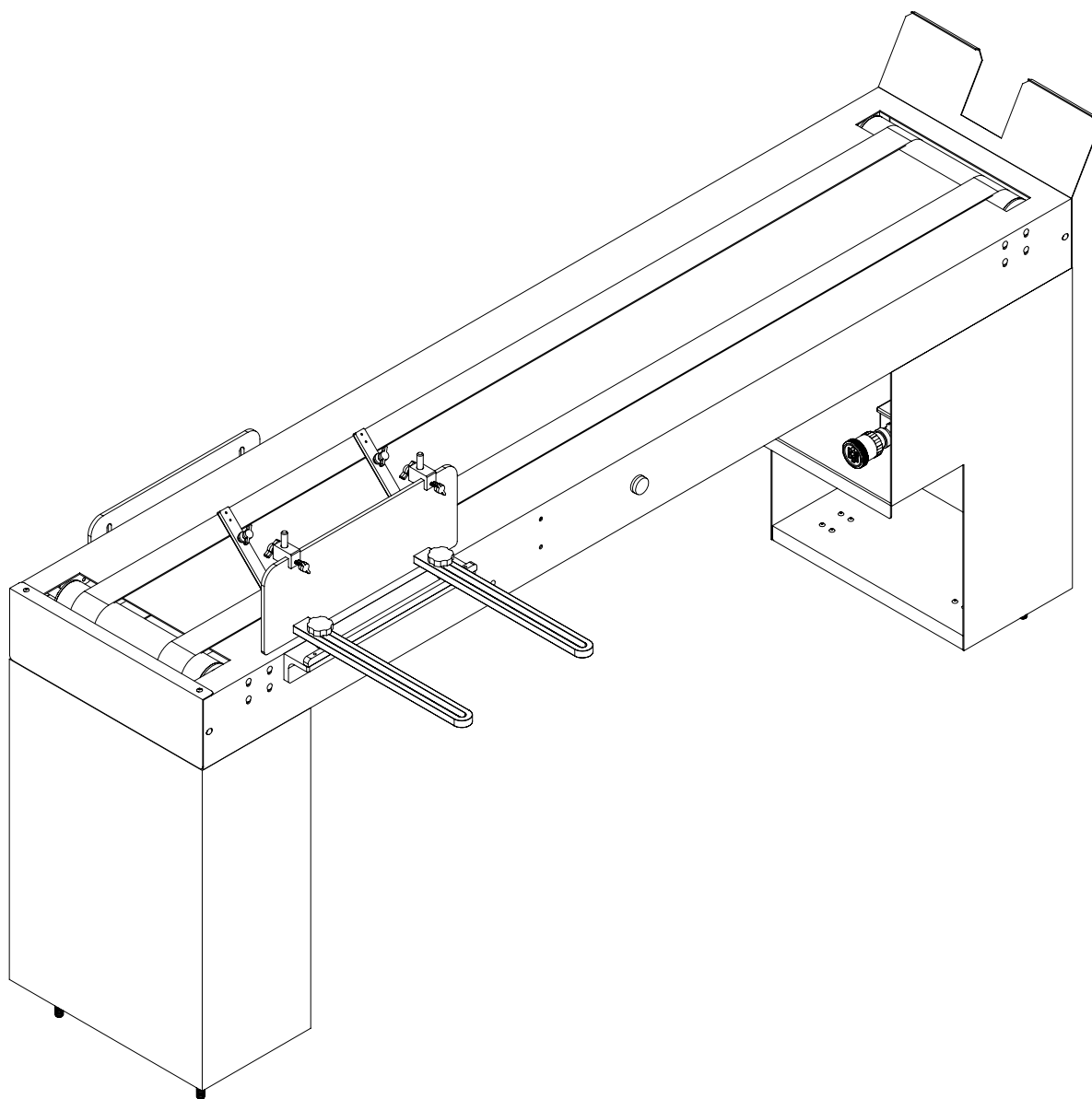


BK1600 Series Conveyor



BK1600 Series Conveyor User's Guide

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Manual History

Version	Date	Description	ECO No.
1.0	1990	Manual Released as Preliminary.	N/A
1.1	02-Feb-05	First Final Release.	705
1.2	30-Mar-05	Second Final Release	748

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1.1 Description

- The BK1600 Series Conveyor was designed to operate with Buskro Labeling Systems, but will also function with any other labeling systems available.
- Solid construction employing heavy gauge sheet metal with ball bearing mounted shafts. With the addition of rugged belts, these features add up to create a long lasting, maintenance-free unit.
- A wide variety of options are available to tailor the conveyor to your specific requirements. These include; system length, belt selection, drive controller mounting, and a choice of delivery format.
- A large 24" wide by 18' long unit is specifically designed for large sorting operations of magazines and/or newsprint.

1.2 Features

- The BK1600 Conveyor will accept finished products from a labeling machine and shingle them in an orderly stream for easy removal and/or mail sorting.
- The conveyor is powered by a D.C. drive motor capable of variable speed via a potentiometer located on the Buskro series labeling base. A self-contained drive is available for other labeling machines.
- Simple backstop adjustment for differing material sizes as well as easy belt adjustment.
- Knockdown plate and backlash plate are interchangeable so that conveyor delivery can be directed either way.
- Solid sheet metal construction with ball bearing mounted shafts and long lasting belts for a long maintenance-free life.

1.3 Specifications

1.3.1 BK1600 Series Conveyor Specifications

1.3.1. Material Handling		
Minimum Size	3" x 5"	(76 mm x 127 mm)
Maximum Size	14" x 17"	(355 mm x 432 mm)
1.3.2. Physical Dimensions		
Width	16"	(406 mm)
Height	30" – 32.5"	(762 mm – 825 mm)
Length	72"	(1830 mm)
	96"	(2440 mm)
	120"	(3050 mm)
	144"	(3660 mm)
*Weight	200 lb	(90 kg)
* - Weight applies to 10 ft. conveyor		
1.3.3. Electrical		
Voltage	90 VDC	
Current	1.3 A	
Horsepower	1/8 H.P.	
Gear Ratio	11:1	
1.3.4. Operator controls		
Motor Rev.	1725 RPM	
Belt Roller Rev.	157 RPM	
Max. Belt Speed	21 in/S	(530 mm/S)
** Feed Rate	36,000 PPH	
** - maximum feed rate with 2" (50 mm) material overlap		
1.3.5. Options		
Conveyor Belt Length – 6', 8', 10', 12'		
Inline Delivery Package		
Solid Belt – 11" (280 mm) wide		
Speed-Up Separation Unit		
Self-Containing D.C. Drive Controller		
Large Sorting Conveyor – 24" wide x 18" long		

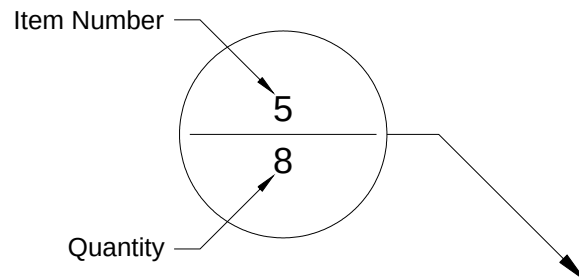
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Balloon Annotation and Parts Listing



Item	Part Number	Quantity	Description	Reference
1				
2				

The following is a description of how to interpret the information in this section:

Item:

This column indicates the item number used for each unique part in an assembly drawing.

It is matched with the top number in the balloon pointing at the associated part.

Part Number:

This column represents the Buskro part number.

Quantity:

This represents the total number of a given part in an assembly. It is matched with the bottom number in the balloon pointing at the associated part.

Description:

This column contains a brief description of the part.

Reference:

This column indicates the page location for sub-assemblies.

Table A-1: BK1606A, Conveyor Body Assembly, 6', Twin Belt

Item	Part Number	Quantity	Description	Reference
1	100165A	1	Conveyor Drive Shaft Assembly	Page A-13
2	100166A	1	Conveyor Takeup Shaft Assembly	Page A-15
3	120306	2	Conveyor Belt, 6' X 2" Wide (2" x 141")	
4	212150A	2	Knockdown Arm Assembly	Page A-17
5	330141A	1	Material Guide Mechanism	Page A-18
6	404550	2	Screw, BHCS, 10-32 UNF x 3/4"	
7	405530	4	Screw, BHCS, 1/4-20 UNC x 1/2"	
8	405650	10	Screw, HHMS, 1/4-20 UNC x 3/4"	
9	406670	2	Screw, HHMS, 5/16-18 UNC x 1"	
10	420010	10	Nut, 1/4-20 UNC	
11	439010	10	Lockwasher, 1/4" I.D.	
12	440015	2	Washer, 5/16" ID	
13	442560	20	Spacer Washer, 1/4 I.D. x 0.050 THK	
14	614105	1	Receptacle Plug, 23-7	
15	614109	5	Pin, Power Contact	
16	614113	1	Cable Clamp	
17	706135	1	Backlash Plate	
18	706153	1	Conveyor Bed Front Panel	
19	706154	1	Conveyor Bed Rear Panel	
20	706155A	1	Conveyor Motor Stand Assembly	Page A-11
21	706156A	1	Conveyor Bed Assembly, 6'	Page A-6
22	706165A	1	Conveyor End Stand Assembly	Page A-5

Figure A-1: BK1606A, Conveyor Body Assembly, 6', Twin Belt

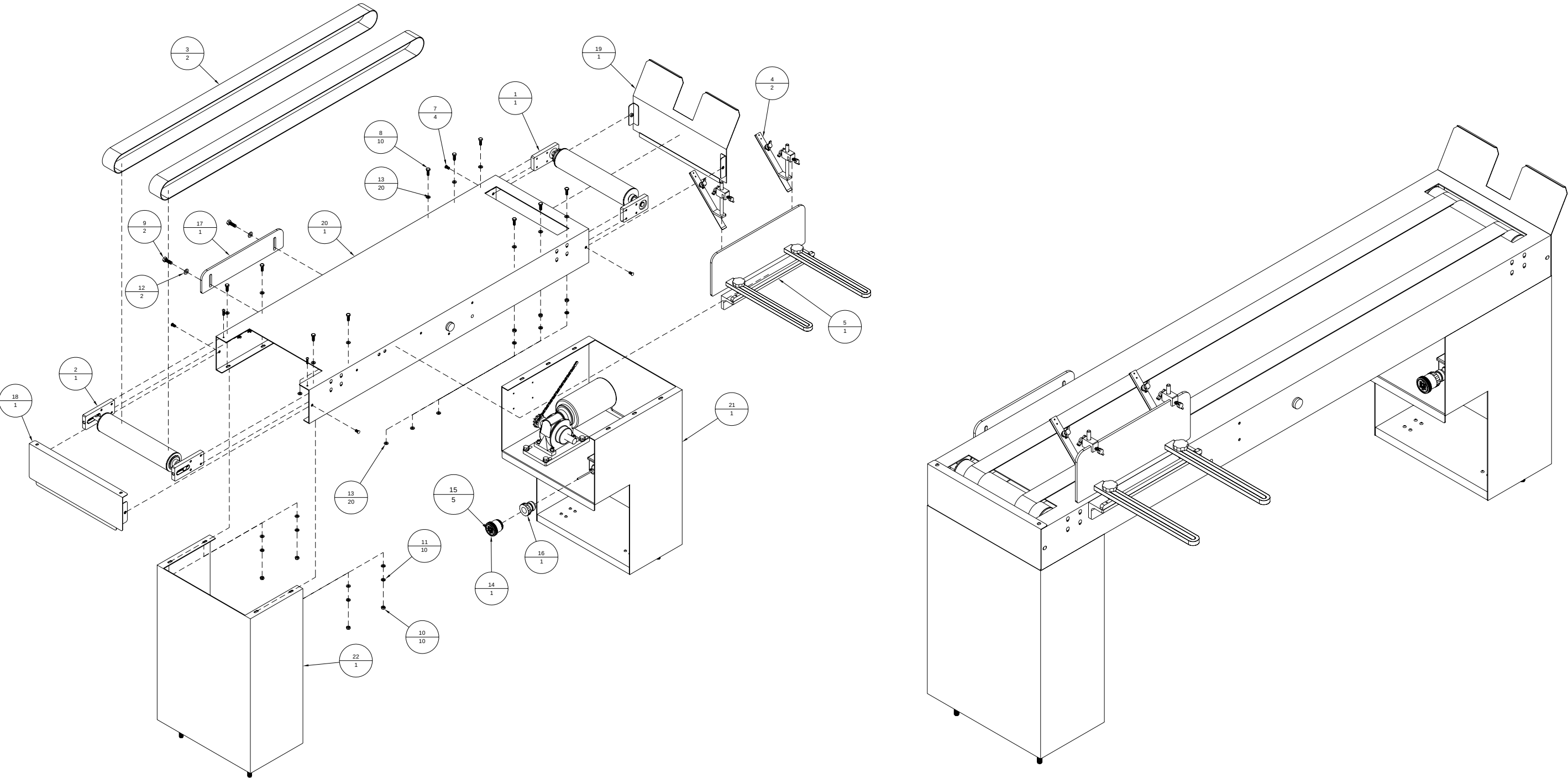


Table A-2: *Conveyor End Stand Assembly (706165A)*

Item	Part Number	Quantity	Description	Reference
1	343150	2	Mounting Leg	
2	343151	2	Nut, 1/2-13 UNC, Black	
3	404520	8	Screw, BHCS, 10-32 UNF x 3/8"	
4	420008	8	Nut, 10-32 UNF	
5	439008	8	Lockwasher, No.10, External Tooth	
6	706165	1	Conveyor End Stand	
7	803125	2	Caster, Swivel	

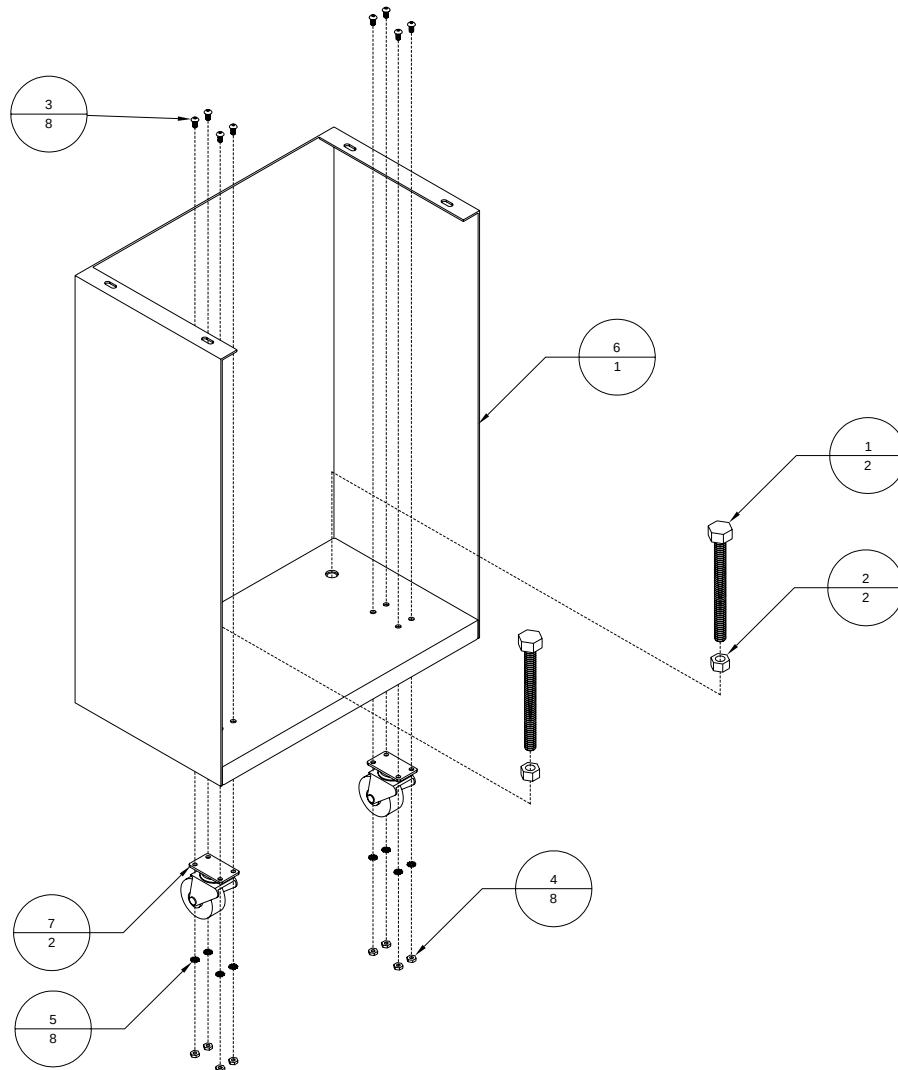
Figure A-2: *Conveyor End Stand Assembly (706165A)*

Table A-3: *Conveyor Bed Assembly, 6' (706156A)*

Item	Part Number	Quantity	Description	Reference
1	100167A	1	Belt Alignment Guide Shaft Assembly	Page A-7
2	405530	18	Screw, BHCS, 1/4-20 UNC x 1/2"	
3	603124	1	Switch, Red Push Button, Flush	
4	603125	1	Switch Locking Collar	
5	603127	1	Block, N.C. Contact, Red	
6	606034	1	Cable, #16-3, SJOW-A	
7	606035	1	Cable, #18-2, SJOW-A	
8	615131	1	Cable Clamp, 3/8", Metal	
9	615140	9	Lashing Tie, Small	
10	615150	1	Electrical Junction Box, 2" x 4"	
11	615151	1	Junction Box Cover, 2" x 4"	
12	706156	1	Conveyor Bed, 6'	

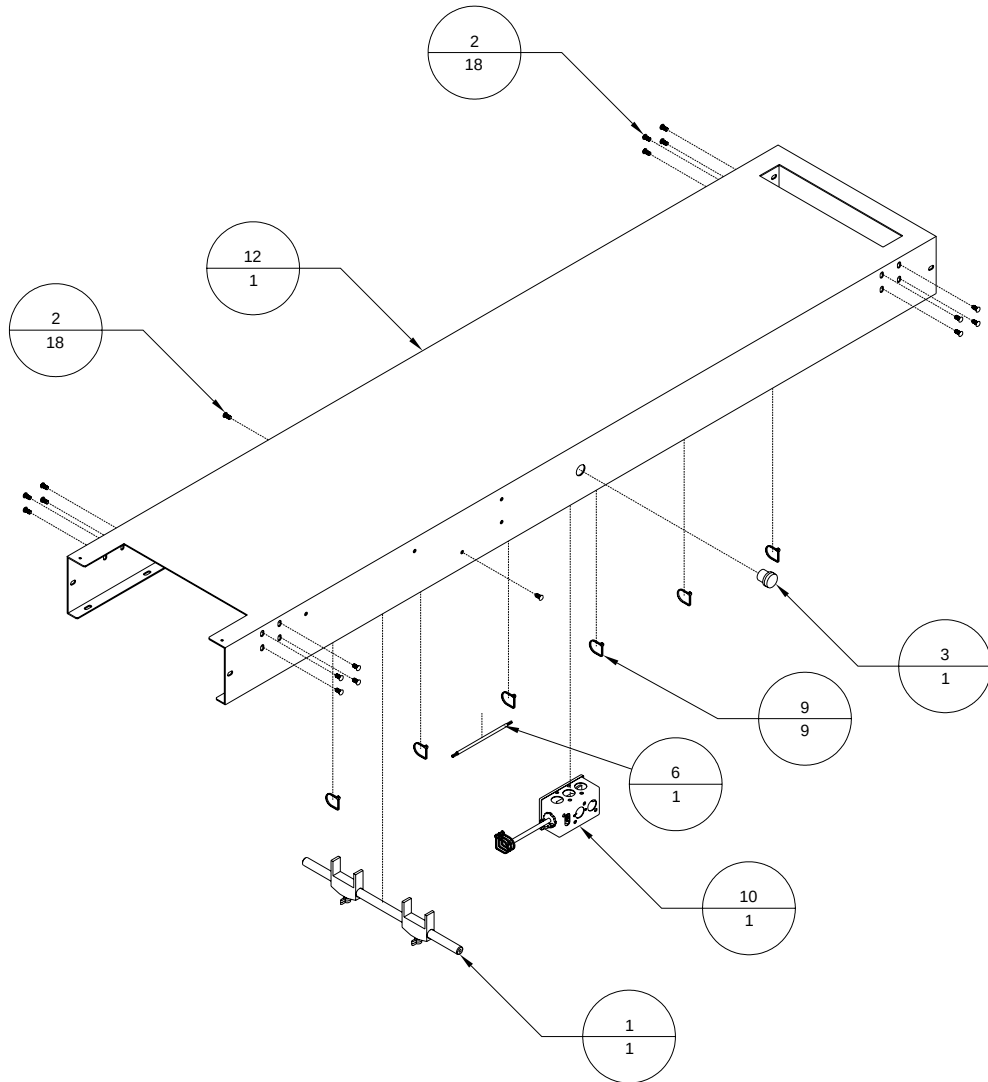
Figure A-3: *Conveyor Bed Assembly, 6' (706156A)*

Table A-4: *Belt Alignment Guide Shaft Assembly(100167A)*

Item	Part Number	Quantity	Description	Reference
1	100167	1	Belt Adjustment Shaft	
2	330160	2	Belt Alignment Guide, 2"	
3	438115A	2	T" Knob, Assembly, 3/4"	Page A-8

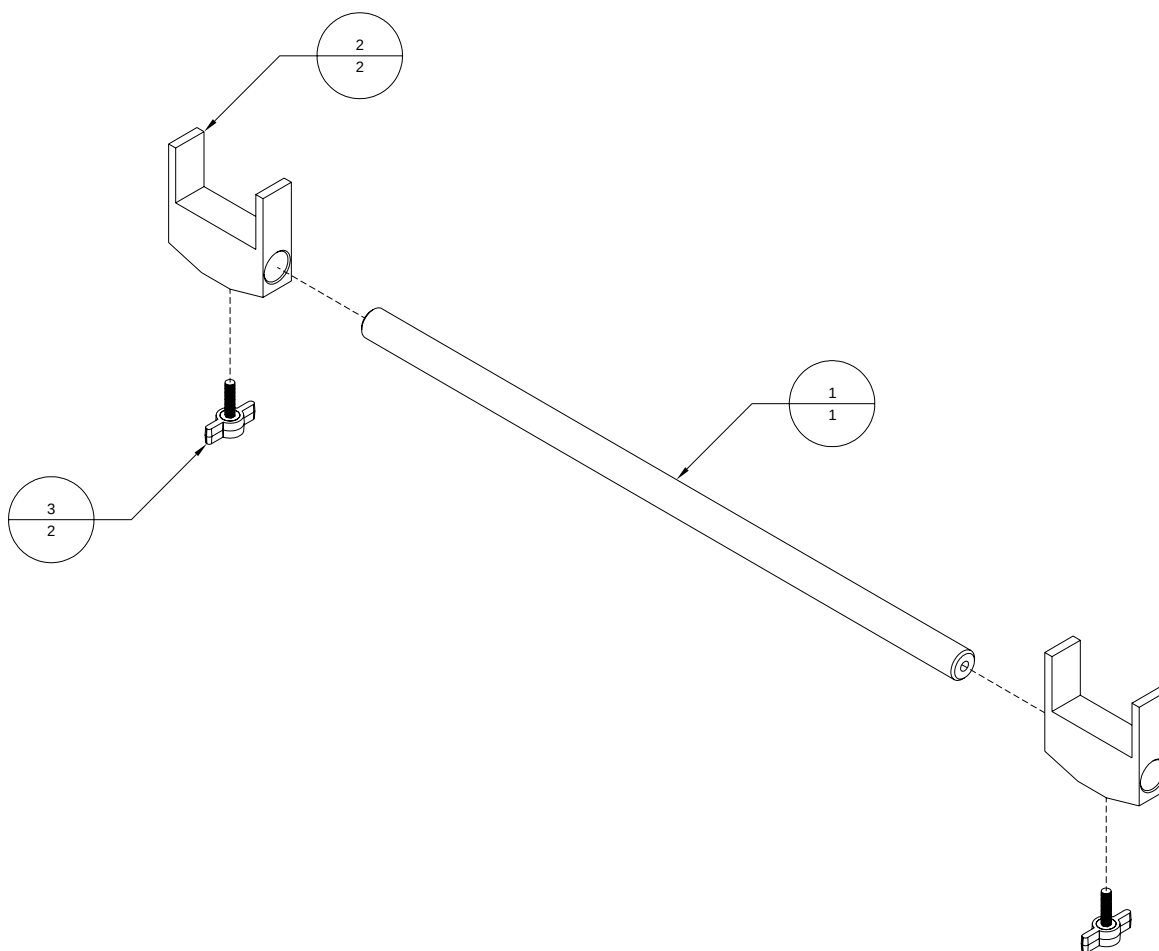
Figure A-4: *Belt Alignment Guide Shaft Assembly(100167A)*

Table A-5: *T" Knob Assembly, 3/4 (438115A)*

Item	Part Number	Quantity	Description	Reference
1	405250	1	Screw, SHCS, 1/4-20 UNC x 3/4"	
2	438505	1	Tee Knob, Black Plastic, 1/4" Screw	

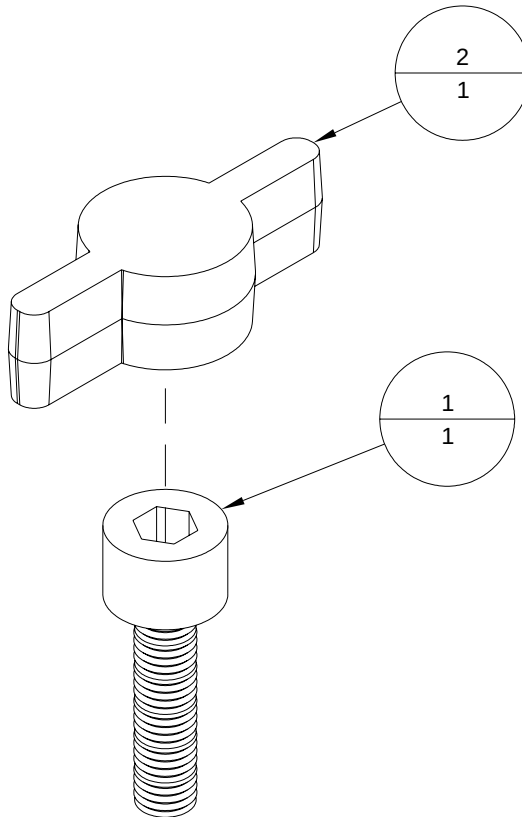
Figure A-5: *T" Knob Assembly, 3/4 (438115A)*

Table A-6: T" Knob Assembly, 1" (438116A)

Item	Part Number	Quantity	Description	Reference
1	405270	1	Screw, SHCS, 1/4-20 UNC X 1"	
2	438505	1	Tee Knob, Black Plastic, 1/4" Screw	

Figure A-6: T" Knob Assembly, 1" (438116A)

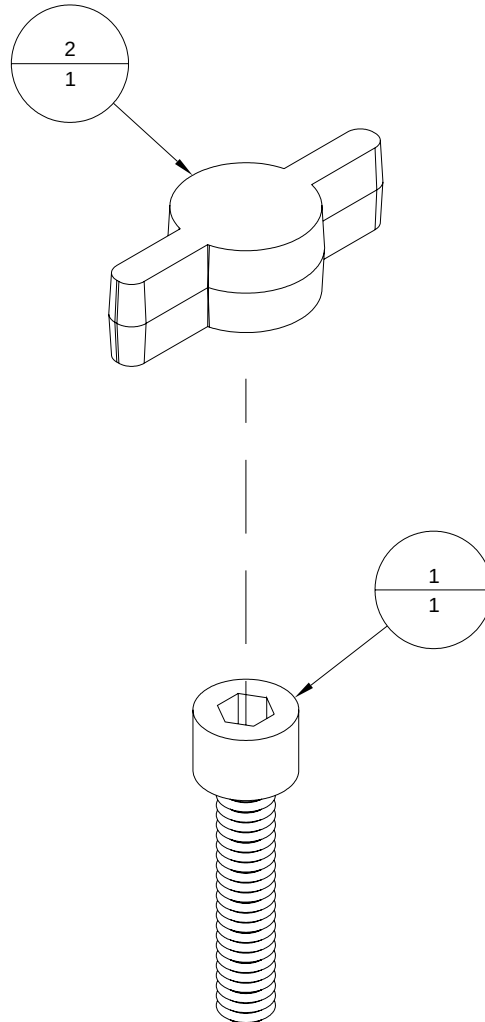


Table A-7: *Rosette Knob Assembly (438150A)*

Item	Part Number	Quantity	Description	Reference
1	407280	1	Screw, SHCS, 3/8-16 UNC x 1 1/2"	
2	438503	1	Rosette Knob, Black Plastic, 3/8" Screw	

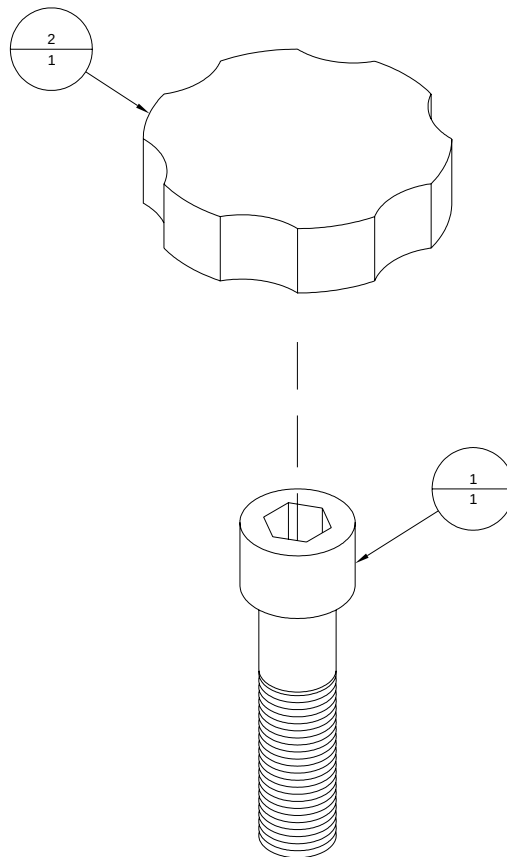
Figure A-7: *Rosette Knob Assembly (438150A)*

Table A-8: *Conveyor Motor Stand Assembly (706155A)*

Item	Part Number	Quantity	Description	Reference
1	113151	1	Sprocket, 35B13 X 3/4 ID X 3/8 Pitch	
2	152000	1	Connecting Link	
3	152024	1	Drive Chain, #35, 8.7"	
4	325130	1	Conveyor Motor Mount Plate	
5	343150	2	Mounting Leg	
6	343151	2	Nut, 1/2-13 UNC, Black	
7	404520	8	Screw, BHCS, 10-32 UNF x 3/8"	
8	404805	1	Screw, SHSS, 10-32 UNF x 1/8"	
9	404807	1	Screw, SHSS, 10-32 UNF x 3/16"	
10	405670	4	Screw, HHMS, 1/4-20 UNC x 1"	
11	406670	4	Screw, HHMS, 5/16-18 UNC x 1"	
12	422008	9	Locknut, 10-32 UNF	
13	439008	1	Lockwasher, No.10, External Tooth	
14	439009	9	Lockwasher, No. 10	
15	439010	4	Lockwasher, 1/4" I.D.	
16	439015	4	Lockwasher, 5/16 I.D.	
17	440010	4	Washer, 1/4" I.D.	
18	440015	4	Washer, 5/16" ID	
19	609101	1	Marrette, Orange, 14-22	
20	609111	2	Terminal, Ring, #10, 16-14 AWG, Blue	
21	615131	1	Cable Clamp, 3/8", Metal	
22	615151	1	Junction Box Cover, 2" X 4"	
23	706155	1	Conveyor Motor Stand	
24	800150	1	Conveyor Motor, 90 VDC S/N	
25	803125	2	Caster, Swivel	

Figure A-8: Conveyor Motor Stand Assembly (706155A)

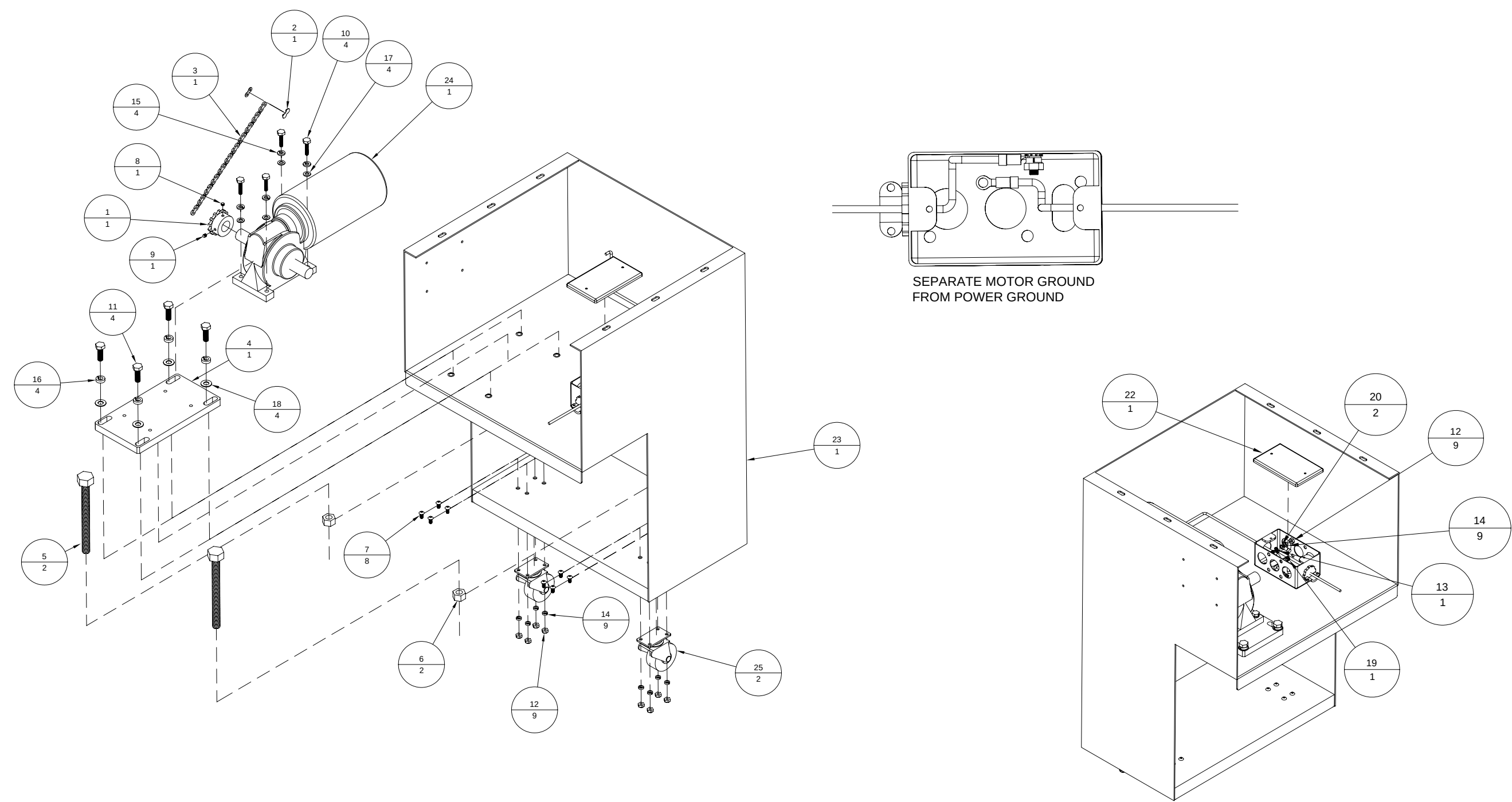


Table A-9: Conveyor Drive Shaft Assembly (100165A)

Item	Part Number	Quantity	Description	Reference
1	100165	1	Conveyor Drive Shaft	
2	106150A	1	Conveyor Driver Roller	Page A-14
3	113150	1	Sprocket, 35B13 X 5/8 ID X 3/8 Pitch	
4	131040	1	Collar, 5/8", ID	
5	330130	2	Driver Roller Bearing Block	
6	405850	2	Screw, SHSS, 1/4-20 UNC x 3/4"	
7	433000	1	Keystock, 3/16 x 3/16	
8	500040	2	Bearing, R10, 5/8 ID	

Figure A-9: Conveyor Drive Shaft Assembly (100165A)

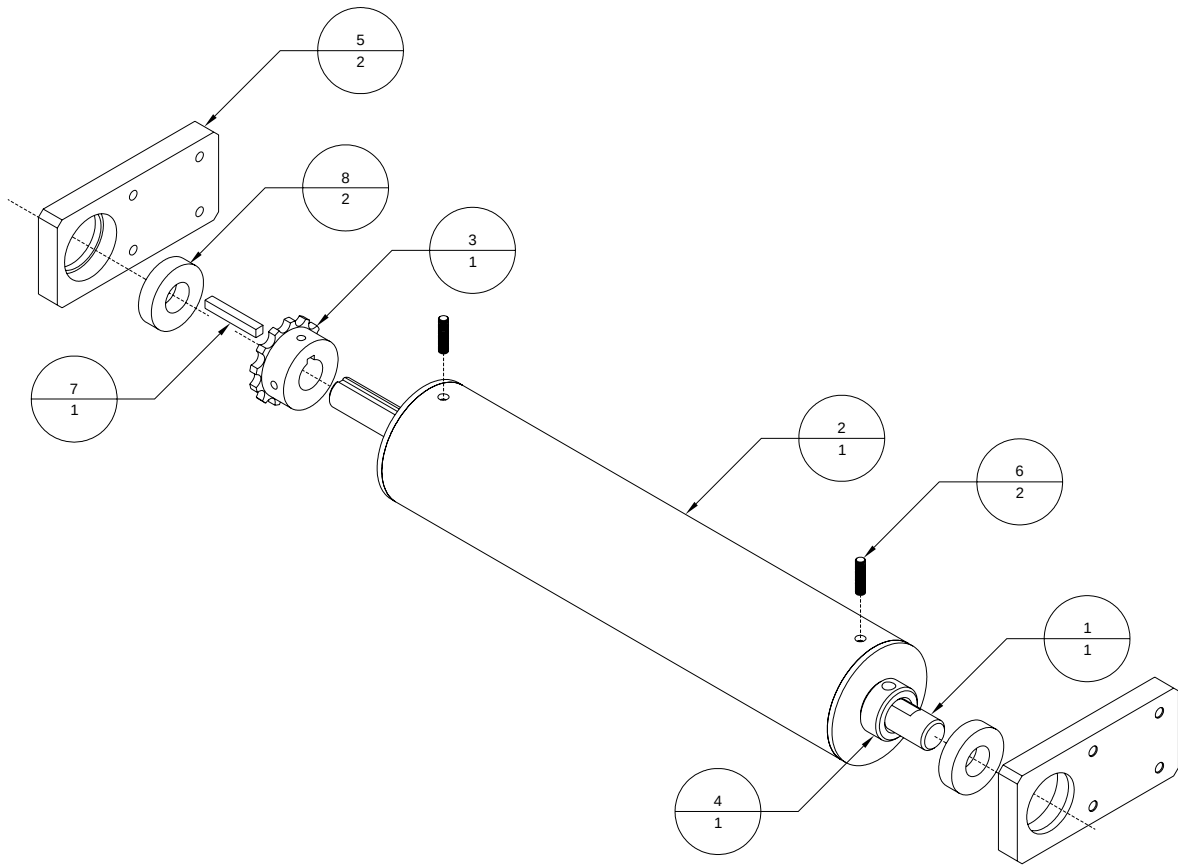


Table A-10: *Conveyor Drive Roller (106150A)*

Item	Part Number	Quantity	Description	Reference
1	106150	1	Roller Tube	
2	127150	2	Drive Roller Plug	

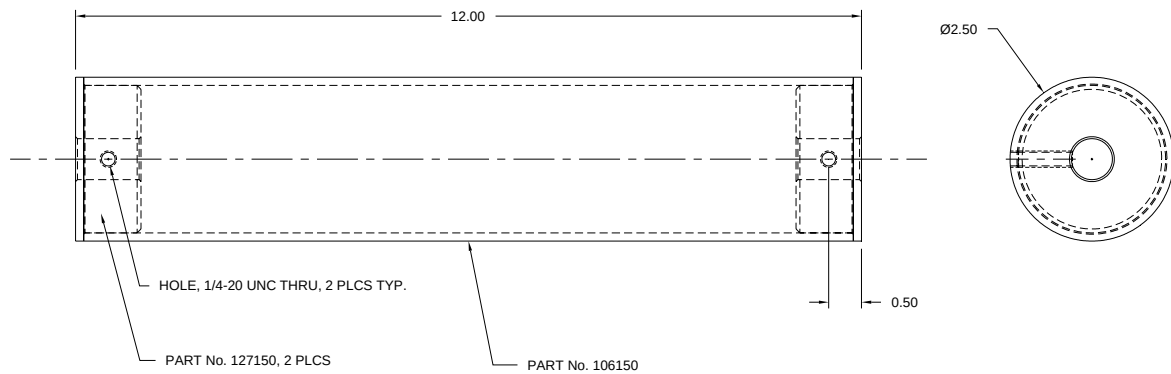
Figure A-10: *Conveyor Drive Roller (106150A)*

Table A-11: Conveyor Takeup Shaft Assembly (100166A)

Item	Part Number	Quantity	Description	Reference
1	100166	1	Conveyor Takeup Shaft	
2	106152A	1	Conveyor Takeup Roller	Page A-16
3	330132	2	Takeup Roller Block	
4	405885	2	Screw, SHSS, 1/4-20 UNC X 2"	
5	500045	2	Bearing, UBR202-10S, 5/8 ID	

Figure A-11: Conveyor Takeup Shaft Assembly (100166A)

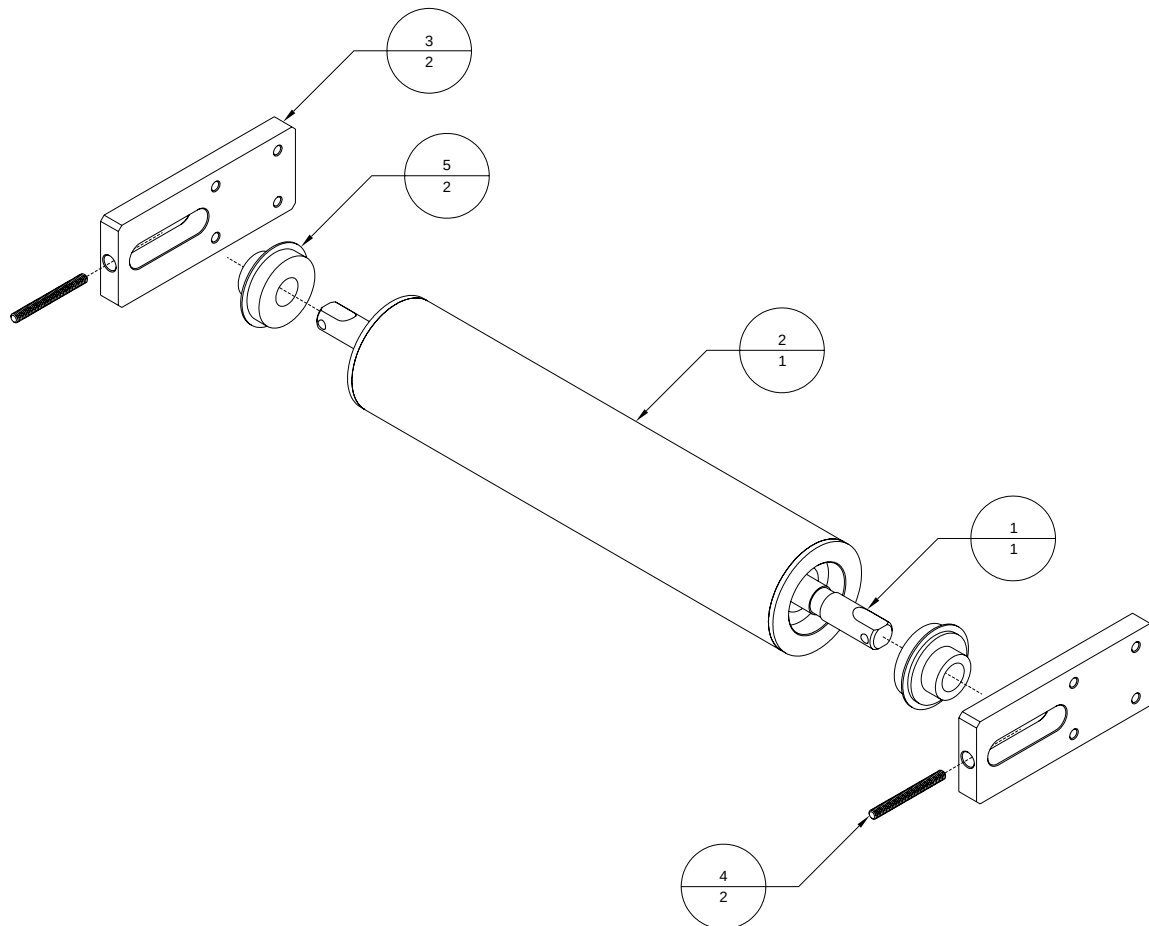


Table A-12: *Conveyor Takeup Roller (106152A)*

Item	Part Number	Quantity	Description	Reference
1	106150	1	Roller Tube	
2	127152	2	Takeup Roller Plug	

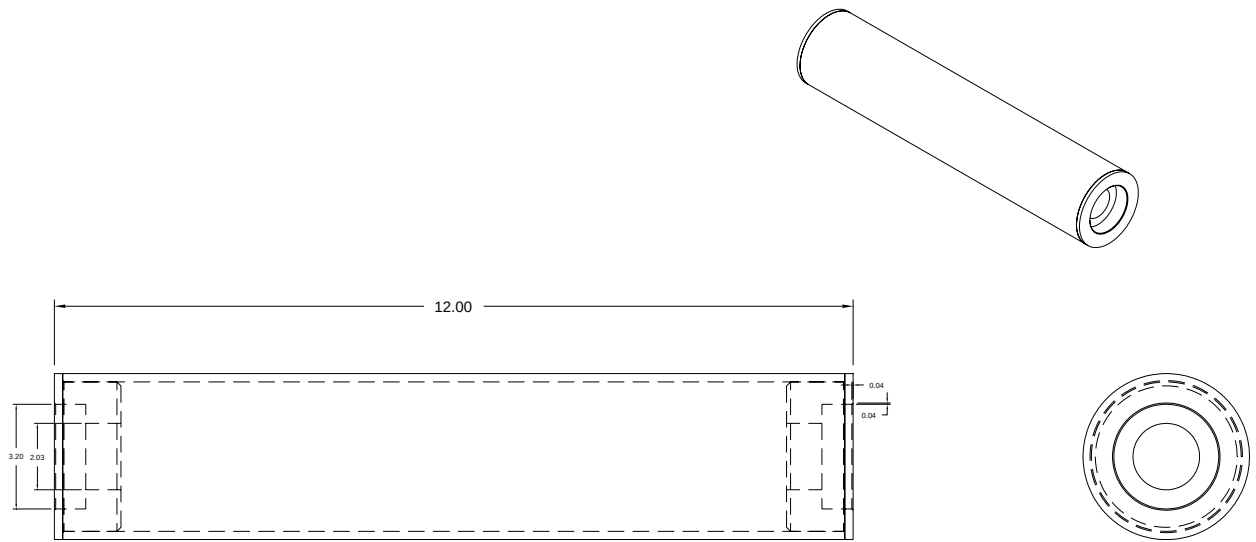
Figure A-12: *Conveyor Takeup Roller (106152A)*

Table A-13: *Knockdown Arm Assembly (212150A)*

Item	Part Number	Quantity	Description	Reference
1	209150	1	Knockdown Spring Plate	
2	212150	1	Knockdown Arm Assembly	
3	340166	1	Knockdown Arm Block	
4	402510	2	Screw, BHCS, 6-32 UNC x 1/4"	
5	420110	1	Knurled Brass Thumb Nut	
6	438115A	2	T" Knob, Assembly, 3/4"	Page A-8
7	438116A	1	T" Knob, Assembly, 1"	Page A-9

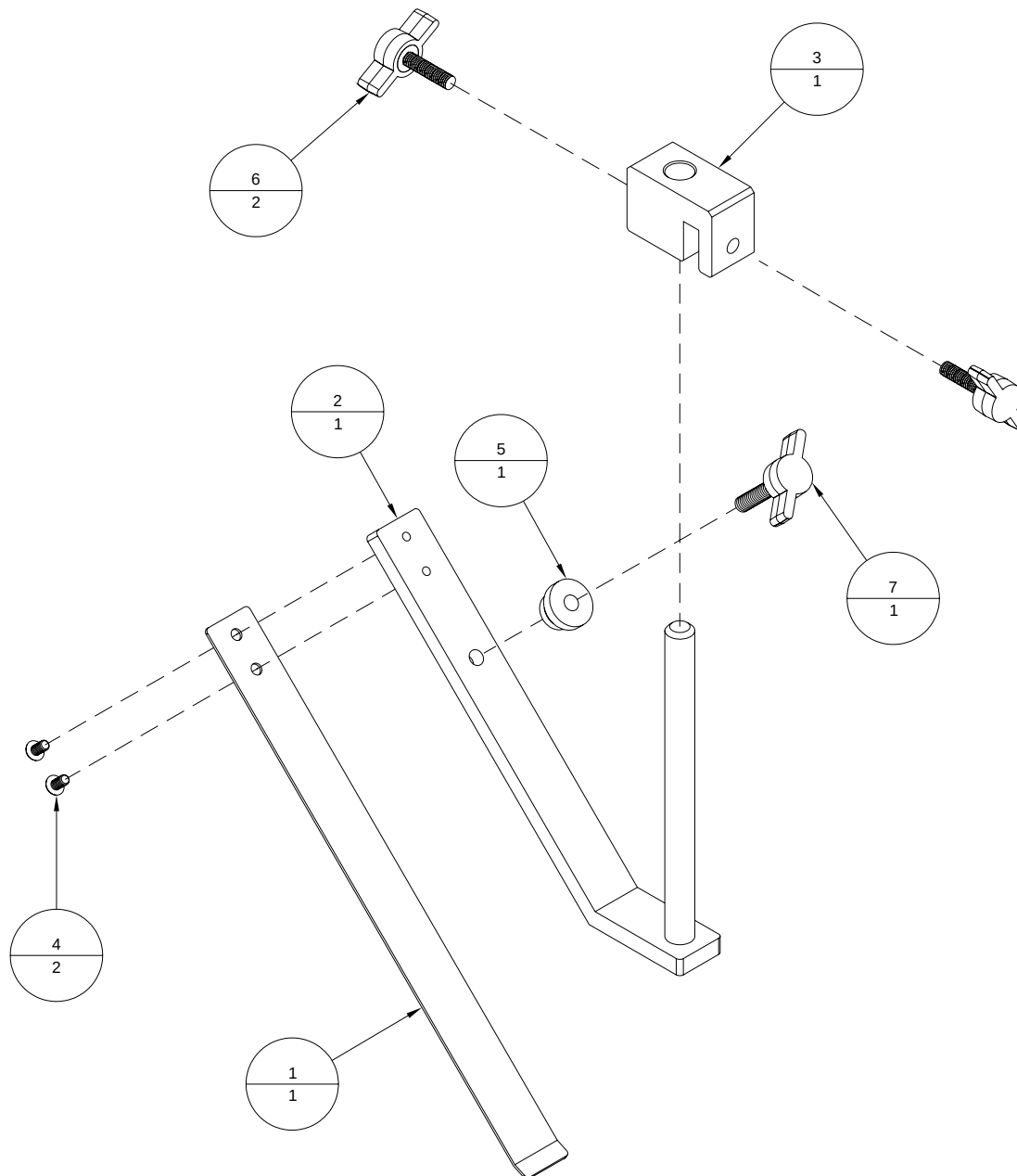
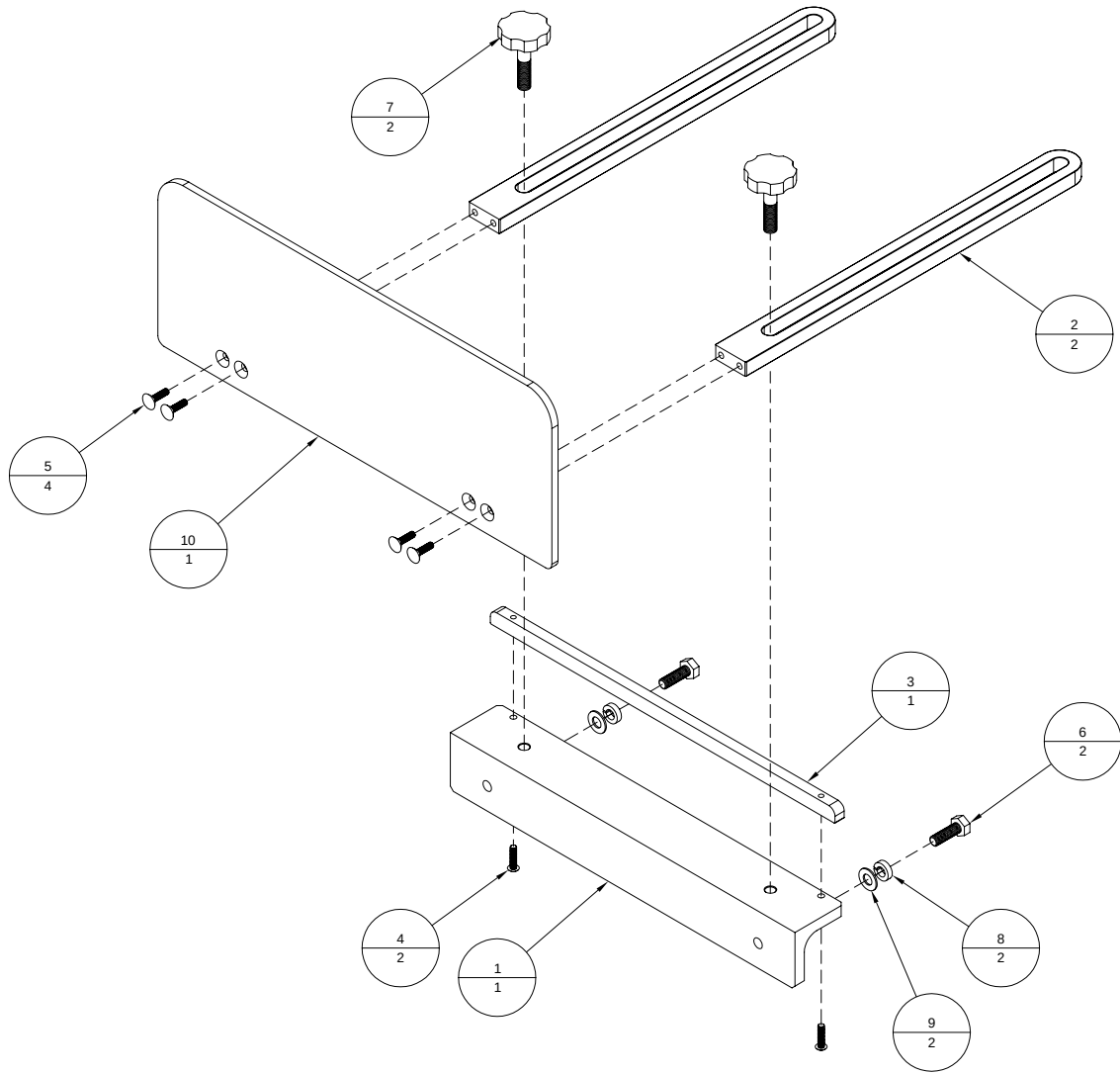
Figure A-13: *Knockdown Arm Assembly (212150A)*

Table A-14: *Material Guide Mechanism (330141A)*

Item	Part Number	Quantity	Description	Reference
1	330165	1	Backstop Mounting Bracket	
2	340165	2	Backstop Adjustment Bar	
3	343165	1	Backstop, Bracket Bar	
4	404550	2	Screw, BHCS, 10-32 UNF x 3/4"	
5	405050	4	Screw, FHCS, 1/4-20 UHC x 3/4"	
6	406670	2	Screw, HHMS, 5/16-18 UNC x 1"	
7	438150A	2	Rosette Knob Assembly, 3/8"	
8	439015	2	Lockwasher, 5/16 I.D.	
9	440015	2	Washer, 5/16" ID	
10	706152	1	Backstop Plate	

Figure A-14: Material Guide Mechanism (330141A)

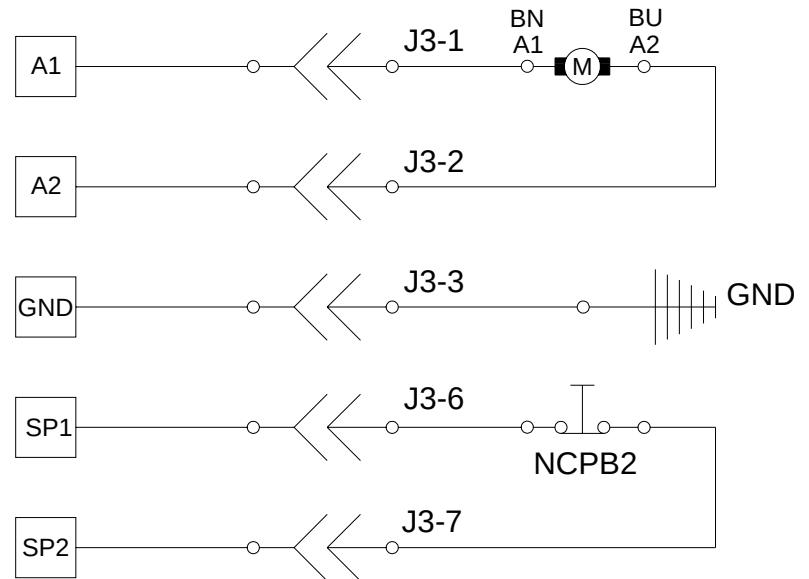


List of Schematics

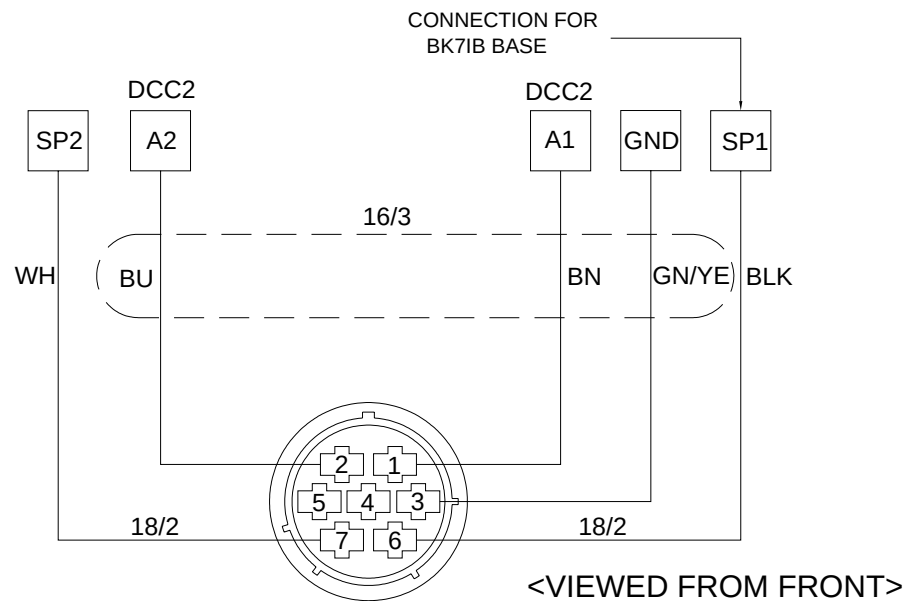
Figure B-1: Electrical Schematic, BK1600 Series Conveyor..... B-2

Figure B-1: *Electrical Schematic, BK1600 Series Conveyor*

JUNC.	MACHINE	CONVEYOR
J3-1	DCC2 - A1	MOTOR A1
J3-2	DCC2 - A2	MOTOR A2
J3-3	GROUND	GROUND
J3-4	N.C.	N.C.
J3-5	N.C.	N.C.
J3-6	TERM. L1 (T1)	NCPB2 (STOP)
J3-7	TERM. 4	NCPB2 (STOP)
PART DESCRIPTION		REFERENCE
MACHINE CONNECTOR		AMP-206227-1
CONVEYOR PLUG		AMP-206226-1
CONNECT. PIN (M)		AMP-66261-2
CONNECT. PIN (F)		AMP-66258-2
PLUG CABLE CLAMP		AMP-206138-1



CONVEYOR SCHEMATIC



J3 CONNECTOR CONVEYOR