

PITNEY BOWES
Sure-Feed Engineering

***ROTARY AND LETTER SHOP
TURNOVER***

6x9

***FLOWMASTER-RS (ROTARY)
FLOWMASTER-LS (LETTER SHOP)***

Parts Manual



SURE-FEED ENGINEERING

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VERSION HISTORY

The table below summarizes the history of this document as it is published onto the company website(s). It identifies the version, date of issue and revisions and changes.

VERSION	DATE	CHANGES
FM-RS-LS_TURNOVER6X9		ORIGINAL RELEASE
FM-RS-LS_TURNOVER6X9reva	08/22/07	REV A: See page notes

PAGE NOTES

REV	DATE	PAGE	REVISION NOTE
A	8/21/07	3	Added figure 7-10
		23-25	Corrected p/n, added figure and p/n

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TURNOVER 6X9



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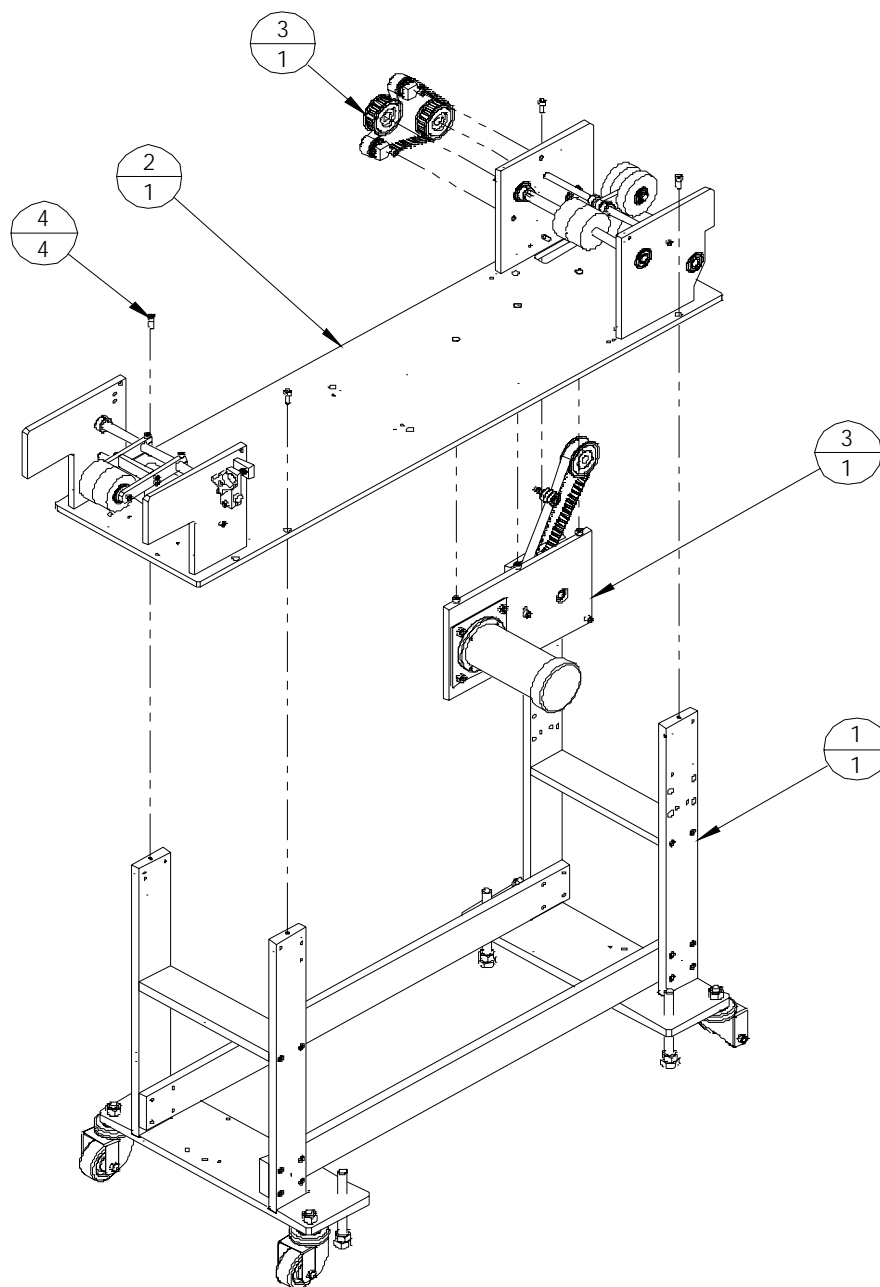
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**TURNOVER ASSEMBLY (Fig. 7-1)
 (20022-005)**

ITEM	PART NO.	QTY.	DESCRIPTION
1	SEE FIG.7-2	1	ASSEMBLY, FRAME (22020-001)
2	SEE FIG. 7-3	1	ASSEMBLY, TRANSPORT (20020-013)
3	SEE FIG.7-6	1	ASSEMBLY, DC DRIVE (20020-038)
	SEE FIG. 7-6	1	ASSEMBLY, AC DRIVE OPTION (20020-040)
4	-	4	BOLT, SKT HEAD, 5/16-18 X 3/4
5	SEE FIG.7-8, 7-9	1	ASSEMBLY, COVERS (20020-017) (NOT SHOWN)

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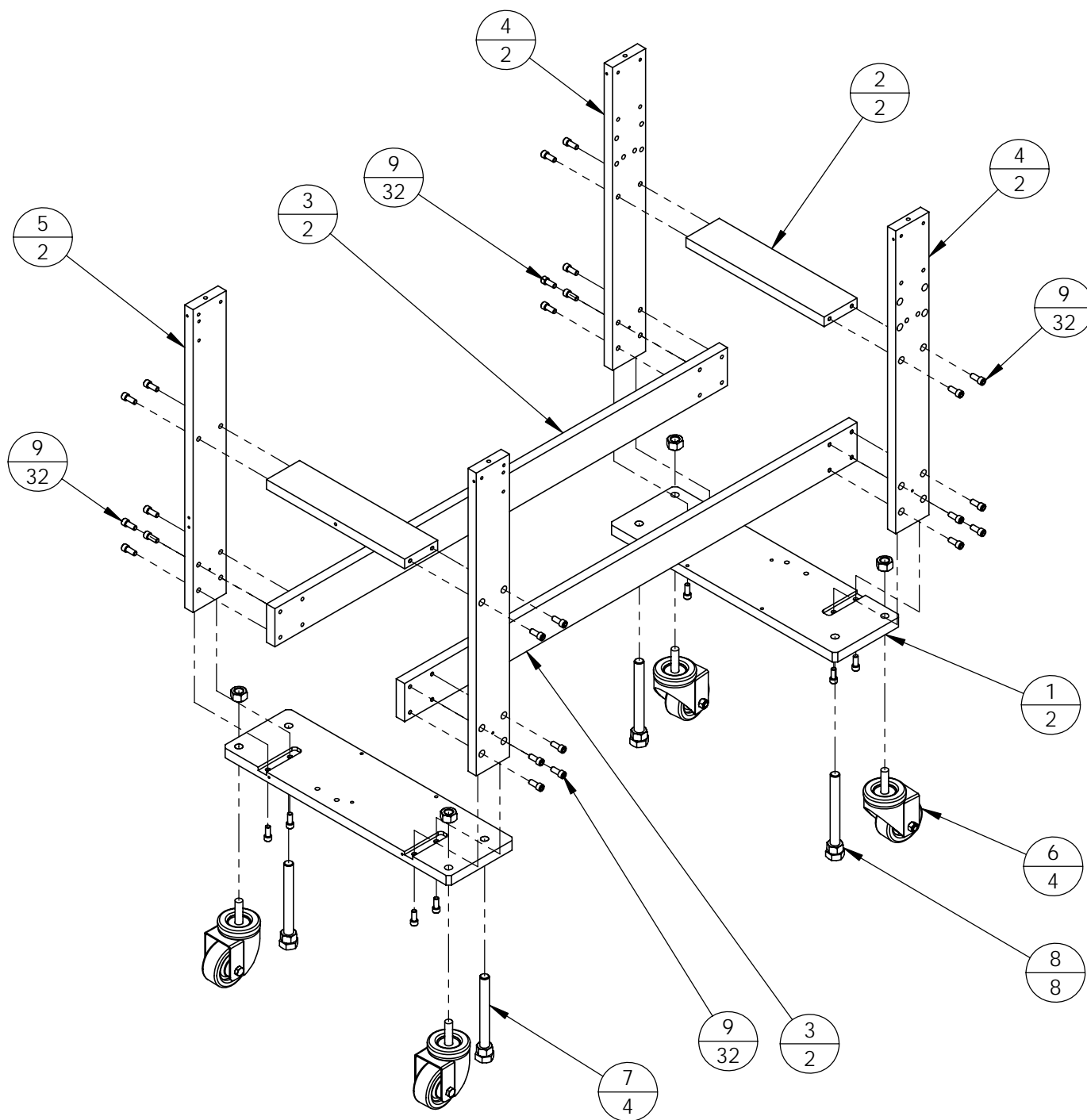


TURNOVER (Fig. 7-2)
FRAME ASSEMBLY (20020-001)

ITEM	PART NO.	QTY.	DESCRIPTION
1	20003-001	2	CROSS BAR, LOWER
2	20003-002	2	CROSSBAR, UPPER
3	20003-003	2	CROSSBAR, SIDE
4	20010-001	2	LEG, DISCHARGE
5	20010-002	2	LEG, INFEED
6	99010-005	4	CASTER, 5/8-11 STEM
7	-	4	BOLT, HEX HEAD, 5/8-11 X 6
8	-	8	NUT, HEX, 5/8-11
9	-	32	BOLT, SKT HEAD, 5/16-18 X 3/4

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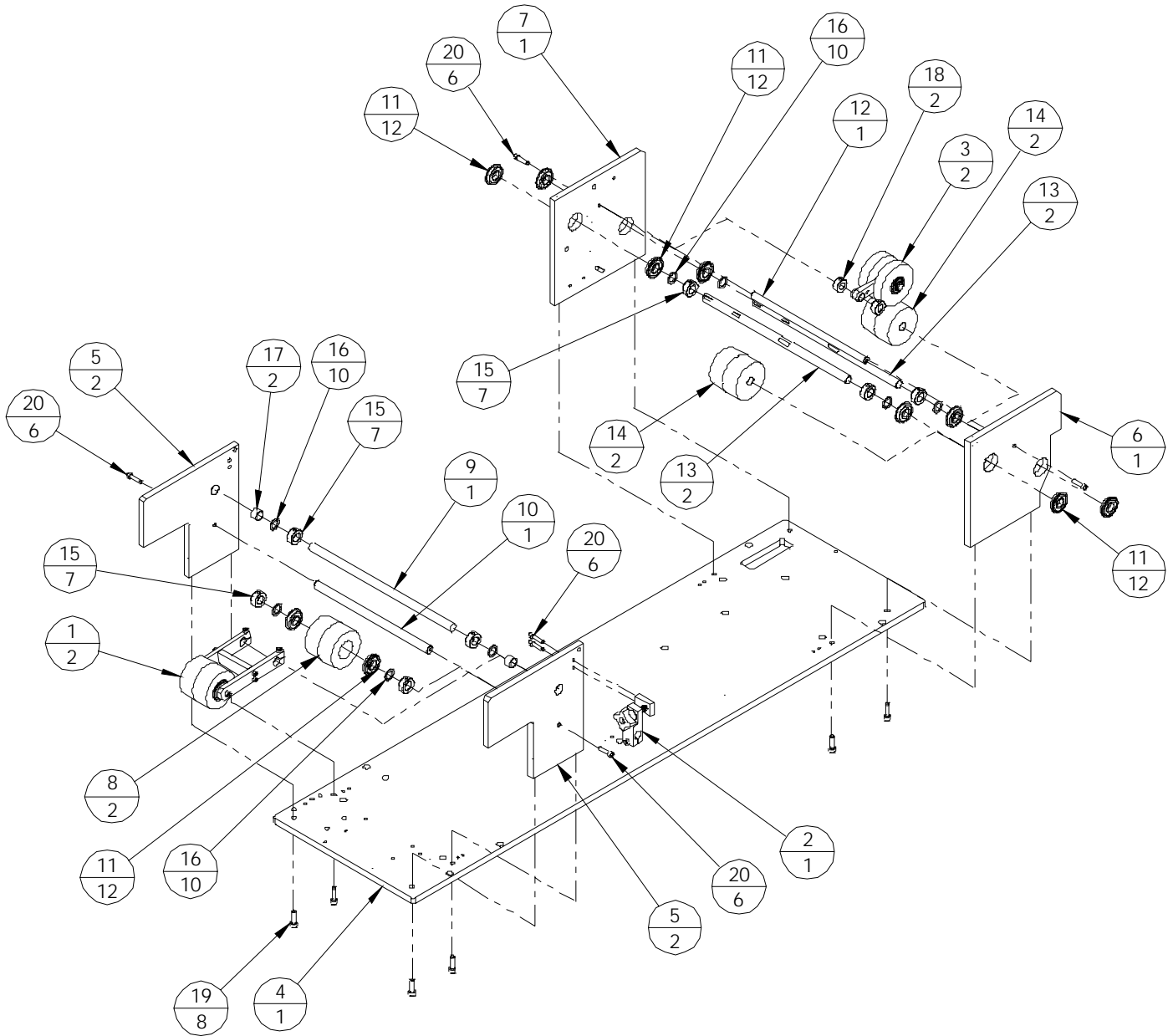


TURNOVER (Fig. 7-3)
TRANSPORT ASSEMBLY (20020-013)

ITEM	PART NO.	QTY.	DESCRIPTION
1	SEE FIG. 7-5	1	ASSEMBLY, IDLER ROLLER (20020-004)
2	SEE FIG. 7-4	1	ASSEMBLY, SHAFT ADJ. (20020-003)
3	SEE FIG. 7-5	1	ASSEMBLY, EXIT ROLLER, DOUBLE (20020-005)
4	20001-001	1	PLATE, TURNOVER DECK
5	20000-001	2	SIDEFAME, INFEED
6	20000-002	1	SIDEFAME, RH DISCHARGE
7	20000-003	1	SIDEFAME, LH DISCHARGE
8	20006-001	1	ROLLER, CROWNED IDLER
9	20004-003	1	SHAFT, IDLER PIVOT
10	20004-002	1	SHAFT, IDLER, LONG
11	99003-006	10	BEARING, 5/8 X 1-3/8 SEALED W/ S.R.
12	20004-004	1	SHAFT, NIP PIVOT
13	20004-007	2	SHAFT, DRIVE
14	20006-002	2	ROLLER, CROWNED DRIVE
15	99017-005	7	COLLAR, 5/8" SHAFT
16	99003-021	8	WASHER, NYLON, 5/8 X 1/16
17	99003-029	2	BUSHING, SL, 5/8 X 3/4 X 1/2
18	99017-004	2	COLLAR, 1/2" SHAFT
19	-	8	SCREW, SKT HEAD, 5/16-18 X 1
20	-	6	SCREW, SKT HEAD, 1/4-20 X 1
21	99000-038	1	BELT, TURNOVER, 111.6" LONG (NOT SHOWN)
22	99000-039	1	BELT, TURNOVER, 91.65" LONG (NOT SHOWN)

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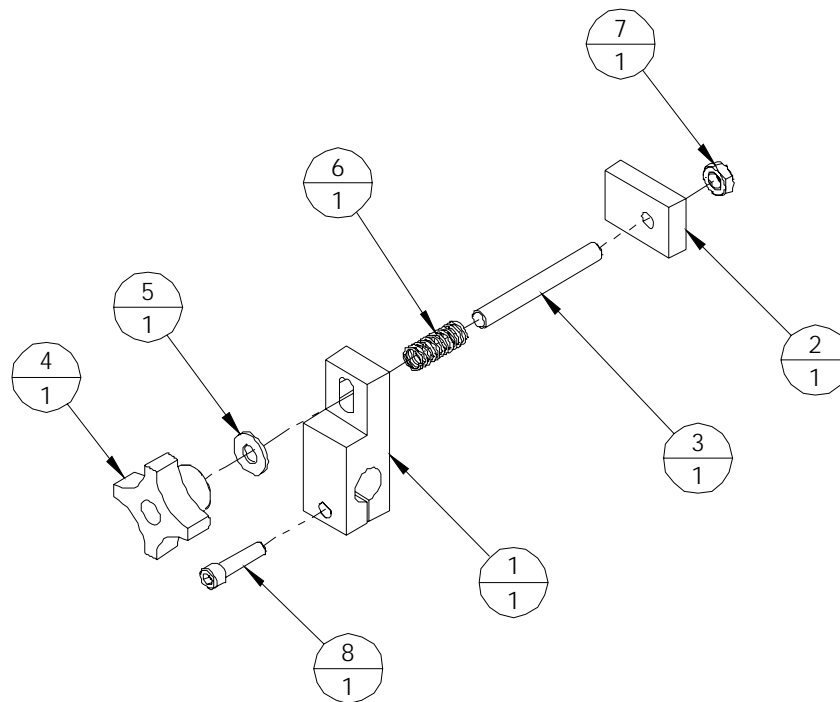
TURNOVER (Fig. 7-4)

SHAFT ADJ. ASSEMBLY (20020-003)

ITEM	PART NO.	QTY.	DESCRIPTION
1	20007-002	1	BLOCK, SHAFT CLAMP
2	20007-001	1	BLOCK, SHAFT ADJ
3	10004-028	1	STUD, SEPARATOR ADJ.
4	99004-001	1	KNOB, 5/16-24 FEMALE
5	99003-015	1	WASHER, NYLON, 5/16 X 1/16
6	99005-045	1	SPRING, SEPARATOR
7	-	1	NUT, HEX, 5/16-24
8	-	1	SCREW, SKT HEAD, 1/4-20 X 1

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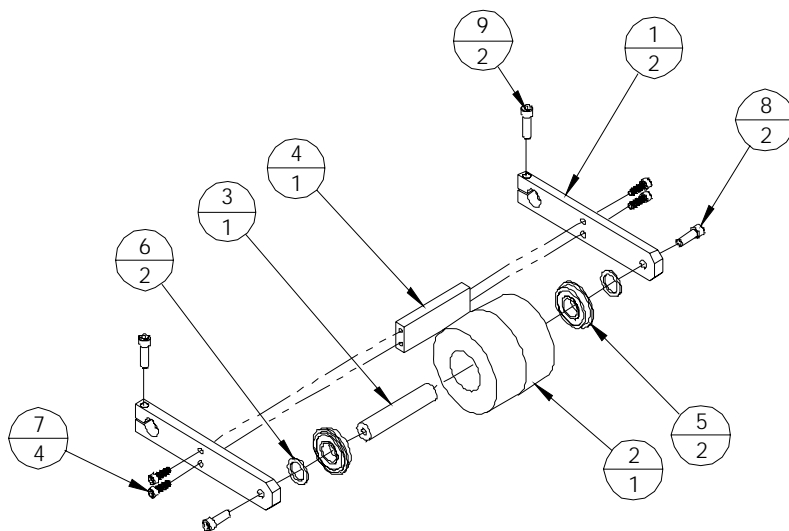


TURNOVER (Fig. 7-5)
ROLLER ASSEMBLIES

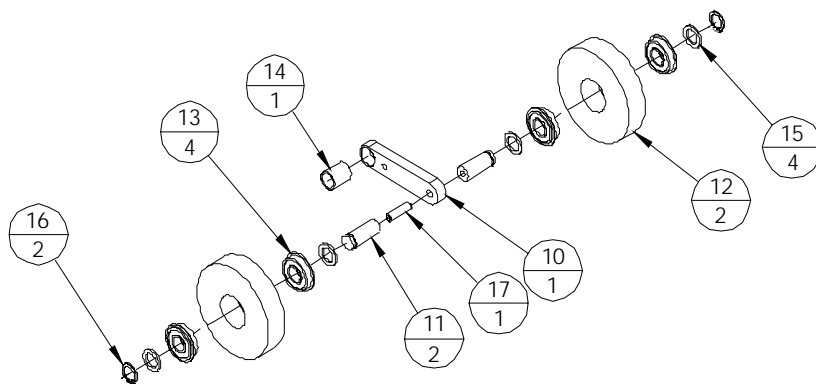
ITEM	PART NO.	QTY.	DESCRIPTION
	20020-004	1	ASSEMBLY, IDLER ROLLER
1	20008-001	2	BAR, IDLER ROLLER MTG.
2	20006-001	1	ROLLER, CROWNED IDLER
3	20004-001	1	SHAFT, IDLER, SHORT
4	20012-002	1	SPACER, IDLER SUPPORT
5	99003-006	2	BEARING, 5/8 X 1-3/8, SEALED W/ S.R.
6	99003-021	2	WASHER, NYLON, 5/8 X 1/16
7	-	4	SCREW, SKT HEAD, #10-24 X 5/8
8	-	2	BOLT, SKT HEAD, 1/4-20 X 3/4
9	-	2	BOLT, SKT HEAD, 1/4-20 X 7/8
	20020-005	1	ASSEMBLY, EXIT ROLLER (DOUBLE)
10	20008-002	1	BAR, EXIT ROLLER
11	20004-005	2	SHAFT, EXIT ROLLER
12	20006-003	2	ROLLER, EXIT
13	99003-007	4	BEARING, 1/2 X 1-1/8, SEALED W/ S.R.
14	99003-038	1	BUSHING, SLEEVE, 1/2 X 5/8 X 3/4
15	99003-018	4	WASHER, NYLON, 1/2 X 1/16
16	99022-004	2	SNAP RING, 1/2
17	-	1	SET SCREW, 1/4-20 X 1

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ASSY# 22020-004



ASSY# 22020-005

TURNOVER (Fig. 7-6)
DC DRIVE ASSEMBLY (20020-038)

ITEM	PART NO.	QTY.	DESCRIPTION
1	20011-001	1	PLATE, MOTOR MTG.
2	20011-002	1	PLATE, INTERMEDIATE SHAFT
3	20012-004	1	STANDOFF, MOTOR SUPPORT
4	99002-065	1	PULLEY, TIMING, 36L075 (1610 TAPERLOCK)
5	99002-059	1	PULLEY, TIMNG, 12L075, 1/2B W/ KEYWAY
6	99002-035	4	PULLEY, TIMING, 22L075 (1008 TAPERLOCK)
7	20004-008	1	SHAFT, INTERMEDIATE
8	99017-019	4	BUSHING, TAPERLOCK, 1008, 5/8B
9	99017-026	1	BUSHING, TAPERLOCK, 1610, 1/2B
10	99003-007	2	BEARING, 1/2 X 1-1/8, SEALED W/ S.R.
11	99003-032	1	WASHER, NYLON, 1/2 X 1/32
12	99003-018	2	WASHER, NYLON, 1/2 X 1/16
13	99017-004	1	COLLAR, 1/2
14	SEE FIG. 7-7	1	ASSEMBLY, TENSIONER (W/ ROLLER) (20020-006)
15	SEE FIG. 7-7	2	ASSEMBLY, TENSIONER (W/ PULLEY) (20020-007)
16	99000-157	1	BELT, TIMING, 285L075
17	-	4	BOLT, SKT HEAD, 3/8-16 X 1
18	-	2	BOLT, SKT HEAD, 5/16-18 X 5/8
19	-	5	BOLT, SKT HEAD, 5/16-18 X 1
20	-	3	BOLT, SKT HEAD, 5/16-18 X 3/4
21	99000-028	1	BELT, TIMNG, 255L075
22	99000-034	1	BELT, TIMING, D240L075

TURNOVER (Fig. 7-6)
DC DRIVE ASSEMBLY (20020-038)

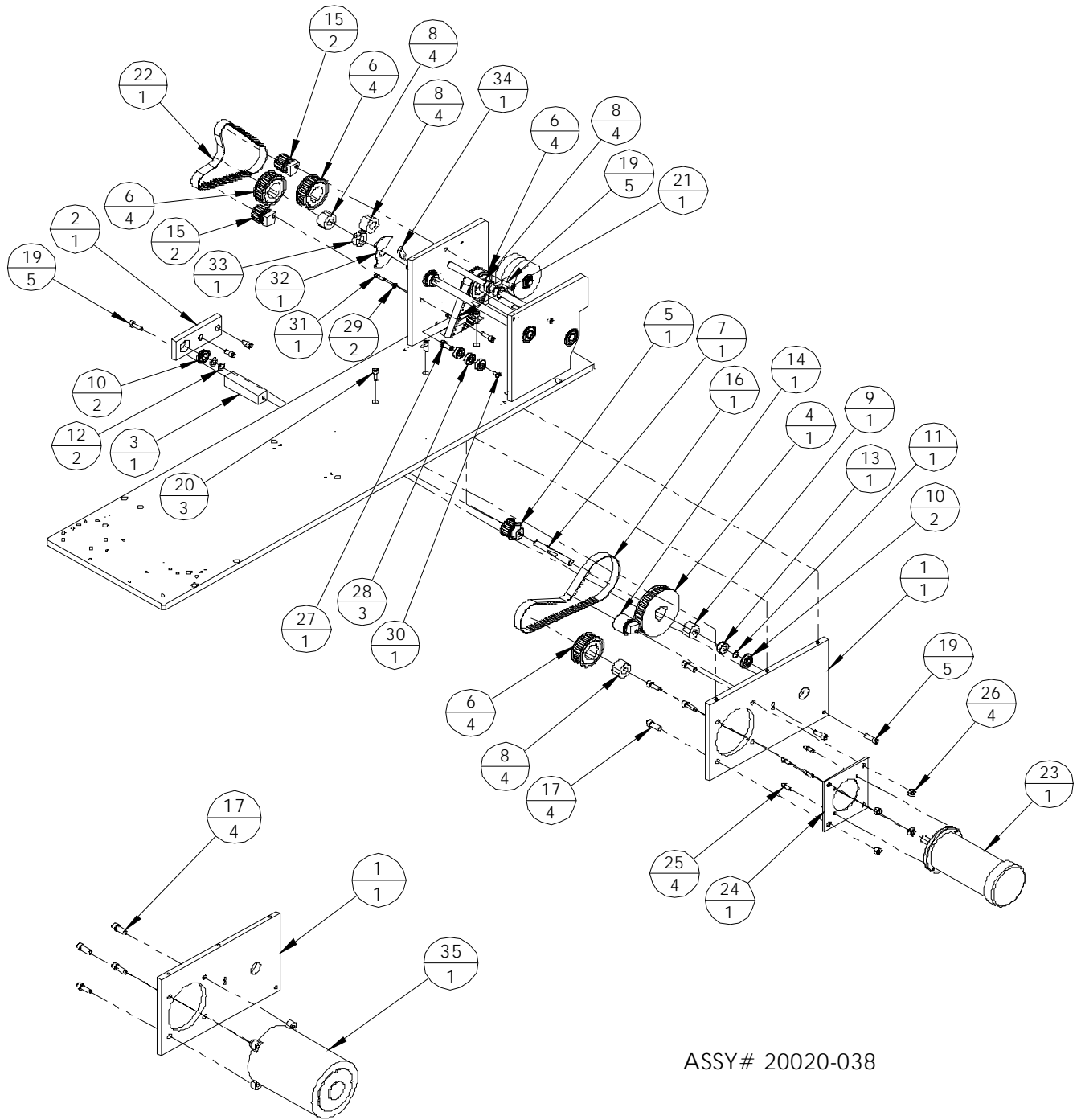
ITEM	PART NO.	QTY.	DESCRIPTION
23	99001-019	1	MOTOR, DC, 1/4 HP
24	20011-005	1	PLATE, MOTOR ADAPTOR
25	-	4	BOLT, SKT HEAD, 1/4-20 X 5/8
26	-	4	NUT, HEX, 3/8-16
27	20004-024	1	STUD, TENSIONER
28	99003-062	3	BEARING, SEALED, 10X26X8 MM
29	-	2	WASHER, FLAT, 1/4
30	-	1	BOLT, BUTTON HEAD, 1/4-20 X 1/2
31	-	1	BOLT, SKT HEAD, 1/4-20 X 3/4
32	20011-014	1	PLATE, SENSOR FLAG
33	20019-001	1	COLLAR, FLAG MTG.
34	98009-028	1	SENSOR, PROXIMITY

AC DRIVE OPTION ASSEMBLY (Fig. 7-6)
(20020-040)

ITEM	PART NO.	QTY.	DESCRIPTION
	20020-040	OPT	ASSEMBLY, AC DRIVE
35	99001-004	OPT	MOTOR, AC, 1/4 HP, 56C

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ASSY# 20020-038

ASSY# 20020-040

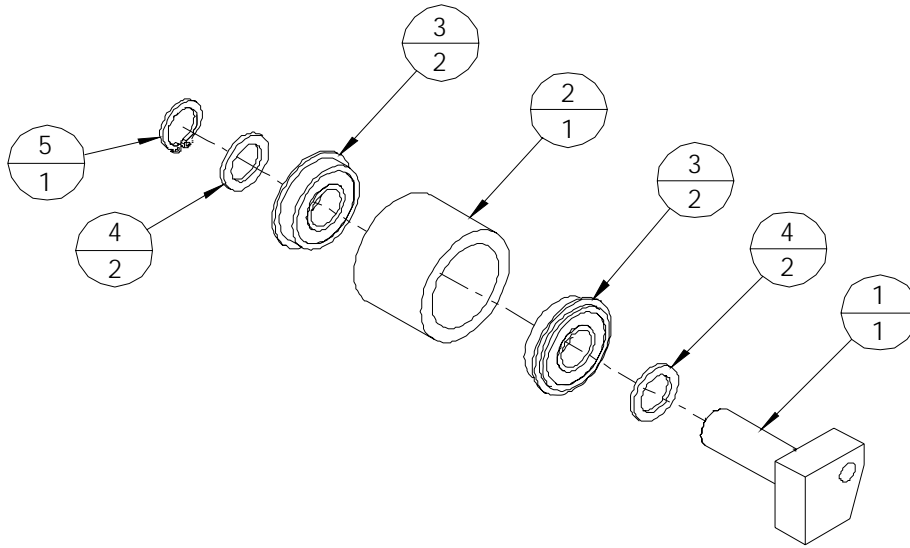
NOTE: AC DRIVE SYSTEM (20020-040) HAS ITEM #35 IN PLACE ON ITEM # 23 AND #24

TURNOVER (Fig. 7-7)
TENSIONER ASSEMBLIES

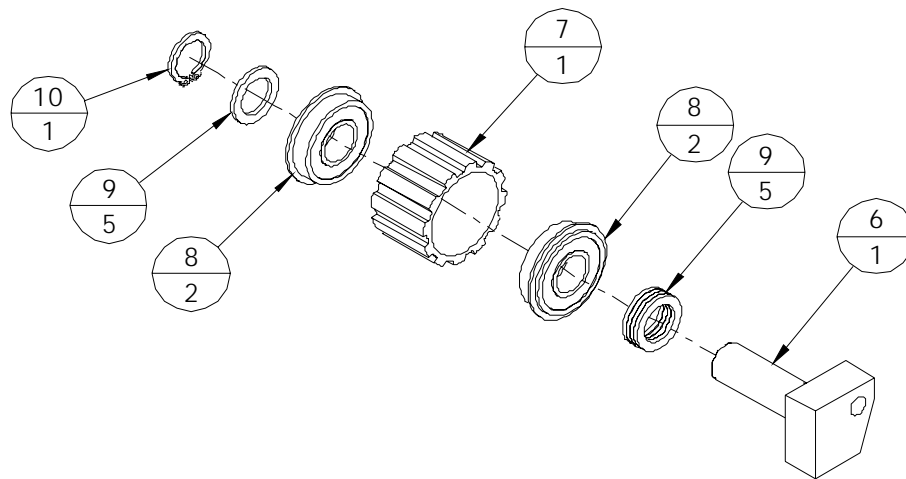
ITEM	PART NO.	QTY.	DESCRIPTION
	20020-006	1	ASSEMBLY, TENSIONER (FLAT ROLLER)
1	18004-022	1	SHAFT, ECCENTRIC IDLER, 1/2
2	18006-012	1	ROLLER, FLAT IDLER, 1.5 X 1-1/8 WIDE
3	99003-007	2	BEARING, 1/2 X 1-1/8, SEALED W/ S.R.
4	99003-018	2	WASHER, NYLON, 1/2 X 1/16
5	99022-004	1	SNAP RING, 1/2
	20020-007	2	ASSEMBLY, TENSIONER (PULLEY)
6	18004-022	1	SHAFT, ECCENTRIC IDLER, 1/2
7	20006-004	1	PULLEY, IDLER, 12L075
8	99003-007	2	BEARING, 1/2 X 1-1/8, SEALED W/ S.R.
9	99003-018	5	WASHER, NYLON, 1/2 X 1/16
10	90022-004	1	SNAP RING, 1/2

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ASSY# 20020-006



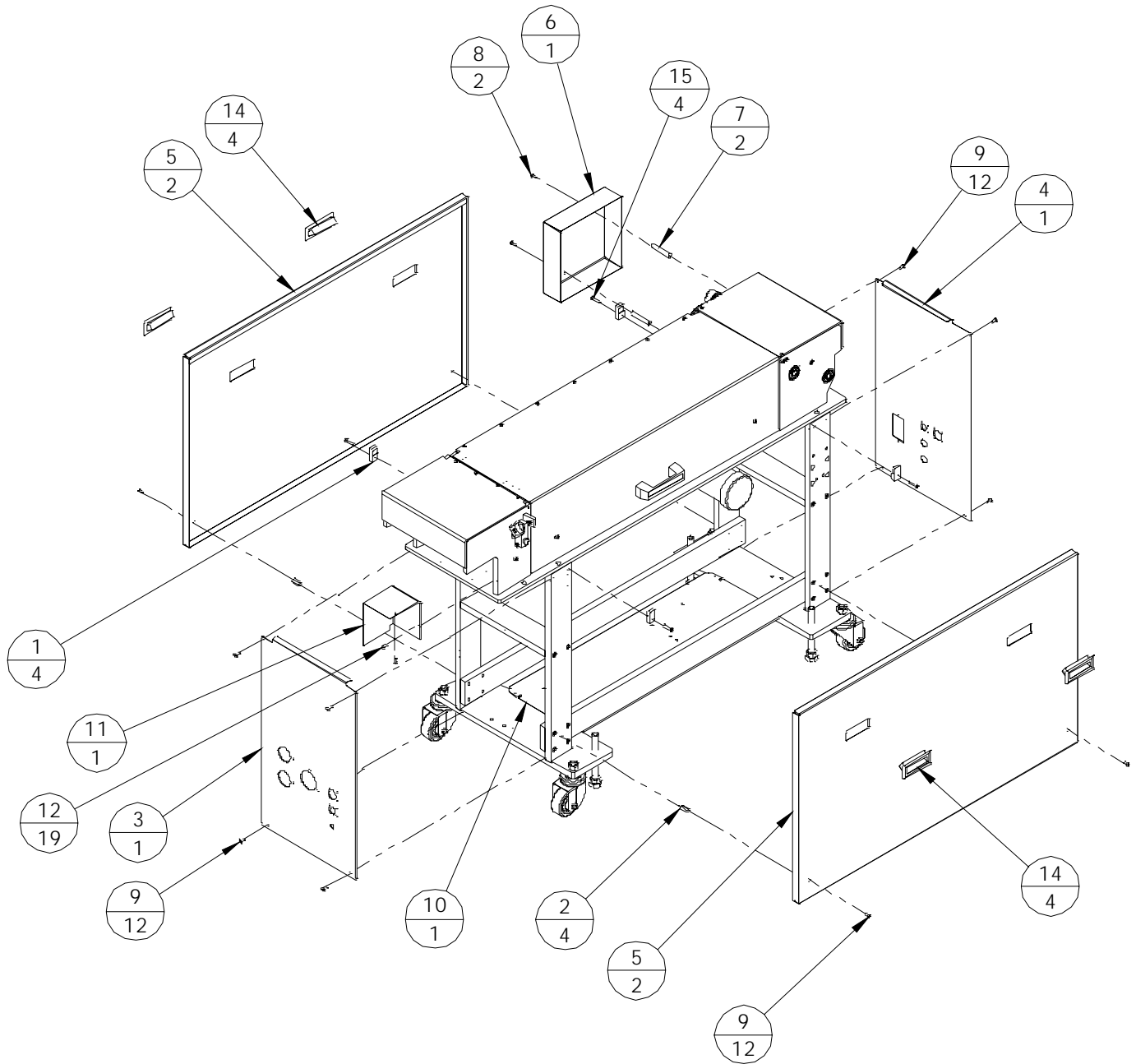
ASSY# 20020-007

TURNOVER (Fig. 7-8)
COVER ASSEMBLY #1 (20020-017)

ITEM	PART NO.	QTY.	DESCRIPTION
1	18007-042	4	BLOCK, SIDE COVER MTG.
2	99039-079	4	STANDOFF, HEX, #10-32
3	20013-021	1	COVER, INFEED END
4	20013-022	1	COVER, DISCHARGE END
5	20013-003	2	COVER, LOWER SIDE
6	20013-006	1	COVER, DRIVE
7	20012-003	2	STANDOFF, DRIVE COVER
8	-	2	SCREW, BUTTON HEAD, #10-24 X 1/2
9	-	12	SCREW, BUTTON HEAD, #10-32 X 1/2
10	18013-097	1	COVER, FLOOR
11	20013-017	1	COVER, TURNOVER INFEED
12	-	19	SCREW, BUTTON HEAD, #8-32 X 1/2
13	-	-	-----
14	99012-002	4	HANDLE, POCKET PULL
15	-	4	SCREW, SKT HEAD, #10-24 X 1

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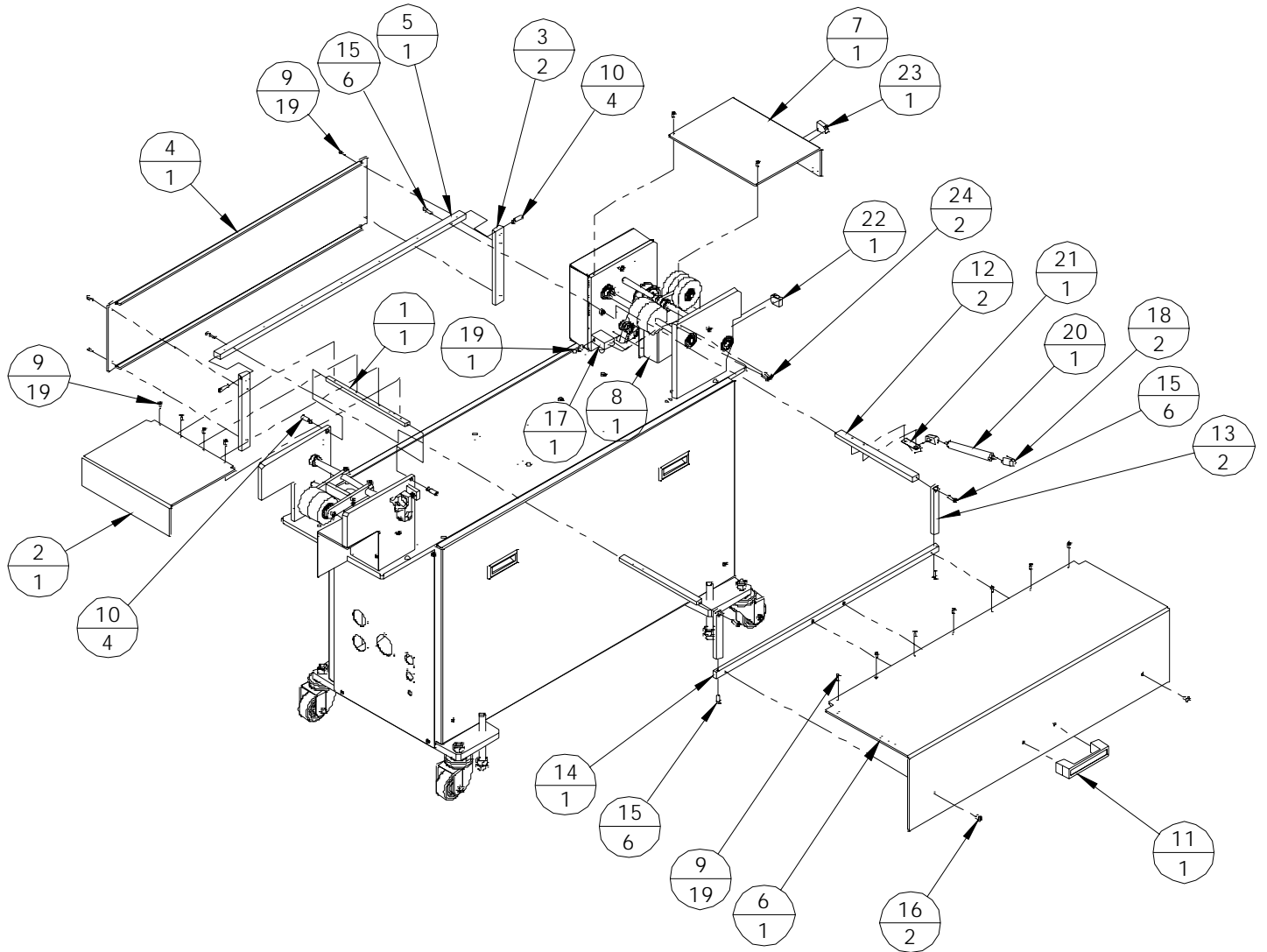


TURNOVER (Fig. 7-9)
COVER ASSEMBLY #2 (20020-017)

ITEM	PART NO.	QTY.	DESCRIPTION
1	20008-003	1	BAR, END COVER MTG.
2	20013-001	1	COVER, LEXAN, INFEED
3	20007-004	2	BLOCK, COVER MTG.
4	20013-008	1	COVER, SIDE, LEXAN
5	20008-004	1	BAR, COVER MTG.
6	20013-007	1	COVER, CENTER, LEXAN
7	20013-002	1	COVER, DISCHARGE, LEXAN
8	20013-016	1	COVER, BELT DRIVE
9	-	19	SCREW, BUTTON HEAD, #8-32 X 1/2
10	99006-024	4	PIN STUD, 5/16-24 X 1-1/8
11	99012-001	1	HANDLE, DOOR
12	20008-021	2	BAR, COVER SUPPORT, TOP
13	20008-009	2	BAR, COVER SUPPORT, SIDE
14	20008-006	1	BAR, COVER SUPPORT, HANDLE
15	-	6	BOLT, SKT HEAD, 1/4-20 X 3/4
16	-	2	SCREW, BUTTON HEAD, 1/2-20 X 1/2
17	20007-007	1	BLOCK, GAS SPRING MTG.
18	99014-005	2	END FITTING, BALL SOCKET
19	99014-009	1	BALL STUD, 10MM
20	99014-007	1	GAS SPRING, 20LB
21	99014-008	1	BRACKET, BALL STUD, 90 DEG.
22	98009-002	1	SENSOR, SENDER, THRU BEAM
23	98009-037	1	SENSOR, RECIEVER, THRU BEAM
24	-	2	SCREW, SKT HEAD, #10-24 X 3/4

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TURNOVER CONVEYOR (Fig. 7-10)
ELECTRICAL ASSEMBLY

ITEM	PART NO.	QTY.	DESCRIPTION
	^a 20021-001	1	ASSY, ELECTRICAL, TURNOVER
1	98016-012	1	PLUG, AMP, SERIES 1, 17-16 ST
2	98016-005	1	BACKSHELL, PLASTIC SIZE 17
3	98016-073	1	PLUG, HBL, 3 PIN, 1 POLE, 115
4	98000-036	1	SWITCH, REED
5	98020-024	1	MAGNET, ACTUATOR, REED SWITCH
6	98016-025	15	CONTACT, PIN, 24-20 AWG
7	98016-027	20	CONTACT, SOCKET, 24-20 AWG
8	98003-009	1	RECEPTACLE STRIP-4 OUTLET
9	98016-085	2	CONNECTOR, 3 POS, MALE, 15A
10	98016-077	2	CONNECTOR, 3 POS, FEMALE, 15A
11	98016-082	1	CONNECTOR, 6 POS, MALE, 15A
12	98016-083	1	CONNECTOR, 6 POS, FEMALE, 15A
13	98010-010	11 FT	WIRE, 16/3, SJOOW, BLACK
14	98000-020	1	SWITCH, LIMIT W/ ROLLER
15	98000-021	1	COVER, LIMIT SWITCH
16	98009-002	2	RECEIVER-M5/115, SENSOR
17	98009-037	2	SENDER,-MV5/30/115, SENSOR
18	98013-020	1	INPUT MODULE, CC LINK, 16PT
19	98013-021	1	OUTPUT MODULE, CC LINK, 16PT
20	98012-009	3 FT	DUCT, WIREWAY, 2-1/4 X 1-1/4
	20021-005	1	ASSY, TERMINAL BLOCK
21	98001-022	1 FT	DIN RAIL
22	98001-013	1	GROUND TERMINAL, SPRING
23	98001-010	28	TERMINAL BLOCK, SPRING
24	98004-030	1	CIRCUIT BREAKER, 7 AMP, 2 POLE
25	98001-014	2	TERMINAL BLOCK, END STOP
26	98001-027	2	JUMPER, 4 POLE
27	98001-015	1	TERMINAL BLOCK, SPRING, END

TURNOVER CONVEYOR (Fig. 7-10)
ELECTRICAL ASSEMBLY

ITEM	PART NO.	QTY.	DESCRIPTION
	18021-015	1	ASSY, TURNOVER SAFETY HARNESS
9	98016-085	2	CONNECTOR, 3 POS, MALE, 15A
11	98016-082	1	CONNECTOR, 6 POS, MALE, 15A
12	98016-083	1	CONNECTOR, 6 POS, FEMALE, 15A
28	98016-086	1	CONNECTOR, 4 POS, MALE,
29	98001-041	3	CONTACT, SOCKET, 15A
30	98001-042	2	CONTACT, PIN, 15A
31	98001-035	4	CONTACT, SOCKET (.001)
	20020-008	1	ASSY, ELECTRICAL, INFEED PANEL
32	98016-074	2	RECEPTACLE, FLGD, 3 PIN, 11
33	98016-010	1	RECEPTACLE, SQ FLG, AMP, 17-16
34	20013-023	1	COVER, END, INFEED
35	98010-095	5 FT	WIRE, 12/4 SJOW BLACK
36	98003-022	1	RECEPTACLE, FL, HBL TWIST LOCK
37	98010-043	1	CABLE, COMMUNICATION, 5 FT
38	98020-028	1	ADAPTER, RJ45/RJ45
39	98016-006	1	RECEPTACLE, SQ FLG, 13-9 MALE
40	98015-027	1	GRIP, CORD 1/2"
	20020-009	1	ASSY, ELECTRICAL, DISCHARGE PANEL
39	^a 98016-006	1	RECEPTACLE, SQ FLG, 13-9 MALE
41	20013-024	1	COVER, END, DISCHARGE
42	98016-011	1	RECEPTACLE, SQ FLG, AMP, 11-4
43	98016-030	1	RECEPTACLE, 125V STD OUTLET
44	98016-031	1	HANDY BOX, 2.5 X 4
45	98016-032	1	COVER PLATE
46	98015-001	4	STRAIN RELIEF, 1/2"

REV A: Added Figure 7-10 & 98016-006, corrected 20021-001 from 12021-002
8/21/07

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