3200 Series Version 2 Conveyors

Installation, Maintenance & Parts Manual

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851-781 Rev. C

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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, 6,298,981, 6,971,509, 6,901,571, 6,871,737, 6,871,737B2, 6,910,571B1, 6,971,509B2, 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 .

⚠ WARNING

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

⚠ DANGER

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

⚠ DANGER

DO NOT OPERATE CONVEYORS IN AN EXPLOSIVE ENVIRONMENT.

⚠ WARNING

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

⚠ WARNING

Gearmotors may be HOT.

DO NOT TOUCH Gearmotors.

⚠ WARNING

Dorner cannot control the physical installation and application of conveyors. Taking protective measures is the responsibility of the user.

When conveyors are used in conjunction with other equipment or as part of a multiple conveyor system, CHECK FOR POTENTIAL PINCH POINTS and other mechanical hazards before system start-up.

⚠ WARNING

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

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

Product Description

Typical Conveyor Components 1:

1	Conveyor
2	Gearmotor Mounting Package
3	Gearmotor
4	Guiding & Accessories
5	Mounting Brackets
6	Return Rollers
7	Support Stand
8	Variable Speed Controller
9	Drive End
10	Idler/Tension End

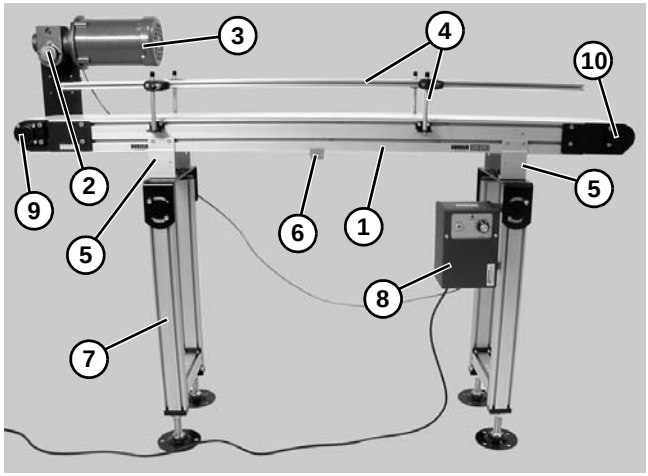


Figure 1

Typical iDrive Control Components 2:

1	Speed Control
2	On/Off Switch
3	Direction Switch
4	Power Input Jack

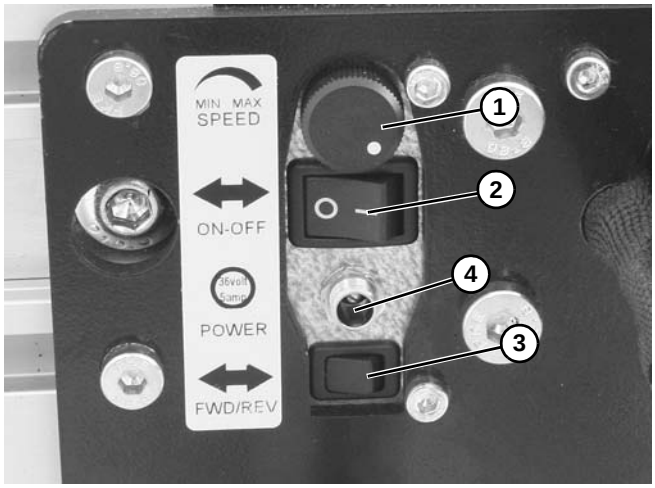
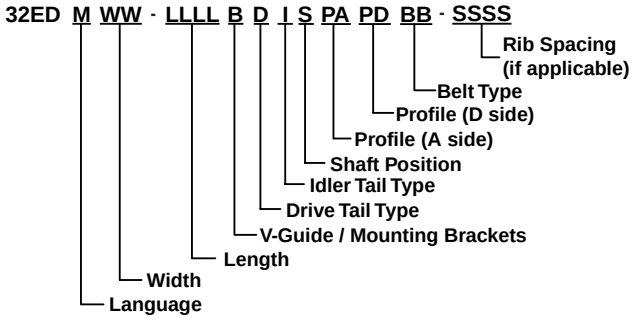


Figure 2

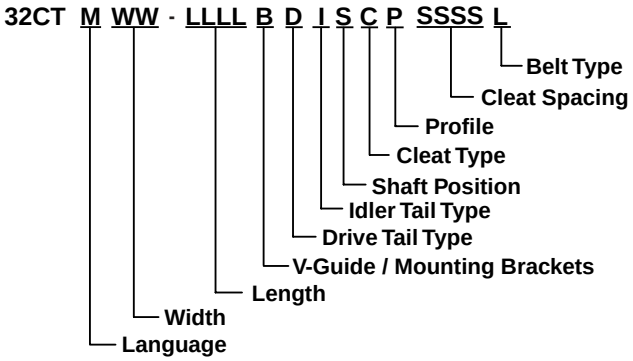
Specifications

Models:

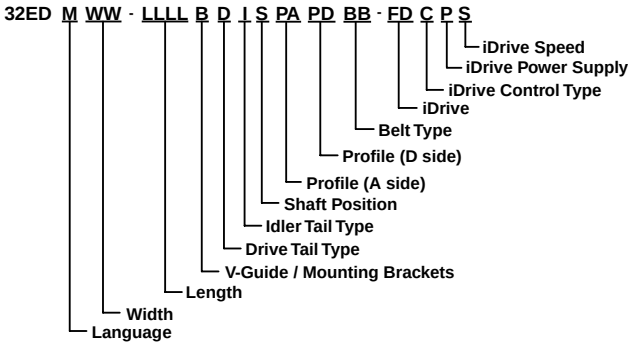
Flat Belt 3200 Series End Drive Conveyor



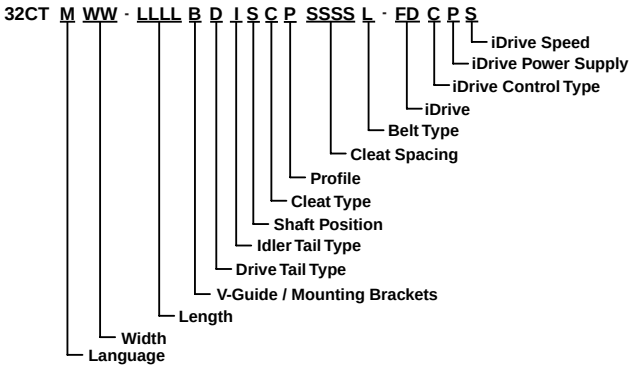
Cleated Belt 3200 Series End Drive Conveyor



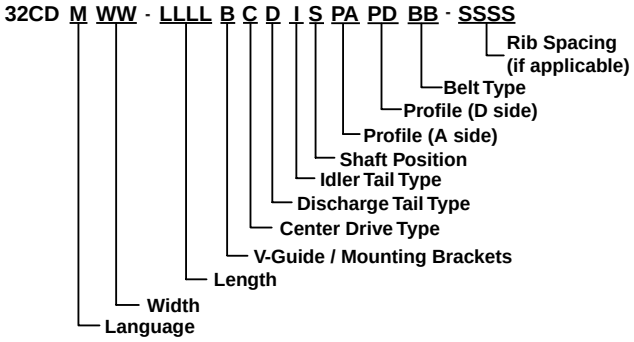
Flat Belt 3200 Series iDrive Conveyor



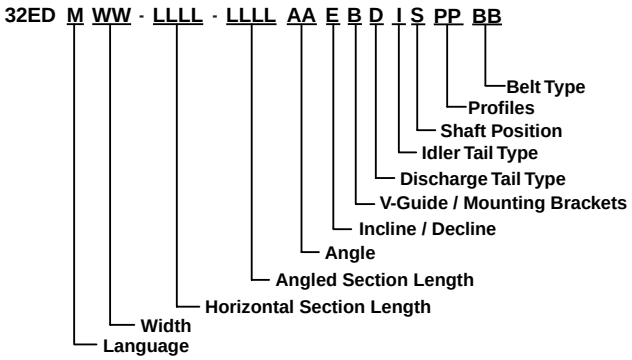
Cleated Belt 3200 Series iDrive Conveyor



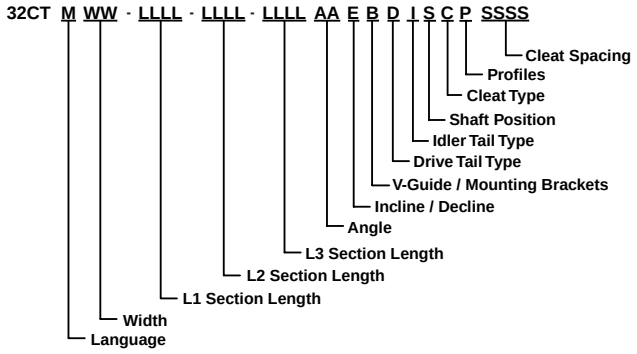
Flat Belt 3200 Series Center Drive Conveyor



Flat Belt 3200 Series End Drive Z-Frame Conveyor



Cleated Belt 3200 Series End Drive Z-Frame Conveyor



* See Ordering and Specifications Catalog for details.

Specifications

Conveyor Supports

End Drive and iDrive Conveyor Supports

Maximum Distances:

1 = 24" (610 mm) (Drive End)

2 = 12 ft (3658 mm)

3 = 36" (914 mm) (Idler End)

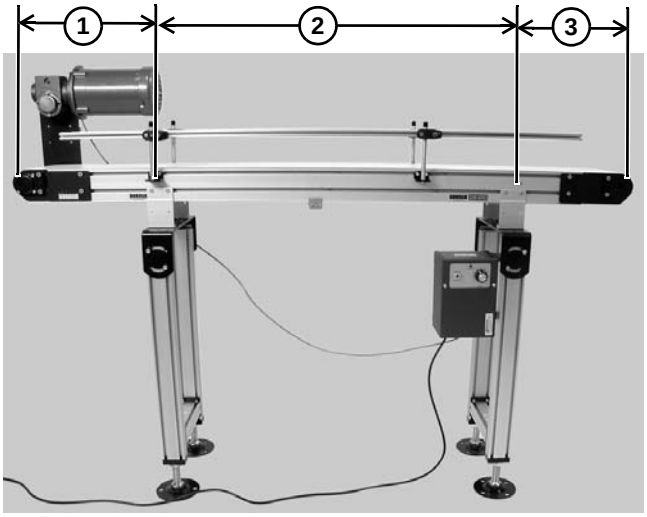


Figure 3

Center Drive Conveyor Supports

Maximum Distances:

1 = 36" (914 mm) (Infeed End)

2 = 12 ft (3658 mm)

3 = 36" (914 mm) (Discharge End)

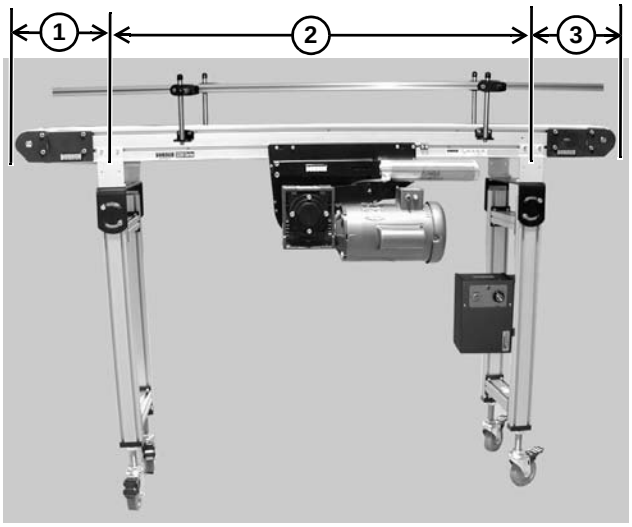


Figure 4

Flat Belt Z-Frame Conveyor Supports

Maximum Distances:

1 = 24" (610 mm) (Drive End)

2 = 12 ft (3658 mm)

3 = 36" (914 mm) (Idler End)

Maximum Angle:

4 = 5 to 20 degrees

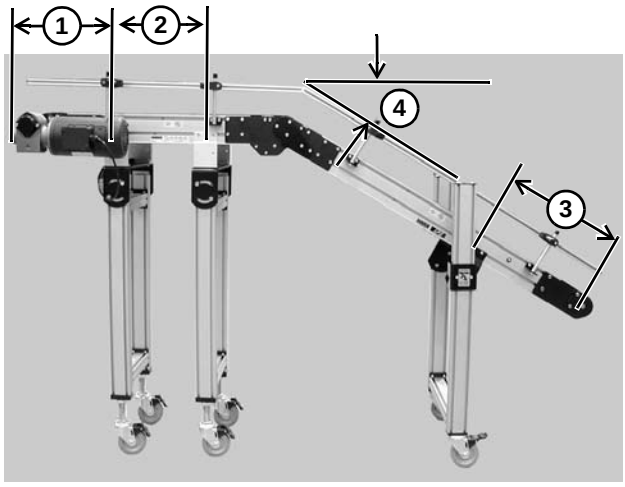


Figure 5

Cleated Belt Z-Frame Conveyor Supports

Maximum Distances:

1 = 24" (610 mm) (Drive End)

2 = 12 ft (3658 mm)

3 = 36" (914 mm) (Idler End)

Maximum Angle:

4 = 25 to 60 degrees

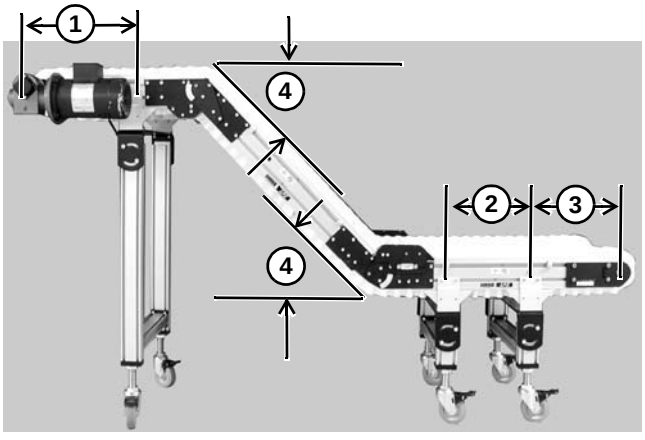


Figure 6

End Drive Conveyor Specifications

Conveyor Width Reference (WW)	04	06	08	10	12	14	16	18
Conveyor Belt Width	3.75" (95 mm)	6" (152 mm)	8" (203 mm)	10" (254 mm)	12" (305 mm)	14" (356 mm)	16" (406 mm)	18" (457 mm)
Maximum Conveyor Load* (See NOTE Below)	200 lb (91 kg)	250 lb (113 kg)	300 lb (136 kg)	350 lb (159 kg)	400 lb (181 kg)	400 lb (181 kg)	400 lb (181 kg)	400 lb (181 kg)
Conveyor Startup Torque*	7 in-lb (0.8 Nm)	8 in-lb (0.9 Nm)	10 in-lb (1.1 Nm)	13 in-lb (1.5 Nm)	15 in-lb (1.7 Nm)	18 in-lb (2.0 Nm)	22 in-lb (2.5 Nm)	25 in-lb (2.8 Nm)
Conveyor Length Reference (LLLL)	0300 to 4000 in 0001 increments							
Conveyor Length	3 ft (914 mm) to 40 ft (12192 mm) in 0.12" (0.31 mm) increments							
Belt Travel	9.7" (246 mm) per revolution of pulley							
Maximum Belt Speed*	421 ft/minute (128 m/minute)							
Belt Takeup	1.62" (41 mm) of Belt Takeup on Conveyors Under 20' Length 3.24" (82 mm) of Belt Takeup on Conveyors Over 20' Length							

End Drive Conveyor Specifications (Continued)

Conveyor Width Reference (WW)	20	22	24	26	28	30	32	34
Conveyor Belt Width	20" (508 mm)	22" (559 mm)	24" (609 mm)	26" (660 mm)	28" (711 mm)	30" (762 mm)	32" (813 mm)	34" (864 mm)
Maximum Conveyor Load* (See NOTE Below)	400 lb (181 kg)	400 lb (181 kg)	400 lb (181 kg)	400 lb (181 kg)	400 lb (181 kg)	400 lb (181 kg)	400 lb (181 kg)	400 lb (181 kg)
Conveyor Startup Torque*	27 in-lb (3.1 Nm)	28 in-lb (3.2 Nm)	30 in-lb (3.4 Nm)	32 in-lb (3.6 Nm)	33 in-lb (3.7 Nm)	35 in-lb (3.9 Nm)	36 in-lb (4.1 Nm)	37 in-lb (4.2 Nm)
Conveyor Length Reference (LLLL)	0300 to 4000 in 0001 increments							
Conveyor Length	3 ft (914 mm) to 40 ft (12192 mm) in 0.12" (0.31 mm) increments							
Belt Travel	9.7" (246 mm) per revolution of pulley							
Maximum Belt Speed*	421 ft/minute (128 m/minute)							
Belt Takeup	1.62" (41 mm) of Belt Takeup on Conveyors Under 20' Length 3.24" (82 mm) of Belt Takeup on Conveyors Over 20' Length							

End Drive Conveyor Specifications (Continued)

Conveyor Width Reference (WW)	36	38	40	42	44	46	48
Conveyor Belt Width	36" (915 mm)	38" (965 mm)	40" (1016 mm)	42" (1067 mm)	44" (1118 mm)	46" (1168 mm	48" (1220 mm)
Maximum Conveyor Load* (See NOTE Below)	400 lb (181 kg)	400 lb (181 kg)	400 lb (181 kg)	400 lb (181 kg)	400 lb (181 kg)	400 lb (181 kg)	400 lb (181 kg)
Conveyor Startup Torque*	38 in-lb (4.3 Nm)	38 in-lb (4.3 Nm)	39 in-lb (4.4 Nm)	39 in-lb (4.4 Nm)	39 in-lb (4.4 Nm)	40 in-lb (4.5 Nm)	40 in-lb (4.5 Nm)
Conveyor Length Reference (LLLL)	0300 to 4000 in 0001 increments						
Conveyor Length	3 ft (914 mm) to 40 ft (12192 mm) in 0.12" (0.31 mm) increments						
Belt Travel	9.7" (246 mm) per revolution of pulley						
Maximum Belt Speed*	421 ft/minute (128 m/minute)						
Belt Takeup	1.62" (41 mm) of Belt Takeup on Conveyors Under 20' Length 3.24" (82 mm) of Belt Takeup on Conveyors Over 20' Length						

* See Ordering and Specifications Catalog for details.

Specifications

iDrive Conveyor Specifications

Conveyor Width Reference (WW)	06	08	10	12	14	16	18	20	22	24
Conveyor Belt Width	6” (152mm)	8” (203mm)	10” (254mm)	12” (305mm)	14” (356mm)	16” (406mm)	18” (457mm)	20” (508mm)	22” (559mm)	24” (609mm)
Maximum Conveyor Load	See iDrive Load Capacity Chart Below									
Conveyor Startup Torque*	13 in-lb (1.5 Nm)	17 in-lb (1.9 Nm)	22 in-lb (2.5 Nm)	25 in-lb (2.8 Nm)	29 in-lb (3.3 Nm)	33 in-lb (3.7 Nm)	41 in-lb (4.6 Nm)	43 in-lb (4.9 Nm)	48 in-lb (5.4 Nm)	50 in-lb (5.6 Nm)
Conveyor Length Reference (LLLL)	0300 to 1200 in 0001 increments									
Conveyor Length	3 ft (914 mm) to 12 ft (3658 mm) in 0.12” (0.31 mm) increments									
Belt Travel	9.7” (246 mm) per revolution of pulley									
Maximum Belt Speed*	171 ft/minute (52 m/minute)									
Belt Takeup	1.62” (41 mm) of Belt Takeup on Conveyors Under 12’ Length									

* See Ordering and Specifications Catalog for details.

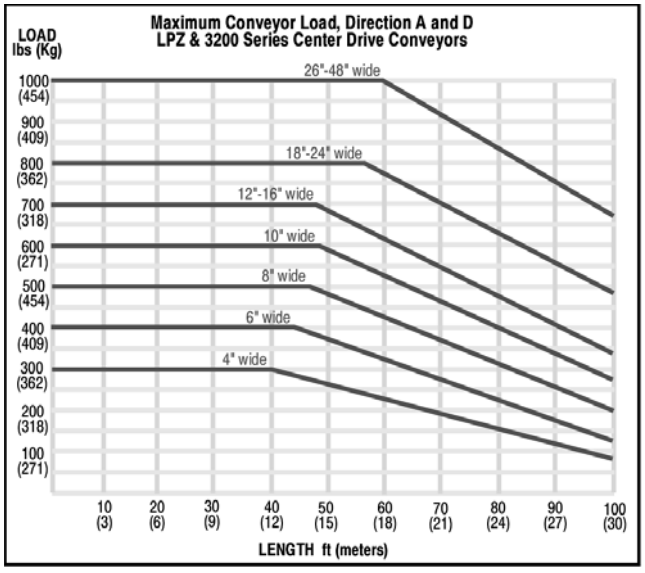
iDrive Load Capacity (lbs)

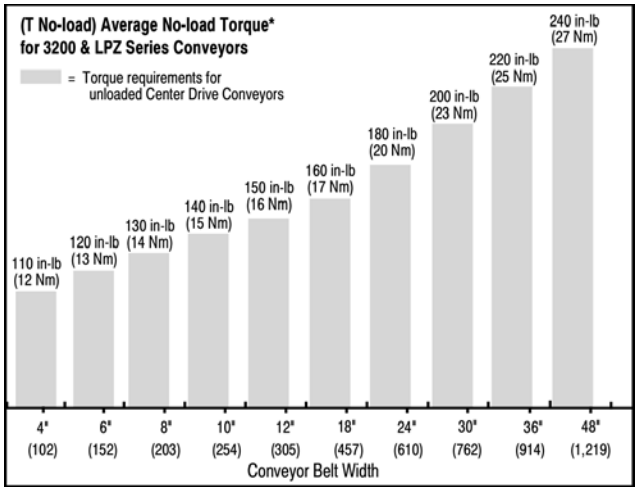
Conveyor Width	High Speed Motor	Medium Speed Motor	Low Speed Motor
6” (152mm)	46	63	115
8” (203mm)	43	60	111
10” (254mm)	37	54	106
12” (305mm)	34	51	103
14” (356mm)	30	47	98
16” (406mm)	25	42	94
18” (457mm)	16	34	85
20” (508mm)	14	31	83
22” (559mm)	10	27	78
24” (610mm)	8	25	76

iDrive Motor Specifications

	High Speed	**Medium Speed**	**Low Speed**
Output Power	150 watt	150 watt	150 watt
Motor Voltage	36 volt DC, 4 amp	36 volt DC, 4 amp	36 volt DC, 4 amp
Transformer Voltage	100-240 VAC, 50/60 Hz	100-240 VAC, 50/60 Hz	100-240 VAC, 50/60 Hz
Gearmotor Ratio	15:1	15:1	25:1
Motor Type	Brushless DC	Brushless DC	Brushless DC
Belt Speeds	27-171 Ft./Min., High Speed	21-133 Ft./Min., Medium Speed	15-80 Ft./Min., Low Speed
Duty Cycle	Continuous Rated	Continuous Rated	Continuous Rated
Index Capacity	30 times / Min.	30 times / Min.	30 times / Min.

Center Drive Conveyor Specifications





Center Drive Specifications

Conveyor Width Reference (WW)	04	06	08	10	12	14	16	18
Conveyor Belt Width	3.75" (95 mm)	6" (152 mm)	8" (203 mm)	10" (254 mm)	12" (305 mm)	14" (356 mm)	16" (406 mm)	18" (457 mm)
Conveyor Length Reference (LLLL)	0400 to 9900 in 0001 increments							
Conveyor Length	18.8" (478 mm) per revolution of pulley							
Belt Travel	4 ft (1219 mm) to 99 ft (30175 mm) in 0.12" (0.31 mm) increments							
Maximum Belt Speed*	600 ft/minute (183 m/minute)							
Belt Takeup	16" (407 mm) of Belt Takeup							

Center Drive Specifications (Continued)

Conveyor Width Reference (WW)	20	22	24	26	28	30	32	34
Conveyor Belt Width	20" (508 mm)	22" (559 mm)	24" (609 mm)	26" (660 mm)	28" (711 mm)	30" (762 mm)	32" (813 mm)	34" (864 mm)
Conveyor Length Reference (LLLL)	0400 to 9900 in 0001 increments							
Conveyor Length	18.8" (478 mm) per revolution of pulley							
Belt Travel	4 ft (1219 mm) to 99 ft (30175 mm) in 0.12" (0.31 mm) increments							
Maximum Belt Speed*	600 ft/minute (183 m/minute)							
Belt Takeup	16" (407 mm) of Belt Takeup							

Center Drive Specifications (Continued)

Conveyor Width Reference (WW)	36	38	40	42	44	46	48
Conveyor Belt Width	36" (915 mm)	38" (965 mm)	40" (1016 mm)	42" (1067 mm)	44" (1118 mm)	46" (1168 mm)	48" (1220 mm)
Conveyor Length Reference (LLLL)	0400 to 9900 in 0001 increments						
Conveyor Length	18.8" (478 mm) per revolution of pulley						
Belt Travel	4 ft (1219 mm) to 99 ft (30175 mm) in 0.12" (0.31 mm) increments						
Maximum Belt Speed*	600 ft/minute (183 m/minute)						
Belt Takeup	16" (407 mm) of Belt Takeup						

* See Ordering and Specifications Catalog for details.

Specifications

Flat Belt Z-Frame Conveyor Specifications

Conveyor Width Reference (WW)	04	06	08	10	12	14	16	18
Conveyor Belt Width	3.75” (95 mm)	6” (152 mm)	8” (203 mm)	10” (254 mm)	12” (305 mm)	14” (356 mm)	16” (406 mm)	18” (457 mm)
Maximum Conveyor Load* (See NOTE Below)	42 lb (19 kg)	60 lb (27 kg)	70 lb (32 kg)	80 lb (36 kg)	80 lb (36 kg)	80 lb (36 kg)	80 lb (36 kg)	80 lb (36 kg)
Conveyor Start-up Torque*	6 in-lb (0.7 Nm)	8 in-lb (0.9 Nm)	10 in-lb (1.1 Nm)	12 in-lb (1.4 Nm)	14 in-lb (1.5 Nm)	14 in-lb (1.5 Nm)	15 in-lb (1.7 Nm)	15 in-lb (1.7 Nm)
Conveyor Section Length Reference (LLLL)	0200 to 3800 in 0001 increments (2 ft to 38 ft in 0.12” increments)							
Total Conveyor Length	4 ft (1219 mm) to 40 ft (12192 mm) in 0.12” (0.31 mm) increments							
Belt Travel	9.7” (246 mm) per revolution of pulley							
Maximum Belt Speed*	421 ft/minute (128 m/minute)							
Belt Takeup	1.62” (41 mm) of Belt Takeup on Conveyors Under 20’ Length 3.24” (82 mm) of Belt Takeup on Conveyors Over 20’ Length							

Flat Belt Z-Frame Conveyor Specifications (Continued)

Conveyor Width Reference (WW)	20	22	24	26	28	30	32	34
Conveyor Belt Width	20” (508 mm)	22” (559 mm)	24” (609 mm)	26” (660 mm)	28” (711 mm)	30” (762 mm)	32” (813 mm)	34” (864 mm)
Maximum Conveyor Load* (See NOTE Below)	80 lb (36 kg)	80 lb (36 kg)	400 lb (181kg)	400 lb (181kg)	400 lb (181kg)	400 lb (181kg)	400 lb (181kg)	400 lb (181kg)
Conveyor Start-up Torque*	20 in-lb (2.3 Nm)	25 in-lb (2.8 Nm)	30 in-lb (3.4 Nm)	32 in-lb (3.6 Nm)	33 in-lb (3.7 Nm)	35 in-lb (3.9 Nm)	36 in-lb (4.1 Nm)	37 in-lb (4.2 Nm)
Conveyor Section Length Reference (LLLL)	0200 to 3800 in 0001 increments (2 ft to 38 ft in 0.12” increments)							
Total Conveyor Length	4 ft (1219 mm) to 40 ft (12192 mm) in 0.12” (0.31 mm) increments							
Belt Travel	9.7” (246 mm) per revolution of pulley							
Maximum Belt Speed*	421 ft/minute (128 m/minute)							
Belt Takeup	1.62” (41 mm) of Belt Takeup on Conveyors Under 20’ Length 3.24” (82 mm) of Belt Takeup on Conveyors Over 20’ Length							

Flat Belt Z-Frame Conveyor Specifications (Continued)

Conveyor Width Reference (WW)	36	38	40	42	44	46	48
Conveyor Belt Width	36" (915 mm)	38" (965 mm)	40" (1016 mm)	42" (1067 mm)	44" (1118 mm)	46" (1168 mm)	48" (1220 mm)
Maximum Conveyor Load* (See NOTE Below)	400 lb (181kg)	400 lb (181kg)	400 lb (181kg)	400 lb (181kg)	400 lb (181kg)	400 lb (181kg)	400 lb (181kg)
Conveyor Start-up Torque*	38 in-lb (4.3 Nm)	38 in-lb (4.3 Nm)	39 in-lb (4.4 Nm)	39 in-lb (4.4 Nm)	39 in-lb (4.4 Nm)	40 in-lb (4.5 Nm)	40 in-lb (4.5 Nm)
Conveyor Section Length Reference (LLLL)	0200 to 3800 in 0001 increments (2 ft to 38 ft in 0.12" increments)						
Total Conveyor Length	4 ft (1219 mm) to 40 ft (12192 mm) in 0.12" (0.31 mm) increments						
Belt Travel	9.7" (246 mm) per revolution of pulley						
Maximum Belt Speed*	421 ft/minute (128 m/minute)						
Belt Takeup	1.62" (41 mm) of Belt Takeup on Conveyors Under 20' Length 3.24" (82 mm) of Belt Takeup on Conveyors Over 20' Length						

Cleated Belt Z-Frame Conveyor Specifications

Conveyor Width Reference (WW)	08	10	12	14	16	18	20	22	24
Conveyor Belt Width	8" (203 mm)	10" (254 mm)	12" (305 mm)	14" (356 mm)	16" (406 mm)	18" (457 mm)	20" (508 mm)	22" (559 mm)	24" (610 mm)
Conveyor Startup Torque*	10 in-lb (1.1 Nm)	13 in-lb (1.5 Nm)	15 in-lb (1.7 Nm)	18 in-lb (2.0 Nm)	22 in-lb (2.5 Nm)	25 in-lb (2.8 Nm)	28 in-lb (3.2 Nm)	31 in-lb (3.5 Nm)	34 in-lb (3.9 Nm)
Conveyor Section Length Reference (LLLL)	0200 to 1300 in 0001 increments (2 ft to 13 ft in 0.12" increments)								
Total Conveyor Length	4 ft (1219 mm) to 25 ft (7620 mm) in 0.12" (0.31 mm) increments								
Belt Travel	9.7" (246 mm) per revolution of pulley								
Maximum Belt Speed*	275 ft/minute (84 m/minute)								
Belt Takeup	1.62" (41 mm) of Belt Takeup								

NOTE

Refer to the table provided for maximum recommended tension pinion torque values and maximum conveyor loads for different angles. Choose the appropriate value which relates to your particular requirements.

Transition Angle	Standard Cleated Belt				Sidewall Cleated Belt			
	Tension Pinion Torque		Maximum Conveyor Load		Tension Pinion Torque		Maximum Conveyor Load	
	in-lb	Nm	lb	kg	in-lb	Nm	lb	kg
25° *	25	2.8	25	11.3	50	5.6	75	34
30° *	35	3.9	50	22.7	60	6.8	100	45.4
45°	75	8.5	100	45.4	80	9.0	100	45.4
60°	75	8.5	100	45.4	80	9.0	100	45.4

* Not available on 18" & 24" (457 mm & 610 mm) width conveyors

Specifications

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

23 = 208 – 230/460 V, 3-phase

11 = 115 V, 1-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	0.4 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

⚠ WARNING

LPZ Series Conveyors are not reversible. Reversing creates pinch points which can cause severe injury.

DO NOT REVERSE LPZ SERIES CONVEYORS.

NOTE

Conveyor MUST be mounted straight, flat and level within confines of conveyor. Use a level ***(Figure 7, item 1)*** *for setup.*

Figure 7

Required Tools

- Hex-key wrenches:
  - 4 mm, 5 mm, 6 mm
- Level
- Torque wrench

Recommended Installation Sequence

- Assemble conveyor (if required)
- Attach mounting brackets to conveyor
- Attach conveyor to stands
- Install return rollers on conveyor (optional)
- Mount gearmotor mounting package (See accessory instructions)
- Attach guides/accessories (see page 54 through 78 of "Service Parts" section for details)

Conveyors Up to 13 ft (3962 mm)

No assembly is required. Install mounting brackets, stands and return rollers. Refer to "Mounting Brackets" on page 18 and "Return Rollers" on page 19.

Conveyors Longer Than 13 ft (3962 mm)

Installation Component List:

1	Conveyor frame
2	Section Label

1. Locate and arrange conveyor sections **(Figure 8, item 1)** by section labels **(Figure 8, item 2)**.

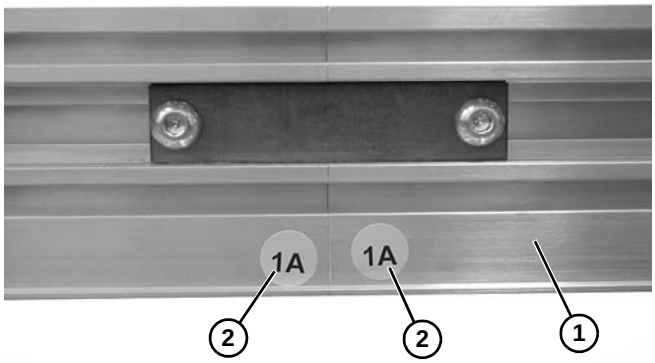


Figure 8

2. On tension end of the conveyor, identified by the pinion access slot **(Figure 9, item 1)**, loosen the two tail clamp bolts **(Figure 9, item 2)** on both sides of the conveyor, and push head plate assembly **(Figure 9, item 3)** inward.

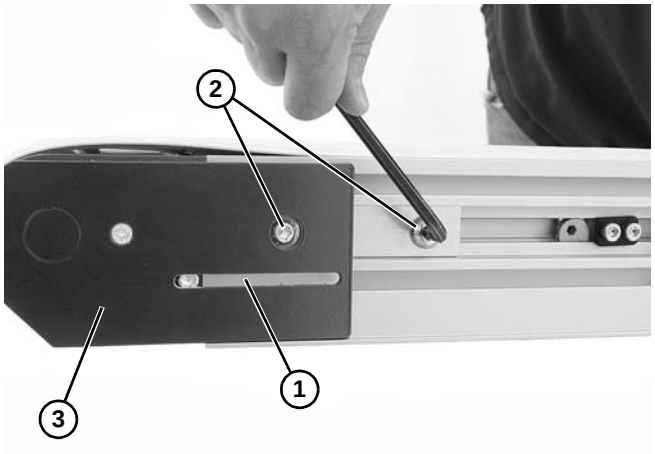


Figure 9

3. Roll out conveyor belt and place conveyor frame sections **(Figure 10, item 1)** into belt loop.

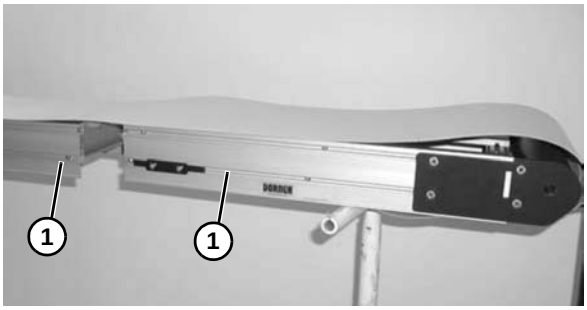


Figure 10

⚠ WARNING

SUPPORT CONVEYOR SECTIONS PRIOR TO CONNECTING FRAME SECTIONS.

4. Join conveyor sections and install connector brackets **(Figure 11, item 1)** and screws **(Figure 11, item 2)** on both sides as indicated. Tighten screws to 60 in-lb (7 Nm).

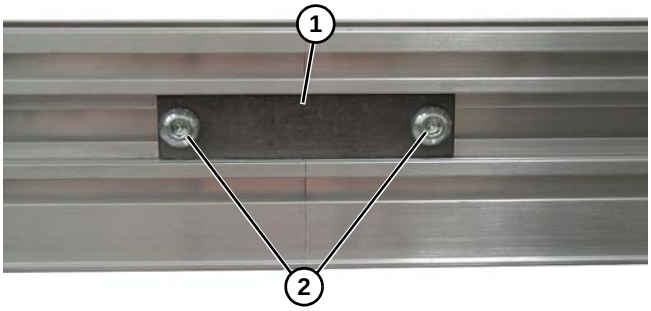


Figure 11

NOTE

For Conveyors longer than 20 ft (6096 mm) use the process outlined in the "Conveyor Belt Tensioning" section on page 31. Extend the Drive End Tail Assembly.

5. Tighten conveyor belt, refer to "Conveyor Belt Tensioning" on page 31.
6. Install mounting brackets and return rollers. Refer to "Mounting Brackets" on page 18 and "Return Roller" on page 19.

Z-Frame Knuckles

1. Roll out conveyor belt. Loosen (4) bolts **(Figure 12, item 1)** on both sides of knuckle **(Figure 12, item 2)**. Slide frame **(Figure 12, item 3)** into knuckle **(Figure 12, item 2)**. Tighten bolts **(Figure 12, item 1)** to 60 in-lb (7 N–m) on both sides of conveyor.

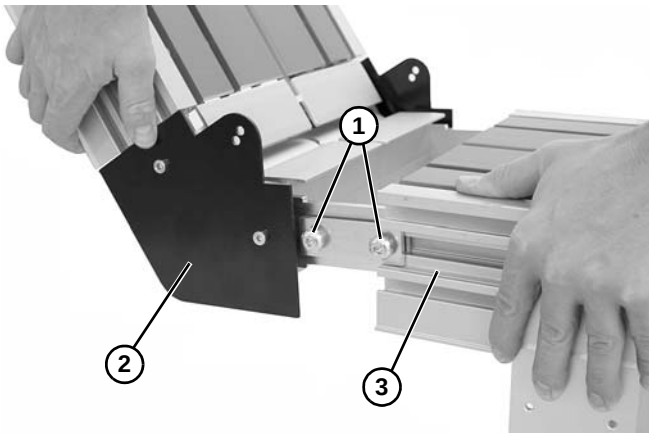


Figure 12

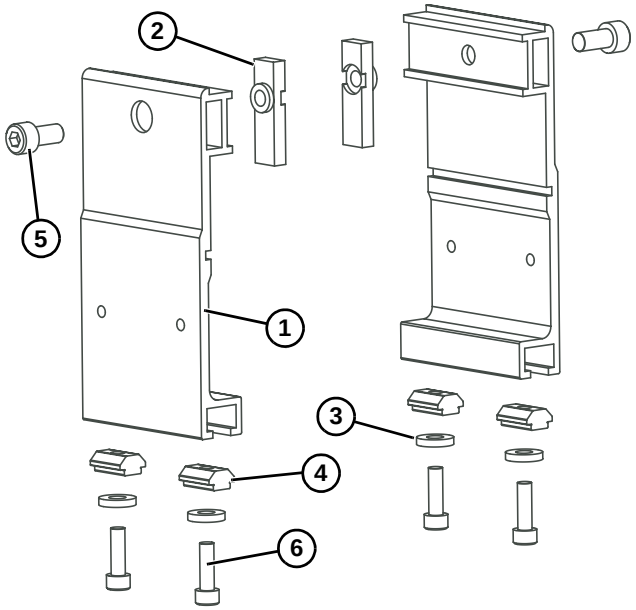
2. Join conveyor sections and install connector brackets **(Figure 11, item 1)** and screws **(Figure 11, item 2)** on both sides as indicated. Tighten screws to 60 in-lb (7 Nm).

Installation

Mounting Brackets

Typical mounting bracket components shown in (**Figure 13) & (Figure 14)**.

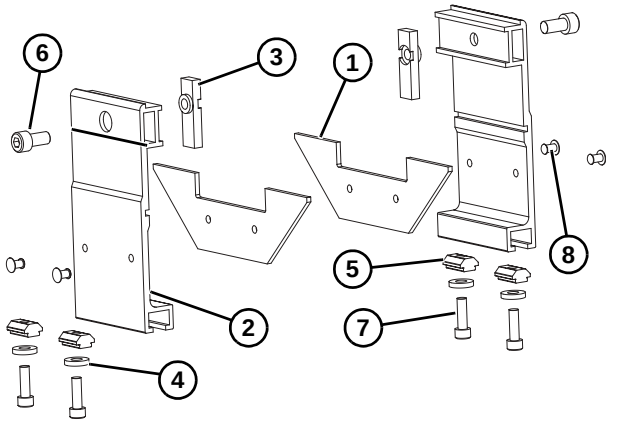
1	Stand Mount
2	Twist Nut
3	Washer
4	Single Drop-In Tee Bar (x10)
5	Socket Head Screw, M6-1.00 x 20 mm
6	Socket Head Screw, M8-1.25 x 16mm



Mounting Brackets for Flat Belt Conveyors

Figure 13

1	Cleated Mount Plate
2	Stand Mount
3	Twist Nut
4	Washer
5	Single Drop-In Tee Bar (x10)
6	Socket Head Screw, M6-1.00 x 20 mm
7	Socket Head Screw, M8-1.25 x 16mm
8	Rivet



Mounting Brackets for Cleated Belt Conveyors

Figure 14

1. Insert twist nut **(Figure 15, item 1)** into conveyor center slot **(Figure 15, item 2)**. Make sure the twist nut rotates into the "locked" position **(Figure 15, item 3)** while installing mounting brackets to the conveyor in the next step.

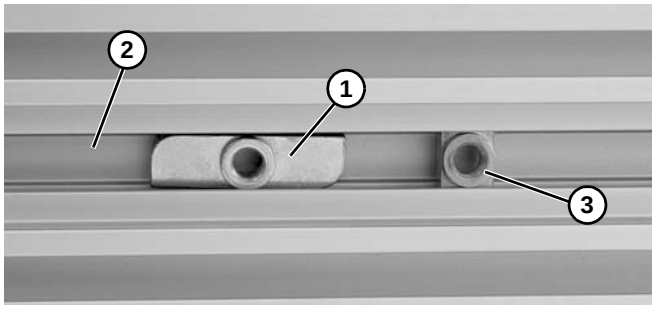


Figure 15

NOTE

Mounting brackets for flat belt conveyor shown.

2. Fasten brackets **(Figure 16, item 1)** to conveyor with mounting screws **(Figure 16, item 2)**.

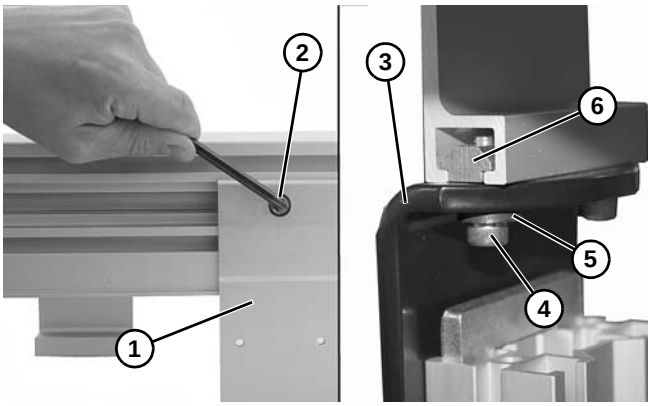


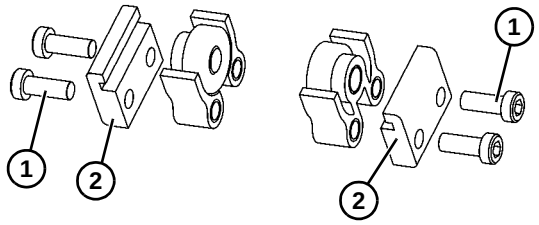
Figure 16

3. Fasten brackets to support stand **(Figure 16, item 3)** with mounting screws, washers, and nuts **(Figure 16, item 4, 5 & 6)**.
4. Tighten screws **(Figure 16, item 2)** to 60 in-lb (7 Nm).

Return Rollers

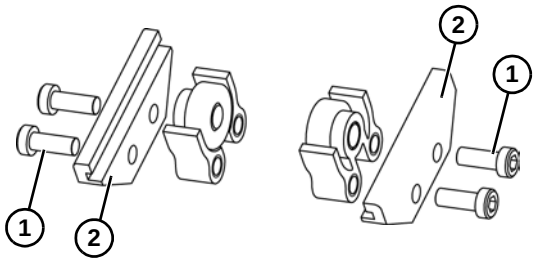
Cleated Belt and 4–6” (51–152 mm) Wide Flat Belt Conveyors

1. Locate return rollers. Exploded views shown in (**Figure 17)** & (**Figure 18)**.



Return Rollers for Flat Belt Conveyor

Figure 17



Return Rollers for Cleated Flat Belt Conveyor

Figure 18

2. Remove screws **(Figure 17, item 1)** & **(Figure 18, item 1)** and clips **(Item 2)** from roller assembly.
3. Install roller assemblies **(Figure 19, item 1)** as shown. Tighten screws **(Figure 19, item 2)** to 60 in-lb (7 Nm).

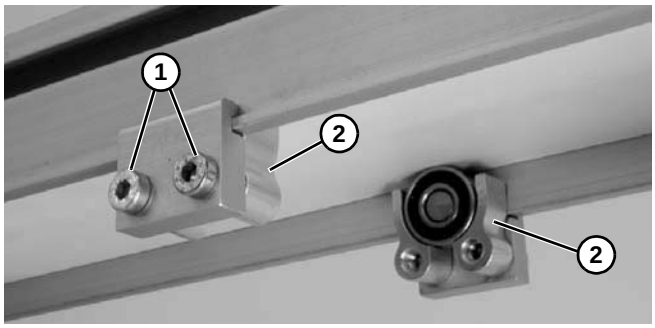


Figure 19

8–48” (203–1219 mm) Wide Flat Belt Conveyors

1. Locate return rollers. Exploded view shown in (**Figure 20)**.

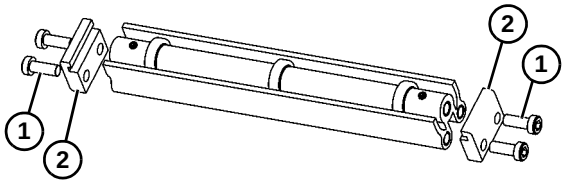


Figure 20

2. Remove screws **(Figure 20, item 1)** and clips **(Figure 20, item 2)** from roller assembly.
3. Install roller assembly as shown **(Figure 21, item 1)**. Tighten screws **(Figure 21, item 2)** to 60 in-lb (7 Nm).

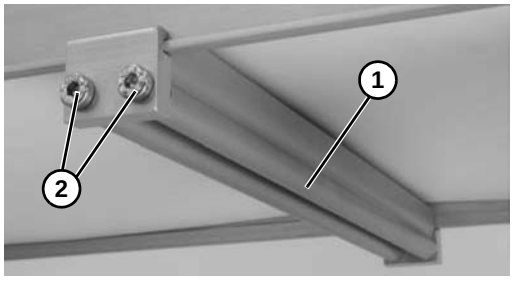


Figure 21

Installation

iDrive Wiring

⚠ WARNING

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

The 3200 series iDrive is available in 2 models:

- Cover Mounted Controls
- Remote Start Up

Cover Mounted Controls

⚠ WARNING

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

1. No wiring is required. Attach quick disconnect end of power supply to power jack **(Figure 22, item 1)**.

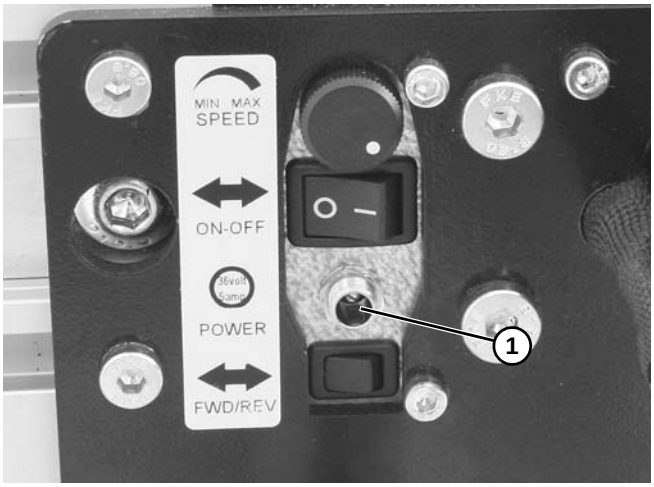


Figure 22

Flying Leads Controls

⚠ WARNING

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

1. Attach quick disconnect end of power supply to power jack **(Figure 22, item 1)**
2. Connect flying leads of unit to a realy output.

Customer Provided Power Supply

⚠ WARNING

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

1. Locate the male disconnect plug provided.
2. Wire and solder DC power to the two terminals of the provided DC power plug. Wire +VDC to the short lug **(Figure 23, item 1)** and -VDC to the long lug **(Figure 23, item 2)**.

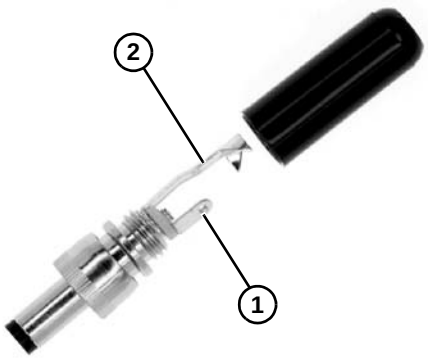


Figure 23

3. Required power is 36VDC, 4 amps minimum.

Center Drive 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 24**).

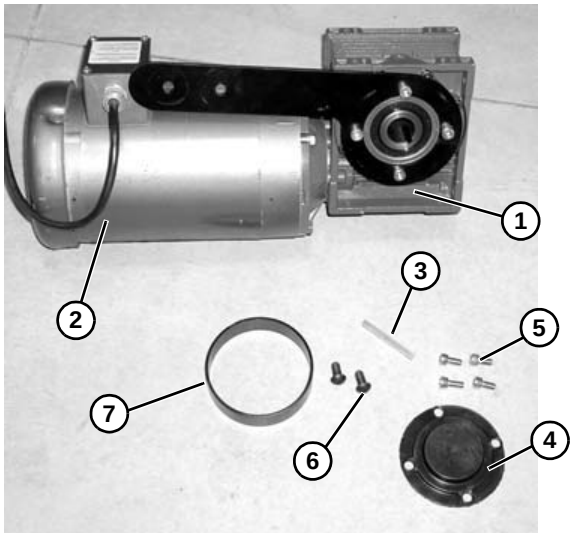


Figure 24

Gearmotor Installation Component List	
1	Gearhead with mounting bracket
2	Motor
3	Gear Reducer Key
4	Cover
5	Cover Bolts
6	Motor Mount Bolts
7	Spacer Ring

NOTE

*Gearmotor may be operated in positions 1, 3 or 4 (**Figure 25**).*

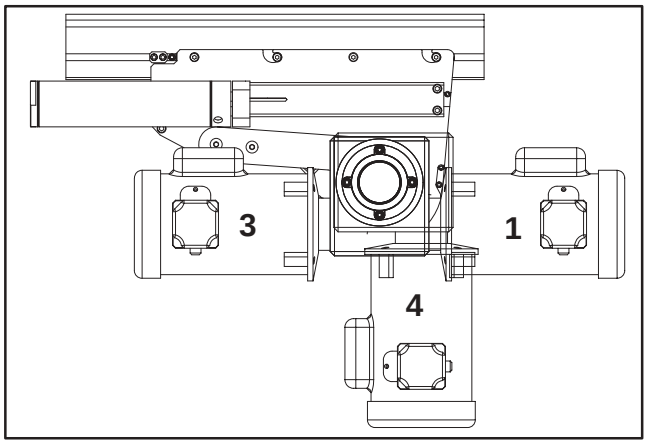


Figure 25

2. If required, change gearmotor position by removing four (4) screws **(Figure 26, item 1)**. Rotate gearmotor mounting plate to other position and replace screws (AL). Tighten to 200 in-lb (22.5 Nm).

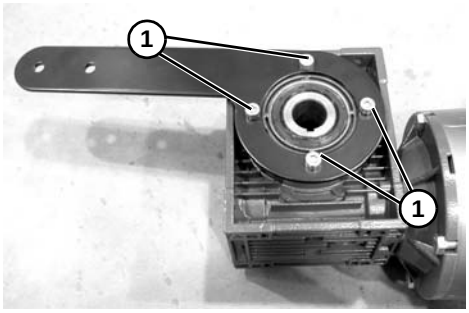


Figure 26

⚠ WARNING

Drive shaft keyway may be sharp.
HANDLE WITH CARE.

3. Install key **(Figure 27, item 1)** on drive shaft **(Figure 27, item 2)**. Install cover **(Figure 27, item 3)** over bearing housing **(Figure 27, item 4)**.

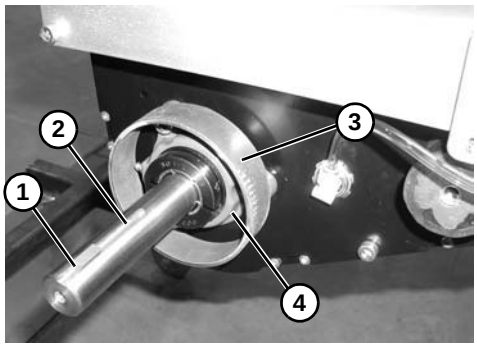


Figure 27

4. Install cover **(Figure 28, item 1)** with four (4) screws **(Figure 28, item 2)**.

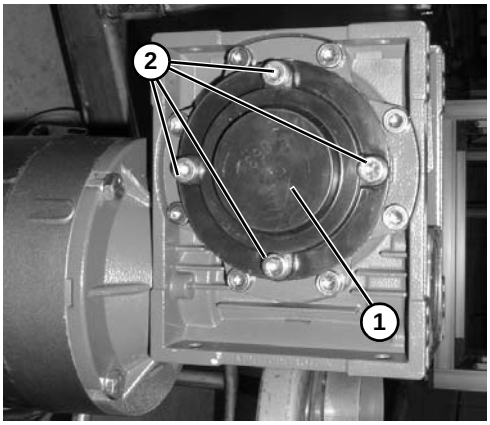


Figure 28

5. Slide gearmotor **(Figure 29, item 1)** on to drive shaft **(Figure 29, item 2)**. Tighten mounting screws **(Figure 29, item 2)** to 200 in–lbs (22.5 N–m).

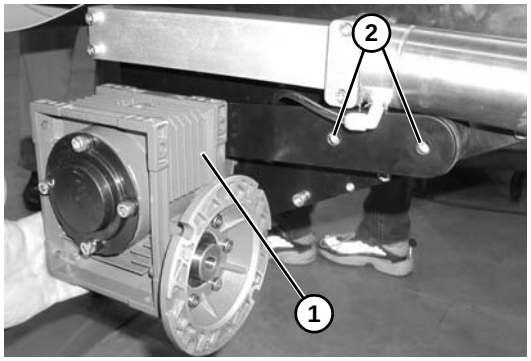


Figure 29

Required Tools

Standard Tools

- Hex-key wrenches:
  - 2.5 mm, 4 mm, 5 mm, 6 mm

Checklist

- Keep service parts on hand (see “Service Parts” section for recommendations)
- Keep supply of belt cleaner
- 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

Cleaning

Use Dorner Belt Cleaner . 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.

Conveyor Belt Replacement

⚠ WARNING

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

Conveyor Belt Replacement Sequence

- Release tension
- Remove old conveyor belt:
  - Conveyor without Stands
  - Conveyor with Stands
- Install new conveyor belt
- Tension conveyor belt

Belt Removal for Conveyor Without Stands

End Drive and iDrive Conveyors

1. If equipped, remove return rollers and guiding and accessories from one side of conveyor.
2. On tension end of the conveyor, identified by the pinion access slot **(Figure 30, item 1)**, loosen the two tail clamp bolts **(Figure 30, item 2)** on both sides of the conveyor and push head plate assembly **(Figure 30, item 3)** inward.

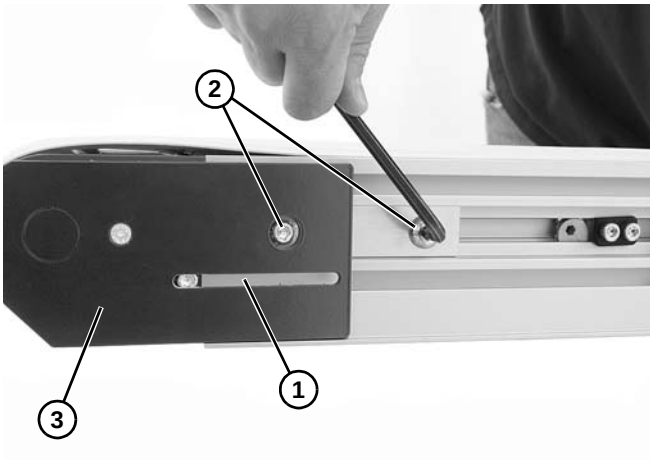


Figure 30

3. Remove belt from conveyor.

Center Drive Conveyors

1. Remove air supply and remove hose **(Figure 31, item 1)** from center drive.

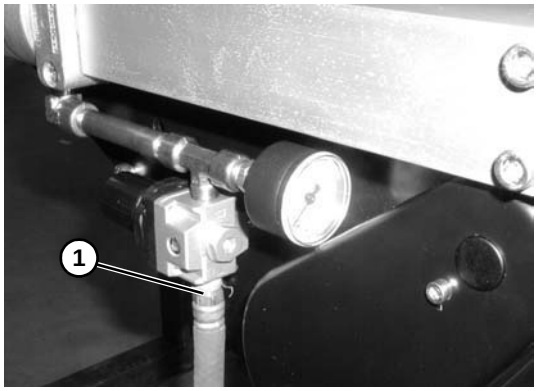


Figure 31

2. If equipped, remove return rollers and guiding and accessories from one side of conveyor.
3. Temporarily support idler guard assembly **(Figure 32, item 1)**. Remove screws **(Figure 32, item 2)**.

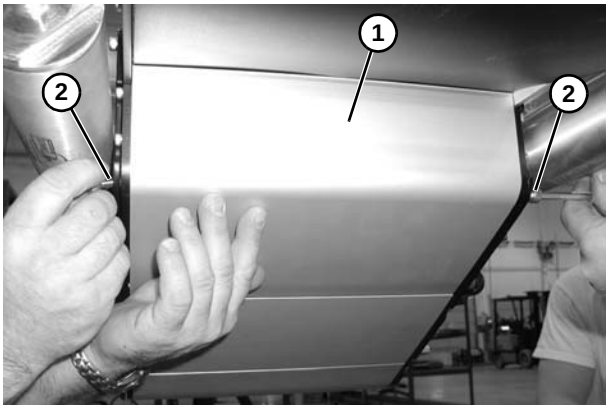


Figure 32

4. Swing down idler guard assembly **(Figure 33, item 1)**. Remove screw **(Figure 33, item 2)** from both sides of center drive and remove idler guard assembly **(Figure 33, item 1)**.

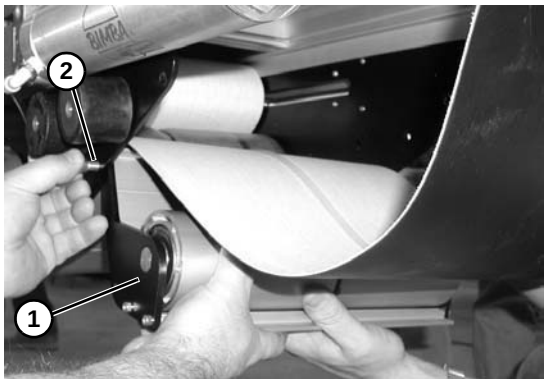


Figure 33

5. Remove screws **(Figure 34, item 1)** and tensioning guards **(Figure 34, item 2)** from both sides of center drive.

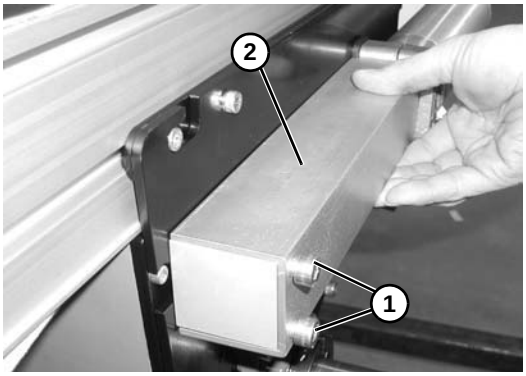


Figure 34

6. Temporarily support the tensioning roller guard **(Figure 35, item 1)**. Remove screws **(Figure 35, item 2)** on both sides of center drive and remove tensioning roller guard **(Figure 35, item 1)** and **(Figure 36, item 2)**.

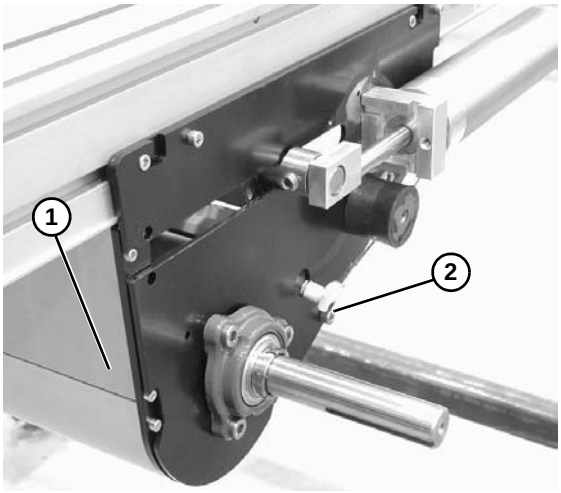


Figure 35

7. Loosen tensioning roller set screws **(Figure 36, item 1)**.

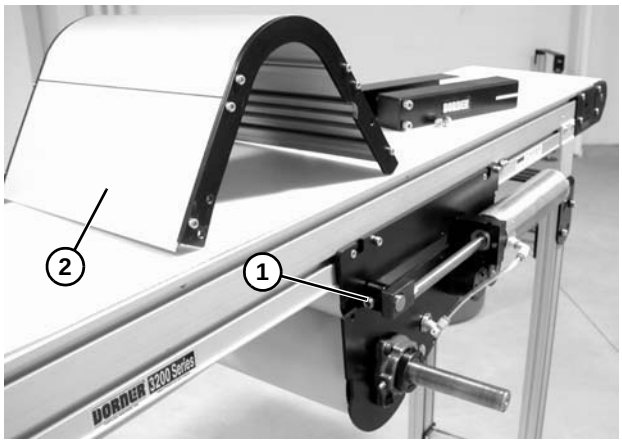


Figure 36

8. Push shaft **(Figure 37, item 1)** through block **(Figure 37, item 2)**, and slide block towards air cylinder **(Figure 37, item 3)**.

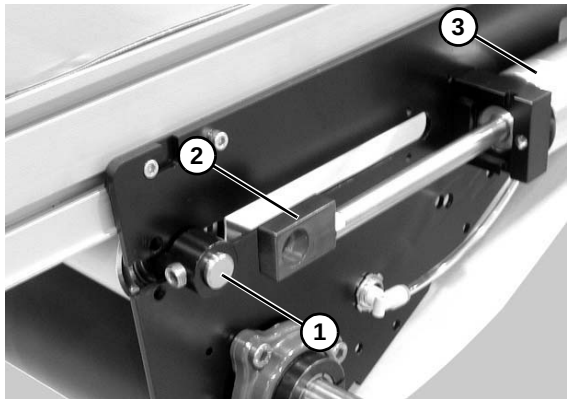


Figure 37

9. Push shaft **(Figure 38, item 1)** through block **(Figure 38, item 2)** on opposite side of center drive, slide block toward air cylinder **(Figure 38, item 3)**.

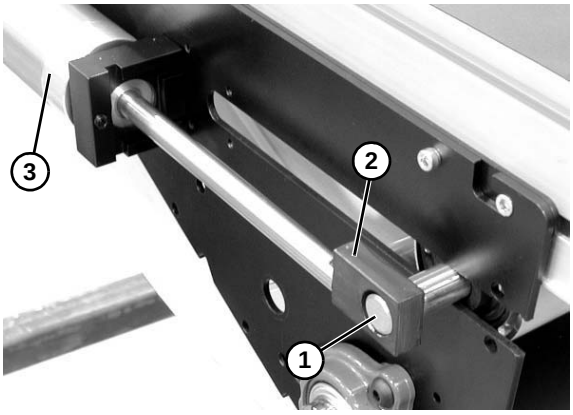


Figure 38

10. Slide out tensioning roller **(Figure 39, item 1)**.

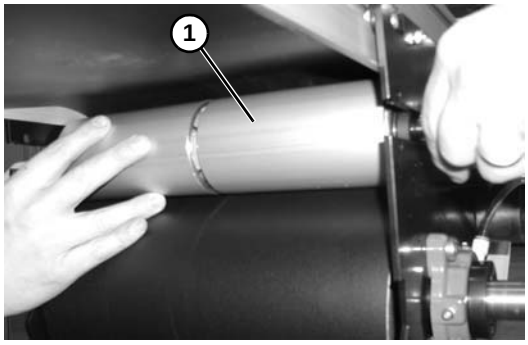


Figure 39

11. Remove belt **(Figure 40, item 1)** from center drive module **(Figure 40, item 2)** and conveyor.

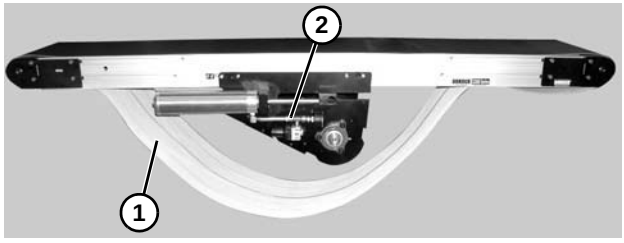


Figure 40

Z-Frame Knuckles

1. If equipped, remove return rollers and guiding and accessories from one side of conveyor.
2. On tension end of the conveyor, identified by the pinion access slot **(Figure 41, item 1)**, loosen the two tail clamp bolts **(Figure 41, item 2)** on both sides of the conveyor and push head plate assembly **(Figure 41, item 3)** inward.

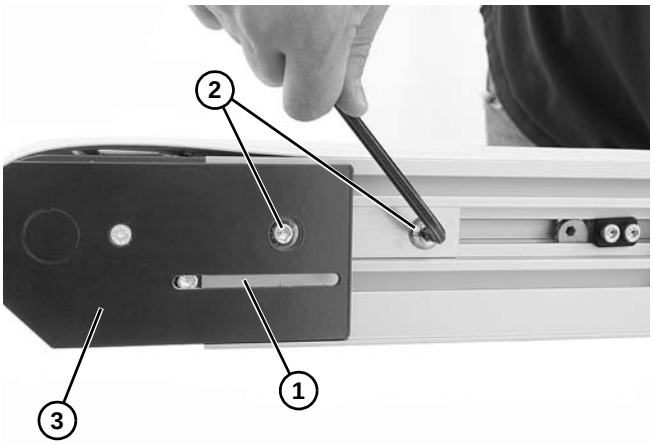


Figure 41

3. If equipped with a lower knuckle, remove screws **(Figure 42, item 1)** and remove lower knuckle return roller assembly **(Figure 42, item 2)** on both sides of conveyor.

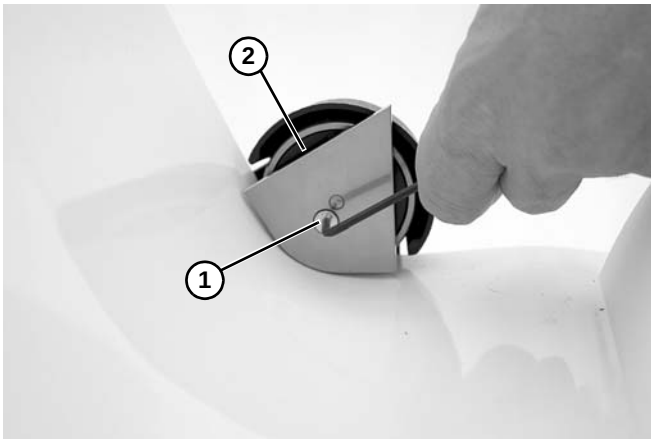


Figure 42

4. If equipped with an upper knuckle, remove screws **(Figure 43, item 1)** and remove guard **(Figure 43, item 2)** on both sides of knuckle.

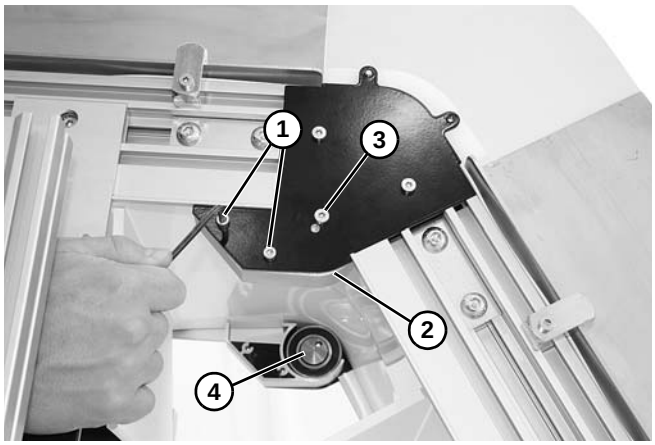


Figure 43

5. Remove screws **(Figure 43, item 3)** and remove roller bearing **(Figure 43, item 4)** on both sides of knuckle.
6. Remove belt from conveyor.

Belt Removal for Conveyor With Stands

⚠ WARNING

Removing mounting brackets without support under gearmotor will cause conveyor to tip, causing severe injury.

PROVIDE SUPPORT UNDERNEATH THE GEARMOTOR WHEN CHANGING THE BELT

End Drive and iDrive Conveyors

1. Place temporary support stands **(Figure 44, item 1)** at both ends of the conveyor.

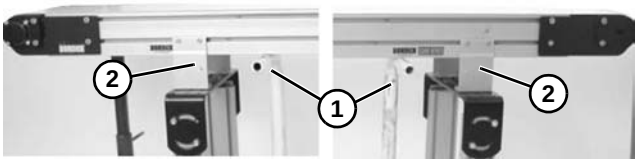


Figure 44

2. Remove mounting brackets **(Figure 44, item 2)** from one side of conveyor. (Reverse steps 2 & 3 of "Mounting Brackets" section on page 18).
3. If equipped, remove return rollers, guiding and accessories from the same side of conveyor.

4. On tension end of the conveyor, identified by the pinion access slot **(Figure 45, item 1)**, loosen the two tail clamp bolts **(Figure 45, item 2)** on both sides of the conveyor and push head plate assembly **(Figure 45, item 3)** inward.

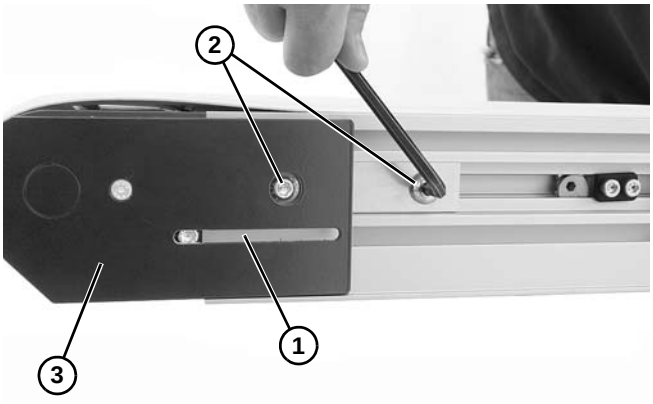


Figure 45

5. Remove belt from conveyor.

Center Drive Conveyors

1. Place temporary support stands **(Figure 46, item 1)** at both ends of the conveyor. See WARNING.

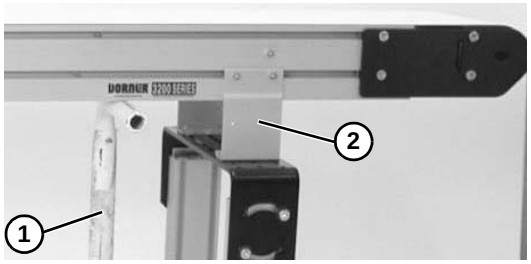


Figure 46

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 - Center Drive Conveyors" section on page 24.
4. Remove first mounting brackets **(Figure 46, item 2)** from one side of conveyor. (Reverse steps 2 & 3 of "Mounting Brackets" section on page 18).
5. Remove belt **(Figure 47, item 1)** from conveyor, one stand at a time. Start on one end of conveyor and work down to opposite end.

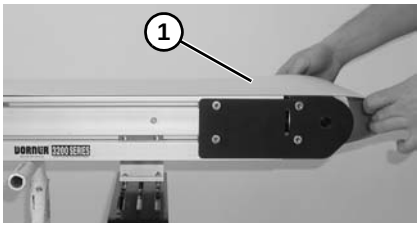


Figure 47

Z-Frame Knuckles

1. Place temporary support stands **(Figure 48, item 1)** at both ends of the conveyor. Place an additional support stand **(Figure 48, item 2)** under the drive motor **(Figure 48, item 3)**, if equipped. See WARNING.

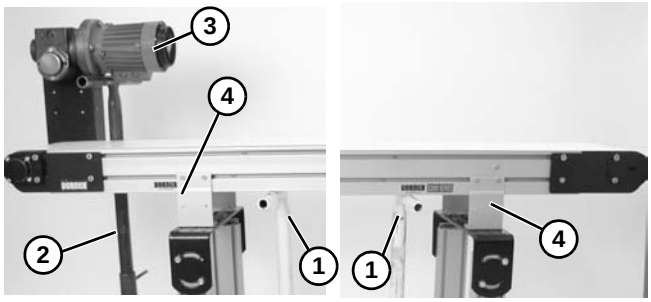


Figure 48

2. Remove mounting brackets **(Figure 48, item 4)** from one side of conveyor. (Reverse steps 2 & 3 of "Mounting Brackets" section on page 18).
3. If equipped, remove return rollers, guiding and accessories from side opposite drive cover.
4. On tension end of the conveyor, identified by the pinion access slot **(Figure 49, item 1)**, loosen the two tail clamp bolts **(Figure 49, item 2)** on both sides of the conveyor and push head plate assembly **(Figure 49, item 3)** inward.

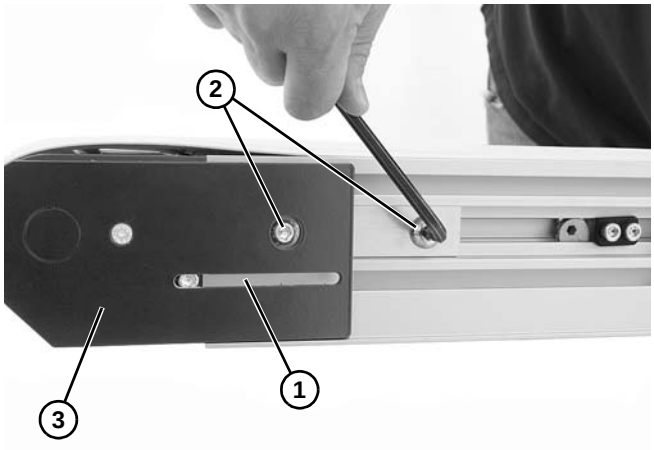


Figure 49

5. If equipped with a lower knuckle, remove screws **(Figure 50, item 1)** and remove lower knuckle return roller assembly **(Figure 50, item 2)** on both sides of conveyor.

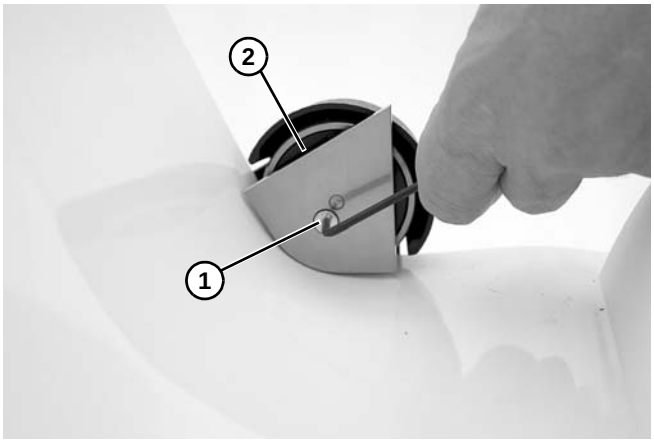


Figure 50

6. If equipped with an upper knuckle, remove screws **(Figure 51, item 1)** and remove guard **(Figure 51, item 2)** on both sides of knuckle.

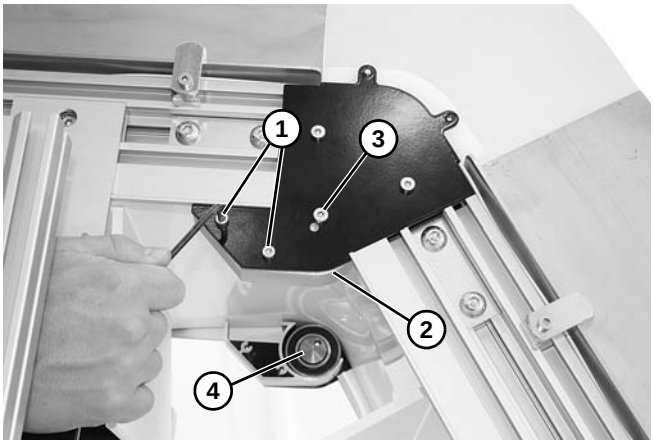


Figure 51

7. Remove screws **(Figure 51, item 3)** and remove roller bearing **(Figure 51, item 4)** on both sides of knuckle.
8. Remove belt from conveyor.

Belt Installation for Conveyor without Stands

⚠ WARNING

Removing mounting brackets without support under gearmotor will cause conveyor to tip, causing severe injury.

PROVIDE SUPPORT UNDERNEATH THE GEARMOTOR WHEN CHANGING THE BELT

End Drive and iDrive Conveyors

1. Orient belt so splice leading fingers **(Figure 52, item 1)** point in the direction of belt travel as identified by the conveyor directional label **(Figure 52, item 2)**.

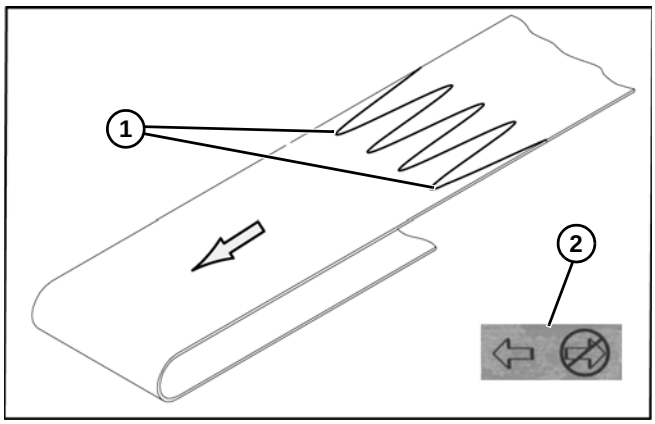


Figure 52

2. Slide belt onto the conveyor frame assembly.
3. Tension belt. Refer to “Conveyor Belt Tensioning” on page 31.
4. If equipped, install wipers, return rollers and guiding

Center Drive Conveyors

1. Orient belt so splice leading fingers **(Figure 53, item 1)** point in the direction of belt travel as identified by the conveyor directional label **(Figure 53, item 2)**.

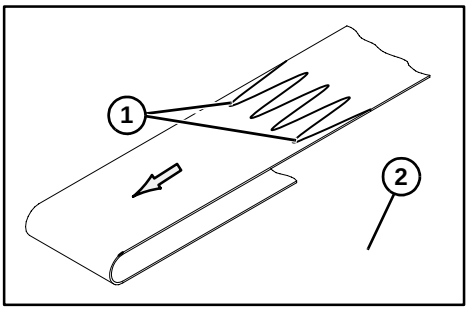


Figure 53

2. Slide belt onto the conveyor frame assembly.
3. Reverse steps 1 thru 10 of the "Belt Removal for Conveyors Without Stands - Center Drive Conveyors" section on page 24.
4. If equipped, install wipers, return rollers and guiding.
5. Reattach air supply **(Figure 54, item 1)** to center drive. Refer to "Conveyor Belt Tensioning" section on page 31 for more information.

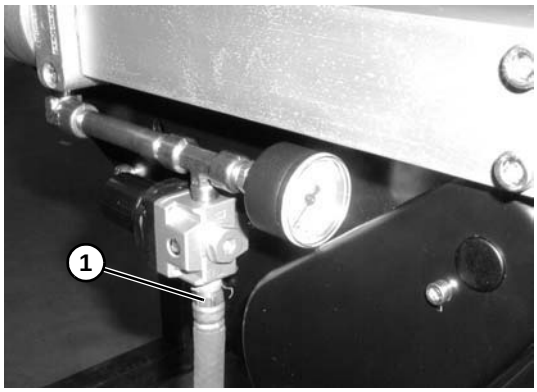


Figure 54

6. Track conveyor and center drive if required. See "Center Drive Module Tracking" section on page 34 and "Conveyor Belt Tracking" section on page 33.

Z-Frame Knuckles

1. Orient belt so splice leading fingers **(Figure 55, item 1)** point in the direction of belt travel as identified by the conveyor directional label **(Figure 55, item 2)**.

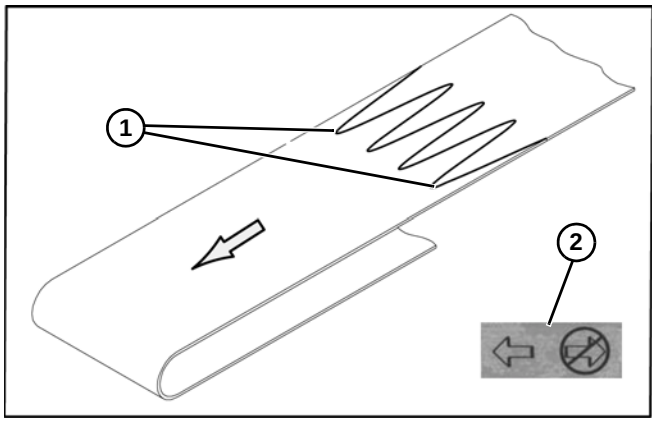


Figure 55

2. Slide belt onto the conveyor frame assembly.
3. If equipped, install return roller bearing **(Figure 56, item 1)** into knuckle plate **(Figure 56, item 2)** using screws **(Figure 56, item 3)** on both sides of conveyor.

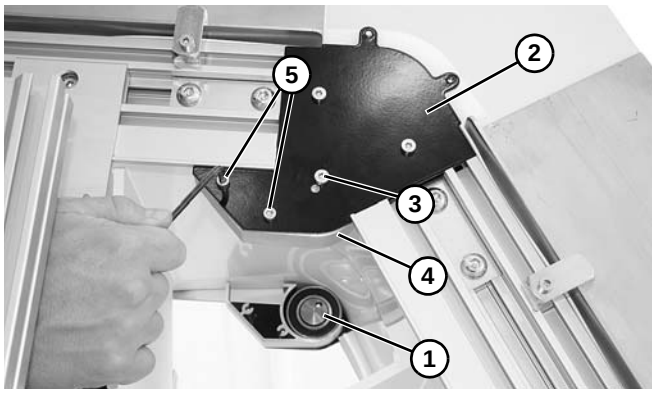


Figure 56

4. Install knuckle guard **(Figure 56, item 4)** on both sides of conveyor with screws **(Figure 56, item 5)**. Tighten screws to 25 in-lb (3 Nm).
5. If equipped, install lower knuckle return roller assembly **(Figure 57, item 1)** with screws **(Figure 57, item 2)** on both sides of conveyor.

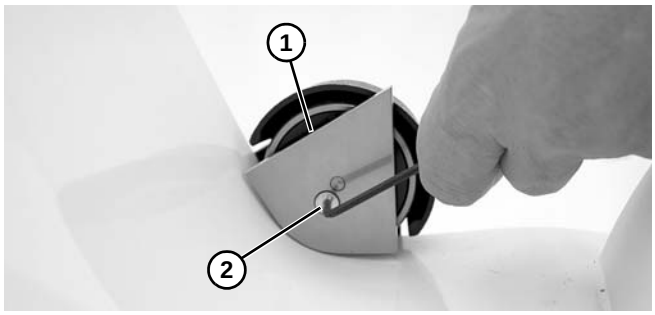


Figure 57

6. Tension belt. Refer to “Conveyor Belt Tensioning” on page 31.
7. If equipped, install return rollers and guiding.

Belt Installation for Conveyor with Stands

⚠ WARNING

Removing mounting brackets without support under gearmotor will cause conveyor to tip, causing severe injury.

PROVIDE SUPPORT UNDERNEATH THE GEARMOTOR WHEN CHANGING THE BELT

End Drive and iDrive Conveyors

1. Ensure temporary support stands **(Figure 58, item 1)** are placed at both ends of the conveyor.
2. Orient belt so splice leading fingers **(Figure 52, item 1)** point in the direction of belt travel as identified by the conveyor directional label **(Figure 52, item 2)**.
3. Install belt **(Figure 58, item 2)** on conveyor. Lift conveyor slightly to avoid pinching belt on temporary support stands.

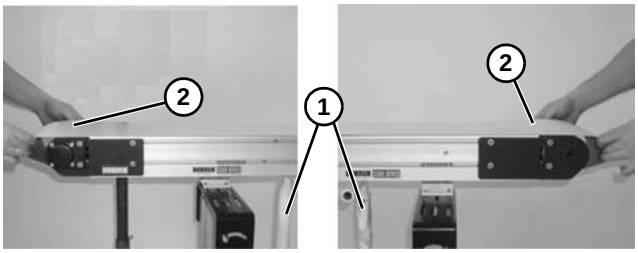


Figure 58

4. Re-install conveyor mounting brackets. Refer “Mounting Brackets” on page 18, steps 1 through 4.
5. Tension belt. Refer to “Conveyor Belt Tensioning” on page 31.
6. If equipped, re-install return rollers and guiding.

Center Drive Conveyors

1. Ensure temporary support stands **(Figure 46, item 1)** are placed at both ends of the conveyor. See WARNING.
2. Orient belt so splice leading fingers **(Figure 53, item 1)** point in the direction of belt travel as identified by the conveyor directional label **(Figure 53, item 2)**.
3. Install belt **(Figure 59, item 1)** on conveyor. Lift conveyor slightly to avoid pinching belt on temporary support stands.

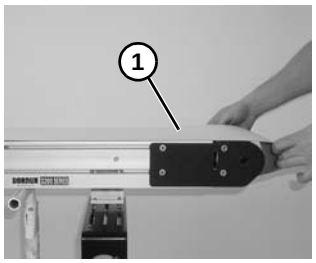


Figure 59

4. Reverse steps 1 thru 10 of the “Belt Removal for Conveyors Without Stands - Center Drive Conveyors” section on page 24.
5. Re-install conveyor mounting brackets. Refer “Mounting Brackets” on page 18, steps 1 through 4.
6. If equipped, install wipers, return rollers and guiding.
7. Reattach air supply **(Figure 54, item 1)** to center drive. Refer to “Conveyor Belt Tensioning” section on page 31 for more information.
8. Track drive and conveyor if required. See “Center Drive Module Tracking” section on page 34 and “Conveyor Belt Tracking” section on page 33.

Z-Frame Knuckles

1. Ensure temporary support stands **(Figure 48, item 1)** are placed at both ends of the conveyor. Place an additional support stand **(Figure 48, item 2)** under the drive motor **(Figure 48, item 3)**, if equipped. See WARNING.
2. Orient belt so splice leading fingers **(Figure 55, item 1)** point in the direction of belt travel as identified by the conveyor directional label **(Figure 55, item 2)**.
3. Install belt **(Figure 60, item 1)** on conveyor. Lift conveyor slightly to avoid pinching belt on temporary support stands.

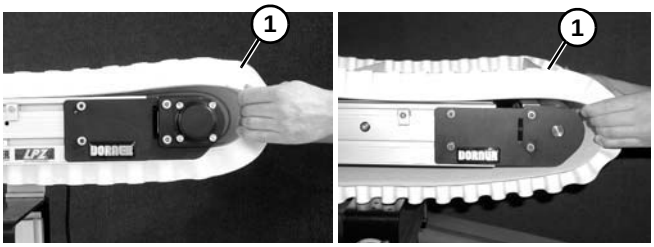


Figure 60

4. Re-install conveyor mounting brackets. Refer "Mounting Brackets" on page 18, steps 1 through 4.
5. If equipped, install return roller bearing **(Figure 61, item 1)** into knuckle plate **(Figure 61, item 2)** using screws **(Figure 61, item 3)** on both sides of conveyor.

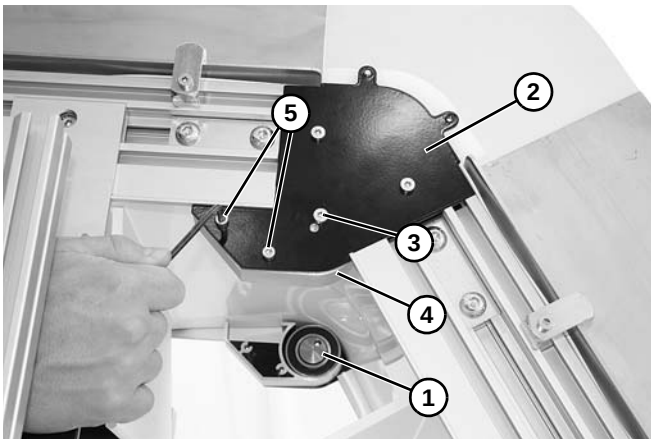


Figure 61

6. Install knuckle guard **(Figure 61, item 4)** on both sides of conveyor with screws **(Figure 61, item 5)**. Tighten screws to 25 in-lb (3 Nm).
7. If equipped, install lower knuckle return roller assembly **(Figure 62, item 1)** with screws **(Figure 62, item 2)** on both sides of conveyor.

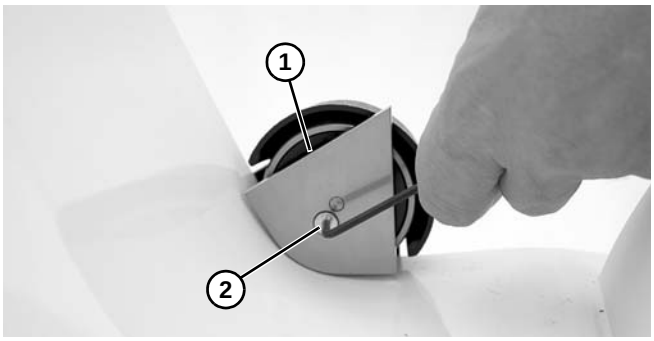


Figure 62

8. Tension belt. Refer to "Conveyor Belt Tensioning" on page 31.
9. If equipped, re-install return rollers and guiding.

Conveyor Belt Tensioning

⚠ WARNING

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

NOTE

For conveyors longer than 20 ft (6096 mm) the belt tensioning procedure outlined below may be preformed on both the Drive and Idler Ends of the conveyor.

End Drive Conveyors

1. On tension end of the conveyor, identified by the pinion access slot **(Figure 63, item 1)**, loosen the two tail clamp bolts **(Figure 63, item 2)**, on both sides of conveyor.

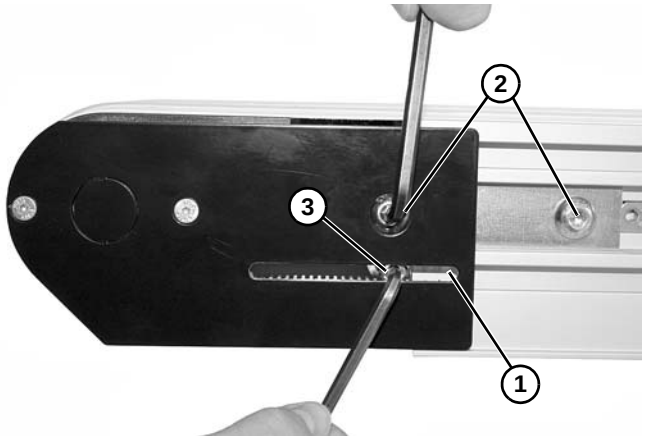


Figure 63

2. Rotate the pinion **(Figure 63, item 3)** to extend head plate assembly.

NOTE

Bowing of the belt may occur if excessive tension is applied to the belt. Do not over tension the belt.

NOTE

On pinion gear, do not exceed a torque of 100 in-lb (11.3 N–m). Over tensioning the conveyor belt could cause excessive pulley bearing load and early failure.

3. After adjusting proper tensioning, tighten tail clamp bolts **(Figure 63, item 2)** on both sides of conveyor to 146 in-lb (16.5 N–m).
4. If belt tracking is necessary, refer to "Conveyor Belt Tracking" on page 33.

Center Drive Conveyors

⚠ WARNING

Exposed moving parts can cause severe injury.

LOCK OUT POWER before removing guards or performing maintenance.

A - With Pneumatic Tensioning

NOTE

For the longest belt and bearing life, air pressure setting should be the minimum required to move loaded conveyor.

1. Connect air supply **(Figure 64, item 1)** to regulator **(Figure 64, item 2)**.
2. Adjust regulator **(Figure 64, item 2)** until gage reads the appropriate pressure. Adjust regulator starting at 15 psi sufficiently to keep belt from slipping up to the maximum shown in the following table.

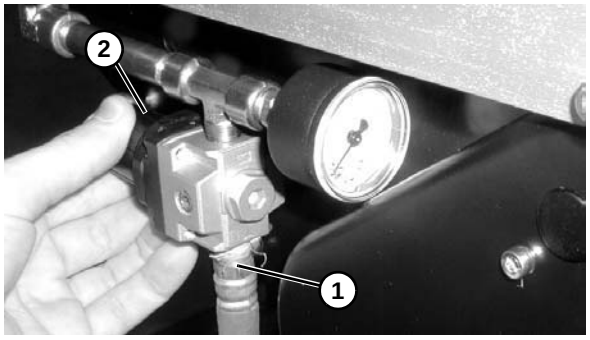


Figure 64

Suggested Air Pressure for LPZ & 3200 Series Flat Belt Center Drive Conveyors	
Width	**Pressure**
4" (95 mm)	15-20 psi (103-138 kPa)
6" (152 mm)	15-30 psi (103-207 kPa)
8" (203 mm)	15-40 psi (103-276 kPa)
10" (254 mm)	15-50 psi (103-345 kPa)
14" (356 mm)	15-60 psi (103-414 kPa)
18" (457 mm)	15-70 psi (103-483 kPa)
24" (610 mm) & wider	15-80 psi (103-552 kPa)

3. If proper belt tension cannot be achieved before the out of tension indicator **(Figure 65, item 1)** begins to turn red, the belt must be replaced.

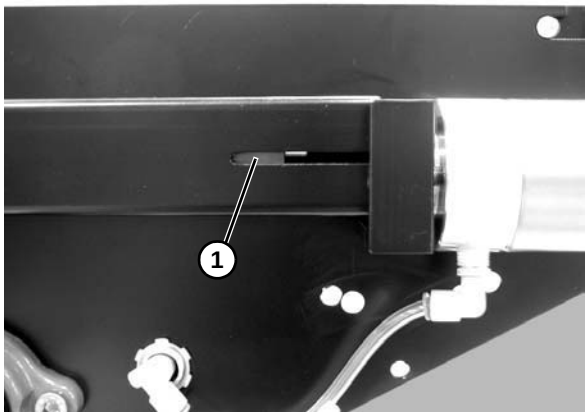


Figure 65

4. If belt tracking is necessary, refer to "Conveyor Belt Tracking" on page 33 and "Center Drive Module Tracking" on page 34.

B - With Manual Tensioning

NOTE

For the longest belt and bearing life, tension applied should be the minimum required to move loaded conveyor.

⚠ WARNING

Threaded rod end may be sharp. Cover with guard while adjusting tension knob.
HANDLE WITH CARE.

1. To tension belt, turn knurled knob **(Figure 66, item 1)** on each side of center drive unit clockwise until tensioning spring **(Figure 66, item 2)** is exposed only 1/2" (12 mm). Test conveyor with a load and if slippage occurs, turn knurled knob **(Figure 66, item 1)** on each side of center drive unit clockwise until tensioning spring **(Figure 66, item 1)** is completely behind spring cover **(Figure 66, item 3)**. There should be a minimum 1/8" gap **(Figure 66, item 4)** between hand knob **(Figure 66, item 1)** and spring cover **(Figure 66, item 3)**.

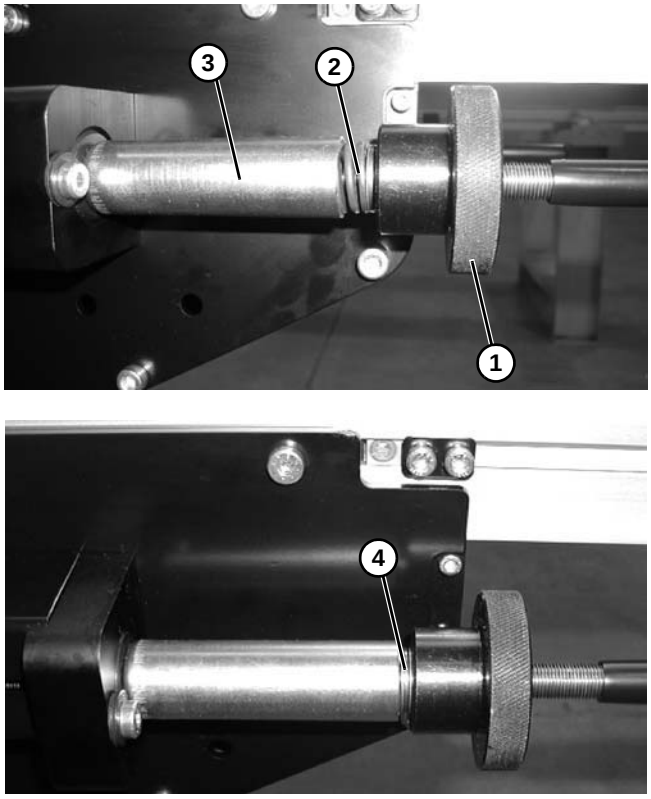


Figure 66

2. As normal belt stretch occurs over time, additional spring length **(Figure 66, item 2)** will be exposed out of the spring cover **(Figure 66, item 3)**. When the spring exposed exceeds 1/2" (12 mm) from the original setting or if conveyor belt slippage occurs, retighten knurled hand knob **(Figure 66, item 1)** on each side of center drive unit clockwise to the original setting.
3. If proper belt tension cannot be achieved before the out of tension indicator **(Figure 65, item 1)** begins to turn red, the belt must be replaced.
4. If belt tracking is necessary, refer to "Conveyor Belt Tracking" on page 33 and "Center Drive Module Tracking" on page 34.

Conveyor Belt Tracking

V-Guided Belts

V-guides on belts help maintain proper belt tracking. Track as needed to reduce belt bulge from center of belt (**Figure 67**). See steps below in "Non V-guided Belts" procedure for adjusting for any belt bulging. Belt bulge will be minimal when belt is properly tracked.

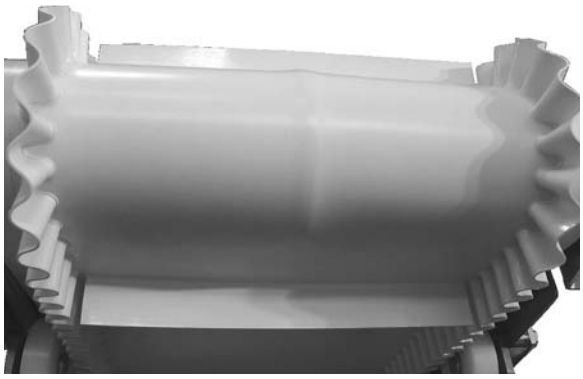


Figure 67

Non V-Guided Belts

Non V-guided belt conveyors are equipped with belt tracking cam assemblies **(Figure 68, item 1)** for belt tracking adjustment.

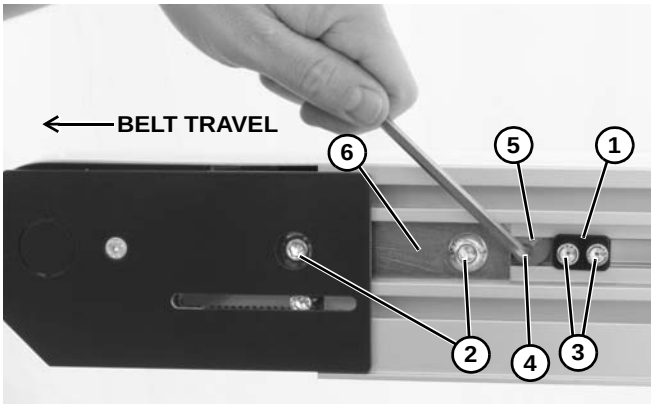


Figure 68

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

1. Ensure head plate fastening screws **(Figure 68, item 2)** on both sides of conveyor are tightened.
2. On both sides of conveyor, loosen two (2) cam fastening screws **(Figure 68, item 3)**. Adjust cams **(Figure 68, item 4)** until indicator arrows **(Figure 68, item 5)** are horizontal and pointing towards the center of the conveyor. Then slide cam assemblies against head plates **(Figure 68, item 6)** and re-tighten cam fastening screws **(Figure 68, item 3)** to 60 in-lb (7 Nm).
3. On the side toward which the belt is tracking, loosen head plate fastening screws **(Figure 68, item 2)**.
4. With the conveyor running, use a 5 mm hex-key wrench to rotate the tracking cam **(Figure 68, item 4)** 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 **(Figure 68, item 2)** with a 6 mm hex-key wrench to 60 in-lb (7 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 69 - Normally tracked belt, do nothing

Figure 70 - Tracking necessary, adjust tight side cam

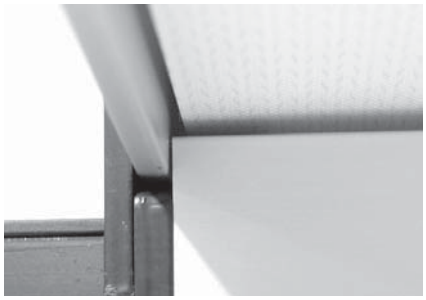


Figure 69

Figure 70

2. If necessary, adjust the tracking cam: loosen the center drive fastening screws **(Figure 71, item 1)** on the side of center drive to be tracked.

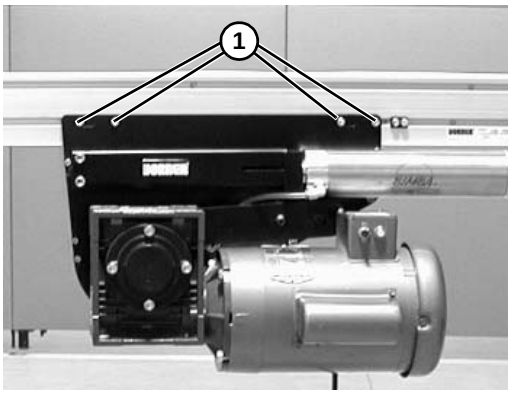


Figure 71

3. Rotate the tracking cam **(Figure 72, item 1)** 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.

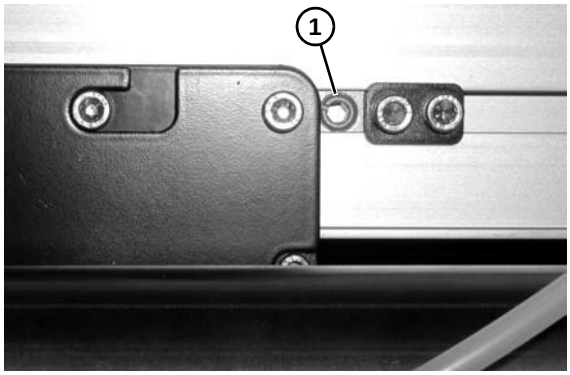


Figure 72

4. Tighten the center drive fastening screws **(Figure 71, item 1)** to 146 in–lbs (16.5 N–m).

End Drive Pulley Removal

⚠ WARNING

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

Remove conveyor belt to access pulley(s). See "Conveyor Belt Replacement" on page 23. Remove the desired pulley following the corresponding instructions below:

- **A** – Idler Tail Pulley Removal
- **B** – Drive Tail Pulley Removal
- **C** – Transfer Tail Pulley Removal
- **D** – Knuckle Idler Pulley Removal
- **E** – Knuckle Return Roller Removal

A – Idler Tail Pulley Removal

1. Remove idler tail from conveyor frame by loosening bolts **(Figure 73, item 1)** on both sides of conveyor.

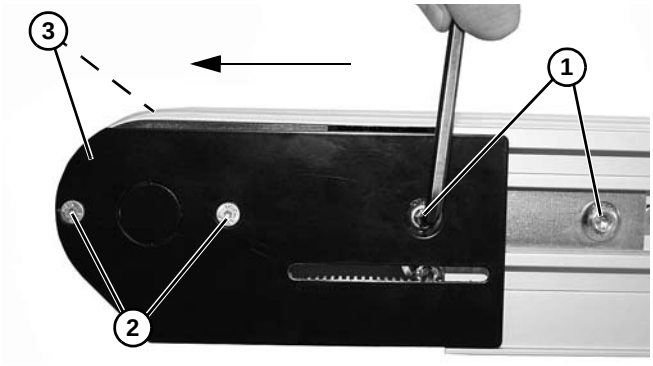


Figure 73

2. With tail assembly on an open work surface, remove flat head screws **(Figure 73, item 2)** from both sides of tail assembly to remove side plate **(Figure 73, item 3)**.
3. Remove cap screws and washers **(Figure 74, item 1)** from idler shaft **(Figure 74, item 2)** from both sides of the tail.

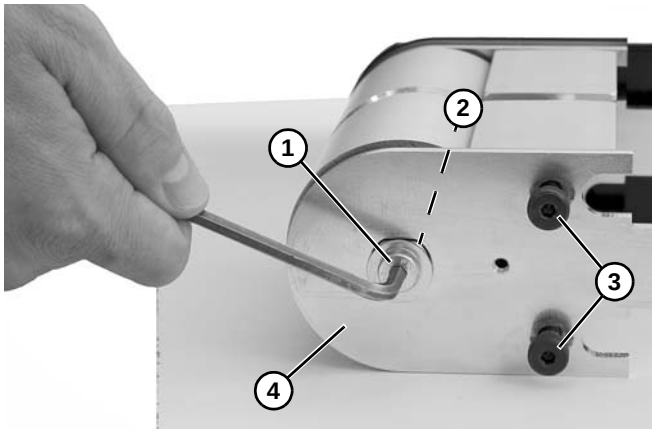


Figure 74

4. Remove shoulder screws **(Figure 74, item 3)** from backing plate **(Figure 74, item 4)** on one side as shown.
5. Slide the idler pulley assembly **(Figure 75, item 1)** out of the bearing plate on the opposite side.

Figure 75

6. Remove the pulley shaft assembly: remove the clip ring **(Figure 76, item 1)** and washer **(Figure 76, item 2)** from one side of the pulley assembly.

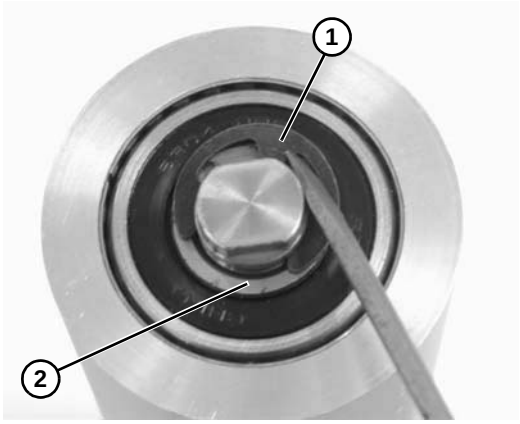


Figure 76

7. Slide the shaft assembly **(Figure 77, item 1)** out of the pulley **(Figure 77, item 2)**.

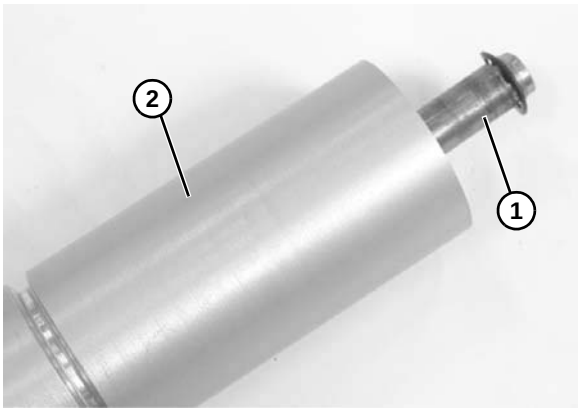


Figure 77

B – Drive Tail Pulley Removal

⚠ WARNING

Drive shaft keyway may be sharp.
HANDLE WITH CARE.

1. Remove the gearmotor mounting package:

- Top and Bottom Mount Drives
- Side Mount Drives

Top and Bottom Mount Drives

a. Use a temporary support **(Figure 78, item 1)** to support Gearmotor.

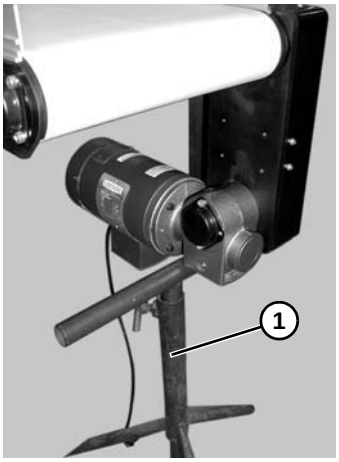


Figure 78

b. Remove four (4) screws **(Figure 79, item 1)** and remove cover **(Figure 79, item 2)**.

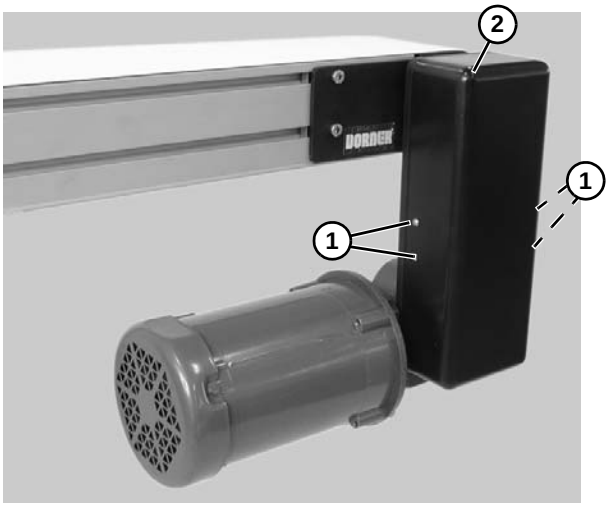


Figure 79

c. Loosen tensioner **(Figure 80, item 1)**.

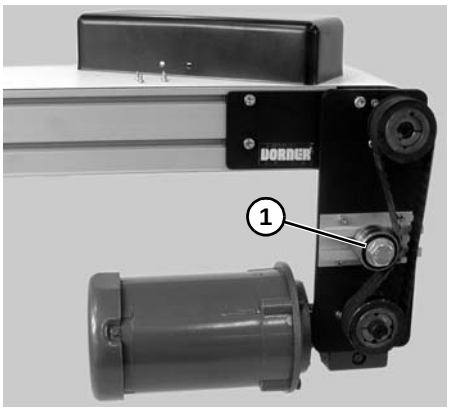


Figure 80

d. Remove taper-lock screws **(Figure 81, item 1)** on the driven pulley **(Figure 81, item 2)**. Insert one (1) of taper lock screws **(Figure 81, item 1)** in remaining hole **(Figure 81, item 3)**. Tighten screw **(Figure 81, item 1)** until pulley is loose. Remove pulley, taper hub assembly and timing belt.

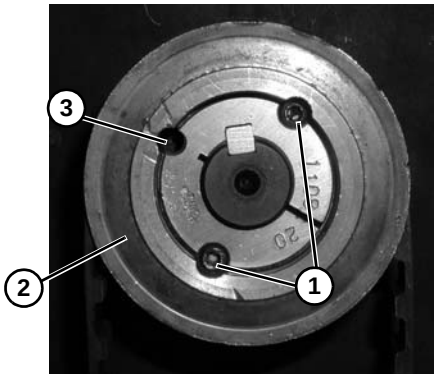


Figure 81

e. Remove four (4) M5 mounting screws **(Figure 82, item 1)** and two (2) M8 mounting screws **(Figure 82, item 2)**.

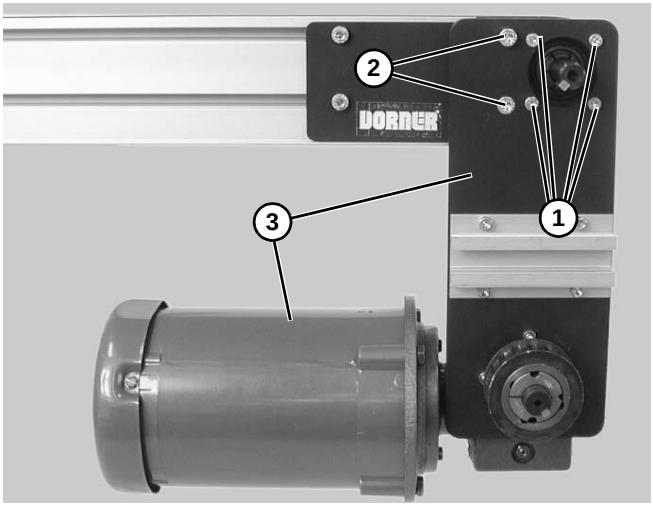


Figure 82

f. Remove gearmotor and mounting plate assembly **(Figure 82, item 3)**.

Side Mount Drives

a. Temporarily support Gearmotor

b. Loosen the four (4) lock screw **(Figure 83, item 1)**.

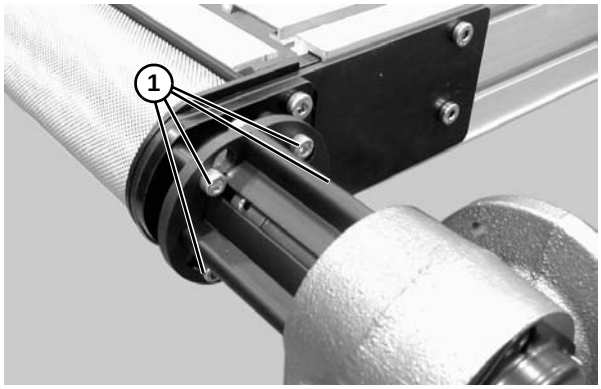


Figure 83

c. Rotate and remove the gear motor and guard assembly **(Figure 84, item 1)**.

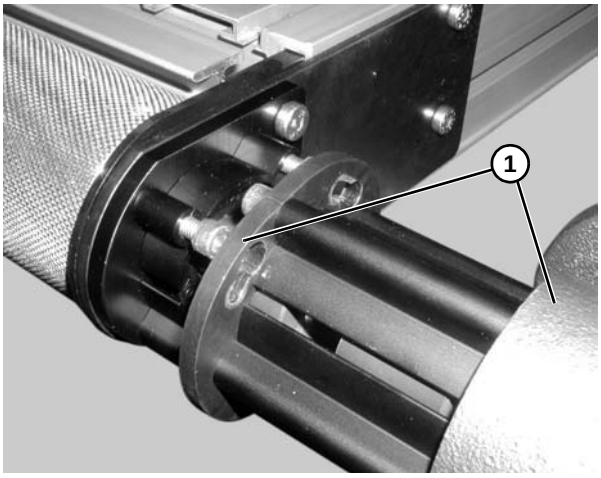


Figure 84

d. Remove the four (4) lock screws **(Figure 85, item 1)** and the short side drive guard **(Figure 85, item 2)**.

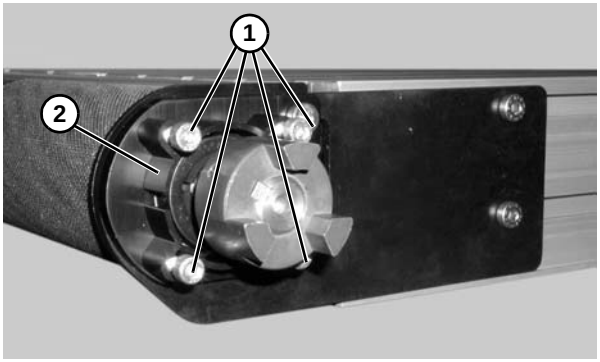


Figure 85

2. Remove drive tail from conveyor frame by loosening bolts **(Figure 86, item 1)** and screws **(Figure 86, item 2)** on both sides of conveyor.

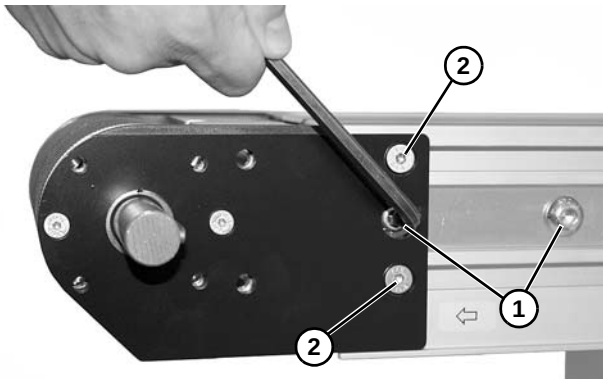


Figure 86

3. With tail assembly on an open work surface, remove the two flat head screws **(Figure 87, item 1)** on the drive shaft side. Remove outer side plate **(Figure 87, item 2)**, washer, and plastic spacer.

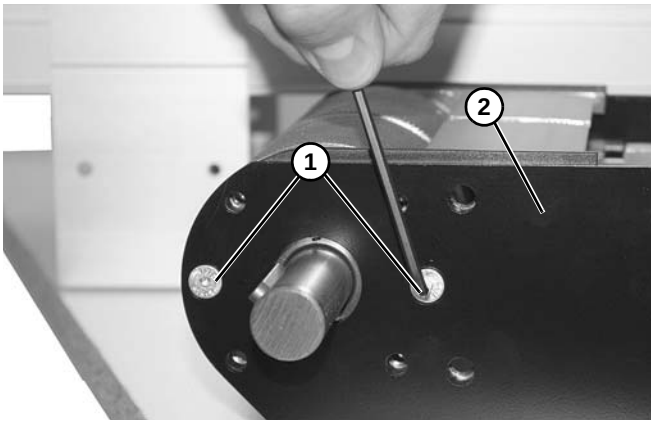


Figure 87

4. Remove shoulder screws **(Figure 88, item 1)** to remove backing plate **(Figure 88, item 2)**.

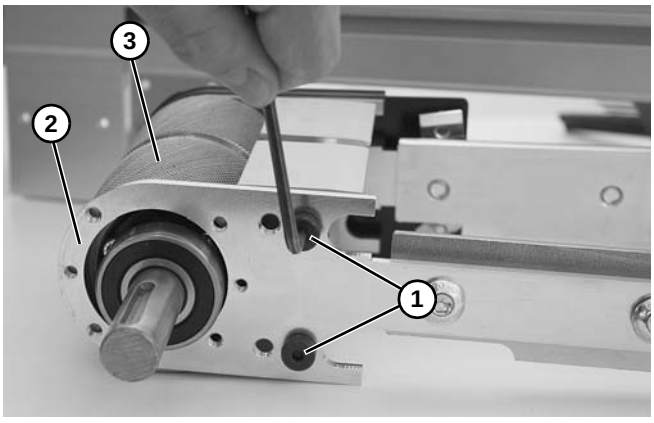


Figure 88

5. Slide drive pulley assembly out of tail assembly **(Figure 88, item 3)**.

C – Transfer Tail Pulley Removal

1. Temporarily support the transfer tail assembly.
2. Remove transfer tail from conveyor frame by loosening bolts **(Figure 89, item 1)** on both sides of conveyor.

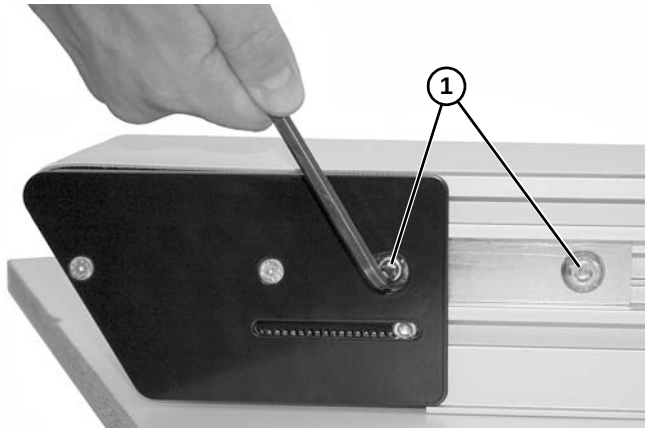


Figure 89

3. With tail assembly on an open work surface, remove two flat head screws **(Figure 90, item 1)** on both sides of the transfer tail. Remove the outer plate **(Figure 90, item 2)**.

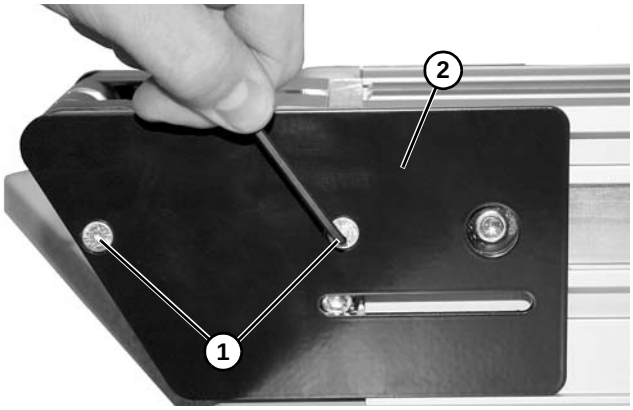


Figure 90

4. Remove socket head screw **(Figure 91, item 1)** that holds plastic spacer in place. Remove plastic spacer **(Figure 91, item 1)**.

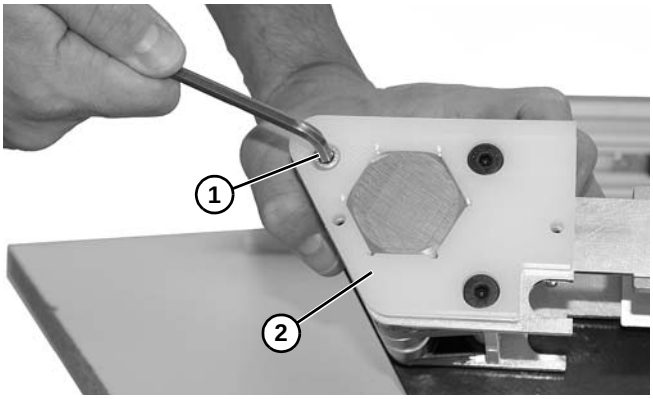


Figure 91

5. Remove shoulder screws **(Figure 92, item 1)** to remove backing plate **(Figure 92, item 2)**.

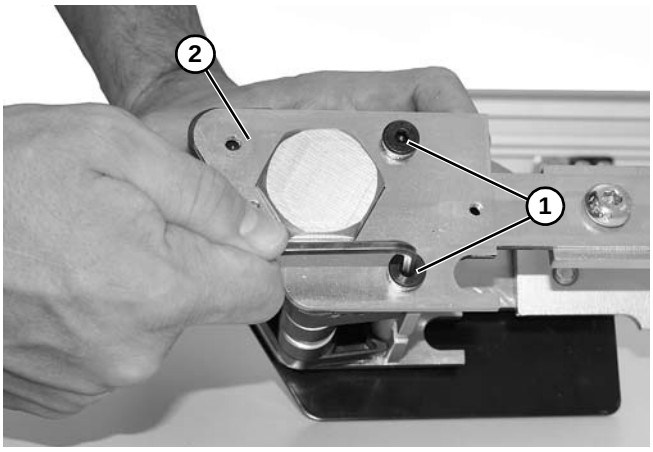


Figure 92

6. Slide spindle retainer **(Figure 93, item 1)** off of the hex shaft **(Figure 93, item 2)** to access spindles.

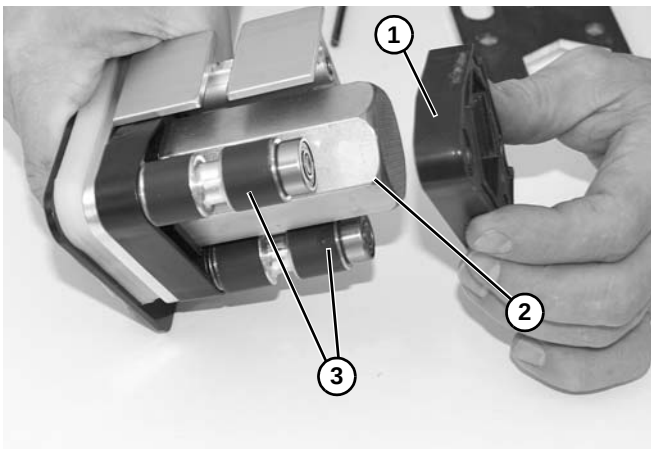


Figure 93

7. Remove spindles **(Figure 93, item 3)**.

D – Knuckle Idler Pulley Removal

1. Remove knuckle return roller and guard, see "Knuckle Return Roller Replacement" on page 47.
2. Temporarily support the knuckle idler pulley.
3. Remove two screws **(Figure 94, item 1)** from both sides of knuckle. Remove side plates **(Figure 94, item 2)**.

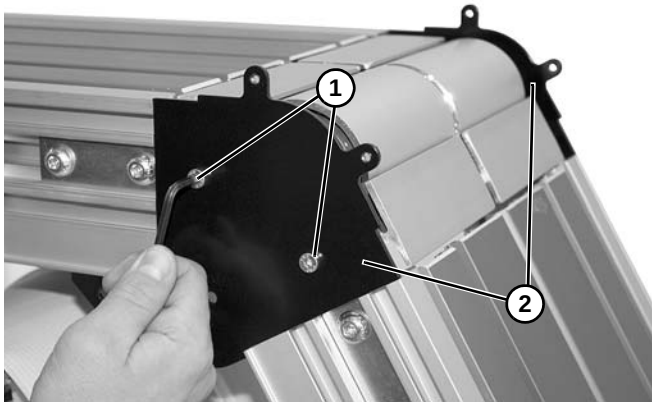


Figure 94

4. Remove knuckle assembly from conveyor by loosening 4 bolts **(Figure 95, item 1)** on both sides of conveyor.

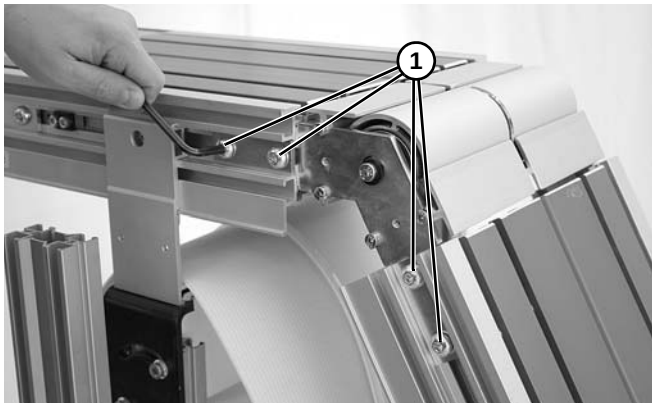


Figure 95

5. With knuckle assembly on an open work surface, remove four screws **(Figure 96, item 1)** from one side of knuckle assembly.

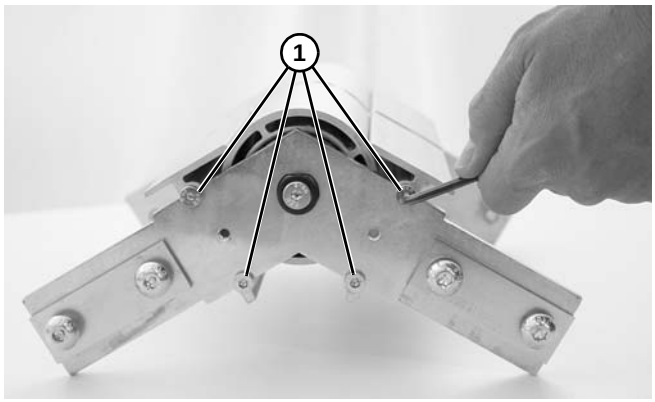


Figure 96

6. Remove screw and washer **(Figure 97, item 1)** from both sides of knuckle assembly. Slide spindle assembly out of knuckle bearing plate **(Figure 97, item 2)**.

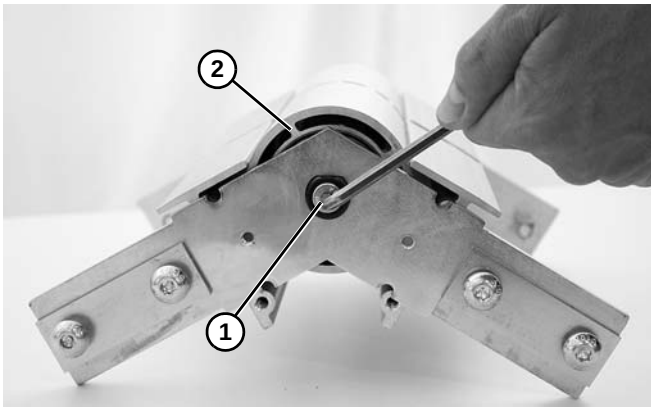


Figure 97

7. Remove the pulley shaft assembly: remove the clip ring **(Figure 98, item 1)** and washer **(Figure 98, item 2)** from one side of the pulley assembly.

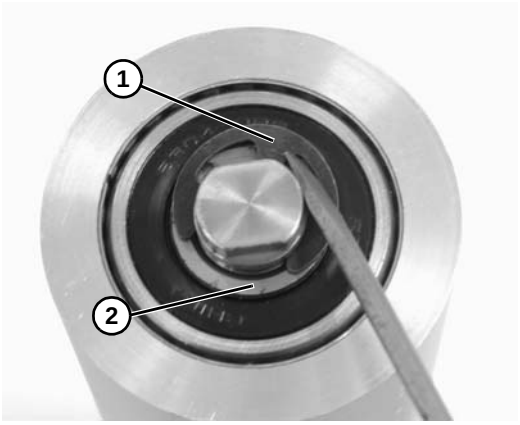


Figure 98

8. Slide the shaft assembly **(Figure 99, item 1)** out of the pulley **(Figure 99, item 2)**.

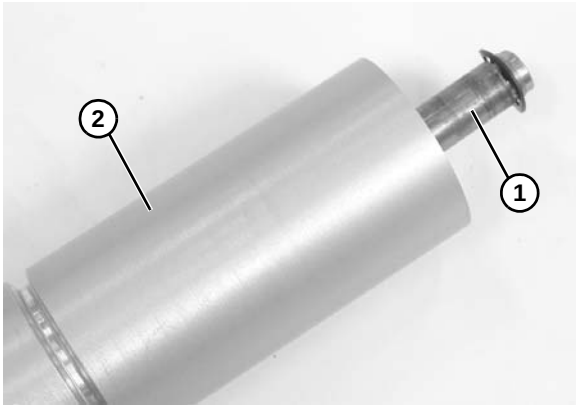


Figure 99

Center Drive Pulley Removal

⚠ 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.

REMOVE COMPRESSED AIR SUPPLY before removing guards or performing maintenance.

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

A – Tensioner Pulley Removal

1. Remove air supply and remove hose **(Figure 100, item 1)** from center drive.

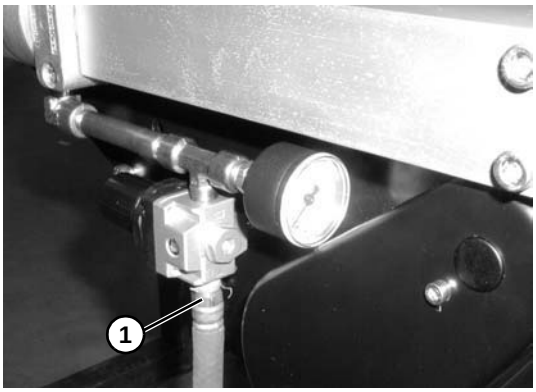


Figure 100

2. Remove screws **(Figure 101, item 1)** and tensioning guards **(Figure 101, item 2)** from both sides of center drive.

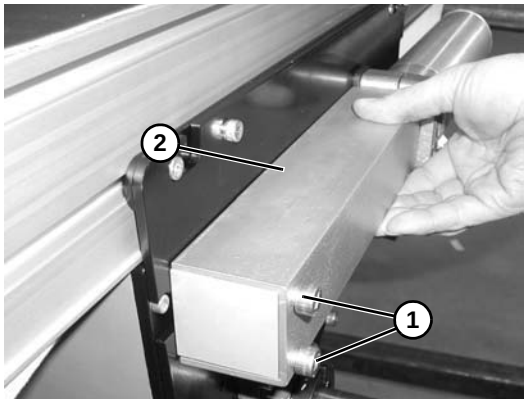


Figure 101

3. Temporarily support the tensioning roller guard **(Figure 102, item 1)**. Remove screws **(Figure 102, item 2)** on both sides of center drive and remove tensioning roller guard **(Figure 102, item 1)** and **(Figure 103, item 2)**.

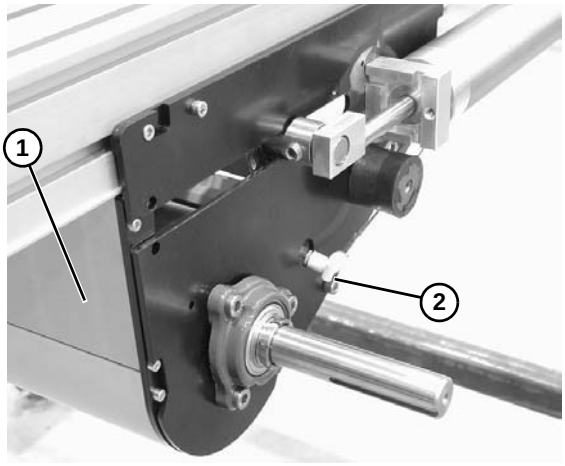


Figure 102

4. Loosen tensioning roller set screws **(Figure 103, item 1)** on one side of center drive.

Figure 103

5. Push shaft **(Figure 104, item 1)** through block **(Figure 104, item 2)**, and slide block towards air cylinder **(Figure 104, item 3)**.

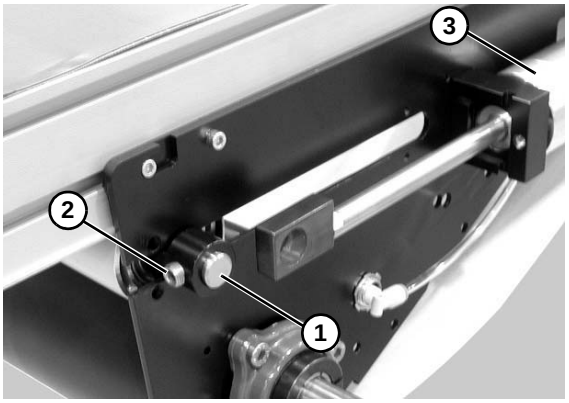


Figure 104

6. Push shaft **(Figure 105, item 1)** through block **(Figure 105, item 2)** on opposite side of center drive, slide block toward air cylinder **(Figure 105, item 3)**.

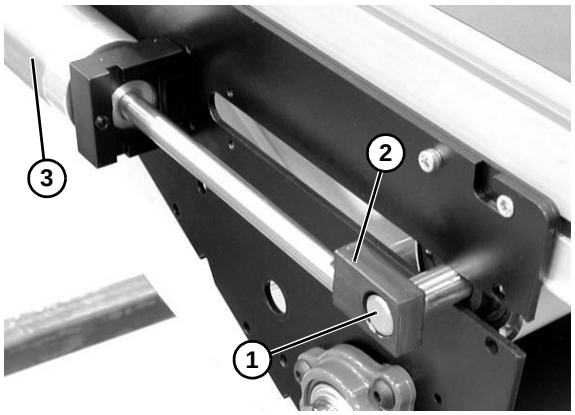


Figure 105

7. Slide out tensioning pulley **(Figure 106, item 1)**.

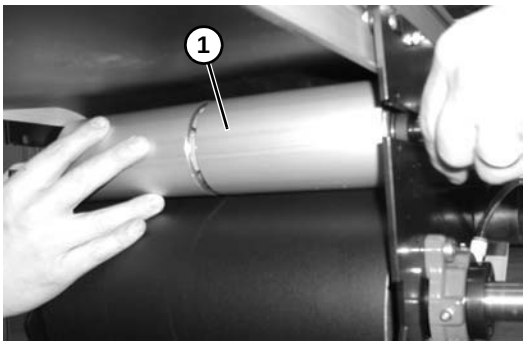


Figure 106

8. Remove the tension pulley locking collar **(Figure 107, item 1)**, spacer **(Figure 107, item 2)** and pulley shaft **(Figure 107, item 3)** from the roller pulley shaft assembly.

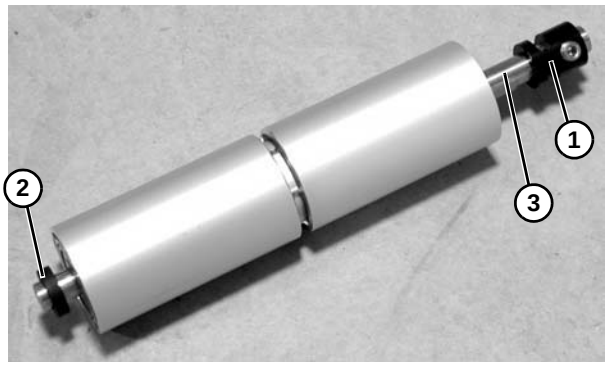


Figure 107

B – Idler Pulley Removal

1. Remove air supply and remove hose **(Figure 108, item 1)** from center drive.

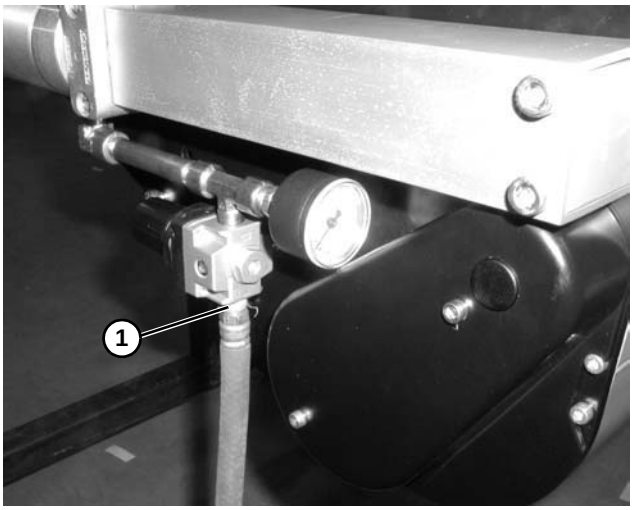


Figure 108

2. Temporarily support idler guard assembly **(Figure 109, item 1)**. Remove screws **(Figure 109, item 2)**.

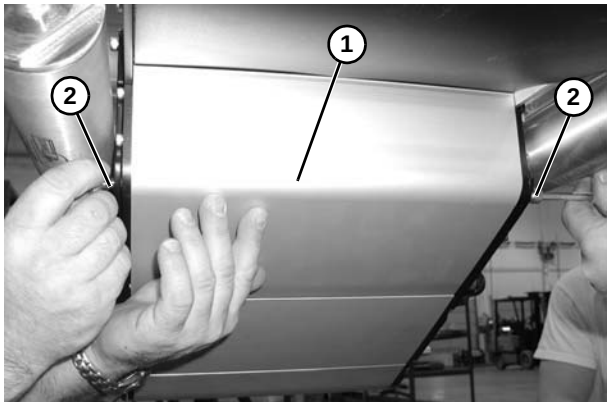


Figure 109

3. Swing down idler guard assembly **(Figure 110, item 1)**. Remove screw **(Figure 110, item 2)** from both sides of center drive and remove idler guard assembly **(Figure 110, item 1)**.

Figure 110

4. Remove screws **(Figure 111, item 1)** and idler guide side plate **(Figure 111, item 2)**.

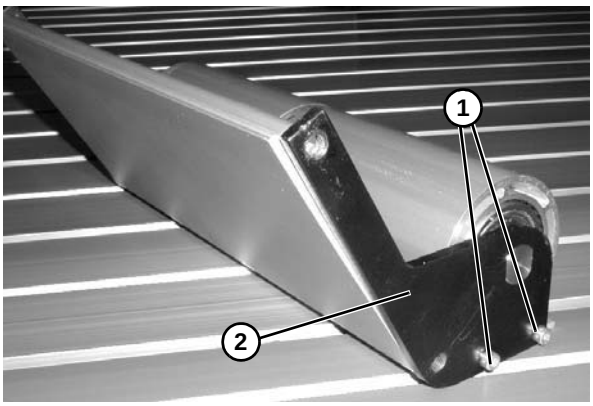


Figure 111

5. Slide the idler pulley assembly **(Figure 112, item 1)** out of the idler guide side plate on the opposite side.

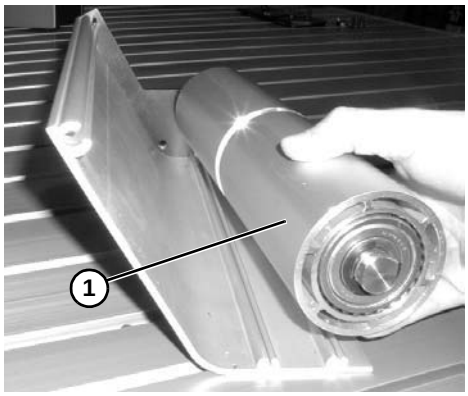


Figure 112

6. Remove the pulley shaft assembly: remove the clip ring **(Figure 113, item 1)** and washer **(Figure 113, item 2)** from one side of the pulley assembly.

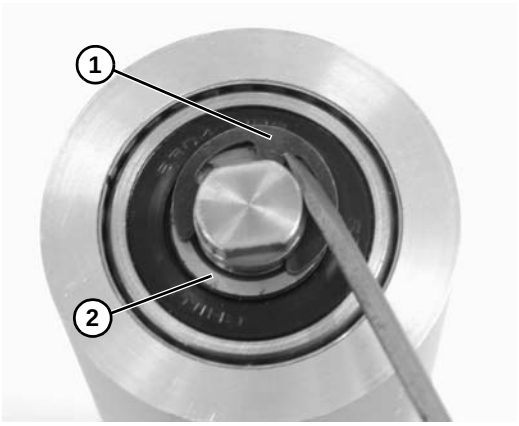


Figure 113

7. Slide the shaft assembly **(Figure 114, item 1)** out of the pulley **(Figure 114, item 2)**.

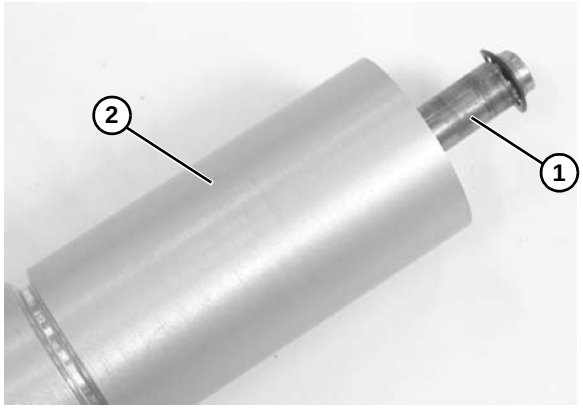


Figure 114

C – Drive Pulley Removal

⚠ WARNING

Drive shaft keyway may be sharp.
HANDLE WITH CARE.

1. Remove air supply and remove hose **(Figure 115, item 1)** from center drive.

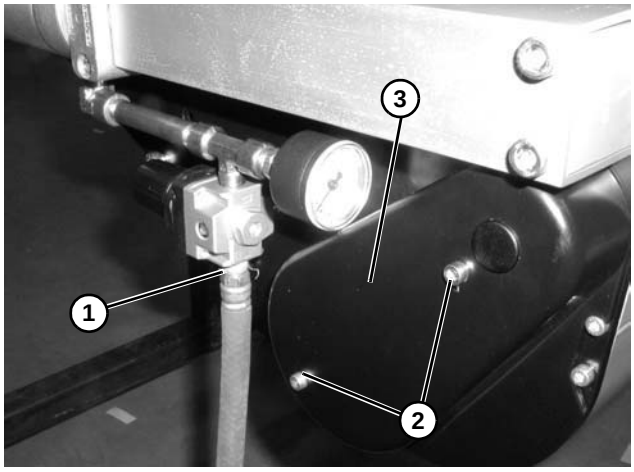


Figure 115

2. Remove screws **(Figure 115, item 2)** and guard **(Figure 115, item 3)**.
3. Remove screws **(Figure 116, item 1)** and remove gearmotor **(Figure 116, item 2)** (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.

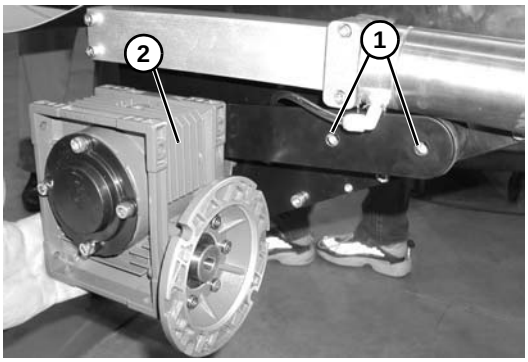


Figure 116

4. Remove spacer ring **(Figure 117, item 1)** and key **(Figure 117, item 2)**.

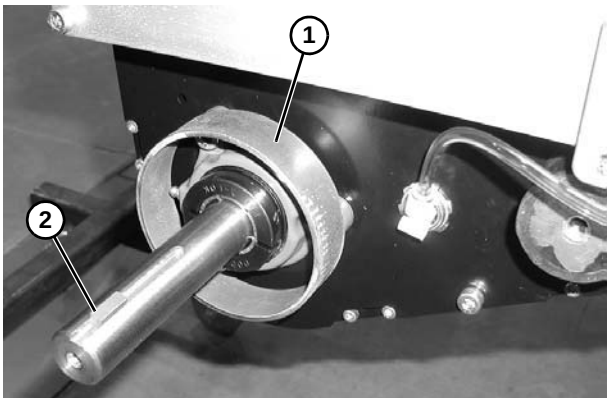


Figure 117

5. Reverse steps 3 thru 10 of the "Belt Removal for Conveyor Without Stands" section on page 24.
6. Loosen clamp screw **(Figure 118, item 1)** and remove bearing collar **(Figure 118, item 2)**.

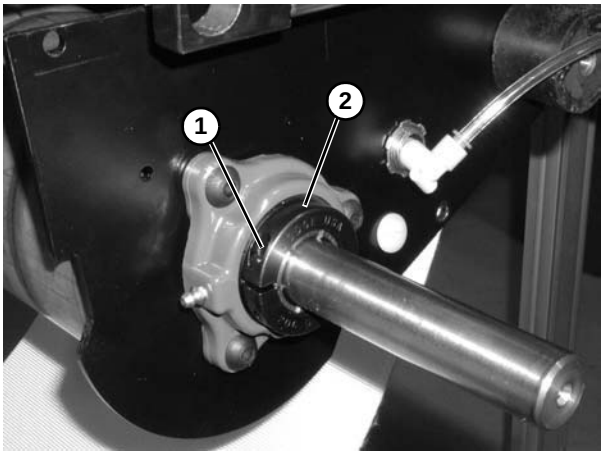


Figure 118

7. Disconnect flexible air hose **(Figure 119, item 1)** from fitting **(Figure 119, item 2)**.

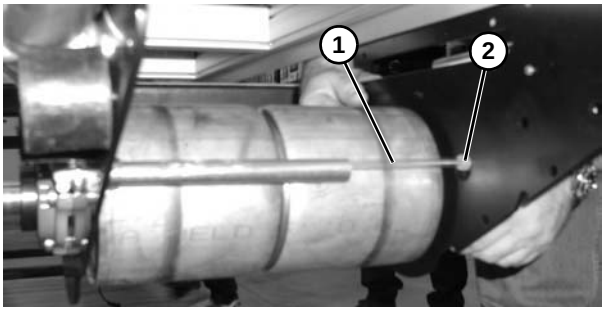


Figure 119

8. Temporarily support the drive pulley **(Figure 120, item 1)**.

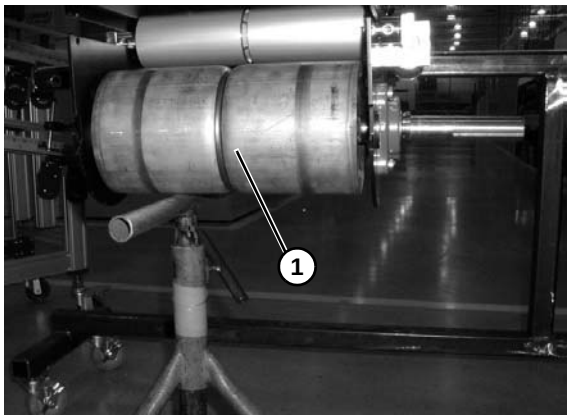


Figure 120

9. Loosen clamp screw **(Figure 121, item 1)** and remove bearing collar **(Figure 121, item 2)**.

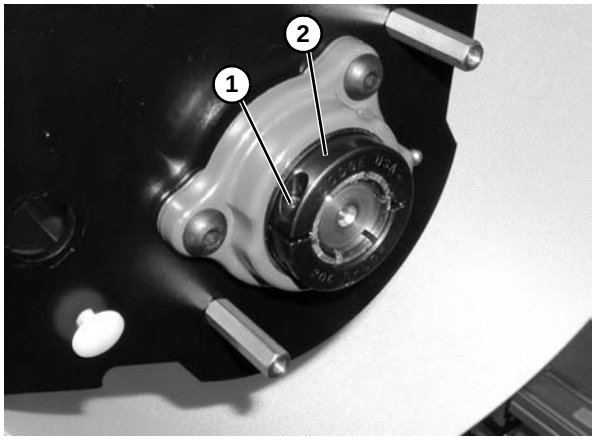


Figure 121

10. Remove screws **(Figure 122, item 1)** and pull side plate assembly **(Figure 122, item 2)** off conveyor.

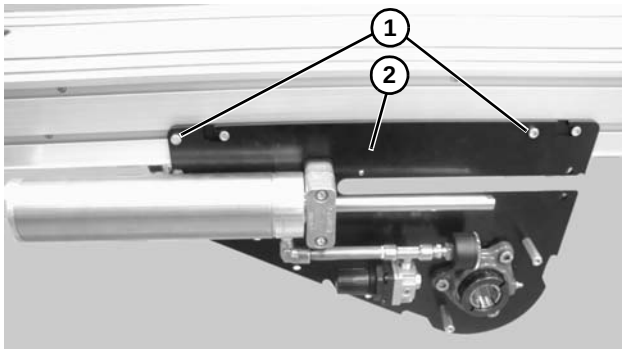


Figure 122

11. Slide drive pulley **(Figure 123, item 1)** out of attached side plate.

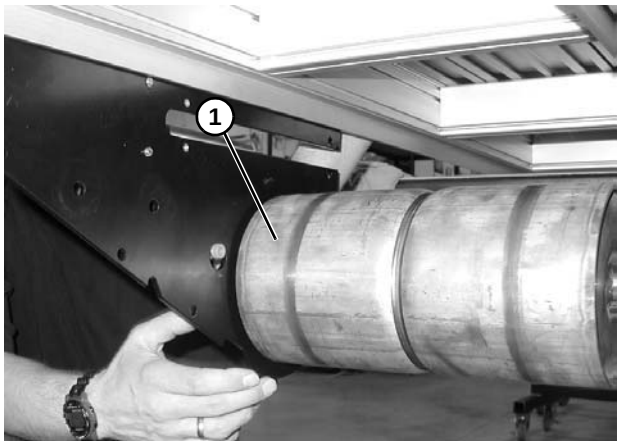


Figure 123

End Drive Bearing Replacement

⚠ WARNING

Exposed moving parts can cause severe injury.

LOCK OUT POWER before removing guards or performing maintenance.

- **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 Replacement

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

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.

Center Drive Bearing 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.

REMOVE COMPRESSED AIR SUPPLY before removing guards or performing maintenance.

- 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

⚠ WARNING

Drive shaft keyway may be sharp.

HANDLE WITH CARE.

Drive Side Bearing

1. Remove air supply **(Figure 124, item 1)** from center drive module.

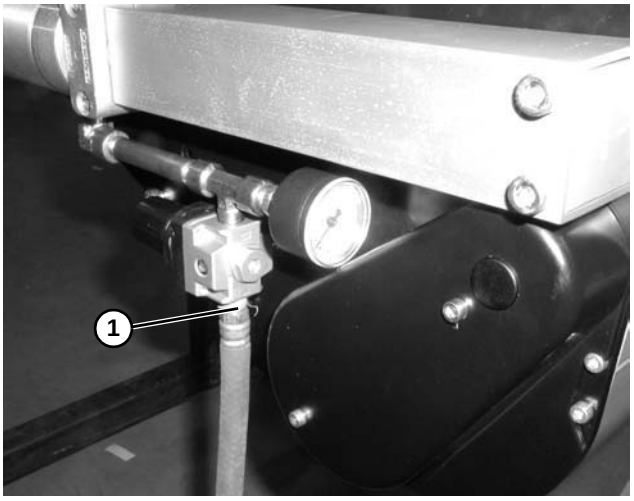


Figure 124

2. Remove screws **(Figure 125, item 1)** and remove gearmotor **(Figure 125, item 2)** (gearhead shown with motor removed for clarity, motor can remain attached to gearhead).

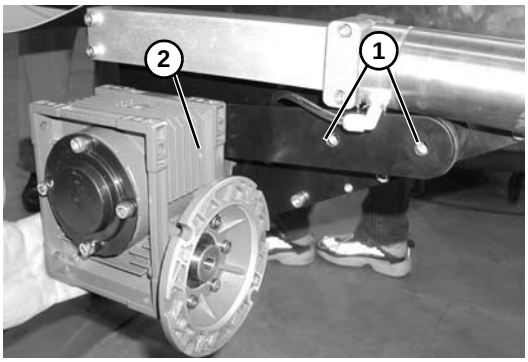


Figure 125

3. Remove spacer ring **(Figure 126, item 1)** and key **(Figure 126, item 2)**. Loosen clamp screw **(Figure 126, item 3)** and remove bearing collar **(Figure 126, item 4)**.

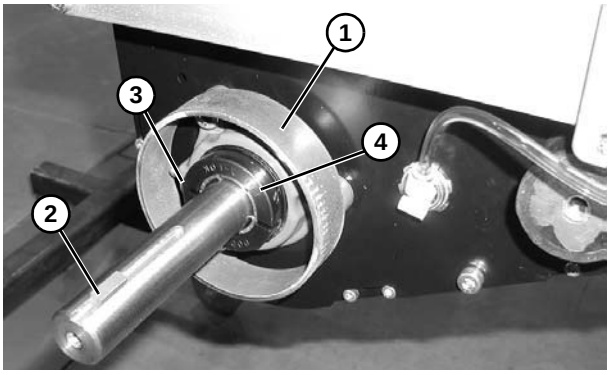


Figure 126

4. Remove the three (3) mounting screws **(Figure 127, item 1)**.

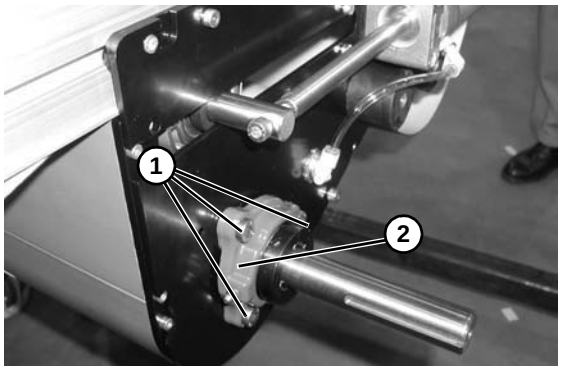


Figure 127

5. Remove and replace bearing housing assembly **(Figure 127, item 2)**.
6. Tighten three (3) mounting screws **(Figure 128, item 1)** to 200 in–lbs (22.5 N–m).

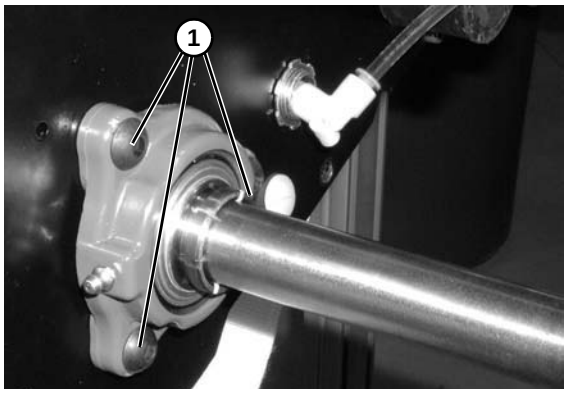


Figure 128

7. Reinstall bearing collar **(Figure 126, item 4)**. Tighten clamp screw **(Figure 126, item 3)** to 95 in–lbs (11 N–m).
8. Reinstall key **(Figure 126, item 2)**.
9. Reinstall spacer ring **(Figure 129, item 1)** and gearmotor **(Figure 129, item 2)**. Tighten screws **(Figure 129, item 1)** to 150 in–lbs (17 N–m).

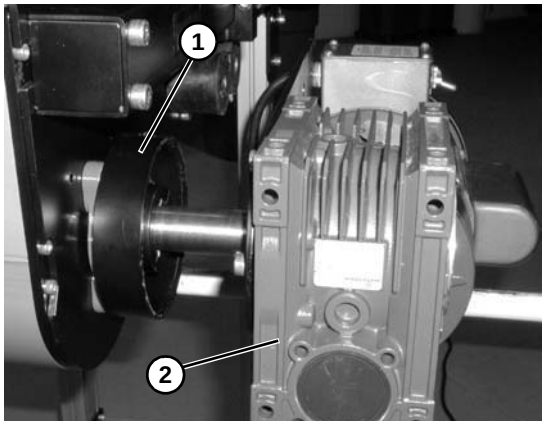


Figure 129

Idler Side Bearing

1. Remove air supply **(Figure 130, item 1)** from center drive module.

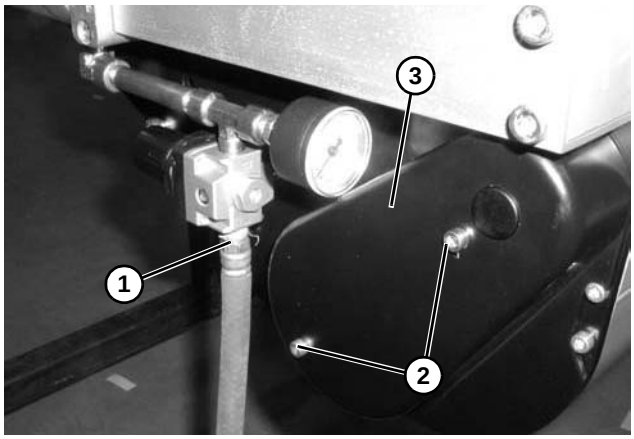


Figure 130

2. Remove screws **(Figure 130, item 2)** and cover **(Figure 130, item 3)**.
3. Loosen clamp screw **(Figure 131, item 1)** and remove bearing collar **(Figure 131, item 2)**.

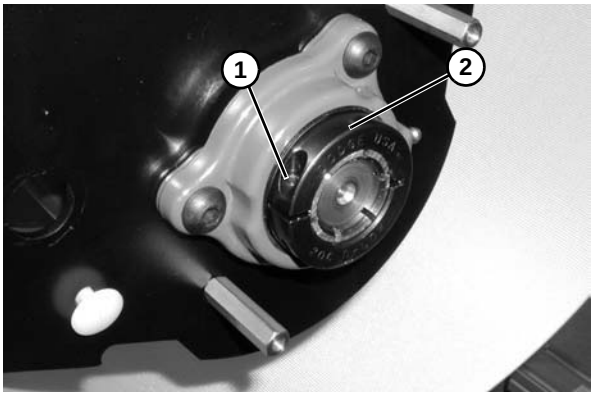


Figure 131

4. Remove the three (3) mounting screws **(Figure 132, item 1)**.

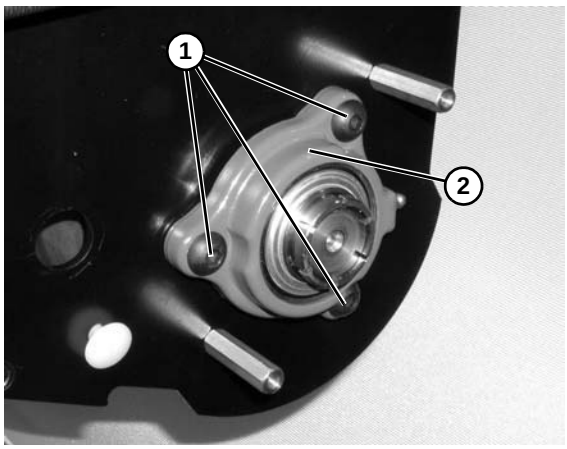


Figure 132

5. Remove and replace housing assembly **(Figure 132, item 2)**.
6. Tighten three (3) mounting screws **(Figure 132, item 1)** to 200 in–lbs (22.5 N–m).
7. Reinstall bearing collar **(Figure 131, item 2)**. Tighten clamp screw **(Figure 131, item 1)** to 95 in–lbs (11 N–m).
8. Reinstall cover **(Figure 130, item 3)**. Tighten screws **(Figure 130, item 2)** 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 Tail Pulley

To replace the idler tail pulley, reverse the "Idler Tail Pulley Removal" procedure on page 35.

Drive Tail Pulley

To replace the drive tail pulley, reverse the "Drive Tail Pulley Removal" procedure on page 36.

Transfer Tail Pulley

To replace the transfer tail pulley, reverse the "Transfer Tail Pulley Removal" procedure on page 38.

Knuckle Idler Pulley

To replace the knuckle idler pulley, reverse the "Knuckle Idler Pulley Removal" procedure on page 39.

Knuckle Return Roller Replacement

Upper Knuckle Bearing

1. Remove screws **(Figure 133, item 1)** on the worn bearing side of the knuckle and remove guard **(Figure 133, item 2)**.

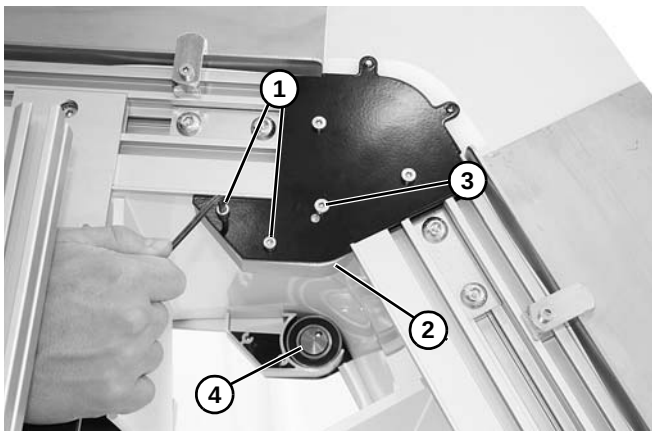


Figure 133

2. Remove screw **(Figure 133, item 3)** and remove worn roller bearing **(Figure 133, item 4)**.
3. Replace worn bearing with new bearing, use screw **(Figure 133, item 3)** to attach new bearing.
4. Replace guard **(Figure 133, item 2)** and secure with screws **(Figure 133, item 1)**.

Lower Knuckle Bearing

1. Remove screw **(Figure 134, item 1)** and guard **(Figure 134, item 2)** on the worn bearing side of the knuckle.

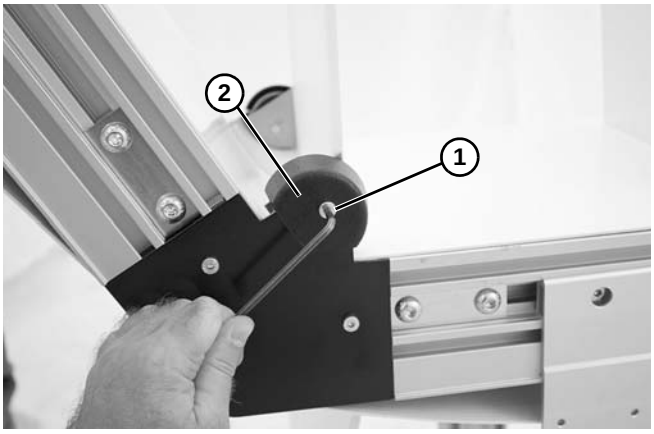


Figure 134

2. Remove screw **(Figure 135, item 1)** and worn roller bearing **(Figure 135, item 2)**.

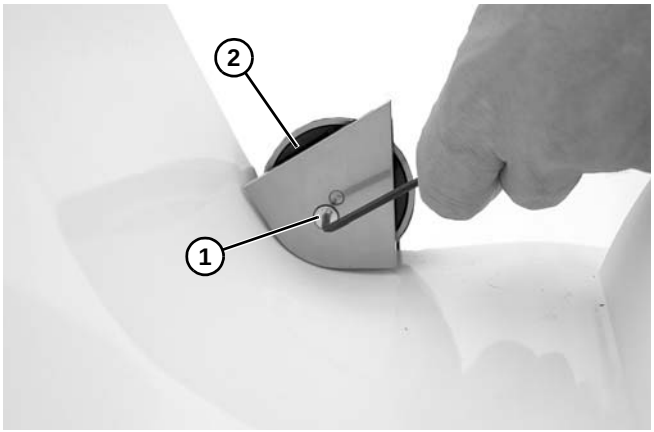


Figure 135

3. Replace worn bearing with new bearing, use screw **(Figure 135, item 1)** to attach new bearing.
4. Replace guard **(Figure 134, item 2)** and secure with screw **(Figure 134, item 1)**.

iDrive Spindle Removal and Replacement

⚠ WARNING

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

Removal

1. Remove belt. (See "Belt Removal for Conveyor Without Stands" on page 24 or "Belt Removal for Conveyor With Stands" on page 26.)
2. Remove wear plate **(Figure 136, item 1)** by removing plate fastening screws **(Figure 136, item 2)** on each side and end of conveyor

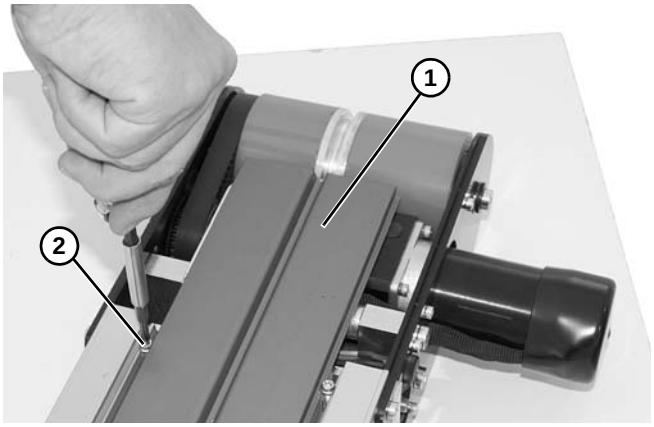


Figure 136

3. Disconnect two wiring harness connectors **(Figure 137, item 1)**.

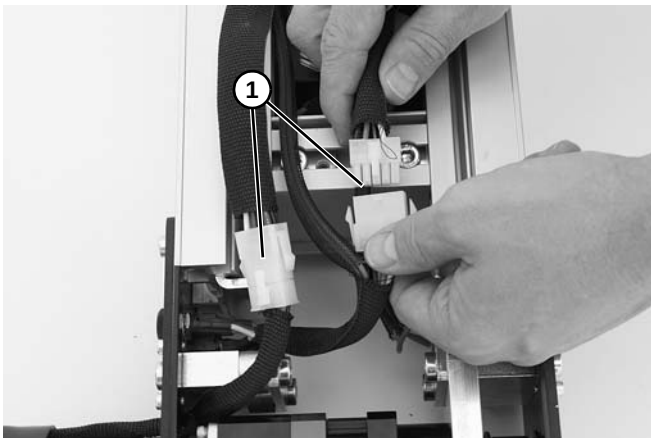


Figure 137

4. Loosen four screws **(Figure 138, item 1)** on each side of conveyor.

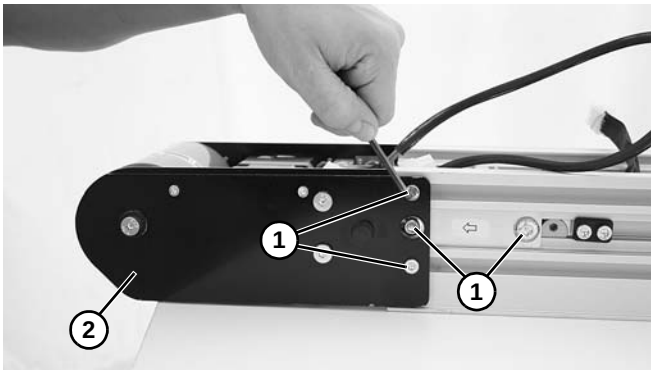


Figure 138

5. Remove drive tail assembly **(Figure 138, item 2)** from conveyor.
6. Remove two socket head screws **(Figure 139, item 1)**.

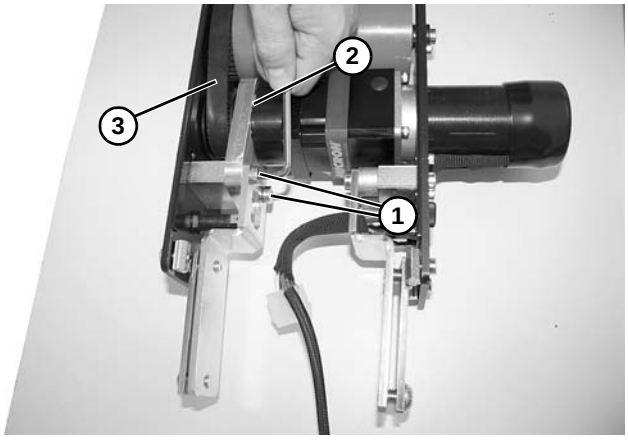


Figure 139

7. Slide drive motor and plate **(Figure 139, item 2)** to loosen tension on timing belt **(Figure 139, item 3)**.
8. Remove socket head screw **(Figure 140, item 1)** and washer from both sides of the conveyor.

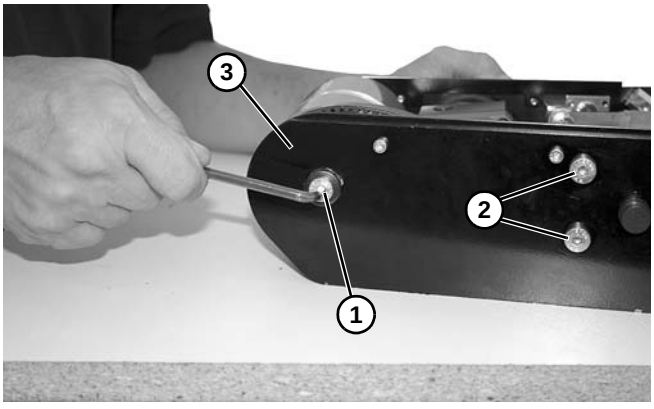


Figure 140

9. Remove socket head screws **(Figure 140, item 2)** on timing belt side. Remove plate **(Figure 140, item 3)**.
10. Remove timing belt **(Figure 142, item 1)** from drive spindle assembly.

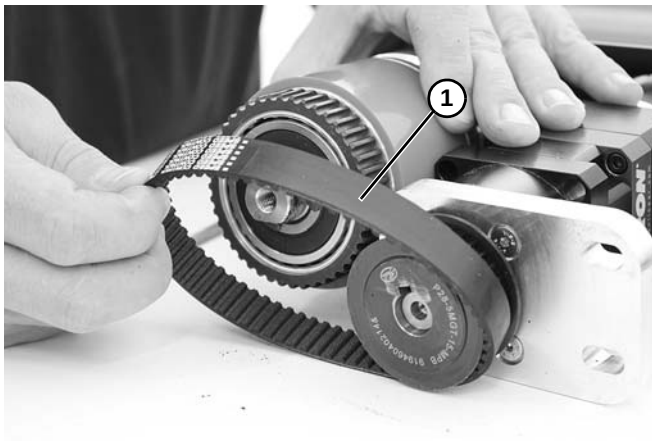


Figure 141

11. Remove drive spindle assembly **(Figure 142, item 1)** and replace.

Figure 142

Replacement

Install in reverse order of removal.

NOTE

*Move drive motor plate **(Figure 143, item 1)** to obtain 1/8 - 1/4" belt deflection at center of belt **(Figure 143, item 2)** with approximately 3-5 in-lb of pressure. Tighten two socket head screws **(Figure 143, item 3)** to 15 in-lb (1.6 Nm) to secure position.*

⚠ CAUTION

Over tightening of timing belt will result in reduced gearmotor and timing belt life.

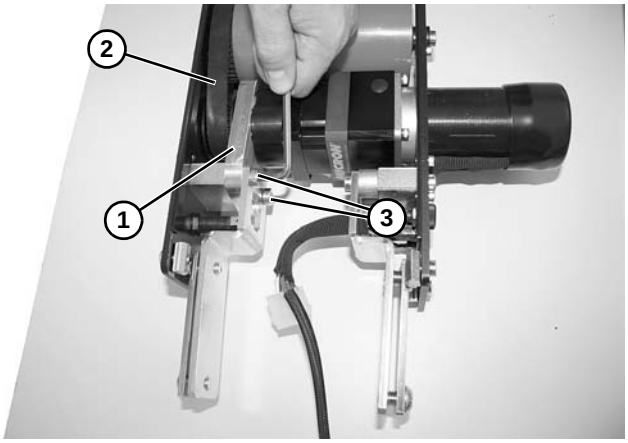


Figure 143

iDrive Motor Removal and Replacement

⚠ WARNING

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

1. Remove belt. (See "Belt Removal for Conveyor Without Stands" on page 24 or "Belt Removal for Conveyor With Stands" on page 26.)
2. Remove wear plate **(Figure 144, item 1)** by removing plate fastening screws **(Figure 144, item 2)** on each side and end of conveyor

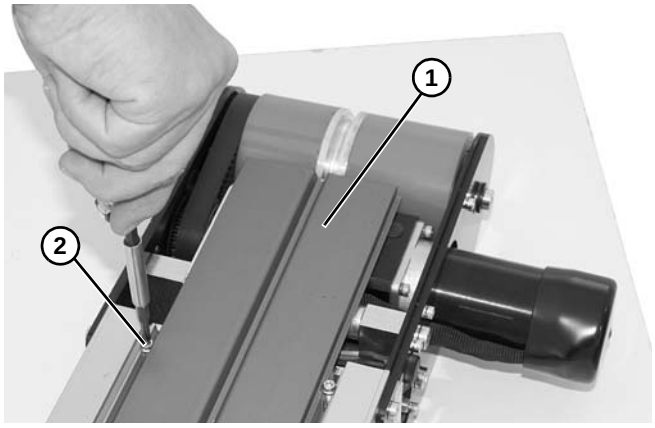


Figure 144

3. Disconnect two wiring harness connectors **(Figure 145, item 1)**.

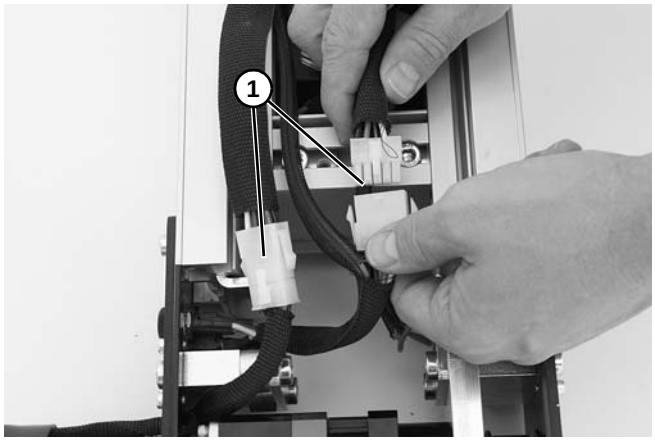


Figure 145

4. Remove black cap **(Figure 146, item 1)** from end of drive motor.

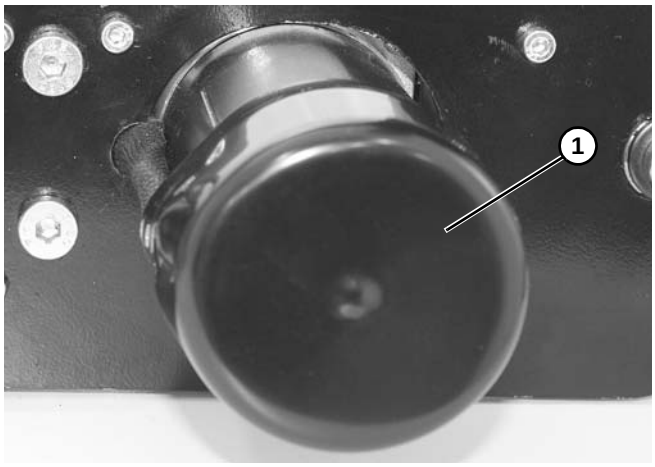


Figure 146

5. Remove two socket head screws **(Figure 147, item 1)** and washers securing drive motor plate **(Figure 147, item 2)** to conveyor.

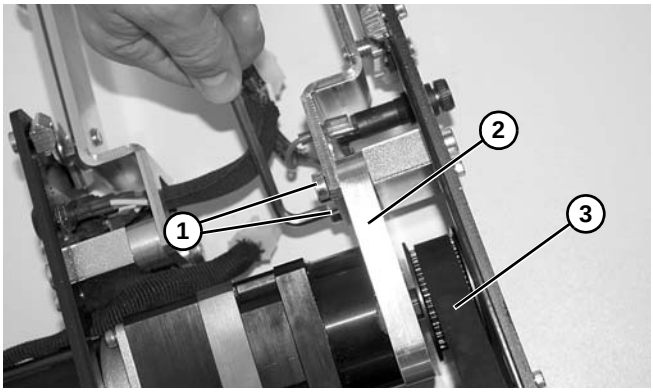


Figure 147

6. Slide drive motor and plate **(Figure 147, item 2)** to loosen tension on timing belt **(Figure 147, item 3)**.
7. Remove socket head screw **(Figure 148, item 1)** and washer from both sides of the conveyor.

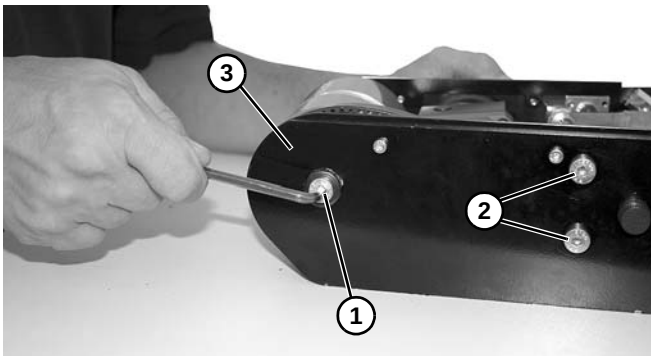


Figure 148

8. Remove socket head screws **(Figure 148, item 2)** on timing belt side. Remove plate **(Figure 148, item 3)**.
9. Remove timing belt **(Figure 149, item 1)**.

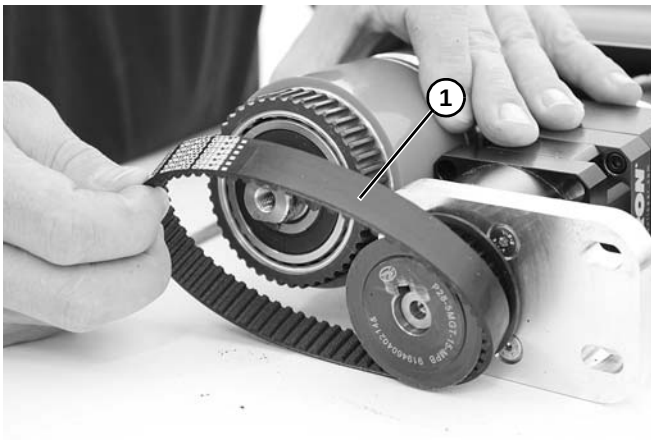


Figure 149

10. Slide drive motor **(Figure 150, item 1)** and remove from side plate **(Figure 150, item 2)**.

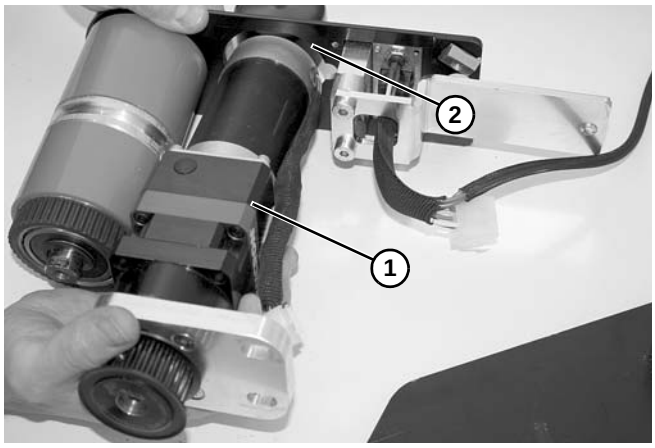


Figure 150

11. Loosen two set screws **(Figure 151, item 1)** holding drive motor gear **(Figure 151, item 2)** onto drive motor shaft.

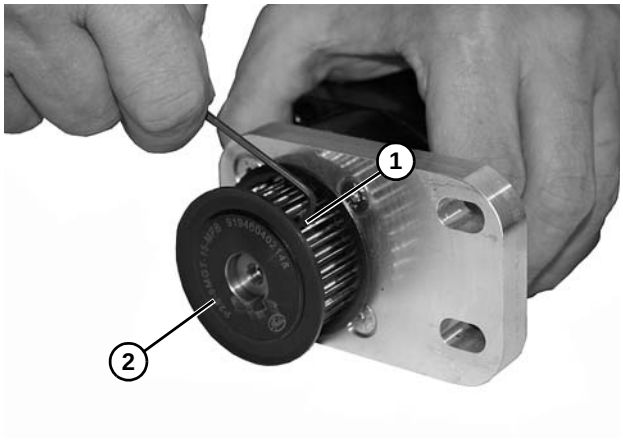


Figure 151

NOTE

*Take note of the drive motor gear **(Figure 151, item 1)** placement. When reassembling the drive motor gear, it should be reassembled to the exact same location on the shaft.*

12. Remove drive motor gear from drive motor shaft.

13. Remove socket head screws **(Figure 152, item 1)** and remove headplate **(Figure 152, item 2)** from drive motor.

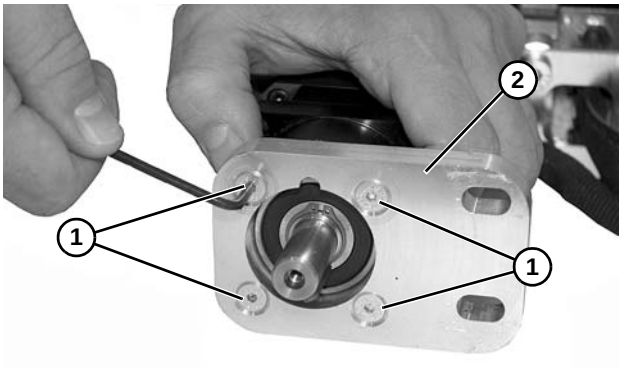


Figure 152

14. Replace motor.
15. Reinstall in reverse order of removal. (Refer to "iDrive Spindle Removal and Replacement" on page 48 for timing belt tensioning.)

iDrive Controller Removal and Replacement

⚠ WARNING

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

1. Remove belt. (See "Belt Removal for Conveyor Without Stands" on page 24 or "Belt Removal for Conveyor With Stands" on page 26.)
2. Remove wear plate **(Figure 153, item 1)** by removing plate fastening screws **(Figure 153, item 2)** on each side and end of conveyor

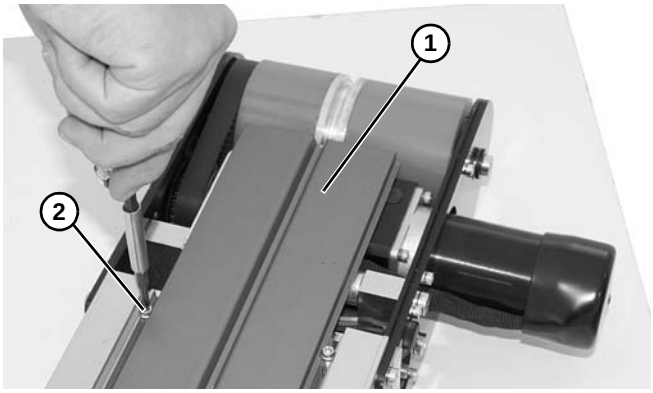


Figure 153

3. Disconnect two wiring harness connectors **(Figure 154, item 1)**.

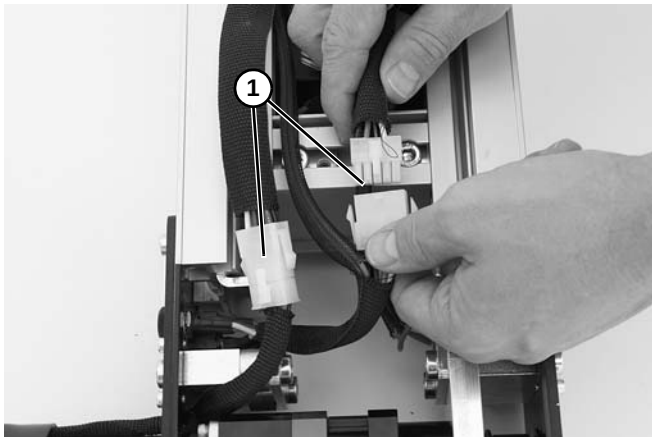


Figure 154

4. Remove flat head screws **(Figure 155, item 1)**.

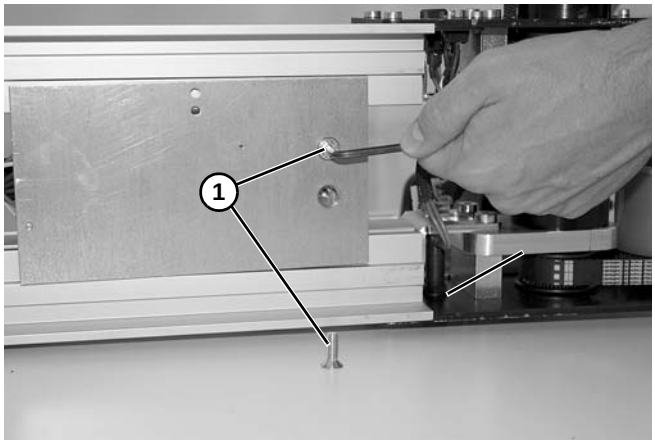


Figure 155

5. Remove control unit **(Figure 156, item 1)** from conveyor frame.

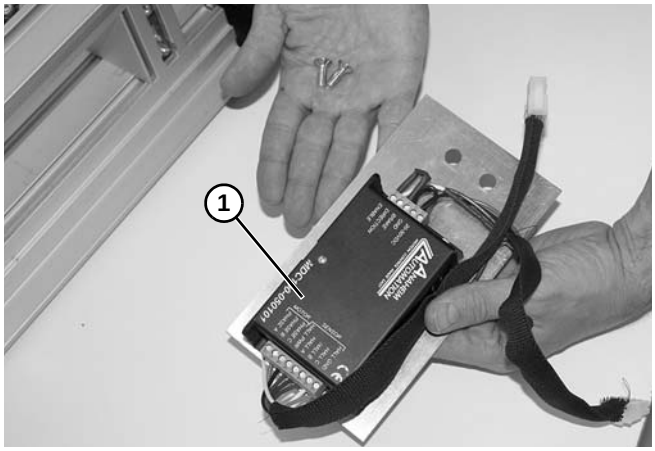


Figure 156

NOTE

Make sure the cord or wires are not across the circuit board when reassembling. Tuck wires and cable into the frame extrusion.

6. Reinstall in reverse order of removal.

iDrive Switch Removal and Replacement

⚠ WARNING

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

1. Remove belt. (See "Belt Removal for Conveyor Without Stands" on page 24 or "Belt Removal for Conveyor With Stands" on page 26.)
2. Remove wear plate **(Figure 157, item 1)** by removing plate fastening screws **(Figure 157, item 2)** on each side and end of conveyor

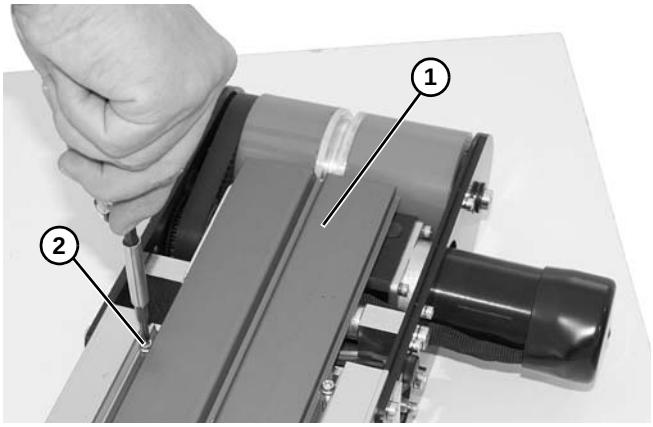


Figure 157

3. Disconnect two wiring harness connectors **(Figure 158, item 1)**.

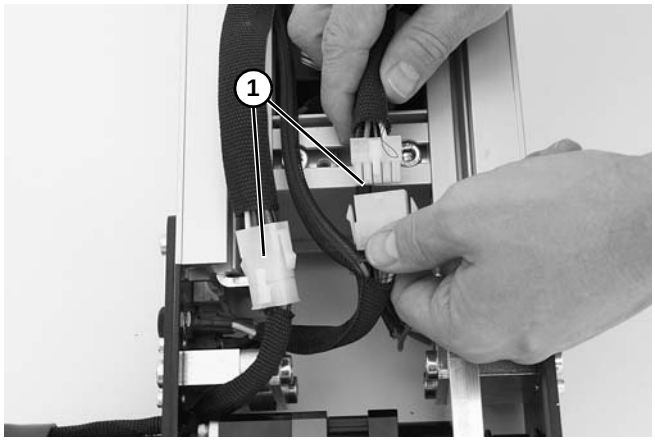


Figure 158

4. Remove two socket head screws **(Figure 159, item 1)** and switch assembly **(Figure 159, item 2)** from conveyor frame.

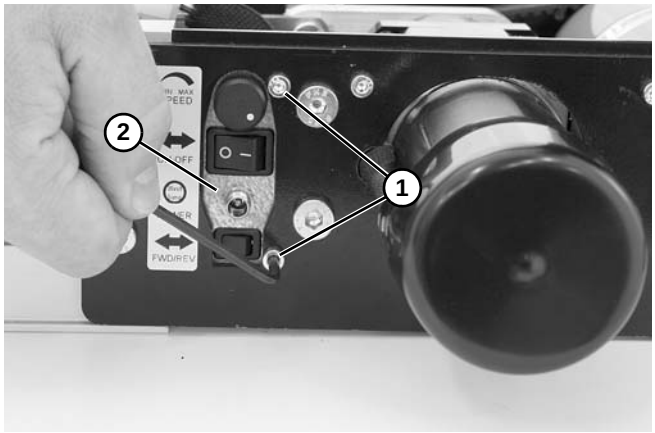


Figure 159

5. Replace switch assembly.

NOTE

Make sure the cord or wires are not kinked or under any conveyor parts when reassembling.

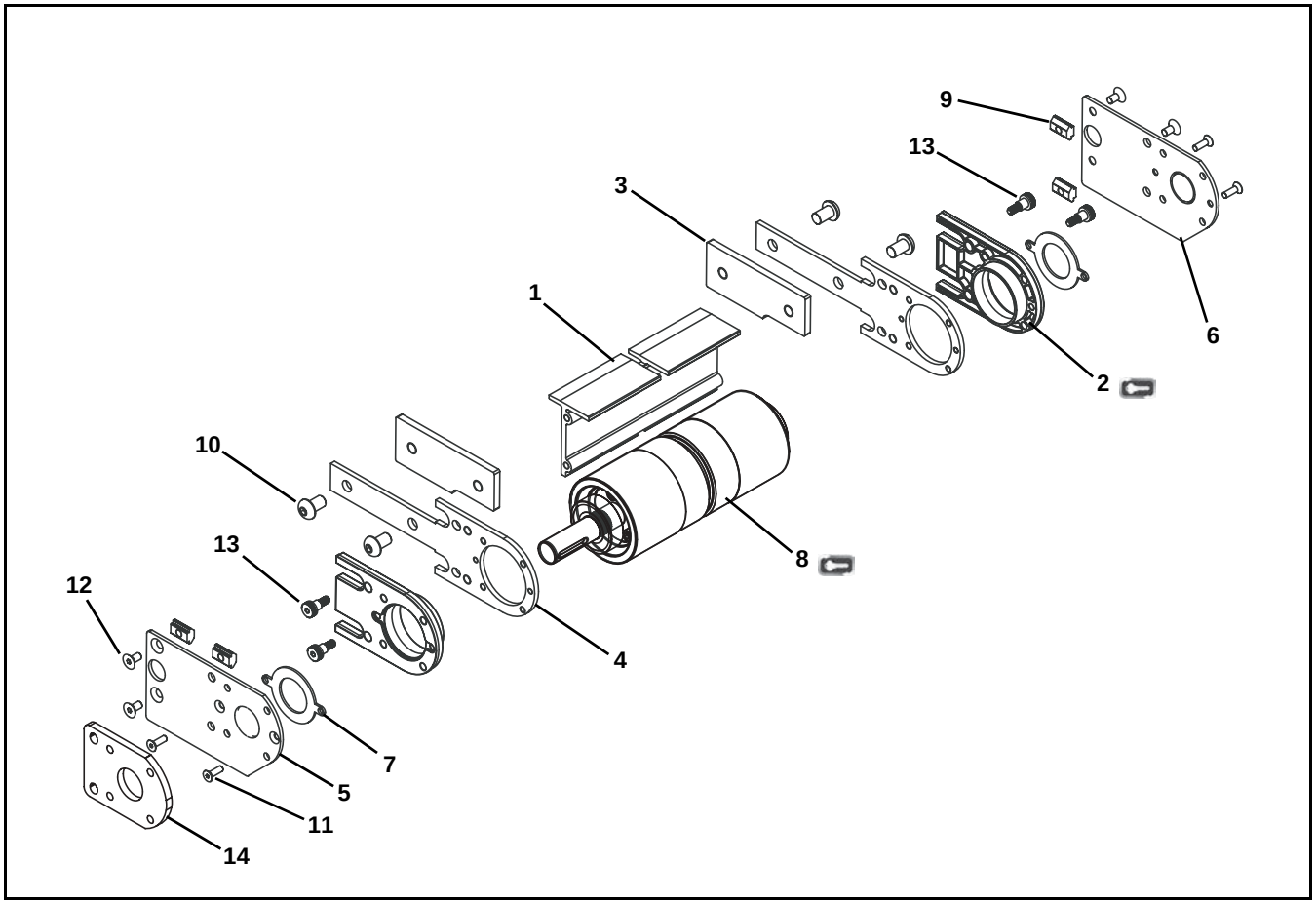
6. Reinstall in reverse order of removal.

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.

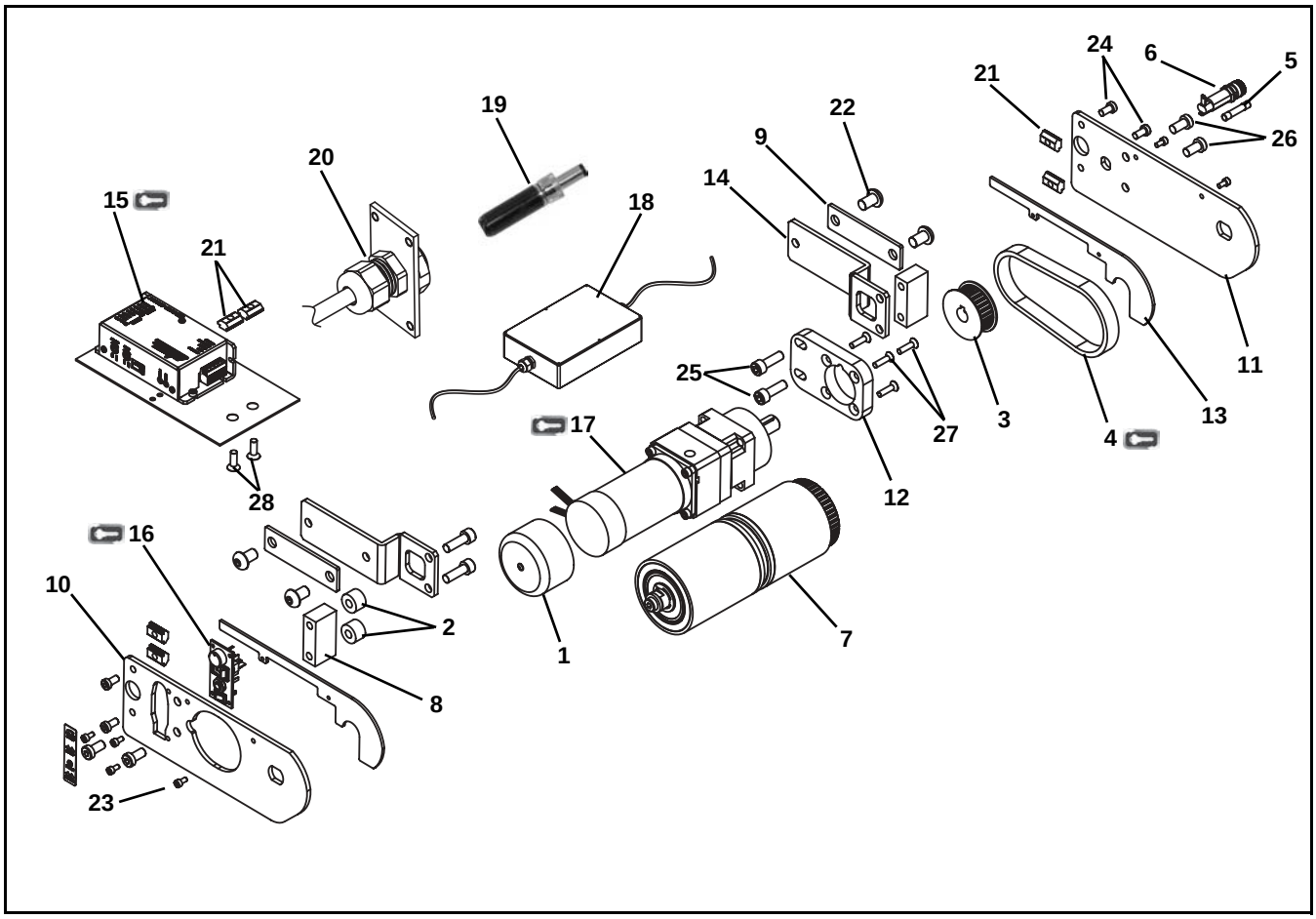
End Drive Tail Assembly



Item	Part Number	Description
1	350311-WW	Articulation Bar
2	350312	Bearing Housing
3	350351	Clamp Plate
4	350360	Backing Plate
5	350361	Cover Plate, Right Hand
	350363	Tensioned Tail Cover Plate, Right Hand
6	350362	Cover Plate, Left Hand
	350634	Tensioned Tail Cover Plate, Left Hand
7	350365	Bearing Stop Plate
8	32V2DS-WW	Drive Spindle Kit
	32V2DDS-WW	Dual Shaft Drive Spindle Kit
	32V2DLS-WW	Legged Drive Spindle Kit
	32V2DDLS-WW	Dual Shaft Legged Drive Spindle Kit

Item	Part Number	Description
9	639971M	Drop-In Tee Bar
10	911016M	Button Head Screw, M10-1.50 x 16 mm
11	930516M	Flat Head Screw, M5-.80 x 16 mm
12	930612M	Flat Head Screw, M6-1.00 x 16 mm
13	940808M	Shld Screw, 8 mm x 8 mm
14	351003	Spacer Plate
WW = Conveyor width reference: 04 to 48 in 02 increments		

iDrive Tail Assembly

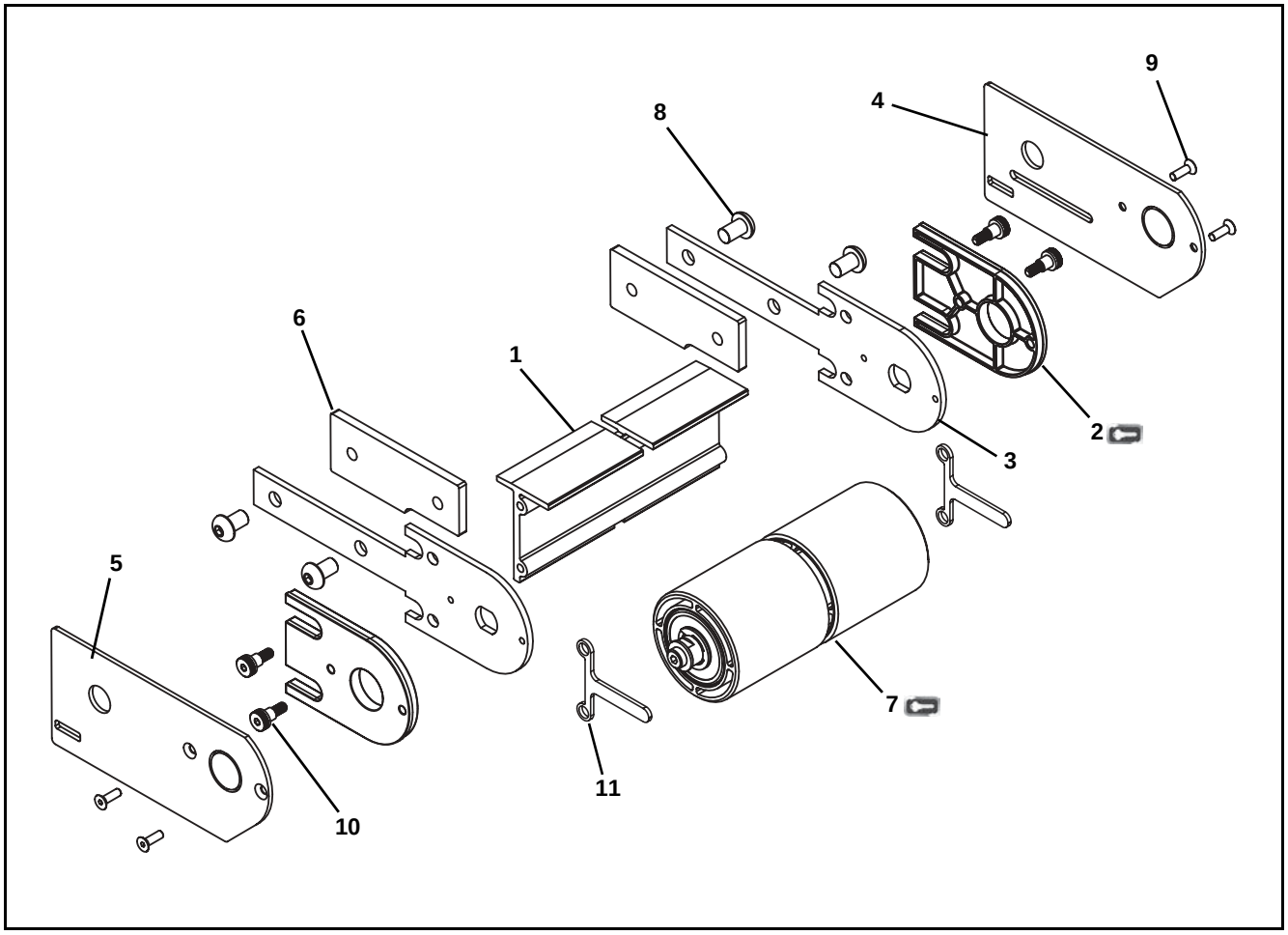


Item	Part Number	Description
1	807-1941	Cover for 6" & 8" wide conveyors only
2	807-2391	Spacer
3	811-361	Pulley 5 mm x 15 mm 36 tooth
	811-362	Pulley 5 mm x 15 mm 28 tooth
4	814-433	Timing Belt, 15 mm x 340 mm long
⇦	814-434	Timing Belt, 15 mm x 355 mm long
5	819-028	Fuse
6	819-150	Fuse Holder
7	350088-32-WW	Spindle Assembly
8	350095	Tracking Block
9	350582	Frame Connector Plate
10	350909-H	Switch Side Tail Plate for 6" & 8" wide conveyors
	350909	Switch Side Tail Plate for 10" wide and wider conveyors
11	350910	Tail Plate
12	350911	Motor Mounting Plate
13	350912	Inner Tail Plate
14	350913	Bent Mounting Bracket
15 ⇦	350918	Controller Assembly

Item	Part Number	Description
16	350919	Switch Assembly
⇦	350921-006	Remote Start/Stop Assembly 6'
	350921-030	Remote Start/Stop Assembly 30'
17	826-580	Low Speed Motor
⇦	826-579	Medium and High Speed Motor
18	350132	Power Supply
19	805-1316	DC Power Plug
20	350104	Custom Wired Version
21	639971M	Drop-In Tee Bar
22	911016M	Button Head Screw, M10-1.50 x 16 mm
23	920408M	Socket Head Screw, M4-.80 x 8 mm
24	950612M	Low Head Cap Screw, M6-1.00 x 12 mm
25	920825M	Socket Head Screw, M8-1.25 x 25 mm
26	950816M	Low Head Cap Screw, M8-1.25 x 16 mm
27	930520M	Flat Head Screw, M5-.8 x 20 mm
28	930618M	Flat Head Screw, M6-1.00 x 18 mm
WW = Conveyor width reference: 06 to 24 in 02 increments		

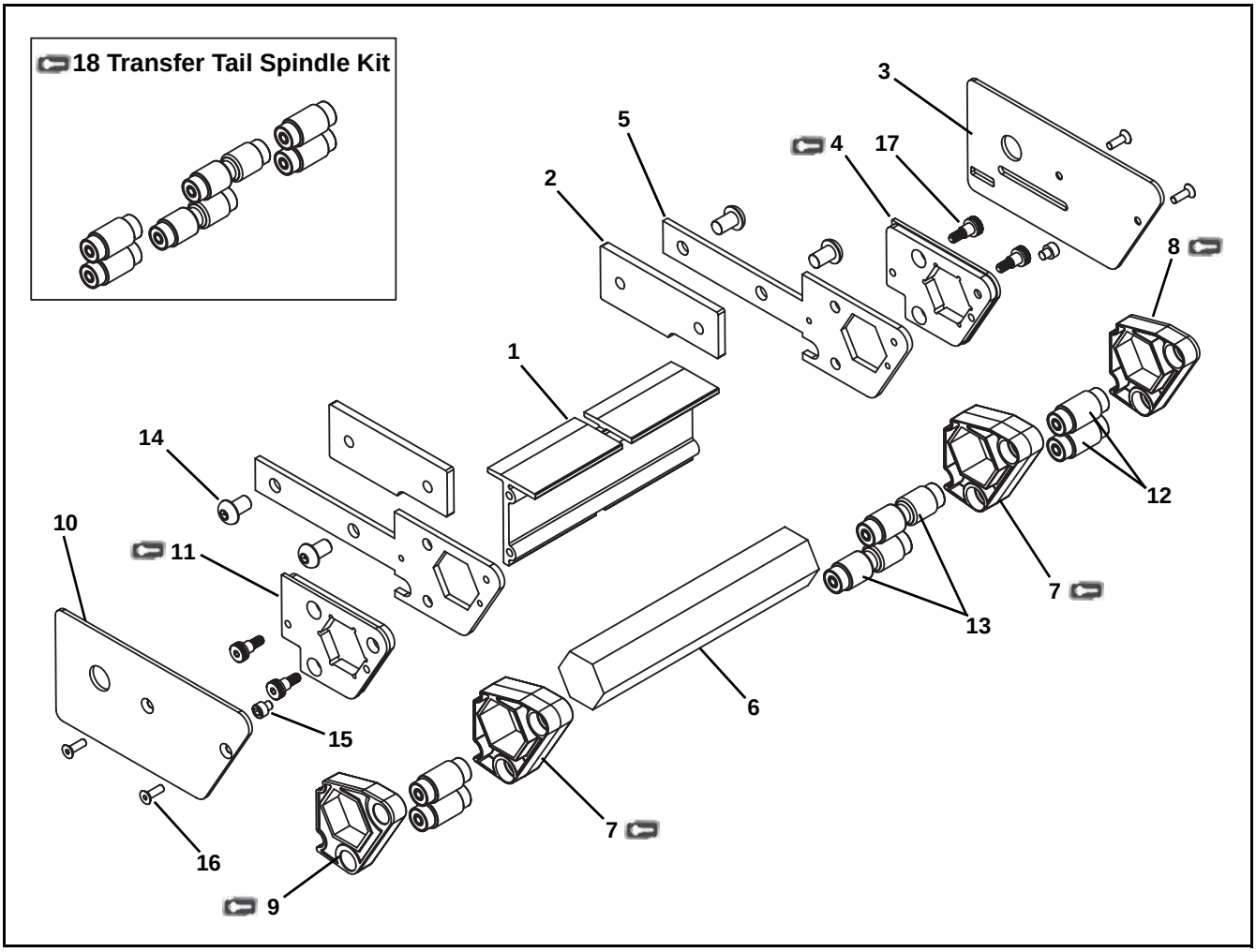
Service Parts

Idler Tail Assembly



Item	Part Number	Description
1	350311-WW	Articluation Bar
2	350314	Bearing Housing
3	350348	Backing Plate
4	350349	Cover Plate, Left Hand
5	350350	Cover Plate, Right Hand
6	350351	Clamp Plate
7	350870-WW	Spindle Assembly
8	911016M	Button Head Screw, M10-1.50 x 16 mm
9	930516M	Flat Head Screw, M5-.80 x 16 mm
10	940808M	SHLD Screw 8 mm x 8 mm
11	351082	Filler Plate
WW = Conveyor width reference: 04 to 48 in 02 increments		

Transfer Tail Assembly

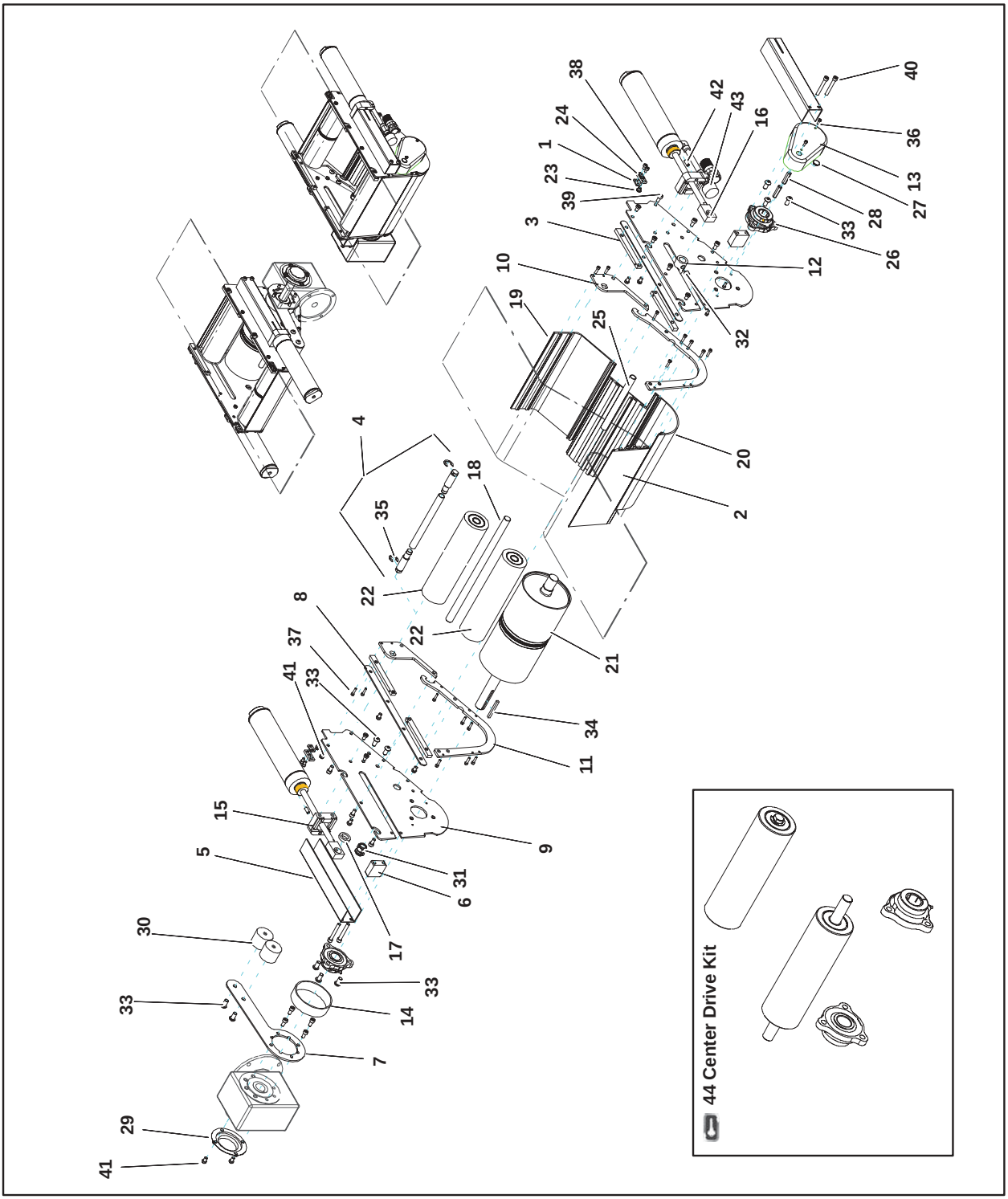


Item	Part Number	Description
1	350311-WW	Articulation Bar
2	350351	Clamp Plate
3	350373	Cover Plate Left Hand
4	350375	Spacer Left Hand
5	350377	Backing Plate
6	350378-WW	Hex Support
7	350379	Spindle Retainer
8	350379-LEFT	Spindle Retainer Left Hand
9	350379-RIGHT	Spindle Retainer Right Hand
10	350418	Cover Plate Right Hand
11	350419	Spacer Right Hand
12	350432-WW	Spindle Assembly
13	240432V-WW	V-Guide Spindle Assembly

Item	Part Number	Description
14	911016M	Button Head Screw, M10-1.50 x 16 mm
15	920606M	Socket Head Screw, M6-1.00 x 6 mm
16	930516M	Flat Head Screw, M5-.80 x 16 mm
17	940808M	SHLD Screw 8 mm x 8 mm
18	32V2TTS-WW	Transfer Tail Spindle Kit (Includes items 12 & 13)
WW = Conveyor width reference: 04 to 48 in 02 increments		

Service Parts

Center Drive Assembly



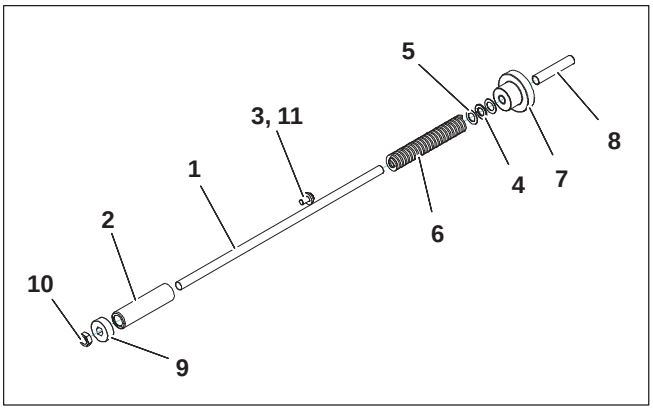
Item	Part Number	Description
1	200038	Cam Clamping Plate
2	See Table 1	Flat Guard
3	301088	Tail Clamping Bar
4	3227-WW	Wand Assy for 3" Idler Roller
5	532419	Cylinder Channel Guard
6	301216	Cylinder Guard Mounting Block
7	301217	Torsion Arm Plate
8	301218	Side Plate Spacer
9	301219	Center Drive Side 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	3242-WW	Tension Pulley Axle Shaft
19	3243-WW	Bottom End Guard
20	3244-WW	Bottom Corner Guard
21	3287-WW	6" Diameter Pulley
22	3290-WW	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 20 mm
34	912-111	Square Key
35	915-265	E Retaining Ring
36	920512M	Socket Head Screw M5 x 12 mm
37	920520M	Socket Head Screw M5 x 20 mm
38	920610M	Socket Head Screw M6 x 10 mm
39	920816M	Socket Head Screw M8 x 16 mm
40	920860M	Socket Head Screw M8 x 60 mm
41	950812M	Low Head Screw M8 x 12 mm
42	970820M	Cup Set Screw M8 x 20 mm
43	301213	Pneumatic Tension Assy
44	32CD-WW	Center Drive Kit (includes items 4, 18, 22 and 26)
WW = Conveyor width reference: 04 to 48 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

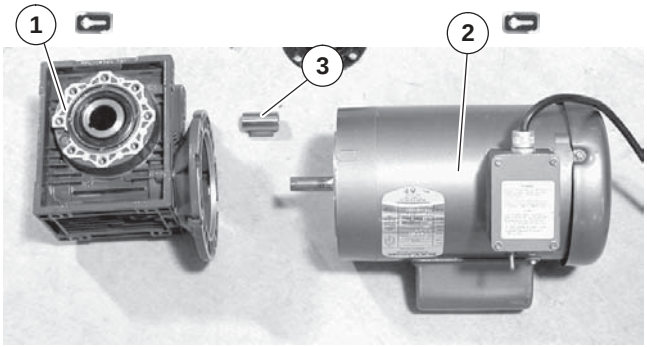
Service Parts

Center Drive Manual Tensioner



Item	Part Number	Description
1	301410	Threaded Rod 1/2" x 17" Long
2	3015-WW	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	950816M	Low Head Cap Screw, M8 x 16 mm
WW = Conveyor width reference: 04 to 48 in 02 increments		

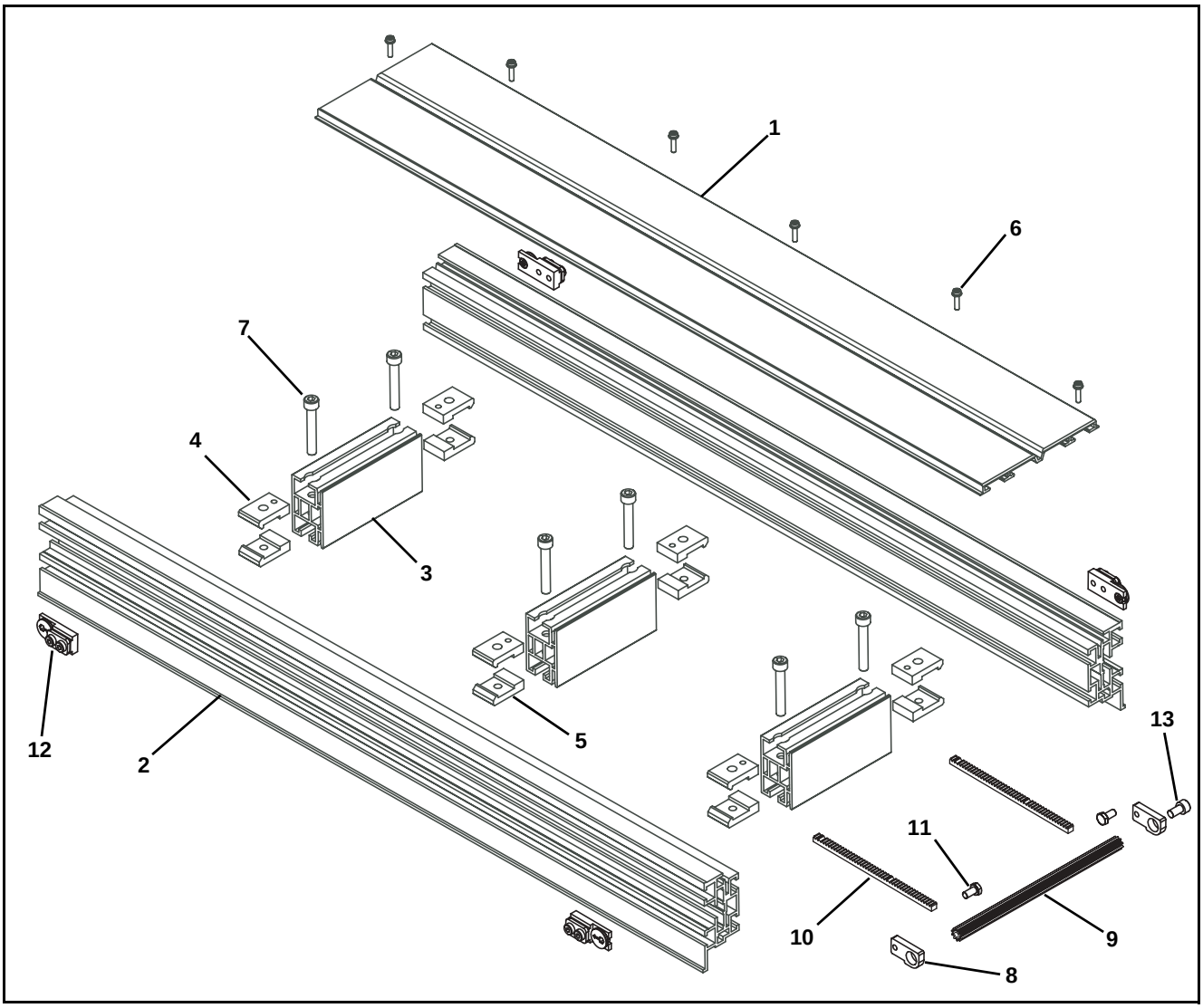
Center Drive 90° Industrial Gearmotors



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

Frame Assembly

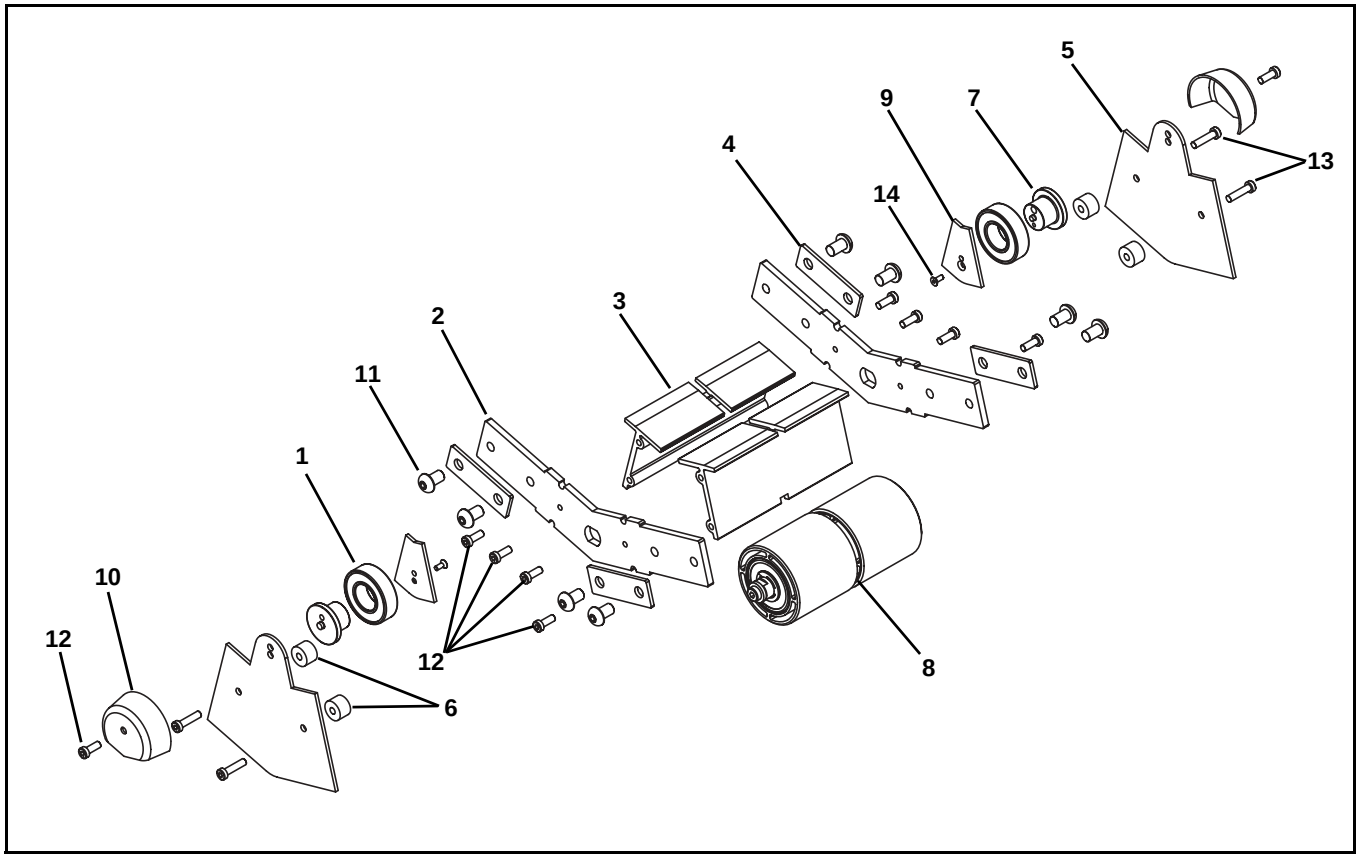


Item	Part Number	Description
1	300887-LLLLL	1.75" Bedplate Rail
	300888-LLLLL	2" BedPlate Rail
	300889-LLLLL	4" BedPlate Rail
	300890-LLLLL	6" BedPlate Rail
2	350298-LLLLL	Side Rail
3	350308-WW	Crossmember
4	350556	Top Frame Clip for 4" wide conveyors only
	350309	Top Frame Clip for 6" wide and wider conveyors
5	350555	Bottom Frame Clip for 4" wide conveyors only
	350310	Bottom Frame Clip for 6" wide and wider conveyors
	350964	Bottom Frame Clip for iDrive conveyors on end with overhang
6	920484M	Flange Screw, M4-.70 x 16 mm
7	920850M	Socket Head Screw, M8-1.25 x 50 mm
8	350352	Pinion Retainer
9	350353-WW	Pinion
10	350354	Rack
11	960612M	Hex Head Cap Screw, M6-1.00 x 12 mm
12	350637	Tracking Cams
13	920612M	Socket Head Screw, M6-1.00 x 12 mm
LLLLL = Length is inches width 2 decimal places		
Length Example: Length = 35.25" LLLLL = 03525		
WW = Conveyor width reference: 04 – 48 in 02 increments		

Conveyor Width	Item 1: Bed Plate Rail 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"

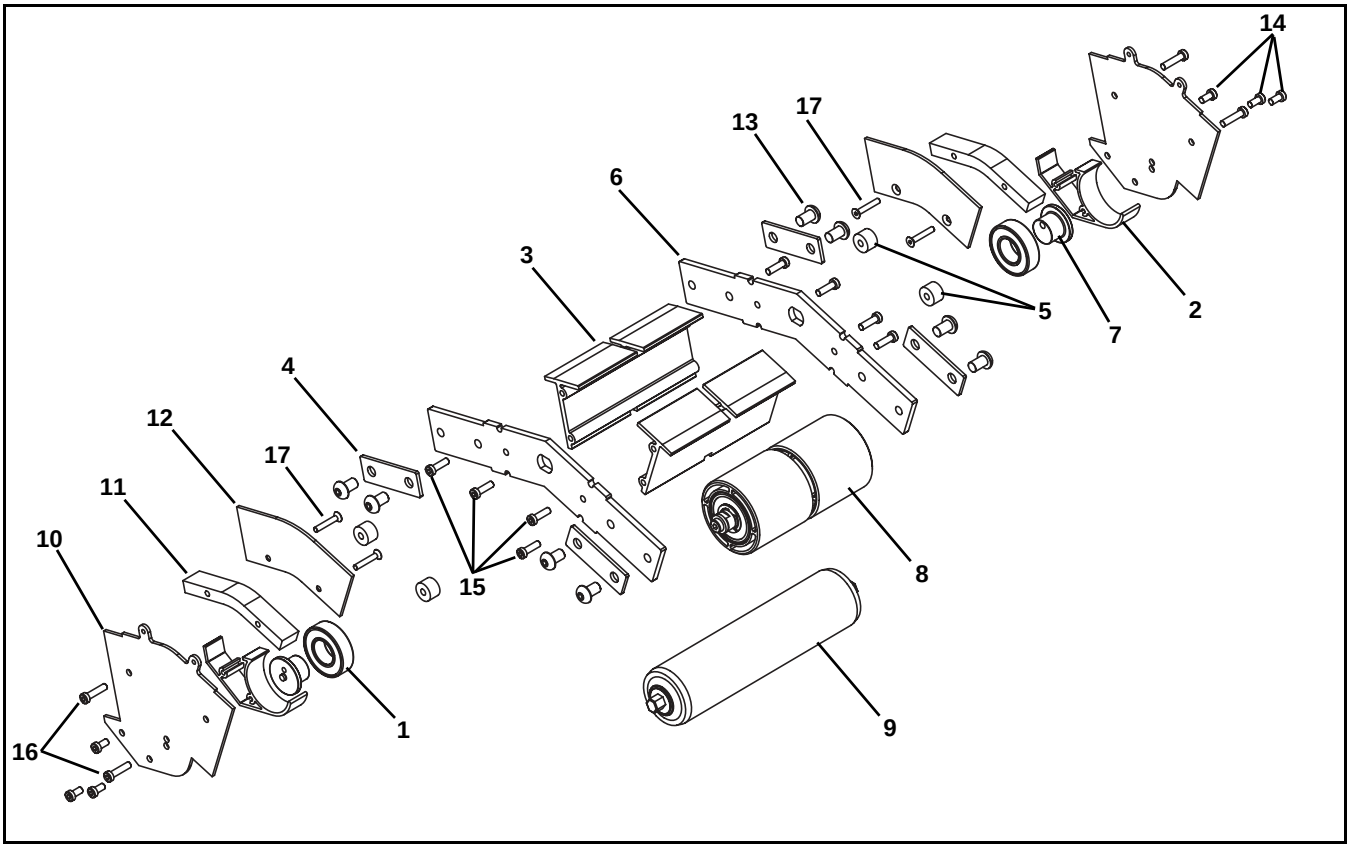
Service Parts

Lower Knuckle Assembly



Item	Part Number	Description
1	802-109	Bearing
2	350493-AA	Backing Plate
3	350494-WW	Cross Bar
4	350496	Clamp Plate
5	350497-AA	Cover Plate
6	350499	Spacer
7	350502	Stub Bearing
8	350824-WW	Spindle Assembly
9	351120-AA	Inner Guard Plate for lowside conveyors
	350503-AA	Inner Guard Plate for 2.50" high side conveyors
	350444-AA	Inner Guard Plate for 4.00" & 6.00" high side conveyors
10	350504C-AA	Bearing Cover
11	911016M	Button Head Screw, M10-1.50 x 16 mm
12	950616M	Low Head Cap Screw, M6-1.00 x 16 mm
13	950625M	Low Head Cap Screw, M6-1.00 x 25 mm
14	930410M	Flat Head Screw, M4-.70 x 10 mm
WW = Conveyor width reference: 08 to 24 in 02 increments		
AA = Angle 25, 30, 45, and 60		

Upper Knuckle Assembly

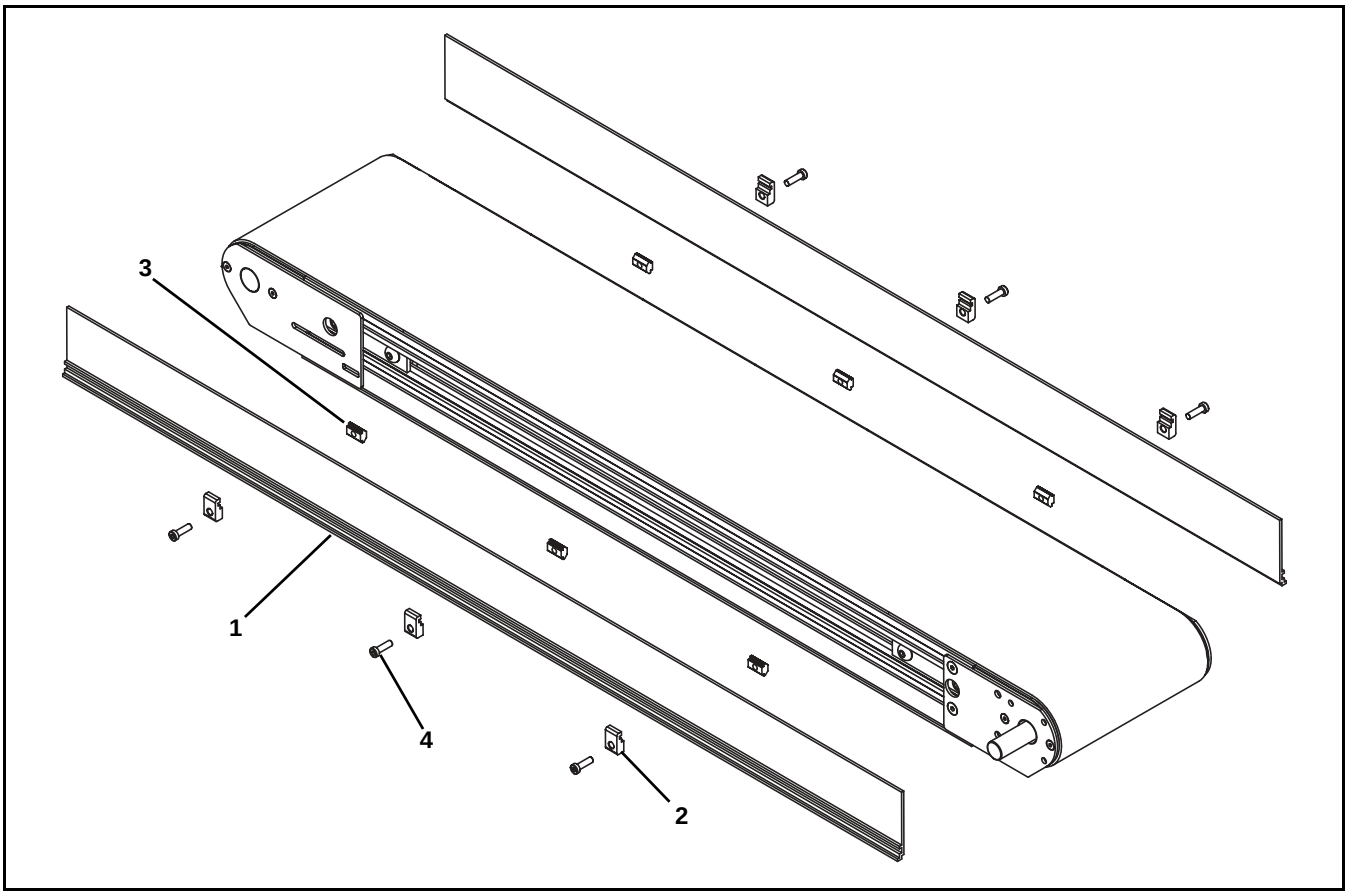


Item	Part Number	Description
1	802-109	Bearing
2	352501	Cover for cleated conveyors
	350825-WW	Cover for flat belt conveyors
	350826-WW	Cover for flat belt conveyors with # 64 belt
3	350494-WW	Cross Bar
4	350496	Clamp Plate
5	350499	Spacer
6	350506-AA	Backing Plate
7	350508	Stub Bearing
8	350824-WW	Spindle Assembly for cleated conveyors
9	3525WW	Roller for flat belt conveyors
10	350984-AA	Plate for lowside cleated conveyors
	350507-AA	Plate for 2.50", 4.00" & 6.00" cleated conveyors
	350511-AA	Plate for flat belt lowside conveyors
	350981-AA	Plate for flat belt 3.00" highside conveyors
	350982-AA	Plate for flat belt 1.50" highside conveyors
	350983-AA	Plate for flat belt 4.00"& 6.00" highside conveyors
11	350509-AA	Spacer Guard

Item	Part Number	Description
12	350510-AA	Upper Guard for 2.50" cleated conveyors
	350440-AA	Upper Guard for 4.00" & 6.00" cleated conveyors
	350440-AA-04	Upper Guard for 4.00" flat belt conveyors
	350440-AA-06	Upper Guard for 6.00" flat belt conveyors
13	911016M	Button Head Screw, M10-1.50 x 16 mm
14	950612M	Low Head Cap Screw, M6-1.00 x 12 mm
15	950620M	Low Head Cap Screw, M6-1.00 x 20 mm
16	950625M	Low Head Cap Screw, M6-1.00 x 25 mm
17	930530M	Flat Head Screw, M5-.80 x 30 mm
WW = Conveyor width reference: 08 to 24 in 02 increments		
AA = Angle 5, 10, 15, 20, 25, 30, 45, and 60		

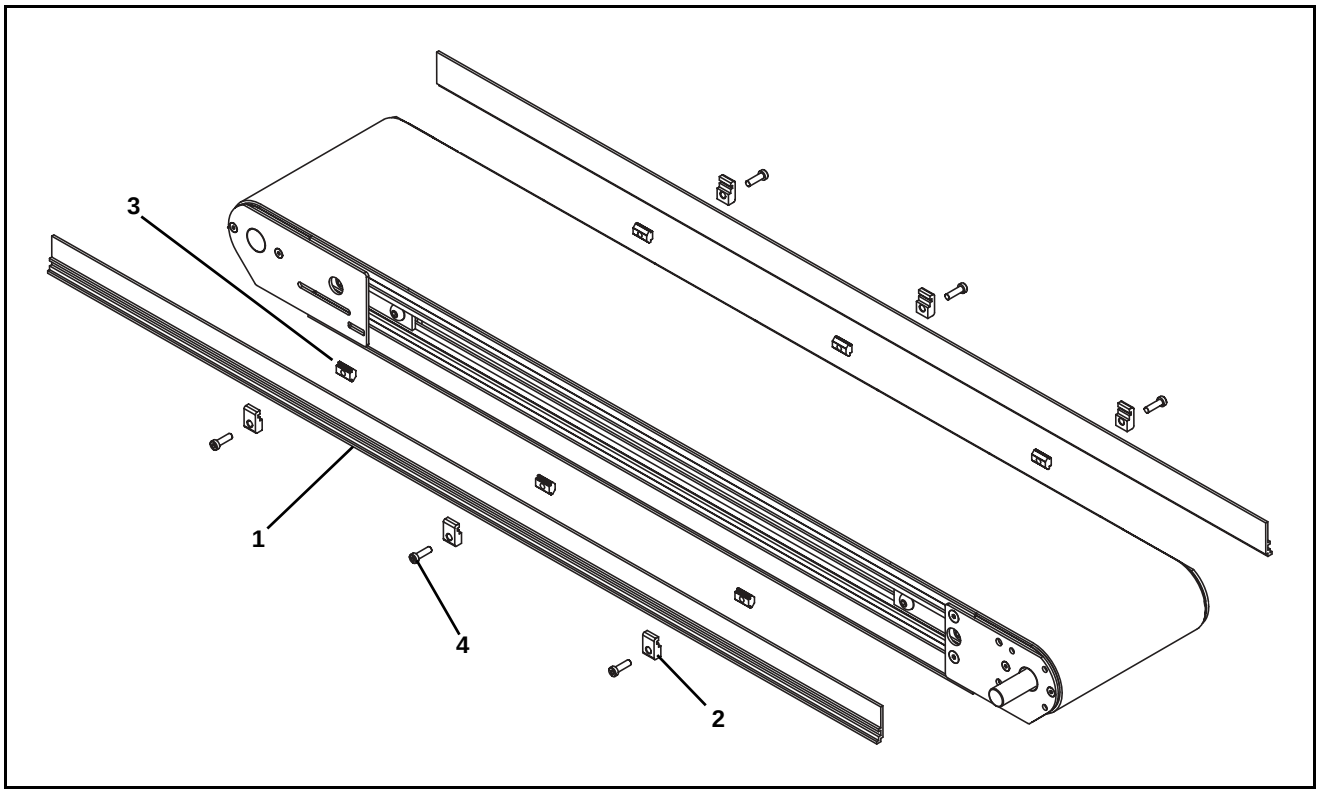
Service Parts

#04 3" (76 mm) Aluminum Side



Item	Part Number	Description
1	380400-LLLLL	3.00" Guides
2	200121	Guide Clip
3	639971MK10	Single Drop-In Tee Bar (x10)
4	950620M	Low Head Cap Screw, M6-1.00 x 20 mm
LLLLL = Length is inches width 2 decimal places		
Length Example: Length = 35.25" LLLLL = 03525		

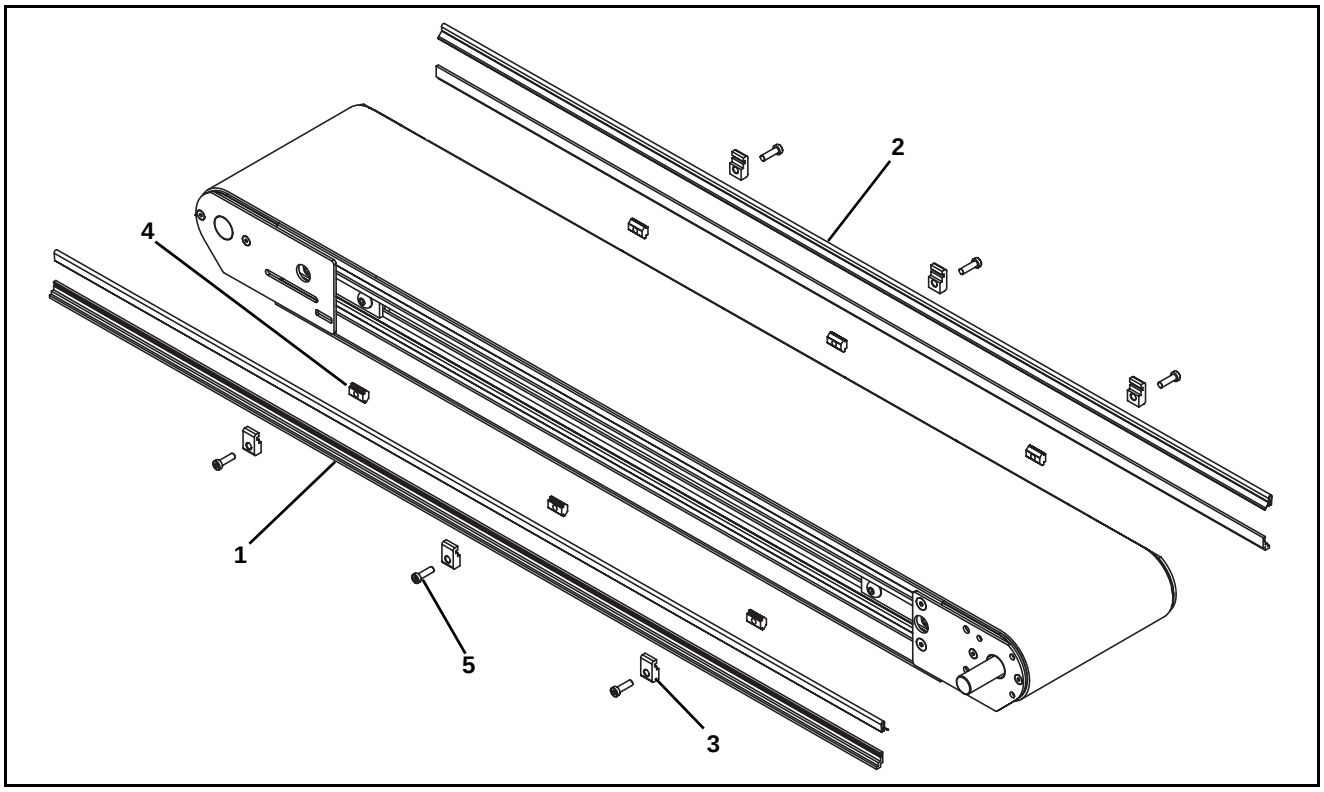
#05 1.5" (38 mm) Aluminum Side



Item	Part Number	Description
1	380500-LLLLL	1.50" Guides
2	200121	Guide Clip
3	639971MK10	Single Drop-In Tee Bar (x10)
4	950620M	Low Head Cap Screw, M6-1.00 x 20 mm
LLLLL = Length is inches width 2 decimal places		
Length Example: Length = 35.25" LLLLL = 03525		

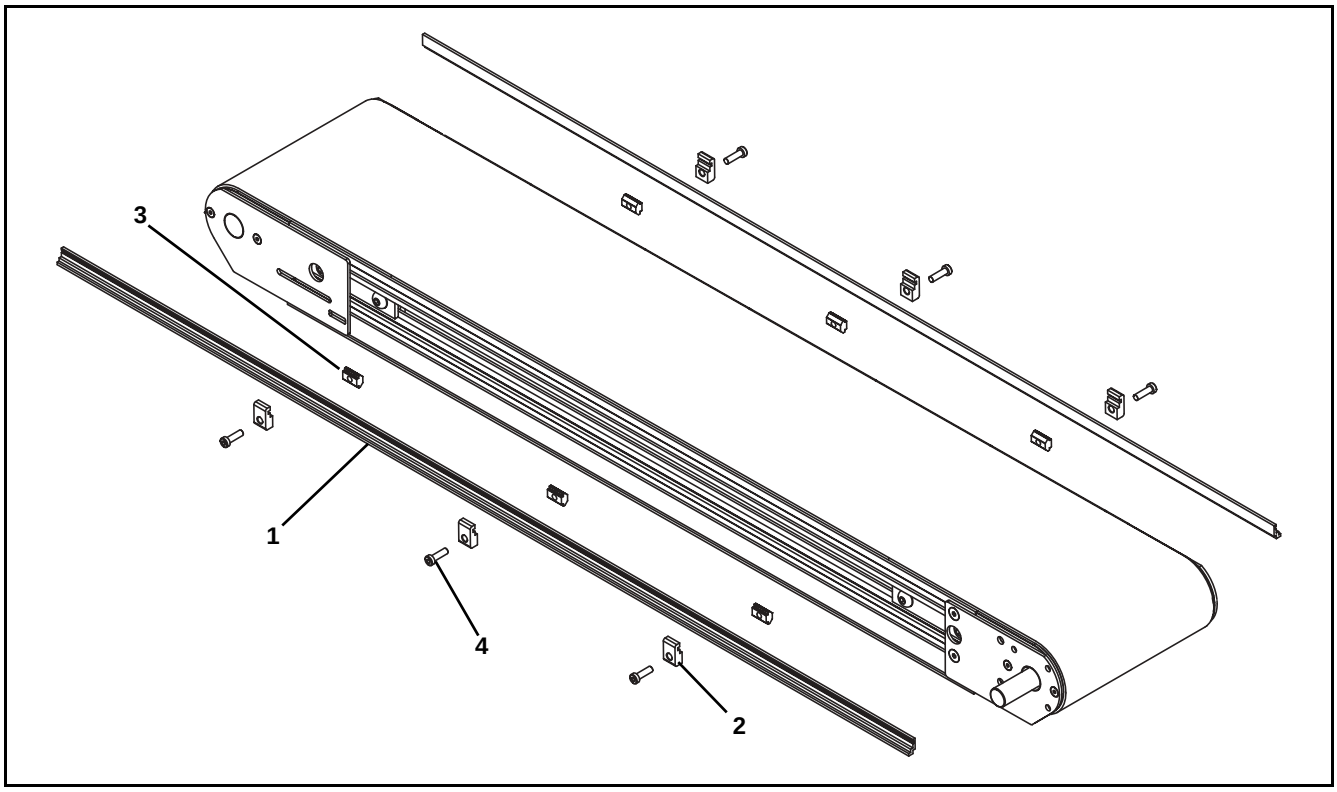
Service Parts

#07 Low to Side Wiper



Item	Part Number	Description
1	380700-LLLLL	0.50" Guides
2	41-00-24	Side Wiper
3	200121	Guide Clip
4	639971MK10	Single Drop-In Tee Bar (x10)
5	950620M	Low Head Cap Screw, M6-1.00 x 20 mm
LLLLL = Length is inches width 2 decimal places		
Length Example: Length = 35.25" LLLLL = 03525		

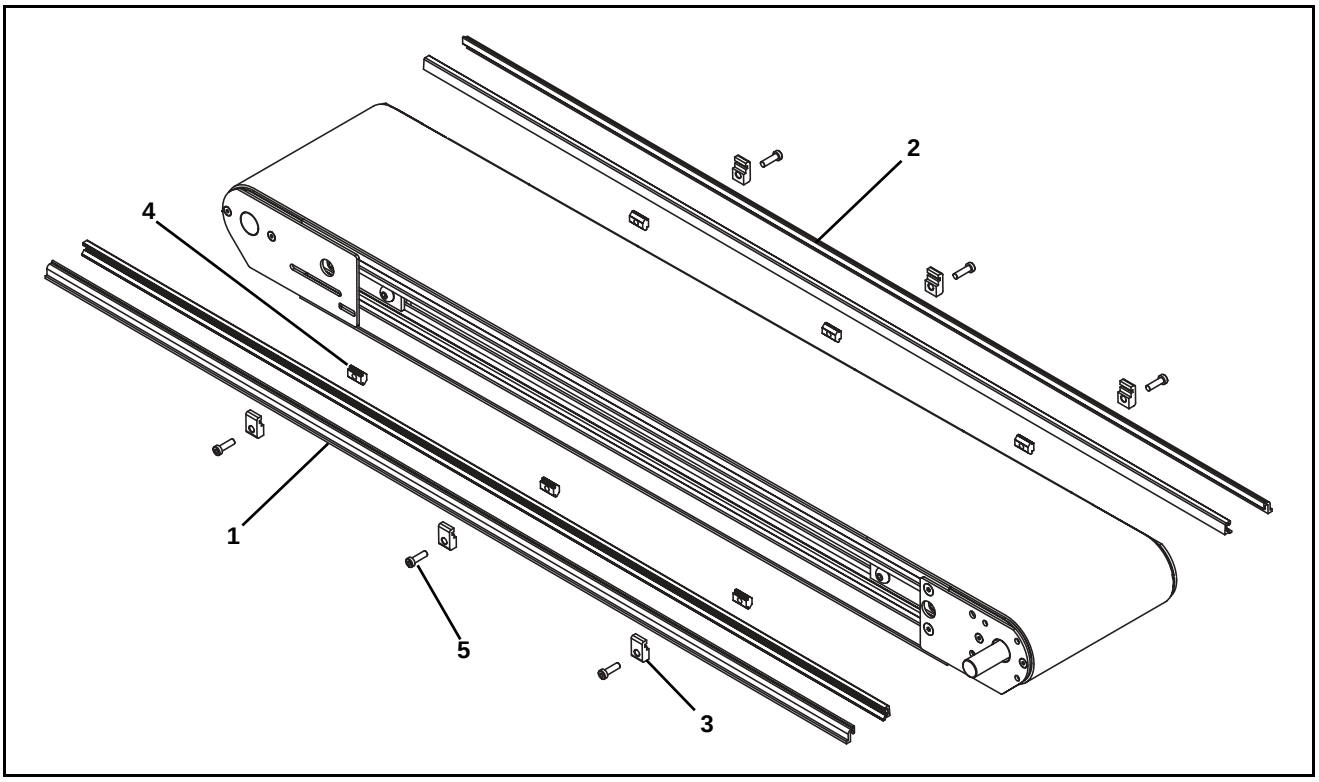
#09 Low to High Side



Item	Part Number	Description
1	380900-LLLLL	0.50" Guides
2	200121	Guide Clip
3	639971MK10	Single Drop-In Tee Bar (x10)
4	950620M	Low Head Cap Screw, M6-1.00 x 20 mm
LLLLL = Length is inches width 2 decimal places		
Length Example: Length = 35.25" LLLLL = 03525		

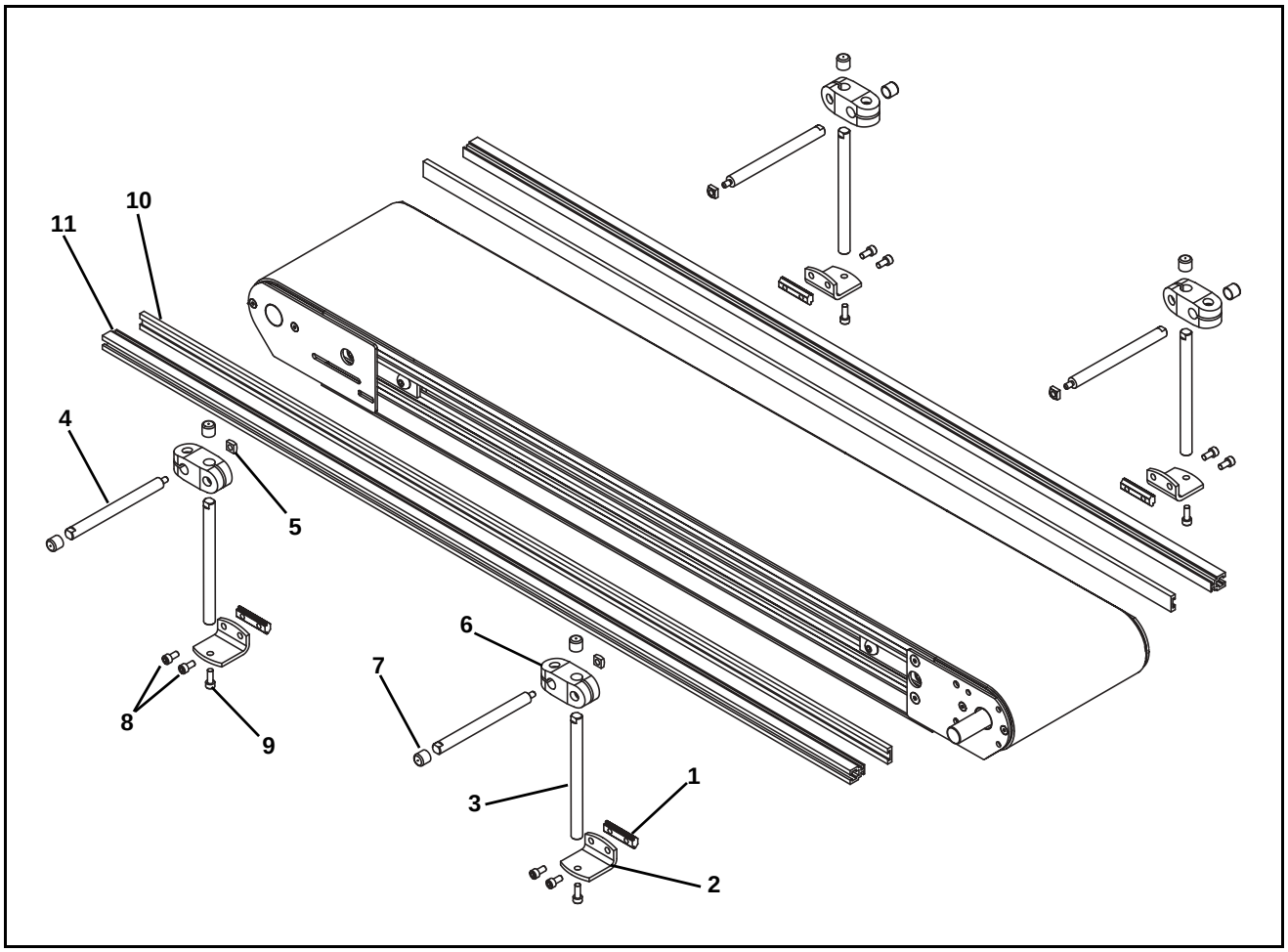
Service Parts

#10 0.5" (13 mm) Extruded Plastic



Item	Part Number	Description
1	381000-LLLLL	Guides
2	200054P	Snap-In Guide (per foot)
3	200121	Guide Clip
4	639971MK10	Single Drop-In Tee Bar (x10)
5	950620M	Low Head Cap Screw, M6-1.00 x 20 mm
LLLLL = Length is inches width 2 decimal places		
Length Example: Length = 35.25" LLLLL = 03525		

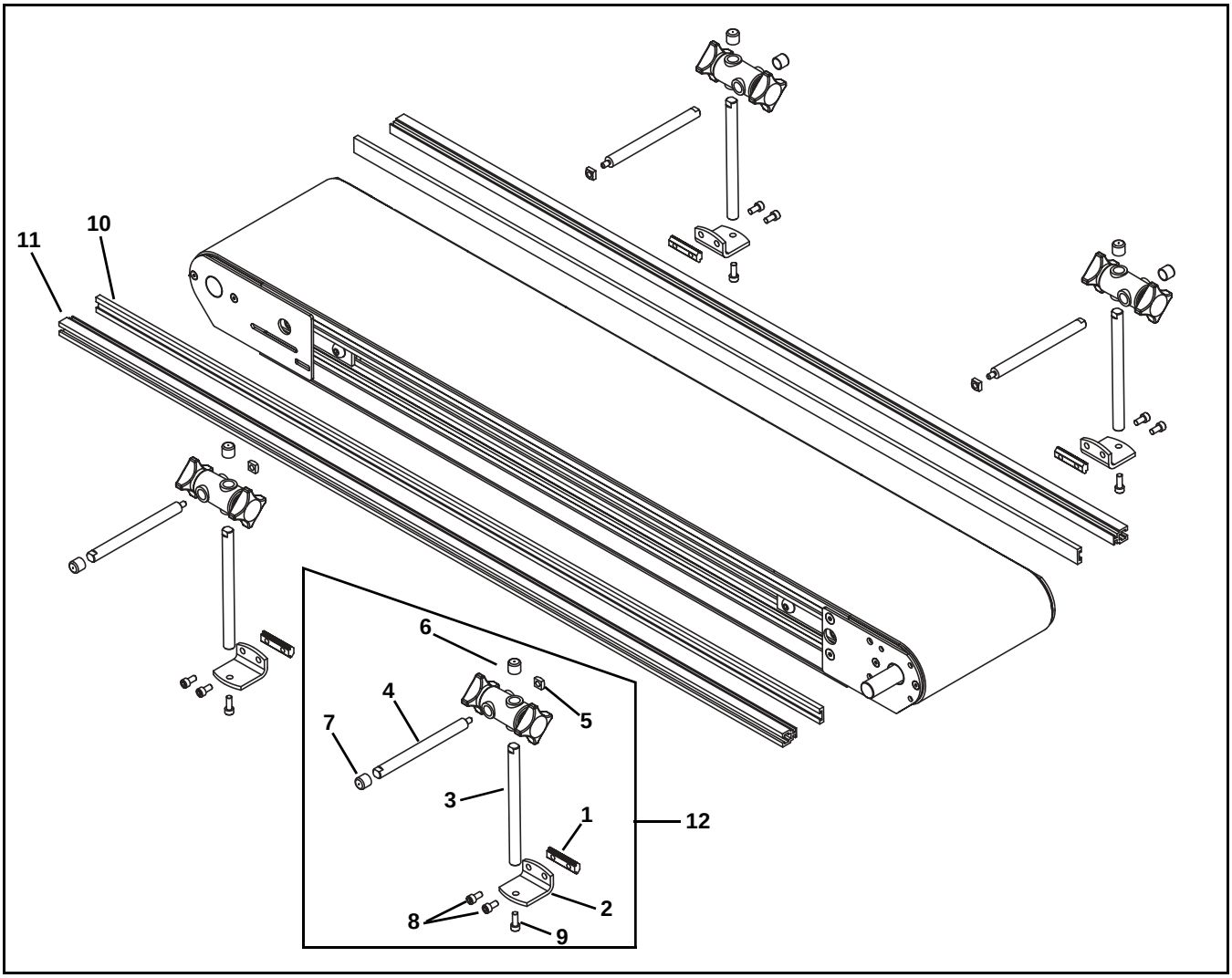
#13 Adjustable Guiding



Item	Part Number	Description
1	200830M	Drop–In Tee Bar
2	202004	Mounting Bracket
3	202027M	Guide Mounting Shaft Vertical
4	202028M	Guide Mounting Shaft Horizontal
5	674175MP	Square Nut
6	807–652	Cross Block
7	807–948	Vinyl Shaft Cap
8	920612M	Socket Head Screw, M6-1.00 x 12 mm
9	920616M	Socket Head Screw, M6-1.00 x 16 mm
10	614068P	Flat Extruded Guide (per foot)
11	460063-LLLLL	Aluminum Profile Guide
LLLLL = Length is inches width 2 decimal places		
Length Example: Length = 35.25" LLLLL = 03525		

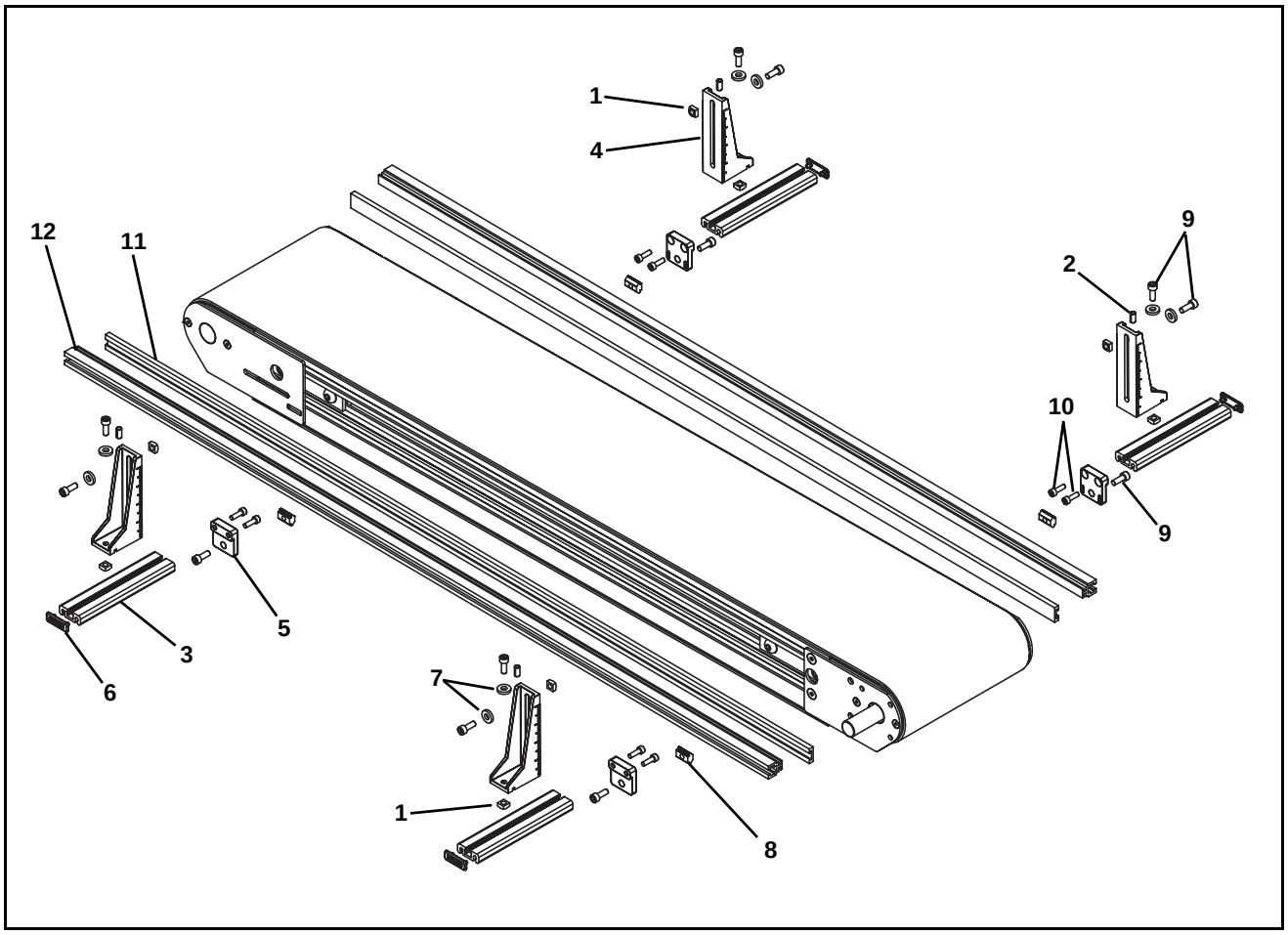
Service Parts

#14 Tool-Less Adjustable Guiding



Item	Part Number	Description
1	200830M	Drop–In Tee Bar
2	202004	Mounting Bracket
3	202027M	Guide Mounting Shaft Vertical
4	202028M	Guide Mounting Shaft Horizontal
5	674175MP	Square Nut
6	807–1470	Cross Block
7	807–948	Vinyl Shaft Cap
8	920612M	Socket Head Screw, M6-1.00 x 12 mm
9	920616M	Socket Head Screw, M6-1.00 x 16 mm
10	614068P	Flat Extruded Guide (per foot)
11	460063-LLLLL	Aluminum Profile Guide
12	352056	Tool-Less Guiding Assembly (Includes items 1 thru 9)
LLLLL = Length is inches width 2 decimal places		
Length Example: Length = 35.25" LLLLL = 03525		

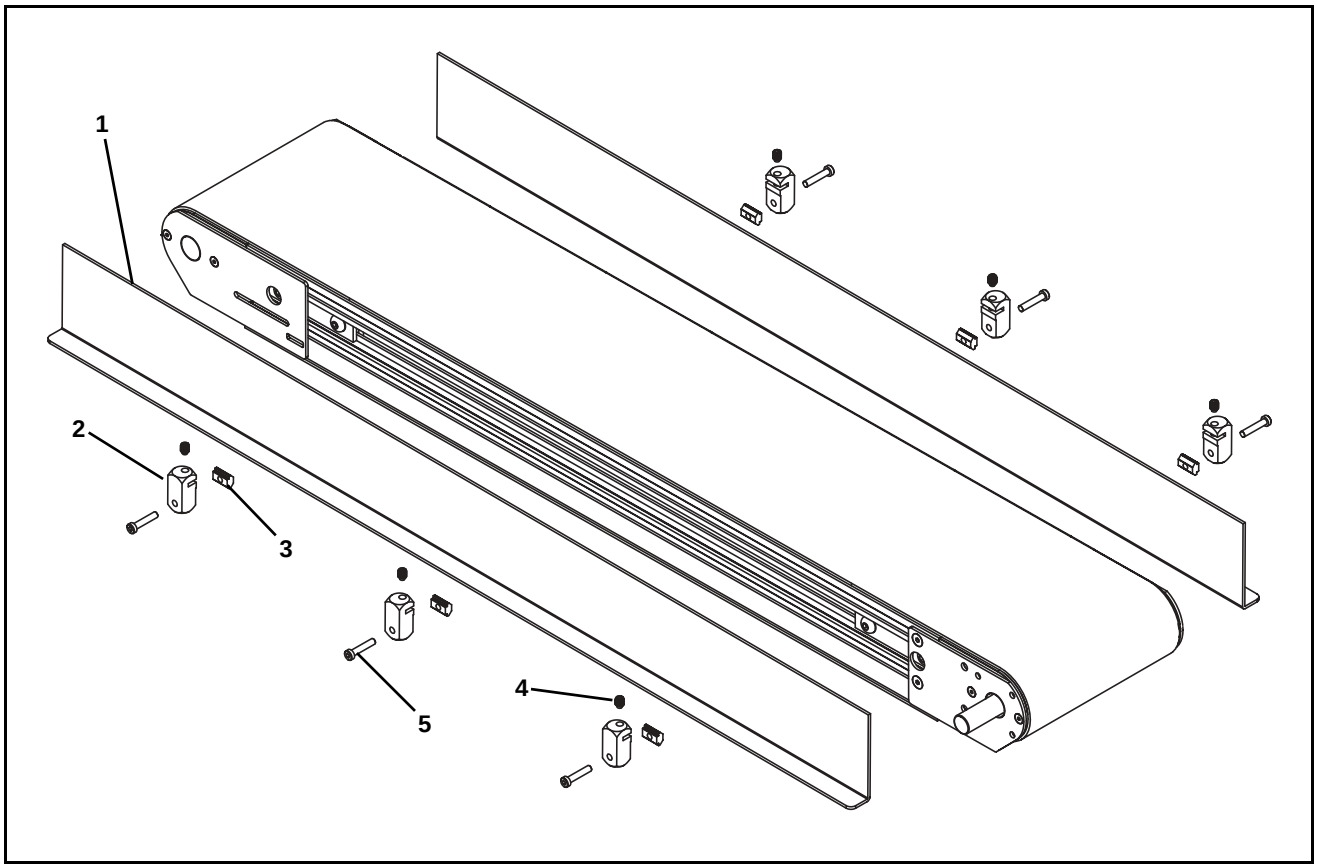
#16 Adjustable Outboard



Item	Part Number	Description
1	807-920	Square Nut
2	913-051	Roll Pin
3	210846-00600	Base Extrusion
4	210847	Mounting Bracket
5	210848	Mounting Block
6	210849	Cap
7	605279P	Washer
8	639971MK10	Single Drop-In Tee Bar (x10)
9	920616M	Socket Head Screw, M6-1.00 x 16 mm
10	920516M	Socket Head Screw, M5-.80 x 16 mm
11	614068P	Flat Extruded Guide (per foot)
12	460063-LLLLL	Aluminum Profile Guide
LLLLL = Length is inches width 2 decimal places		
Length Example: Length = 35.25" LLLLL = 03525		

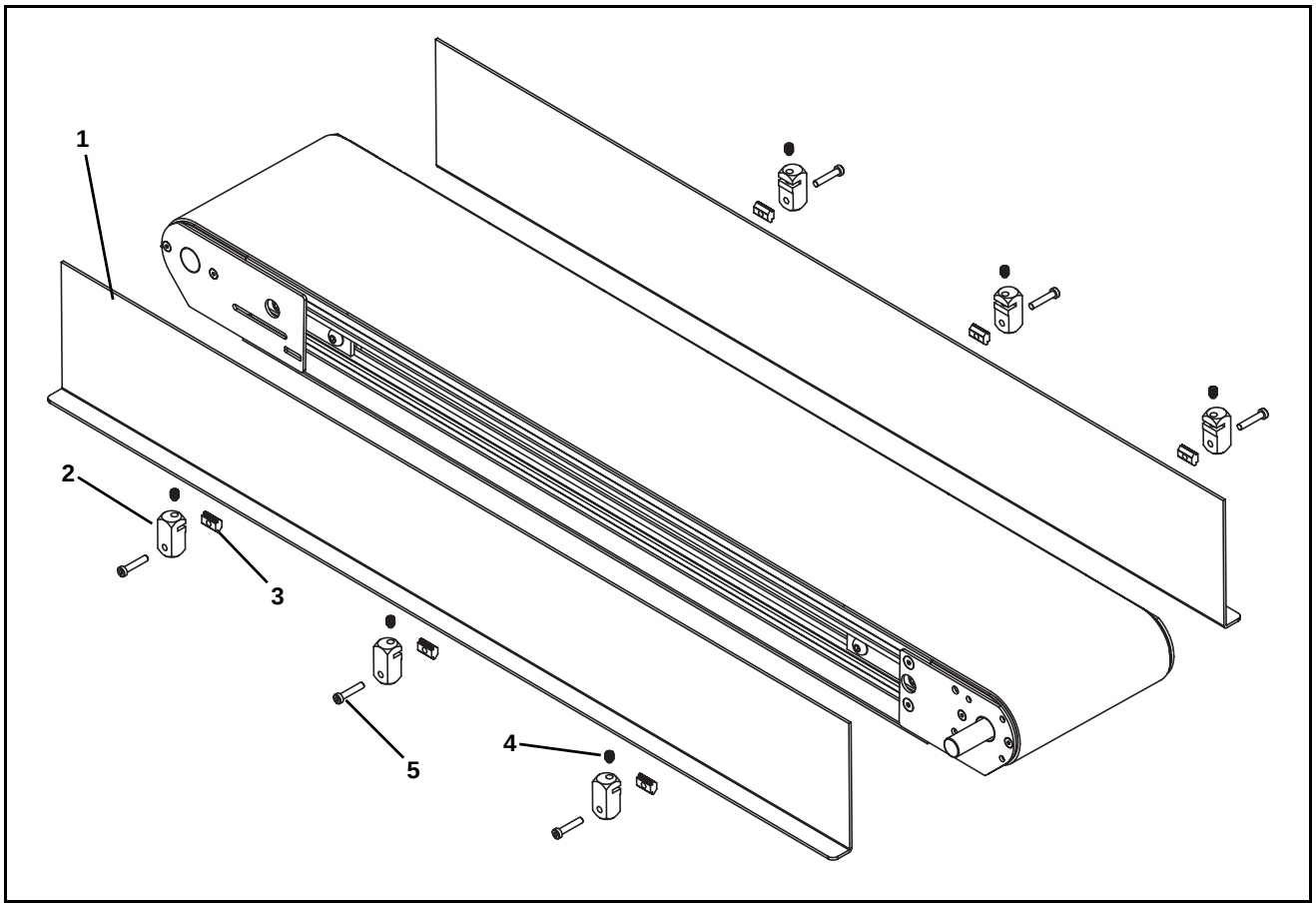
Service Parts

#24 4" (102 mm) Stainless Steel



Item	Part Number	Description
1	351056-04-LLLLL	4.00" Guides
2	351080	Clamping Block
3	639971MK10	Single Drop-In Tee Bar (x10)
4	807-2121	Set Screw, .3125-18 x .3125
5	950630M	Low Head Cap Screw, M6-1.00 x 30 mm
LLLLL = Length is inches width 2 decimal places		
Length Example: Length = 35.25" LLLLL = 03525		

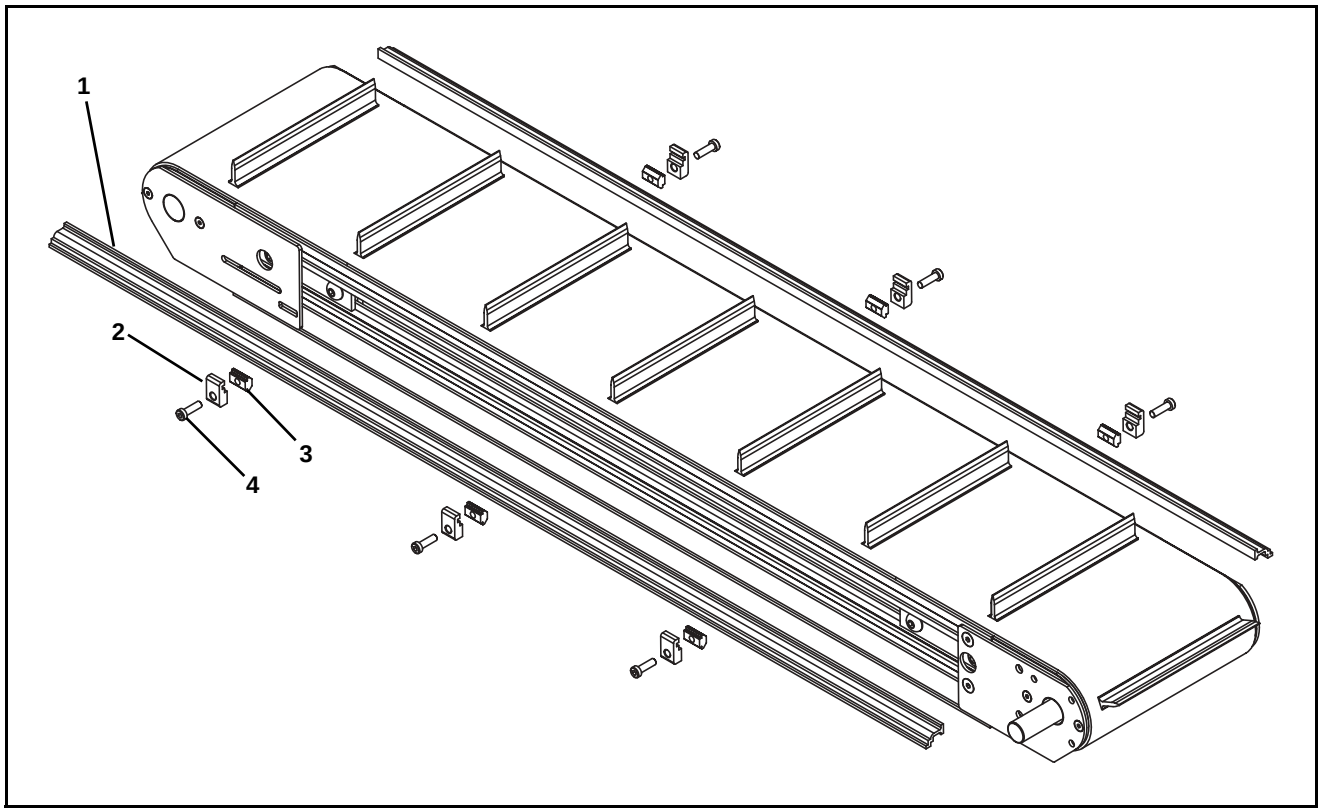
#26 6" (152 mm) Stainless Steel



Item	Part Number	Description
1	351056-06-LLLLL	6.00" Guides
2	351080	Clamping Block
3	639971MK10	Single Drop-In Tee Bar (x10)
4	807-2121	Set Screw, .3125-18 x .3125
5	950630M	Low Head Cap Screw, M6-1.00 x 30 mm
LLLLL = Length is inches width 2 decimal places		
Length Example: Length = 35.25" LLLLL = 03525		

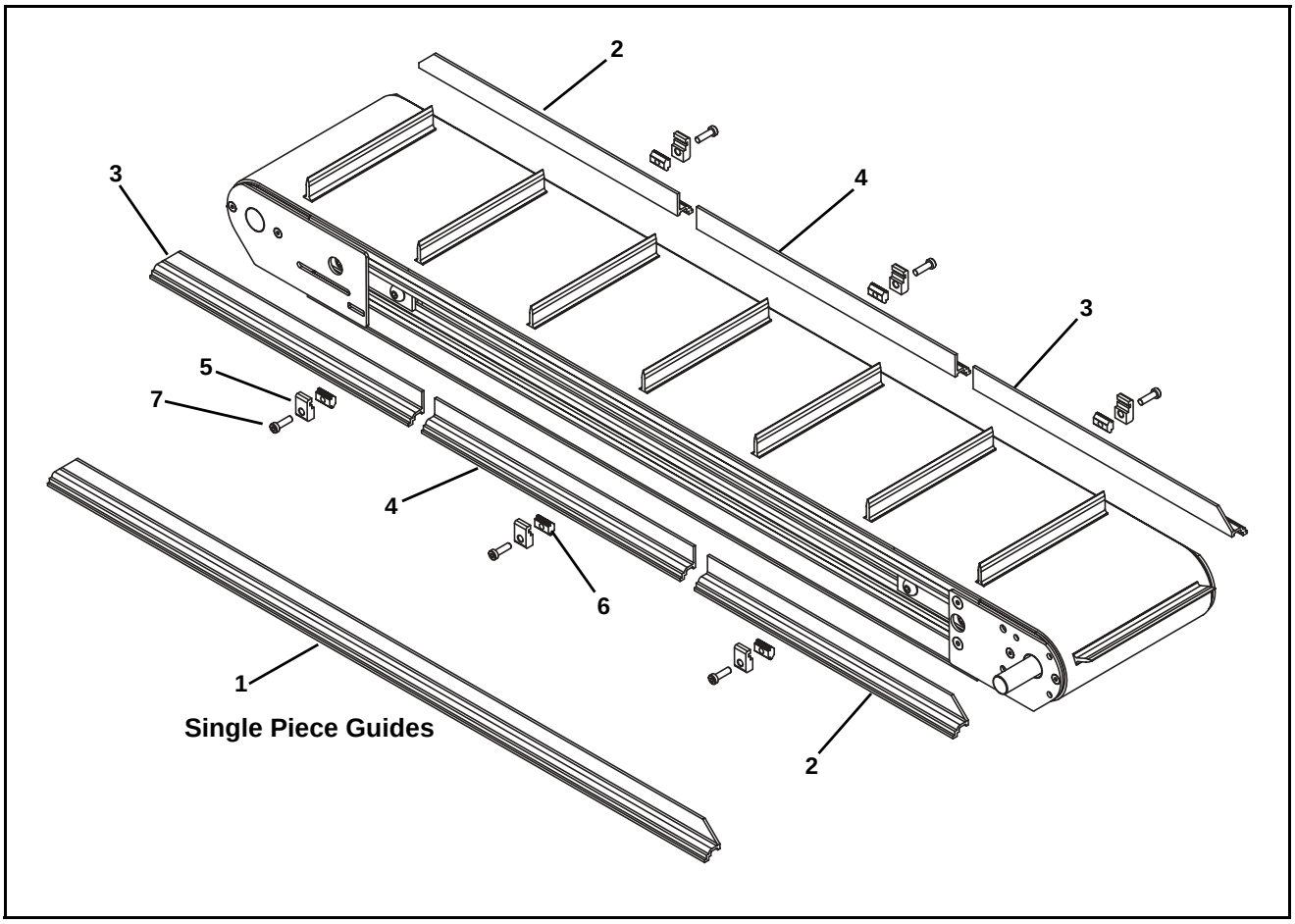
Service Parts

0.5" (13 mm) Cleated Guiding



Item	Part Number	Description
1	381600-LLLLL	6.00" Guides
2	200121	Guide Clip
3	639971MK10	Single Drop-In Tee Bar (x10)
4	950620M	Low Head Cap Screw, M6-1.00 x 20 mm
LLLLL = Length is inches width 2 decimal places		
Length Example: Length = 35.25" LLLLL = 03525		

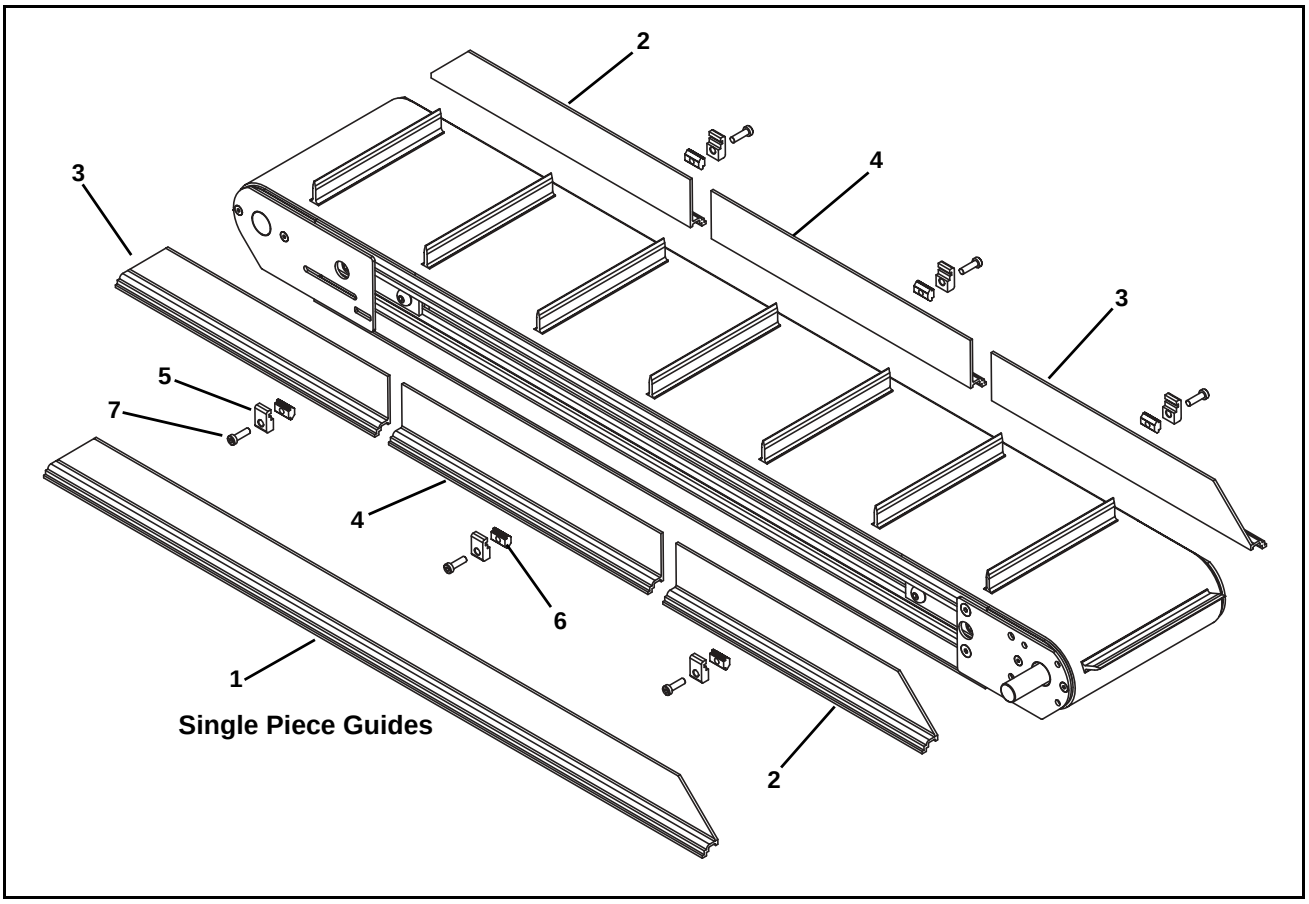
1" (25 mm) Cleated Guiding



Item	Part Number	Description
1	381735-LLLLL	1.00" Cleated Guiding for Single Piece Guides
2	381736-LLLLL	1.00" End 1 Section Cleated Guiding for Multi Piece Guides
3	381737-LLLLL	1.00" End 2 Section Cleated Guiding for Multi Piece Guides
4	381700-LLLLL	1.00" Mid Section Cleated Guiding for Multi Piece Guides
5	200121	Guide Clip
6	639971MK10	Single Drop-In Tee Bar (x10)
7	950620M	Low Head Cap Screw, M6-1.00 x 20 mm
LLLLL = Length is inches width 2 decimal places		
Length Example: Length = 35.25" LLLLL = 03525		

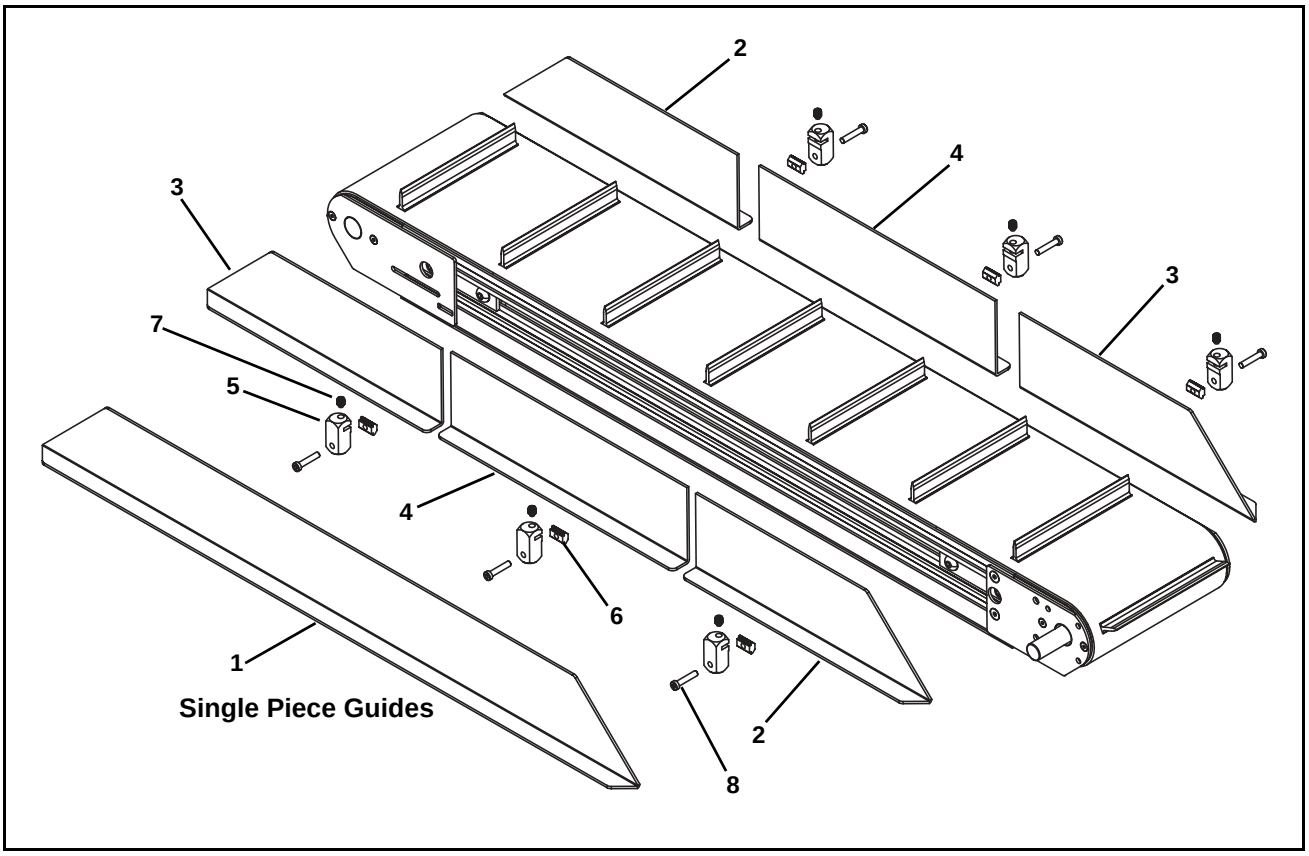
Service Parts

2.5" (64 mm) Cleated Guiding



Item	Part Number	Description
1	381935-LLLLL	2.50" Cleated Guiding for Single Piece Guides
2	381936-LLLLL	2.50" End 1 Section Cleated Guiding for Multi Piece Guides
3	381937-LLLLL	2.50" End 2 Section Cleated Guiding for Multi Piece Guides
4	381900-LLLLL	2.50" Mid Section Cleated Guiding for Multi Piece Guides
5	200121	Guide Clip
6	639971MK10	Single Drop-In Tee Bar (x10)
7	950620M	Low Head Cap Screw, M6-1.00 x 20 mm
LLLLL = Length is inches width 2 decimal places		
Length Example: Length = 35.25" LLLLL = 03525		

4.0" (102 mm) Cleated Guiding

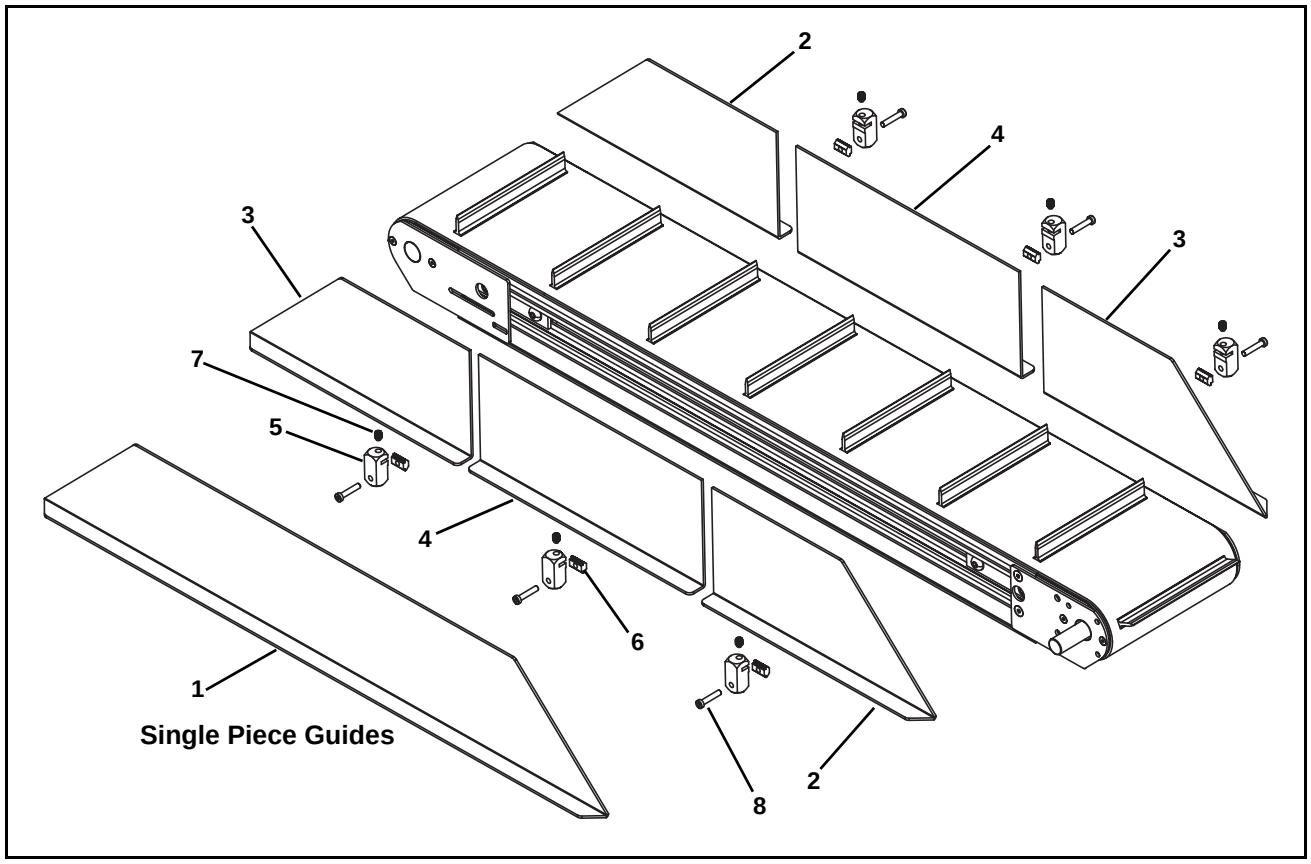


Single Piece Guides

Item	Part Number	Description
1	351055-04-LLLLL	4.00" Cleated Guiding for Single Piece Guides
	350638-04-LLLLL	4.00" Cleated Guiding for Single Piece Guides with Cleats Types W, X or Y
2	351057-04-LLLLL	4.00" End 1 Section Cleated Guiding for Multi Piece Guides
	350413-04-LLLLL	4.00" End 1 Section Cleated Guiding for Multi Piece Guides with Cleats Types W, X or Y
3	351058-04-LLLLL	4.00" End 2 Section Cleated Guiding for Multi Piece Guides
	350407-04-LLLLL	4.00" End 2 Section Cleated Guiding for Multi Piece Guides with Cleats Types W, X or Y
4	351056-04-LLLLL	4.00" Mid Section Cleated Guiding for Multi Piece Guides
	350441-04-LLLLL	4.00" Mid Section Cleated Guiding for Multi Piece Guides with Cleats Types W, X or Y
5	351080	Clamping Block
6	639971MK10	Single Drop-In Tee Bar (x10)
7	807-2121	Set Screw, .3125-18 x .3125
8	950630M	Low Head Cap Screw, M6-1.00 x 30 mm
LLLLL = Length is inches width 2 decimal places		
Length Example: Length = 35.25" LLLLL = 03525		

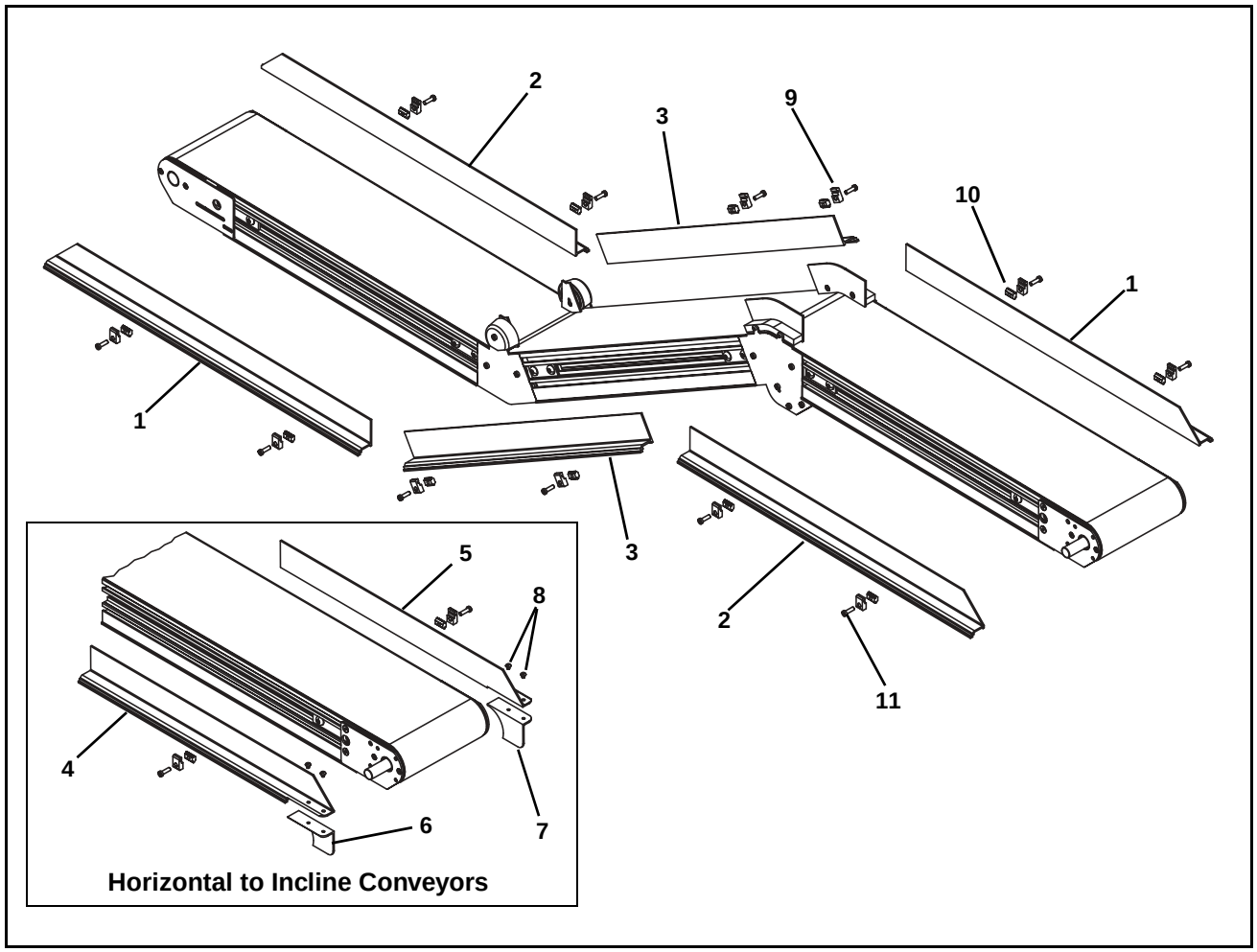
Service Parts

6.0" (152 mm) Cleated Guiding



Item	Part Number	Description
1	351055-06-LLLLL	6.00" Cleated Guiding for Single Piece Guides
	350638-06-LLLLL	6.00" Cleated Guiding for Single Piece Guides with Cleats Types W, X or Y
2	351057-06-LLLLL	6.00" End 1 Section Cleated Guiding for Multi Piece Guides
	350413-06-LLLLL	6.00" End 1 Section Cleated Guiding for Multi Piece Guides with Cleats Types W, X or Y
3	351058-06-LLLLL	6.00" End 2 Section Cleated Guiding for Multi Piece Guides
	350407-06-LLLLL	6.00" End 2 Section Cleated Guiding for Multi Piece Guides with Cleats Types W, X or Y
4	351056-06-LLLLL	6.00" Mid Section Cleated Guiding for Multi Piece Guides
	350441-06-LLLLL	6.00" Mid Section Cleated Guiding for Multi Piece Guides with Cleats Types W, X or Y
5	351080	Clamping Block
6	639971MK10	Single Drop-In Tee Bar (x10)
7	807-2121	Set Screw, .3125-18 x .3125
8	950630M	Low Head Cap Screw, M6-1.00 x 30 mm
LLLLL = Length is inches width 2 decimal places		
Length Example: Length = 35.25" LLLLL = 03525		

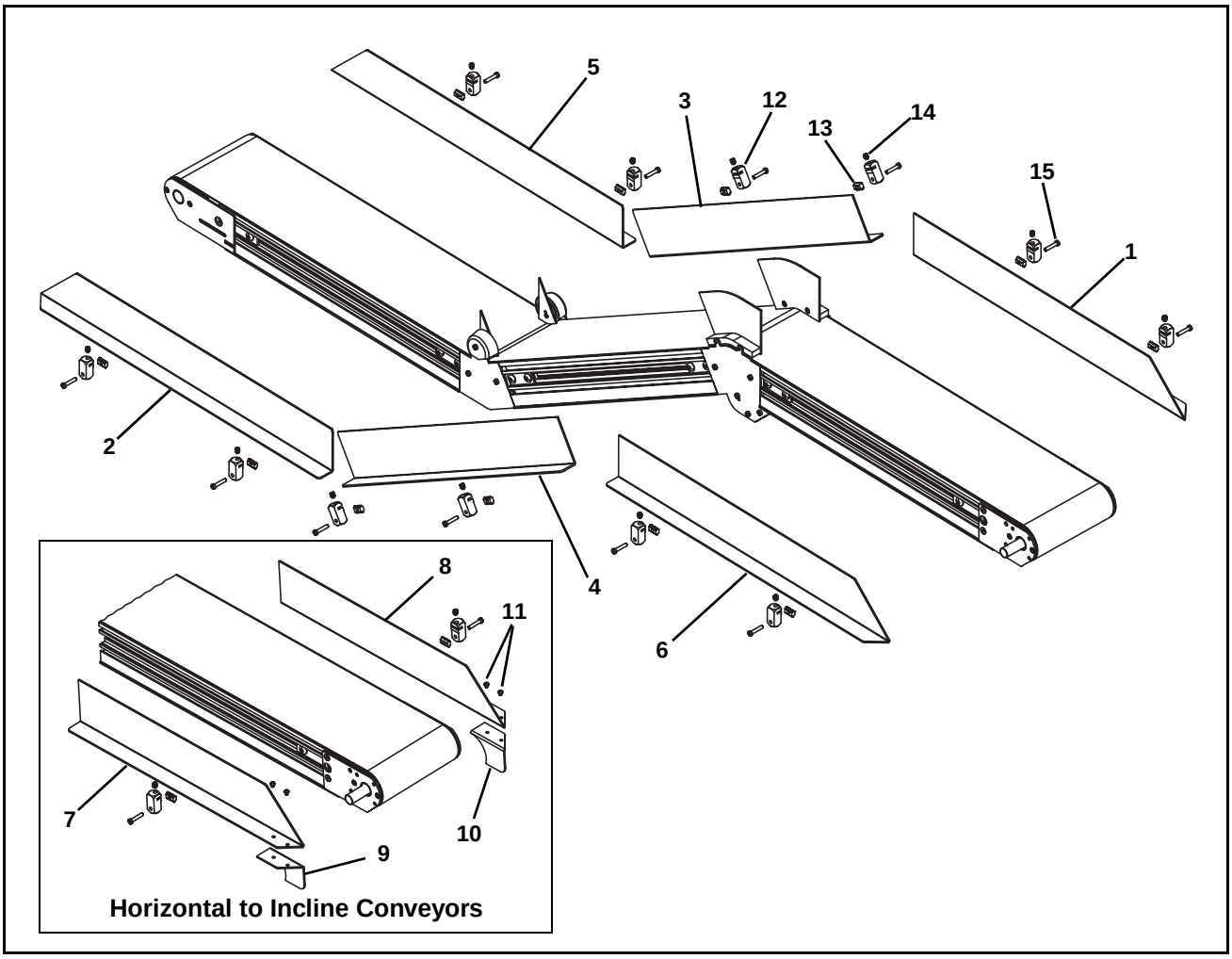
Z-Frame 2.5" (64 mm) Cleated Guiding



Item	Part Number	Description
1	350757-LLLLL	2.50" End 1 Section Cleated Guiding
2	350758-LLLLL	2.50" End 2 Section Cleated Guiding
3	350759-LLLLL	2.50" Mid Section Cleated Guiding
4	382209	2' Exit Guide Right Hand for Horizontal to Incline Conveyors Only
5	382210	2' Exit Guide Left Hand for Horizontal to Incline Conveyors Only
6	382094M	Exit Guide Right Hand for Horizontal to Incline Conveyors Only
7	352095M	Exit Guide Left Hand for Horizontal to Incline Conveyors Only
8	910506M	Button Head Screw, M5-.80 x 6 mm for Horizontal to Incline Conveyors Only
9	200121	Guide Clip
10	639971MK10	Single Drop-In Tee Bar (x10)
11	950620M	Low Head Cap Screw, M6-1.00 x 20 mm
LLLLL = Length is inches width 2 decimal places		
Length Example: Length = 35.25" LLLLL = 03525		
AA = Angle 25, 30, 45, and 60		

Service Parts

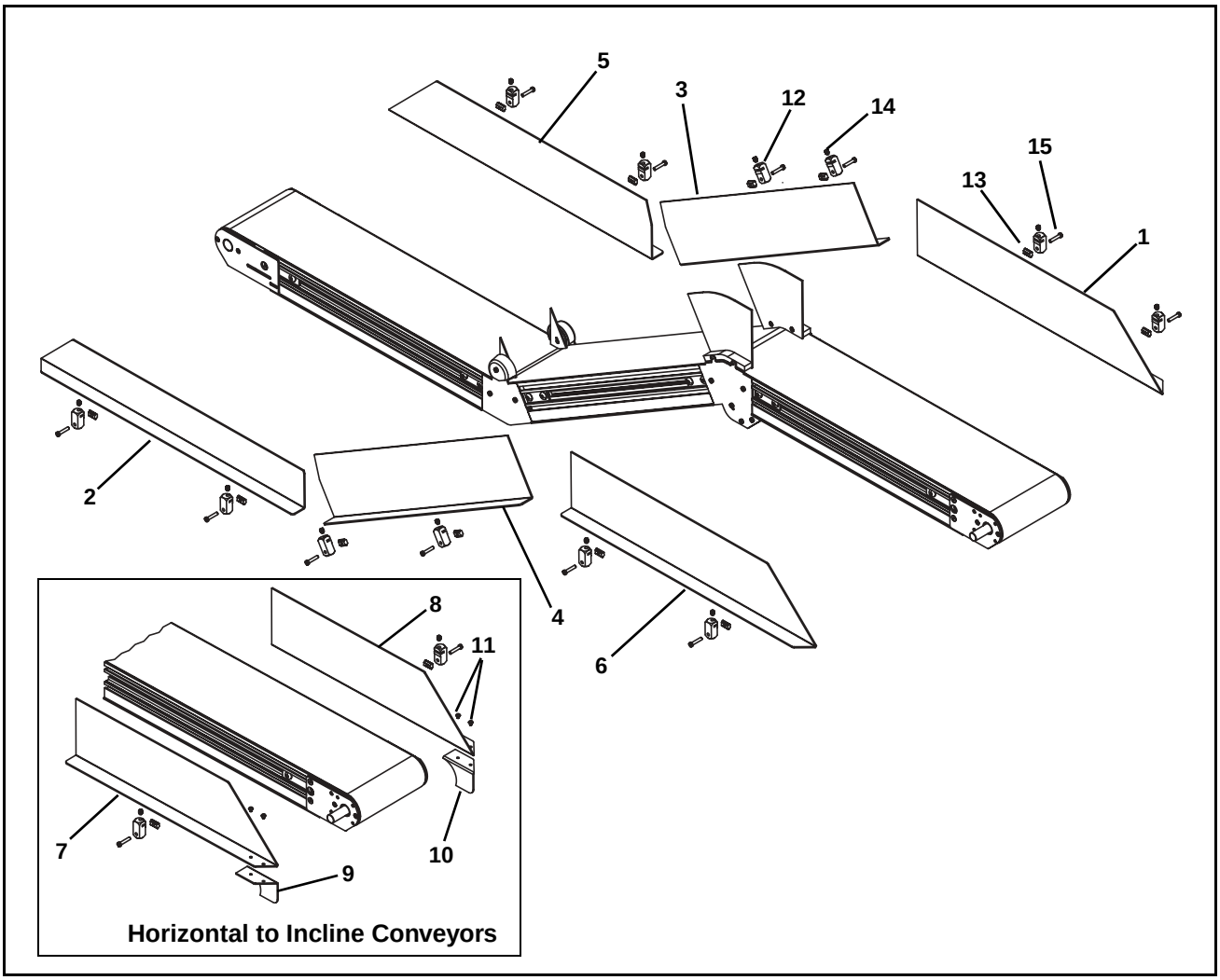
Z-Frame 4.0" (102 mm) Cleated Guiding



Item	Part Number	Description
1	350407-04-LLLLL	4.00" End 1 Cleated Guiding Left Hand
2	350413-04-LLLLL	4.00" End 2 Cleated Guiding Right Hand
3	350443-04-AA-LLLLL	4.00" Mid Cleated Guiding Left Hand
4	350442-04-AA-LLLLL	4.00" Mid Cleated Guiding Right Hand
5	350407-04-AA-LLLLL	4.00" End 3 Angle Cut Cleated Guiding Left Hand
6	350413-04-AA-LLLLL	4.00" End 4 Angle Cut Cleated Guiding Right Hand
7	350762-04	2' Exit Guide Right Hand for Horizontal to Incline Conveyors Only
8	350763-04	2' Exit Guide Left Hand for Horizontal to Incline Conveyors Only
9	350764	Exit Guide Right Hand for Horizontal to Incline Conveyors Only

Item	Part Number	Description
10	350765	Exit Guide Left Hand for Horizontal to Incline Conveyors Only
11	910506M	Button Head Screw, M5-.80 x 6 mm for Horizontal to Incline Conveyors Only
12	351080	Clamping Block
13	639971MK10	Single Drop-In Tee Bar (x10)
14	807-2121	Set Screw, .3125-18 x .3125
15	950630M	Low Head Cap Screw, M6-1.00 x 30 mm
LLLLL = Length is inches width 2 decimal places		
Length Example: Length = 35.25" LLLLL = 03525		
AA = Angle 25, 30, 45, and 60		

Z-Frame 6.0" (152 mm) Cleated Guiding

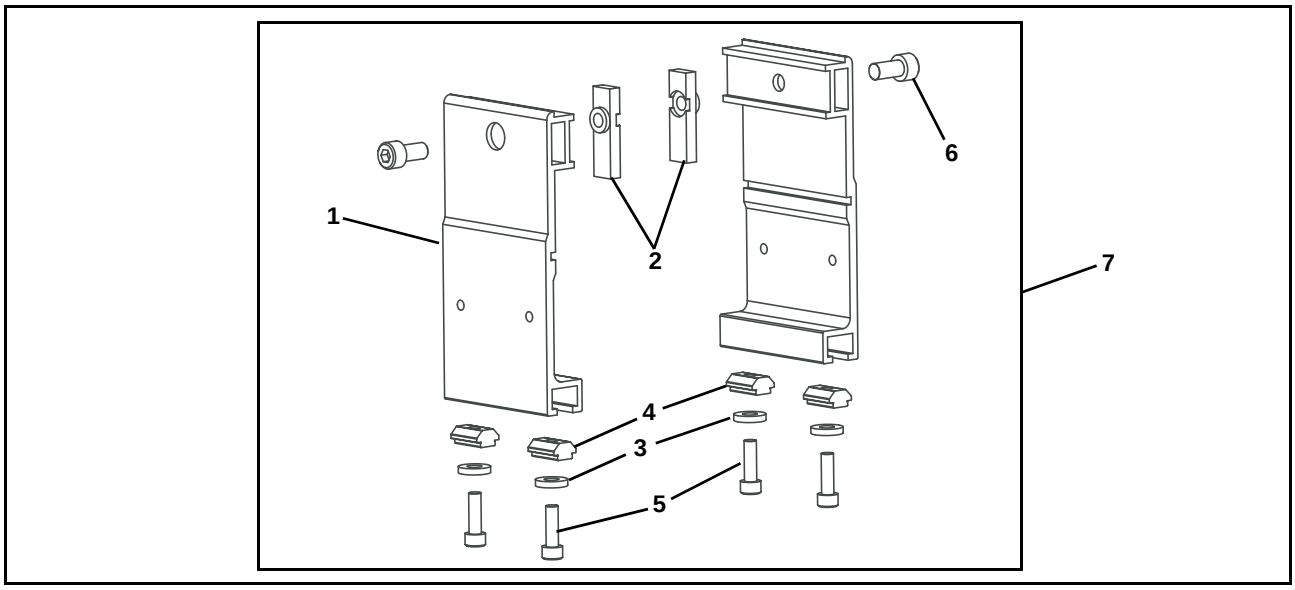


Item	Part Number	Description
1	350407-06-LLLLL	6.00" End 1 Cleated Guiding Left Hand
2	350413-06-LLLLL	6.00" End 2 Cleated Guiding Right Hand
3	350443-06-AA-LLLLL	6.00" Mid Cleated Guiding Left Hand
4	350442-06-AA-LLLLL	6.00" Mid Cleated Guiding Right Hand
5	350407-06-AA-LLLLL	6.00" End 3 Angle Cut Cleated Guiding Left Hand
6	350413-06-AA-LLLLL	6.00" End 4 Angle Cut Cleated Guiding Right Hand
7	350762-06	2' Exit Guide Right Hand for Horizontal to Incline Conveyors Only
8	350763-06	2' Exit Guide Left Hand for Horizontal to Incline Conveyors Only
9	350764	Exit Guide Right Hand for Horizontal to Incline Conveyors Only

Item	Part Number	Description
10	350765	Exit Guide Left Hand for Horizontal to Incline Conveyors Only
11	910506M	Button Head Screw, M5-.80 x 6 mm for Horizontal to Incline Conveyors Only
12	351080	Clamping Block
13	639971MK10	Single Drop-In Tee Bar (x10)
14	807-2121	Set Screw, .3125-18 x .3125
15	950630M	Low Head Cap Screw, M6-1.00 x 30 mm
LLLLL = Length is inches width 2 decimal places		
Length Example: Length = 35.25" LLLLL = 03525		
AA = Angle 25, 30, 45, and 60		

Service Parts

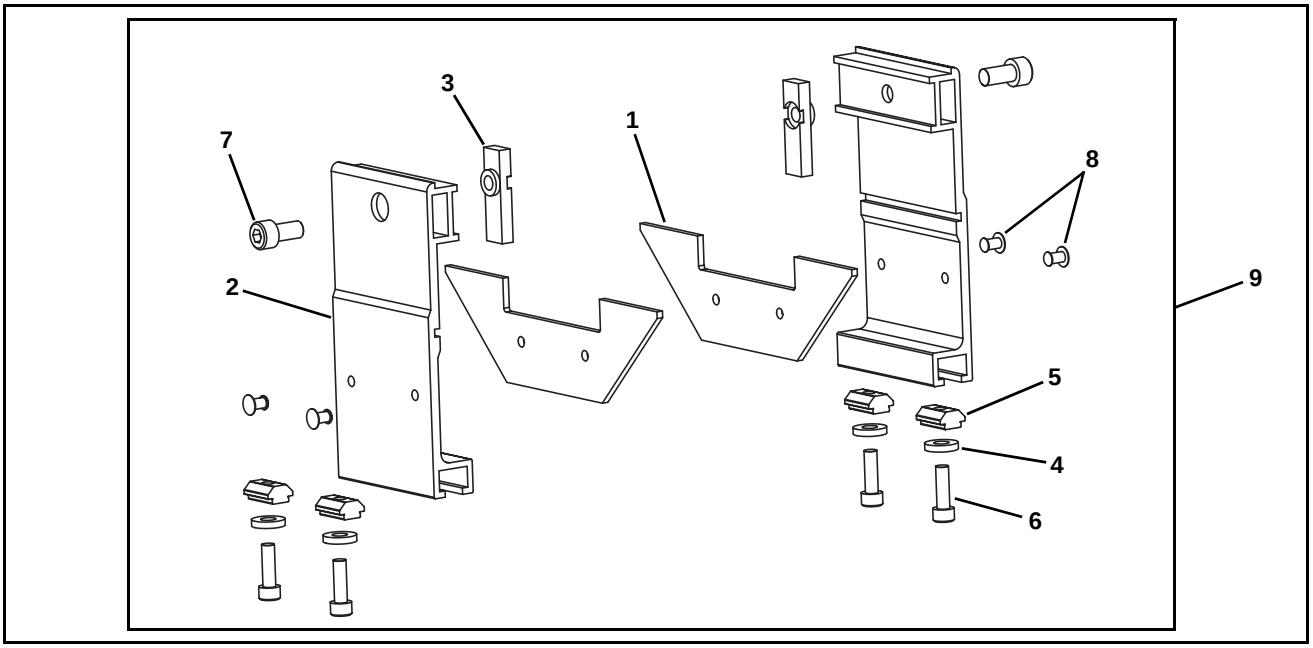
Flat Belt Mounting Brackets



Item	Part Number	Description
1	350533	Stand Mount
2	350534	Twist Nut
3	605279P	Washer
4	639971MK10	Single Drop-In Tee Bar (x10)

Item	Part Number	Description
5	920620M	Socket Head Screw, M6-1.00 x 20 mm
6	920816M	Socket Head Screw, M8-1.25 x 16 mm
7	350702	Flat Belt Mounting Bracket Assembly

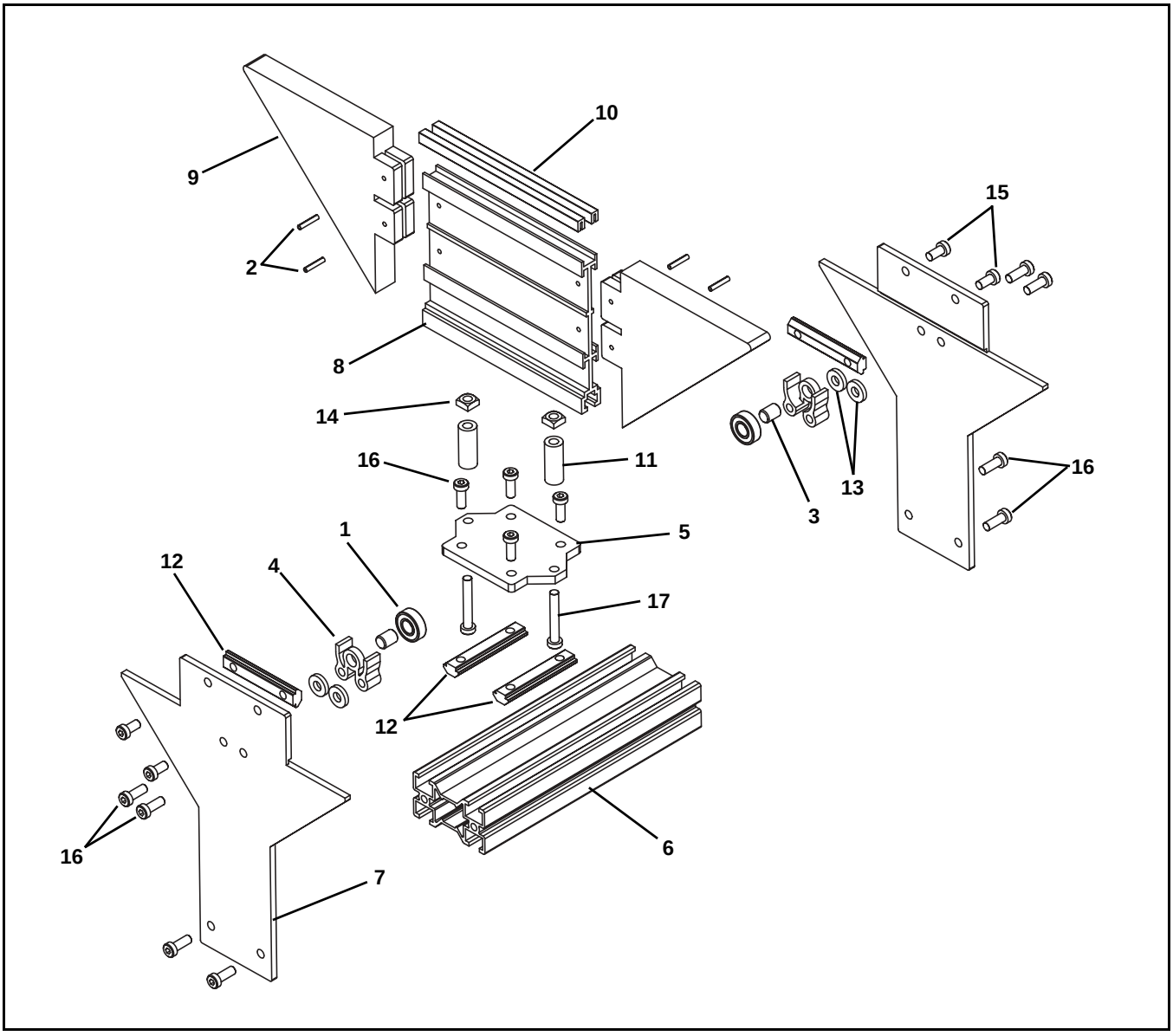
Cleated Belt Mounting Brackets



Item	Part Number	Description
1	240835	Cleated Mount Plate
2	350533	Stand Mount
3	350534	Twist Nut
4	605279P	Washer

Item	Part Number	Description
5	639971MK10	Single Drop-In Tee Bar (x10)
6	920620M	Socket Head Screw, M6-1.00 x 20 mm
7	920816M	Socket Head Screw, M8-1.25 x 16 mm
8	914-006	Rivet
9	350703	Cleated Belt Mounting Bracket Assembly

Tall Cleated Belt Mounting Brackets

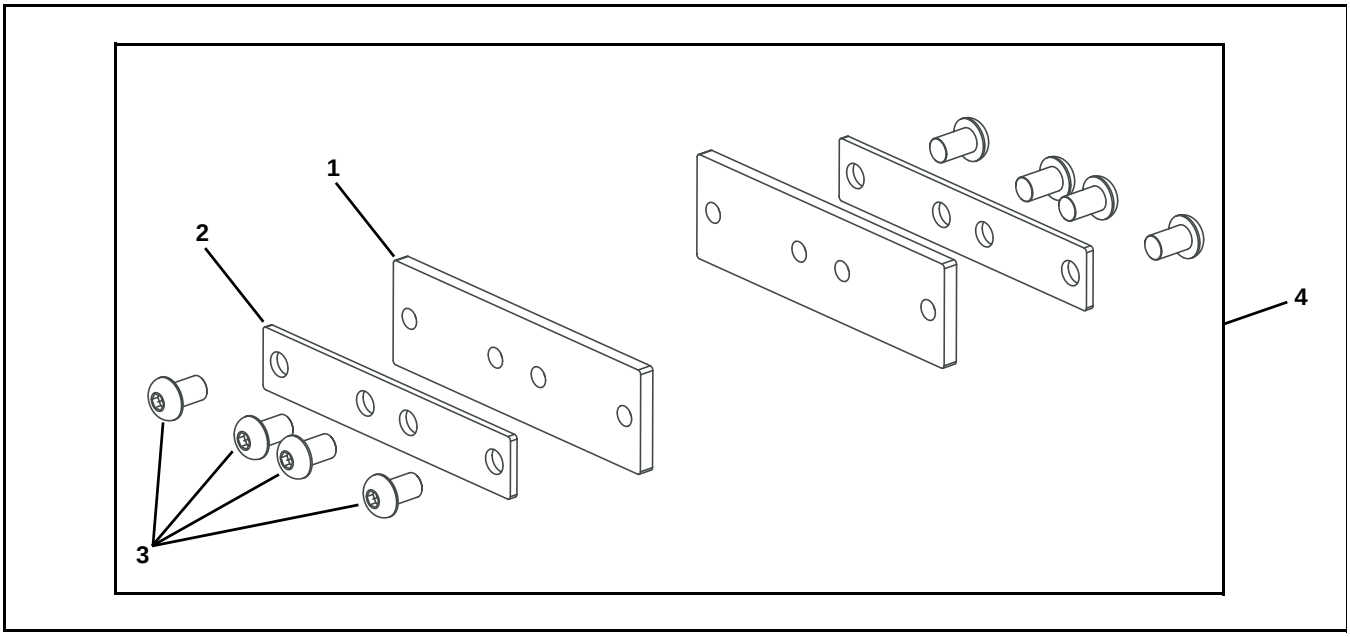


Item	Part Number	Description
1	802-027	Bearing
2	913-100	Dowel Pin
3	913-997	Roll Pin
4	240825	Roller Guard
5	350414	Mounting Plate
6	350424-WW	Cross Support
7	350425-03	Support Plate for 3.00" tall cleats
	350425-04	Support Plate for 4.00" tall cleats
	350425-06	Support Plate for 6.00" tall cleats
8	350426-LLLLL	Support Extrusion for 3.00" tall cleats
	350429-LLLLL	Support Extrusion for 4.00" & 6.00" tall cleats
9	350428	End Cap for 3.00" tall cleats
	350427	End Cap for 4.00" & 6.00" tall cleats
10	350633-LLLLL	Wear Strip

Item	Part Number	Description
11	350635-1250	Spacer for 3.00" & 6.00" tall cleats only
12	300150M	Drop-In Tee Bar
13	605279P	Washer
14	674175MP	Square Nut
15	950612M	Low Head Cap Screw, M6-1.00 x 12 mm
16	950616M	Low Head Cap Screw, M6-1.00 x 16 mm
17	950640M	Low Head Cap Screw, M6-1.00 x 40 mm
LLLLL = Length is inches width 2 decimal places		
Length Example: Length = 35.25" LLLLL = 03525		
WW = Conveyor width reference: 04 to 48 in 02 increments		

Service Parts

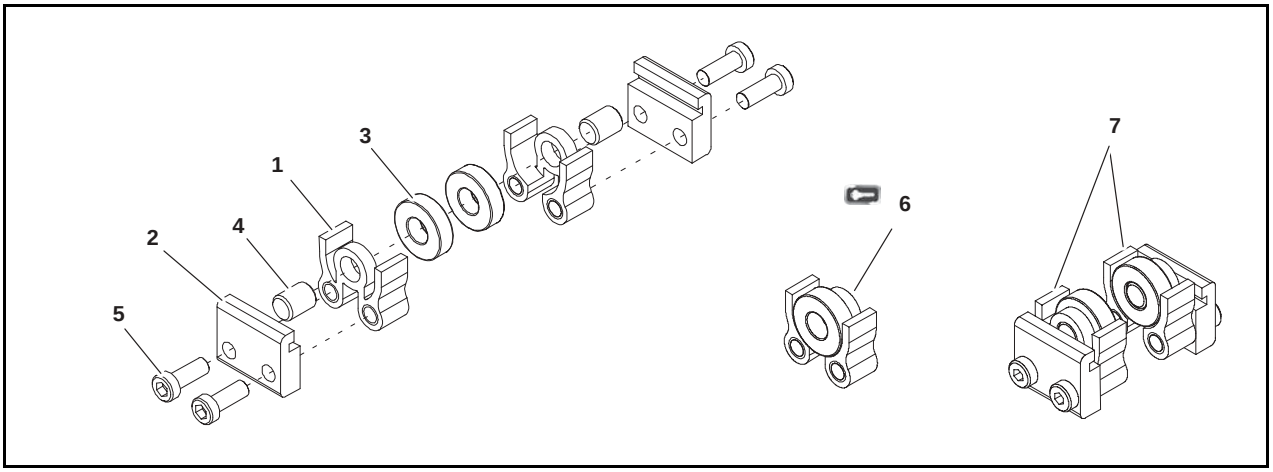
Connecting Assembly



Item	Part Number	Description
1	350581	Clamp Plate for conveyor 18" wide and wider
	350583	Clamp Plate for conveyor 3.75" to 16" wide
2	350580	Cover Plate for conveyor 18" wide and wider
	350582	Cover Plate for conveyor 3.75" to 16" wide

Item	Part Number	Description
3	911014M	Button Head Screw, M10-1.50 x 14 mm
4	350701	Connecting Assembly for Conveyors 3.75" to 16" wide
	350700	Connecting Assembly for Conveyors 18" wide and wider

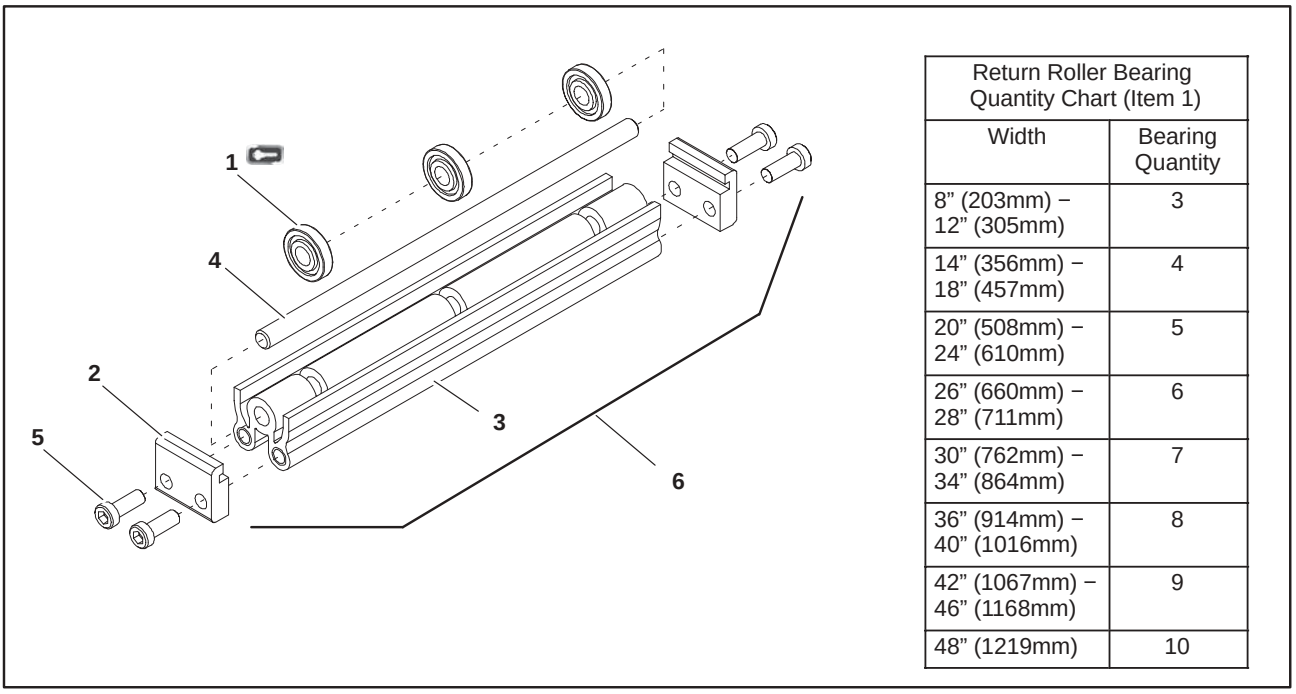
4" (102 mm) to 6" (152 mm) Flat Belt Return Roller



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

Item	Part Number	Description
5	950616M	Low Head Cap Screw M6 x 16 mm
6	240840	Roller Assembly (Includes Items 1, 3 and 4)
7	240830	4" (102mm) to 6" (152 mm) Flat Belt Return Roller Assy

8” (203 mm) to 48” (1219 mm) Flat Belt Return Roller

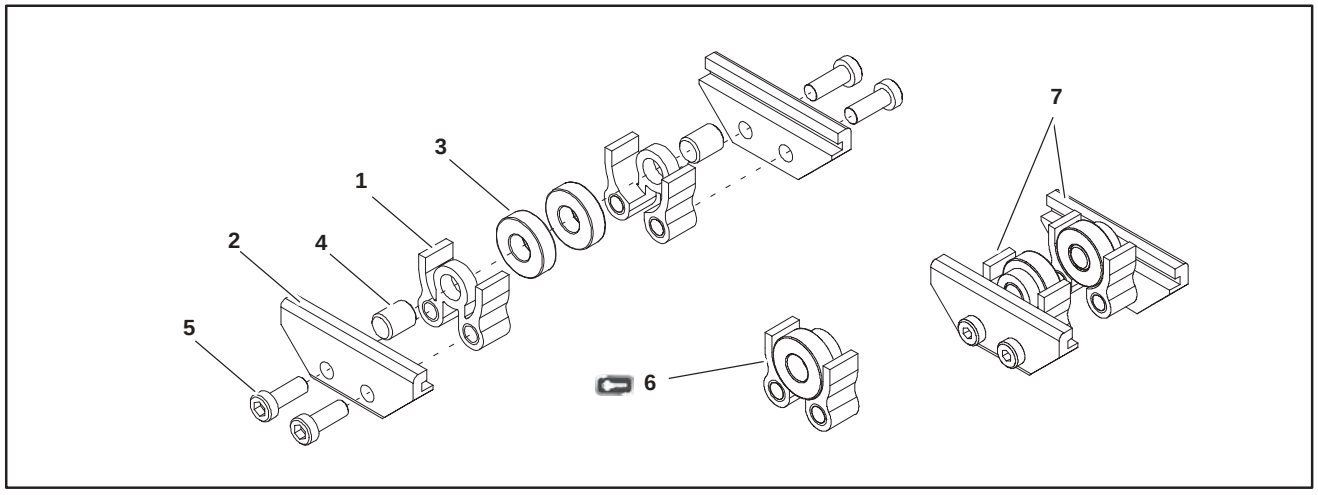


Return Roller Bearing Quantity Chart (Item 1)	
Width	Bearing Quantity
8” (203mm) − 12” (305mm)	3
14” (356mm) − 18” (457mm)	4
20” (508mm) − 24” (610mm)	5
26” (660mm) − 28” (711mm)	6
30” (762mm) − 34” (864mm)	7
36” (914mm) − 40” (1016mm)	8
42” (1067mm) − 46” (1168mm)	9
48” (1219mm)	10

Item	Part Number	Description
1	240826	Return Roller Bearing
2	240827	Return Roller Clip
3	2409WW	Return Roller Guard

Item	Part Number	Description
4	2410WW	Return Roller Rod
5	950616M	Low Head Cap Screw M6 x 16 mm
6	3249WW	8” (203 mm) – 48” (1219 mm) Flat Belt Return Roller Assembly
WW = Conveyor width reference: 08 – 48 in 02 increments		

Cleated Belt Return Roller

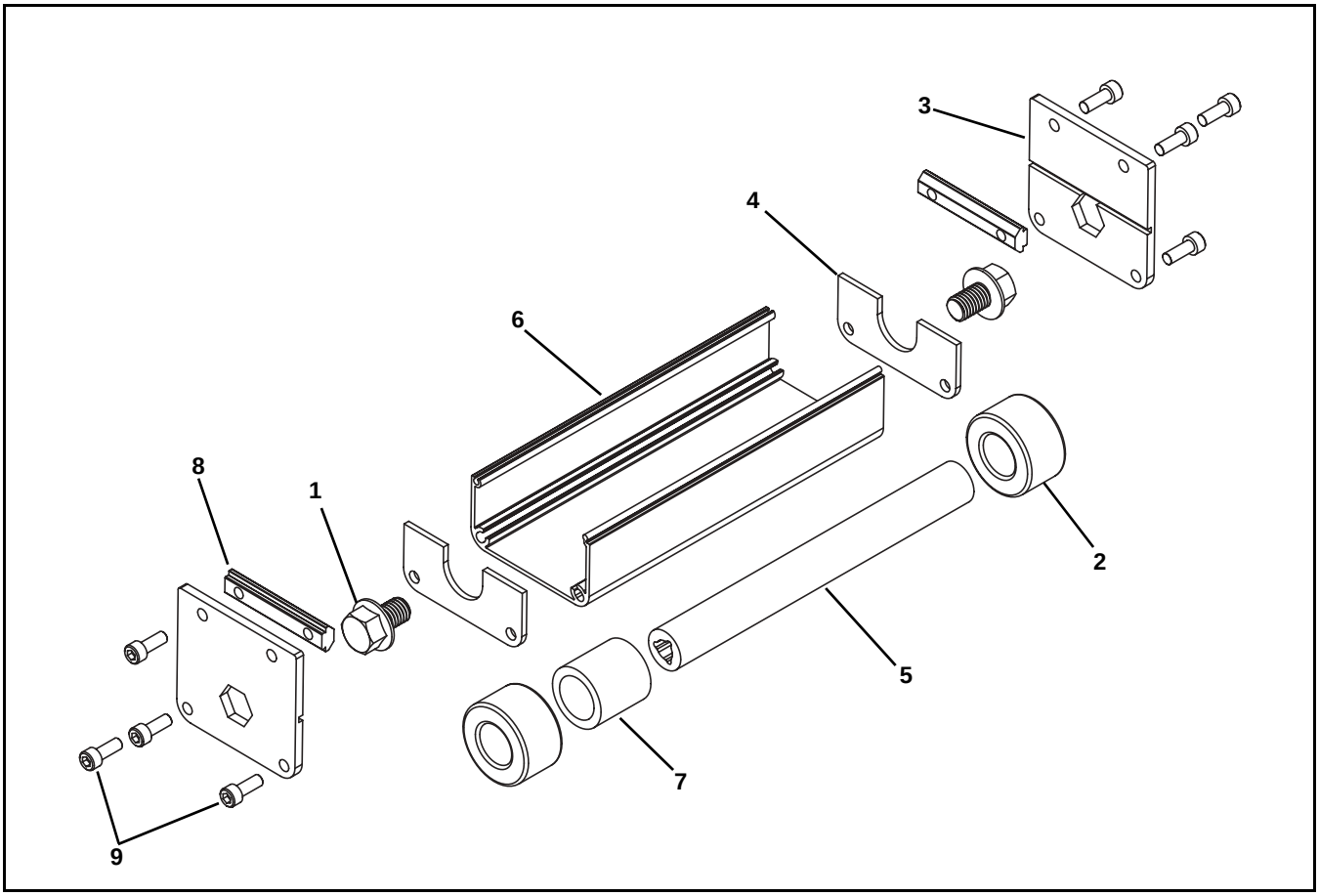


Item	Part Number	Description
1	240825	Return Roller Guard – Short
2	240828	Cleated Return Roller Clip
3	802–027	Bearing
4	913–100	Dowel Pin

Item	Part Number	Description
5	950616M	Low Head Cap Screw M6 x 16 mm
6	240840	Roller Assembly (Includes Items 1, 3 and 4)
7	240832	Cleated Belt Return Roller Assembly

Service Parts

Rib Belt Return Rollers



Item	Part Number	Description
1	807-2278	Hex Flange Screw, 0.50"-13 x 0.75"
2	350401	Return Roller
3	350409	Support Plate
4	350410	Spacer Plate
5	350415-WW	Return Roller Shaft
6	350430-WW	Guard
7	532127-LLLLL	Spacer Tube
8	532127-LLLLL	Drop-In Tee Bar
9	920616M	Socket Head Screw, M6-1.00 x 16 mm
LLLLL = Length is inches width 2 decimal places		
Length Example: Length = 35.25" LLLLL = 03525		
WW = Conveyor width reference: 04 to 48 in 02 increments		

Conveyor Belt Part Number Configuration

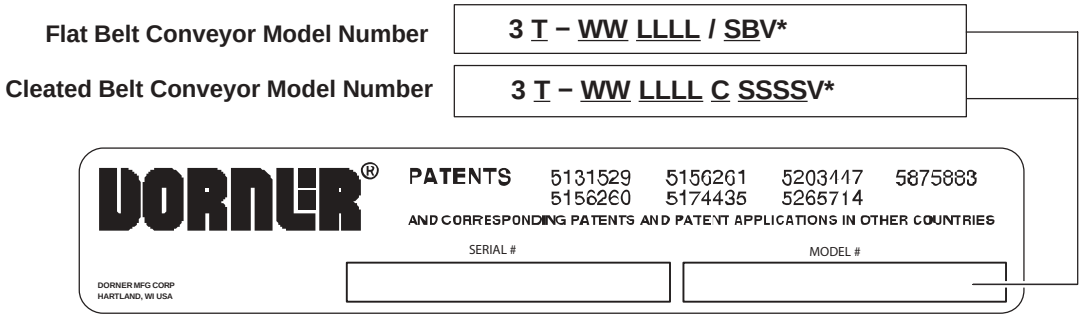


Figure 160

Flat Belt Part Number Configuration

Refer to Dorner patent plate (**Figure 160)**. From the model number, determine tail type ("CC"), width ("WW"), length ("LLLL"), splice type ("S") and belt type ("B"). Use data to configure belt part number as indicated below. *Add "V" for V-guided belts.

3 CC - WW LLLL / SBV *

(Fill In)
3 __ – __ ____ / __ V*

Cleated Belt Part Number Configuration

Refer to Dorner patent plate (**Figure 160)**. From the model number determine, cleated belt ("CC"), width ("WW"), length ("LLLL"), cleat type ("C"), and cleat spacing ("SSSS"). Use data to configure belt part number as indicated below. *Add "V" for V-guided belt.

3 CC – WW LLLL C SSSS V*

(Fill In)
3 __ – __ ____ C ____ V*

Rib Belt Part Number Configuration

Refer to Dorner patent plate (**Figure 160)**. From the model number determine, belt type ("CC"), width ("WW"), length ("LLLL"), rib type ("RR"), and rib spacing ("SSSS"). Use data to configure belt part number as indicated below. *Add "V" for V-guided belt.

3 CC – WW LLLL RR V – SSSS*

(Fill In)
3 __ – __ ____ __ V – ____*

Return Policy

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

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

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

<table>
<tr><th></th><th colspan="8">Product Type</th></tr>
<tr><th></th><th colspan="7">Standard Products</th><th>Engineered to order parts</th></tr>
<tr><th>Product Line</th><th>Conveyors</th><th>Gearmotors & Mounting Packages</th><th>Support Stands</th><th>Accessories</th><th>Spare Parts (non-belt)</th><th>Spare Belts - Standard Flat Fabric</th><th>Spare Belts - Cleated & Specialty Fabric</th><th>Spare Belts - Plastic Chain</th><th>All equipment and parts</th></tr>
<tr><td>1100</td><td colspan="6" rowspan="14">30% return fee for all products except:
50% return fee for conveyors with modular belt, cleated belt or specialty belts</td><td colspan="2" rowspan="15">non-returnable</td><td rowspan="15">case-by-case</td></tr>
<tr><td>2200</td></tr>
<tr><td>2200 Modular Belt</td></tr>
<tr><td>2200 Precision Move</td></tr>
<tr><td>2300</td></tr>
<tr><td>2300 Modular Belt</td></tr>
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<tr><td>3200 LPZ</td></tr>
<tr><td>3200 Precision Move</td></tr>
<tr><td>4100</td></tr>
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<tr><td>5300</td></tr>
<tr><td>6200</td></tr>
<tr><td>Controls</td></tr>
<tr><td>7200 / 7300</td><td colspan="6">50% return fee for all products</td></tr>
<tr><td>7350</td><td colspan="9" rowspan="4">non-returnable</td></tr>
<tr><td>7360</td></tr>
<tr><td>7400</td></tr>
<tr><td>7600</td></tr>
</table>

Returns will not be accepted after 60 days from original invoice date. The return charge covers inspection, cleaning, disassembly, disposal and reissuing of components to inventory. If a replacement is needed prior to evaluation of returned item, a purchase order must be issued. Credit (if any) is issued only after return and evaluation is complete.

Dorner has representatives throughout the world. Contact Dorner for the name of your local representative. Our Customer Service Team will gladly help with your questions on Dorner products.

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

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

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