

3200 Series Center Drive Flat Belt Conveyors

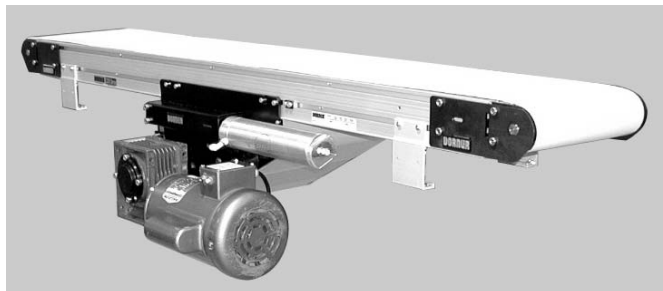




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Warnings – General Safety



	WARNING	
<p>The safety alert symbol, black triangle with white exclamation, is used to alert you to potential personal injury hazards.</p>		



	 DANGER
<p>Climbing, sitting, walking or riding on conveyor will cause severe injury. KEEP OFF CONVEYORS.</p>	

	 WARNING
<p>Gearmotors may be HOT. DO NOT TOUCH Gearmotors.</p>	

	 DANGER
<p>DO NOT OPERATE CONVEYORS IN AN EXPLOSIVE ENVIRONMENT.</p>	

	 WARNING
<p>Exposed moving parts can cause severe injury. LOCK OUT POWER before removing guards or performing maintenance.</p>	

	 WARNING
<p>Exposed moving parts can cause severe injury. REMOVE COMPRESSED AIR SUPPLY before removing guards or performing maintenance.</p>	

	 WARNING
<p>Dorner cannot control the physical installation and application of conveyors. Taking protective measures is the responsibility of the user.</p> <p>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.</p>	

	 WARNING
<p>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.</p>	

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 3200 series conveyors are covered by Patent Numbers 5,156,260, and corresponding patents and patent applications in other countries.

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 .

Product Description

Refer to Figure 1 for typical conveyor components.

Typical Components	
A	Conveyor
B	Gearmotor
C	Guiding & Accessories
D	Mounting Brackets
E	Support Stand
F	Variable Speed Controller
G	Center Drive Module
H	Idler End

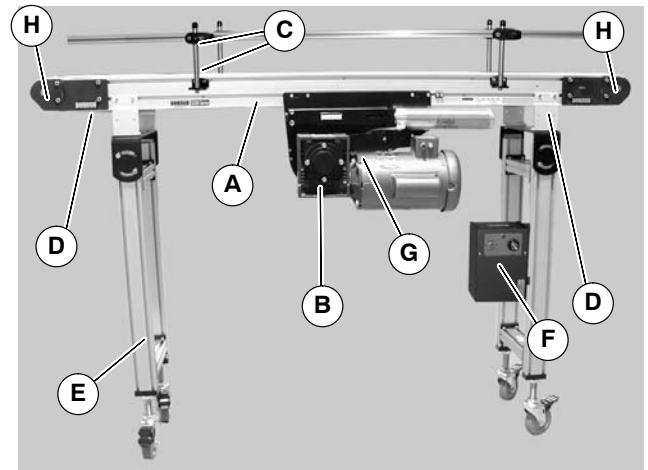


Figure 1

Specifications

Models:

Center Drive 3200 Series Conveyor

3	1	5	M	WW	LLLL	/	PP	TT	
									Belt Type* Profile*
									Conveyor Length Reference
									Conveyor Width Reference
									Document Language, M = English
									Idler Pulley Type: Pneumatic Tensioning
									5 = 3" idler pulleys at both ends
									6 = Two 1" pulleys at infeed
									7 = Two 1" pulleys at discharge
									8 = Two 1" pulleys at both ends
									Idler Pulley Type: Manual Tensioning
									2 = 3" idler pulley at both ends
									3 = Two 1" pulleys at infeed
									4 = Two 1" pulleys at discharge
									9 = Two 1" pulleys at both ends
									1 = Flat belt with tracking cams and supports
									2 = Flat belt with V-guide tracking and supports
									3 = Flat belt with tracking cams
									4 = Flat belt with V-guide tracking

* See Ordering and Specifications Catalog for details.

Conveyor Supports:

Maximum Distances:

I = 36" (914 mm) (Infeed End)

J = 12 ft (3658 mm)

K = 36" (914 mm) (Discharge End)

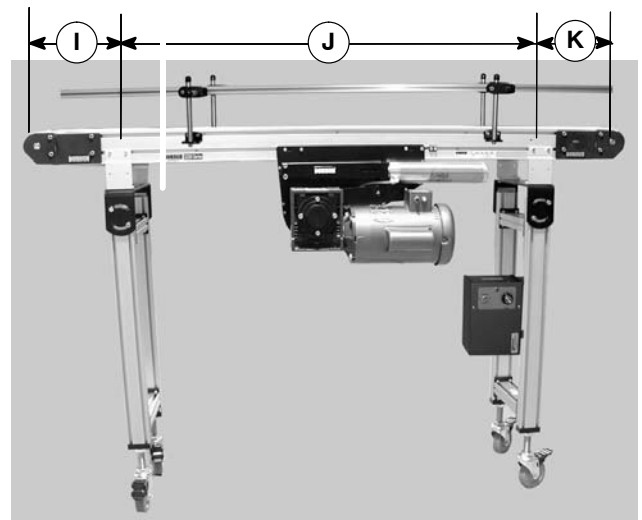
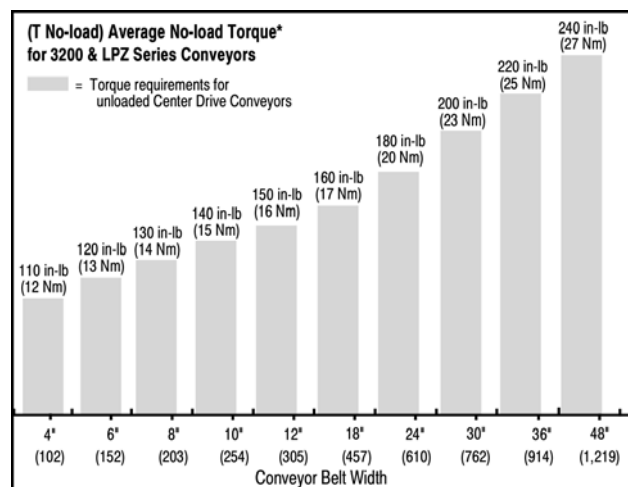
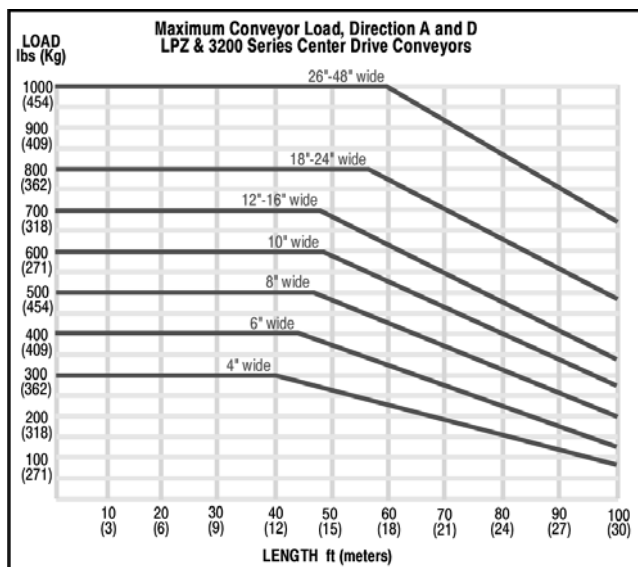


Figure 2

Specifications

Specifications:



Conveyor Width Reference (WW)	04	06	08	10	12	18	24	30	36	48	
Conveyor Belt Width	3.75" (95mm)	6" (152mm)	8" (203mm)	10" (254mm)	12" (305mm)	18" (457mm)	24" (609mm)	30" (762mm)	36" (915mm)	48" (1220mm)	
Conveyor Length Reference (LLLL)	0300 to 9900 in 0001 increments										
Conveyor Length	4 ft (1219mm) to 99 ft (30175mm) in 0.12" (0.31mm) increments										
Belt Travel	18.8" (478 mm) per revolution of pulley										
Maximum Belt Speed*	600 ft/minute (183 m/minute)										
Belt Takeup	16" (407 mm) of Belt Takeup										

* See Ordering and Specifications Catalog for details.

NOTE: Maximum conveyor loads based on:

- Non-accumulating product
- Product moving towards gearmotor
- Conveyor being mounted horizontal

Table 1: Belt Speeds for Variable Speed 90° VDC Gearmotors

Standard Load Gearmotors				Belt Speed	
Part Number	RPM	In-lb	N-m	Ft/min	M/min
32M100HHD9DEN	25	630	71	4.0–40.0	1.2–12.2
32M080HHD9DEN	31	575	65	5.0–50.0	1.5–15.2
32M060HHD9DEN	42	469	53	6.7–66.7	2.0–20.3

(vp) = voltage and phase

11 = 115 V, 1-phase

23 = 208 – 230/460 V, 3-phase

Table 2: Belt Speeds for Fixed Speed 90° Gearmotors

Standard Load Gearmotors				Belt Speed	
Part Number	RPM	In-lb	N-m	Ft/min	M/min
32M100HHvpfN	17	913	103	27.6	8.4
32M080HHvpfN	22	833	94	34.5	10.5
32M060HHvpfN	29	680	77	46.0	14.0
32M050HHvpfN	35	1206	136	55.2	16.8
32M040HHvpfN	43	1023	116	69.0	21.0
32M030HHvpfN	58	1217	138	92.0	28.0
32M025HHvpfN	69	1069	121	110.4	33.7
32M020HHvpfN	86	1184	134	138.0	42.1
32M015HHvpfN	115	910	103	184.0	56.1
32M010HHvpfN	173	636	72	276.0	84.1
32M008HHvpfN	230	482	54	368.0	112.2

Table 3: Belt Speeds for Variable Speed 90° VFD Gearmotors

Standard Load Gearmotors				Belt Speed	
Part Number	RPM	In-lb	N-m	Ft/min	M/min
32M100HHvpfN	17	913	103	2.8–27.6	0.8–8.4
32M080HHvpfN	22	833	94	3.5–34.5	1.1–10.5
32M060HHvpfN	29	680	77	4.6–46.0	1.4–14.0
32M050HHvpfN	35	1206	136	5.5–55.2	1.7–16.8
32M040HHvpfN	43	1023	116	6.9–69.0	2.1–21.0
32M030HHvpfN	58	1217	138	9.2–92.0	2.8–28.0
32M025HHvpfN	69	1069	121	11.0–110.4	3.4–33.7
32M020HHvpfN	86	1184	134	13.8–138.0	4.2–42.1
32M015HHvpfN	115	910	103	18.4–184.0	5.6–56.1
32M010HHvpfN	173	636	72	27.6–276.0	8.4–84.1
32M008HHvpfN	230	482	54	36.8–368.0	11.2–112.2

Table 4: Belt Speeds for Variable Speed 90° VFD Integrated Motor Control Gearmotors

Standard Load Gearmotors				Belt Speed	
Part Number	RPM	In-lb	N-m	Ft/min	M/min
32M100HH411EC	17	913	103	4.6–36.7	1.4–11.2
32M060HH411EC	29	680	77	7.7–61.2	2.3–18.7
32M040HH411EC	43	1023	116	11.5–91.8	3.5–28.0
32M015HH411EC	69	712	80	18.4–146.8	5.6–44.8
32M020HH411EC	86	592	67	23.0–183.5	7.0–56.0
32M015HH411EC	115	455	51	30.7–244.7	9.4–74.6

(vp) = voltage and phase

11 = 115 V, 1-phase

23 = 208 – 230/460 V, 3-phase

NOTE: For belt speed other than those listed, contact factory for details.

Installation

NOTE: Conveyor **MUST** be mounted straight, flat and level within confines of conveyor. Use a level (L of Figure 3) for setup.



Figure 3

Required Tools

- Hex-key wrenches:
4 mm, 5 mm
- Level
- Torque wrench
- 8 mm Hex, Open End Wrench

Recommended Installation Sequence

- Install support stands (see accessory instructions)
- Assemble conveyor (if required)
- Attach mounting brackets to conveyor
- Attach conveyor to stands
- Install return rollers on conveyor (optional)
- Mount gearmotor mounting package (see page 8)
- Attach guides/accessories (see page 34 through 43 of “Service Parts” section for details)

Conveyors Up to 13 ft (3962 mm)

No assembly is required. Install mounting brackets and return rollers. Refer to “Mounting Brackets” on page 7 and “Return Rollers” on page 7.

Conveyors Longer Than 13 ft (3962 mm)

1. Locate conveyor sections (M Figure 4)

Installation Component List

M	Conveyor frame with drive end
N	Conveyor frame with idler end
O	Belt
P	Connector bracket

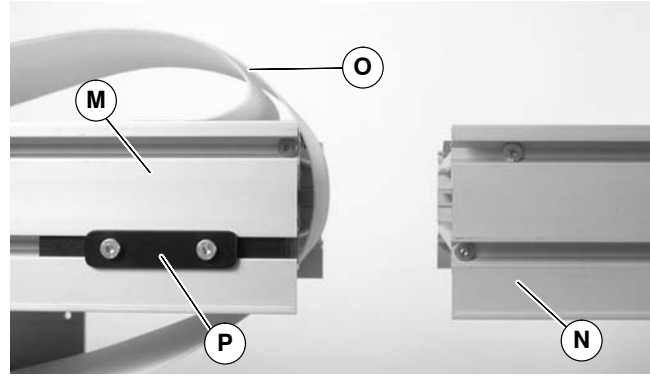


Figure 4

2. Roll out conveyor belt and place conveyor frame sections (M of Figure 5) into belt loop.



Figure 5

3. Join conveyor sections and install connector brackets (Q of Figure 6) or connector/mount brackets (QA) and screws (R) on both sides as indicated. Tighten screws to 60 in-lb (7 Nm).

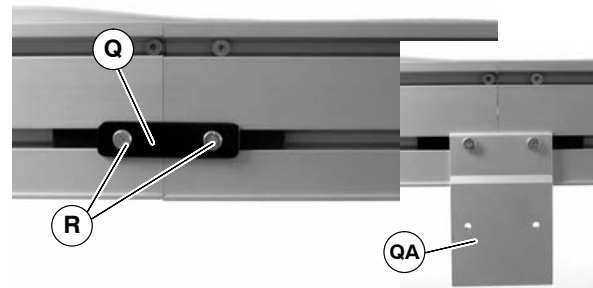
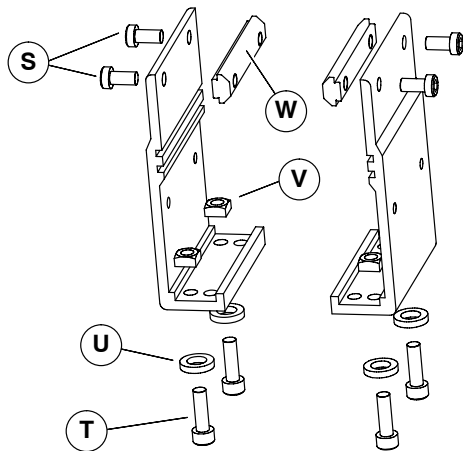


Figure 6

4. Install mounting brackets and return rollers. Refer to “Mounting Brackets” on page 7 and “Return Roller” on page 7.
5. Install Gearmotor. See “Gearmotor Installation” section on page 8.
6. Tighten conveyor belt, refer to “Conveyor Belt Tensioning” on page 13.
7. If belt tracking is necessary, refer to “Conveyor Belt Tracking” on page 14 and “Center Drive Module Tracking” on page 15.

Mounting Brackets

1. Locate brackets. Exploded views shown in Figure 7.



Mounting Brackets for Flat Belt Conveyor
Figure 7

2. Remove screws (S & T of Figure 7), washers (U), nuts (V) and T-bars (W) from brackets.
3. Insert T-bars (W of Figure 7) into conveyor side slots (W of Figure 8). Fasten brackets (X of Figure 8) to conveyor with mounting screws (S).

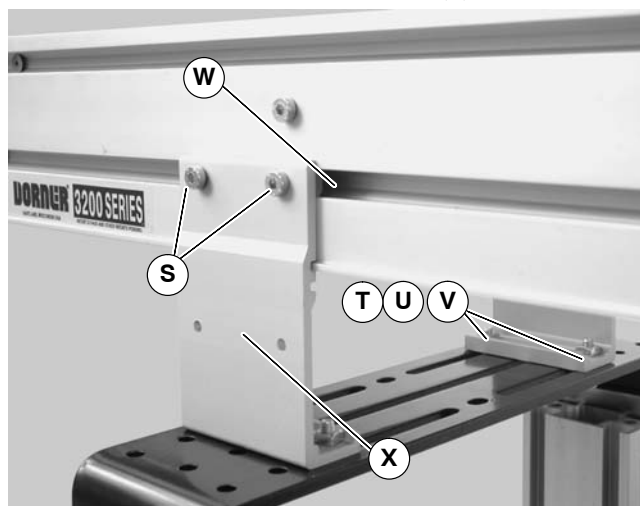


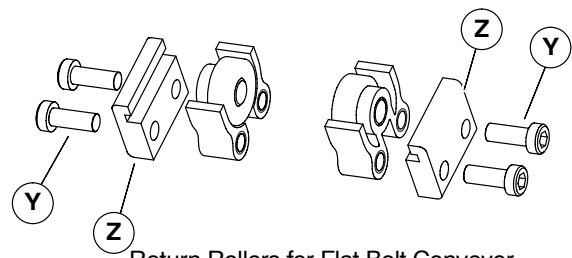
Figure 8

4. Fasten brackets to support stand with mounting screws (T of Figure 8), washers (U) and nuts (V).
5. Tighten screws (S & T of Figure 8) to 60 in-lb (7 Nm).

Return Rollers

4–6" (51–152 mm) Wide Conveyors

1. Locate return rollers. Exploded view shown in Figure 9.



Return Rollers for Flat Belt Conveyor
Figure 9

2. Remove screws (Y of Figure 9) and clips (Z) from roller assembly.
3. Install roller assemblies (AA of Figure 10) as shown. Tighten screws (Y) to 60 in-lb (7 Nm).

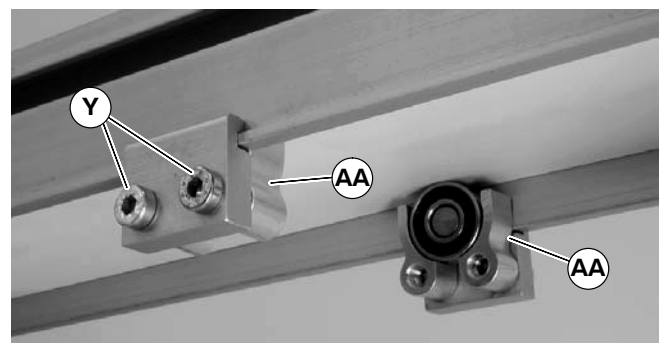


Figure 10

8–48" (203–1219 mm) Wide Conveyors

1. Locate return rollers. Exploded view shown in Figure 11.

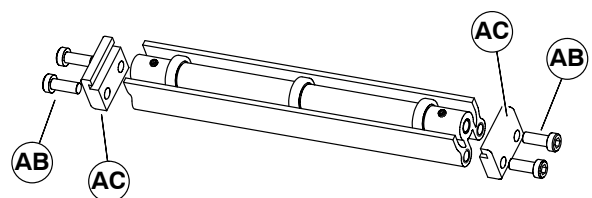


Figure 11

2. Remove screws (AB of Figure 11) and clips (AC) from roller assembly.
3. Install roller assembly as shown (AD of Figure 12). Tighten screws (AB) to 60 in-lb (7 Nm).

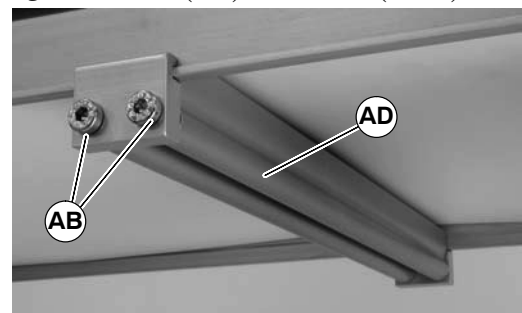


Figure 12


Installation

Gearmotor Installation

Required Tools

- Hex key wrenches:
2 mm, 2.5 mm, 3 mm, 5 mm
- Torque wrench

Mounting





WARNING

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

1. Locate components of Figure 13.

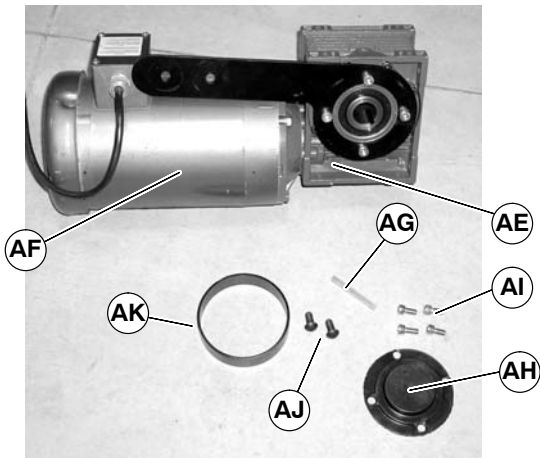


Figure 13

Gearmotor Installation Component List

AE	Gearhead with mounting bracket
AF	Motor
AG	Gear Reducer Key
AH	Cover
AI	Cover Bolts
AJ	Motor Mount Bolts
AK	Spacer Ring

NOTE: Gearmotor may be operated in positions 1, 3 or 4 (Figure 14).

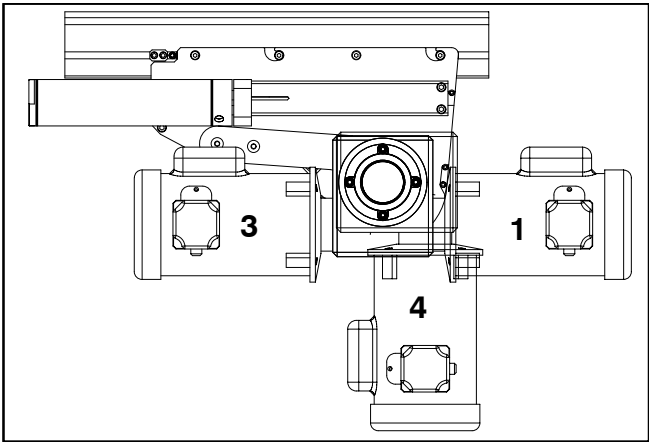


Figure 14

2. If required, change gearmotor position by removing four (4) screws (AL of Figure 15). Rotate gearmotor mounting plate to other position and replace screws (AL). Tighten to 200 in-lb (22.5 Nm).

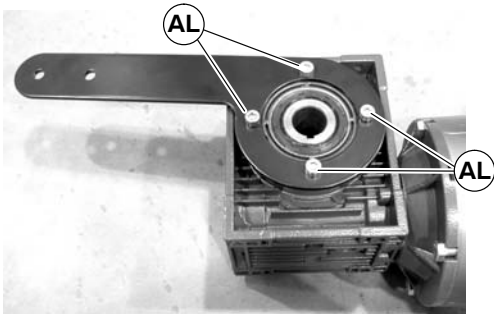


Figure 15





WARNING

Drive shaft keyway may be sharp.
HANDLE WITH CARE.

3. Install key (AG of Figure 16) on drive shaft(AM). Install cover (AH) over bearing housing (AN)

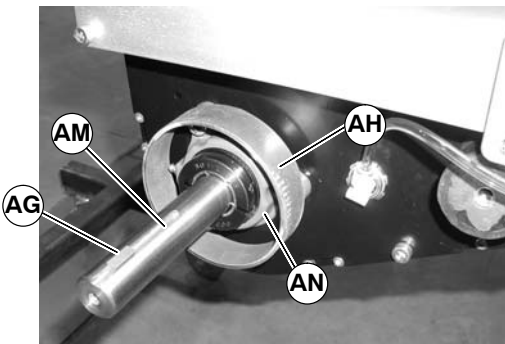


Figure 16

4. Install cover (AH of Figure 17) with four (4) screws (AI).

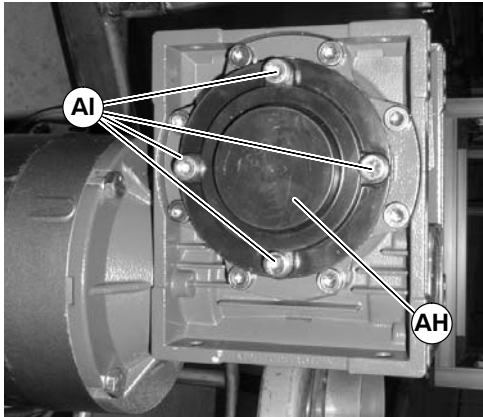


Figure 17

5. Slide gearmotor (AE of Figure 18) on to drive shaft (AM of Figure 16). Tighten mounting screws (AJ) to 200 in-lbs (22.5 N-m).

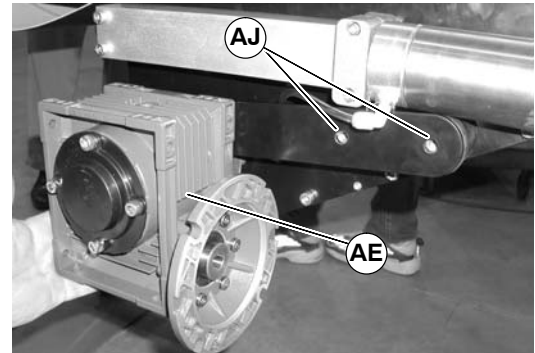


Figure 18

Preventive Maintenance and Adjustment

Required Tools

Standard Tools

- Hex-key wrenches:
2.5 mm, 4 mm, 5 mm, 6 mm
- 8 mm Hex, Open End Wrench

Checklist

- Keep service parts on hand (see “Service Parts” section for recommendations)
- Keep supply of belt cleaner (part # 625619)
- Clean entire conveyor and knurled pulley while disassembled
- Replace worn or damaged parts

Lubrication

No lubrication is required. Replace bearings if worn.

Maintaining Conveyor Belt

Troubleshooting

Inspect conveyor belt for:

- Surface cuts or wear
- Stalling or slipping
- Damage to V-guide

Surface cuts and wear indicate:

- Sharp or heavy parts impacting belt
- Jammed parts
- Improperly installed bottom wipers (if installed)

- Accumulated dirt in wipers (if installed)
- Foreign material inside the conveyor
- Improperly positioned accessories
- Bolt-on guiding is pinching belt

Stalling or slipping indicates:

- Excessive load on belt
- Conveyor belt or drive timing belt are not properly tensioned
- Worn knurl or impacted dirt on drive pulley
- Intermittent jamming or drive train problems

Damage to V-guide indicates:

- Twisted or damaged conveyor frame
- Dirt impacted on pulleys
- Excessive or improper side loading

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

Cleaning

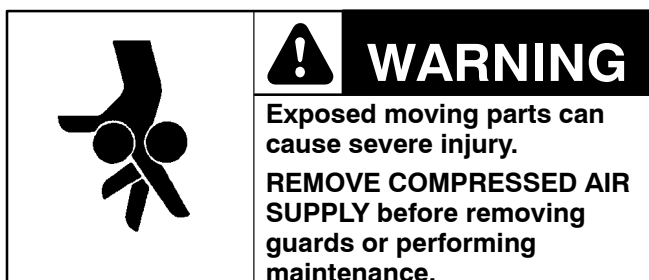
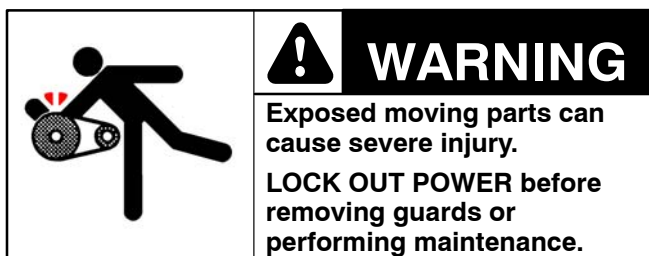
IMPORTANT: Do not use belt cleaners that contain alcohol, acetone, Methyl Ethyl Ketone (MEK) or other harsh chemicals.

Use Dorner Belt Cleaner (part # 625619). Mild soap and water may also be used. Do not soak the belt.

For /05 woven polyester and /06 black anti-static belts, use a bristled brush to improve cleaning.

Preventive Maintenance and Adjustment

Conveyor Belt Replacement



Conveyor Belt Replacement Sequence

- Remove old conveyor belt:
 - Conveyor without Stands or Gearmotor Mounting Package
 - Conveyor with Stands and Gearmotor Mounting Package
- Install new conveyor belt
- Tension conveyor belt

Belt Removal for Conveyor Without Stands

1. Remove air supply and remove hose (AO of Figure 19) from center drive.

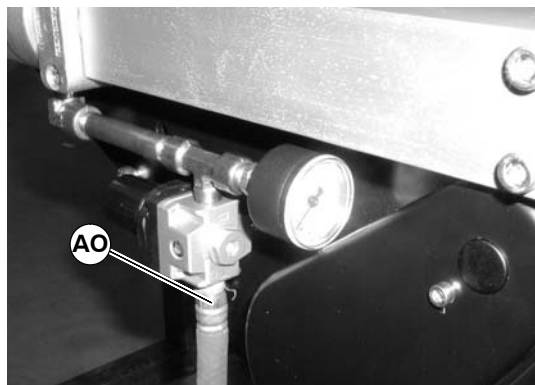


Figure 19

2. If equipped, remove return rollers and guiding and accessories from one side of conveyor.

3. Temporarily support idler guard assembly (AP of Figure 20). Remove screws (AQ).

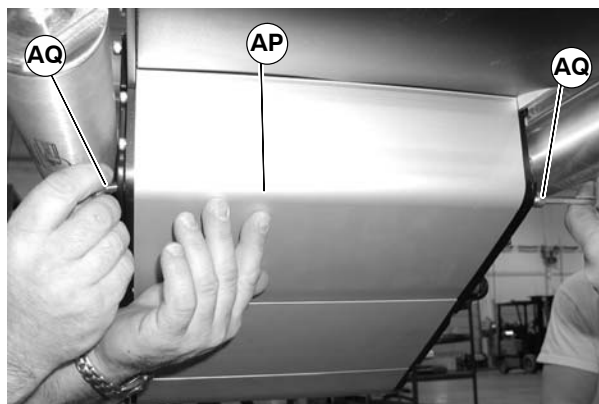


Figure 20

4. Swing down idler guard assembly (AP of Figure 21). Remove screw (AR) from both sides of center drive and remove idler guard assembly (AP).



Figure 21

5. Remove screws (AS of Figure 22) and tensioning guards (AT) from both sides of center drive.

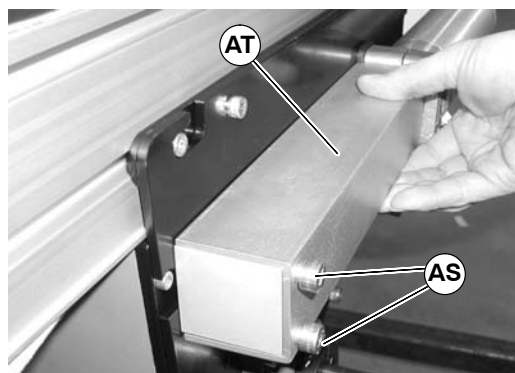


Figure 22

Preventive Maintenance and Adjustment

6. Temporarily support the tensioning roller guard (AV of figure 23). Remove screws (AU of Figure 23) on both sides of center drive and remove tensioning roller guard (AV of Figure 23 and 24).

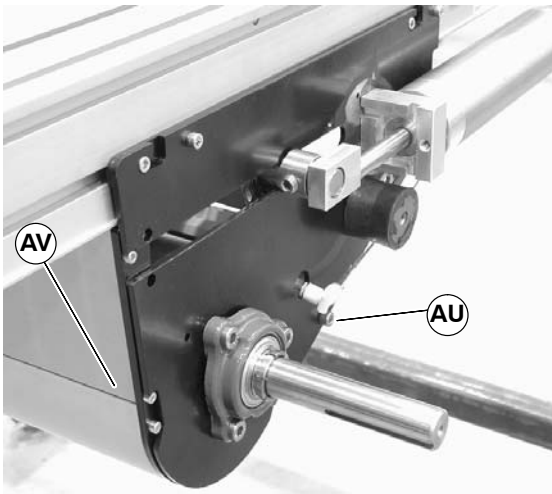


Figure 23

7. Loosen tensioning roller set screws (AW of Figure 24).

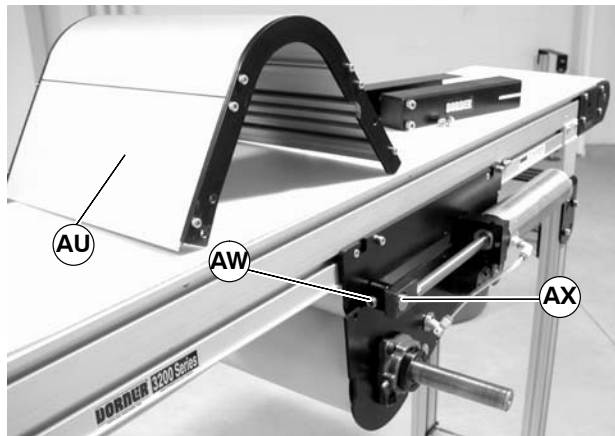


Figure 24

8. Push shaft (AX of Figure 24) through block, slide block (AY of Figure 25) towards air cylinder (AZ).

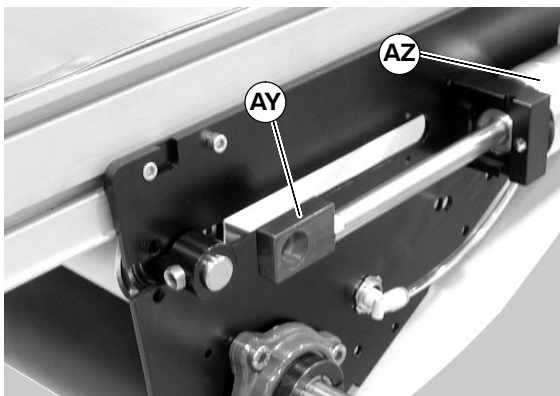


Figure 25

9. Push shaft (AX of Figure 26) through block (AY) on opposite side of center drive, slide block toward air cylinder (AZ).

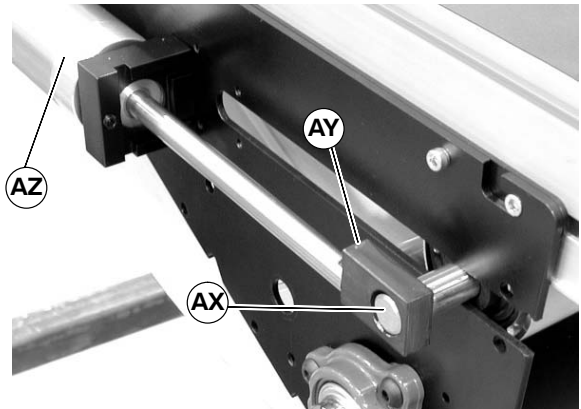


Figure 26

10. Slide out tensioning roller (BA of Figure 27).

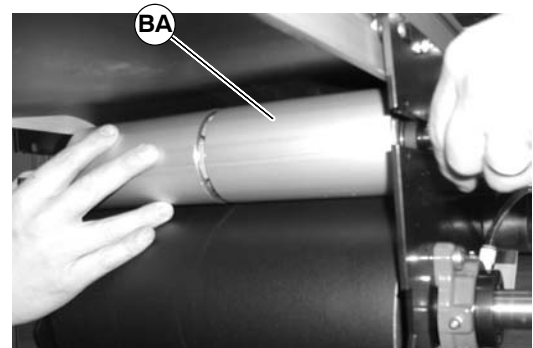


Figure 27

11. Remove belt (BB of Figure 28) from center drive module (B) and conveyor.

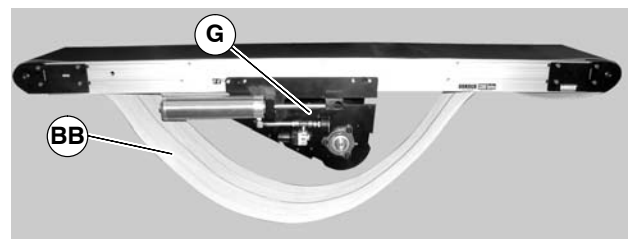


Figure 28

Belt Removal for Conveyor With Stands

	<div data-bbox="1136 1654 1209 1717"></div> <div data-bbox="1234 1663 1502 1711"><h3>WARNING</h3></div> <div data-bbox="1136 1726 1523 1848"><p>Removing mounting brackets without support under gearmotor will cause conveyor to tip, causing severe injury.</p></div> <div data-bbox="1136 1852 1523 1936"><p>PROVIDE SUPPORT UNDERNEATH THE GEARMOTOR WHEN CHANGING THE BELT</p></div>
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Preventive Maintenance and Adjustment

1. Place temporary support stands (BC of Figure 29) at both ends of the conveyor. See **WARNING**.

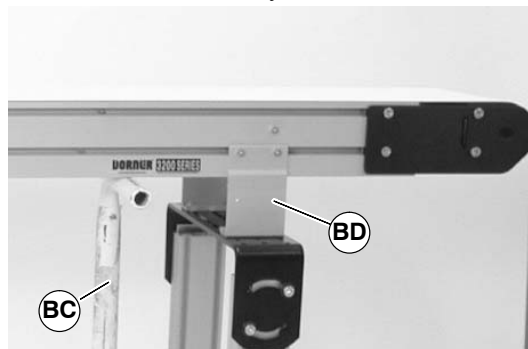


Figure 29

2. If equipped, remove return rollers, guiding and accessories from one side of conveyor.
3. Repeat steps 1 thru 10 of the “Belt Removal for Conveyors Without Stands” section on page 10.
4. Remove first mounting brackets (BD of Figure 29) from one side of conveyor. (Reverse steps 3 & 4 of “Mounting Brackets” section on page 7).
5. Remove belt (BB of Figure 30) from conveyor, one stand at a time. Start on one end of conveyor and work down to opposite end.

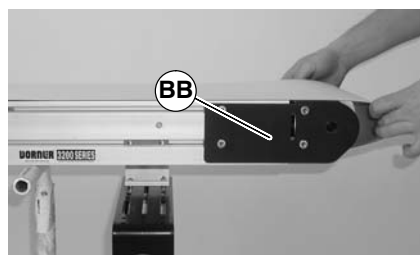


Figure 30

Belt Installation for Conveyor without Stands

1. Orient belt so splice leading fingers (BE of Figure 31) point in the direction of belt travel as identified by the conveyor directional label (BF).

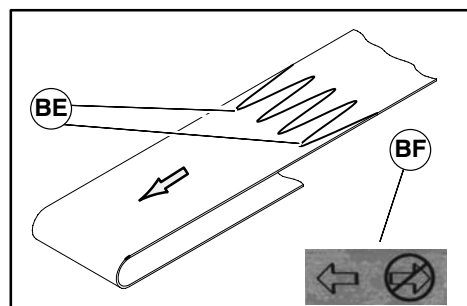


Figure 31

2. Slide belt onto the conveyor frame assembly.
3. Reverse steps 1 thru 10 of the “Belt Removal for Conveyors Without Stands” section on page 10.

4. If equipped, install wipers, return rollers and guiding.
5. Reattach air supply (AO of Figure 32) to center drive. Refer to “Conveyor Belt Tensioning” section on page 13 for more information.

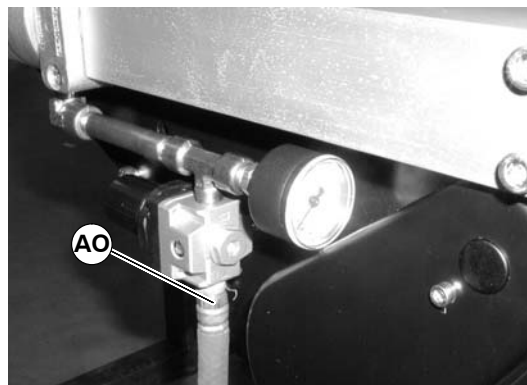


Figure 32

6. Track conveyor and center drive if required. See “Center Drive Module Tracking” section on page 15 and “Conveyor Belt Tracking” section on page 14.

Belt Installation for Conveyor with Stands

	<div>WARNING</div> <p>Removing mounting brackets without support under gearmotor will cause conveyor to tip, causing severe injury.</p> <p>PROVIDE SUPPORT UNDERNEATH THE GEARMOTOR WHEN CHANGING THE BELT</p>
--	---

1. Ensure temporary support stands (BC of Figure 29) are placed at both ends of the conveyor. See **WARNING**.
2. Orient belt so splice leading fingers (BE of Figure 31) point in the direction of belt travel as identified by the conveyor directional label (BF).
3. Install belt (BB of Figure 33) on conveyor. Lift conveyor slightly to avoid pinching belt on temporary support stands.

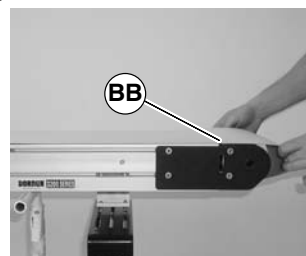
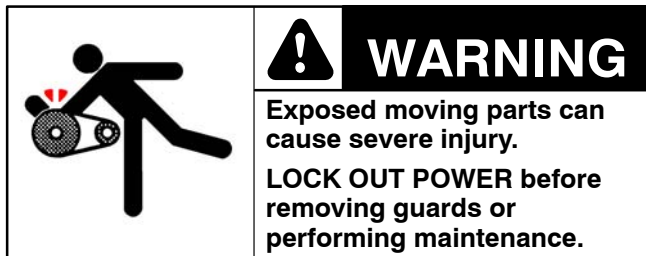


Figure 33

Preventive Maintenance and Adjustment

4. Reverse steps 1 thru 10 of the “Belt Removal for Conveyors Without Stands” section on page 10.
5. Re-install conveyor mounting brackets. Refer “Mounting Brackets” on page 7, steps 3 through 5.
6. If equipped, install wipers, return rollers and guiding.
7. Reattach air supply (AO of Figure 32) to center drive. Refer to “Conveyor Belt Tensioning” section on page 13 for more information.
8. Track drive and conveyor if required. See “Center Drive Module Tracking” section on page 15 and “Conveyor Belt Tracking” section on page 14.

Conveyor Belt Tensioning



A - With Pneumatic Tensioning

1. Connect air supply (AO of Figure 34) to regulator (BG).
2. Adjust regulator (BG of Figure 34) until gage reads the appropriate pressure. See following table for suggested pressures.

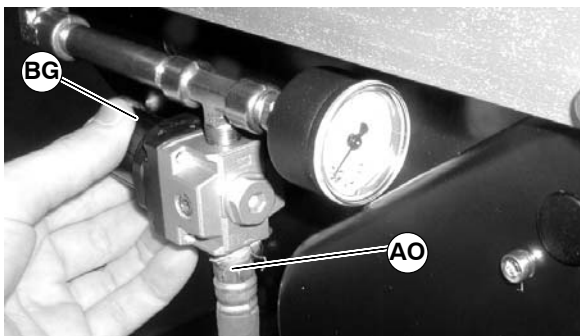


Figure 34

Suggested Tensioning Air Pressure for LPZ & 3200 Series Flat Belt Center Drive Conveyors	
Width	Pressure
4" (95 mm)	20 psi (138 kPa)
6" (152 mm)	30 psi (207 kPa)
8" (203 mm)	40 psi (276 kPa)
10" (254 mm)	50 psi (345 kPa)
14" (356 mm)	60 psi (414 kPa)
18" (457 mm)	70 psi (483 kPa)
24" (610 mm) & wider	80 psi (552 kPa)

3. If proper belt tension cannot be achieved before the out of tension indicator (BH of Figure 35) begins to turn red, the belt must be replaced.

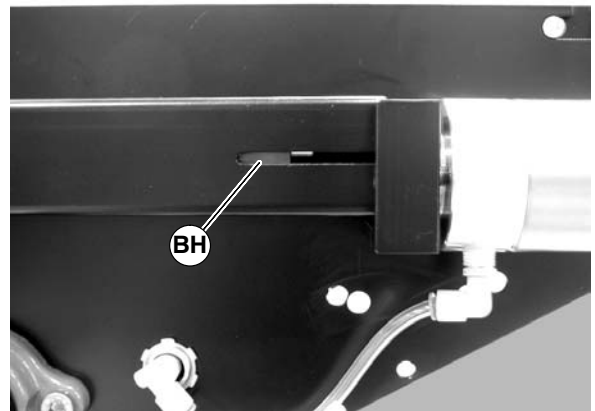


Figure 35

4. If belt tracking is necessary, refer to “Conveyor Belt Tracking” on page 14 and “Center Drive Module Tracking” on page 15.

B - With Manual Tensioning



Preventive Maintenance and Adjustment

1. Turn knurled knob (BJ of Figure 36) on each side of center drive unit clockwise until tensioning spring (BK) is completely behind spring cover (BL). There should be approximately 1/8" gap () between hand knob (BM) and spring cover (BL).

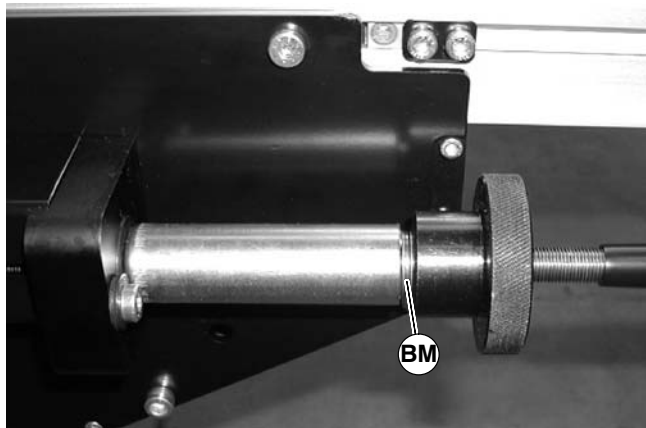
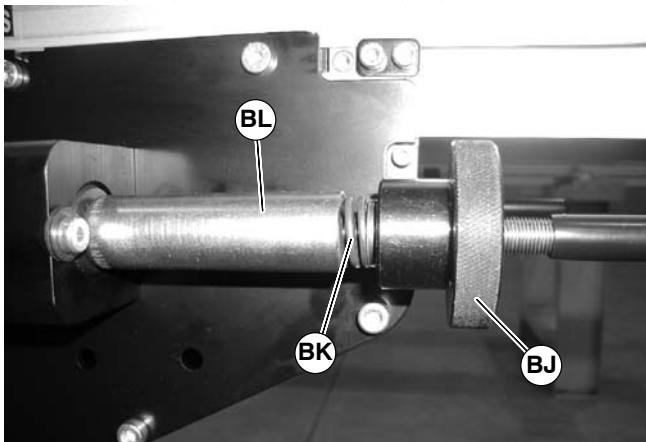


Figure 36

2. As normal belt stretch occurs over time, the spring (BK of Figure 36) will be exposed out of the spring cover (BL). When the spring is exposed over 1/2" or if conveyor belt slippage occurs, retighten knurled hand knob (BJ) on each side of center drive unit clockwise until tensioning spring is completely behind spring cover.
3. If proper belt tension cannot be achieved before the out of tension indicator (BH of Figure 35) begins to turn red, the belt must be replaced.
4. If belt tracking is necessary, refer to "Conveyor Belt Tracking" on page 14 and "Center Drive Module Tracking" on page 15.

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 assemblies.

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

1. On the side of conveyor which the belt is tracking towards, loosen the head plate fastening screws (BN of Figure 37).

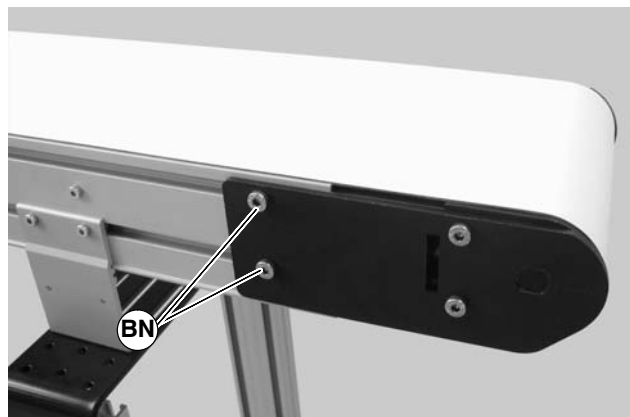


Figure 37

2. With the conveyor running, use wrench (BO of Figure 38) to rotate the tracking screw (BP of Figure 39) in small increments until the belt tracks in the center of the conveyor.

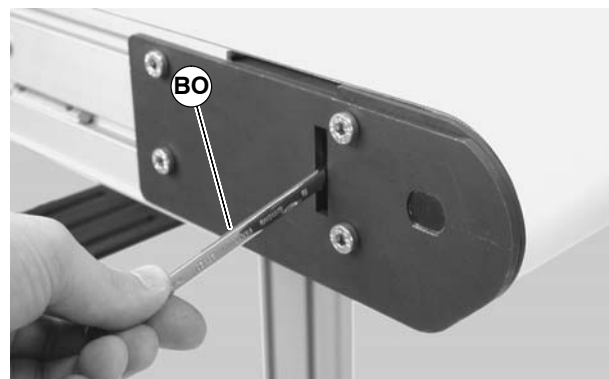


Figure 38

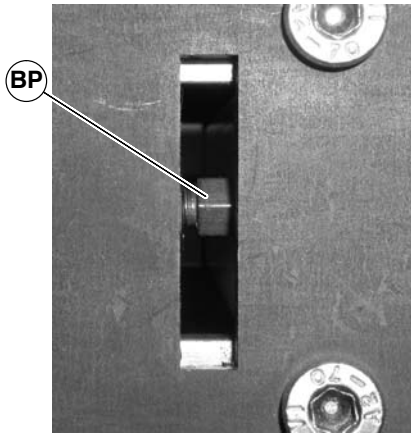


Figure 39

3. Re-tighten the head plate fastening screws (BN of Figure 37) with a 5 mm hex-key wrench to 146 in-lb (16.5 Nm).

Center Drive Module Tracking

V-Guided Belts

V-guided belts do not require tracking adjustment.

Non V-Guided Belts

Non V-guided belt center drives are equipped with cam tracking assemblies.

To adjust center drive tracking, with the conveyor running:

1. Inspect belt as it exits the center drive:
Figure 40 – Normally tracked belt, do nothing
Figure 41 – Tracking necessary, adjust tight side cam



Figure 40



Figure 41

2. If necessary, adjust the tracking cam: loosen the center drive fastening screws (BQ of Figure 42) on the side of center drive to be tracked.

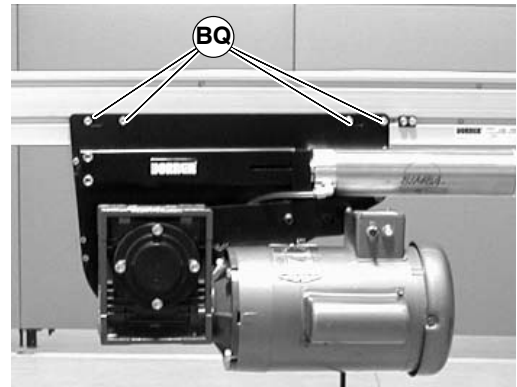


Figure 42

3. Rotate the tracking cam (BR of Figure 43) in small increments, each time inspecting the belt as it exits the center drive. Continue to rotate the tracking cam until conveyor belt is tracking normally.

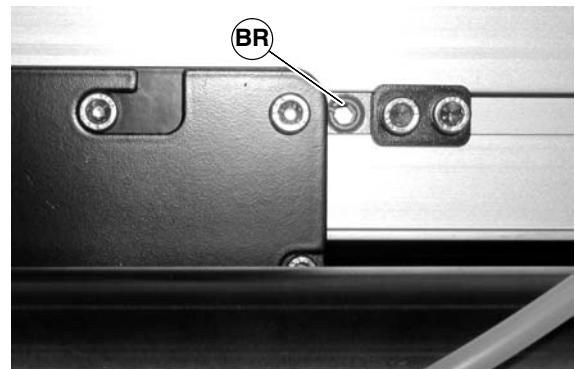


Figure 43

4. Tighten the center drive fastening screws (BQ of Figure 42) to 146 in-lbs (16.5 N-m).

Preventive Maintenance and Adjustment

End Pulley Removal

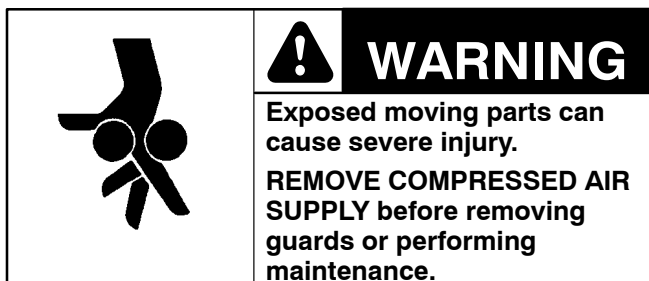
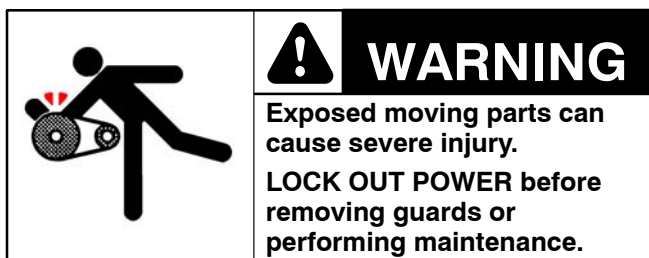


Figure 46

Remove the desired pulley following the corresponding instructions below:

- A – 3" Idler Pulley Removal
- B – Transfer Tail Pulley Removal

A – Idler Pulley Removal

1. Temporarily support the idler pulley.



Figure 47

2. On one side of conveyor, loosen the two (2) back fastening screws (BN of Figure 48) and remove two (2) front fastening screws (BS).

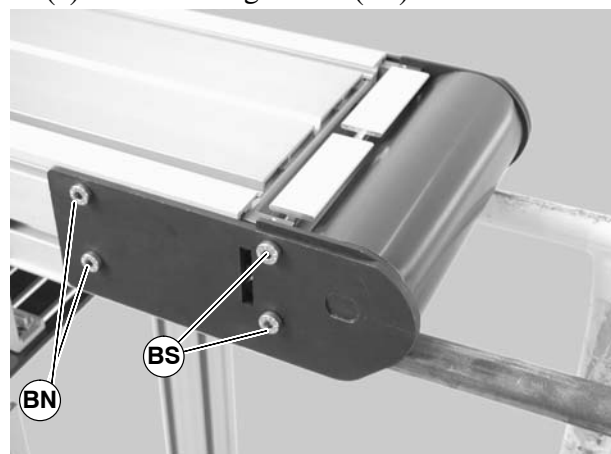


Figure 48

3. Pull back the outer headplate (BT of Figure 49) and remove the inner spacer (BU).

1. Remove air supply and remove hose (AO of Figure 44) from center drive.

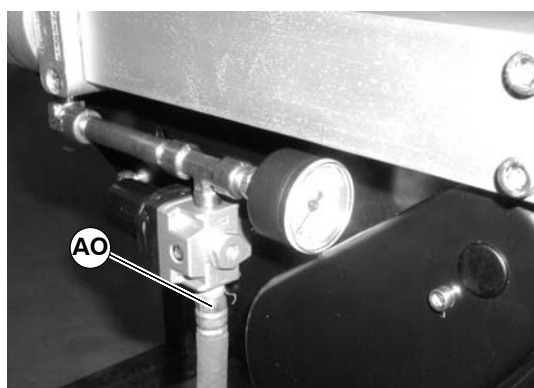


Figure 44

2. Temporarily support idler guard assembly (AP of Figure 20). Remove screws (AQ).

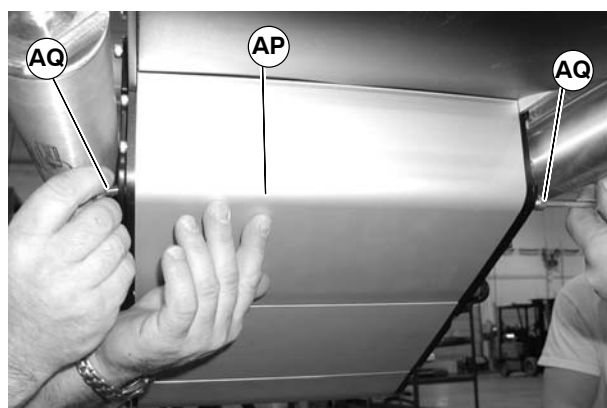


Figure 45

3. Swing down idler guard assembly (AP of Figure 46).

Preventive Maintenance and Adjustment

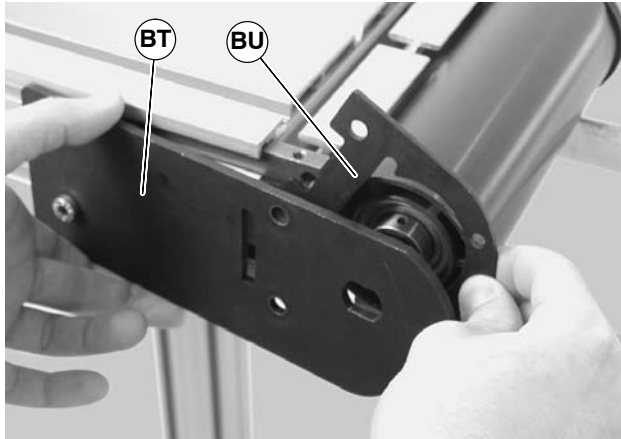


Figure 49

4. Slide the idler pulley assembly (BV of Figure 50) out of the headplate on the opposite side.

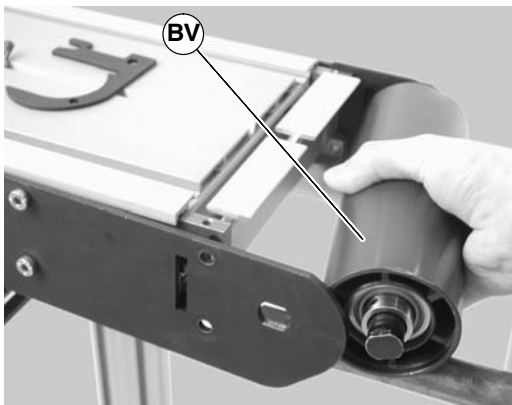


Figure 50

5. Remove the pulley shaft assembly: remove the clip ring (BW of Figure 51) and washer (BX) from one side of the pulley assembly.

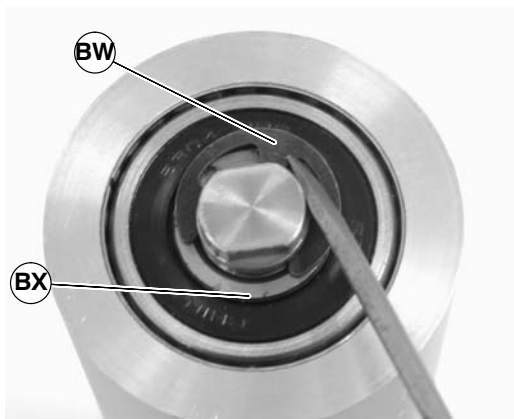


Figure 51

6. Slide the shaft assembly (BY of Figure 52) out of the pulley (BV).

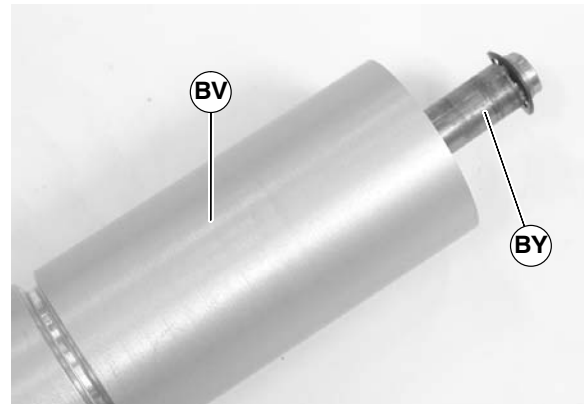


Figure 52

B – Transfer Tail Pulley Removal

1. Temporarily support the transfer tail assembly.



Figure 53

2. On one side of conveyor, loosen the two (2) back fastening screws (BN of Figure 54), and remove the two (2) front fastening screws (BS).

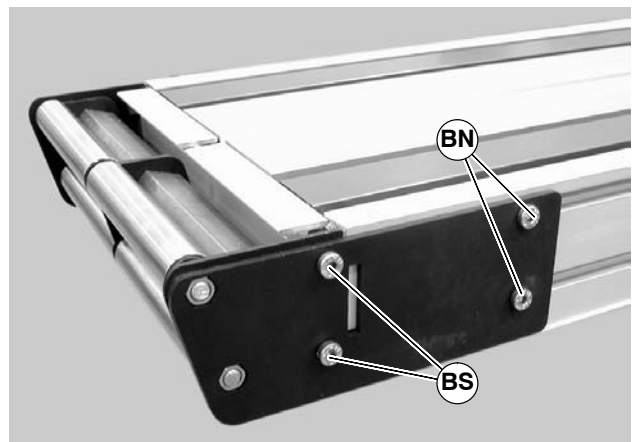


Figure 54

Preventive Maintenance and Adjustment

3. Remove the inner spacer (BU of Figure 55).

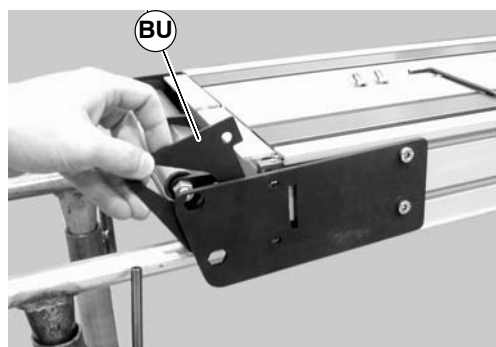


Figure 55

4. Slide the transfer tail pulley assembly (CA of Figure 56) out of the headplate on the opposite side.

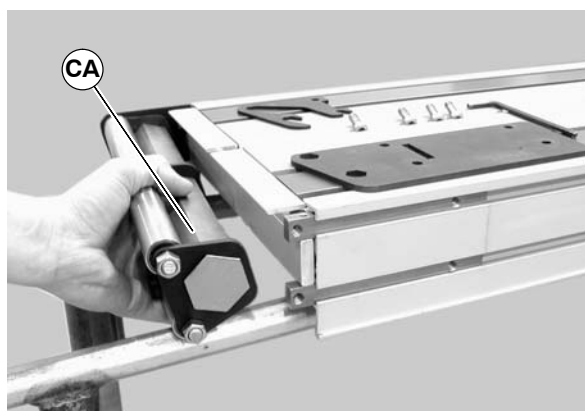


Figure 56

5. Remove hex nuts (CB of Figure 57).



Figure 57

6. Remove support plates (CC of Figure 58) and washers (CD).

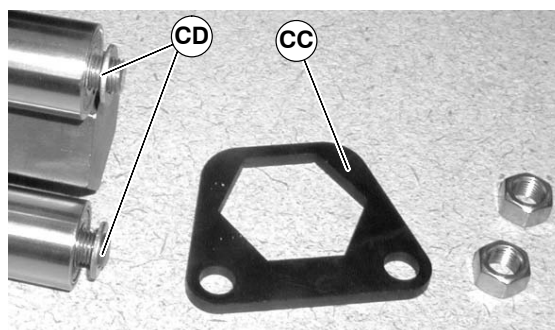


Figure 58

7. Remove pulleys (CE of Figure 59) and additional washers (CF).

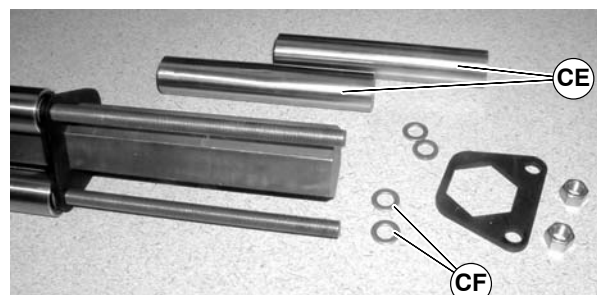



Figure 59

8. To remove additional pulleys, repeat steps 6 through 7.

Center Drive Pulleys Removal

	<p>! WARNING</p> <p>Exposed moving parts can cause severe injury.</p> <p>LOCK OUT POWER before removing guards or performing maintenance.</p>
	<p>! WARNING</p> <p>Exposed moving parts can cause severe injury.</p> <p>REMOVE COMPRESSED AIR SUPPLY before removing guards or performing maintenance.</p>

- A – Tensioner Pulley Removal
- B – Idler Pulley Removal

Preventive Maintenance and Adjustment

• C – Drive Pulley Removal

A – Tensioner Pulley Removal

1. Remove air supply and remove hose (AO of Figure 60) from center drive.

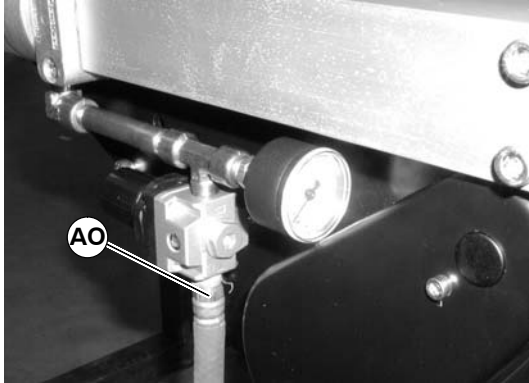


Figure 60

2. Remove screws (AS of Figure 61) and tensioning guards (AT) from both sides of center drive.

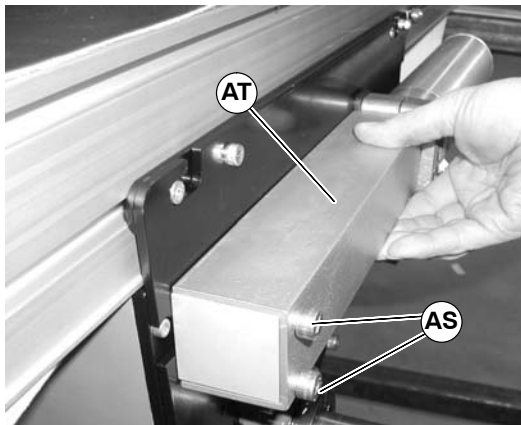


Figure 61

3. Temporarily support the tensioning roller guard (AV of figure 62). Remove screws (AU) on both sides of center drive and remove tensioning roller guard (AV of Figure 62 and 63).

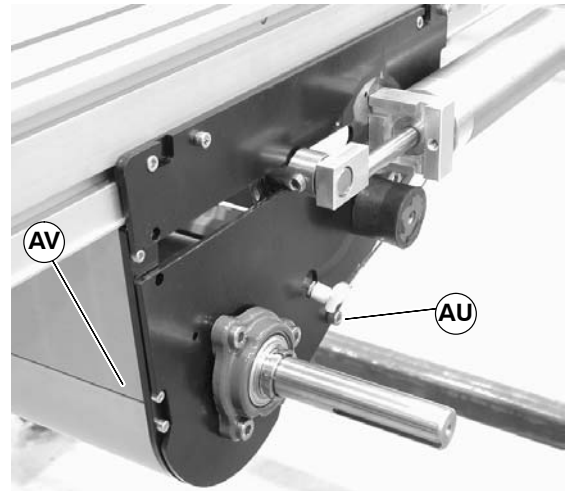


Figure 62

4. Loosen tensioning roller set screws (AW of Figure 63) on one side of center drive.



Figure 63

5. Push shaft (AX of Figure 62) through block, slide block (AY of Figure 64) towards air cylinder (AZ).

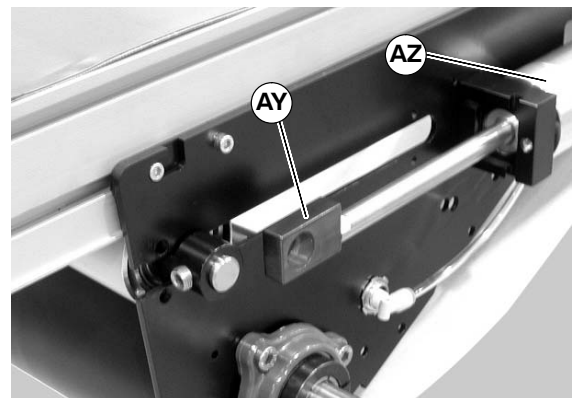


Figure 64

6. Push shaft (AX of Figure 65) through block (AY) on opposite side of center drive, slide block toward air cylinder (AZ).

Preventive Maintenance and Adjustment

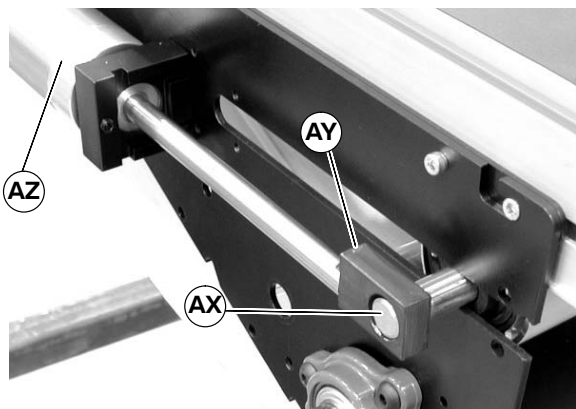


Figure 65

7. Slide out tensioning pulley (BA of Figure 66).

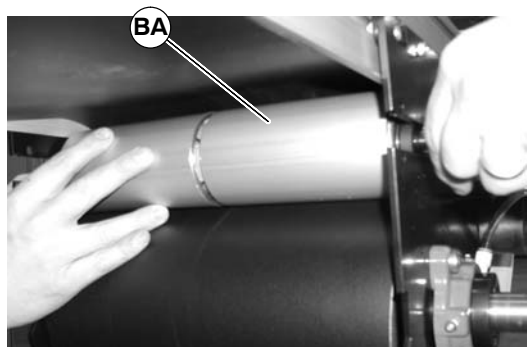


Figure 66

8. Remove the tension pulley locking collar (CG of Figure 67), spacer (CH) and pulley shaft (CI) from the roller pulley shaft assembly.

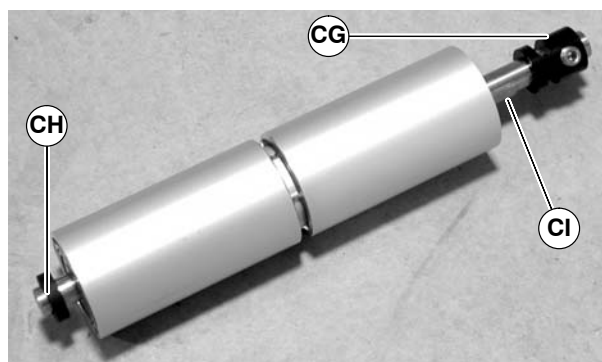


Figure 67

B – Idler Pulley Removal

1. Remove air supply and remove hose (AO of Figure 68) from center drive.

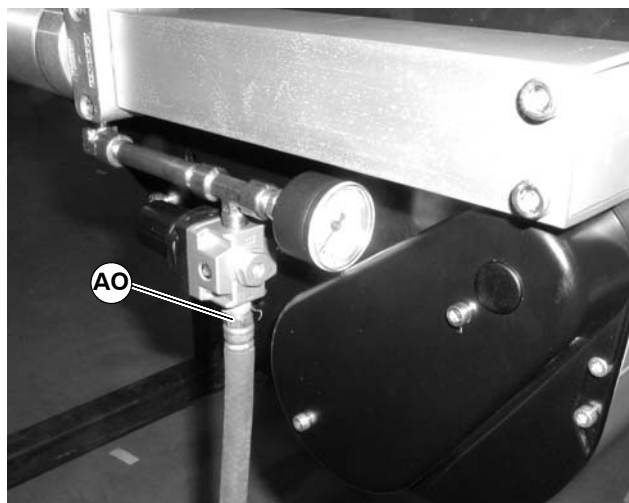


Figure 68

2. Temporarily support idler guard assembly (AP of Figure 69). Remove screws (AQ).

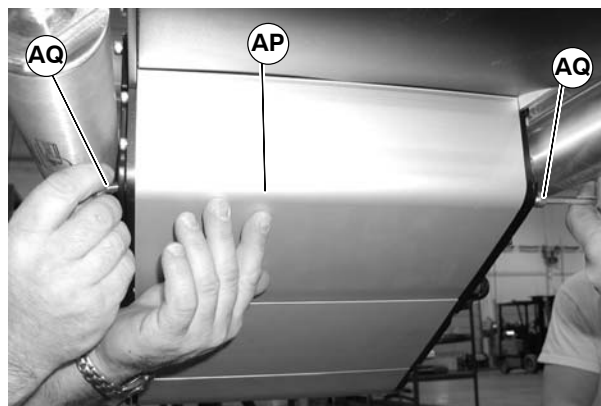


Figure 69

3. Swing down idler guard assembly (AP of Figure 70). Remove screw (AR) from both sides of center drive and remove idler guard assembly (AP).



Figure 70

Preventive Maintenance and Adjustment

4. Remove screws (CJ of Figure 71) and idler guide side plate (CK).

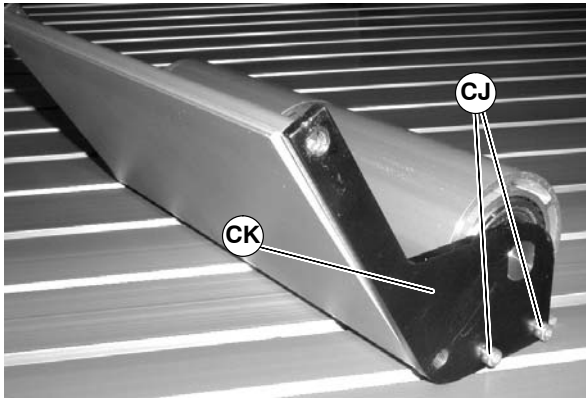


Figure 71

5. Slide the idler pulley assembly (CL of Figure 72) out of the idler guide side plate on the opposite side.

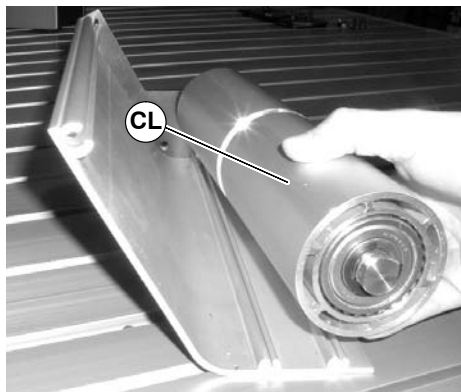


Figure 72

6. Remove the pulley shaft assembly: remove the clip ring (BW of Figure 73) and washer (BX) from one side of the pulley assembly.

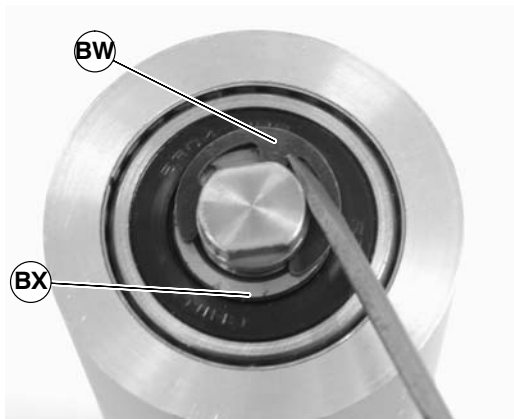


Figure 73

7. Slide the shaft assembly (BY of Figure 74) out of the pulley (BV).

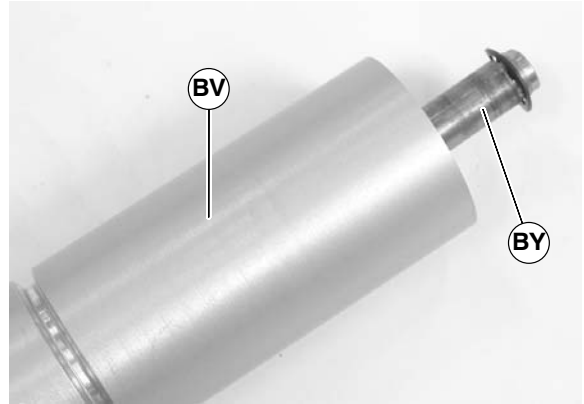


Figure 74

C – Drive Pulley Removal

	<div data-bbox="1133 751 1214 835"></div> <div data-bbox="1230 772 1523 827">WARNING</div> <div data-bbox="1127 844 1481 907">Drive shaft keyway may be sharp.</div> <div data-bbox="1127 911 1416 945">HANDLE WITH CARE.</div>
--	--

1. Remove air supply and remove hose (AO of Figure 75) from center drive.

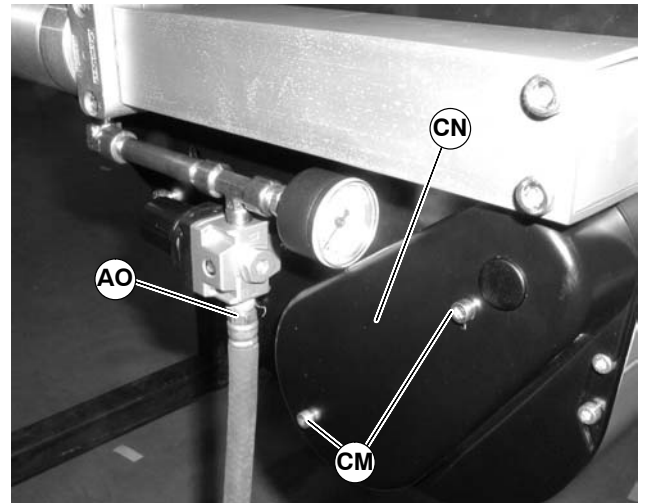


Figure 75

2. Remove screws (CM of Figure 75) and guard (CN).
3. Remove screws (CO of Figure 76) and remove gearmotor (CP) (NOTE: Gearhead shown with motor removed for clarity, motor can remain attached to gearhead).

NOTE: Gearhead shown with motor removed for clarity, motor can remain attached to gearhead.

Preventive Maintenance and Adjustment

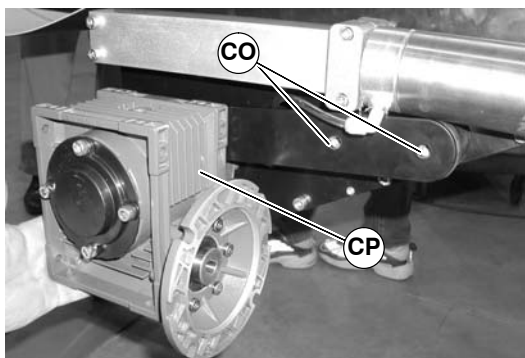


Figure 76

4. Remove spacer ring (AK of Figure 77) and key (AG).

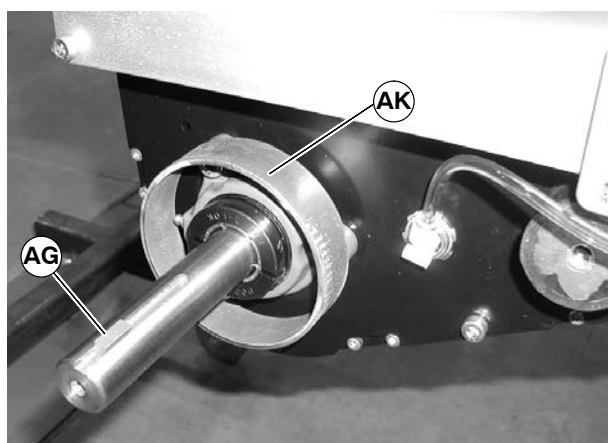


Figure 77

5. Reverse steps 3 thru 10 of the “Belt Removal for Conveyors Without Stands” section on page 10.
6. Loosen clamp screw (CQ of Figure 78) and remove bearing collar (CR).

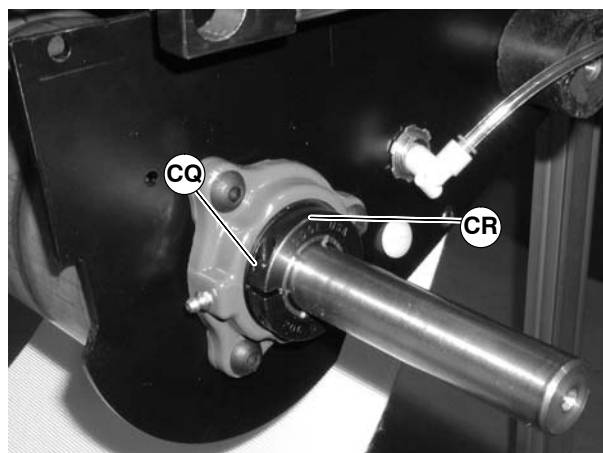


Figure 78

7. Disconnect flexible air hose (CS of Figure 79) from fitting (CT).

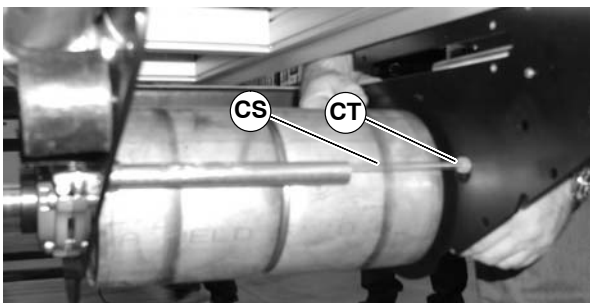


Figure 79

8. Temporarily support the drive pulley (CU of Figure 80).

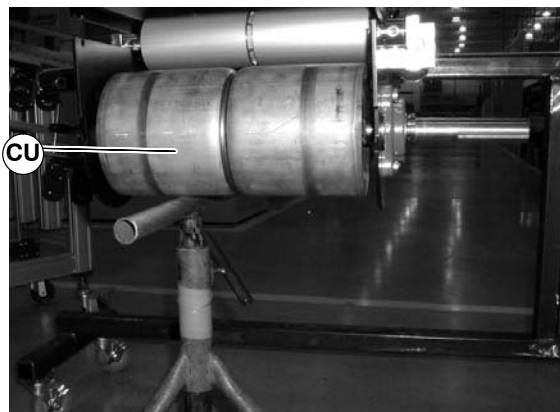


Figure 80

9. Loosen clamp screw (CQ of Figure 81) and remove bearing collar (CR).

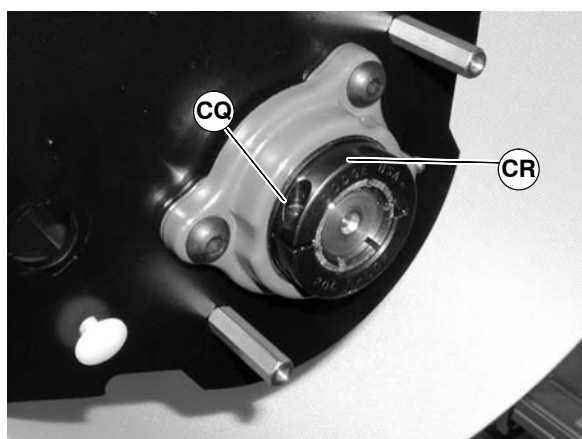


Figure 81

Preventive Maintenance and Adjustment

10. Remove screws (CV) and pull side plate assembly (CW) off conveyor.

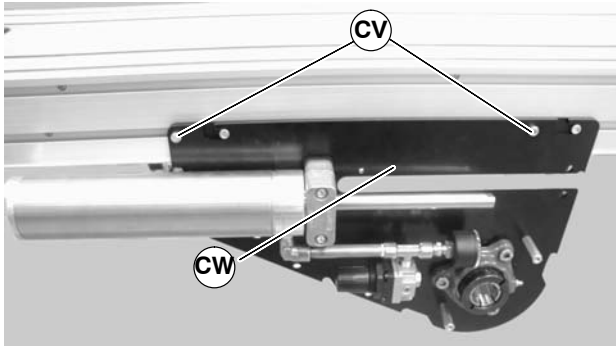


Figure 82

11. Slide drive pulley (CU of Figure 83) out of attached side plate.

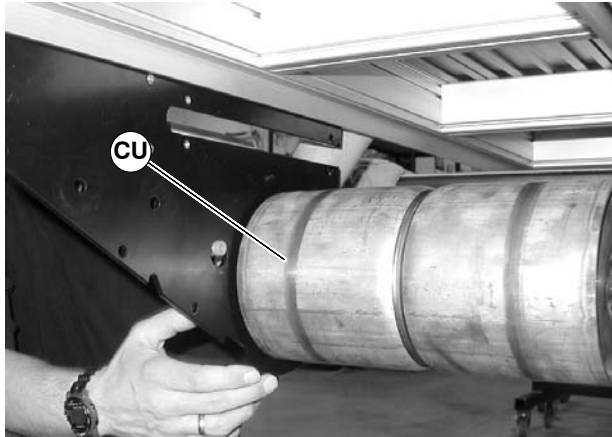
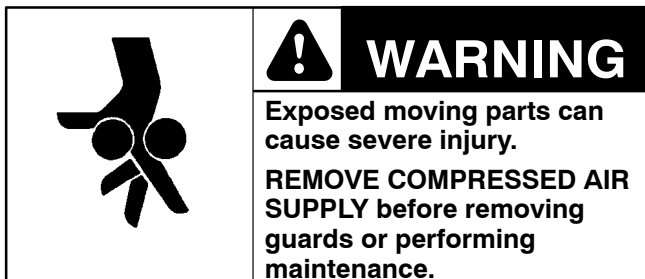
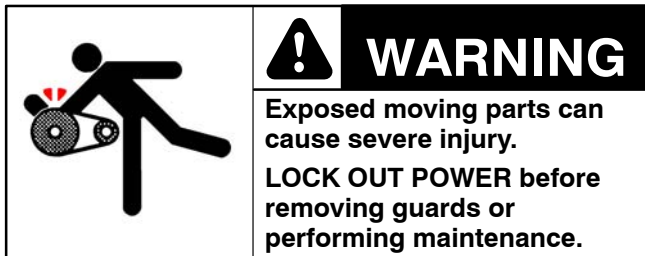


Figure 83

Bearing Replacement



- A – Idler Bearing
- B – Drive Bearing

- C – Transfer Tail Bearing

A – Idler Bearing Replacement

The bearings in a 3200 Series Idler Pulley can not be removed. Replace the entire pulley assembly when worn.

B – Drive Bearing Removal and Replacement



Drive Side Bearing

1. Remove air supply (AO of Figure 84) from center drive module.

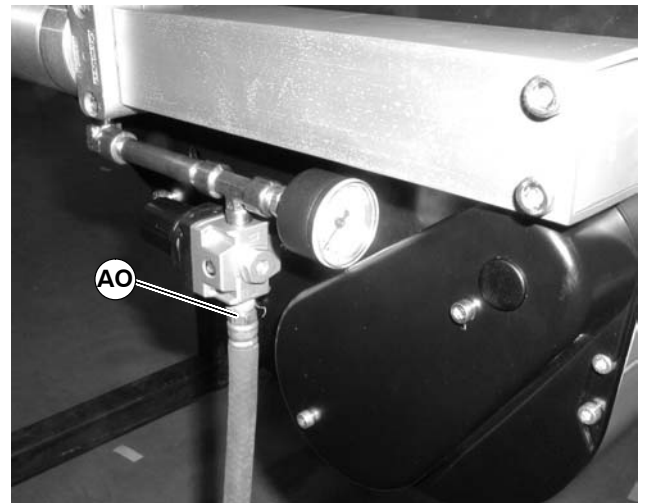


Figure 84

2. Remove screws (CO of Figure 85) and remove gearmotor (CP) (NOTE: Gearhead shown with motor removed for clarity, motor can remain attached to gearhead).

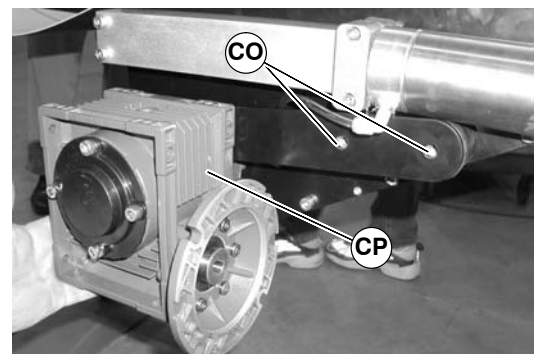


Figure 85

Preventive Maintenance and Adjustment

3. Remove spacer ring (AK of Figure 86) and key (AG). Loosen clamp screw (CQ) and remove bearing collar (CR).

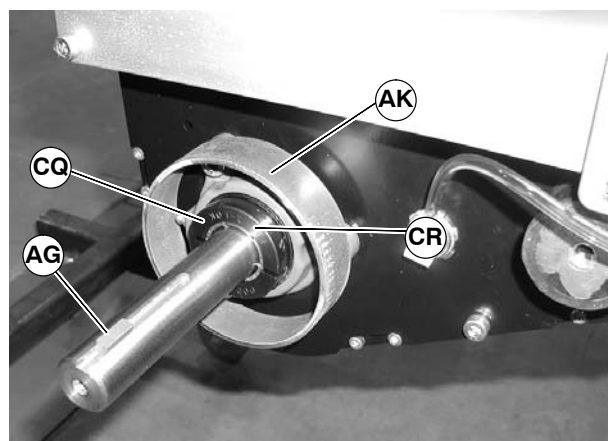


Figure 86

4. Remove the three (3) mounting screws (CX of Figure 87).

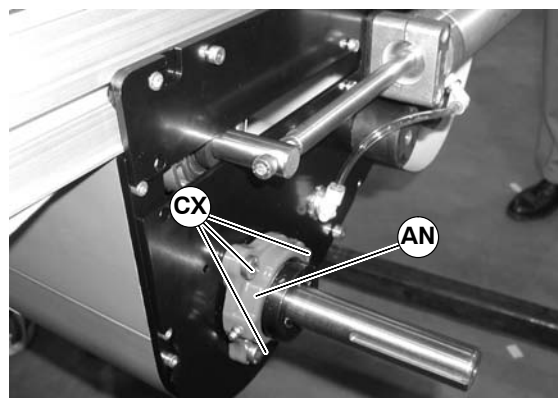


Figure 87

5. Remove and replace bearing housing assembly (AN of Figure 87).
6. Tighten three (3) mounting screws (CX of Figure 88) to 200 in-lbs (22.5 N-m).

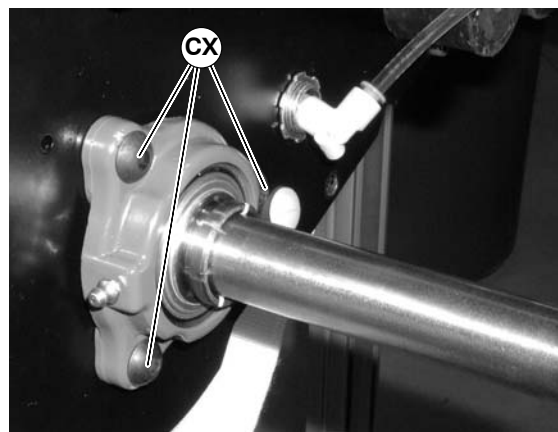


Figure 88

7. Reinstall bearing collar (CR of Figure 86). Tighten clamp screw (CQ) to 95 in-lbs (11 N-m).
8. Reinstall key (AG of Figure 86).
9. Reinstall spacer ring (AK of Figure 89) and gearmotor (CP). Tighten screws (CO of Figure 85) to 150 in-lbs (17 N-m).

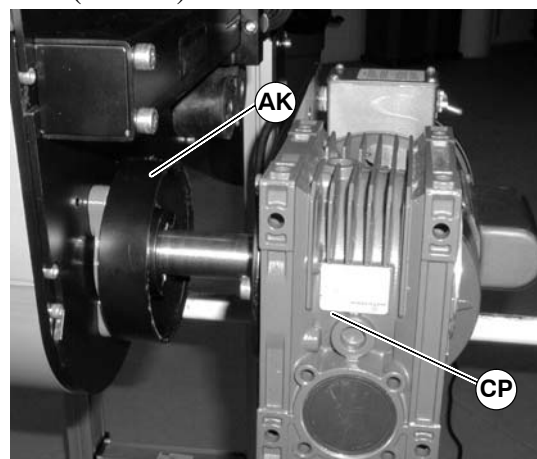


Figure 89

Idler Side Bearing

1. Remove air supply (AO of Figure 90) from center drive module.

Preventive Maintenance and Adjustment

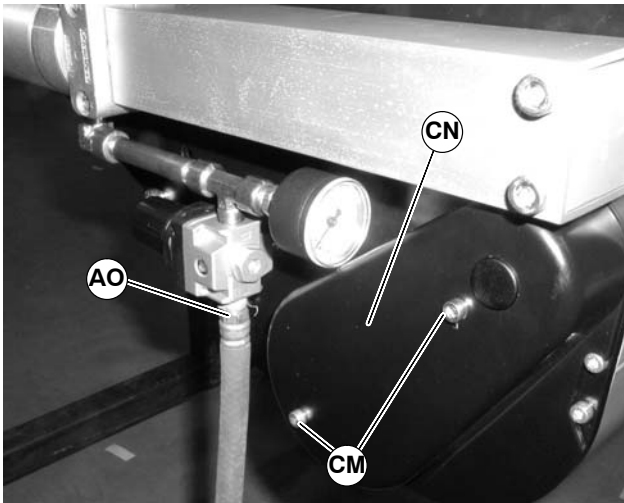


Figure 90

2. Remove screws (CM of Figure 90) and cover (CN).
3. Loosen clamp screw (CQ of Figure 91) and remove bearing collar (CR).

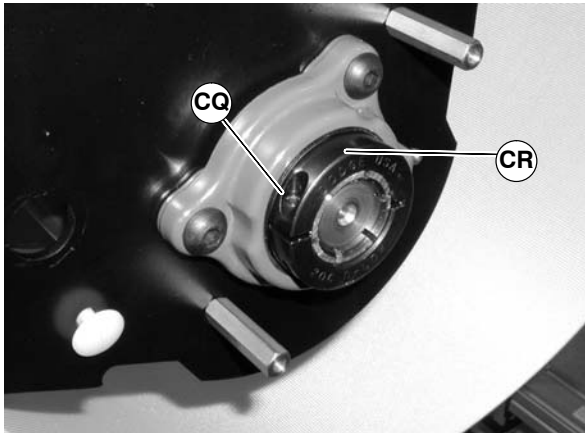


Figure 91

4. Remove the three (3) mounting screws (CX of Figure 92).

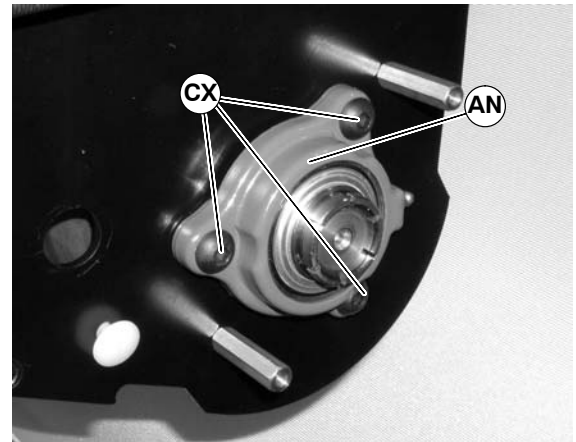


Figure 92

5. Remove and replace housing assembly (AN of Figure 92).
6. Tighten three (3) mounting screws (CX of Figure 92) to 200 in-lbs (22.5 N-m).
7. Reinstall bearing collar (CR of Figure 91). Tighten clamp screw (CQ) to 95 in-lbs (11 N-m).
8. Reinstall cover (CN of Figure 90). Tighten screws (CM) to 69 in-lbs (8 N-m).

C – Transfer Tail Bearing Replacement

The bearings in a 3200 Series Transfer Tail Pulley can not be removed. Replace the entire pulley assembly when worn.

Pulley Replacement

Idler Pulley

To replace the idler pulley, reverse the “Idler Pulley Removal” procedure on page 16.


Drive Pulley

To replace the drive pulley, reverse the “Drive Pulley Removal” procedure on page 21.

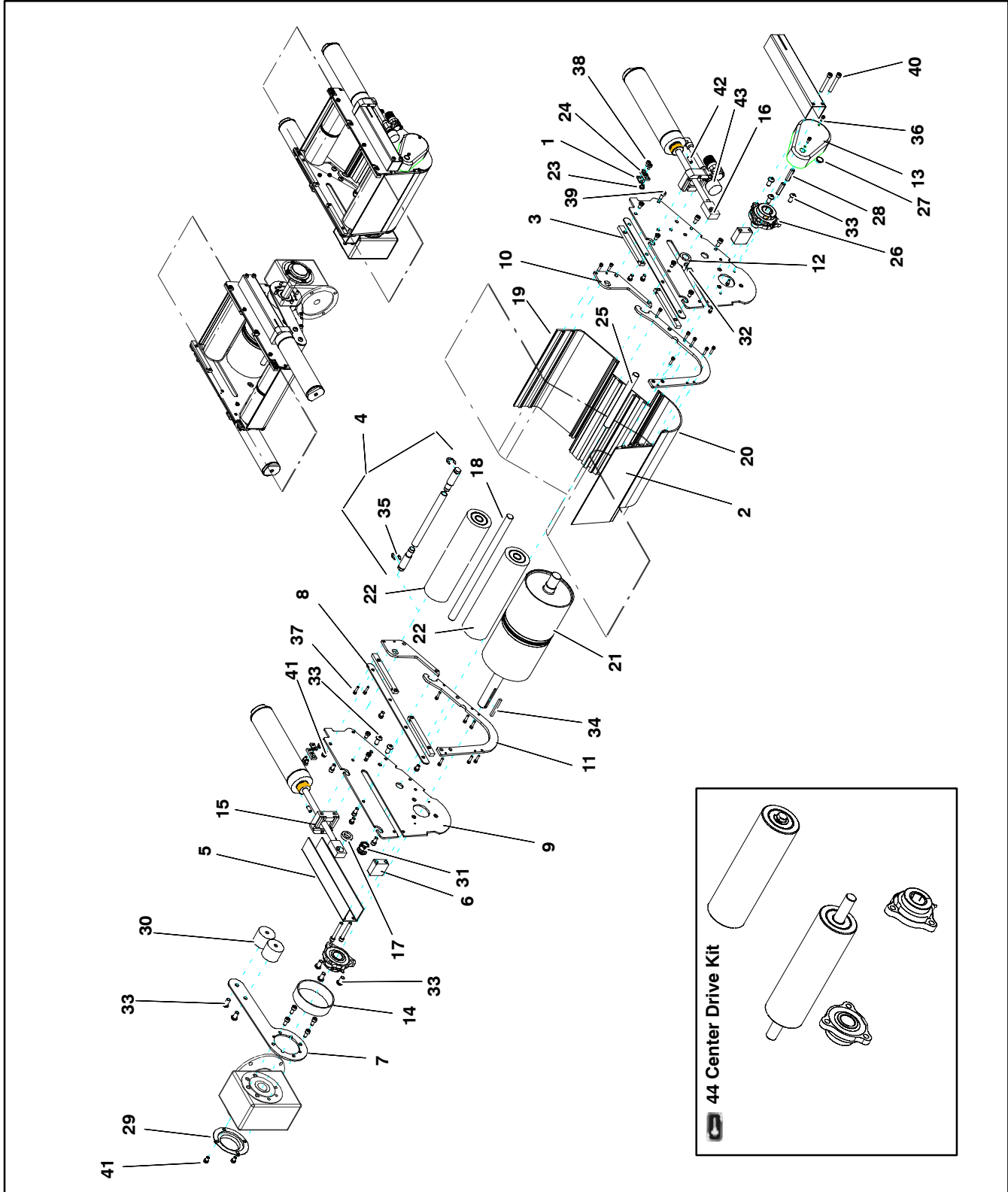
Transfer Tail Pulley

To replace the transfer tail pulley, reverse the “Transfer Tail Pulley Removal” procedure on page 17.

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



Item	Part Number	Description
1	200038	Cam Clamping Plate
2	See Table 1	Flat Guard
3	301088	Tail Clamping Bar
4	3227WW	Wand Assy for 3" Idler Roller
5	301214	Cylinder Channel Guard
6	301216	Cylinder Guard Mounting Block
7	301217	Torsion Arm Plate
8	301218	Side Plate Spacer
9	301219	Center Drive Side Plate
10	301220	End Roller Mounting Plate
11	301221	Horseshoe Guard Mount Plate
12	301222	Center Drive Tension Pulley Spacer
13	301278	Center Drive Bearing Guard
14	301281	Pipe Guard
15	301355	Cylinder Mounting Block
16	301356	Cylinder-Rod Mounting Block
17	301357	Tension Pulley Spacer
18	3242WW	Tension Pulley Axle Shaft
19	3243WW	Bottom End Guard
20	3244WW	Bottom Corner Guard
21	3287WW	6" Diameter Pulley
22	3290WW	3" Center Drive Pulley
23	200039P	Belt Tracking Cam
24	200341M	Cam Retaining Block
25	See Table 1	Inner Shaft Tube
26	802-138	3 Bolt Bearing
27	807-226	Snap Out Plastic Plug
28	807-1162	Hex Stand Off
29	807-1167	Gearhead Cover
30	812-061	Anti-rotation Bushing
31	824-331	1/2" EMT Steel Connector
32	825-160	1/4" BSPT Pipe Plug
33	911020M	Button Head Screw M10 x 20mm
34	912-111	Square Key
35	915-265	E Retaining Ring
36	920512M	Socket Head Screw M5 x 12mm
37	920520M	Socket Head Screw M5 x 20mm
38	920610M	Socket Head Screw M6 x 10mm
39	920816M	Socket Head Screw M8 x 16mm


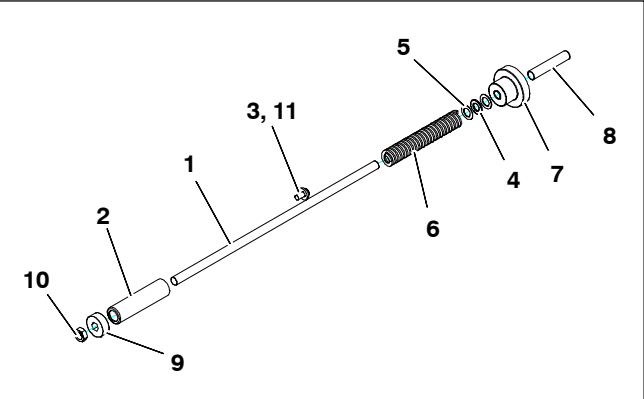
40	920860M	Socket Head Screw M8 x 60mm
41	920892M	Low Head Screw M8 x 12mm
42	970820M	Cup Set Screw M8 x 20mm
43	301213	Pneumatic Tension Assy
44	 32CD-WW	Center Drive Kit (includes items 4, 18, 22 and 26)
WW = Conveyor width reference: 04 - 60 in 02 increments		

Table 1 – Part Number Per Conveyor Width

Conveyor Width	Item 2 – Flat Guard	Item 25 – Inner Shaft Tube
4"	300895-00374	301164
6"	300895-00599	301198-00209
8"	300895-00799	301198-00409
10	300895-00999	301198-00609
12	300895-01199	301198-00809
14	300895-01399	301198-01009
16	300895-01599	301198-01209
18	300895-01799	301198-01409
20	300895-01999	301198-01609
22	300895-02199	301198-01809
24	300895-02399	301198-02009
26	300895-02599	301198-02209
28	300895-02799	301198-02409
30	300895-02999	301198-02609
32	300895-03199	301198-02809
34	300895-03399	301198-03009
36	300895-03599	301198-03209
38	300895-03799	301198-03409
40	300895-03999	301198-03609
42	300895-04199	301198-03809
44	300895-04399	301198-04009
46	300895-04599	301198-04209
48	300895-04799	301198-04409
50	300895-04999	301198-04609
52	300895-05199	301198-04809
54	300895-05399	301198-05009
56	300895-05599	301198-05209
58	300895-05799	301198-05409
60	300895-05999	301198-05609

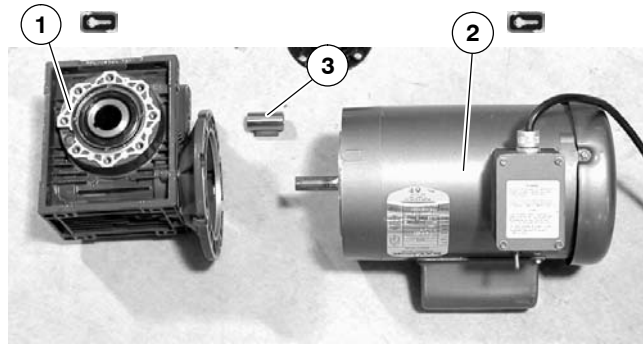
Service Parts

Center Drive Manual Tensioner



Item	Part Number	Description
1	301410	Threaded Rod 1/2" x 17" Long
2	3015 <u>WW</u>	Spring Cage (04" through 24" Wide Conveyor)
	301524	Spring Cage (26" through 60" Wide Conveyor)
3	605280P	Hard Washer
4	802-139	Thrust Bearing Cage
5	802-140	Thrust Bearing Washer
6	807-1182	Spring - Blue (04" through 08" Wide Conveyor)
	807-1183	Spring - Red (10" through 12" Wide Conveyor)
	807-1184	Spring - Bronze (14" through 60" Wide Conveyor)
7	807-1185	Knurled Knob
8	807-1186	End Cap
9	807-1187	Threaded Plug
10	910-081	Hex Jam Nut 1/2"-20
11	920893M	Low Head Cap Screw M8 x 16mm
<u>WW</u> = Conveyor width reference: 04 - 60 in 02 increments		

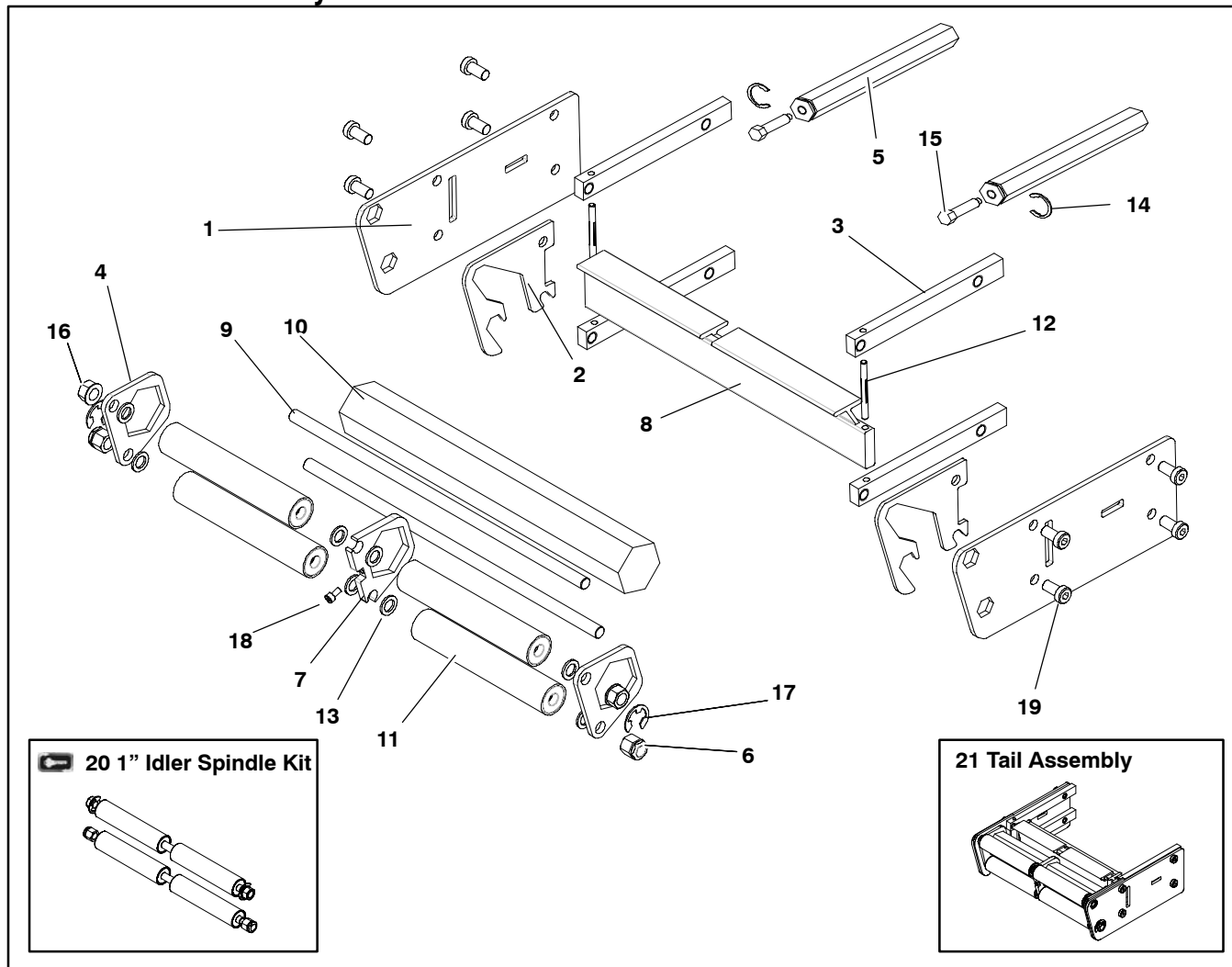
Center Drive 90° Industrial Gearmotors



Item	Part No.	Part Description
1	32M008HH	Gear Reducer, 7.5:1 NEMA 140TC
	32M010HH	Gear Reducer, 10:1 NEMA 140TC
	32M015HH	Gear Reducer, 15:1 NEMA 140TC
	32M020HH	Gear Reducer, 20:1 NEMA 140TC
	32M025HH	Gear Reducer, 25:1 NEMA 140TC
	32M030HH	Gear Reducer, 30:1 NEMA 140TC
	32M040HH	Gear Reducer, 40:1 NEMA 140TC
	32M050HH	Gear Reducer, 50:1 NEMA 140TC
	32M060HH	Gear Reducer, 60:1 NEMA 56C
	32M080HH	Gear Reducer, 80:1 NEMA 56C
	32M100HH	Gear Reducer, 100:1 NEMA 56C
2	62MS411FN	Motor, 0.25hp (0.19Kw), 115/230 Volts, 60 Hz, 1-Phase
	62MH411	Motor, 0.5hp (0.37Kw), 115/230 Volts, 60Hz, 1-Phase
	62MH423	Motor, 0.5hp (0.37Kw) 208-230/460 Volts, 60Hz, 3 Phase
	32MHH423FN10	Motor, 1 hp (0.75Kw), 230 Volts, 3 Phase
	32MS423EN	Motor, 0.5hp (0.37Kw), 230 Volts, 3 Phase Inverter Duty
	32MHH423EN10	Motor, 1hp (0.75Kw), 230 Volts, 3 Phase Inverter Duty
	32MHH423EN15	Motor, 1.5hp (1.1Kw), 230 Volts, 3 Phase Inverter Duty
	32MHH423FN15	Motor, 1.5hp (1.1Kw), 230 Volts, 3 Phase
	62MHD9DEN	Motor, 0.5hp (0.37Kw), 90 Volts DC,
	62MHD9DEN75	Motor, 0.75hp (0.56Kw), 90 Volts DC,
	32MHH423EN20	Motor, 2.0hp (1.5Kw), 230 Volts, 3 Phase Inverter Duty
	32MHH423FN20	Motor, 2.0hp (1.5Kw), 230 Volts, 3 Phase
	32MHH411EC10	Motor, 1.0hp (0.75Kw), 115 Volts, Integrated Controller
	32MHH411EC15	Motor, 0.5hp (0.37Kw), 115 Volts, Integrated Controller
3	820-329	Bushing Shaft Adapter, 56C to 140TC

Service Parts

Transfer Tail Assembly

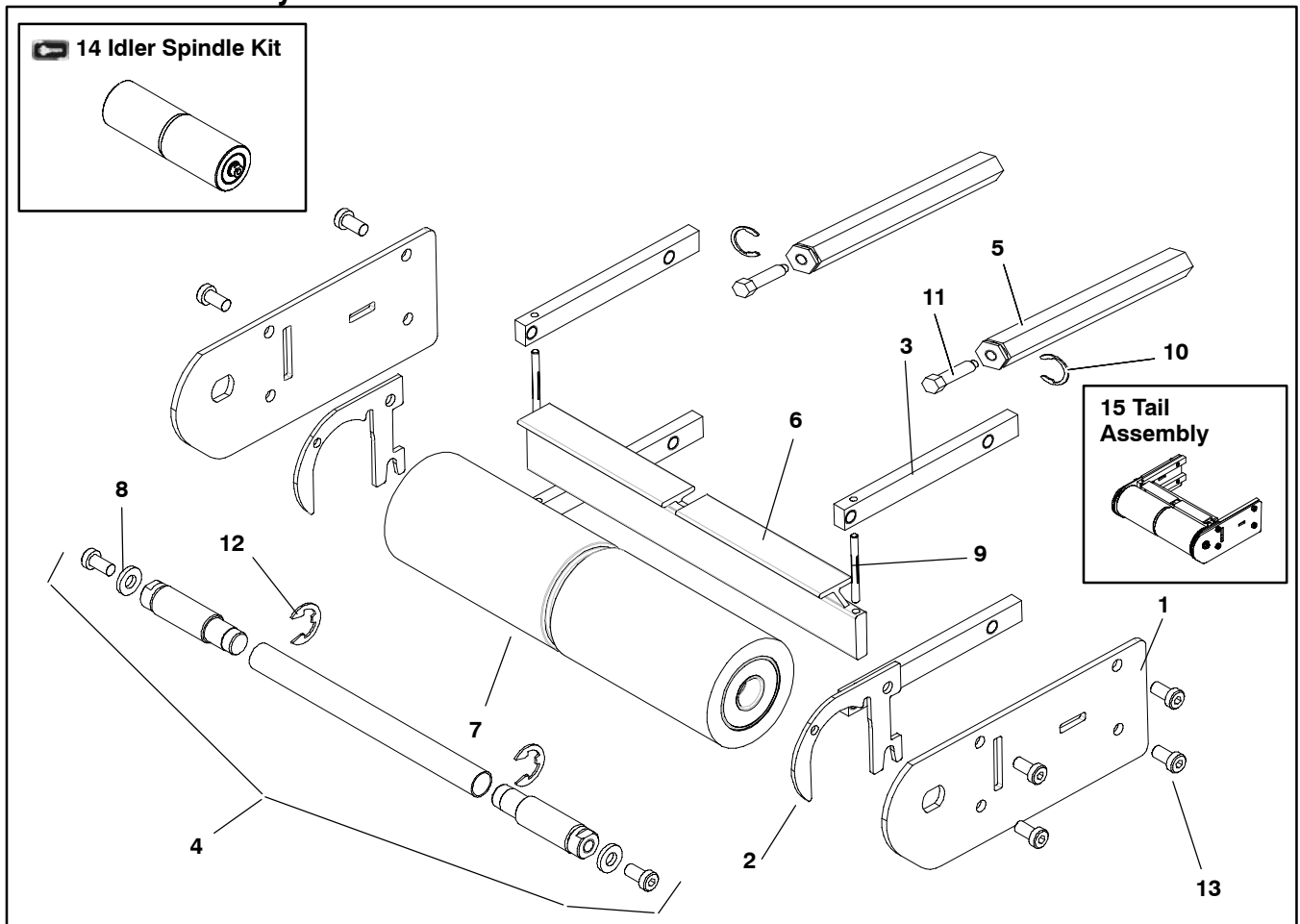


Item	Part Number	Description
1	301082	Nosebar Cover Plate
2	301084	1" Inner Tail Plate
3	301088	Tail Bar Clamp
4	301090	Transfer Tail Support Plate
5	301196	Hex Tension Tracking Shaft
6	301352	Nut, E-ring, Brace
7	301354	Inner Transfer Tail Support Plate
8	3202WW	Tail Articulation Bar
9	3217WW	1" Idler Tail Axle Shaft
10	3219WW	Support Bar
11	3237WW	Transfer Tail Roller – (Qty. = 4 for 04–24 Wide, 8 for 26–48 Wide)


12	807–1125	Groove Pin
13	807–1136	Washer
14	807–1151	Retaining Ring
15	807–1152	Hex Head Cap Screw M6 x 20mm
16	910–203	3/8" Hex Nut
17	915–319	Retaining Ring
18	920408M	Hex Head Cap Screw M4 x 8mm
19	920893M	Low Head Socket Screw M8 x 16mm
20	32T1-WWW	1" Idler Spindle Kit (includes items 6, 9, 11, 13, 16 and 17)
21	32TT1-WWW	Tail Assembly (includes items 1, 2, 3, 8, 10, 12 and 19)

WW = Conveyor width reference: 04 – 48 in 02 increments

Idler End Assembly

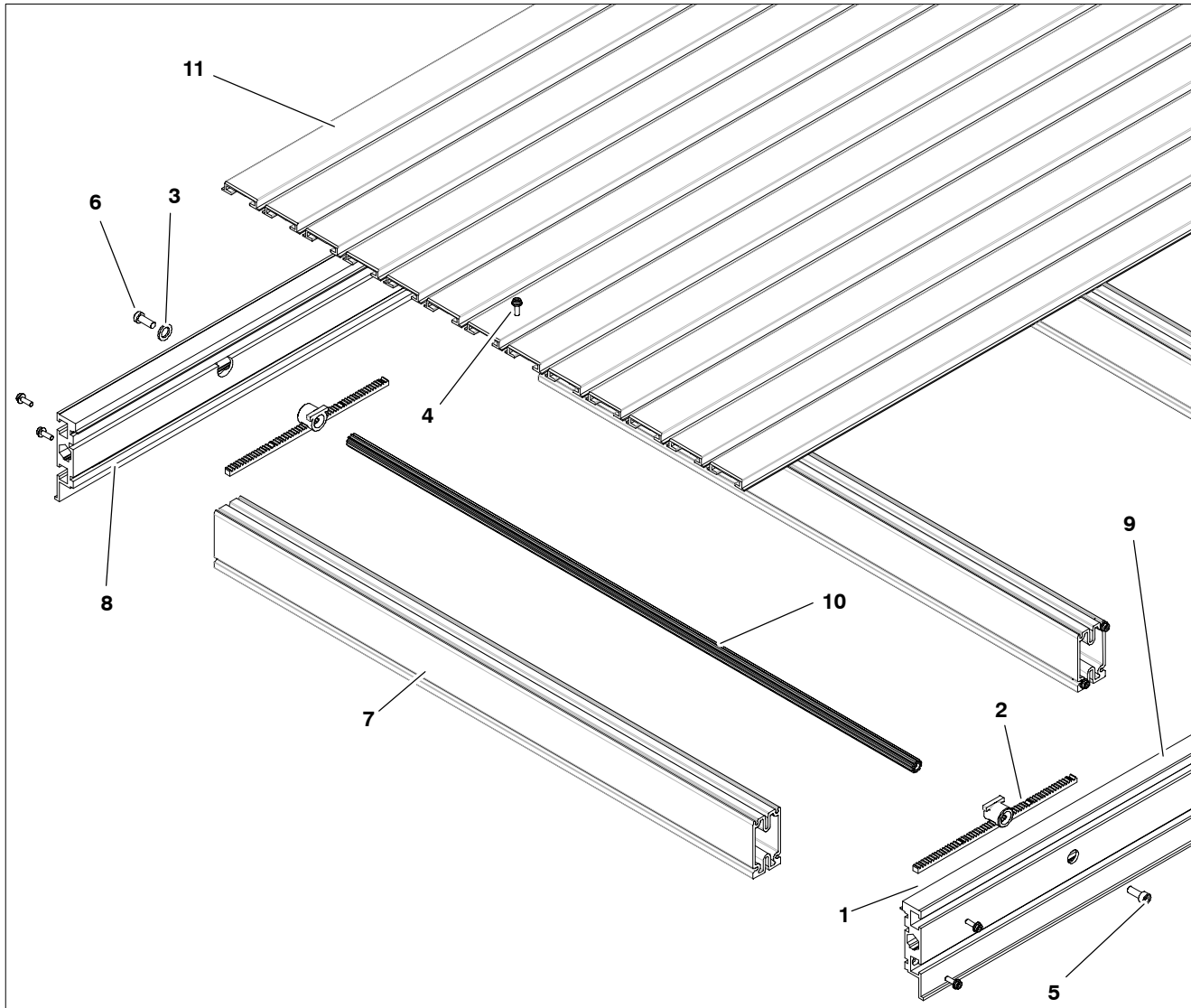


Item	Part Number	Description
1	301049	Idler Cover Plate
2	301083	Inner 3" Tail Plate
3	301088	Tail Bar Clamp
4	3282WW	Idler Spindle Wand Assembly (includes items 8 and 12)
5	301196	Hex Tension Tracking Shaft
6	3202WW	Tail Articulation Bar
7	3289WW	3" Idler Pulley
8	605280P	Hard Washer

9	807-1125	Groove Pin
10	807-1151	Tracking Shaft Retaining Ring
11	807-1152	Hex Head Cap Screw M6 x 20mm
12	915-235	Stub Shaft Retaining Ring
13	920893M	Low Head Socket Screw M8 x 16mm
14	 32T3-WW	Idler Spindle Kit (includes items 4 and 7)
15	32TT3-WW	Tail Assembly (includes items 1 through 4, 6, 7, 9 and 13)
WW = Conveyor width reference: 04 – 48 in 02 increments		

Service Parts

Frame Assembly



Item	Part Number	Description
1	240420	Rack Gear
2	301091	Pinion Bearing
3	605279P	Washer
4	920483M	Flange Socket Screw M4 x 16mm
5	920616M	Socket Head Screw M6 x 16mm
6	920693M	Low Head Socket Screw M6 x 16mm
7	3245WW	Cross Support Rail
8	301041-LLLLL	RH Side Rail
9	301042-LLLLL	LH Side Rail
10	3229WW	Pinion
11		Bed Plate Rail
WW = Conveyor width reference: 04 – 48 in 02 increments LLLLL = Frame Length (see Bed Plate & Frame Formulas)		

Item 11: Bed Plate Rail	
Width	Part Number
1.75" (mm)	300887-LLLLL
2" (54mm)	300888-LLLLL
4" (102mm)	300889-LLLLL
6" (152mm)	300890-LLLLL
LLLLL = Bed Plate Length (see Bed Plate & Frame Formulas)	

Bed Plate and Frame Formulas

Bed Plate LLLLL = Frame LLLLL – 00013

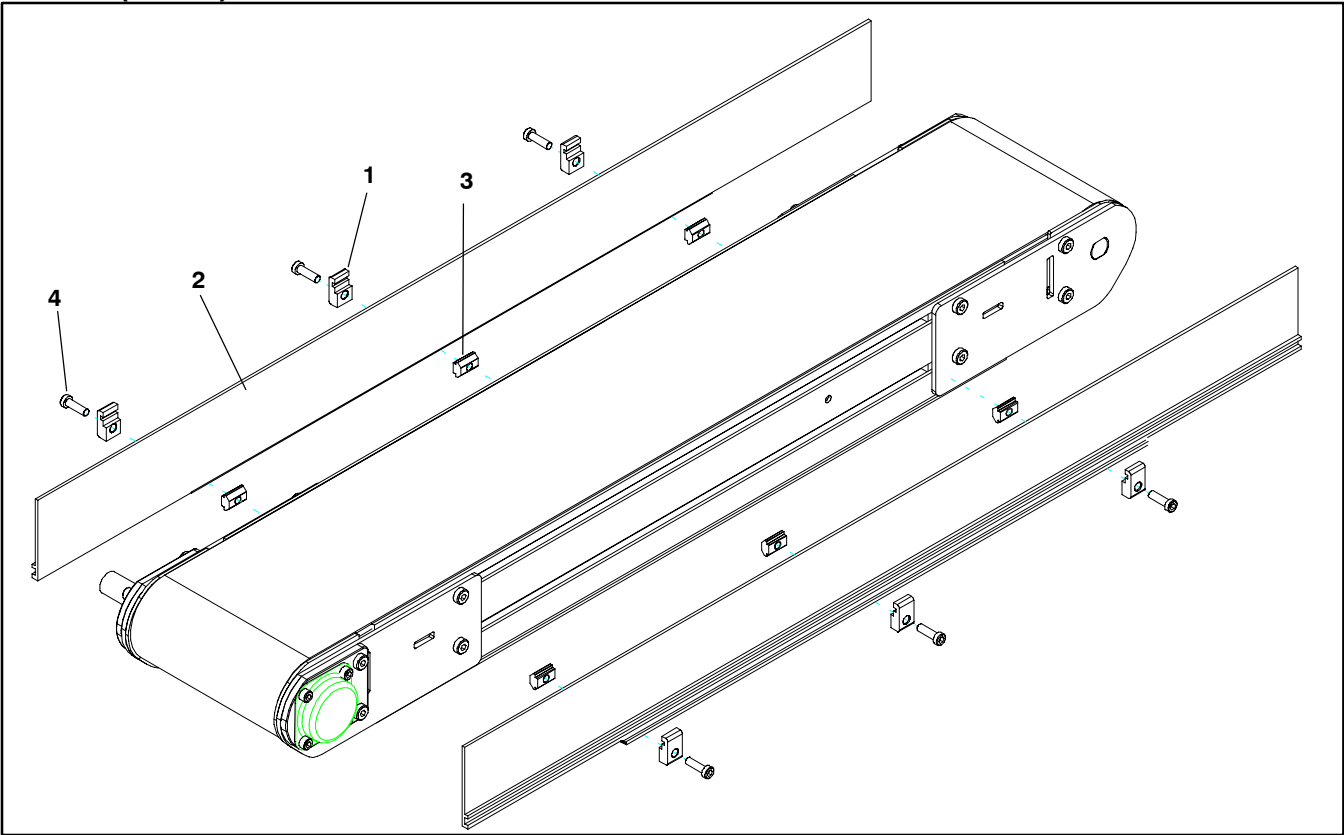
Frame LLLLL = $\frac{\text{Conveyor Length LLLL} \times 12 - \text{Tail Adder}}{\text{\# of Sections of Conveyor}}$

Tail Adder = 00600 for each Tension End
00425 for each Non-Tension End

Width	Bed Plate Configuration													
4"							1.75"							
6"							4"							
8"							6"							
10"						2"	4"	2"						
12"						2"	6"	2"						
14"						4"	4"	4"						
16"						4"	6"	4"						
18"						6"	4"	6"						
20"						6"	6"	6"						
22"					4"	4"	4"	4"	4"					
24"					4"	4"	6"	4"	4"					
26"					6"	4"	4"	4"	6"					
28"					6"	4"	6"	4"	6"					
30"					6"	6"	4"	6"	6"					
32"					6"	6"	6"	6"	6"					
34"				4"	4"	6"	4"	6"	4"	4"				
36"				4"	4"	6"	6"	6"	4"	4"				
38"				4"	6"	6"	4"	6"	6"	4"				
40"				4"	6"	6"	6"	6"	6"	4"				
42"				6"	6"	6"	4"	6"	6"	6"				
44"				6"	6"	6"	6"	6"	6"	6"				
46"			4"	4"	6"	6"	4"	6"	6"	4"	4"			
48"			4"	4"	6"	6"	6"	6"	6"	4"	4"			
50"			4"	6"	6"	6"	4"	6"	6"	6"	4"			
52"			4"	6"	6"	6"	6"	6"	6"	6"	4"			
54"			6"	6"	6"	6"	4"	6"	6"	6"	6"			
56"			6"	6"	6"	6"	6"	6"	6"	6"	6"			
58"		4"	4"	6"	6"	6"	4"	6"	6"	6"	4"	4"		
60"		4"	4"	6"	6"	6"	6"	6"	6"	6"	4"	4"		
62"		4"	6"	6"	6"	6"	4"	6"	6"	6"	6"	4"		
64"		4"	6"	6"	6"	6"	6"	6"	6"	6"	6"	4"		
66"		6"	6"	6"	6"	6"	4"	6"	6"	6"	6"	6"		
68"		6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"		
70"	4"	4"	6"	6"	6"	6"	4"	6"	6"	6"	6"	4"	4"	
72"	4"	4"	6"	6"	6"	6"	6"	6"	6"	6"	6"	4"	4"	

Service Parts

-04 3" (76mm) Aluminum Side



Item	Part Number	Description
1	200121	Guide Retaining Clip
2	380400- <u>LLLLL</u> (see Formulas)	3200 Guide 3" (76mm) HS
3	639971M	Single Drop-in Tee Bar
4	920694M	Socket Head Screw M6 x 20mm

Length Formulas

$$\text{LLLLL} = \frac{(\text{Conveyor Length XXXX}) \times 12 - \text{Tail Factor}}{\text{\# of Sections of Conveyor}}$$

Tail Factor =

00000	for center drive with transfer tail both ends
00100	for end drive with one transfer tail
00200	for end drive and center drives with standard tails
00325	for All Cleated Conveyors

$$\text{\# of Conveyor Sections} = \frac{(\text{Conveyor Length XXXX} - 0100)}{1200}$$

XXXX = Conveyor Length (XX.XX ft)

Example

17'4" End Drive Conveyor with Standard Tails

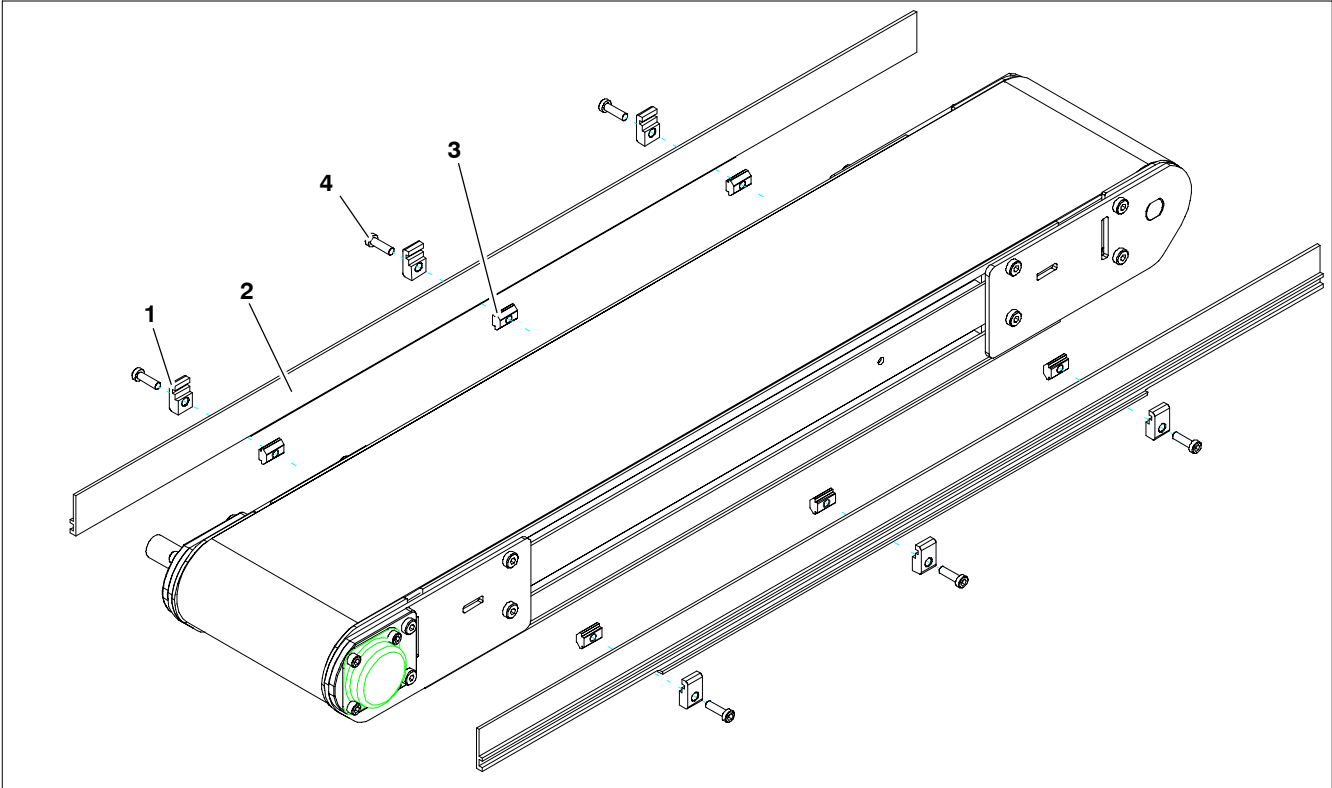
Conveyor Length = 1733

Tail Factor = 00200

$$\text{\# of Sections (round up)} = \frac{(1733 - 0100)}{1200} = 1.36 = 2 \text{ Sections}$$

$$\text{LLLLL} = \frac{(1733 \times 12) - 00200}{2} = 10298$$

-05 1.5” (38mm) Aluminum Side



Item	Part Number	Description
1	200121	Guide Retaining Clip
2	380500-LLLLL (see Formulas)	3200 Guide .5" (13mm) HS
3	639971M	Single Drop-in Tee Bar
4	920694M	Socket Head Screw M6 x 20mm

Length Formulas

$$LLLLL = \frac{(\text{Conveyor Length } XXXX) \times 12 - \text{Tail Factor}}{\text{\# of Sections of Conveyor}}$$

Tail Factor = 00000 for center drive with transfer tail both ends
 00100 for end drive with one transfer tail
 00200 for end drive and center drives with standard tails
 00325 for All Cleated Conveyors

$$\text{\# of Conveyor Sections} = \frac{(\text{Conveyor Length } XXXX - 0100)}{1200}$$

XXXX = Conveyor Length (XX.XX ft)

Example

17'4" End Drive Conveyor with Standard Tails

Conveyor Length = 1733

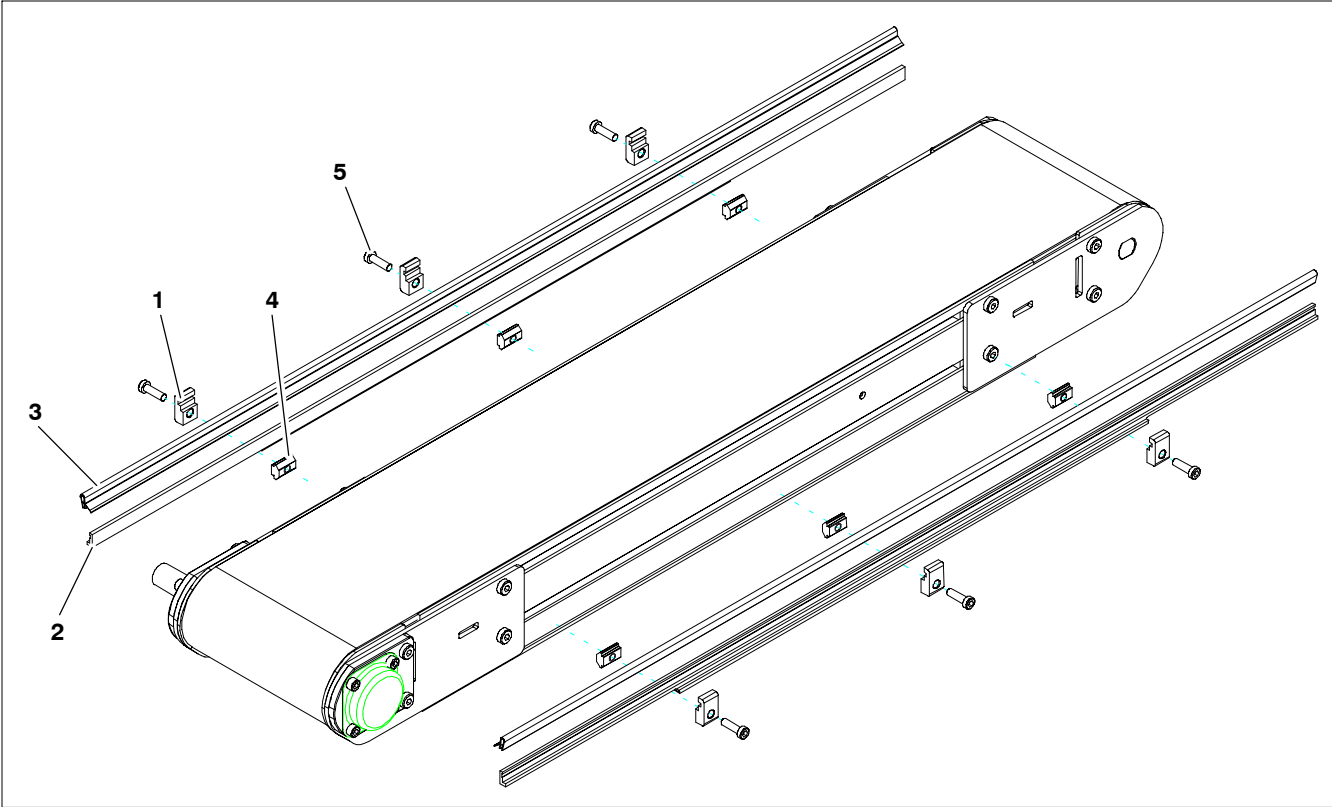
Tail Factor = 00200

$$\text{\# of Sections (round up)} = \frac{(1733 - 0100)}{1200} = 1.36 = 2 \text{ Sections}$$

$$LLLLL = \frac{(1733 \times 12) - 00200}{2} = 10298$$

Service Parts

-07 Low to Side Wiper



Item	Part Number	Description
1	200121	Guide Retaining Clip
2	380900-LLLLL (see Formulas)	3200 Guide .5" (13mm) HS
3	41-00-24	Side Wiper Nylatron (per foot)
4	639971M	Single Drop-in Tee Bar
5	920694M	Socket Head Screw M6 x 20mm

Length Formulas

$$LLLLL = \frac{(\text{Conveyor Length } XXXX) \times 12 - \text{Tail Factor}}{\text{\# of Sections of Conveyor}}$$

Tail Factor =

- 00000 for center drive with transfer tail both ends
- 00100 for end drive with one transfer tail
- 00200 for end drive and center drives with standard tails
- 00325 for All Cleated Conveyors

$$\text{\# of Conveyor Sections} = \frac{(\text{Conveyor Length } XXXX - 0100)}{1200}$$

XXXX = Conveyor Length (XX.XX ft)

Example

17'4" End Drive Conveyor with Standard Tails

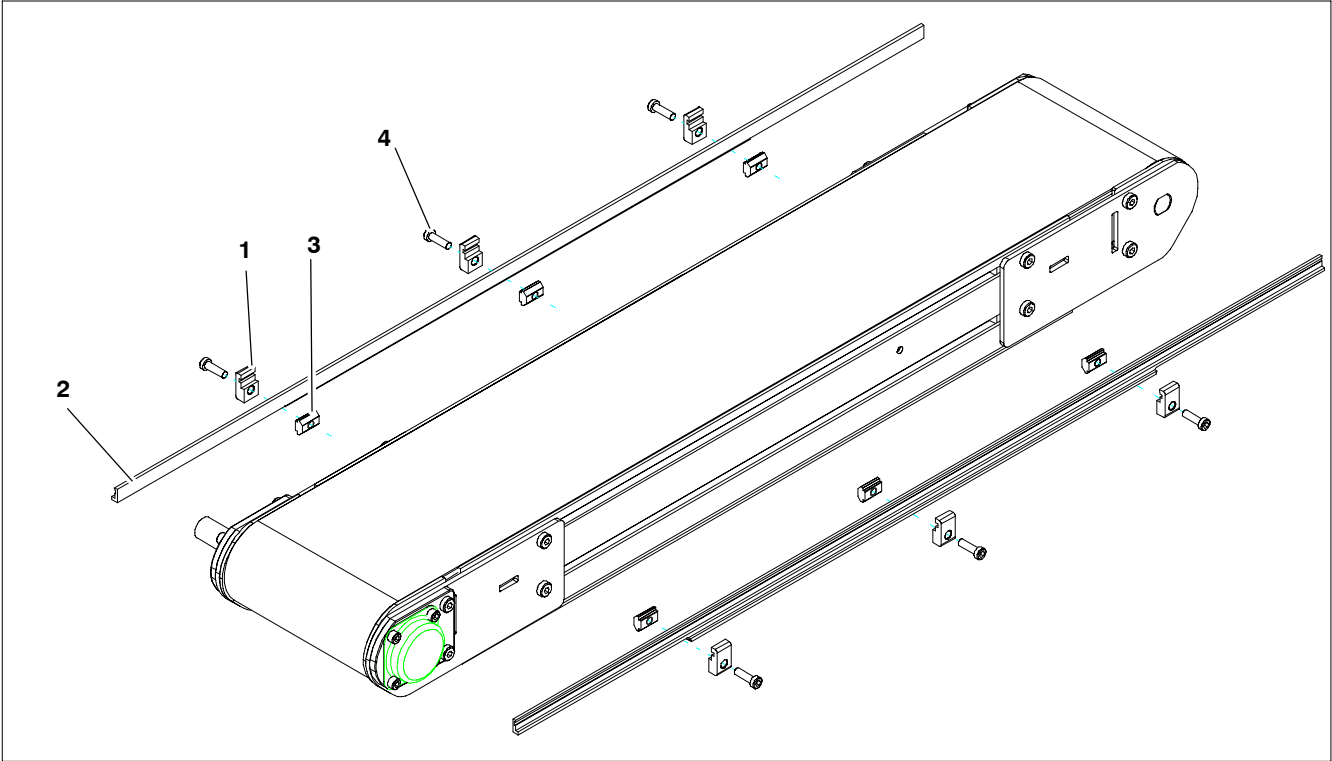
Conveyor Length = 1733

Tail Factor = 00200

$$\text{\# of Sections (round up)} = \frac{(1733 - 0100)}{1200} = 1.36 = 2 \text{ Sections}$$

$$LLLLL = \frac{(1733 \times 12) - 00200}{2} = 10298$$

-09 Low to High Side



Item	Part Number	Description
1	200121	Guide Retaining Clip
2	380900-LLLLL (see Formulas)	2200 Guide .5" (13mm) HS
3	639971M	Single Drop-in Tee Bar
4	920694M	Socket Head Screw M6 x 20mm

Length Formulas

$LLLLL = \frac{(\text{Conveyor Length } XXXX) \times 12 - \text{Tail Factor}}{\text{\# of Sections of Conveyor}}$

Tail Factor = 00000 for center drive with transfer tail both ends
 00100 for end drive with one transfer tail
 00200 for end drive and center drives with standard tails
 00325 for All Cleated Conveyors

$\text{\# of Conveyor Sections} = \frac{(\text{Conveyor Length } XXXX - 0100)}{1200}$

XXXX = Conveyor Length (XX.XX ft)

Example

17'4" End Drive Conveyor with Standard Tails

Conveyor Length = 1733

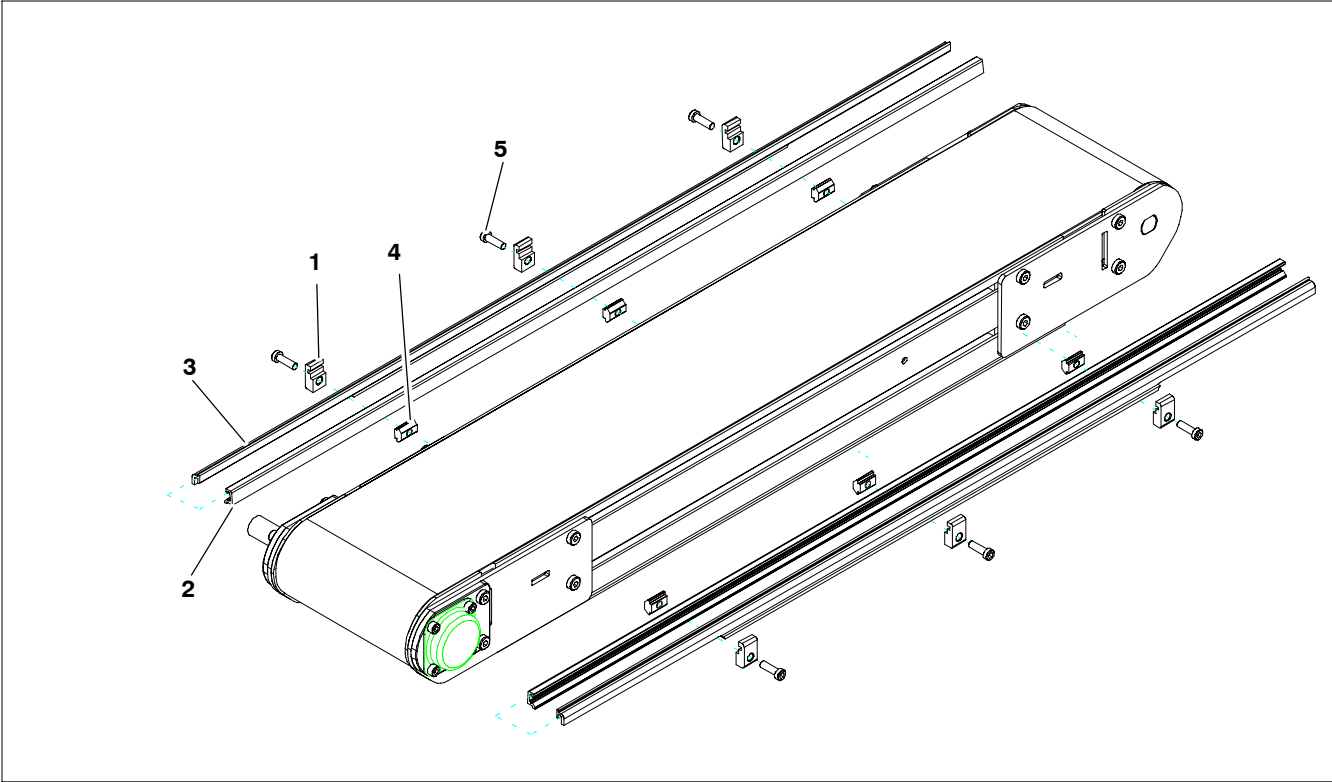
Tail Factor = 00200

$\text{\# of Sections (round up)} = \frac{(1733 - 0100)}{1200} = 1.36 = 2 \text{ Sections}$

$LLLLL = \frac{(1733 \times 12) - 00200}{2} = 10298$

Service Parts

-10 .5” (13mm) Extruded Plastic



Item	Part Number	Description
1	200121	Guide Retaining Clip
2	200054P	Snap-On Guide (per foot)
3	3810000- <u>LLLLL</u> (see Formulas)	2200 Guide
4	639971M	Single Drop-in Tee Bar
5	920694M	Socket Head Screw M6 x 20mm

Length Formulas

LLLLL =
$$\frac{(\text{Conveyor Length } \text{XXXX}) \times 12 - \text{Tail Factor}}{\text{\# of Sections of Conveyor}}$$

Tail Factor =	00000	for center drive with transfer tail both ends
	00100	for end drive with one transfer tail
	00200	for end drive and center drives with standard tails
	00325	for All Cleated Conveyors

$$\text{\# of Conveyor Sections} = \frac{(\text{Conveyor Length } \text{XXXX} - 0100)}{1200}$$

XXXX = Conveyor Length (XX.XX ft)

Example

17’4” End Drive Conveyor with Standard Tails

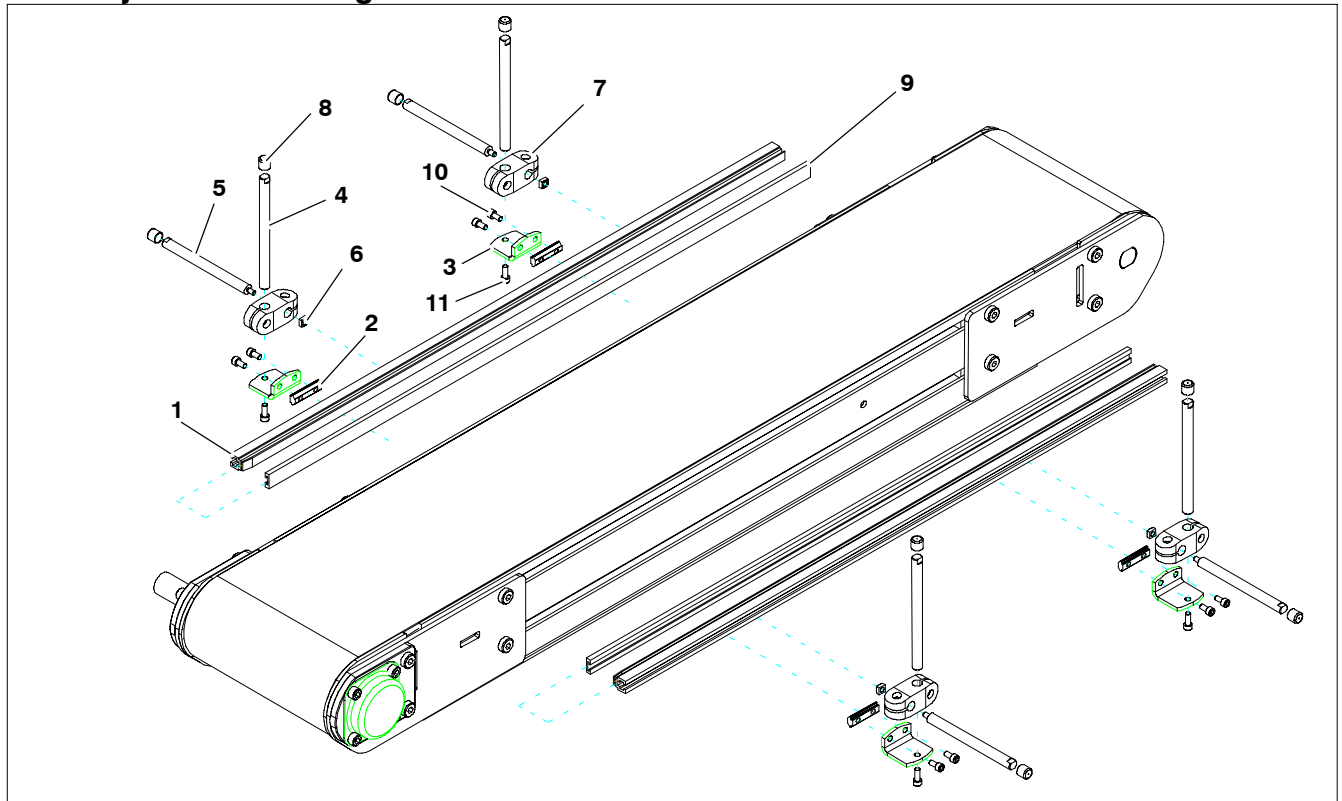
Conveyor Length = 1733

Tail Factor = 00200

$$\text{\# of Sections (round up)} = \frac{(1733 - 0100)}{1200} = 1.36 = 2 \text{ Sections}$$

$$\text{LLLLL} = \frac{(1733 \times 12) - 00200}{2} = 10298$$

-13 Adjustable Guiding

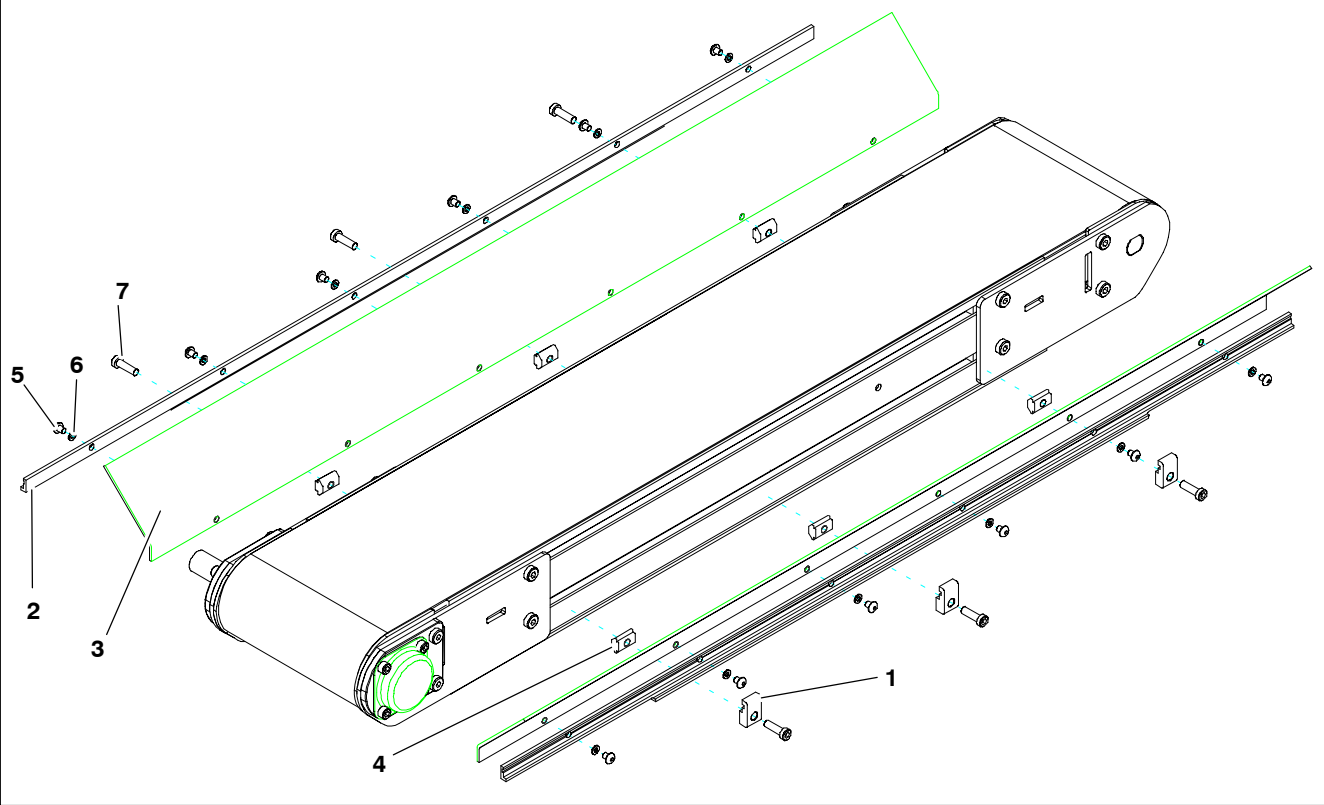


Item	Part Number	Description
1	202983	Aluminum Profile Guide 2' (610mm)
	202984	Aluminum Profile Guide 3' (914mm)
	202985	Aluminum Profile Guide 4' (1219mm)
	202986	Aluminum Profile Guide 5' (1524mm)
	202987	Aluminum Profile Guide 6' (1829mm)
	202988	Aluminum Profile Guide 7' (2134mm)
	202989	Aluminum Profile Guide 8' (2438mm)
	202990	Aluminum Profile Guide 9' (2743mm)
	202991	Aluminum Profile Guide 10' (3048mm)
	202992	Aluminum Profile Guide 11' (3353mm)
	202993	Aluminum Profile Guide 12' (3658mm)
	202994	Aluminum Profile Guide 13' (3962mm)

2	200830M	Drop-In Tee Bar
3	202004	Mounting Bracket
4	202027M	Guide Mounting Shaft Vertical
5	202028M	Guide Mounting Shaft Horizontal
6	674175MP	Square Nut
7	807-652	Cross Block
8	807-948	Vinyl Shaft Cap
9	614068P	Flat Extruded Guide (per foot)
10	920612M	Socket Head Screw M6 x 12mm
11	920616M	Socket Head Screw M6 x 16mm

Service Parts

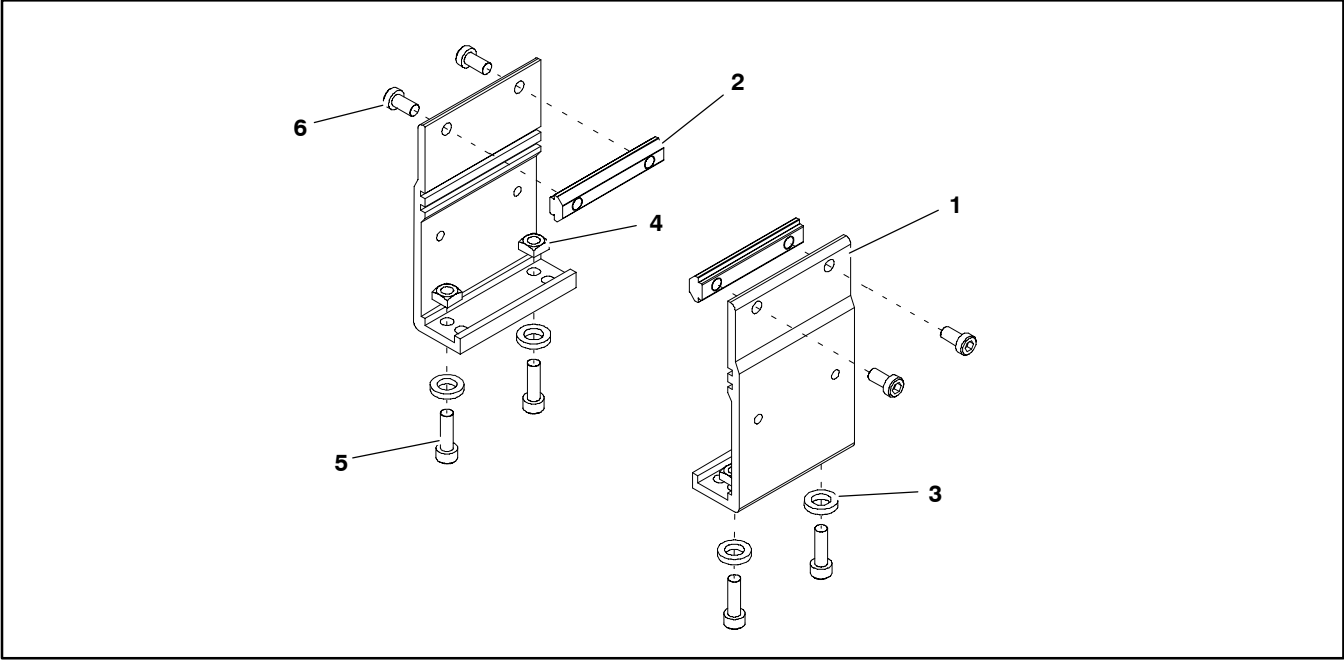
Flared Side Guiding



Item	Part Number	Description
1	200121	Guide Retaining Clip
2	202212	Side-Flare Mounting Guide 2' (610mm)
	202213	Side-Flare Mounting Guide 3' (914mm)
	202214	Side-Flare Mounting Guide 4' (1219mm)
	202215	Side-Flare Mounting Guide 5' (1524mm)
	202216	Side-Flare Mounting Guide 6' (1829mm)

3	202522M	Flared Guide 45° 2' (610mm)
	202523M	Flared Guide 45° 3' (914mm)
	202524M	Flared Guide 45° 4' (1219mm)
	202525M	Flared Guide 45° 5' (1524mm)
	202526M	Flared Guide 45° 6' (1829mm)
4	639971	Drop-In Tee Bar
5	910506M	Button Head Screw M5 x 6mm
6	911-512	Washer
7	920694M	Cap Low-Head Screw M6 x 20mm

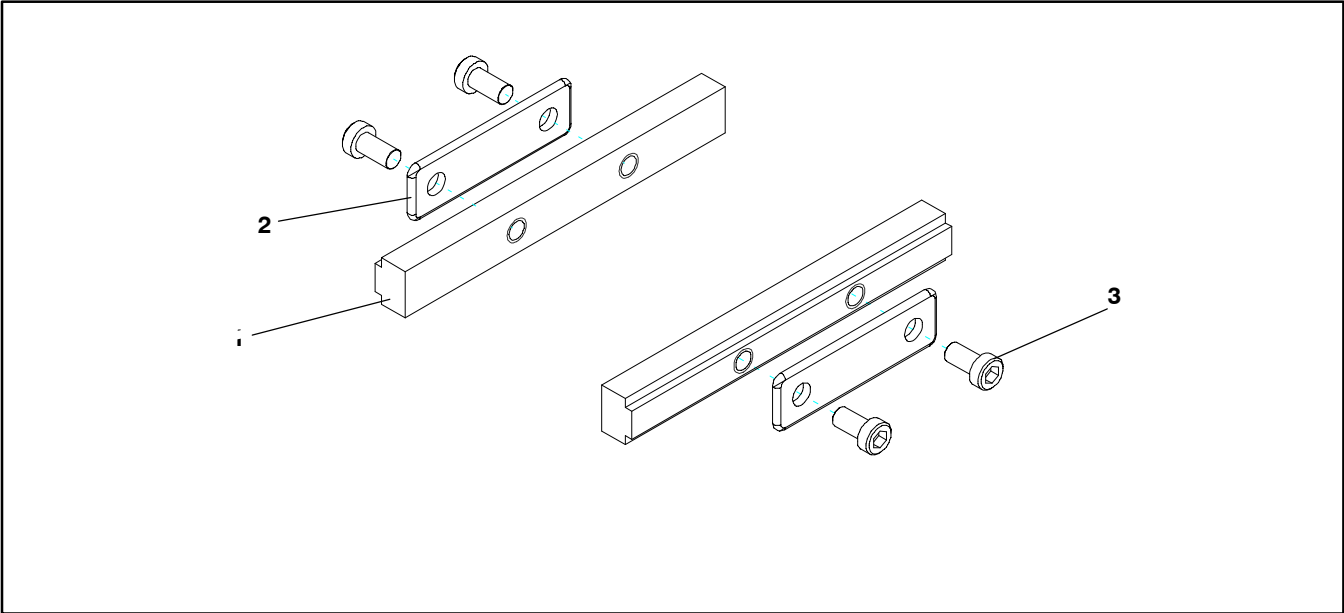
Flat Belt Mounting Brackets



Item	Part Number	Description
1	240831	Stand Mount
2	300150M	Drop-In Tee Bar
3	605279P	Washer

4	807-920	Square Nut M6 5mm x 10mm
5	920620M	Socket Head Screw M6 x 20mm
6	920692M	Socket Head Screw M6 x 12mm

Connecting Assembly without Stand Mount

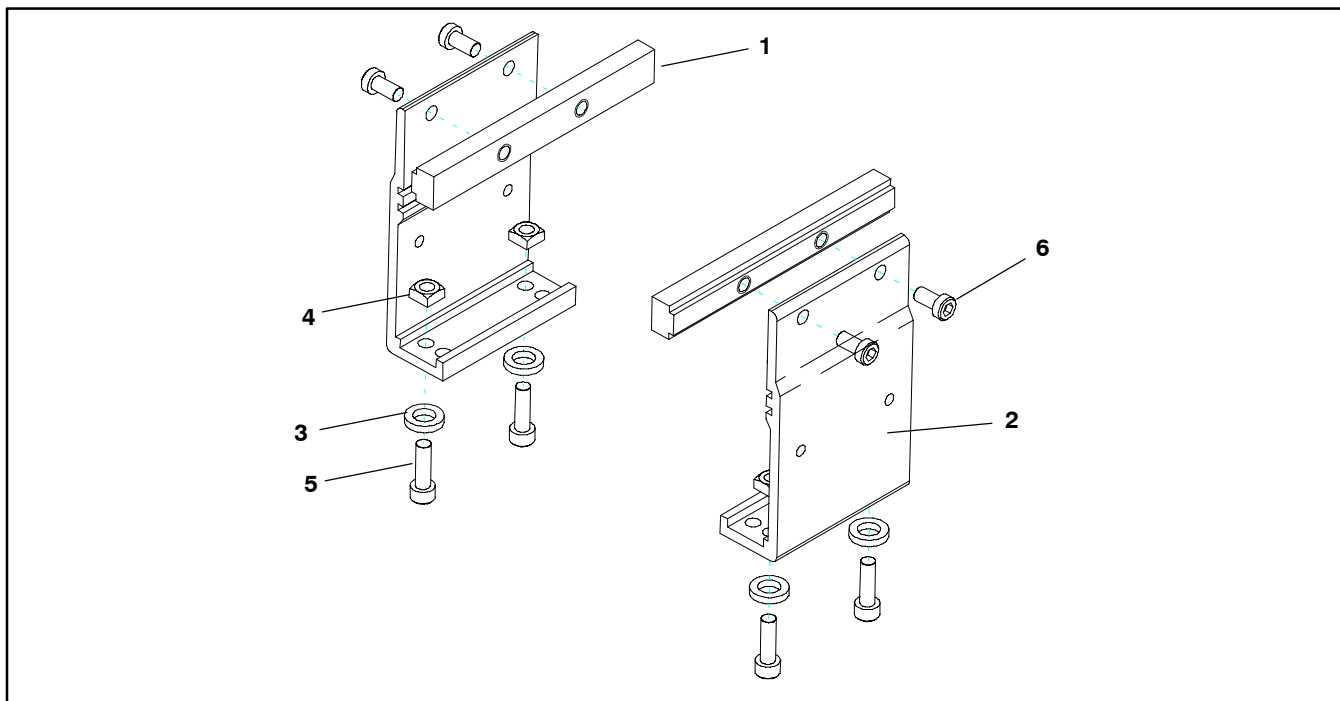


Item	Part Number	Description
1	240858	Frame Bar Connector

2	240859	Intermediate Clamp Plate
3	920692M	Socket Head Screw M6 x 12mm

Service Parts

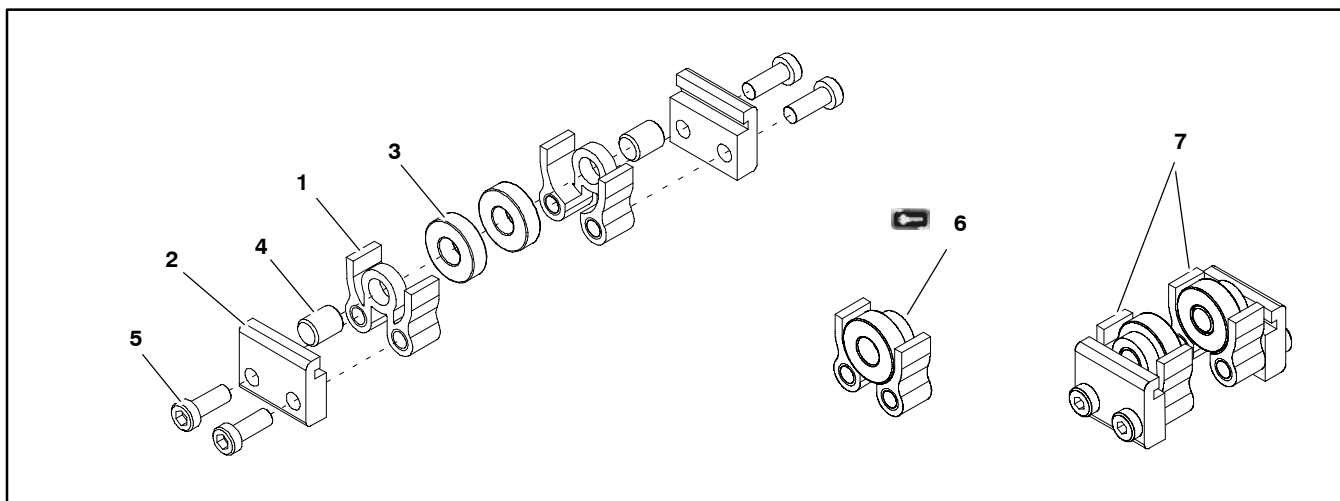
Flat Belt Connecting Assembly with Stand Mount




Item	Part Number	Description
1	240858	Frame Connector Bar
2	240837	Stand Mount Joint
3	605279P	Washer

4	807-920	Square Nut M6 5mm x 10mm
5	920620M	Socket Head Screw M6 x 20mm
6	920692M	Socket Head Screw M6 x 12mm

4" (102mm) to 6" (152mm) Flat Belt Return Roller



Item	Part Number	Description
1	240825	Return Roller Guard – Short
2	240827	Return Roller Clip
3	802-027	Bearing
4	913-100	Dowel Pin

5	920693M	Socket Low Head Screw M6 x 16mm
6	 240840	Roller Assembly (Includes Items 1, 3 and 4)
7	240830	4" (102mm) to 6" (152mm) Flat Belt Return Roller Assy

Service Parts

Conveyor Belt Part Number Configuration

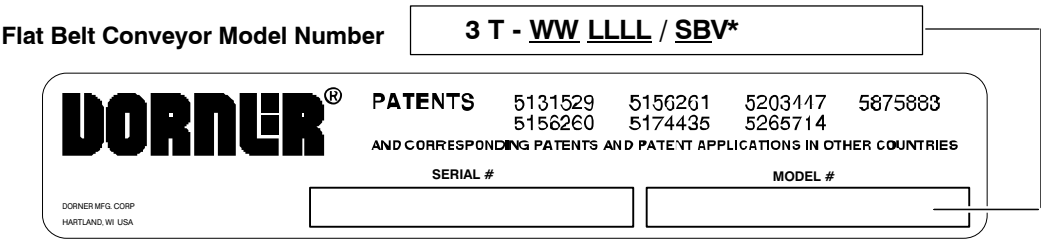
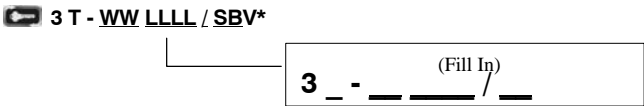


Figure 93

Flat Belt Part Number Configuration

Refer to Dorner patent plate (Figure 93). From the model number, determine tail type (“T”), width (“WW”), length (“LLLL”), splice type (“SS”) and belt type (“B”). Use data to configure belt part number as indicated below. * Add “V” for V-guided belts.



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®

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