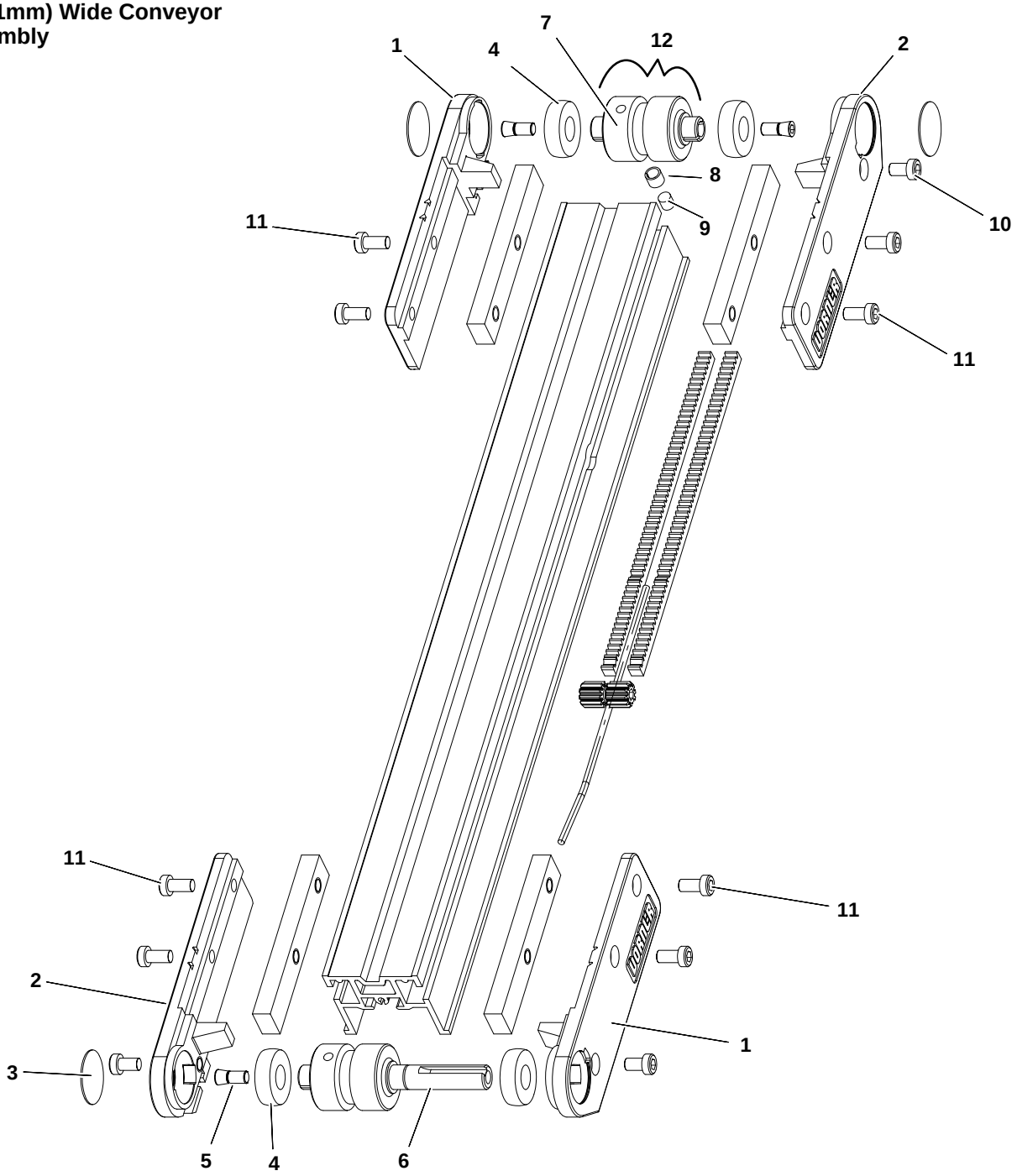
When adjusting belt tracking, always adjust the discharge end of the conveyor first. To adjust belt tracking:

1. Ensure head plate fastening screws (G of Figure 32) on both sides of conveyor are tightened.
2. On both sides of conveyor, loosen two (2) cam fastening screws (AI). Adjust cams (AJ) until indicator slots (AK) are horizontal and facing end of conveyor. Then slide cam assemblies against head plates (E) and re-tighten cam fastening screws (AI) to 60 in-lb (7 Nm).
3. On the side toward which the belt is tracking, loosen head plate fastening screws (G).
4. With the conveyor running, use a 5 mm hex-key wrench to rotate the tracking cam (AJ) in small increments until the belt tracks in the center of the conveyor. Then while holding the cam in position, re-tighten the head plate fastening screws (G) with a 4 mm hex-key wrench to 60 in-lb (7 Nm).

Service Parts

NOTE: For replacement parts other than those shown on this page, contact an authorized Dorner Service Center or the factory.

2” (51mm) Wide Conveyor Assembly



Item	Part Number	Description
1	240325	Head Plate LH
2	240326	Head Plate RH
3	240327	Bearing Cover Disk
4	240328	Bearing
5	240330	Taper Screw
6	240602	Drive Spindle 2” (51mm)
	240603	Drive Spindle 3” (76mm)
	240604	Drive Spindle 4” (102mm)
	240605	Drive Spindle 5” (127mm)
	240606	Drive Spindle 6” (152mm)
	240608	Drive Spindle 8” (203mm)
	240610	Drive Spindle 10” (254mm)
	240612	Drive Spindle 12” (305mm)
	240618	Drive Spindle 18” (457mm)
	240621	Drive Spindle 21” (533mm)
	240624	Drive Spindle 24” (610mm)
7	240702	Idler Spindle 2” (51mm)
	240703	Idler Spindle 3” (76mm)
	240704	Idler Spindle 4” (102mm)
	240705	Idler Spindle 5” (127mm)
	240706	Idler Spindle 6” (152mm)
	240708	Idler Spindle 8” (203mm)
	240710	Idler Spindle 10” (254mm)
	240712	Idler Spindle 12” (305mm)
	240718	Idler Spindle 18” (457mm)
	240721	Idler Spindle 21” (533mm)
	240724	Idler Spindle 24” (610mm)
8	450226SSP	Sleeve, .25” Magnet Stainless Steel
9	808–020	Magnet .25” Dia x .25” Long
10	920691M	Socket Head Screw M6 x 10mm
11	920692M	Socket Head Screw M6 x 12mm
12	242002	Idler Spindle Assy 2” (51mm)
	242003	Idler Spindle Assy 3” (76mm)
	242004	Idler Spindle Assy 4” (102mm)
	242005	Idler Spindle Assy 5” (127mm)
	242006	Idler Spindle Assy 6” (152mm)
	242008	Idler Spindle Assy 8” (203mm)
	242010	Idler Spindle Assy 10” (254mm)
	242012	Idler Spindle Assy 12” (305mm)
	242018	Idler Spindle Assy 18” (457mm)
	242021	Idler Spindle Assy 21” (533mm)
	242024	Idler Spindle Assy 24” (610mm)

Fax or Mail to Dorner

Please complete this form and fax or mail to Dorner.

Dorner
Attn.: Service Manager
Fax: 1–800–369–2440
Phone: 1–800–397–8664 ext. 1315

Address: P.O. Box 20
Hartland, WI 53029–0020

Name:_____

Company Name:_____

Date service was performed:_____

Conveyor serial number for each 2200 conveyor serviced:
(Located on tag attached to conveyor, Eg. C–746321–1)

_____ _____

_____ _____

_____ _____

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_____ _____

Please make a copy of this form for your records.

Thank you for your assistance. In appreciation for your efforts, the warranty for all 2200 conveyor serviced will be extended for 1 year from the date the service was performed.