

# **FLOWMASTER**

# **12000XL**

## **10X13 INSERTER**

***Parts Manual***



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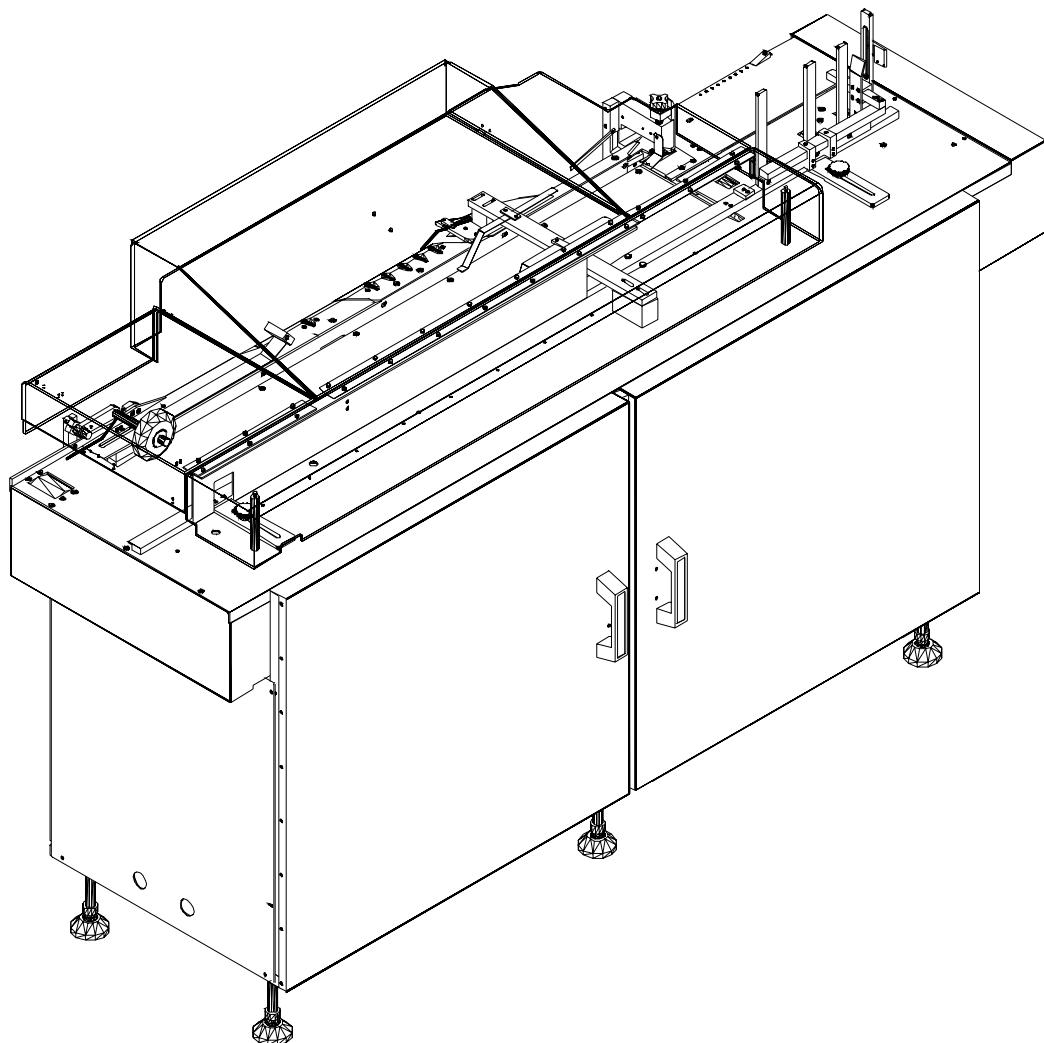
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# **FRONT TABLE**

## **10 X 13**



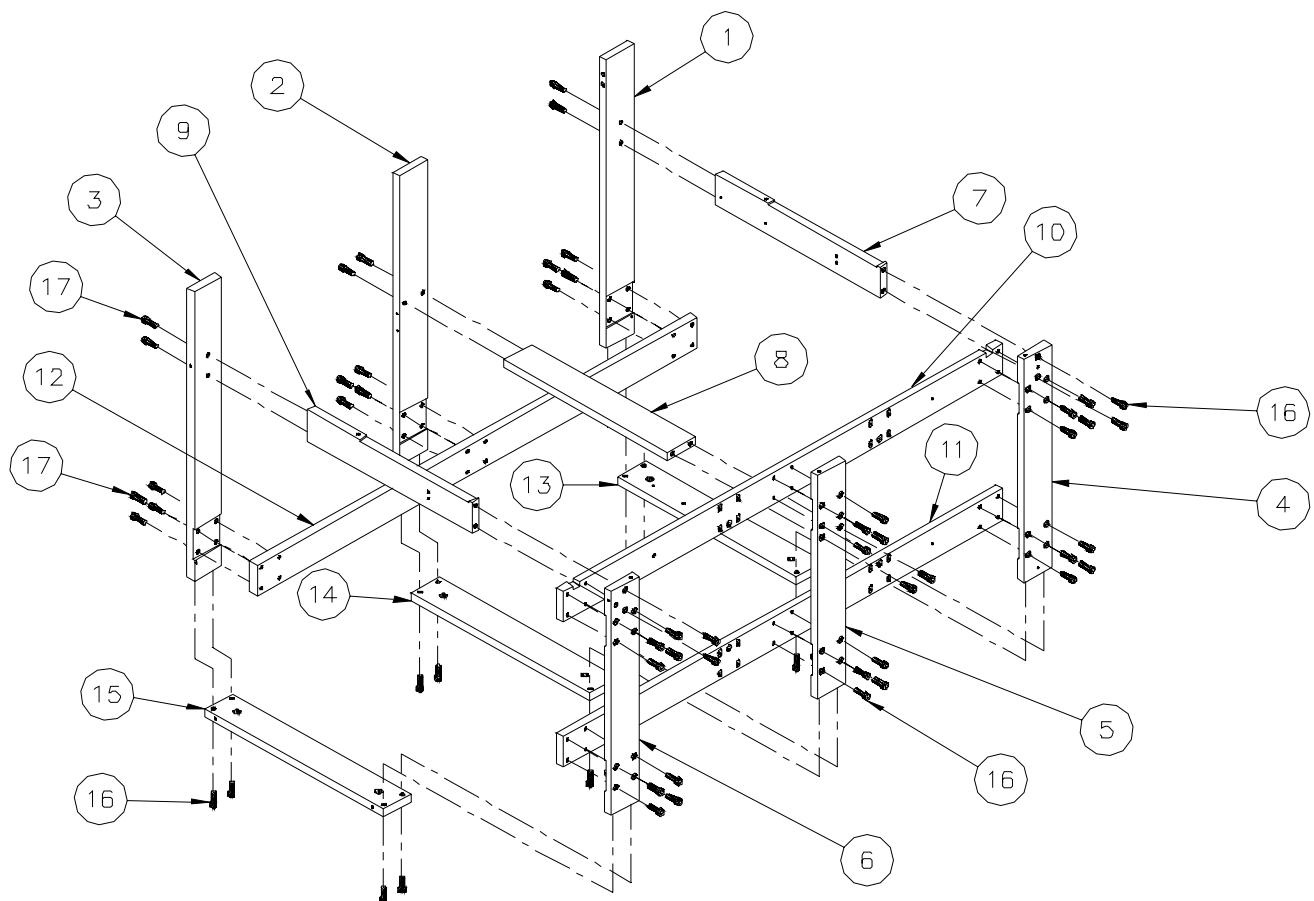
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**FRONT TABLE - FRAME ASSEMBLY (Fig. 1-1)**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18010-012	1	LEG, FRONT TABLE, FRONT LEFT
2	18010-005	1	LEG, FRONT TABLE, FRONT MIDDLE
3	18010-013	1	LEG, FRONT TABLE, FRONT RIGHT
4	18010-010	1	LEG, FRONT TABLE, REAR
5	18010-007	1	LEG, FRONT TABLE, REAR
6	18010-011	1	LEG, FRONT TABLE, REAR
7	18003-022	1	CROSS BRACE, LEG, LEFT
8	18003-006	1	CROSS BRACE, LEG, CENTER
9	18003-005	1	CROSS BRACE, LEG, RIGHT
10	18008-039	1	BAR, FRONT TABLE BRACE, UPPER
11	18008-038	1	BAR, FRONT TABLE BRACE, LOWER REAR
12	18008-040	1	BAR, FRONT TABLE BRACE, FRONT
13	18003-024	1	CROSS BAR, FRONT TABLE, BOTTOM LEFT
14	18003-014	1	CROSS BAR, FRONT TABLE, BOTTOM MIDDLE
15	18003-023	1	CROSS BAR, FRONT TABLE, BOTTOM RIGHT
16		42	SCREW, SOCKET HD, 3/8-16 X 1
17		18	SCREW, SOCKET HD, 3/8-16 X 1-1/4

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**FIG. 1-1**



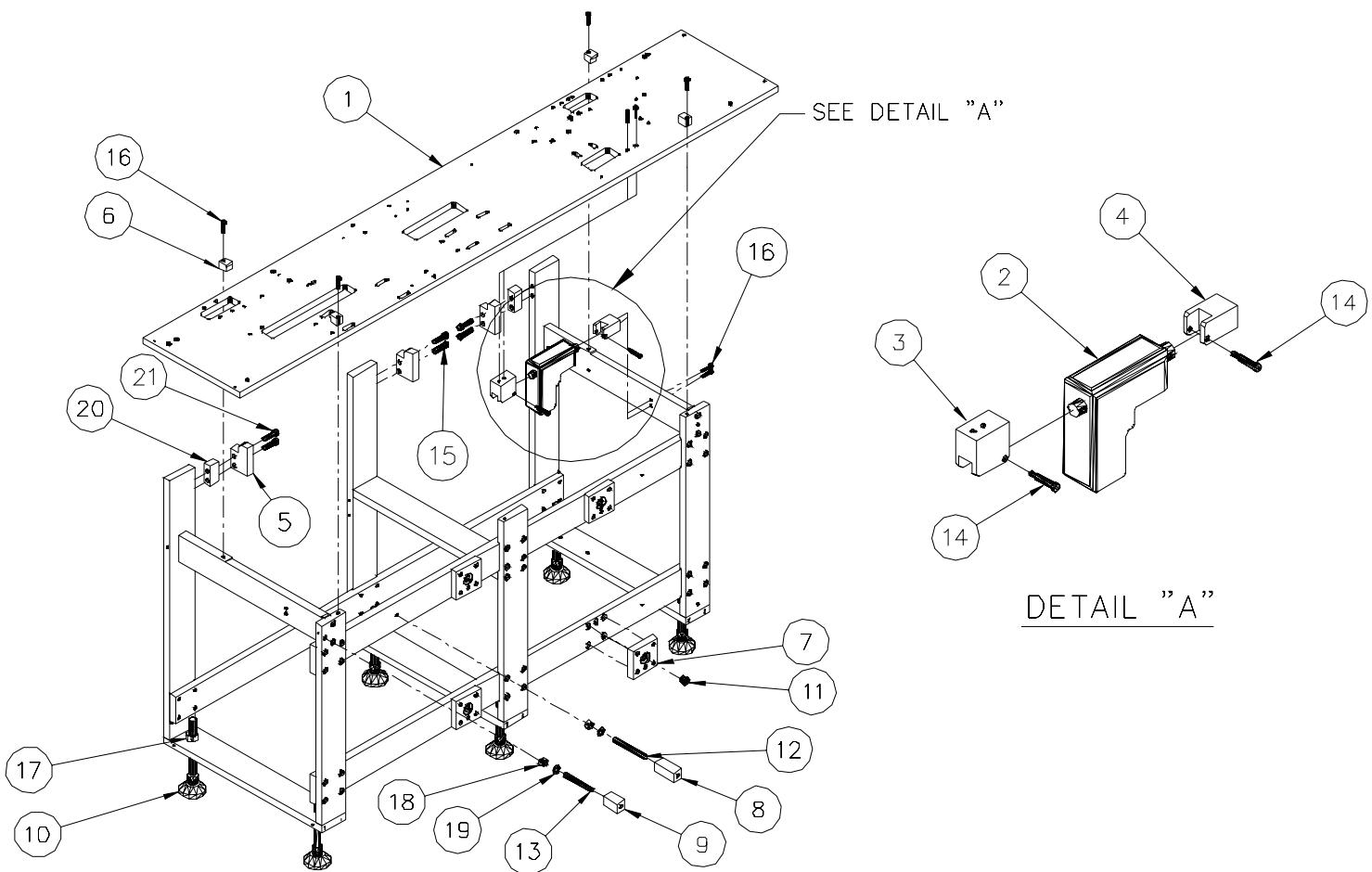
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**FRONT TABLE –FRAME (Fig. 1-2)**  
**TOP PLATE / LINEAR ACTUATOR ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18011-028	1	PLATE, FRONT TABLE DRIVE (REF. ONLY)
2	99014-002	1	LINEAR ACTUATOR, 4" ST.
3	18007-091	1	BLOCK, ACTUATOR MTG
4	18007-038	1	BLOCK, ACTUATOR MTG
5	18007-044	3	BLOCK, TABLE SUPPORT
6	18011-010	4	GIB DRIVE PLATE GUIDE
7	18011-011	4	PAD, COLLATOR MTG.
8	18012-011	1	SPACER, CONVEYOR, LONG
9	18012-010	1	SPACER, CONVEYOR, SHORT
10	99001-001	6	FOOT, ADJUSTING
11	99006-007	4	LINEAR, LOCATING PIN
12, 13	18004-041	2	STUD, 3/8-16 X 4
14	99003-001	2	BOLT, SHOULDER, 1/4 X 1
15		4	SCREW, SKY HD, 3/8-16 X 1-1/4
16		8	SCREW, SK HD, 1/4-20 X 1-1/4
17		6	NUT, HEX, 5/8-11 (ADJ FOOT)
18		2	NUT, HEX, 3/8-16
19		2	WASHER, FLAT, 3/8
20	18012-018	2	SPACER, FRONT TABLE SUPPORT BKT
21		4	SCREW, SK HD, 3/8-16 X 2-1/4

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**FIG. 1-2**



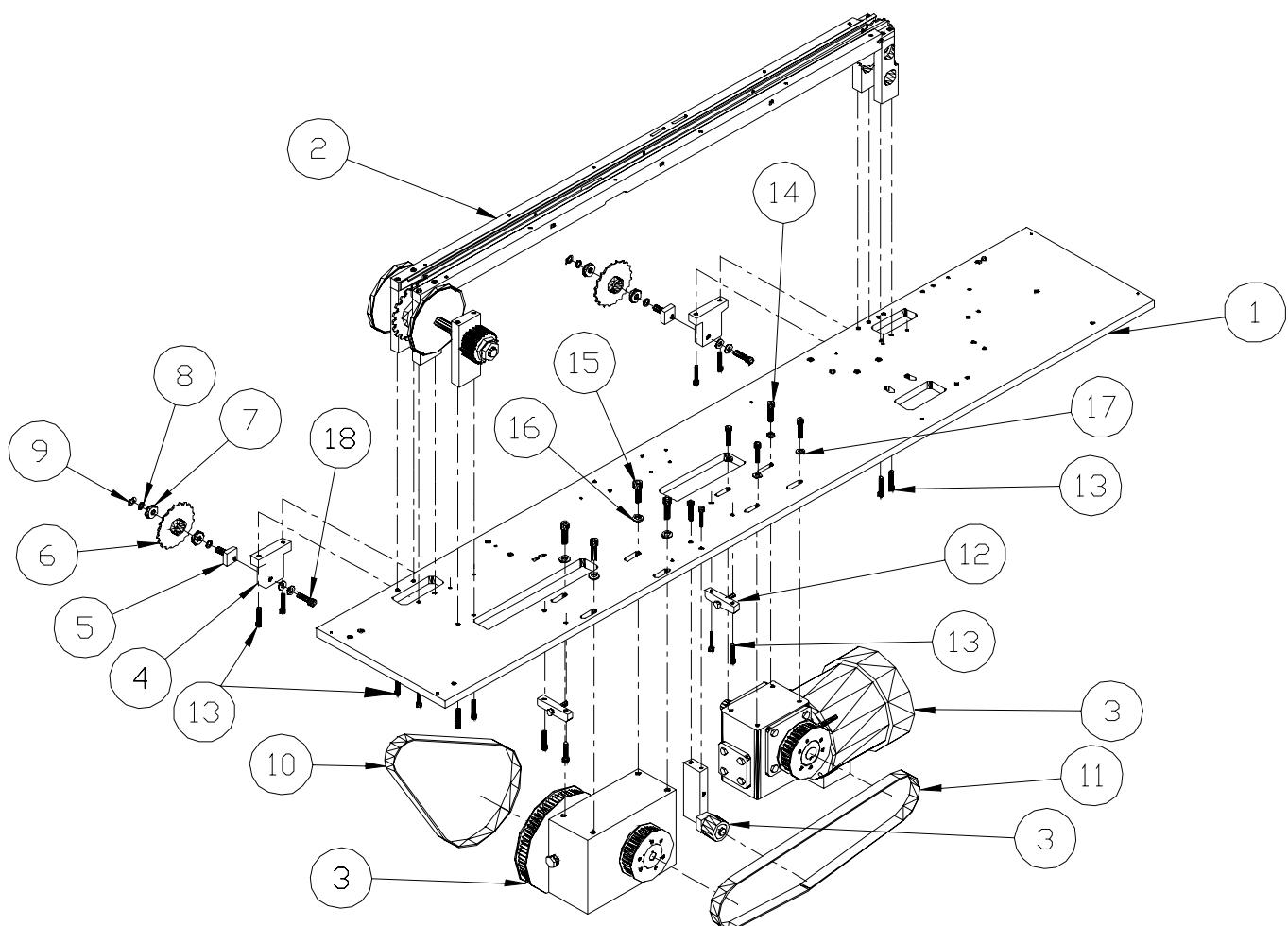
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**FRONT TABLE - ENVELOPE CHAIN DRIVE ASSEMBLY (Fig. 1-3)**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18011-028	1	PLATE, FRONT TABLE DRIVE (REF)
2	(SEE FIG. 1-4)	1	CHAIN GUIDE ASSEMBLY
3	(SEE FIG. 1-5)	1	MOTOR / REDUCER / INDEXING BOX ASSEMBLY
4	18007-034	2	BLOCK, IDLER, MTG
5	18004-024	2	SHAFT, IDLER, 3/8, ECCENTRIC
6	18015-004	2	SPROCKET, IDLER, 20T
7	99003-008	4	BEARING, 3/8 X 7/8, SEALED
8	99003-017	4	WASHER, NYLON, 3/8 X 1/16
9	99022-003	2	SNAP RING, 3/8
10	99000-016	1	BELT, 920-8M-20
11	99000-055	1	BELT, 1040-8M-20
12		2	<b>BLOCK, TAKE UP ASSEMBLY</b>
	18007-078	2	BLOCK, TAKE UP
		2	SCREW, HX HD, 1/4-20 X 2
		2	NUT, HEX, 1/4-20
13		20	SCREW, SK HD, 1/4-20 X 1-1/4
14		4	SCREW, SK HD, 5/16-18 X 1-1/4
15		4	SCREW, SK HD, 3/8-16 X 1-1/4
16		4	WASHER, FLAT (SAE), 3/8
17		6	WASHER, FLAT (SAE), 5/16
18		2	BOLT, HEX HEAD, 5/16-18 X 1-1/4

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**FIG. 1-3**



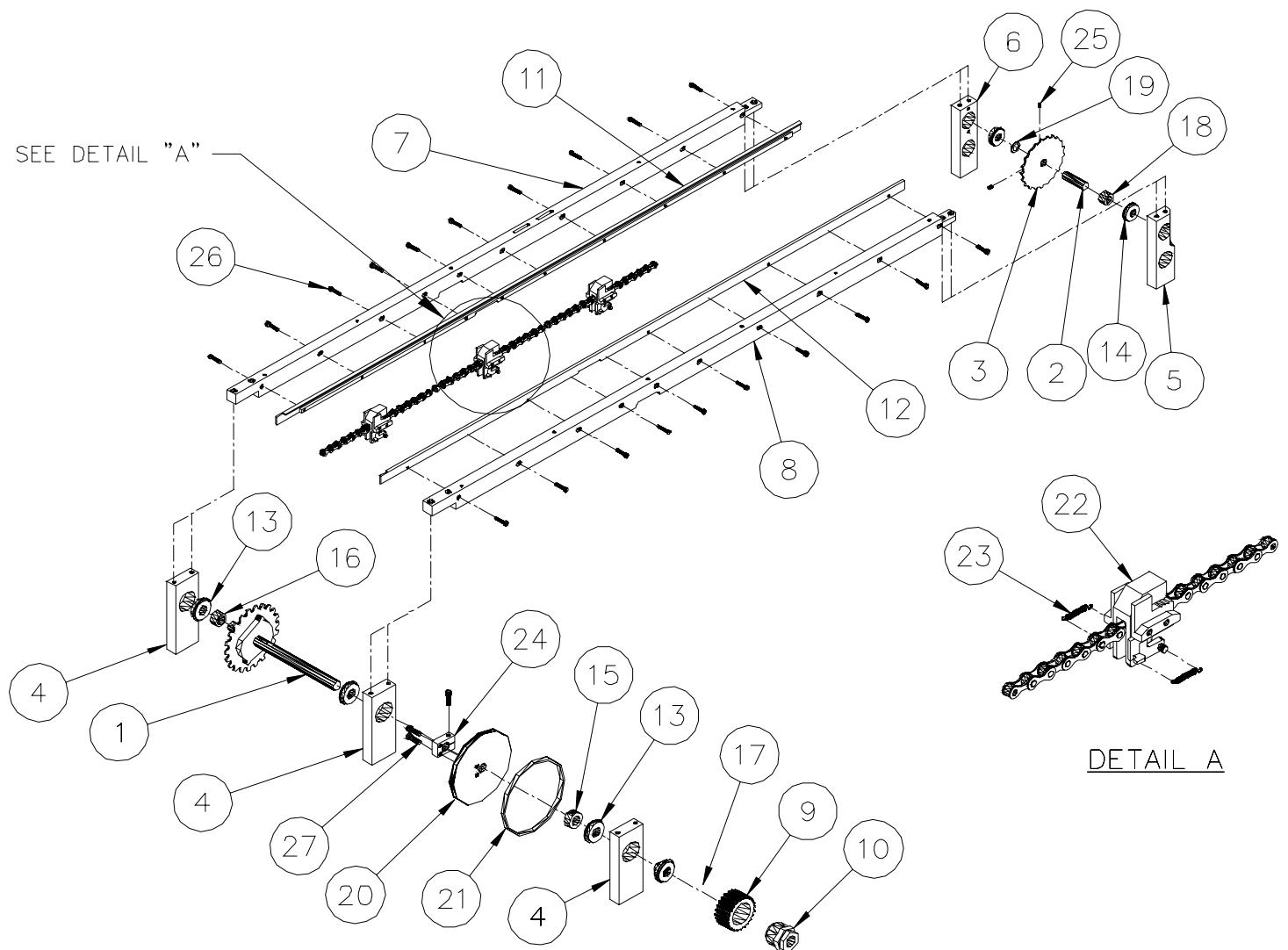
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**FRONT TABLE – ENVELOPE CHAIN DRIVE (Fig. 1-4)**  
**CHAIN GUIDE ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18004-054	1	SPROCKET, SHAFT ASSEMBLY, 27T
2	18004-030	1	SHAFT, IDLER, 1/2
3	18015-005	1	SPROCKET, IDLER, 21T
4	18007-076	3	BLOCK, BEARING, CHAIN SUPPORT
5	18007-026	1	BLOCK, BEARING, CHAIN SUPPORT
6	18007-046	1	BLOCK, BEARING, CHAIN SUPPORT
7	18003-021	1	BAR, CHAIN GUIDE SUPPORT W/ SLOT
8	18003-019	1	BAR, CHAIN GUIDE SUPPORT
9	18006-020	1	PULLEY, 24-8M-20 1-1/2 B
10	99017-010	1	TRANSTORQUE, 5/8 B
11	18005-038	1	GUIDE, ENVELOPE CHAIN, RH
12	18005-039	1	GUIDE, ENVELOPE CHAIN, LH
13	99003-006	4	BEARING, 5/8 X 1-3/8, SEALED
14	99003-007	2	BEARING, 1/2 X 1-1/8, SEALED
15	99017-005	1	COLLAR, 5/8 SHAFT
16	99003-030	1	BUSHING, 5/8 X 7/8 X 1/2 (TRIM TO FIT)
17	99003-029	1	BUSHING, 5/8 X 3/4 X 1/2
18	99003-039	1	BUSHING, 1/2 X 3/4 X 1/2
19	99003-018	1	WASHER, NYLON, 1/2 X 1/16
20	18006-035	1	ROLLER, ENVELOPE DISCHARGE (10 X 13)
21	18014-005	1	BELT, ENVELOPE CLOSE (10 X 13)
22	18014-009	1	ENVELOPE CHAIN ASSEMBLY (10 X 13)
23	99005-012	2	SPRING, GRIPPER JAW
24	18007-107	1	CLAMP, ROLLER, ENV. DISCHARGE (10X13)
25		2	SCREW, SET, 1/4-28 X 1/4
26		20	SCREW, SK HD, 8-32 X 3/4
27		3	SCREW, SK HD, 1/4-20 X 3/4

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**FIG. 1-4**



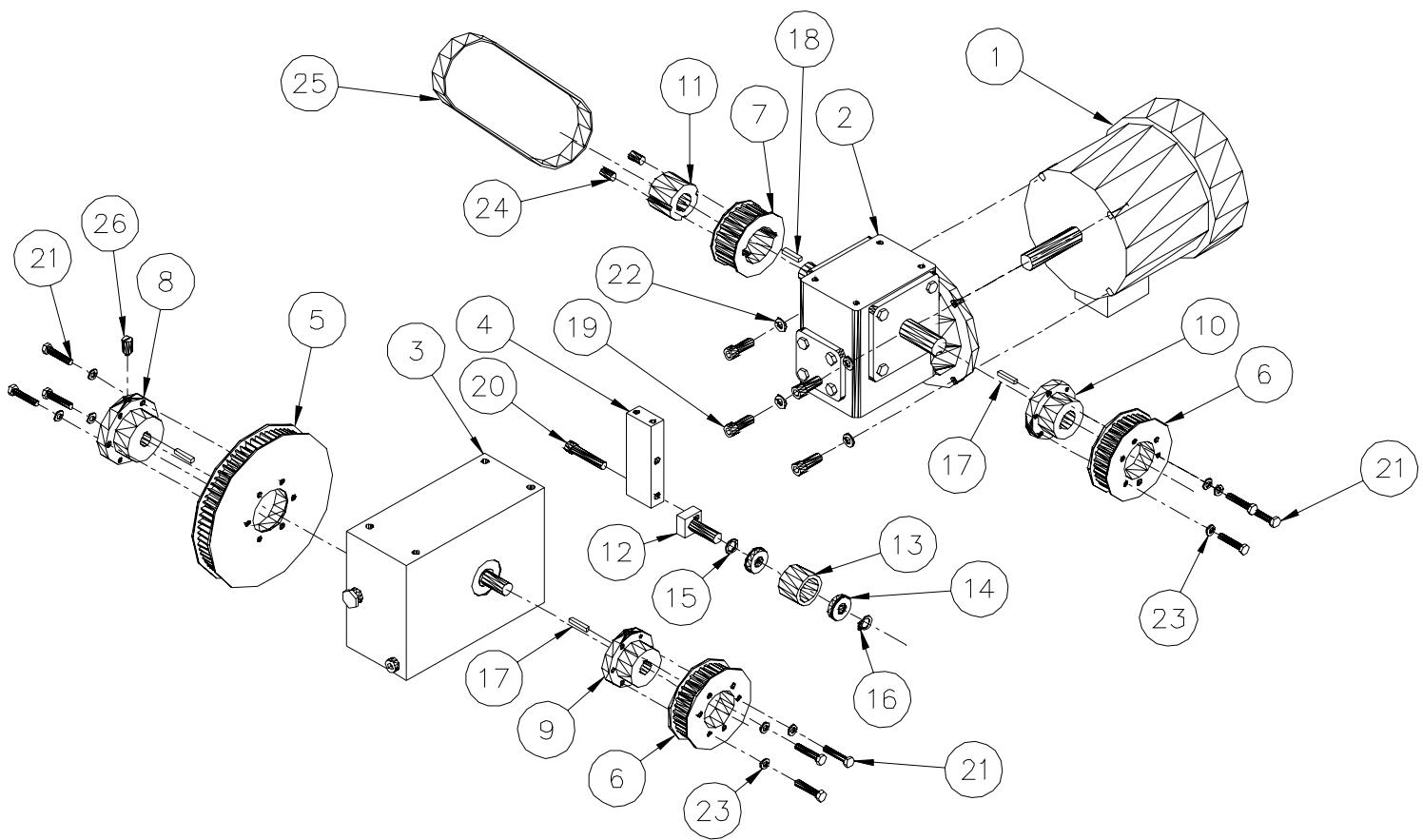
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**FRONT TABLE - ENVELOPE CHAIN DRIVE (Fig. 1-5)**  
**MOTOR / REDUCER / INDEXING BOX ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	99001-006	1	MOTOR, 3/4 HP, 1750 RPM
2	99015-001	1	REDUCER, DALTON 1.75 C.D. 10:1
3	99015-003	1	INDEXING BOX, CAMCO 3-180
4	18007-031	1	BLOCK, TENSIONER
5	99002-013	1	PULLEY, 72-8M-20 SDS
6	99002-012	2	PULLEY, 36-8M-20 SH
7	99002-014	1	PULLEY, TL24L100 SH (1210 TAPER LOCK)
8	99017-009	1	BUSHING, QD SDS 5/8 B
9	99017-008	1	BUSHING, QD SH 5/8 B
10	99017-007	1	BUSHING, QD SH 7/8 B
11	99017-011	1	BUSHING, TAPER LOCK 1210 7/8 B
12	18004-022	1	STUD, IDLER, 1/2 ECCENTRIC
13	18006-012	1	PULLEY, IDLER, FLAT
14	99003-007	2	BEARING, 1/2 X 1-1/8 SEALED
15	99003-018	1	WASHER, NYLON, 1/2 X 1-1/16
16	99022-004	1	SNAP RING, 1/2
17	99034-002	2	KEY, SQ 3/16 X 1
18	99034-003	1	KEY, SQUARE, 1/8 X 3/4
19		4	SCREW, SK HD, 3/8-16 X 1
20		1	SCREW, SK HD, 5/16-18 X 2
21		9	SCREW, HX HD, 1/4 -20 X 1-3/8
22		4	WASHER, LOCK, 3/8
23		9	WASKER, LOCK, 1/4
24		2	SCREW, SET, 3/8-16 X 5/8
25	99000-012	1	BELT, 187L100
26		1	SCREW, SET, 1/4-20 X 1/4 (KNURLED TIP)

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**FIG 1-5**



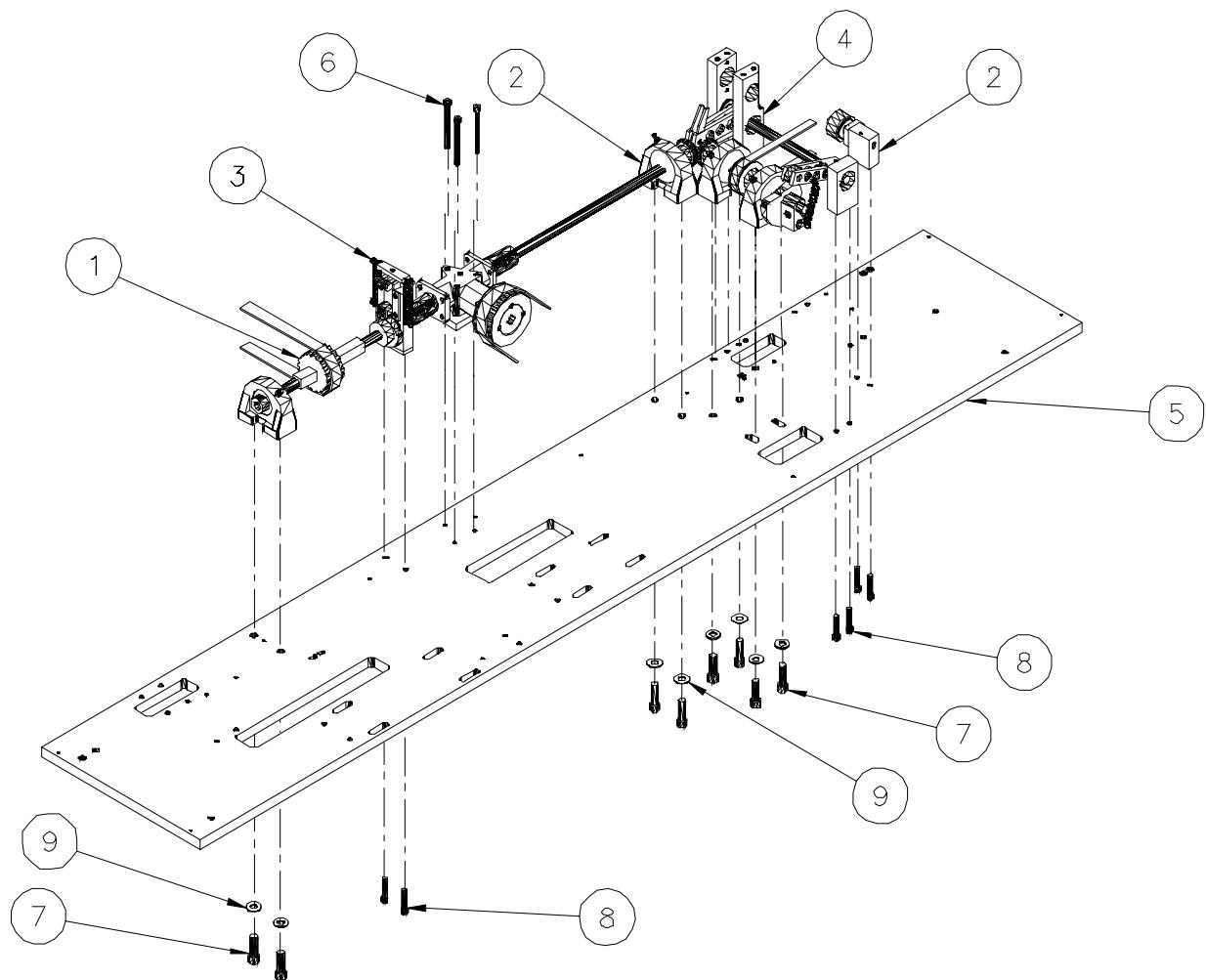
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**FRONT TABLE - DRIVE ASSEMBLY (Fig. 1-6)**

ITEM	PART NO.	QTY.	DESCRIPTION
1	(SEE FIG. 1-7)	1	CONVEYOR DRIVE ASSEMBLY
2	(SEE FIG. 1-8)	1	SHUTTLE DRIVE ASSEMBLY
3	(SEE FIG. 1-9)	1	CENTER JAW OPENER ASSEMBLY
4	(SEE FIG. 1-10)	1	RIGHT HAND JAW OPENER ASSEMBLY
5	18011-028	1	PLATE, FRONT TABLE DRIVE (REF. ONLY)
6		3	SCREW, SK HD, 1/4-20 X 2-3/4
7		8	SCREW, SK HD, 3/8-16 X 1-1/4
8		6	SCREW, SK HD, 1/4-20 X 1-1/4
9		8	WASHER, FLAT (SAE), 3/8

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**FIG. 1-6**



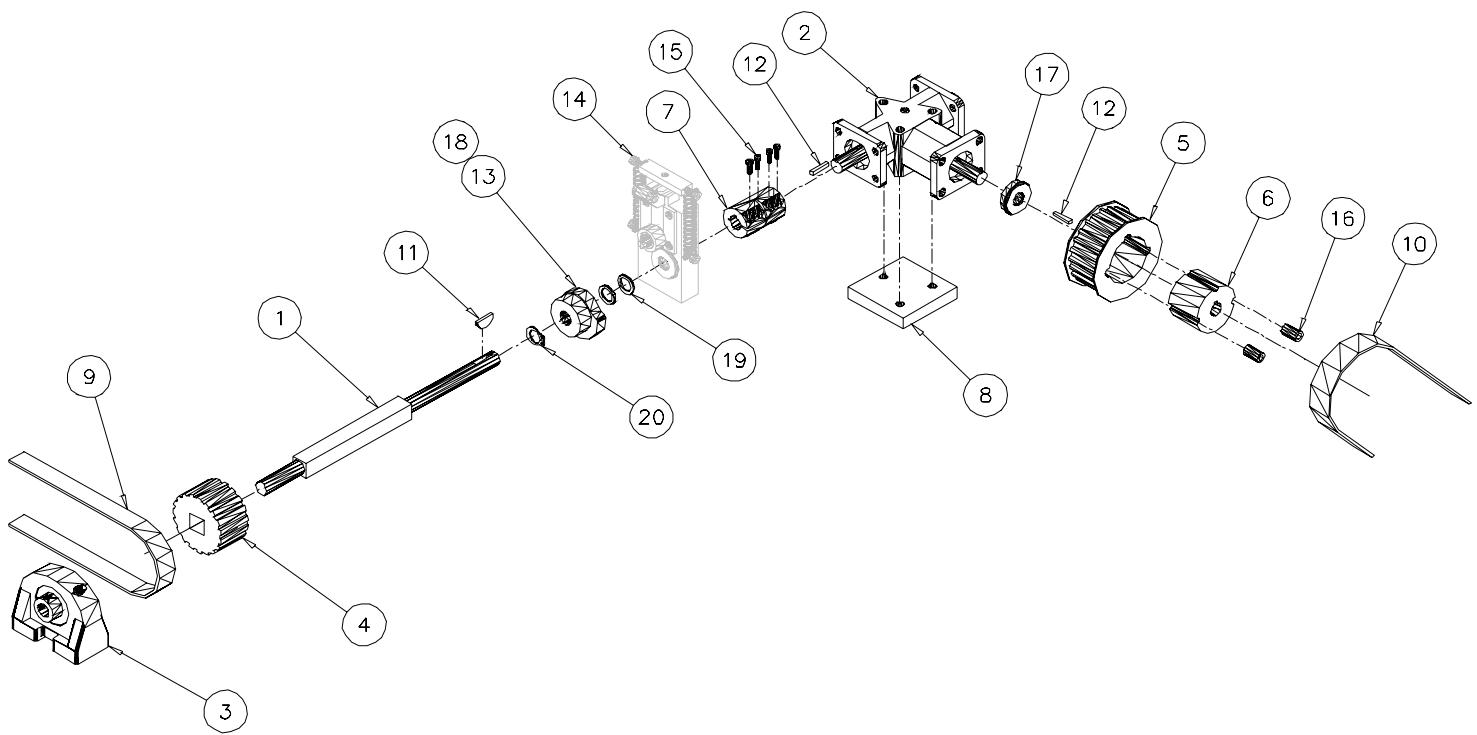
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**FRONT TABLE - CONVEYOR DRIVE ASSEMBLY (Fig. 1-7)**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18004-052	1	SHAFT, CONVEYOR DRIVE
2	99015-002	1	GEAR BOX, RIGHT ANGLE
3	99003-009	1	BEARING, PILLOW BLOCK, 1/2
4	18006-038	1	PULLEY, 19L 5/8 SQ BORE (BRONZE)
5	99002-014	1	PULLEY, TL24L100 SH (1210 TAPER LOCK)
6	99017-012	1	BUSHING, TAPER LOCK 1210 1/2 B
7	99017-001	1	COUPLING, RIGID, 1/2 B
8	18011-009	1	SPACER, GEAR BOX
9	99000-015	1	BELT, TIMING, 300L075
10	99000-012	1	BELT, 187L100 (REF. ONLY)
11	99034-001	1	KEY, WOODRUFF, 1/8 X 3/4
12	99034-003	2	KEY, SQUARE, 1/8 X 3/4
13	18016-008	1	CAM, CENTER JAW OPENER
14	(REF ONLY)	1	CENTER JAW OPENER ASSY
15		4	SCREW, SK HD, 6-32 X 1/2
16		2	SCREW, SET, 5/16-18
17	99003-007	1	BEARING, SEALED W/ SNAP RING, 1/2 X 1-1/8
18		2	SCREW, SET, 1/4-28 X 3/8
19	99003-018	2	WASHER, NYLON, 1/2 X 1/16
20	99022-004	1	SNAP RING, 1/2

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**FIG. 1-7**



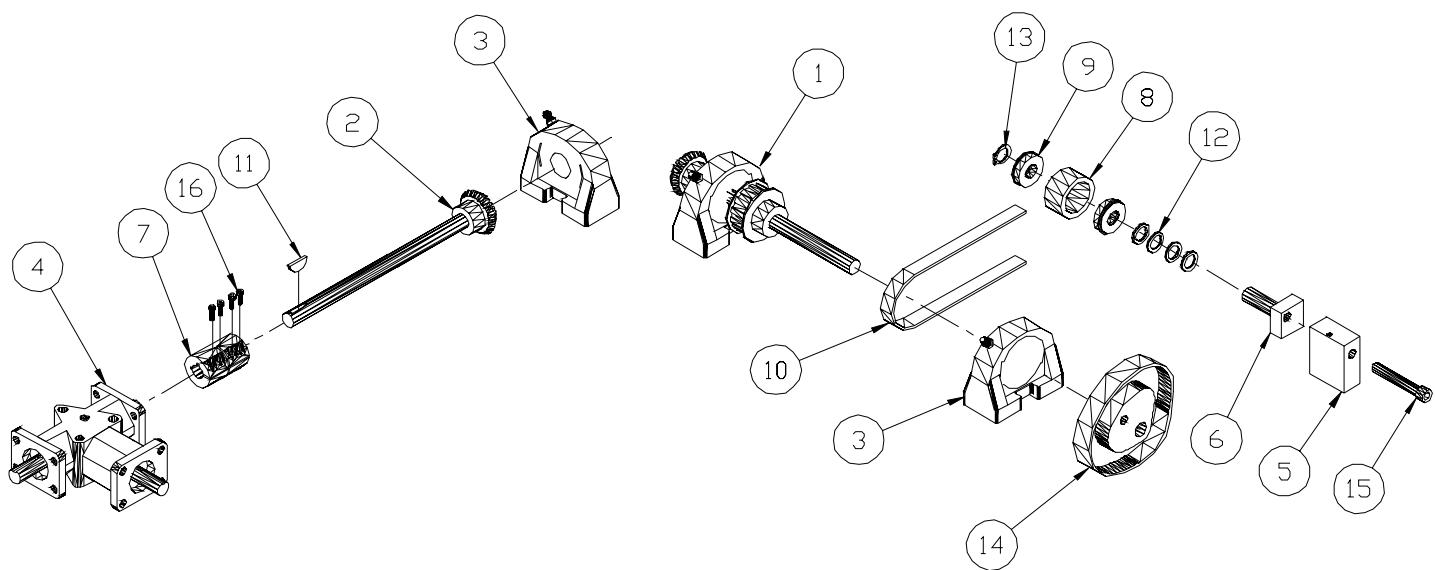
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**FRONT TABLE – SHUTTLE DRIVE ASSEMBLY (Fig. 1-8)**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18004-062	1	SHAFT ASSY, SECONDARY SHUTTLE DRIVE
2	18004-061	1	SHAFT ASSY, PRIMARY SHUTTLE DRIVE
3	99003-009	2	BEARING, PILLOW BLOCK, 1/2
4	99015-002	1	GEAR BOX, RIGHT ANGLE (REF. ONLY)
5	18007-030	1	BLOCK, IDLER MTG
6	18004-022	1	SHAFT, ECCENTRIC IDLER, 1/2
7	99017-001	1	COUPLING, RIGID, 1/2 B
8	18006-011	1	PULLEY, IDLER, FLAT
9	99003-007	2	BEARING, SEALED, 1/2 X 1-1/8
10	99000-013	1	BELT, 240L050
11	99034-001	1	KEY, WOODRUFF, 1/8 X 3/4
12	99003-018	4	WASHER, NYLON, 1/2 X 1/16
13	99022-004	1	SNAP RING, 1/2
14	18016-012	1	BOX CAM, RH JAW OPENER
15		1	SCREW, SK HD, 5/16-18 X 2
16		4	SCREW, SK HD, 6-32 X 1/2

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**FIG.1-8**



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**FRONT TABLE –CENTER JAW OPENER ASSY. (Fig. 1-9)**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18007-025	1	BLOCK, CENTER JAW OPENER
2	18007-055	1	SLIDE, CENTER JAW OPENER
3	18009-031	1	BRACKET, ROLLER MTG.
4	18009-004	1	BRACKET, SPRING ATTACHMENT
5	18005-024	1	GIB, CENTER, JAW OPENER
6	99006-008	1	PIN, ECCENTRIC, CTR JAW OPENER
7	99006-014	1	NUT, ECCENTRIC PIN
8	18006-021	1	ROLLER, CTR JAW OPENER
9	99019-001	1	ROLLER, CTR JAW OPENER
10	99005-002	2	SPRING, EXTENSION, CTR JAW OPENER
11	99003-007	1	BEARING, SEALED, 1/2 X 1-1/8
12	99003-002	2	BEARING, SEALED, 1/4 X 5/8
13	99006-015	1	PIN, CENTER JAW ROLLER
14	99022-001	1	SNAP RING, 1/4
15		1	SCREW, HEX HD, 1/4-20 X 1-1/4
16		4	SCREW, SK HD, 10-24 X 5/8
17		4	SCREW, FLAT HD, 6-32 X 3/8

Note: This part is obsolete. It is replaced by Part numbers:

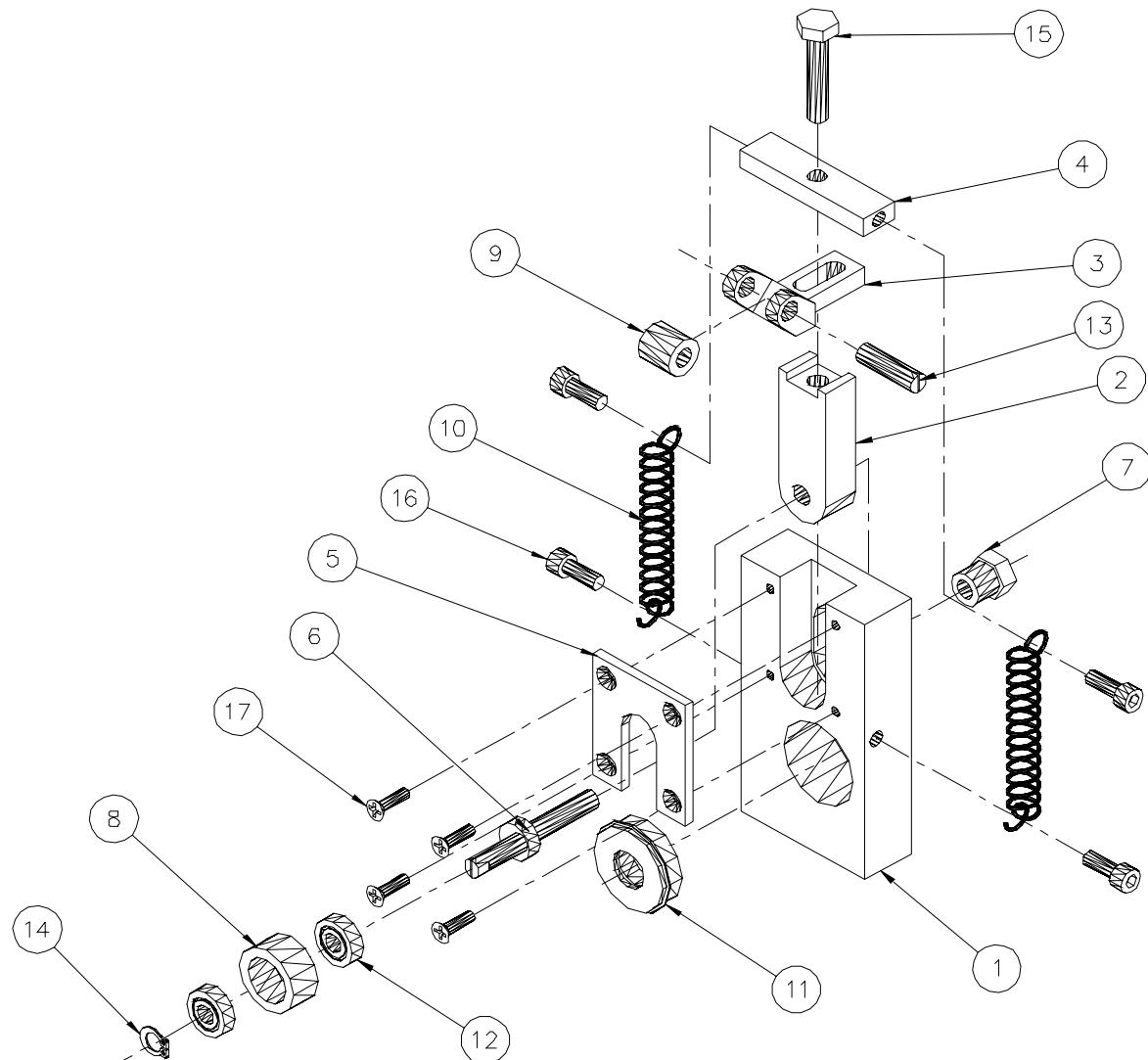
99003-095

99022-014

99003-008

*FIG. 1-9*

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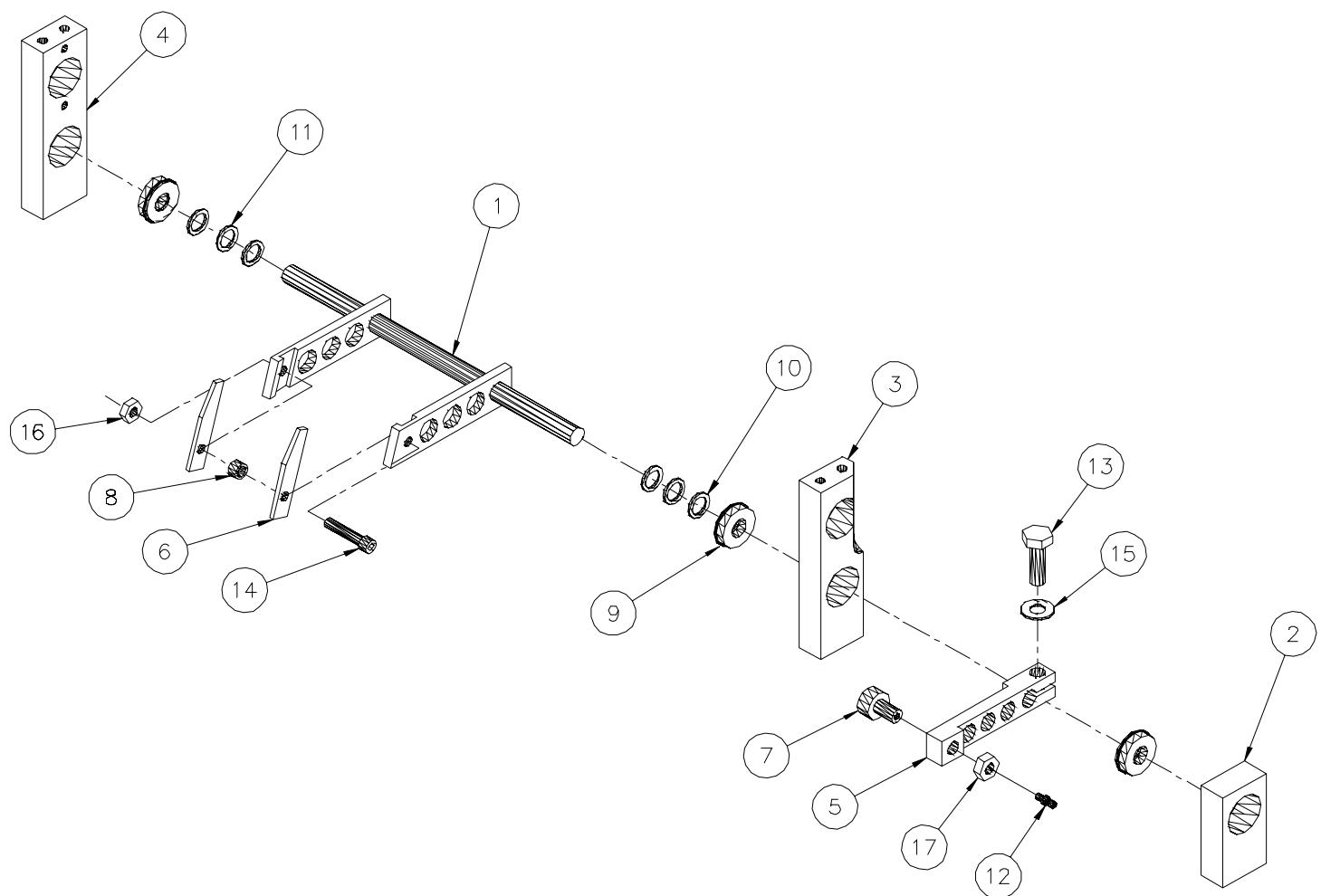
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**FRONT TABLE –RIGHT HAND JAW OPENER ASSY. (Fig. 1-10)**

ITEM	PART NO.	QTY.	DESCRIPTION
1	11004-072	1	SHAFT ASSEMBLY, RH JAW OPENER
2	18007-027	1	BLOCK, BEARING, RH JAW OPENER
3	18007-026	1	BLOCK, BEARING, CHAIN SUPPORT
4	18007-046	1	BLOCK, BEARING, CHAIN SUPPORT
5	18008-082	1	ARM, RH JAW OPENER
6	18008-048	2	BAR, JAW OPENER
7	99003-052	1	CAM FOLLOWER, RH JAW OPENER
8	99036-001	1	SPACER, RH JAW OPENER
9	99003-007	3	BEARING, SEALED, 1/2 X 1-1/8
10	99003-032	2	WASHER, NYLON, 1/2 X 1/32
11	99003-018	4	WASHER, NYLON, 1/2 X 1/16
12	99028-089	1	GREASE FITTING, .191
13		1	SCREW, HEX HD, 3/8-28 X 3/4
14		1	SCREW, SK HD, 1/4-20 X 1-1/4
15		1	WASHER, FLAT (SAE), 3/8
16		1	NUT, LOCK, 1/4-20
17		1	NUT, LOCK, 3/8-24

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**FIG.1-10**



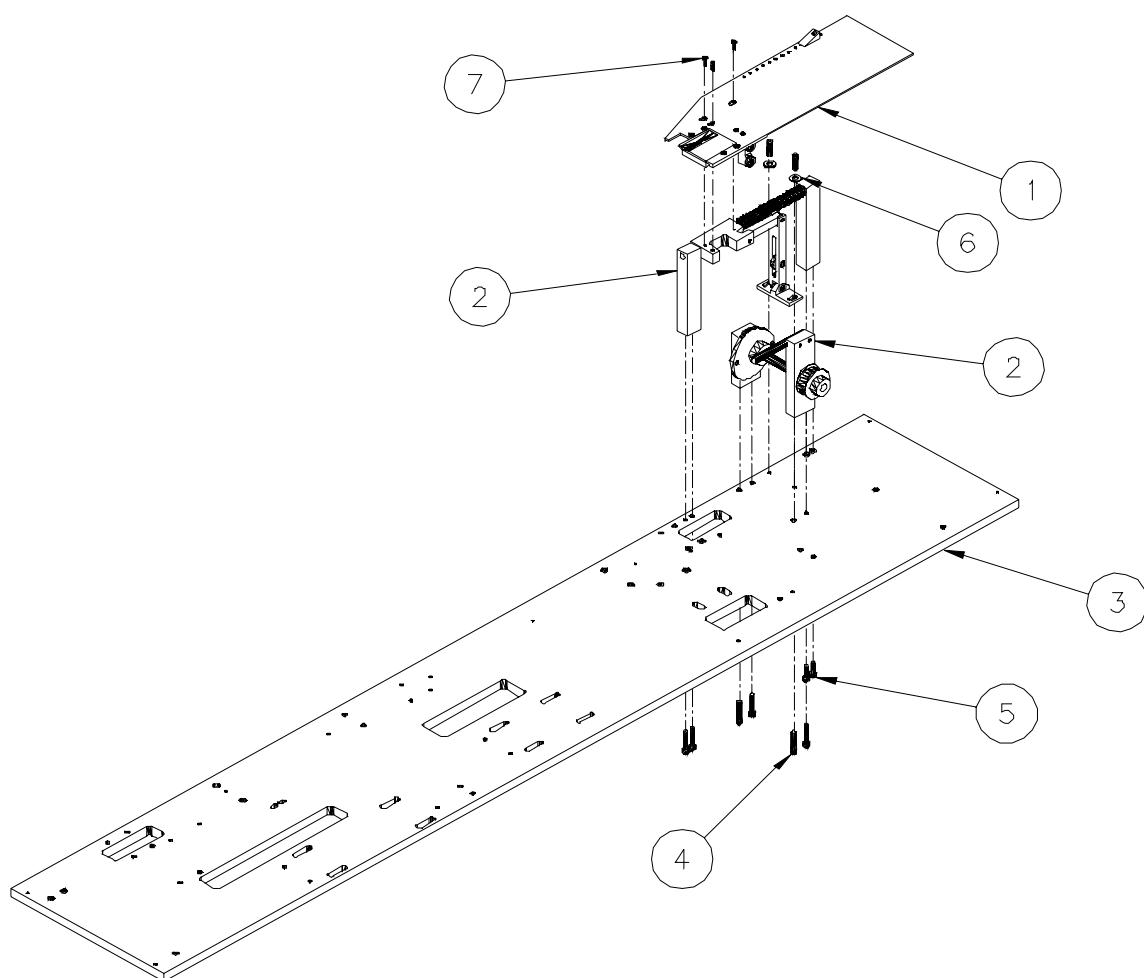
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**FRONT TABLE – SHUTTLE ASSEMBLY (Fig. 1-11)**

ITEM	PART NO.	QTY.	DESCRIPTION
1	(SEE FIG. 1-12)	1	SHUTTLE PLATE ASSEMBLY
2	(SEE FIG. 1-13)	1	SHUTTLE GUIDE / SHAFT ASSEMBLY
3	18011-028	1	PLATE, FRONT TABLE DRIVE (REF ONLY)
4		6	SCREW, SK HD, 1/4-20 X 1-1/4
5		4	SCREW, SK HD, 1/4-20 X 3/4
6		2	WASHER, FLAT (SAE), 1/4
7		3	SCREW, PAN HD, 6-32 X 1/2

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*FIG. 1-11*



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**FRONT TABLE – SHUTTLE (Fig. 1-12)**  
**SHUTTLE PLATE ASSEMBLY**

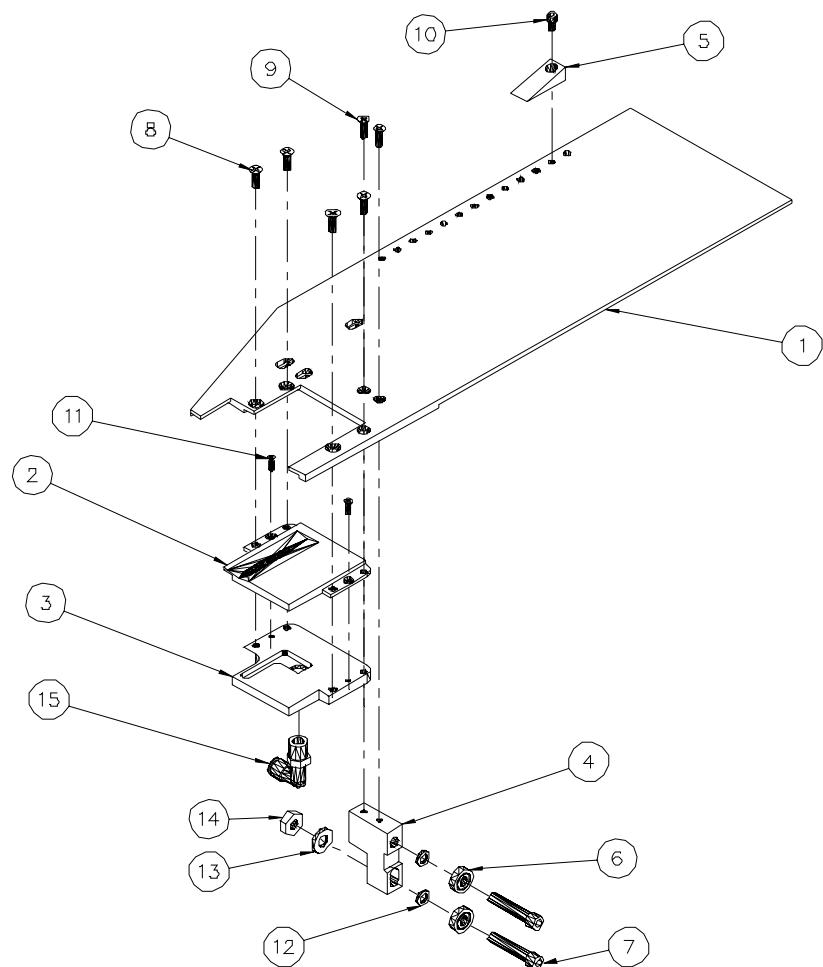
ITEM	PART NO.	QTY.	DESCRIPTION
1	18011-029	1	PLATE, SHUTTLE
2	18011-048	1	PLATE, VACUUM, TOP (SHALLOW) (SEE BELOW REF.)
REF.	(SEE FIG. 1-17)	1	GATE (18005-077) USED W/ ITEM 2, VACUUM PLATE
3	18011-013	1	PLATE, VACUUM, BOTTOM
4	18007-024	1	BLOCK, CAM ROLLER
5	18007-077	2	BLOCK, VIBRATOR
6	99003-002	2	BEARING, SEALED, 1/4 X 5/8
7		2	SCREW, SK HD, 1/4 -20 X
8		4	SCREW, FLAT HD, 8-32 X 3/8
9		2	SCREW, FLAT HD, 6-32 X 1/2
10		2	SCREW, SK HD, 8-32 X 1/4
11		2	SCREW, FLAT HD, 4-40 X 1/4
12	99036-002	2	WASHER, FLAT, HARDENED, 1/4 X 1/16
13		1	WASHER, FLAT (SAE), 1/4
14		1	NUT, LOCK, 1/4
15	99028-085	1	FITTING, MALE ELBOW, 3/8 TUBE X 1/4 NPT

NOTE: OPTIONAL VACUUM PLATES (ITEM 2)

18011-038 – TOP VACUUM PLATE (FLAT), MUST USE W/ GATE (18005-077)

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*FIG. 1-12*



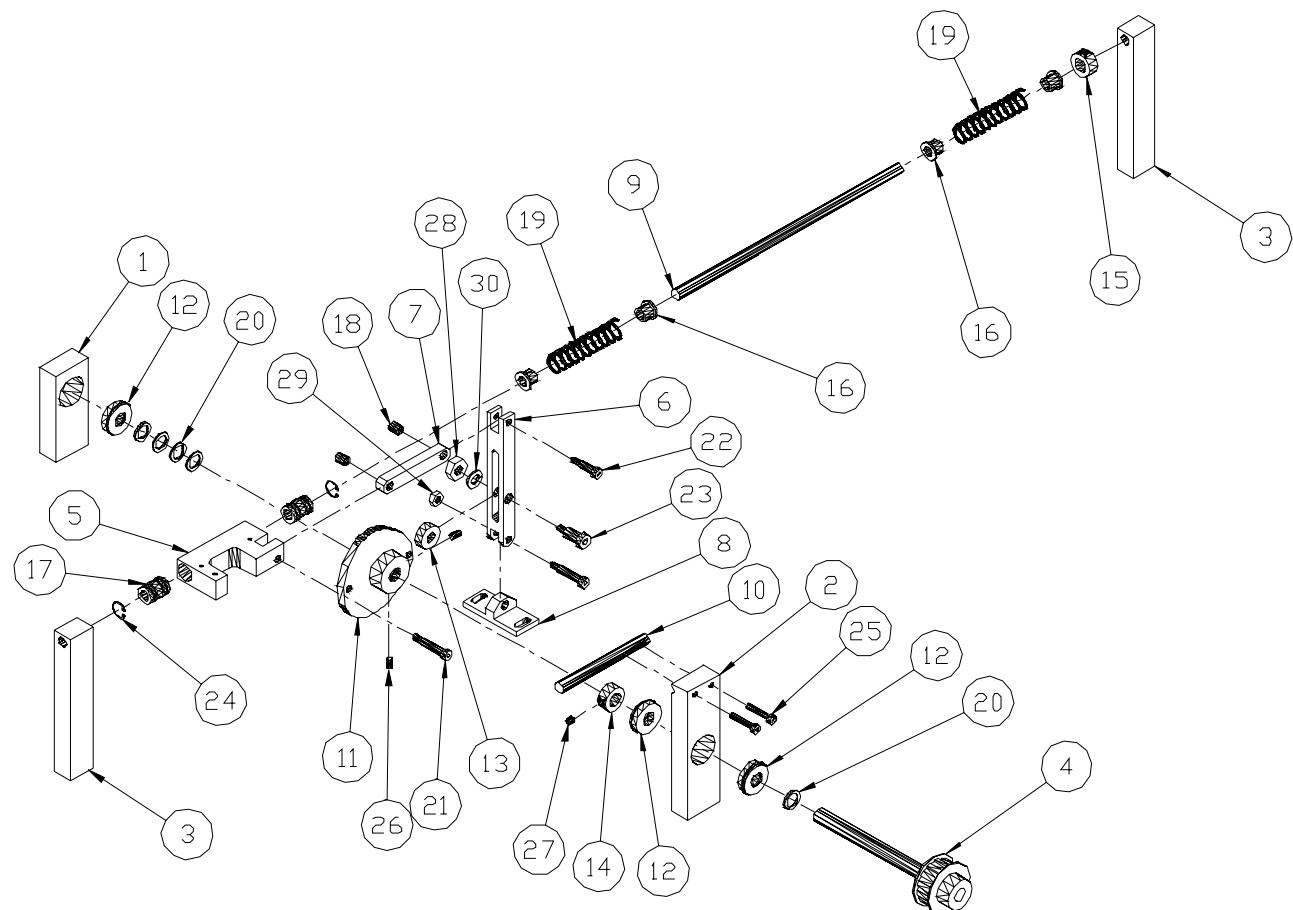
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**FRONT TABLE – SHUTTLE (Fig. 1-13)**  
**SHUTTLE GUIDE / SHAFT ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18007-021	1	BLOCK, SHUTTLE DRIVE BEARING
2	18007-020	1	BLOCK, GUIDE SUPPORT
3	18007-019	2	POST, SHUTTLE SUPPORT
4	18004-063	1	SHAFT ASSEMBLY, SHUTTLE DRIVE
5	18007-023	1	BLOCK, SHUTTLE DRIVE
6	18008-099	1	ARM, SHUTTLE DRIVE (New Style)
7	18008-018	1	LINK, SHUTTLE DRIVE
8	18007-022	1	BLOCK, ARM PIVOT
9	18004-018	1	SHAFT, SHUTTLE GUIDE
10	18004-019	1	SHAFT, SHUTTLE SUPPORT
11	18016-007	1	CAM, SHUTTLE
12	99003-007	3	BEARING, SEALED, 1/2 X 1-1/8
13	99003-081	1	BEARING (New Style)
14	99017-004	1	COLLAR, SHAFT, 1/2
15	99017-003	1	COLLAR, SHAFT, 3/8
16	99003-022	4	BUSHUNG, FLANGE, 3/8 X 1/2 X 3/8
17	99003-010	2	BEARING, LINEAR, 3/8 B
18	99003-011	3	BUSHING, 1/4 X 5/16 X 3/8
19	99005-005	2	SPRING, SHUTTLE
20	99003-018	5	WASHER, NYLON, 1/2 X 1/16
21	99033-001	2	BOLT, SHOULDER, 1/4 X 1
22	99033-002	1	BOLT, SHOULDER, 1/4 X 5/8
23	99033-003	1	BOLT, SHOULDER, 3/8 X 5/8
24	99022-006	2	RETAINING RING
25		2	SCREW, SK HD, 10-24 X 1
26		2	SCREW, SET, 1/4-28 X 3/8
27		1	SCREW, SET, 1/4-28 X 1/4
28		1	NUT, HEX, 5/16-18
29		1	NUT. LOCK, 10-24
30		1	WASHER, LOCK, 5/16

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FIG. 1-13



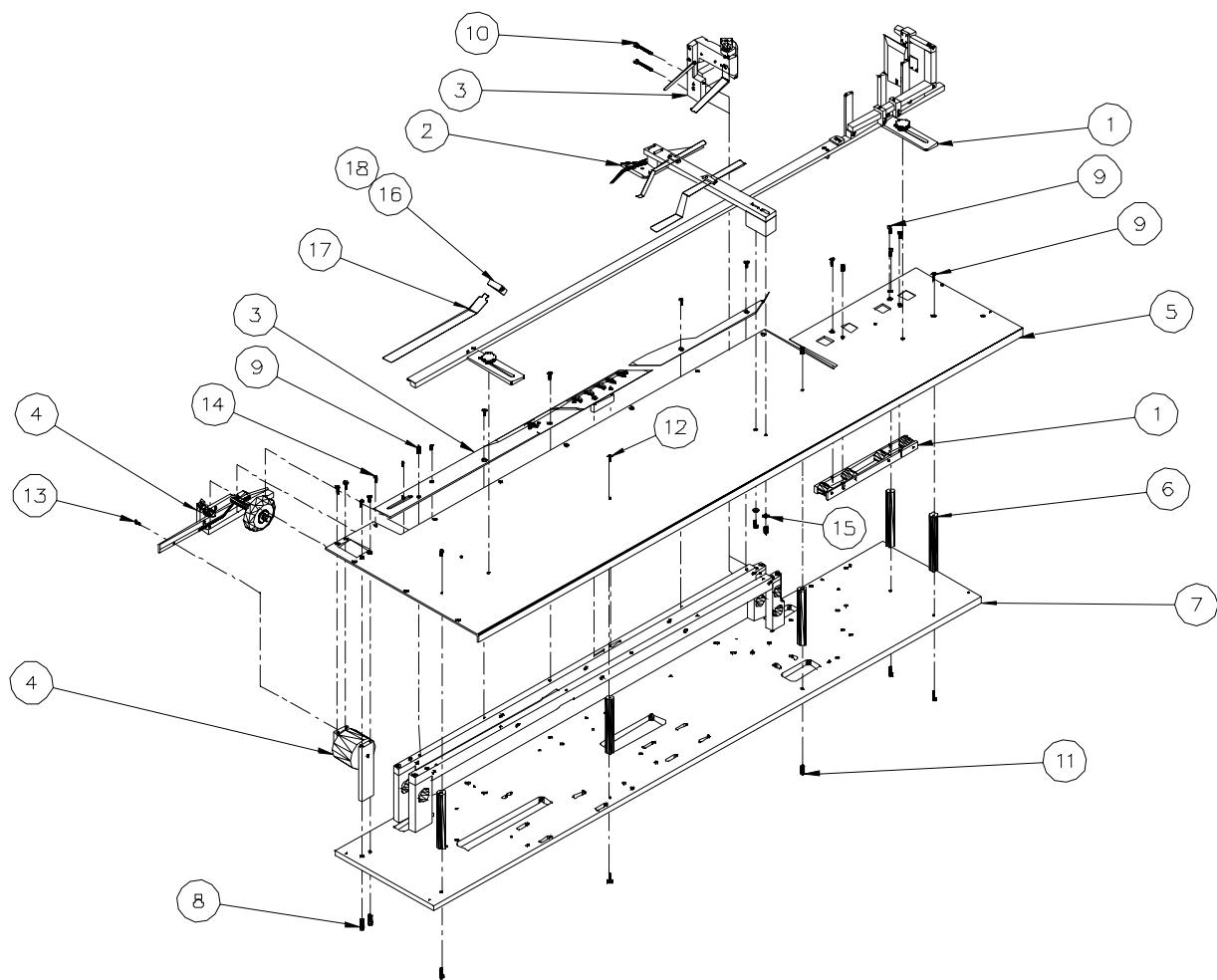
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**FRONT TABLE – FRONT TABLE GUIDE ASSEMBLY (Fig. 1-14)**

ITEM	PART NO.	QTY.	DESCRIPTION
1	(SEE FIG. 1-15)	1	PAPER GUIDE / ENVELOPE ROLLER ASSEMBLY
2	(SEE FIG. 1-16)	1	ENVELOPE PLOW ASSY.
3	(SEE FIG. 1-17)	1	GATE / INSERT GUIDE RAIL ASSEMBLY
4	(SEE FIG. 1-18)	1	ENVELOPE CLOSER / EXIT ROLLER / DISCHARGE ROLLER ASSEMBLY
5	18011-035	1	PLAT, TOP, FRONT TABLE
6	18012-008	5	STANDOFF, FRONT TABLE
7	18011-028	1	PLATE, FRONT TABLE DRIVE, 10 X 13 (REF. ONLY)
8		2	SCREW, SK HD, 1/4-20 X 3/4
9		17	SCREW, FLAT HD, 10-24 X 1/2
10		2	SCREW, SK HD, 10-24 X 1-3/4
11		5	SCREW, SK HD, 10-24 X 3/4
12		3	SCREW, BUTTON HD, 10-24 X 1/2
13		1	SCREW, BUTTON HD, 8-32 X 1/4
14		3	SCREW, FLAT HD, 6-32 X 1/2
15		2	WASHER, FLAT, #10
16	18007-061	1	BLOCK, STRAP MTG.
17	18005-076	1	GUIDE, SPRING STEEL @ CLOSING
18	18009-016	1	PLATE, SPRING STEEL CLAMP, 1" CTRS

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**FIG. 1-14**



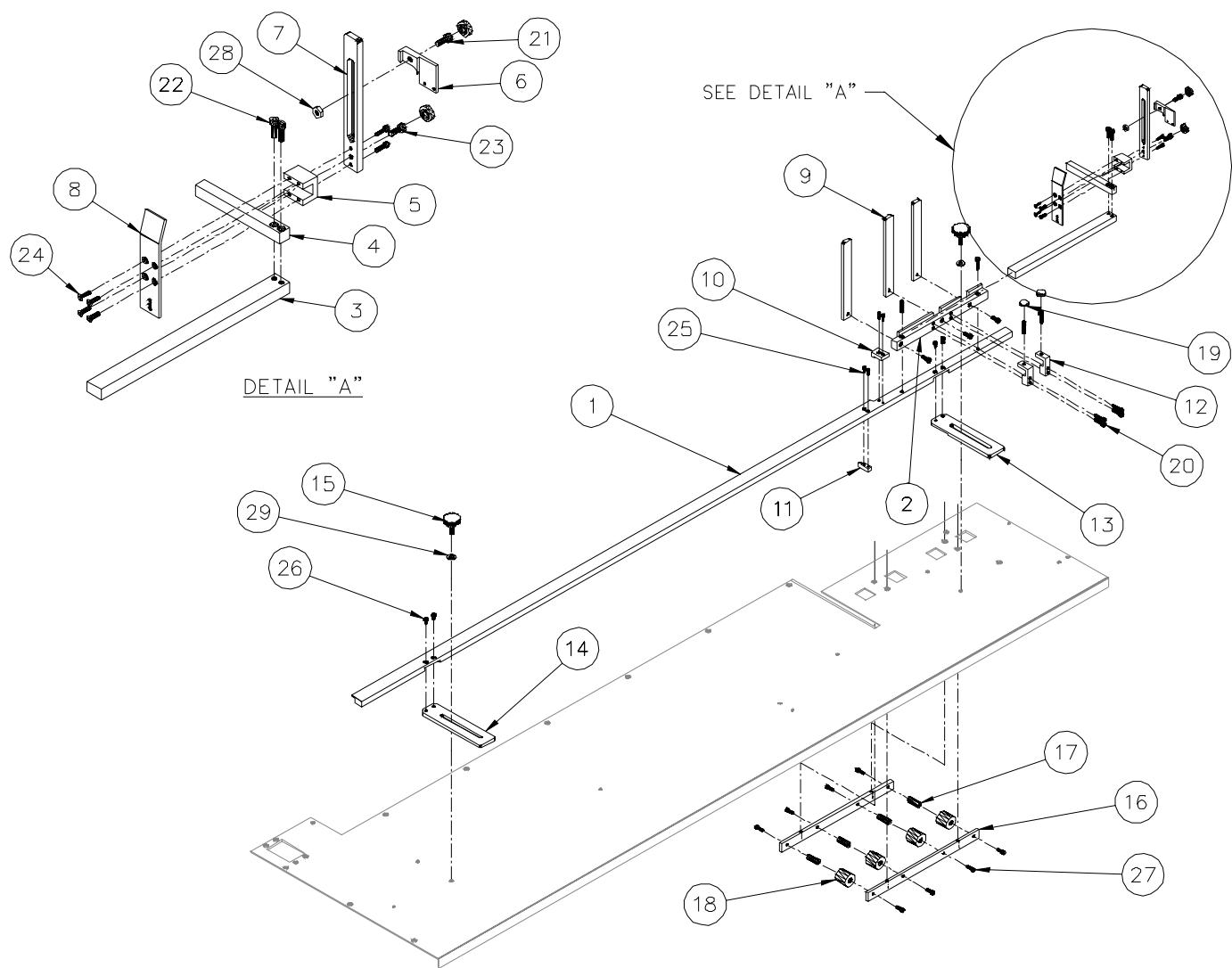
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**FRONT TABLE – FRONT TABLE GUIDE (Fig. 1-15)**  
**PAPER GUIDE / ENVELOPE ROLLER ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18005-040	1	RAIL, ENVELOPE GUIDE
2	18007-035	1	BLOCK, PAPER GUIDE MTG.
3	18008-041	1	BAR, PAPER GUIDE ADJ.
4	18008-021	1	BAR, REAR GUIDE SUPPORT
5	18007-047	1	CLAMP, REAR GUIDE MTG.
6	18009-005	1	BRACKET, SENSOR MTG.
7	18008-073	1	BAR, HOPPER INFEED GUIDE MTG.
8	18005-087	1	GUIDE, ENVELOPE HOPPER INFEED
9	18005-014	3	GUIDE, ENV. HOPPER
10	18005-053	1	GUIDE, ENV. CORNER (UPPER)
11	18005-050	1	GUIDE, ENV. CORNER (LOWER)
12	18007-036	2	CLAMP, REAR GUIDE ADJ.
13	18008-026	1	BAR, RAIL MTG. W/ RECESS
14	18008-019	1	BAR, RAIL MTG.
15	99004-004	2	KNOB, RAIL ADJ.
16	18011-039	2	PLATE, ENVELOPE ROLLER MTG.
17	10012-003	4	SPACER
18	10006-016	4	ROLLER
19		4	THUMB CAP, KNURLED, #10
20		8	SCREW, SK HD, 10-24 X 3/4
21	18008-074	1	POST, REAR GUIDE SUPPORT
22		2	SCREW, SKT HD, 10-24 X 5/8
23		2	SCREW, SKT HD, 6-32 X 1/2
24		4	SCREW, FLAT HD, 6-32 X 3/8
25		4	SCREW, SKT HD, 6-32 X 5/8
26		4	SCREW, SKT HD, 8-32 X 1/4
27		8	SCREW, SKT HD, 8-32 X 1/2
28		1	NUT, HEX HD, 10-24
29		2	WASHER, FLAT (SAE), 1/4
30	98009-001	1	SENSOR, BANNER, AN7, (ENVELOPE HOPPER)

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**FIG. 1-15**



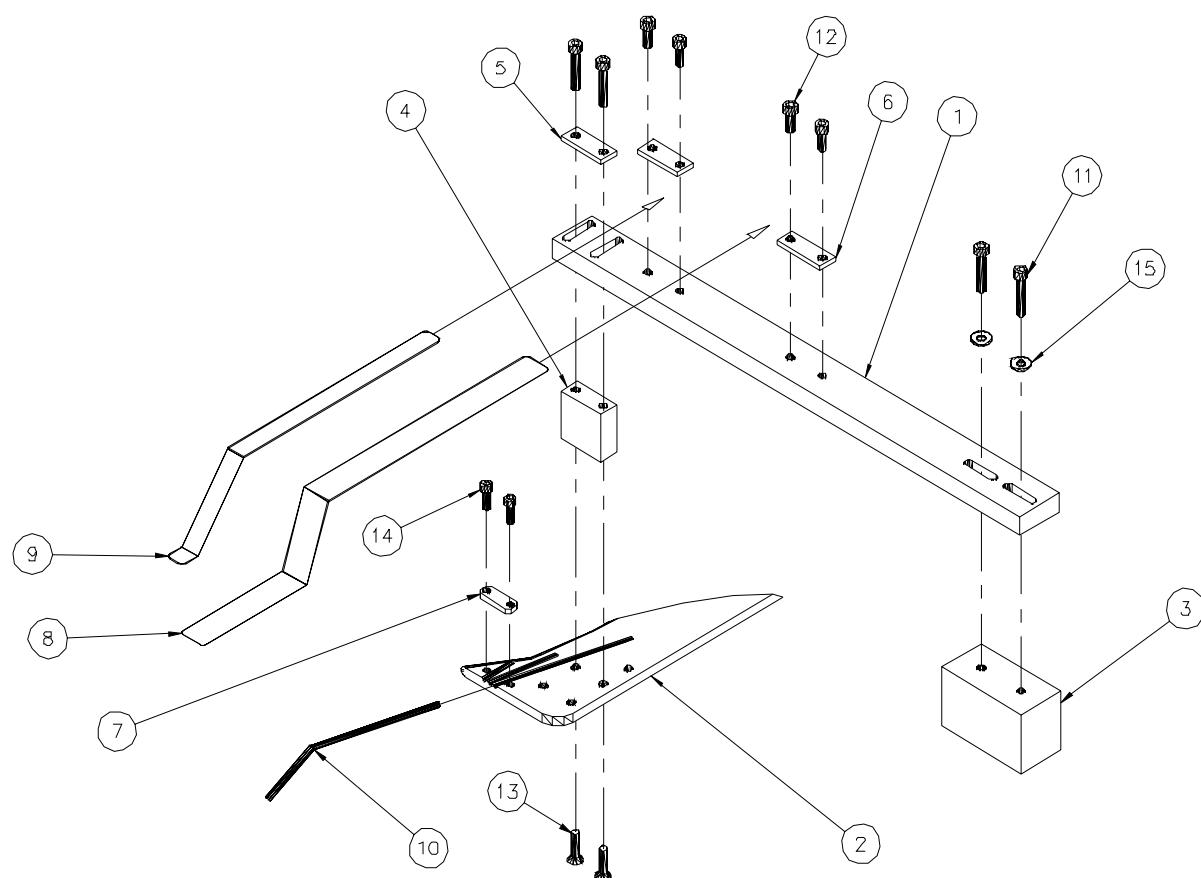
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**FRONT TABLE – FRONT TABLE GUIDE (Fig. 1-16)**  
**ENVELOPE PLOW ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18008-044	1	BAR, ENV. PLOW SUPPORT
2	18005-021	1	PLOW, ENV. OPENER
3	18007-041	1	BLOCK, ENV. PLOW SUPPORT
4	18007-010	1	BLOCK, ENV. PLOW MTG.
5	18009-015	1	BRACKET, SPRING STEEL CLAMP
6	18009-016	2	BRACKET, SPRING STEEL CLAMP
7	18009-007	1	BRACKET, GUIDE WIRE CLAMP
8	18005-075	1	GUIDE, SPRING STEEL @ INSERT
9	18005-074	1	GUIDE, SPRING STEEL @ PLOW
10	18005-060	1	GUIDE WIRE, ENV. PLOW (LONG)
	18005-059	1	GUIDE WIRE, ENV. PLOW (MEDUIM)
	18005-058	1	GUIDE WIRE, ENV. PLOW (SHORT)
11		4	SCREW, SK HD, 10-24 X 1
12		4	SCREW, SK HD, 10-24 X 1/2
13		2	SCREW, FLAT HD, 10-24 X 1/2
14		2	SCREW, SK HD, 8-32 X 1/2
15		2	WASHER, FLAT, #10

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*FIG. 1-16*



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**FRONT TABLE – FRONT TABLE GUIDE (Fig. 1-17)**  
**GATE / INERT GUIDE RAIL ASSEMBLY**

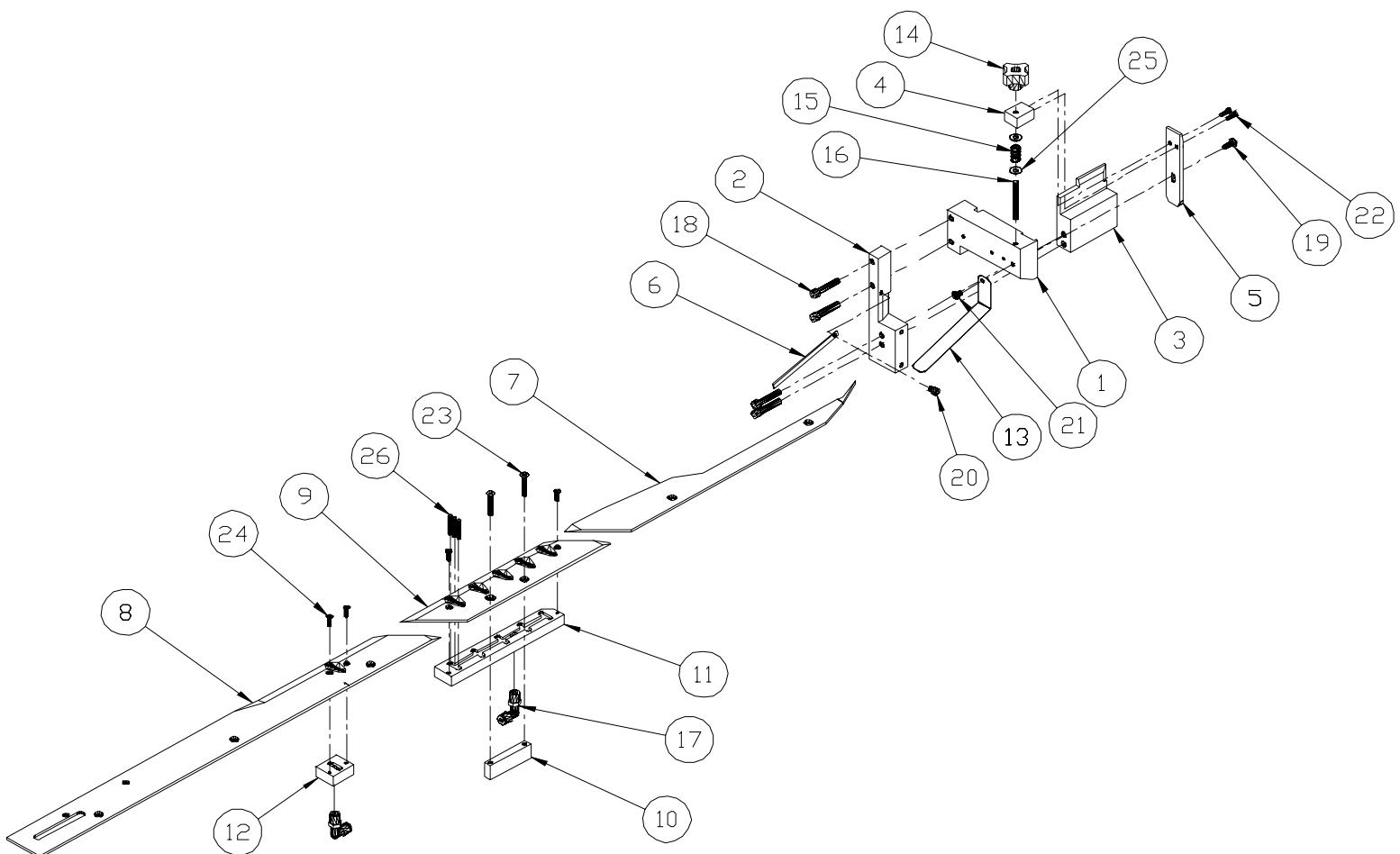
ITEM	PART NO.	QTY.	DESCRIPTION
1	18007-079	1	BLOCK, GATE MTG.
2	18008-042	1	BLOCK, GATE SUPPORT
3	18005-054	1	GUIDE, LOWER ENVELOPE
4	18007-045	1	BLOCK, GATE ADJUSTING
5	18005-077	1	GATE, SEPERATOR (SHALLOW) (SEE BELOW REF.)
REF.	(SEE FIG. 1-12)	1	VACUUM PLATE (SHALLOW)(18011-048) OR VACUUM PLATE (FLAT) (18011-038) USED W/ ITEM 5, GATE
6	18005-073	1	GUIDE, ENVELOPE, PRE-OPENING
7	18011-034	1	RAIL, TOP, INSERT GUIDE
8	18011-032	1	RAIL, TOP, INSERT GUIDE (DISCHARGE)
9	18011-033	1	RAIL, TOP, INSERT GUIDE (ADJUSTABLE)
10	18008-043	1	BAR, SLIDING NUT
11	18007-082	1	BLOCK, MANIFOLD, ADJUSTING
12	18007-081	1	BLOCK, MANIFOLD, FIXED
13	18005-025	1	GUIDE, SPRING STEEL @GATE
14	99004-005	1	KNOB, 10-32, FEMALE
15	99005-007	1	SPRING, GATE ADJ
16	99032-004	1	STUD, 10-32 X 2-1/2
17	99028-022	2	FITTING, MALE ELBOW, 3/8 TUBE X 1/8 NPT
18		4	SCREW, SK HD, 1/4-20 X 1-1/4
19		1	SCREW, PAN HD, 10-24 X 1/2
20		1	SCREW, SK HD, 10-24 X 1/4
21		1	SCREW, PAN HD, 10-24 X 1/4
22		2	SCREW, FLAT HD, 8-32 X 1/2
23		2	SCREW, FLAT HD, 10-24 X 1
24		4	SCREW, FLAT HD, 6-32 X 1/2
25		2	WASHER, FLAT, #10
26		15	SCREW, SET, 8-32 X 1 (FLAT TIP)

NOTE: OPTIONAL GATE (ITEM 5)

18005-016 GATE, SEPERATOR (DEEP), MUST USE W/ VACUUM PLATE (DEEP) (18011-012)

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**FIG. 1-17**



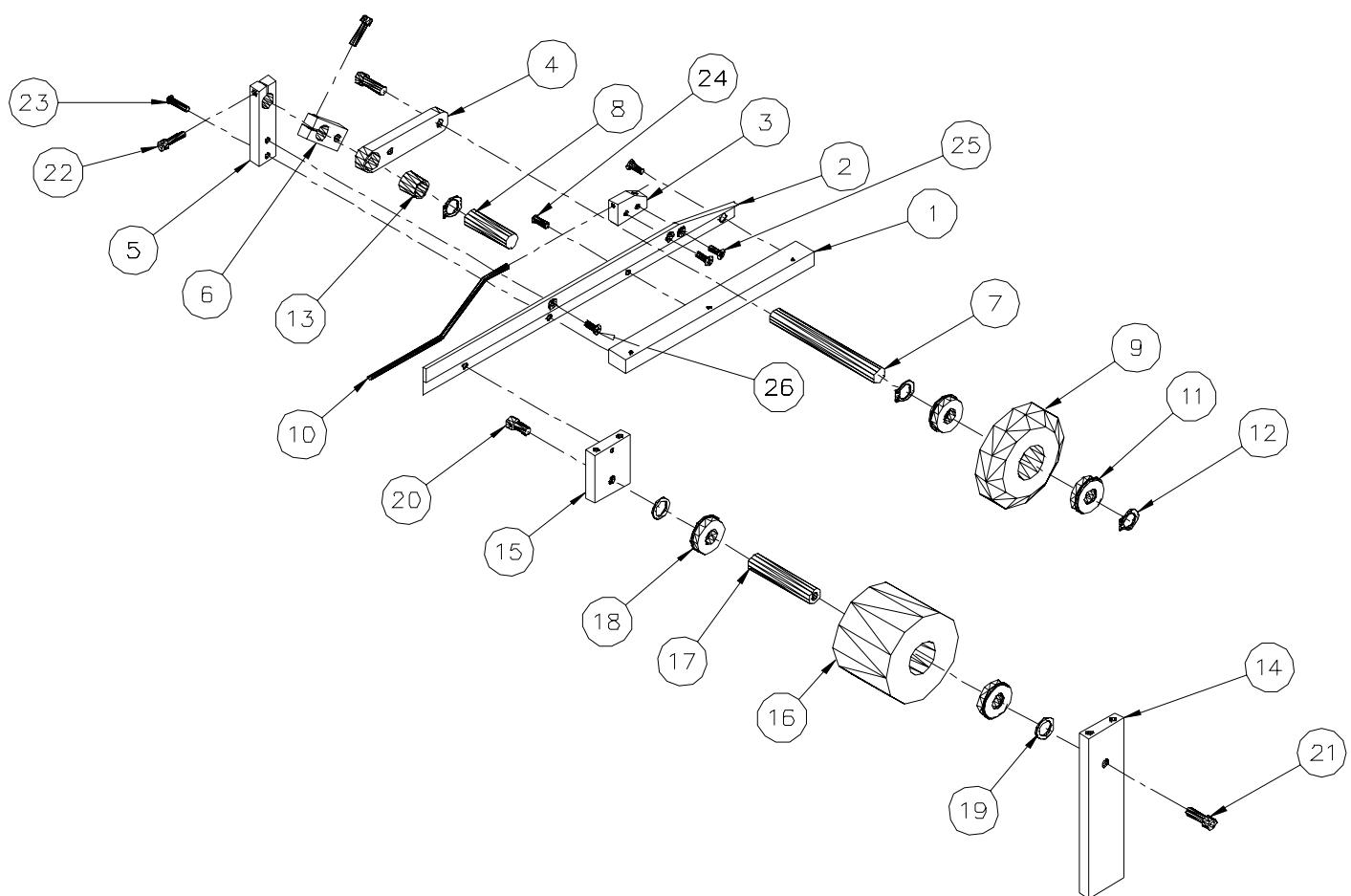
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**FRONT TABLE – FRONT TABLE GUIDE (Fig. 1-18)**  
**ENVELOPE CLOSER / EXIT & DISCHARGE ROLLER**  
**ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18007-052	1	BLOCK, ENVELOPE CLOSER MTG.
2	18005-023	1	GUIDE, ENVELOPE CLOSER
3	18009-006	1	BRACKET, ENVELOPE CLOSER
4	20008-002	1	BAR, EXIT ROLLER, MTG.
5	18007-087	1	BLOCK, WHEEL MTG.
6	18007-088	1	BLOCK, WHEEL ADJUSTING
7	18004-059	1	SHAFT, ROLLER @ CLOSER
8	18004-030	1	SHAFT, IDLER
9	20006-003	1	ROLLER, EXIT
10	18005-061	1	GUIDE WIRE, ENVELOPE CLOSER
11	99003-007	2	BEARING, SEALED, 1/2 X 1-1/8
12	99022-004	3	SNAP RING, 1/2
13	99003-031	1	BUSHING, SLEAVE, 1/2 X 5/8 X 1/2
14	18007-032	1	BLOCK, MTG.
15	18007-033	1	BLOCK. MTG.
16	18006-013	1	ROLLER, DISCHARGE
17	18004-023	1	SHAFT, DISCHARGE ROLLER
18	99003-007	2	BEARING, SEALED, 1/2 X 1-1/8
19	99003-018	2	WASHER, NYLON, 1/2 X 1/16
20		1	SCREW, SK HD, 1/4-20 X 1/2
21		2	SCREW, SK HD, 1/4-20 X 3/4
22		2	SCREW, SK HD, 10-24 X 3/4
23		1	SCREW, BUTTON HD, 8-32 X 3/4
24		1	SCREW, BUTTON HD, 8-32 X 1/2
25		1	SCREW, FLAT HD, 8-32 X 1/2
26		3	SCREW, FLAT HD, 8-32 X 3/8

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*FIG. 1-18*



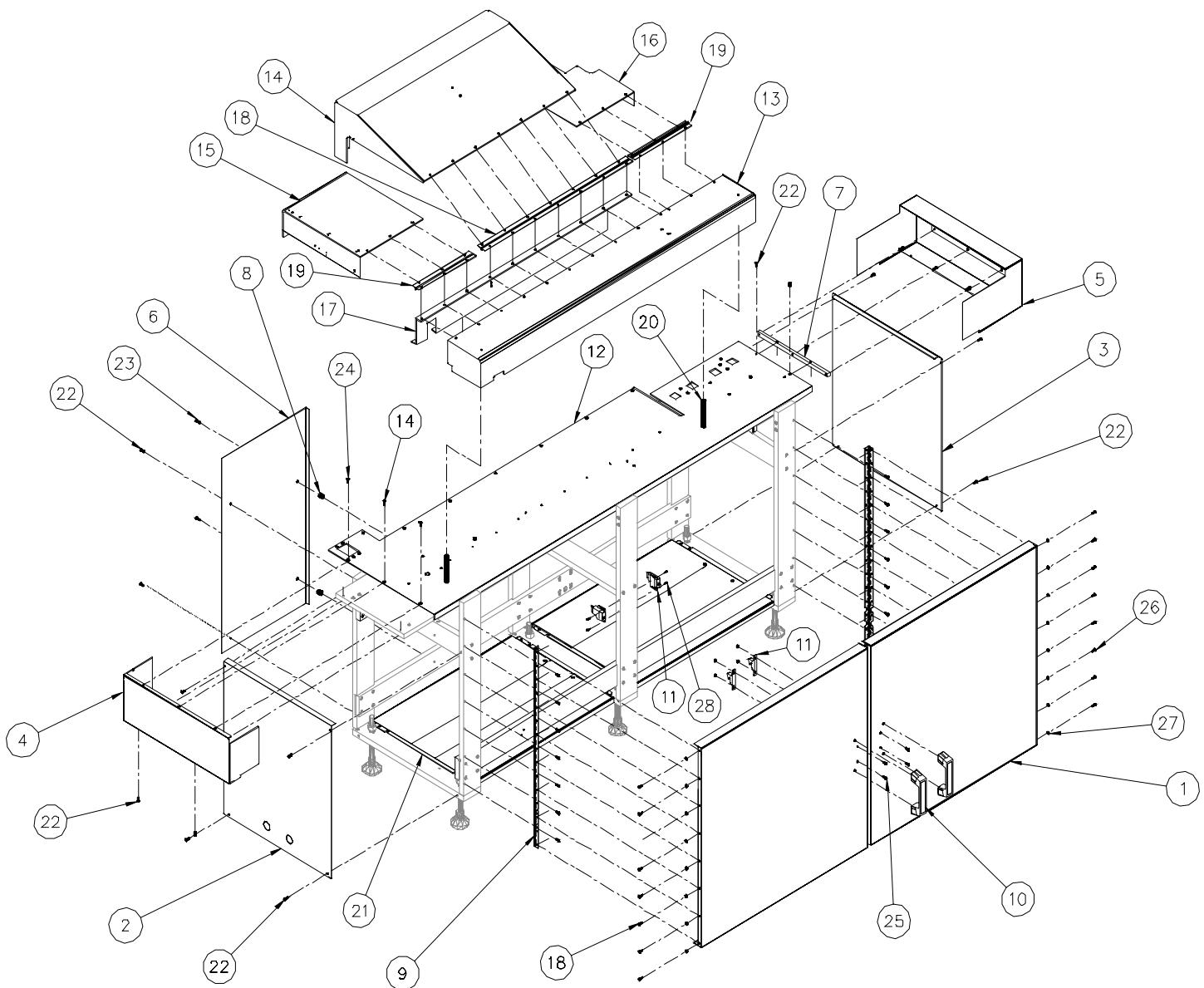
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**FRONT TABLE – COVERS (Fig. 1-19)**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18013-021	2	DOOR, FRONT TABLE
2	18013-012	1	COVER, SIDE W/ HOLES
3	18013-007	1	COVER, SIDE
4	18013-016	1	COVER, END CAP, LH
5	18013-015	1	COVER, END CAP, RH
6	18013-017	1	COVER, REAR, RH
7	18008-025	1	BAR, PLATE MTG.
8	18012-007	2	STANDOFF, 1/2 X 5/8
9	18013-013	2	HINGE, FRONT TABLE DOOR
10	99012-001	2	HANDLE, FRONT TABLE DOOR
11	99013-001	2	LATCH W/OUT SWITCH
12	18011-035	1	PLATE, TOP, FRONT TABLE (REF ONLY)
13	18013-049	1	COVER, MAIN, FRONT TABLE (10X13)
14	18013-099	1	COVER, TOP (10X13)
15	18013-100	1	COVER, TOP LEFT, FRONT TABLE (10X13)
16	18013-114	1	COVER, TOP RIGHT, FRONT TABLE (10X13)
17	18002-005	1	MOUNT, MAIN COVER (10X13)
18	18013-079	1	HINGE, CONTINUOUS, 26 IN. LONG
19	18013-082	2	HINGE, CONTINUOUS, 10 IN. LONG
20	18012-027	2	STANDOFF, MAIN COVER (10X13)
21	18013-072	1	COVER, LOWER FLOOR (FRONT TABLE)
22		16	SCREW, BUTTON HD, 10-24 X 1/2
23		5	SCREW, SK HD, 10-24 X 1/2
24		1	SCREW, FLAT HD, 10-24 X 1/2
25		4	SCREW, PAN HD, 8-32 X 1/2
26		28	SCREW, BUTTON HD, 8-32 X 1/2
27		18	NUT, LOCK, 8-32
28		4	SCREW, SK HD, 6-32 X 1/2

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**FIG. 1-19**



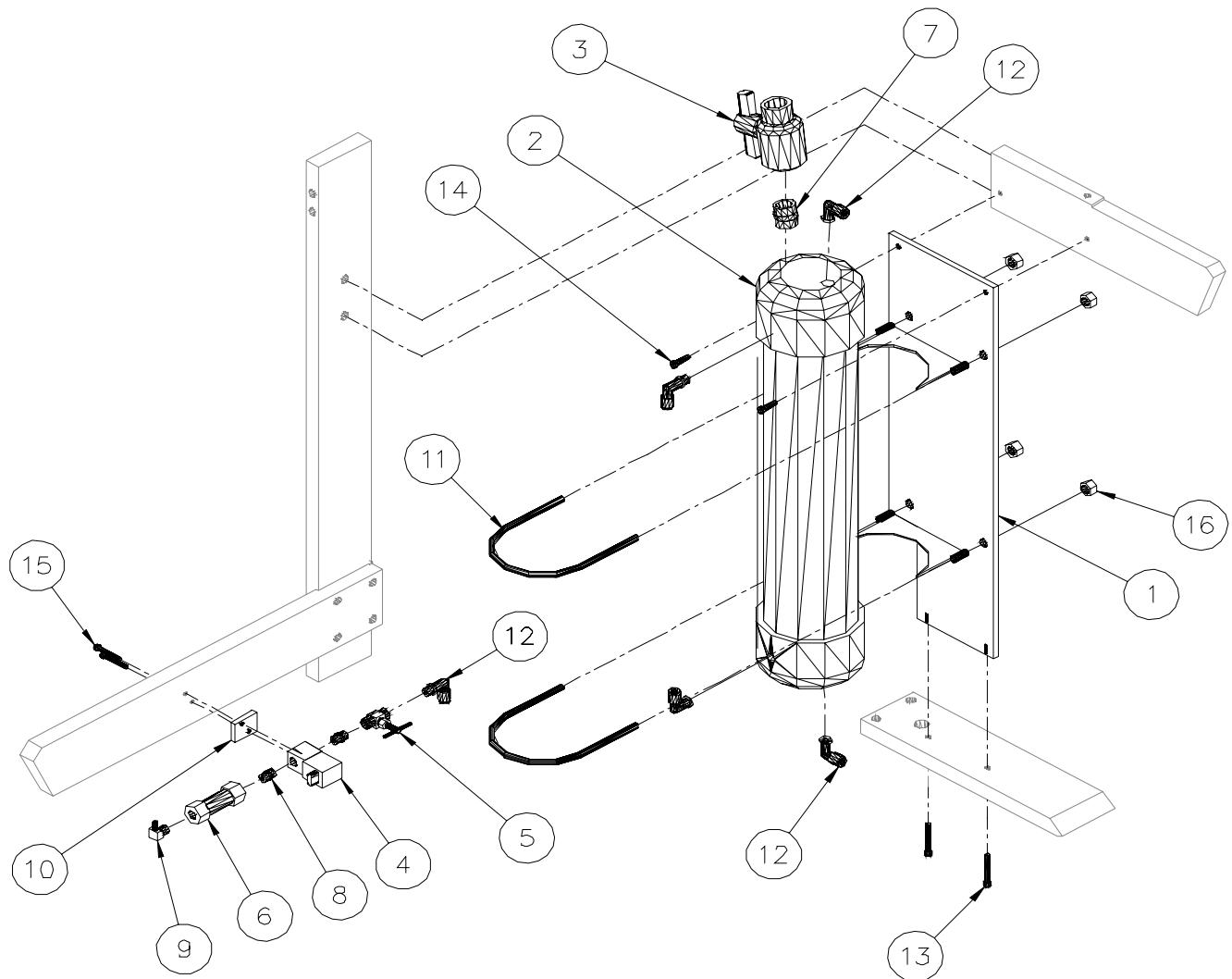
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**FRONT TABLE – WATER BRUSH ASSEMBLY (Fig. 1-20)**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18011-037	1	PLATE, WATER TANK MTG.
2	18019-008	1	TANK, WATER
3	99025-008	1	VALVE, BALL PVC, 1/2 NPT
4	99025-007	1	VALVE, WATER SOLENIOD, 24 VOLT DC, 1/8 NPT
5	99028-044	1	VALVE, PET COCK
6	99027-003	1	STRAINER, 1/8 NPT
7	99028-081	1	NIPPLE, CLOSE, PVC, 3/4 NPT
8	99028-041	2	NIPPLE, CLOSE, 1/8 NPT
9	99028-043	1	FITTING, HOSE BARB, ELBOW, 1/8 NPT X 1/8 ID HOSE
10	18012-019	1	SPACER, WATER SOLENIOD
11	99024-001	2	U-BOLT, 4" PIPE
12	99028-074	5	MALE ELBOW, 1/8 NPT X 1/4 T
13		2	SCREW, SKT HD, 10-24 X 1-1/4
14		2	SCREW, SKT HD, 10-24 X 3/4
15		2	SCREW, SKT HD, 8-32 X 1-1/4
16		4	NUT, HEX, 3/8-16
17	99031-012	10'	HOSE, CLEAR, 1/4" (NOT SHOWN)

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**FIG. 1-20**

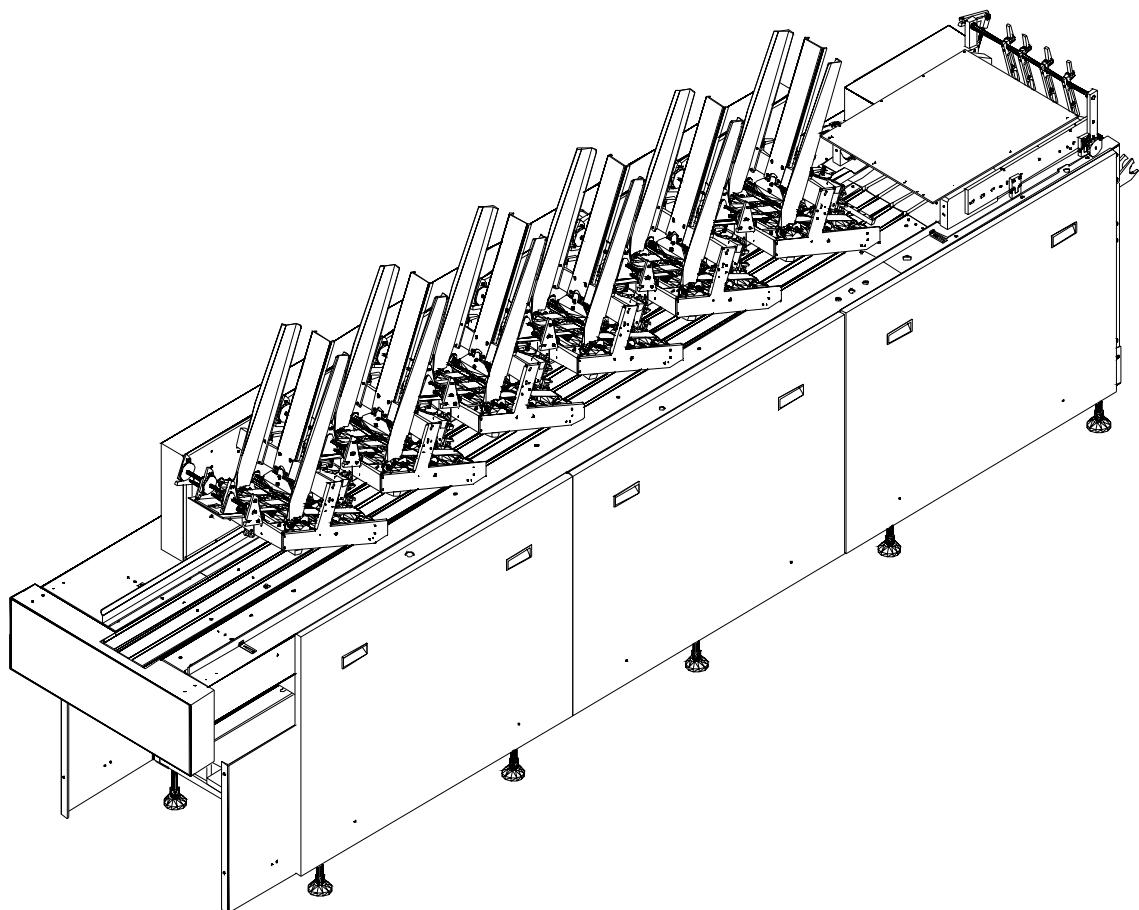


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# **COLLATOR**

## **10 X 13**



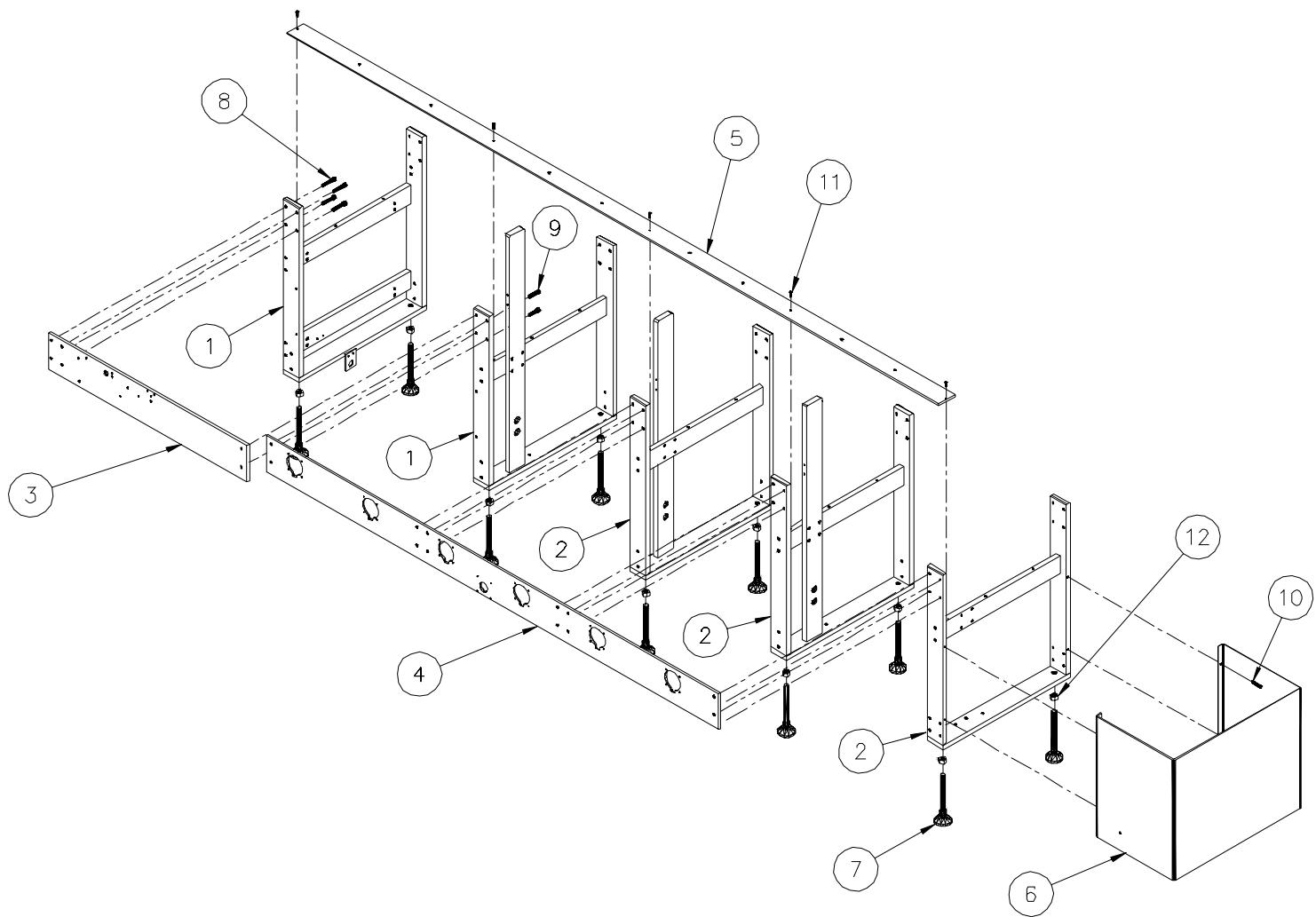
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**COLLATOR – FRAME ASSEMBLY (Fig. 2-1)**

ITEM	PART NO.	QTY.	DESCRIPTION
1	(SEE FIG. 2-2)	1	FRAME ASSEMBLY, RIGHT HAND
2	(SEE FIG. 2-3)	1	FRAME ASSEMBLY, LEFT HAND
3	18011-065	1	PLATE, PUSHER DRIVE MTG. (10 X 13)
4	18011-050	1	PLATE, CLUTCH MTG.
5	18008-069	1	BAR, WIREWAY MTG.
6	18013-066	1	COVER, REAR COLLATOR (10X13 Q-SEREIS)
7	99010-001	10	FOOT, ADJUSTING
8		6	SCREW, SKT HD, 3/8-16 X 2
9		14	SCREW, SKT HD, 3/8-16 X 1-1/2
10		4	SCREW, SKT HD, 1/4-20 X 1/2
11		5	SCREW, FLAT HD. 10-24 X 1/2
12		10	NUT, HEX, 5/8-11

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**FIG. 2-1**



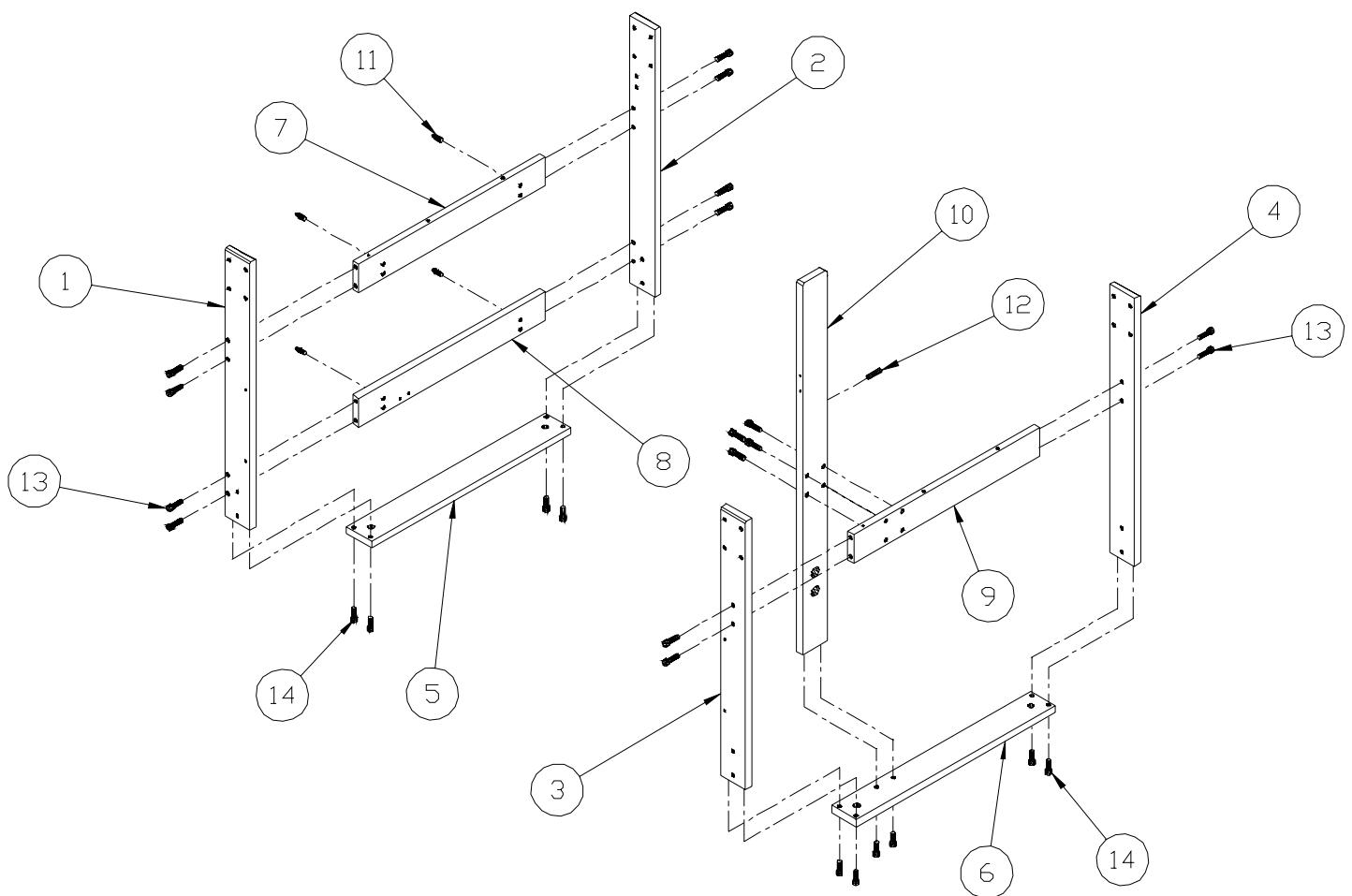
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**COLLATOR – FRAME (Fig. 2-2)**  
**RIGHT HAND FRAME ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18010-003	1	LEG, COLLATOR, RH - END
2	18010-009	1	LEG, COLLATOR, RH - END
3	18010-014	1	LEG, COLLATOR (AT PNEUMATICS)
4	18010-002	1	LEG, COLLATOR
5	18003-004	1	CROSS BAR, BOTTOM - END
6	18003-002	1	CROSS BAR, BOTTOM - LH
7	18003-012	1	CROSS BRACE, FRONT TABLE MOUNT, UPPER
8	18003-013	1	CROSS BRACE, FRONT TABLE MOUNT, LOWER
9	18003-001	1	CROSS BRACE, LEG
10	18008-001	1	BAR, FEEDER PLATE MOUNTING
11	18009-027	1	BRACKET, MOTOR PLUG MTG
12	99006-006	4	PIN, ALIGNMENT
13	99006-011	1	PIN, ROLL, 3/8 X 1-1/2 LG – REID TOOL #P-59
14		16	SCREW, SKT HD, 3/8-16 X 1-1/4
15		10	SCREW, SKT HD, 3/8-16 X 1
16		2	SCREW, SKT HD, 10-24 X 1/2

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**FIG. 2-2**



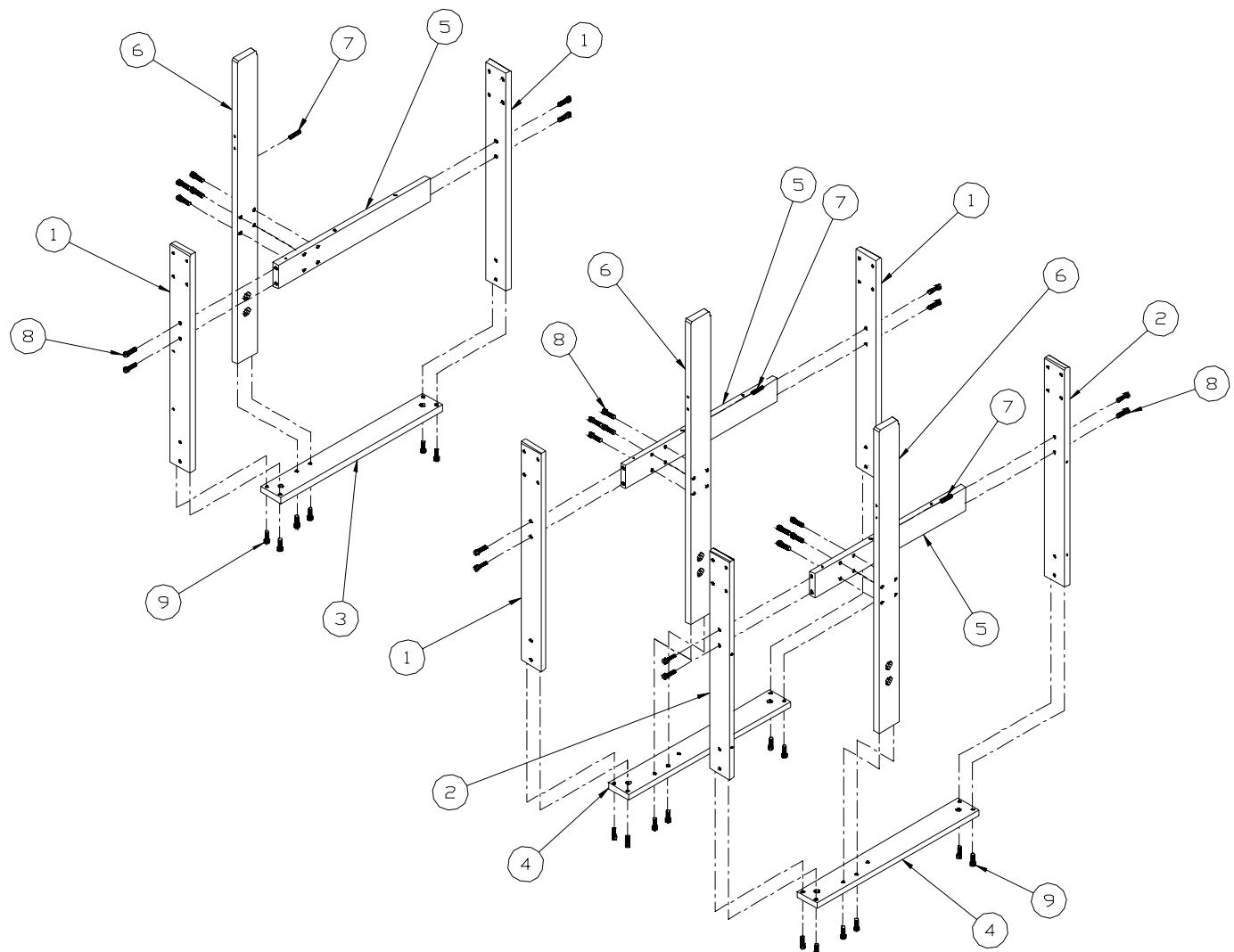
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**COLLATOR – FRAME (Fig. 2-3)**  
**LEFT HAND FRAME ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18010-002	4	LEG, COLLATOR
2	18010-001	2	LEG, COLLATOR, LH - END
3	18003-002	1	CROSS BAR, BOTTOM - LH
4	18003-003	2	CROSS BAR, BOTTOM - RH
5	18003-001	3	CROSS BRACE, LEG
6	18008-001	3	BAR, FEEDER PLATE MOUNTING
7	99006-011	3	PIN, ROLL, 3/8 X 1-1/2 LG – REID TOOL #P-59
8		26	SCREW, SKT HD, 3/8 –16 X 1-1/4
9		16	SCREW, SKT HD, 3/8-16 X 1

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*FIG. 2-3*



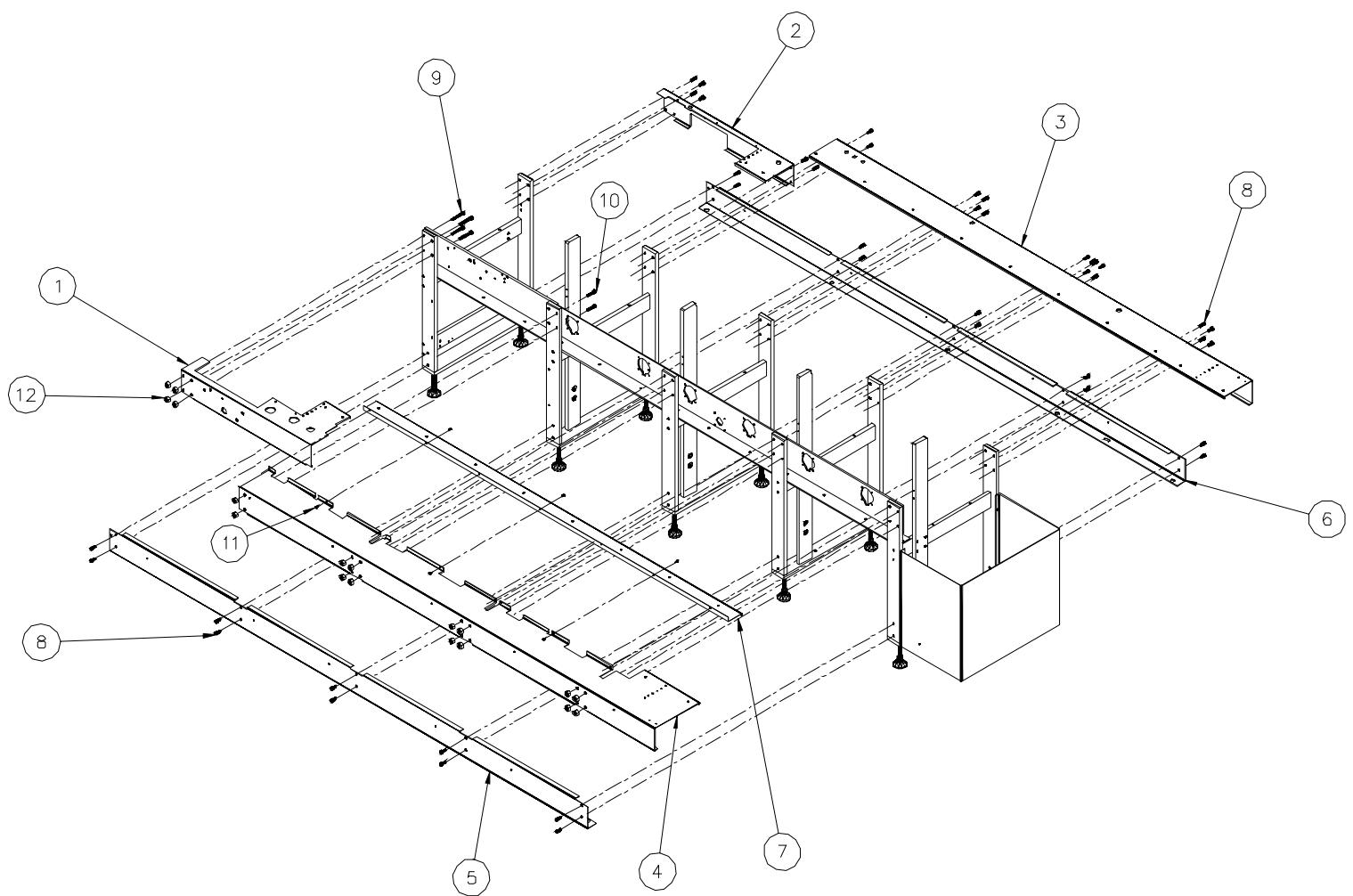
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**COLLATOR – FRAME (Fig. 2-4)**  
**COVERS**

<b>ITEM</b>	<b>PART NO.</b>	<b>QTY.</b>	<b>DESCRIPTION</b>
1	18001-030	1	COVER, TOP, LH SHORT
2	18001-029	1	COVER, TOP, RH SHORT
3	18001-021	1	COVER, TOP, RH REAR
4	18001-022	1	COVER, TOP, LH REAR
5	18001-016	1	COVER, BOTTOM, LH
6	18001-015	1	COVER, BOTTOM, RH
7	18001-024	1	COVER, TOP, INNER
8		40	SCREW, SKT HD, 3/8-16 X 3/4
9		6	SCREW, SKT HD, 3/8-16 X 2
10		14	SCREW, SKT HD, 3/8-16 X 1-1/2
11		6	SCREW, BUTTON HD, 10-24 X 1/4
12		20	NUT, HEX HD, 3/8-16

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**FIG. 2-4**



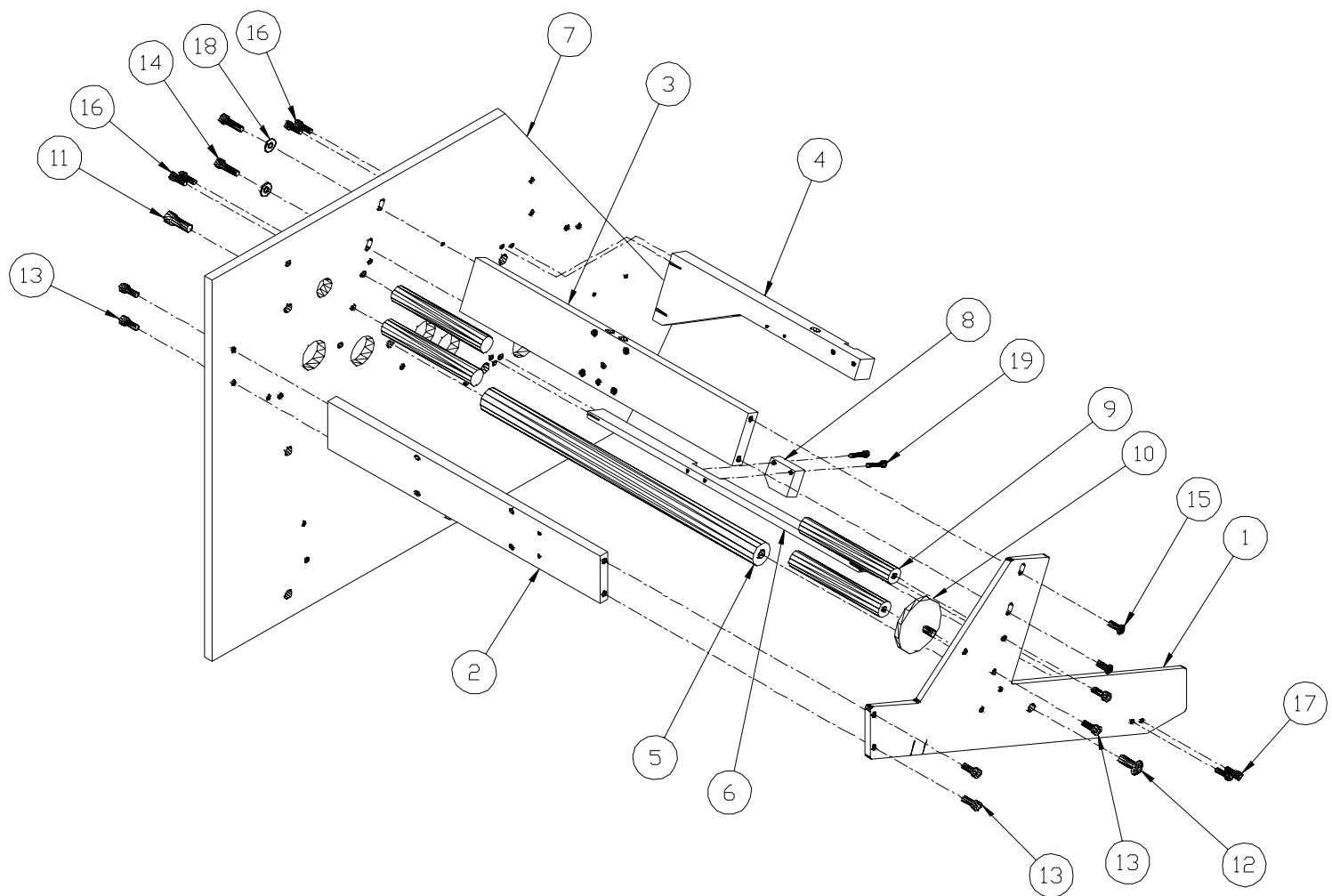
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**COLLATOR – FEEDERS ASSEMBLY (Fig. 2-5)**  
**FRAME**

<b>ITEM</b>	<b>PART NO.</b>	<b>QTY.</b>	<b>DESCRIPTION</b>
1	10000-018	6	SIDE FRAME, COLLATOR FEEDER, 10X13
2	18008-019	6	BAR, BACK SUPPORT
3	18003-010	6	CROSSBAR, PAPER GUIDE
4	18008-059	6	BAR, DBL DETECTION
5	18004-003	6	SHAFT, MAIN SUPPORT
6	18008-013	6	BAR, SENSOR MTG.
7	18011-026	1	PLATE, FEEDER MOUNTING (10X13) (REF ONLY)
8	98009-002	1	SENSOR, SENDER / RECIEVER
9	18008-093	4	SAFETY BAR, FEEDER
10	98009-016	1	SENSOR, REFLECTOR, CABLE ASSY.
11		1	SCREW, SKT HD, 5/6-18 X 3/4
12		1	SCREW, BUTTON HD, 5/6-18 X 3/4
13		6	SCREW, SKT HD, 10-24 X 1/2
14		4	SCREW, SKT HD, 10-24 X 3/4
15		2	SCREW, BUTTON HD, 10-24 X 1/2
16		6	SCREW, SKT HD, 8-32 X 3/4
17		2	SCREW, SKT HD, 8-32 X 1/2
18		2	WASHER, FALT, #10
19		6	SCREW, SKT HD, 4-40 X 3/4

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**FIG. 2-5**



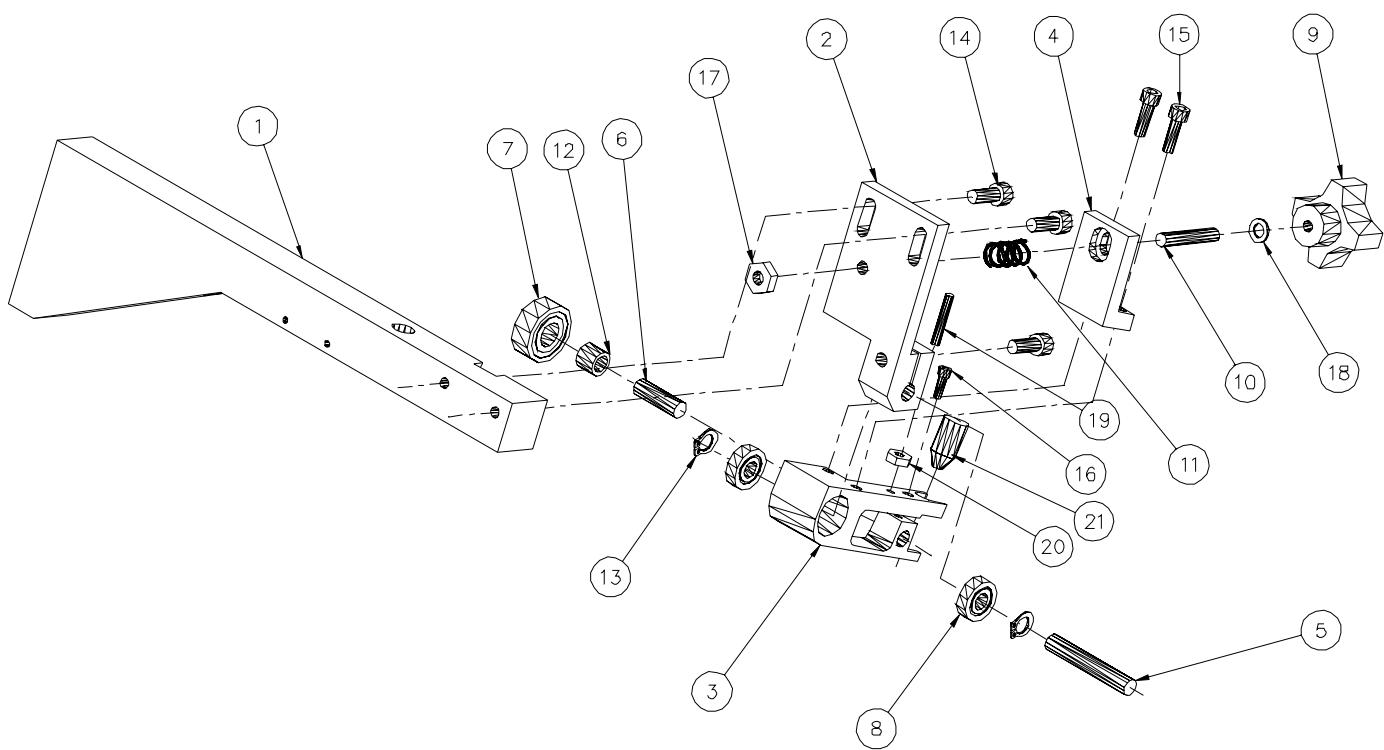
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**COLLATOR – FEEDERS (Fig. 2-6)**  
**DOUBLE DETECTION ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18008-059	1	BAR, DOUBLE DETECTION
2	18009-001	1	BRACKET, DOUBLE DETECTION MTG.
3	10009-012	1	TUNING FORK, DBL DETECTION
4	10009-013	1	BRACKET, PIVOT TUNING FORK
5	10004-052	1	SHAFT, DBL DETECTION PIVOT
6	10004-053	1	SHAFT, DBL DTECTION ROLLER
7	99003-001	1	BEARING, 3/8 X 7/8
8	99003-002	2	BEARING, SEALED, 1/4 X 5/8
9	99004-005	1	KNOB, FEMALE
10	99032-003	1	STUD, 10-32 X 1-1/2
11	99005-007	1	SPRING, DBL DETECTION
12	99003-005	1	BUSHING, 1/4 X 3/8 X 5/16
13	99022-001	2	SNAP RING, 1/4
14		3	SCREW, SKT HD, 10-24 X 1/2
15		2	SCREW, SKT HD, 8-32 X 1/2
16		1	SCREW, SKT HD, 4-40 X 3/8
17		1	NUT, HEX HD, 10-32
18		1	WASHER, FLAT, #10
19		1	SCREW, SET, 6-32 X 1
20		1	NUT, HEX, 6-32
21	98009-004	1	SWITCH, DOUBLE DETECT

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**FIG. 2-6**



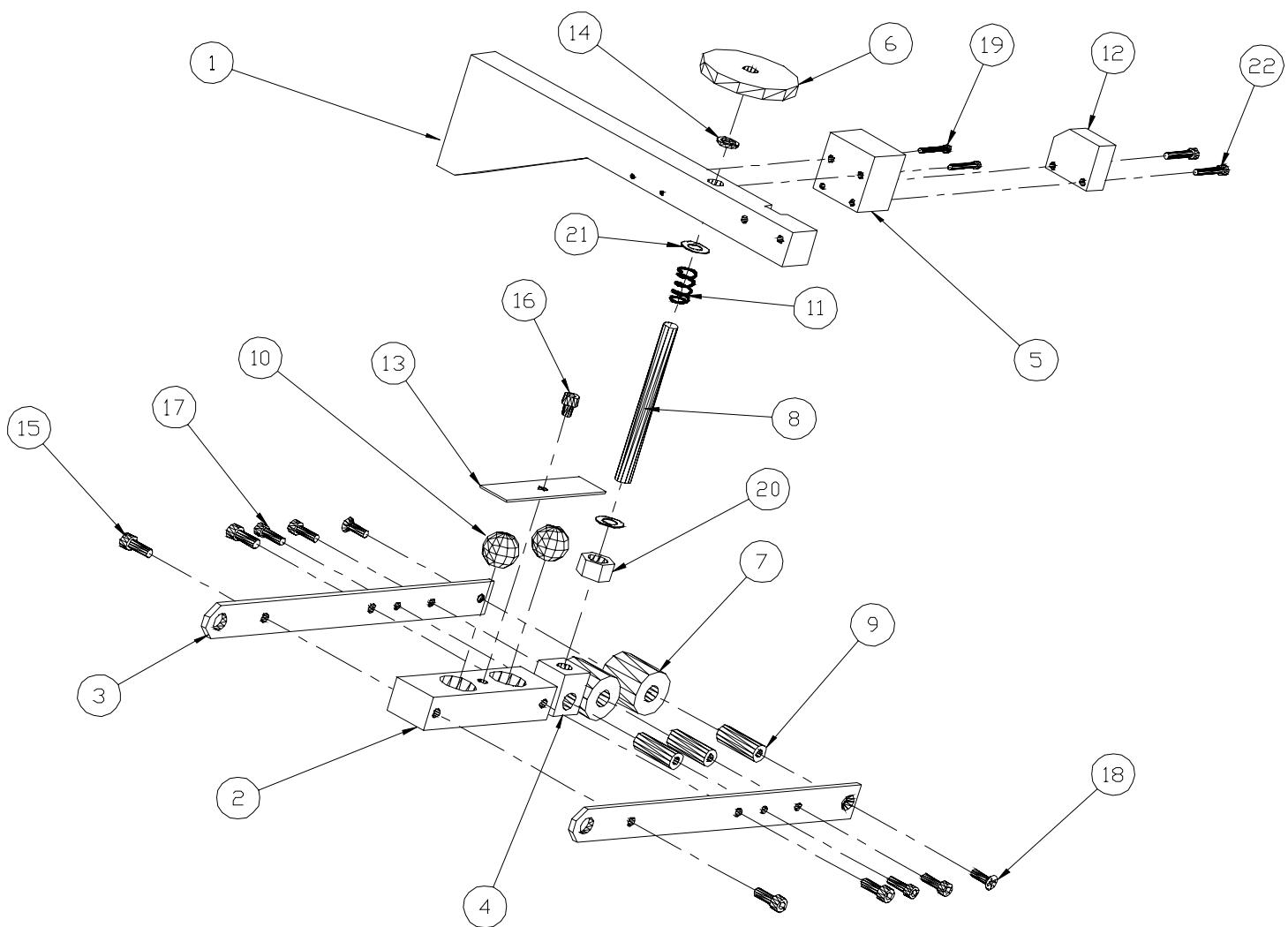
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**COLLATOR – FEEDERS (Fig. 2-7)**  
**TONGUE ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18008-059	1	BAR, DOUBLE DETECTION
2	18007-090	1	BLOCK, BALL RACK
3	10008-021	2	PLATE, TONGUE SUPPORT
4	10007-012	1	BLOCK, TONGUE ADJUST
5	18009-024	1	BRACKET, PHOTO EYE SPACER
6	10006-028	1	DISK, TONGUE ADJUSTING
7	10006-016	2	ROLLER, TONGUE
8	10004-055	1	STUD, TONGUE ADJ
9	10012-003	3	SPACER, TONGUE SUPPORT
10	99037-001	2	BALL, 3/4"
11	99005-006	1	SPRING, ACCELERATOR ADJ
12	98009-002	1	SENSOR, SENDER
13		1	COVER PLATE
14	99003-015	1	WASHER, NYLON, 5/16 X 1/16
15		4	SCREW, SKT HD, 10-24 X 1/2
16		1	SCREW, SKT HD, 10-24 X 1/4
17		4	SCREW, SKT HD, 8-32 X 1/2
18		2	SCREW, FLAT HD, 8-32 X 1/2
19		2	SCREW, SKT HD, 4-40 X 3/4
20		1	NUT, HEX HD, 5/16-24
21		2	WASHER, FLAT, 5/16
22		2	SCREW, SKT, 6-32 X 3/4

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**FIG. 2-7**



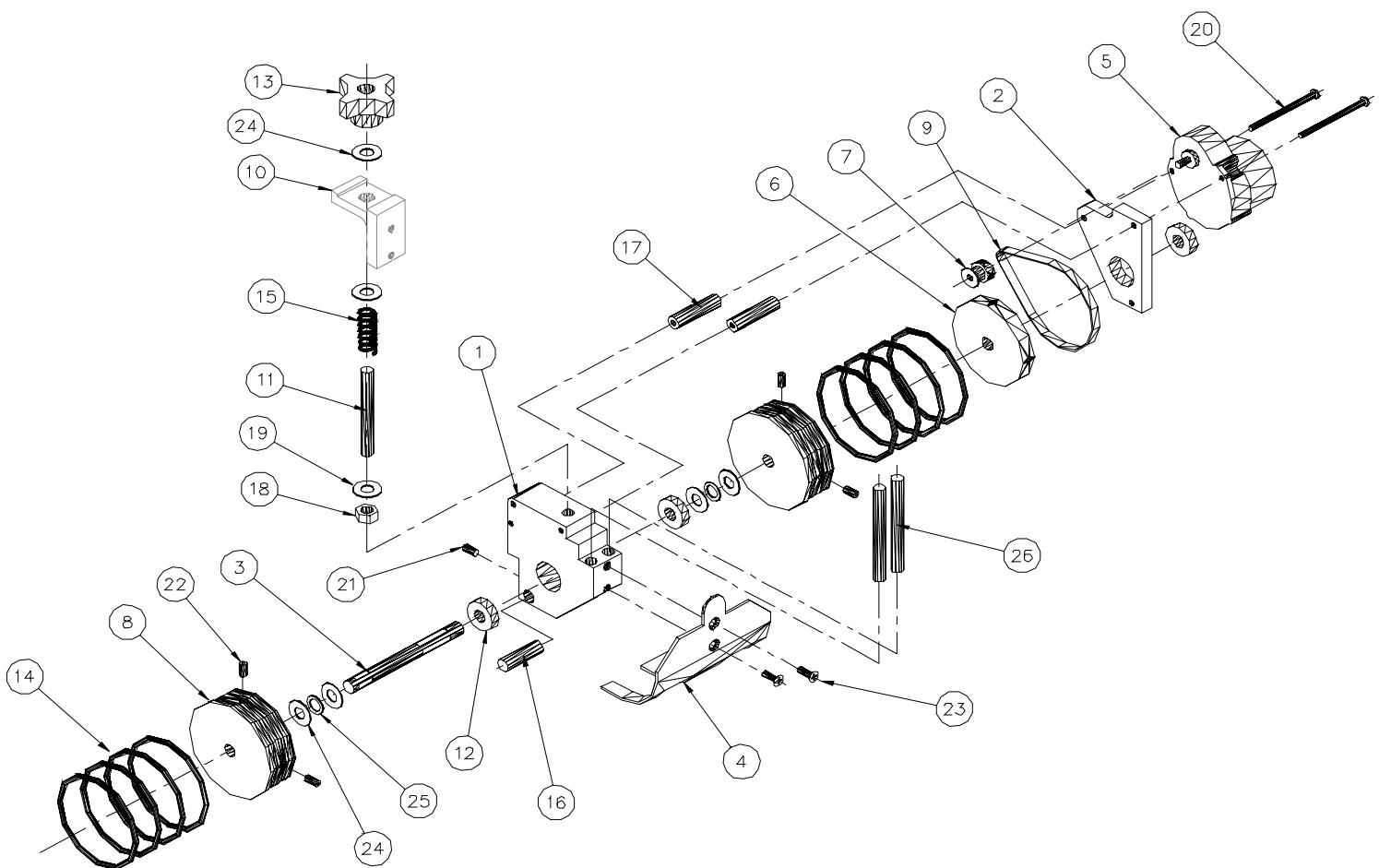
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**COLLATOR - FEEDERS (Fig. 2-8)**  
**SEPERATOR DEVICE ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	10007-001	1	BLOCK, SEPARATOR 3" ROLLER
2	10011-001	1	PLATE, MOTOR MOUNT (SEPARATOR)
3	10004-001	1	SHAFT, SEPARATOR
4	10005-003	1	SHROUD, SEPARATOR
5	99001-001	1	MOTOR, SEPARATOR
6	99002-001	1	PULLEY, 100MXLO25 (NO HUB 3/8" B.)
7	99002-002	1	PULLEY, 16MXL025 (3/16" B.)
8	10006-001	2	WHEEL, SEPARATOR 3" DIA.
9	99000-006	1	BELT, 115 MXL025
10	10007-010	1	BLOCK, SEPARATOR ADJUSTING
11	10004-028	1	STUD, SEPARATOR ADJUSTING
12	99003-001	3	BEARING, 3/8" I.D. X 7/8" O.D.
13	99004-001	1	KNOB 5/16-24 FEMALE
14	10014-002	8	O-RING, SEPARATOR 3"
15	10019-001	1	SPRING, .068 X .48 X 1-7/16"
16	99006-001	1	PIN DOWELL, 3/8" X 1 1/4"
17	10012-002	2	STANDOFF, SEPARATOR MOTOR
18		1	NUT, HEX 5/16-24
19		2	WASHER, FLAT 5/16
20		2	SCREW, PAN HD 6-32 X 2 1/2
21		1	SCREW, SET 10-24 X 1/8
22		4	SCREW, SET 10-24 X 3/8
23		2	SCREW, FL HD 8-32 X 1/2
24	99003-017	5	WASHER, NYLON 3/8 ID X 1/16
25	99003-016	2	WASHER, NYLON 3/8 ID X 1/32
26	99006-002	2	PIN DOWEL, 5/16" X 3"

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**FIG. 2-8**



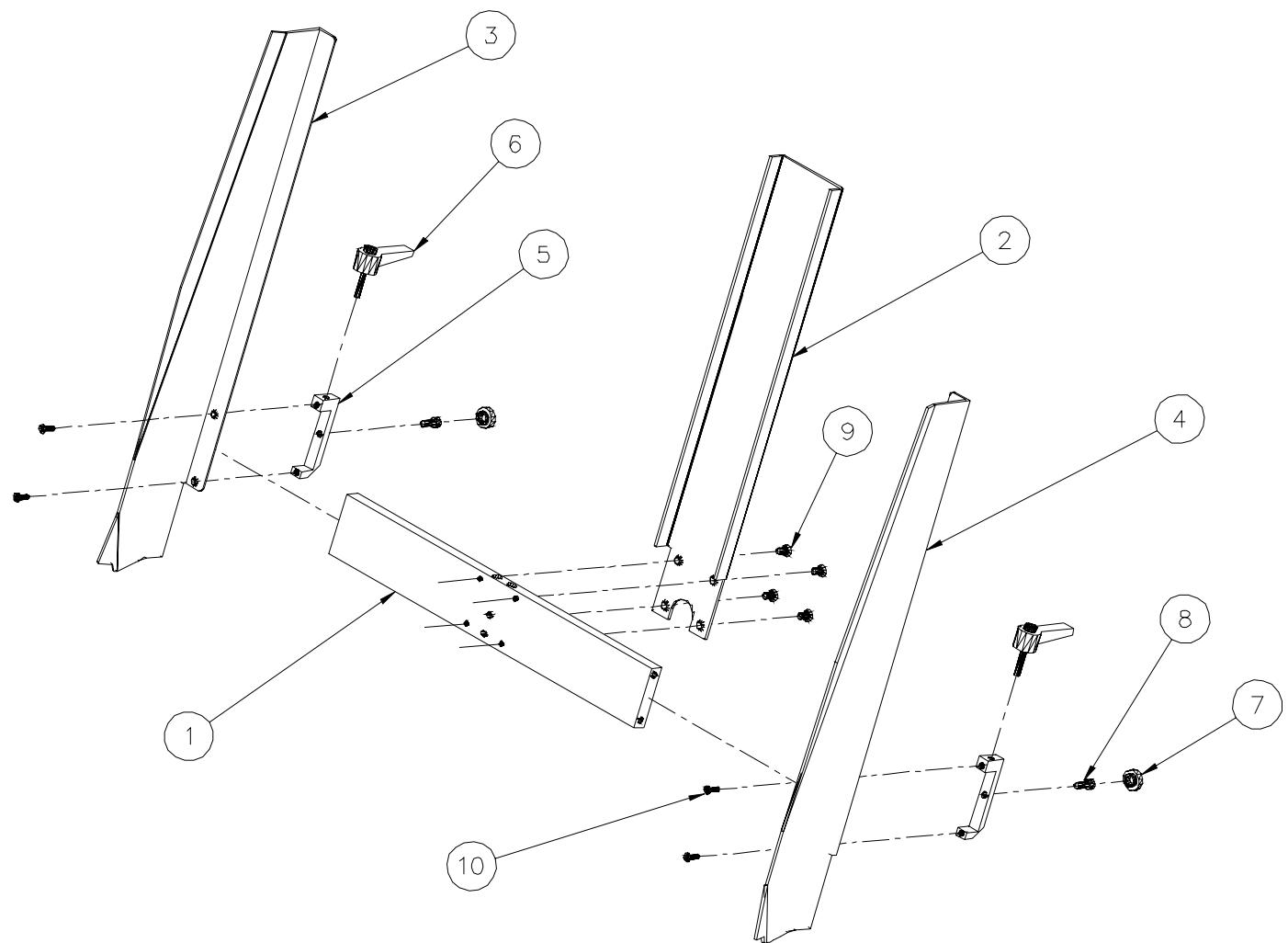
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**COLLATOR – FEEDERS (Fig. 2-9)**  
**SIDE GUIDE ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18003-010	1	BAR, CROSS
2	10005-002	1	GUIDE, FRONT PAPER (TALL)
3	10005-008	1	GUIDE, SIDE LH (TALL)
4	10005-009	1	GUIDE, SIDE RH (TALL)
5	10009-002	2	BRACKET, SIDE GUIDE MTG.
6	99004-003	2	HANDLE, RATCHET, 10-24
7	99004-002	2	KNOB, #10 SCREW
8		2	SCREW, SKT HD, 10-24 X 1/2
9		4	SCREW, FLAT HD, 10-24 X 3/8
10		4	SCREW, FLAT HD, 6-32 X 1/2

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**FIG.2-9**



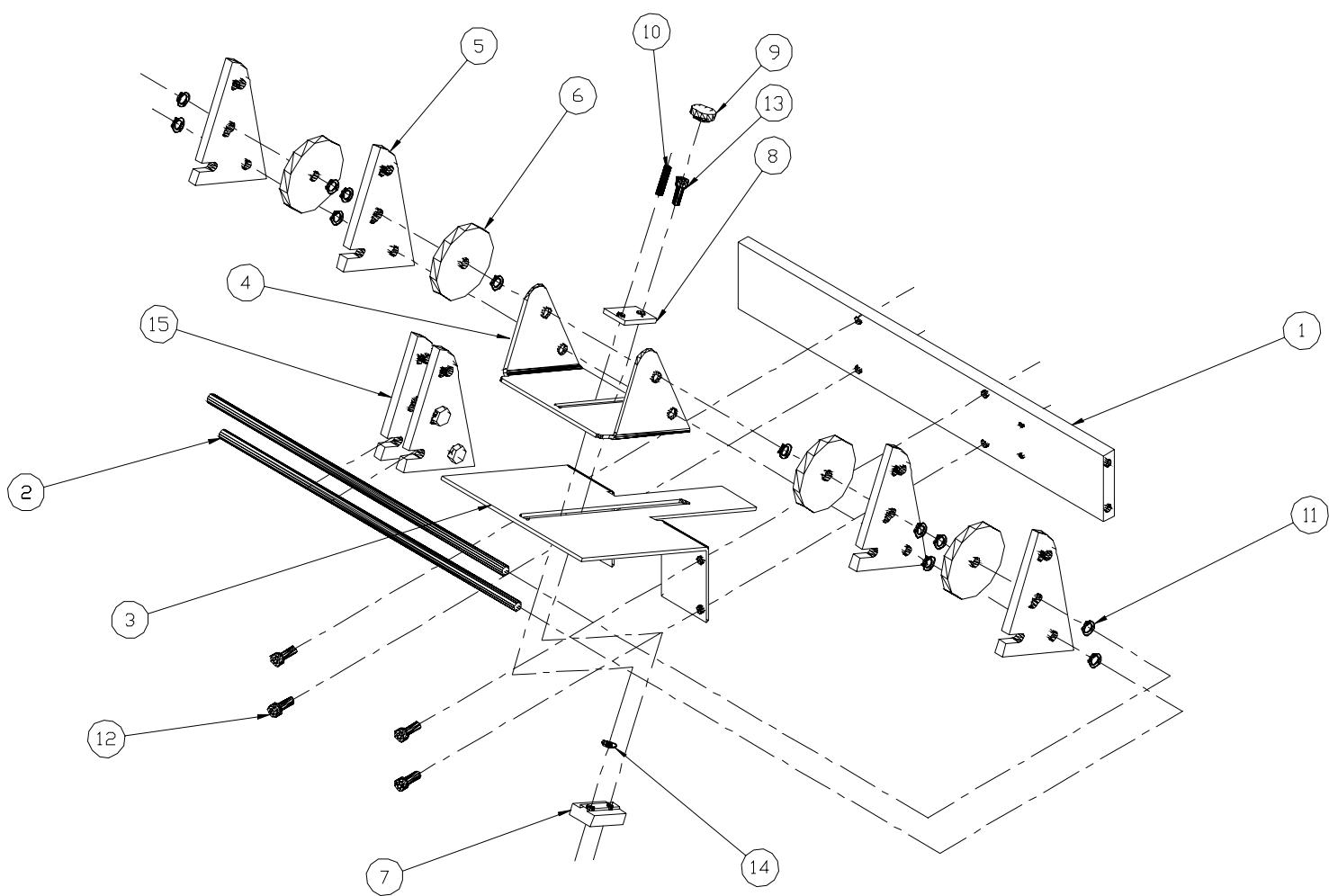
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**COLLATOR – FEEDERS (Fig. 2-10)**  
**PAPER GUIDE ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18008-019	1	BAR, BACK SUPPORT
2	10004-006	2	SHAFT, PAPER SLIDE
3	10005-024	1	SUPPORT, PAPER SLIDE
4	10009-003	1	BRACKET, PAPER SLIDE
5	10005-016	4	PAPER SLIDE
6	10006-033	4	ROLLER, PAPER SLIDE
7	10007-003	1	NUT, PAPER SLIDE
8	10007-004	1	WASHER, PAPER SLIDE
9	99004-002	1	KNOB, #10 SCREW
10	99006-020	1	ROLL PIN, 5/32 X 3/4
11	99022-001	12	SNAP RING, 1/4
12		4	SCREW, SKT HD, 10-24 X 3/8
13		1	SCREW, SKT HD, 10-24 X 1/2
14		1	WASHER, FLAT, #6
15	10020-001	1	WEDGE, PAPER GUIDE EXTENSION

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*FIG. 2-10*



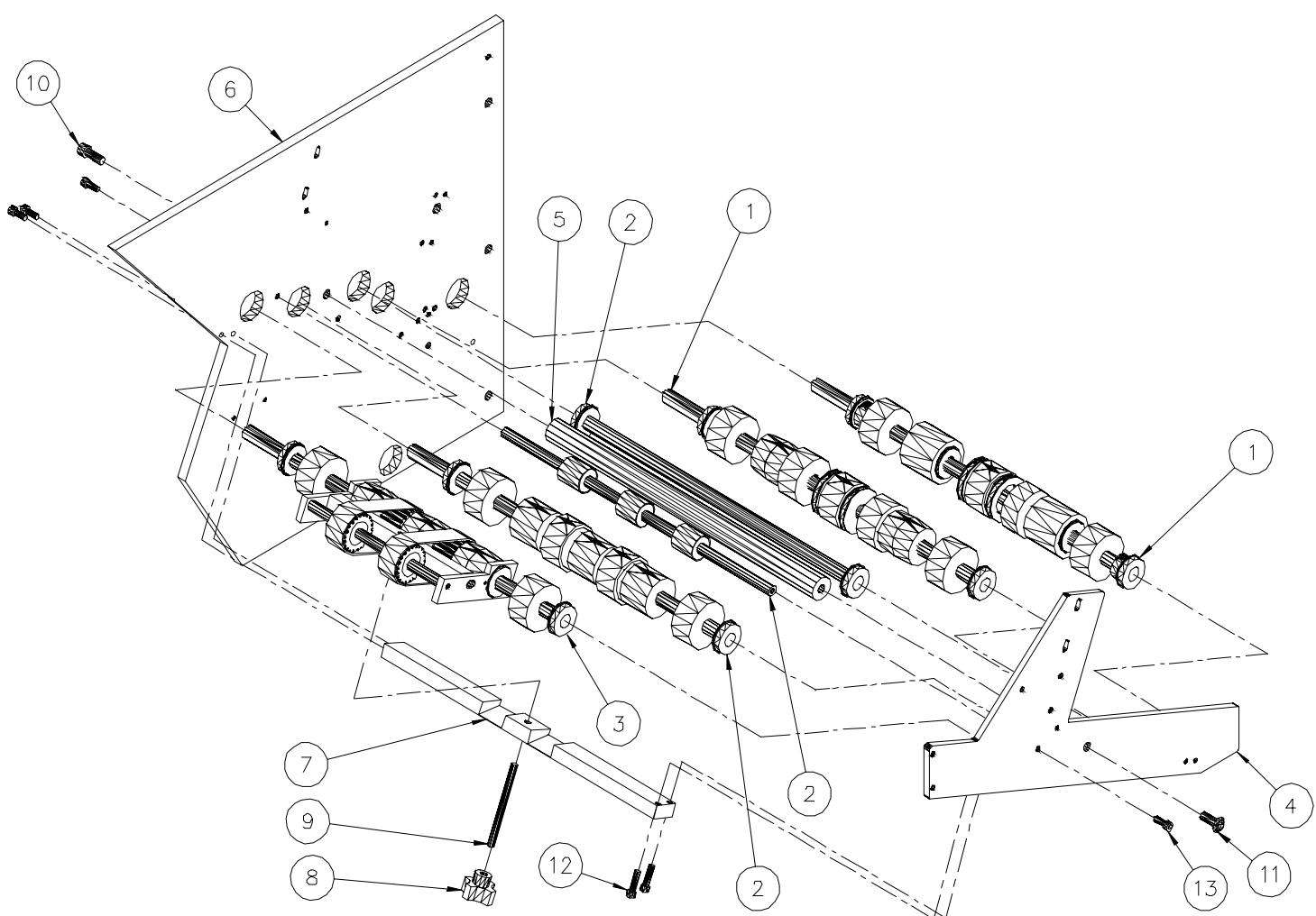
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**COLLATOR – FEEDERS (Fig. 2-11)**  
**FEEDER ROLLER ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	(SEE FIG. 2-12)	6	ACCELERATOR DRIVE / IDLER SHAFT ASSEMBLY
2	(SEE FIG. 2-13)	6	FRONT SHAFT / IDLER SUPPORT / MAIN SHAFT ASSY.
3	(SEE FIG. 2-14)	6	ELEVATOR SHAFT ASSEMBLY
4	10000-018	1	SIDE FRAME, COLLATOR FEEDER (10X13)
5	18004-003	1	SHAFT, MAIN SUPPORT
6	18011-026	1	PLATE, FEEDER MTG. (10X13) (REF. ONLY)
7	10008-020	1	BAR, ELEVATOR BELT SUPPORT
8	99004-007	1	KNOB, 1/4-20, FEMALE
9	99032-002	1	STUD, 1/4-20 X 3
10		1	SCREW, SKT HD, 5/16-18 X 3/4
11		1	SCREW, BUTTON HD, 5/16-18 X 3/4
12		2	SCREW, SKT HD, 10-24 X 3/4
13		4	SCREW, SKT HD, 10-24 X 1/2

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**FIG. 2-11**



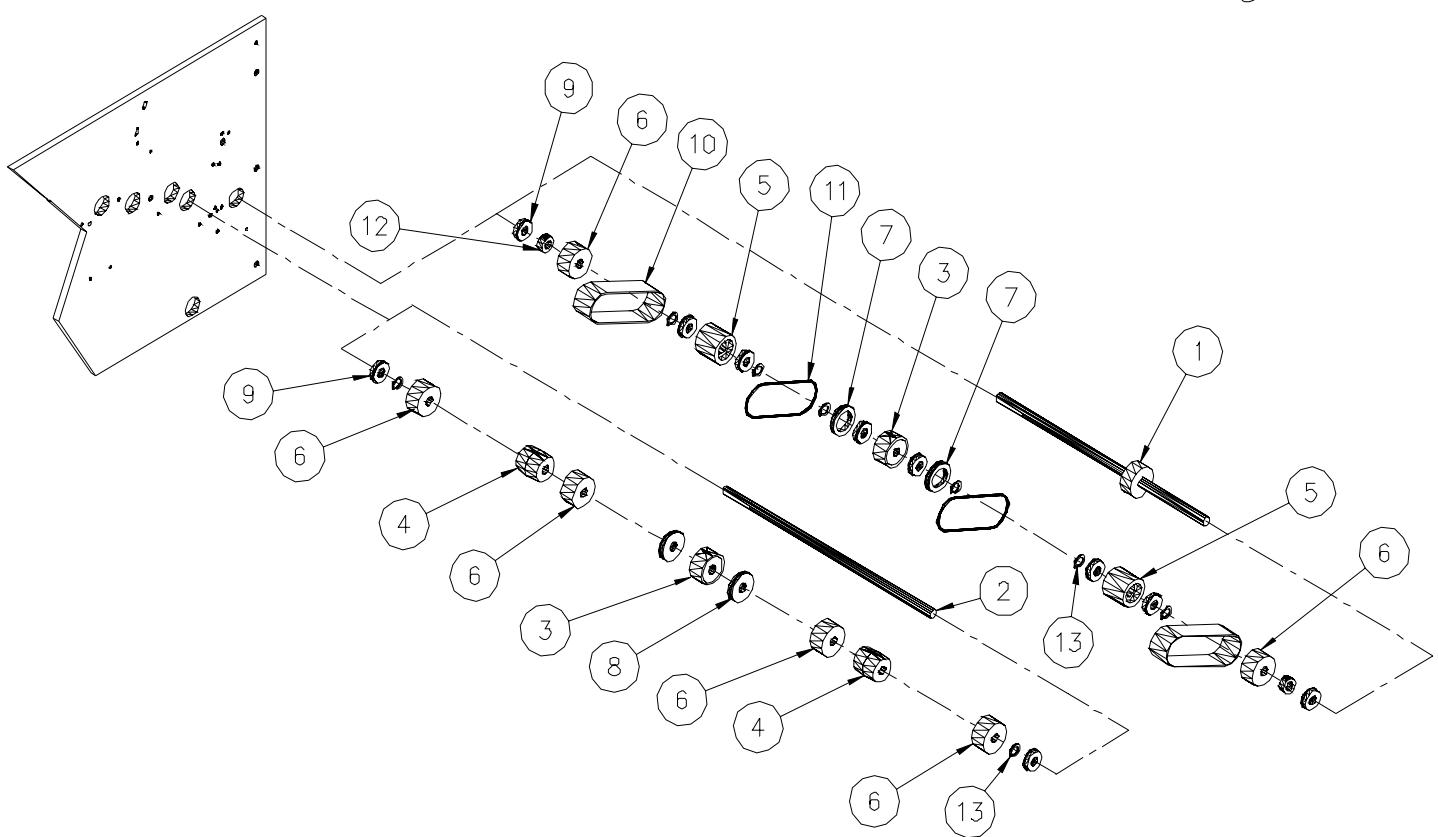
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**COLLATOR – FEEDERS (Fig. 2-12)**  
**ACCELERATOR / IDLER SHAFT ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18004-064	1	ROLLER/SHAFT ASSY, DOUBLE DETECTION
2	18004-006	1	SHAFT, MAIN
3	10006-013	2	ROLLER, NIP
4	10006-031	2	PULLEY, ACCELERATOR BELT DRIVE
5	10006-032	2	PULLEY, ACCELERATOR BELT IDLER
6	10006-007	6	ROLLER, FEEDER
7	10006-004	2	PULLEY, O-RING
8	10006-030	2	PULLEY, O-RING IDLER
9	99003-007	10	BEARING, 1/2 X 1-1/8, (SEALED W/ SNAP RING)
10	99000-042	2	BELT, ACCELERATOR
11	18014-007	2	O-RING, ACCELERATOR
12	99017-004	2	COLLAR, SHAFT, 1/2
13	99022-004	8	SNAP RING, 1/2

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Fig. 2-12



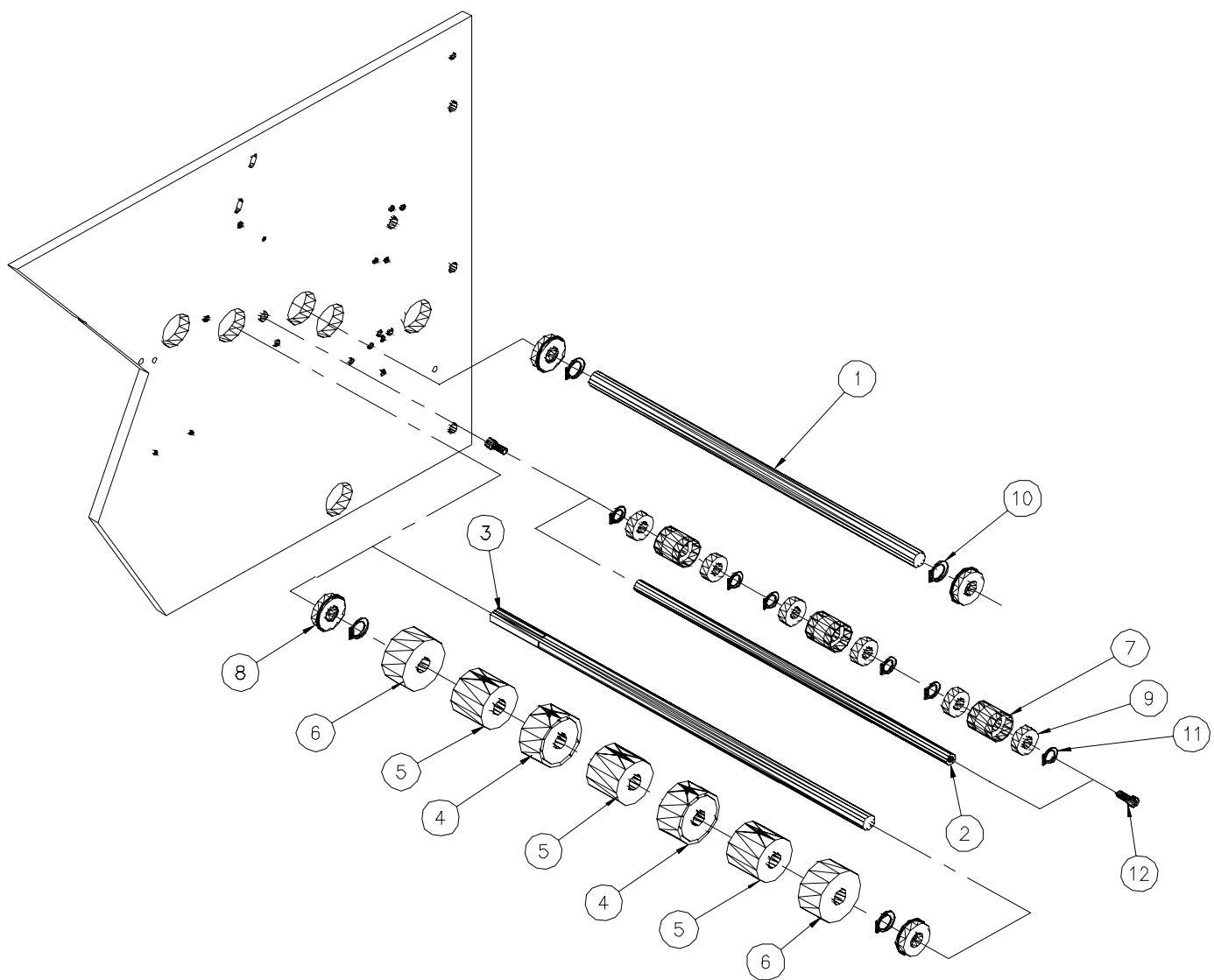
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**COLLATOR – FEEDERS (Fig. 2-13)**  
**FRONT SHAFT / IDLER SUPPORT / MAIN SHAFT ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18004-007	1	SHAFT, FRONT
2	18004-004	1	SHAFT, IDLER SUPPORT
3	18004-006	1	SHAFT, MAIN
4	10006-013	2	ROLLER, NIP
5	10006-015	3	PULLEY, MATE
6	10006-007	2	ROLLER, FEEDER
7	10006-012	3	ROLLER, IDLER SUPPORT
8	99003-007	4	BEARING, 1/2 X 1-1/8, (SEALED W/ SNAP RING)
9	99003-008	6	BEARNG, SEALED, 3/8 X 7/8
10	99022-004	4	SNAP RING, 1/2
11	99022-003	6	SNAP RING, 3/8
12		2	SCREW, SKT HD, 10-24 X 1/2

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*FIG 2-13*



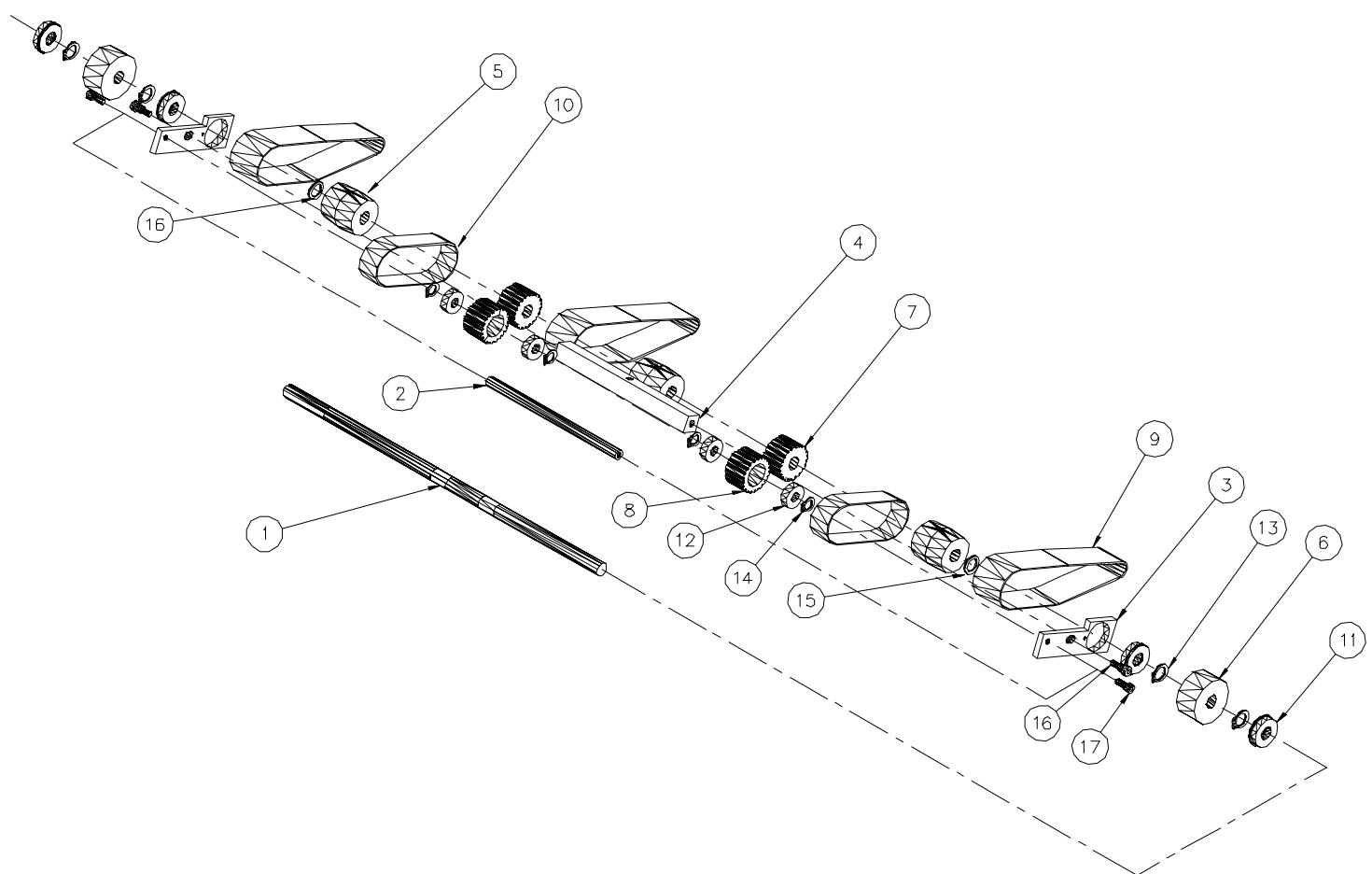
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**COLLATOR – FEEDERS (Fig. 2-14)**  
**ELEVATOR SHAFT ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18004-058	1	SHAFT, ELEVATOR BELT DRIVE
2	10004-057	1	SHAFT, ELEVATOR IDLER
3	10007-013	2	BLOCK, ELEVATOR BELT SUPPORT
4	10008-018	1	BAR, ELEVATOR ADJUSTING
5	10006-018	3	PULLEY, CROWNED
6	10006-007	2	ROLLER, FEEDER
7	10006-021	2	PULLEY, DRIVE, 22XL875
8	10006-022	2	PULLEY, IDLER, 24XL875
9	99000-004	3	BELT, RED GUM
10	99000-005	2	BELT ELEVATOR
11	99003-007	4	BEARING, SEALED, 1/2 X 1-1/8
12	99003-008	4	BEARING, SEALED, 3/8 X 7/8
13	99022-004	4	SNAP RING, 1/2
14	99022-003	4	SNAP RING, 3/8
15	99003-032	2	WASHER, NYLON, 1/2 X 1/32
16	99033-008	2	BOLT, SHOULDER, 5/16 X 1/4
17		2	SCREW, SKT HD, 10-24 X 1/2

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*FIG. 2-14*



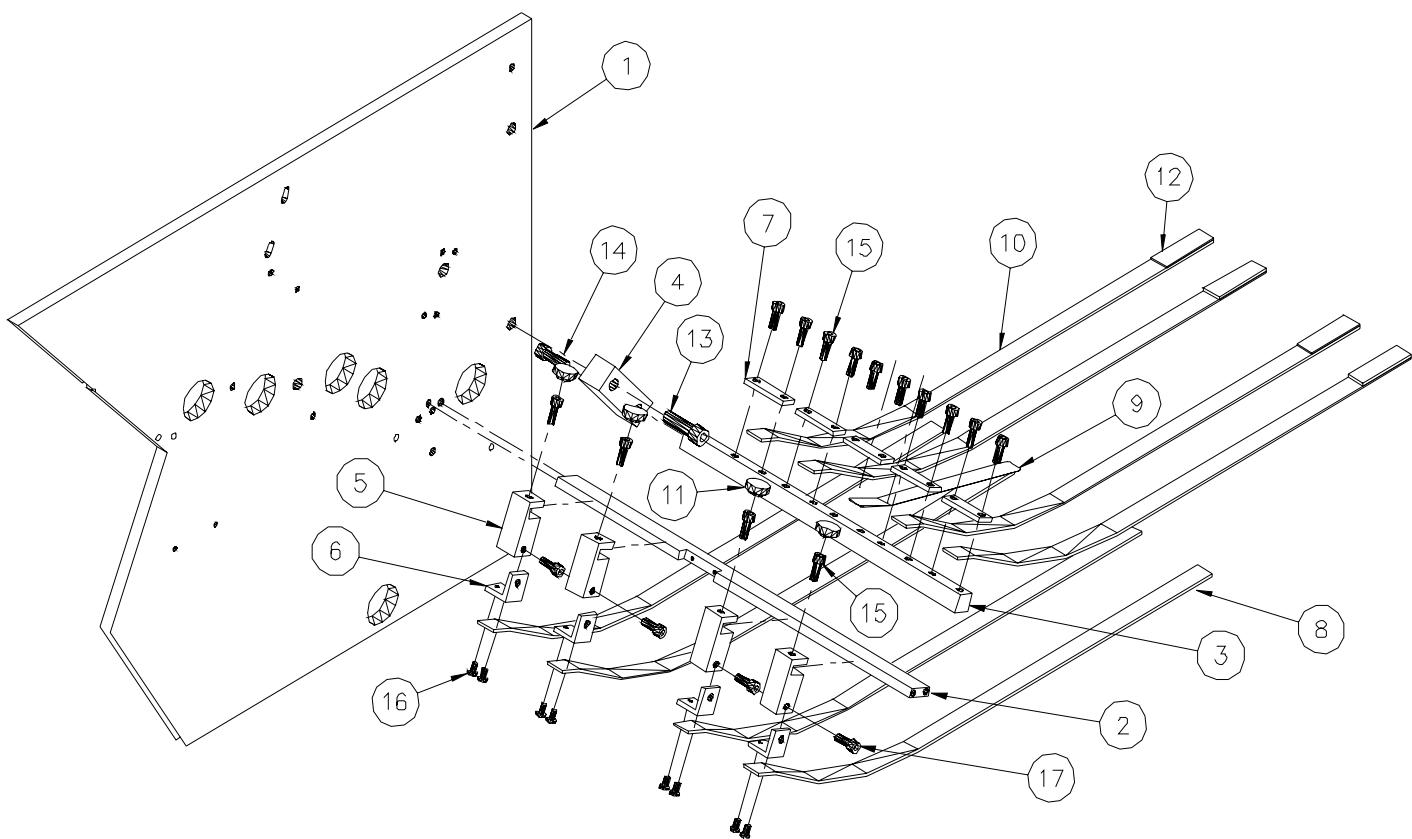
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**COLLATOR – FEEDERS (Fig. 2-15)**  
**DRAG STRAP ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18011-026	1	PLATE, FEEDER MTG. (10 X 13) (REF ONLY)
2	18008-013	6	BAR, DRAG STRAP MTG.
3	18008-030	1	BAR, STRAP MTG.
4	18007-060	1	BLOCK, BAR STRAP MTG.
5	18009-014	20	BRACKET, DRAG STRAP MTG.
6	18009-029	20	BRACKET, DRAG STRAP PIVOT
7	18009-016	5	CLAMP, DRAG STRAP, PUSHER
8	18014-010	20	DRAG STRAP, FEEDER
9	18005-063	1	SPRING STEEL, DRAG STRAP
10	18014-011	4	DRAG STRAP, PUSHER, 2.5'
11	99004-002	20	KNOB, #10 SCREW
12	18019-006	4	WEIGHT, DRAG STRAP
13		1	SCREW, SKT HD, 5/6-18 X 1
14		1	SCREW, SKT HD, 1/4-20 X 3/4
15		30	SCREW, SKT HD, 10-24 X 1/2
16		40	SCREW, PAN HD, 6-32 X 1/4
17		20	SCREW, SKT HD, 8-32 X 1/4

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Fig. 2-15



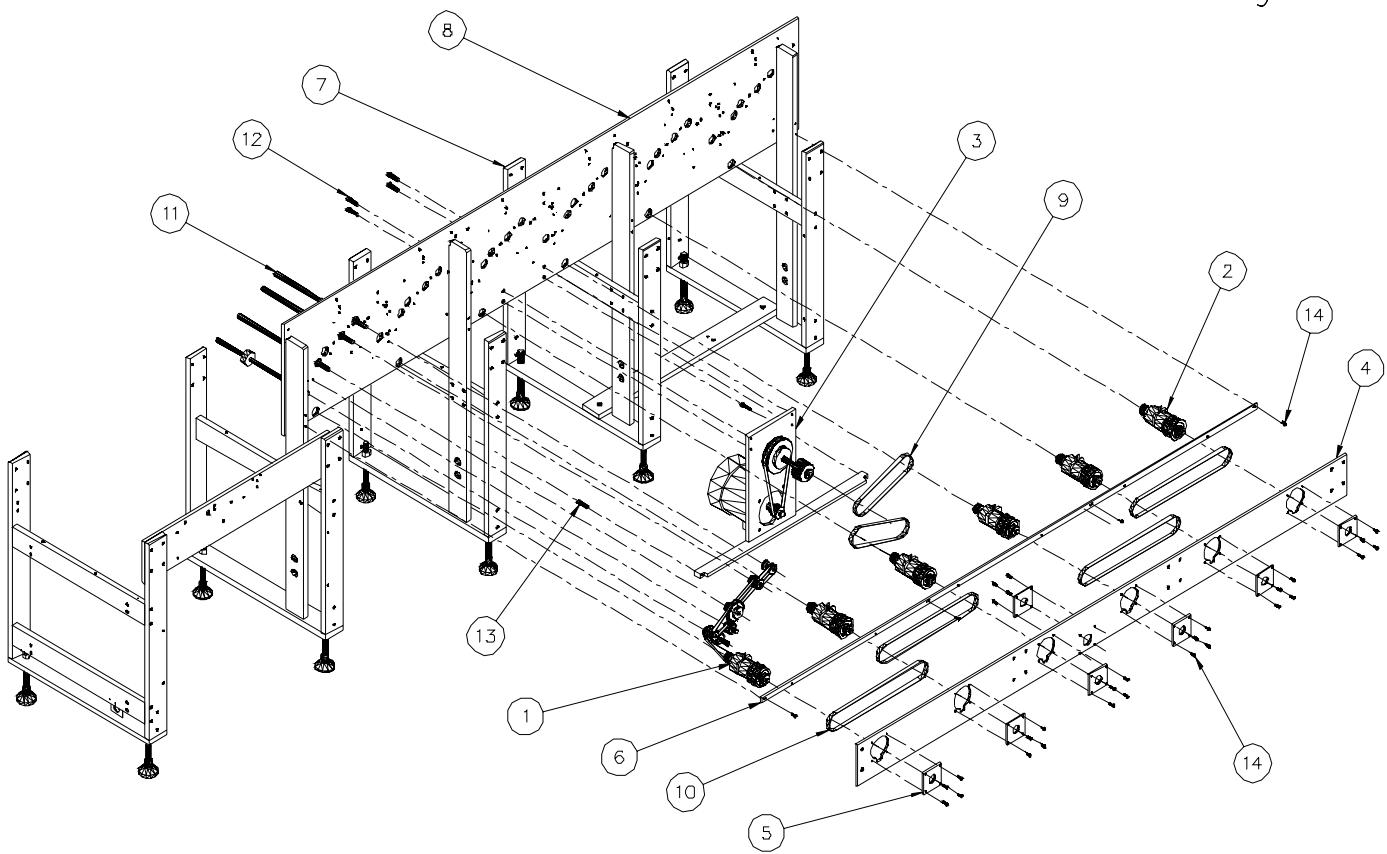
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**COLLATOR – FEEDER DRIVE ASSEMBLY (Fig. 2-16)**

ITEM	PART NO.	QTY.	DESCRIPTION
1	(SEE FIG. 2-17)	6	PULLEY DRIVE ASSEMBLY
2	(SEE FIG. 2-18)	6	CLUTCH ASSEMBLY
3	(SEE FIG. 2-19)	1	PULLEY DRIVE MOTOR ASSEMBLY
4	18011-004	1	PLATE, CLUTCH
5	18007-051	7	BLOCK BEARING
6	18008-029	1	BAR, CLUTCH STOP
7		1	FRAME ASSEMBLY (REF. ONLY)
8	18011-026	1	PLATE, FEEDER MTG. (REF. ONLY)
9	99000-025	2	BELT, 225L050
10	99000-026	4	BELT, 360L050
11		1	FEEDER SHAFTS (REF ONLY)
12		4	SCREW, SKT HD, 3/8-16 X 1-1/4
13		2	SCREW, SKT HD, 5/16-18 X 1-1/4
14		32	SCREW, SKT HD, 10-24 X 1/2

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Fig. 2-16



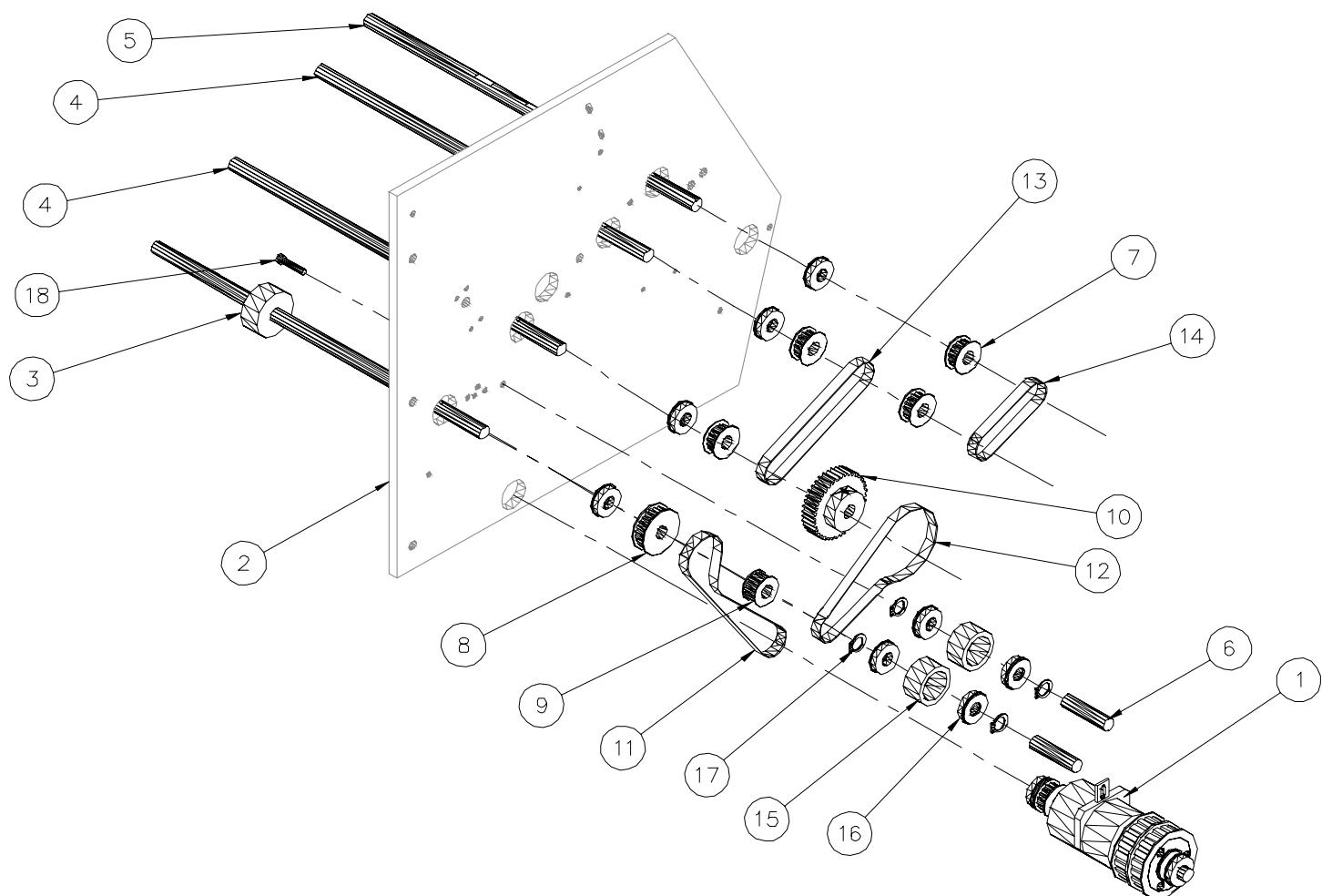
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**COLLATOR – FEEDER DRIVE (Fig. 2-17)**  
**PULLEY DRIVE ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	(SEE FIG. 2-18)	6	CLUTCH ASSEMBLY
2	18011-026	1	PLATE, FEEDER MTG. (REF. ONLY)
3	18004-064	1	ROLLER / SHAFT ASSEMBLY
4	18004-006	2	SHAFT, MAIN
5	18004-058	1	SHAFT, ELEVATOR, BELT DRIVE
6	18004-031	2	SHAFT, STUB IDLER
7	99002-054	4	PULLEY, 20XL037 (W/ KEYWAY)
8	99002-006	1	PULLEY, 24XL037 (NO HUB, 1/2 BORE)
9	99002-007	1	PULLEY, 16XL037 (NO HUB, 1/2 BORE)
10	99002-016	1	PULLEY, 40XL037 (NO FLANG, 1/2 B. W/ KEYWAY)
11	99000-032	1	BELT, 138XL037
12	99000-023	1	BELT, 170XL037
13	99000-033	1	BELT, 130XL037
14	99000-001	1	BELT, 90XL037
15	18006-011	2	PULLEY, IDLER, FLAT
16	99003-007	8	BEARING, SEALED, 1/2 X 1-1/8)
17	99022-004	4	SNAP RING
18		2	SCREW, SKT HD, 10-24 X 3/4

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**FIG. 2-17**



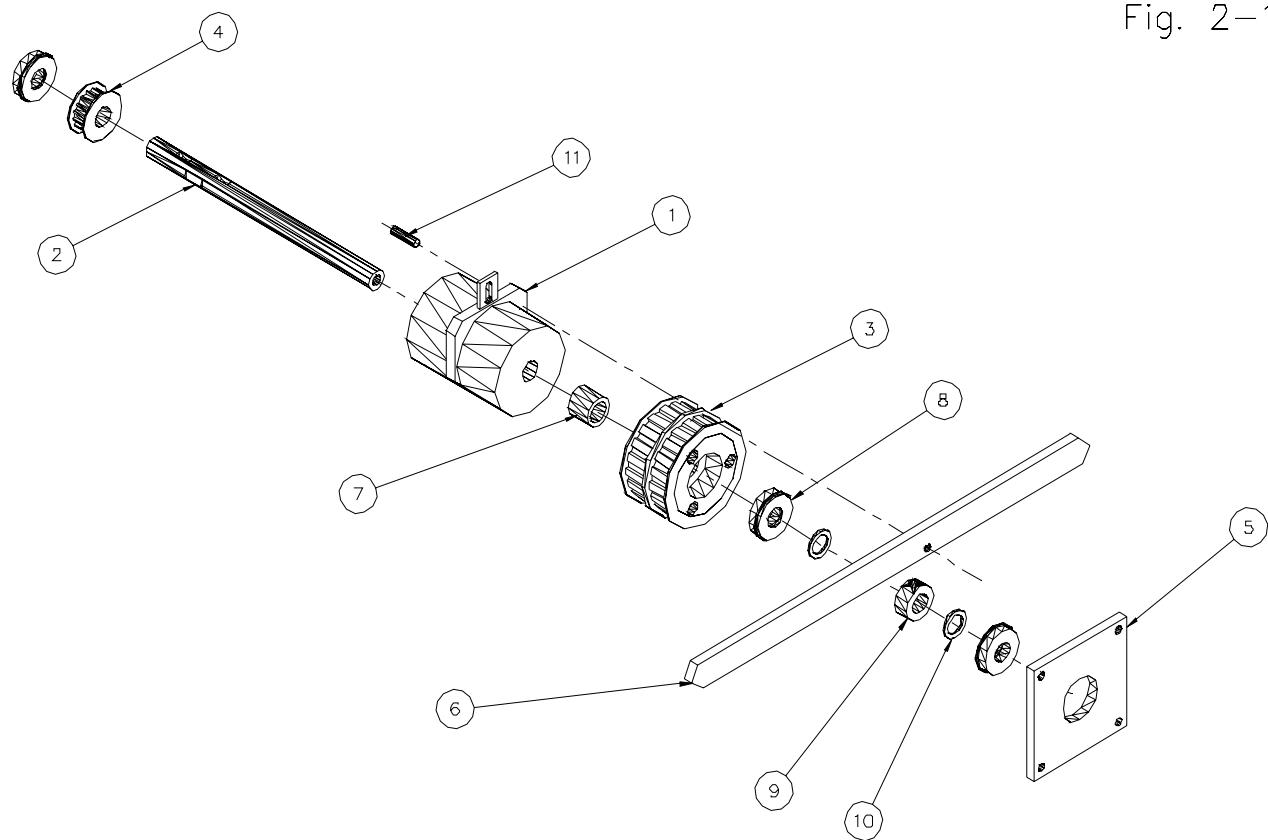
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**COLLATOR – FEEDER DRIVE (Fig. 2-18)**  
**CLUTCH ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	99008-005	1	CLUTCH, FEEDER, 24 VOLT
2	18004-015	1	SHAFT, CLUTCH
3	18006-008	1	PULLEY, DBL 20L050
4	99002-054	1	PULEY, 20XL037 (W/ KEYWAY)
5	18007-051	1	BLOCK, BEARING
6	18008-029	1	BAR, CLUTCH STOP (REF ONLY)
7	10006-029	1	BUSHING, CLUTCH PULLEY
8	99003-007	3	BEARING, SEALED, 1/2 X 1-1/8
9	99017-004	1	COLLAR, SHAFT, 1/2
10	99003-018	1	WASHER, NYLON, 1/2 X 1/16
11	99006-022	1	PIN, 10-32 X 3/4 (THIS PART WAS CHANGED #18007-109)

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Fig. 2-18



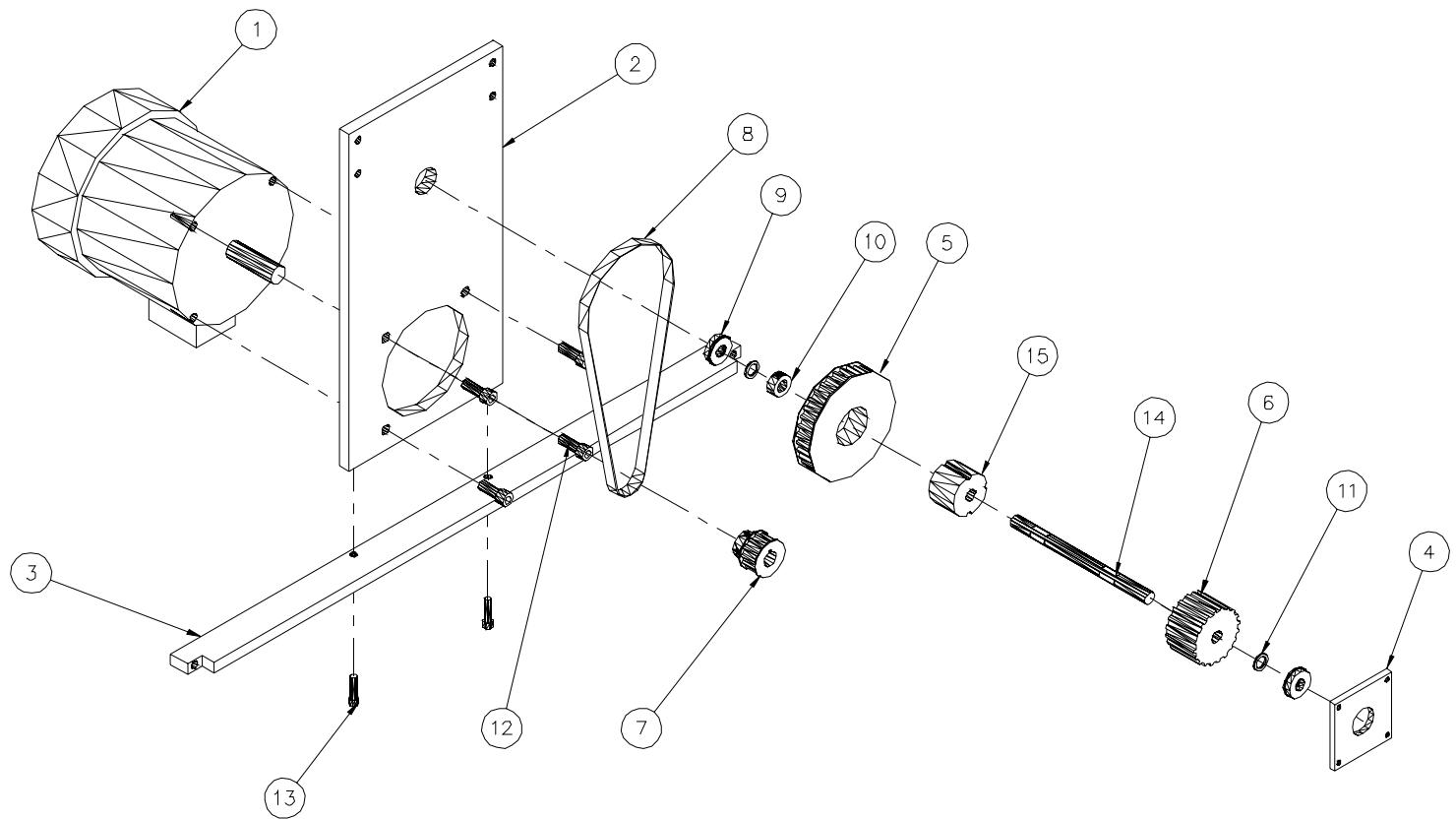
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**COLLATOR – FEEDER DRIVE (Fig. 2-19)**  
**PULLEY DRIVE MOTOR ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	99001-005	1	MOTOR, 1/2 HP
2	18011-003	1	PLATE, MOTOR MOUNT
3	18008-028	1	BAR, MOTOR MOUNT SUPPORT
4	18007-051	1	BLOCK, BEARING
5	99002-065	1	PULLEY, 36L075 (TAPERLOCK 1610)
6	18006-017	1	PULLEY, WIDE, 20L050
7	99002-055	1	PULLEY, 12L075, 5/8 BORE W/ KEYWAY
8	99000-028	1	BELT, 255L075
9	99003-007	2	BEARING, SEALED, 1/2 X 1-1/8
10	99017-004	1	COLLAR, SHAFT, 1/2
11	99003-018	2	WASHER, NYLON, 1/2 X 1/16
12		4	SCREW, SKT HD, 3/8-16 X 1
13		2	SCREW, SKT HD, 5/16-18 X 1-1/4
14	18004-016	1	SHAFT, INTERMEDIATE
15	99017-026	1	BUSHING, TAPERLOCK, 1610

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*FIG. 2-19*



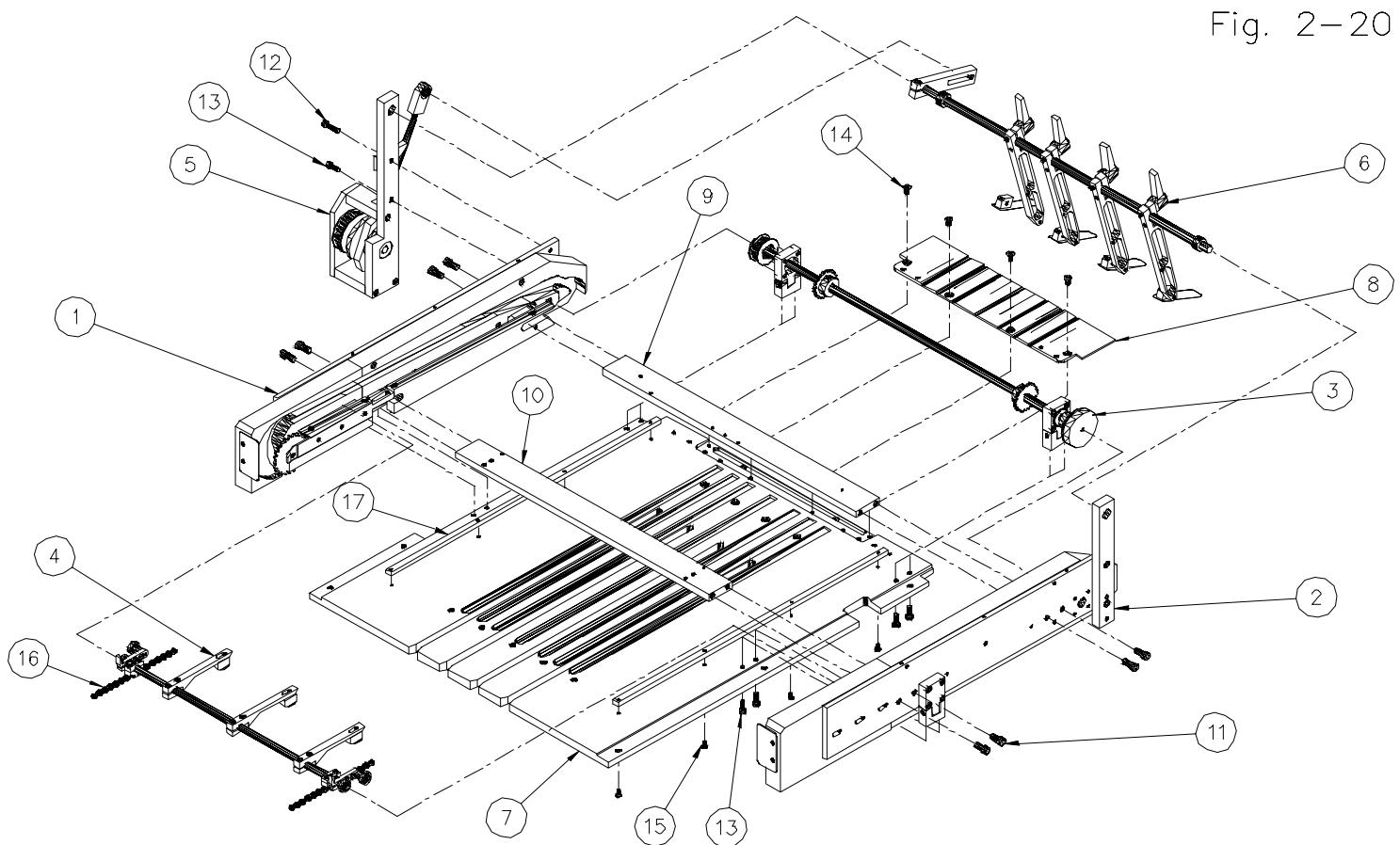
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**COLLATOR – PUSHER ASSEMBLY (Fig. 2-20)**

ITEM	PART NO.	QTY.	DESCRIPTION
1	(SEE FIG. 2-21)	1	PUSHER GUIDE, LEFT HAND
2	(SEE FIG. 2-22)	1	PUSHER GUIDE, RIGHT HAND
3	(SEE FIG. 2-23)	1	PUSHER DRIVE SHAFT
4	(SEE FIG. 2-24)	3	PUSHER ARM SHAFT
5	(SEE FIG. 2-26)	1	FINGER DRIVE SHAFT
6	(SEE FIG. 2-27)	1	FINGER ARM SHAFT
7	18005-034	1	PLATE, PUSHER, 10 X 13
8	18005-046	1	PLATE, PUSHER GUIDE EXTENSION a7
	18005-033	1	PLATE, PUSHER GUIDE EXTENSION 13
	18005-48	1	PLATE, PUSHER GUIDE EXTENSION 12
	18005-43	1	PLATE, PUSHER GUIDE EXTENSION 11
	18005-12	1	PLATE, PUSHER GUIDE EXTENSION 10
	18005-44	1	PLATE, PUSHER GUIDE EXTENSION 9
	18005-045	1	PLATE, PUSHER GUIDE EXTENSION 8
9	18003-018	1	CROSS BRACE PUSHER
10	18003-017	1	CROSS BRACE PUSHER
11		8	SCREW, SKT HD, 1/4-20 X 1/2
12		1	SCREW, SKT HD, 10-24 X 3/4
13		9	SCREW, SKT HD, 10-24 X 1/2
14		4	SCREW, FLAT HD, 10-24 X 1/4
15		8	SCREW, PAN HD, 6-32 X 1/4
16	18014-006	2	PUSHER CHAIN ASSEMBLY (10 X 13) (SEE FIG. 2-25)
17	18005-093	2	GUIDE, CAM ROLLER, LOWER

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Fig. 2-20



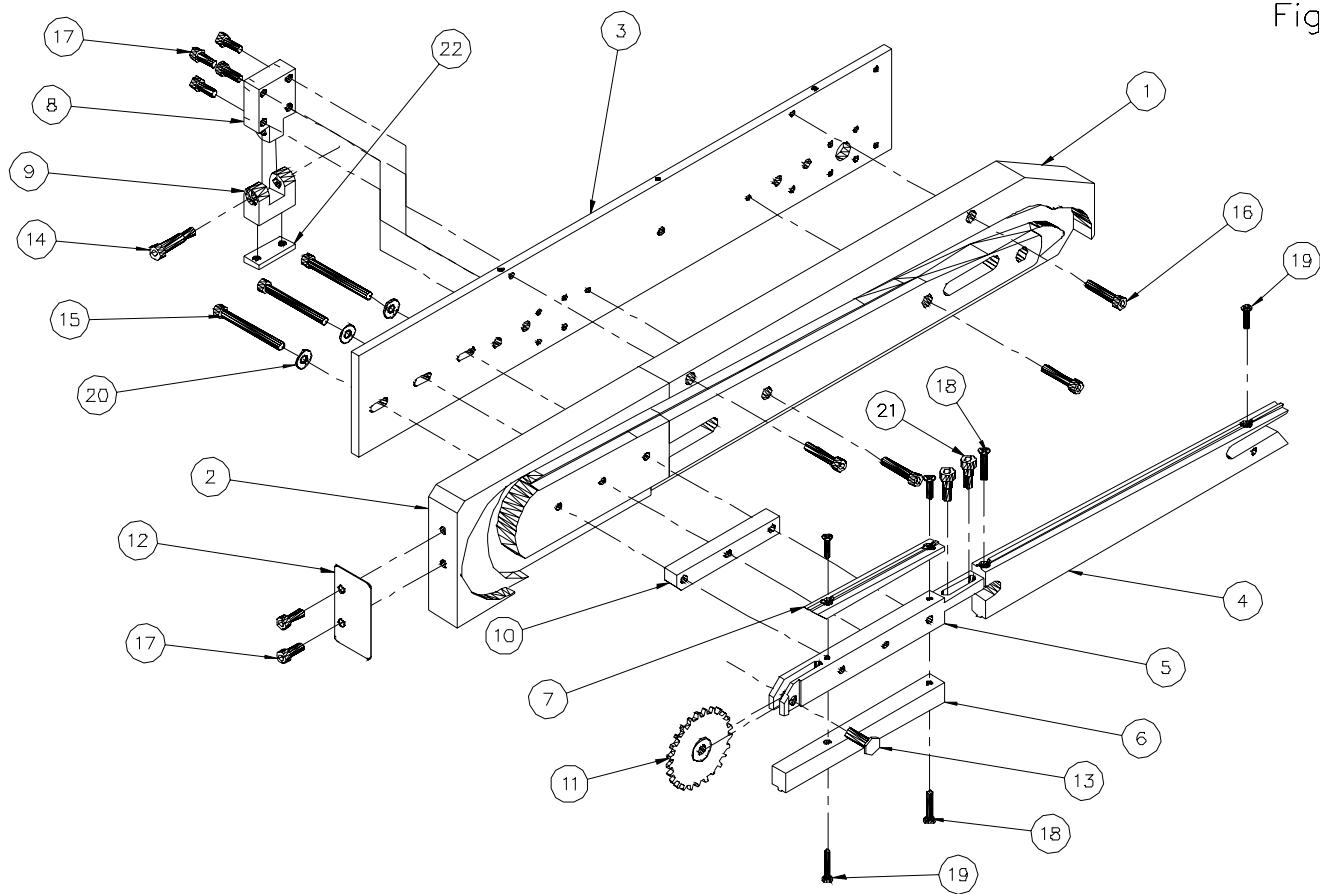
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**COLLATOR – PUSHER (Fig. 2-21)**  
**LEFT HAND PUSHER GUIDE ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18016-001	1	CAM, PUSHER CONTROL, LH FRONT
2	18016-009	1	CAM, PUSHER CONTROL, LH REAR
3	18011-002	1	PLATE, PUSHER CAM MOUNTING
4	18005-007	1	GUIDE, CHAIN
5	18008-050	1	BAR, IDLER MOUNTING, LH
6	18005-049	1	GUIDE, LOWER CHAIN
7	18005-006	1	GUIDE, CHAIN
8	18007-003	1	BLOCK, PIVOT (UPPER)
9	18007-001	1	BLOCK, PIVOT
10	18012-003	1	STANDOFF, REAR CAM MTG.
11	18015-001	1	SPROCKET, IDLER
12	18005-041	1	GUIDE, SPRING STEEL, ANTI - FLIP
13	18004-047	1	SCREW, IDLER SHAFT
14	99033-005	1	BOLT, SHOULDER, 1/4 X 3/4
15		3	SCREW, SKT HD, 10-24 X 2
16		4	SCREW, SKT HD, 10-24 X 1
17		6	SCREW, SKT HD, 10-24 X 1/2
18		3	SCREW, FLAT HD, 6-32 X 3/4
19		3	SCREW, FLAT HD, 6-32 X 1/2
20		3	WASHER, FLAT, #10
21	99033-006	2	BOLT, SHOULDER, 1/4 X 1/4
22	18012-023	1	SPACER, PUSHER ASSY

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Fig. 2-21



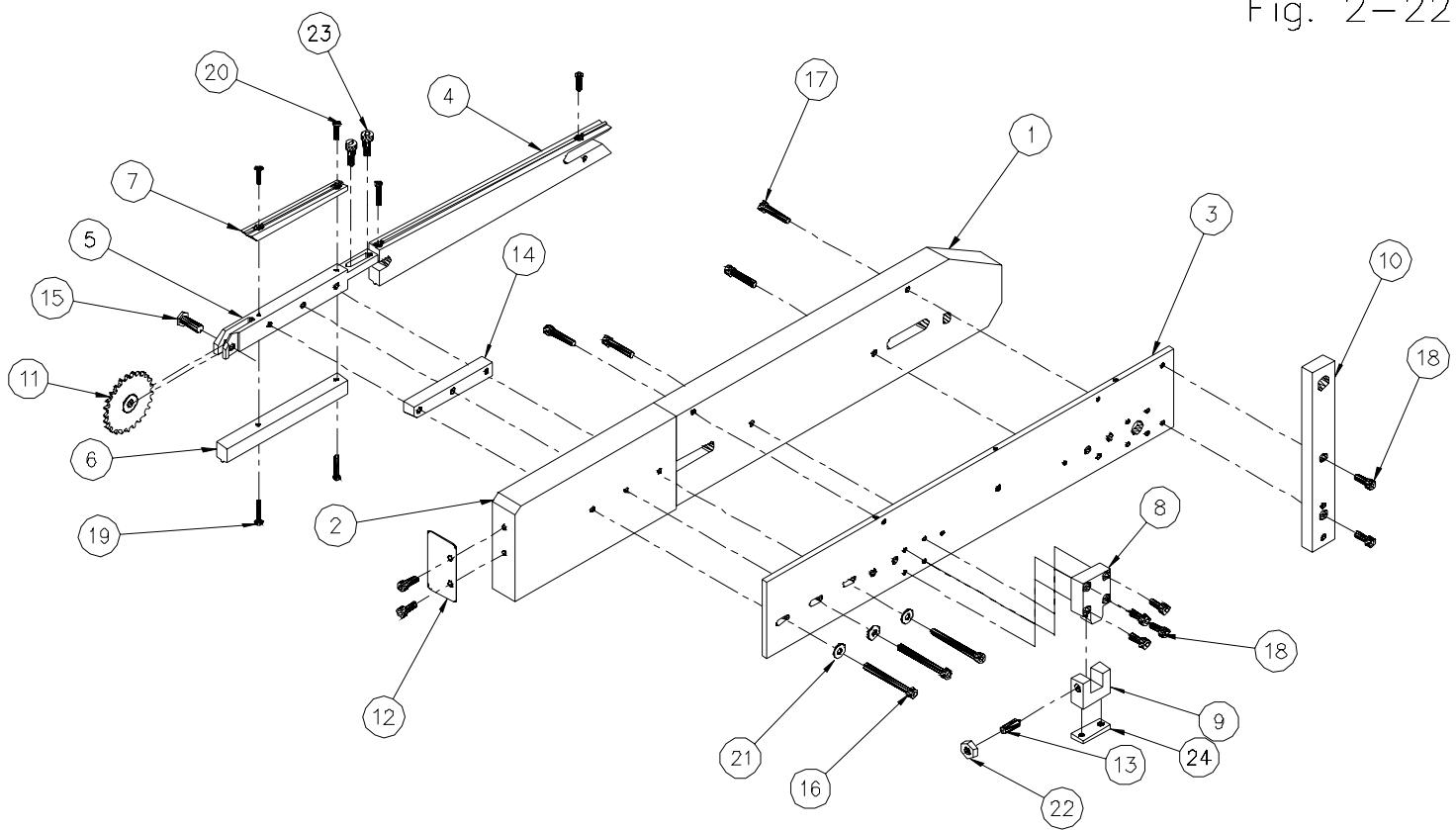
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**COLLATOR – PUSHER (Fig. 2-22)**  
**RIGHT HAND PUSHER GUIDE ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18016-002	1	CAM, PUSHER CONTROL, RH FRONT
2	18016-010	1	CAM, PUSHER CONTROL, RH REAR
3	18011-002	1	PLATE, PUSHER CAM MTG.
4	18005-007	1	GUIDE, CHAIN
5	18008-007	1	BAR, IDLER MOUNTING
6	18005-049	1	GUIDE, LOWER CHAIN
7	18005-006	1	GUIDE, CHAIN
8	18007-004	1	BLOCK, LATCH (UPPER)
9	18007-002	1	BLOCK, LATCH
10	18007-005	1	BAR, FINGER SUPPORT, RH
11	18015-001	1	SPROCKET, IDLER
12	18005-041	1	GUIDE, SPRING STEEL, ANTI-FLIP
13	99005-008	1	PLUNGER, SPRING, ¼-20 X 3/4
14	18012-003	1	STANDOFF, REAR CAM MTG.
15	18004-047	1	SCREW, IDLER SHAFT
16		3	SCREW, SKT HD, 10-24 X 2
17		4	SCREW, SKT HD, 10-24 X 1
18		6	SCREW, SKT HD, 10-24 X 1/2
19		3	SCREW, FLAT HD, 6-32 X 3/4
20		3	SCREW, FLAT HD, 6-32 X 1/2
21		3	WASHER, FLAT, #10
22		1	NUT, HEX HD, 10-24
23	99033-006	2	BOLT, SHOULDER, 1/4 X 1/4
24	18012-023	1	SPACER, PUSHER ASSY

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Fig. 2-22



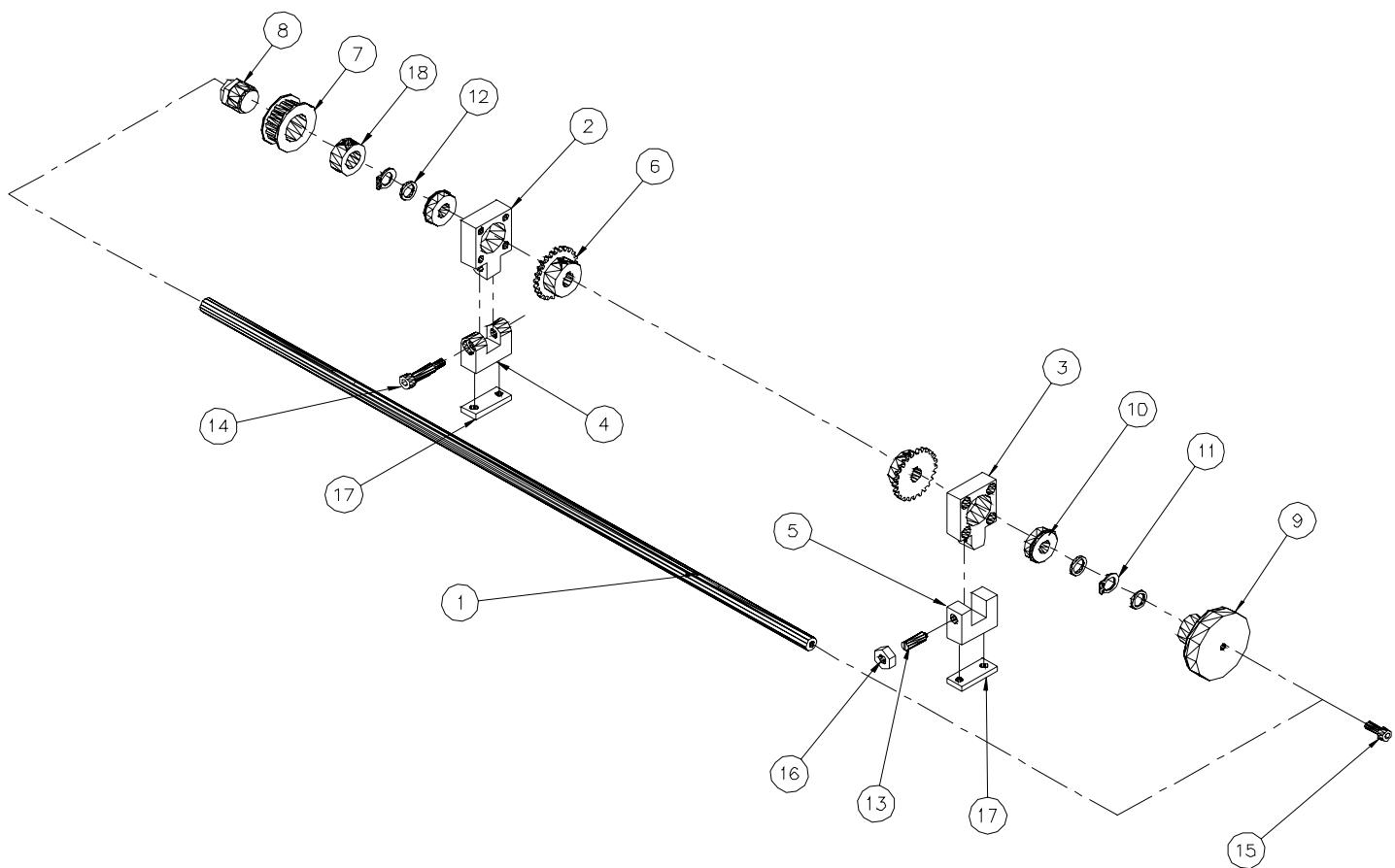
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**COLLATOR – PUSHER (Fig. 2-23)**  
**PUSHER DRIVE SHAFT ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18004-045	1	SHAFT, PUSHER DRIVE
2	18007-008	1	BLOCK, PIVOT W/ BEARING (UPPER)
3	18007-009	1	BLOCK, LATCH W/ BEARING (UPPER)
4	18007-001	1	BLOCK, PIVOT
5	18007-002	1	BLOCK, LATCH
6	18015-002	1	SPROCKET, DRIVE, MATCHED SET
7	18006-015	1	PULLEY, 18XL037
8	99017-013	1	TRANSTORQUE. 3/8
9	18019-007	1	KNOB ASSEMBLY
10	99003-020	2	BEARING, SEALED W/ SNAP RING, 3/8 X 7/8
11	99022-003	2	SNAP RING, 3/8
12	99003-017	3	WASHER, NYLON, 3/8 X 1/16
13	99005-008	1	SPRING PLUNGER, 1/4-20 X 3/4
14	99033-005	1	BOLT, SHOULDER, 1/4 X 3/4
15		1	SCREW, SKT HD, 10-24 X 1/2
16		1	NUT, HEX HD, 10-24
17	18012-023	2	SPACER, PUSHER ASSY
18	99017-004	1	SHAFT, COLLAR, 1/2"

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*FIG. 2-23*



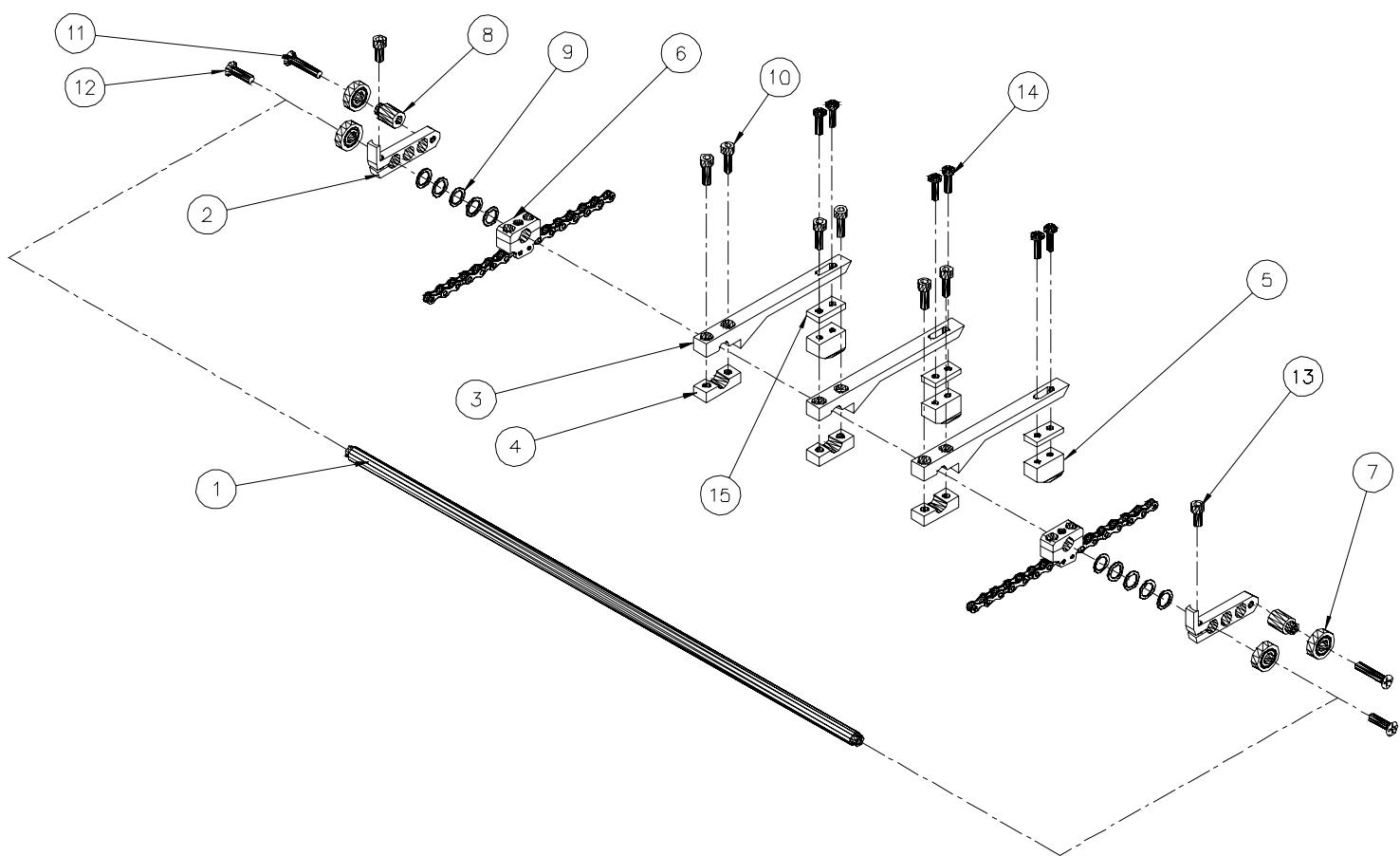
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**COLLATOR – PUSHER (Fig. 2-24)**  
**PUSHER ARM SHAFT ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18004-044	1	SHAFT, PUSHER
2	18008-010	2	BAR, PUSHER LINK
3	18008-009	3	BAR, PUSHER ARM
4	18008-053	3	CLAMP, PUSHER ARM
5	18007-015	3	BLOCK, PUSHER
6	18014-006	2	ASSEMBLY, PUSHER CHAIN (10 X 13) (SEE FIG. 2-25)
7	99003-002	4	BEARING, SEALED, 1/4 X 5/8
8	18006-004	2	SPACING, BEARING
9	99003-014	10	WASHER, NYLON, 5/16 X 1/32
10		6	SCREW, SKT HD, 8-32 X 1/2
11		2	SCREW, FLAT HD, 8-32 X 3/4
12		2	SCREW, FLAT HD, 8-32 X 1/2
13		2	SCREW, SKT HD, 8X 32 X 3/8
14		6	SCREW, PAN HEAD, 6-32 X 1/2
15	18012-022	3	SPACER, PUSHER ARM
16	18020-050	3	PUSHER ARM ASSEMBLY (CONSISTS OF ONE OF EACH ITEM 3, 4, 5, 15)

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*FIG. 2-24*



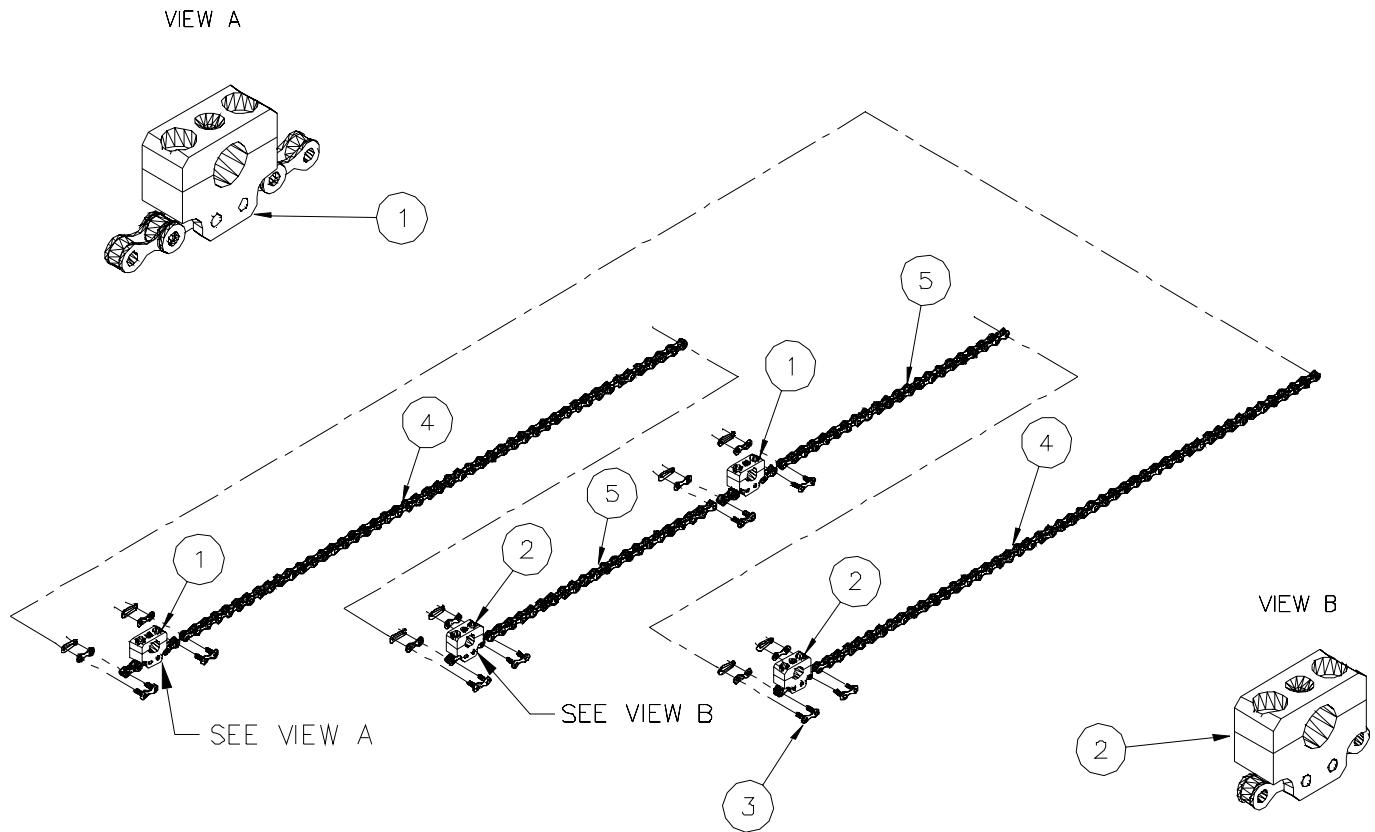
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**COLLATOR – PUSHER (Fig. 2-25)**  
**PUSHER CHAIN ASSEMBLY (10 X 13)**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18014-024	4	BLOCK, PUSHER CHAIN (W/ OFFSET LINK) (10 X 13)
2	18014-025	4	BLOCK, PUSHER CHAIN (10 X 13))
3	99020-006	16	LINK, CONNECTING #25, MASTER
4	99020-002	4	CHAIN, #25, 11-3/4 LONG
5	99020-002	4	CHAIN, #25, 5-1/4 LONG
6	18014-017	1	<b>KIT, REBUILD, #25 PUSHER CHAIN (10 X 13)</b>
		16	LINK, CONNECTING #25, MASTER
		4	CHAIN, #25, 11-3/4 LONG
		4	CHAIN, #25, 12-1/4 LONG

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Fig. 2-25



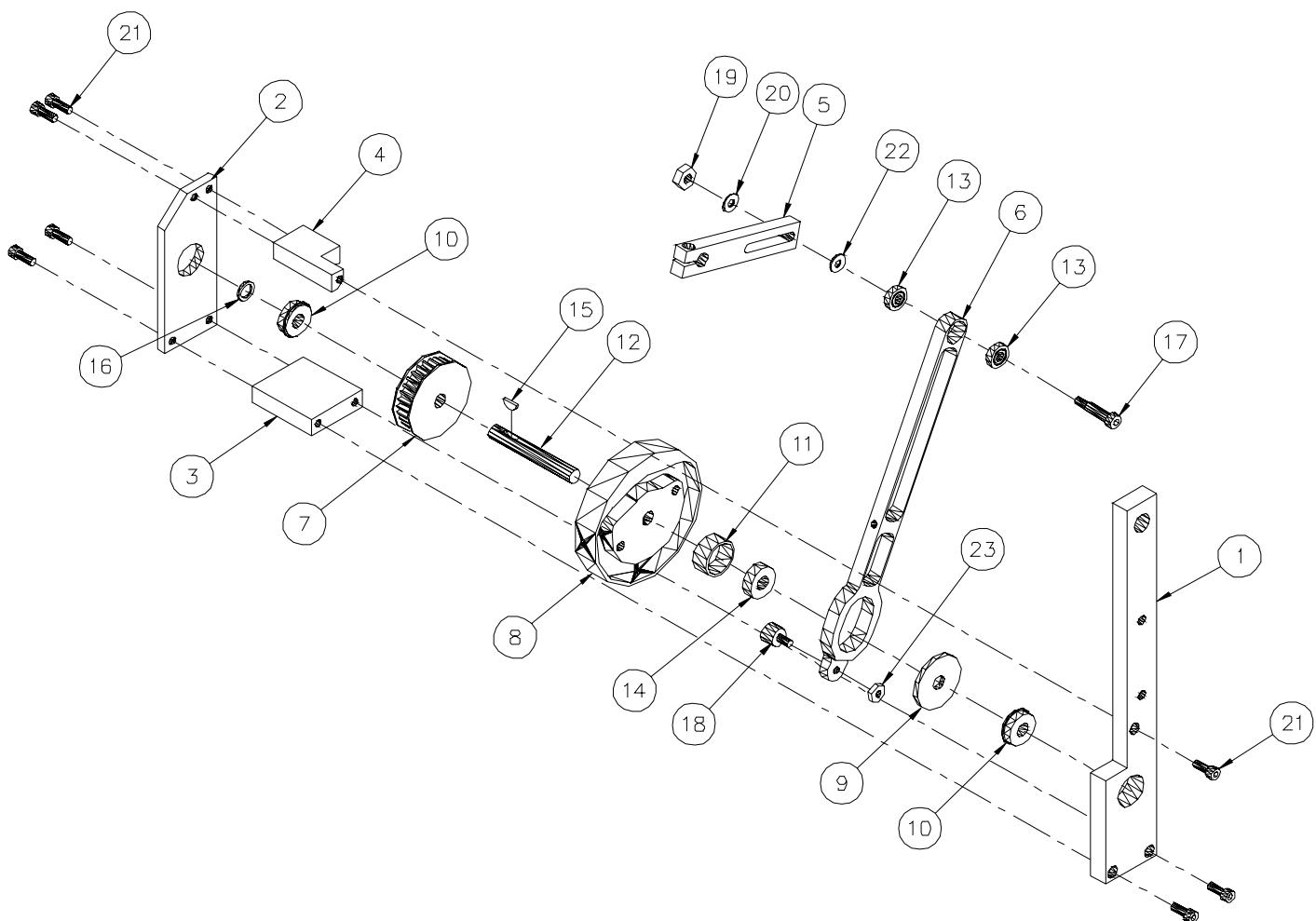
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**COLLATOR – PUSHER (Fig. 2-26)**  
**FINGER DRIVE SHAFT ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18007-006	1	BAR, FINGER SUPPORT, LH
2	18007-007	1	PLATE, BEARING MTG
3	18008-005	1	SPACER BAR, LOWER
4	18008-006	1	SPACER BAR UPPER
5	18008-015	1	LINK, FINGER
6	18008-096	1	LINK, CONNECTING, ENTERING FINGERS
7	99002-020	1	PULLEY, 30XL037, 3/8 BORE, NO HUB
8	18016-006	1	BOX CAM, ENTERING FINGERS
9	18006-010	1	WASHER, THRUST
10	99003-020	2	BEARING, SEALED W/ SNAP RING, 3/8 X 7/8
11	18006-027	1	ROLLER, YOKE GUIDE
12	18004-009	1	SHAFT, FINGER DRIVE
13	99003-002	2	BEARING, SEALED, 1/4 X 5/8
14	99003-008	1	BEARING, SEALED, 3/8 X 7/8
15	99034-004	1	KEY, WOODRUF, 1/8 X 1/2
16	99003-016	1	WASHER, NYLON, 3/8 X 1/32
17	99033-005	1	BOLT, SHOULDER, 1/4 X 3/4
18	99003-035	1	CAM FOLLOWER, 1/2 DIAM.
19		1	NUT, LOCK, 1/4-20
20		1	WASHER, FLAT, 1/4
21		8	SCREW, SKT HD, 10-24 X 1/2
22	99036-002	1	SPACER, 1/4 X 3/8 X 1/16, HARDENED
23		1	NUT, SELF LOCKING, 10-24

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**FIG 2-26**



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**COLLATOR – PUSHER (Fig. 2-27)**  
**FINGER ARM SHAFT ASSEMBLY**

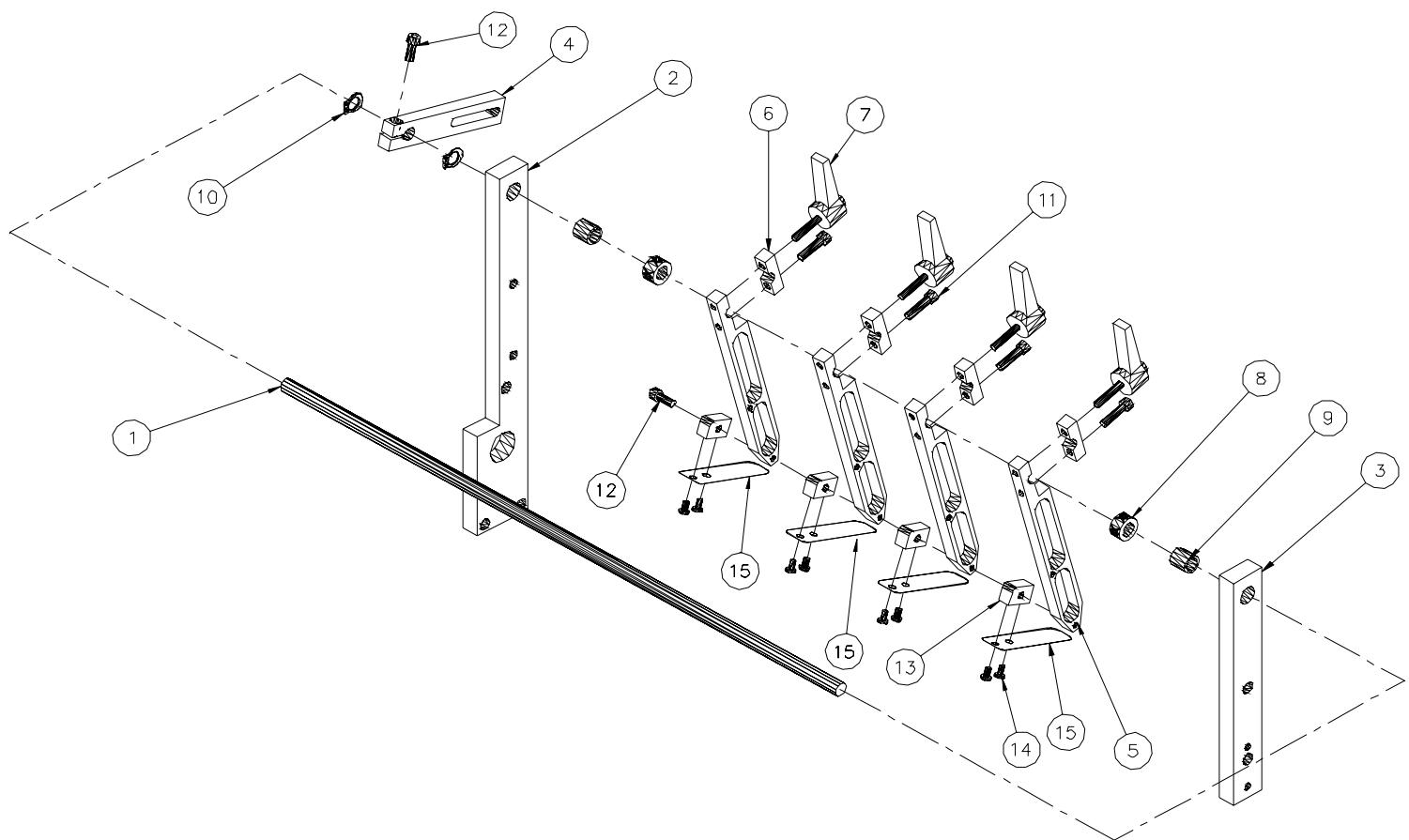
ITEM	PART NO.	QTY.	DESCRIPTION
1	18004-046	1	SHAFT, FINGER
2	18007-006	1	BAR, FINGER SUPPORT, LH
3	18007-005	1	BAR, FINGER SUPPORT, RH
4	18008-015	1	BAR, FINGER LINK
5	*18008-016	4	BAR, FINGER ARM
6	**18008-049	4	CLAMP, FINGER ARM
7	99004-003	4	HANDLE, ADJUSTING
8	99017-003	2	COLLARS, SHAFT, 3/8
9	99003-026	2	BUSHING, 3/8 X 1/2 X 1/2
10	99022-003	2	SNAP RING, 3/8
11		4	SCREW, SKT HD, 10-24 X 3/4
12		5	SCREW, SKT HD, 10-24 X 1/2
13	18007-018	4	BLOCK, FINGER MTG.
14		8	SCREW, PAN HD, 6-32 X 1/4
15	18005-090	4	GUIDE, ENTERING FINGER – STANDARD WIDTH
	18005-099		GUIDE, ENTERING FINGER – WIDE WIDTH

\*= This part has been changed for a Servo System to # 18008-111

\*\*= This part has been changed for a Servo System to # 18008-112

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**FIG. 2-27**



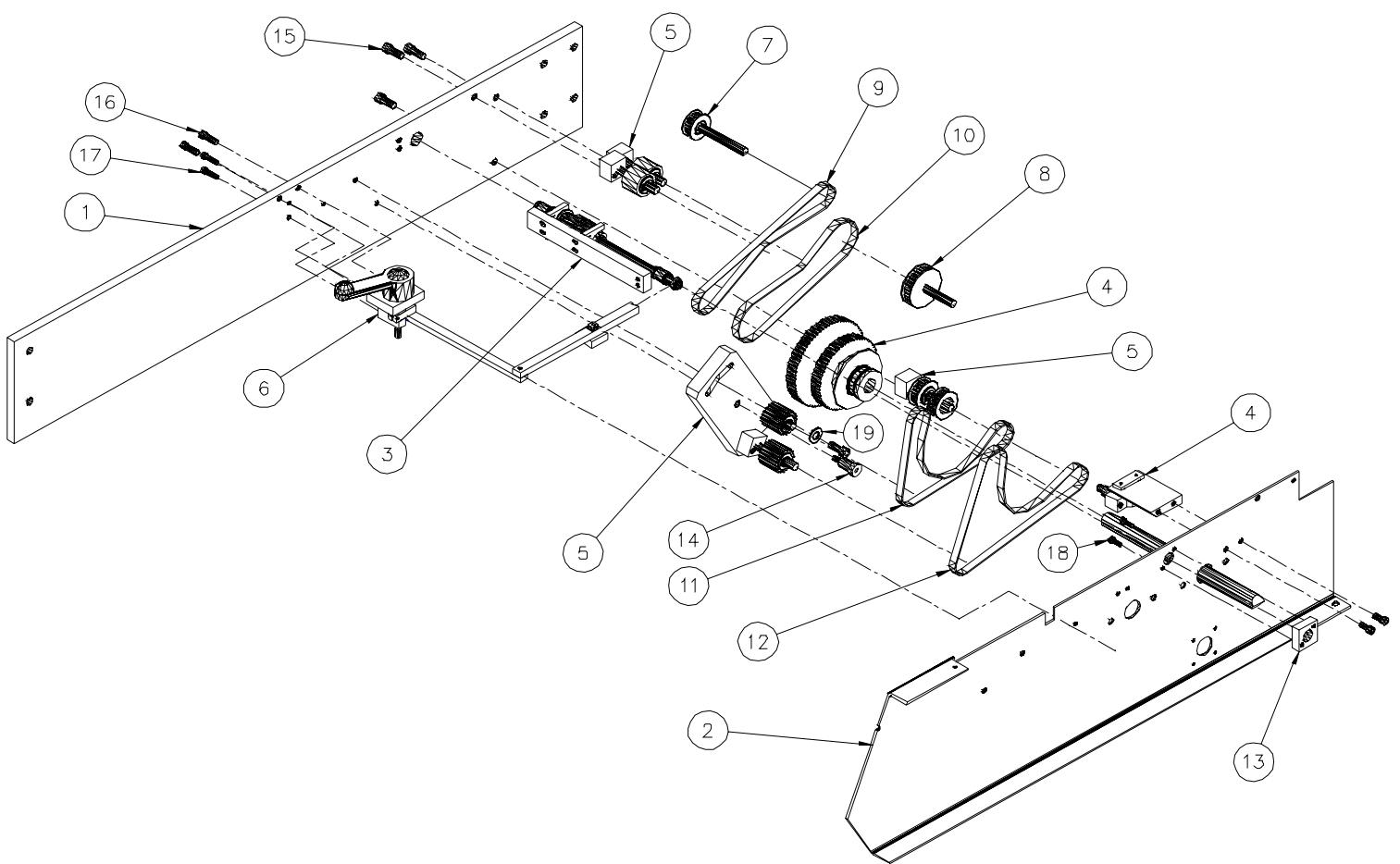
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**COLLATOR – PUSHER DRIVE ASSEMBLY (Fig. 2-28)**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18011-065	1	PLATE, FEEDER DRIVE MTG.
2	18000-006	1	SIDE FRAME, LH, 10 X 13 (REF ONLY)
3	18004-065	1	TRANSMISION SHAFT ASSEMBLY (SEE FIG. 2-29)
4	(SEE FIG. 2-30)	1	CLUTCH / CLUTCH OVERLOAD SWITCH ASSEMBLY
5	(SEE FIG. 2-31)	1	TENSIONER / IDLER PULLEY (FLAT AND 20XL037) ASSEMBLY
6	(SEE FIG. 2-32)	1	GEAR SHIFT LEVER ASSEMBLY
7	18006-015	1	PULLEY, 18XL037 (REF. ONLY)
8	99002-020	1	PULLEY, 30XL037 (REF. ONLY)
9	99000-017	1	BELT, TIMING, 190XL037
10	99000-018	1	BELT, TIMING, 176XL037
11	99000-037	1	BELT, TIMING, DBL, 230XL037
12	99000-036	1	BELT, TIMING, DBL, 260XL037
13	18007-073	1	BLOCK, BEARING MTG.
14	99033-011	1	BOLT, SHOULDER, 3/8 X 3/4
15		4	SCREW, SKT HD, 5/16-18 X 3/4
16		2	SCREW, SKT HD, 1/4-20 X 3/4
17		2	SCREW, SKT HD, 10-24 X 3/4
18		2	SCREW, SKT HD, 10-24 X 1/2
19		1	WASHER, FLAT, 5/16

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*FIG. 2-28*



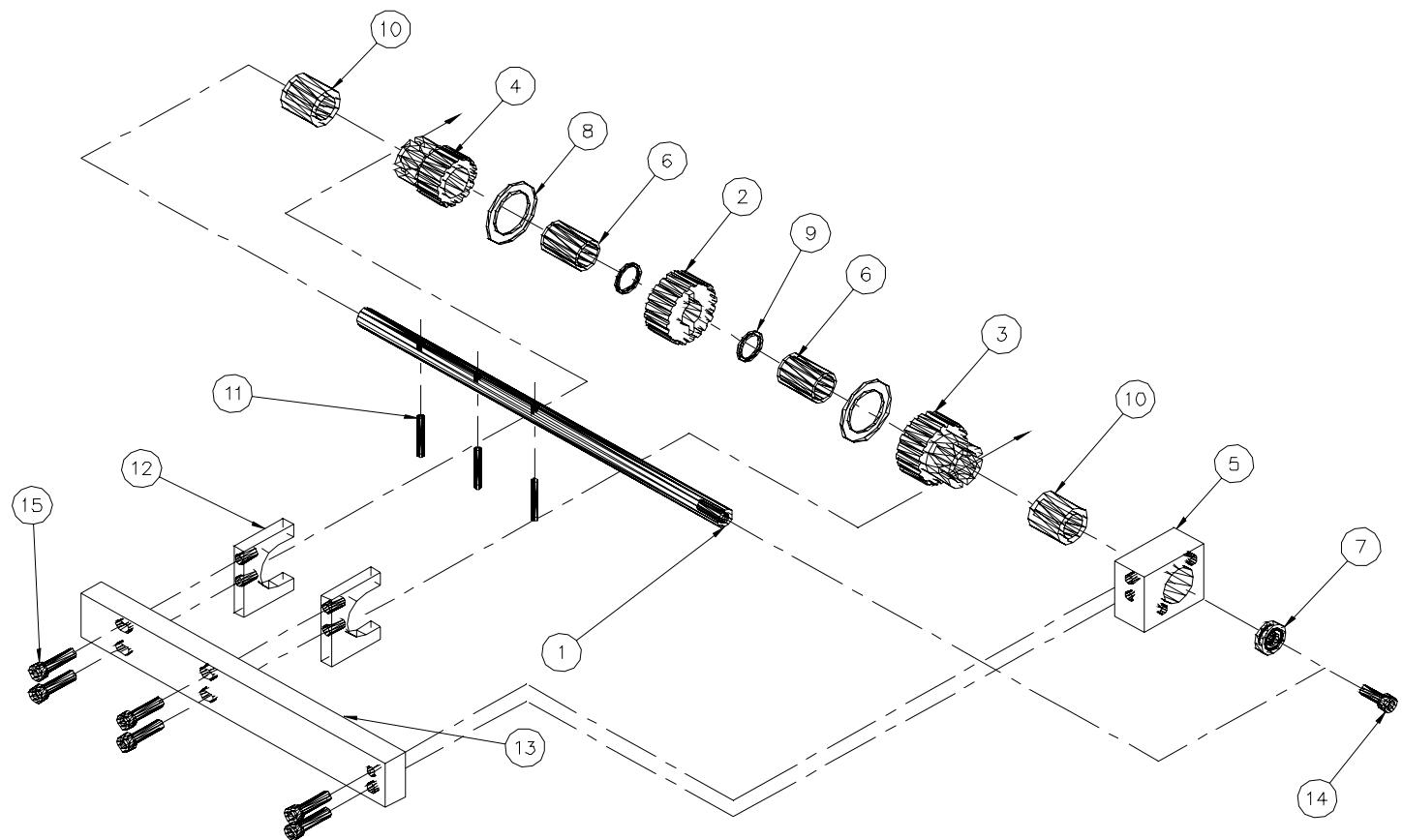
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**COLLATOR – PUSHER DRIVE (Fig. 2-29)**  
**TRANSMISSION SHAFT ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18004-049	1	SHAFT, TRANSMISION
2	18006-033	1	PULLEY, TRANSMISSION, CENTER
3	18006-032	1	PULLEY, TRANSMISSION, 20XL, OUTER
4	18006-041	1	PULLEY, TRANSMISSION, 16XL, OUTER
5	18007-098	1	BLOCK, BEARING MTG.
6	99003-048	2	BUSHING SLEEVE, 1/2 X 5/8 X 7/8
7	99003-002	1	BEARING, SEALED, 1/4 X 5/8
8	18006-040	2	WASHER, TRANSMISION THRUST
9	99003-018	2	WASHER, NYLON, 1/2 X 1/16
10	99003-049	2	BEARING, NEEDLE, 1/2 X 3/4 X 3/4 LONG
11	99006-013	3	PIN, DOWEL, 1/8 X 7/8
12	18007-074	2	BLOCK, YOKE
13	18008-037	1	BLOCK, YOKE MTG.
14		1	SCREW, SKT HD, 1/4-20 X 1/2
15		6	SCREW, SKT HD, 10-24 X 3/4

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*FIG. 2-29*



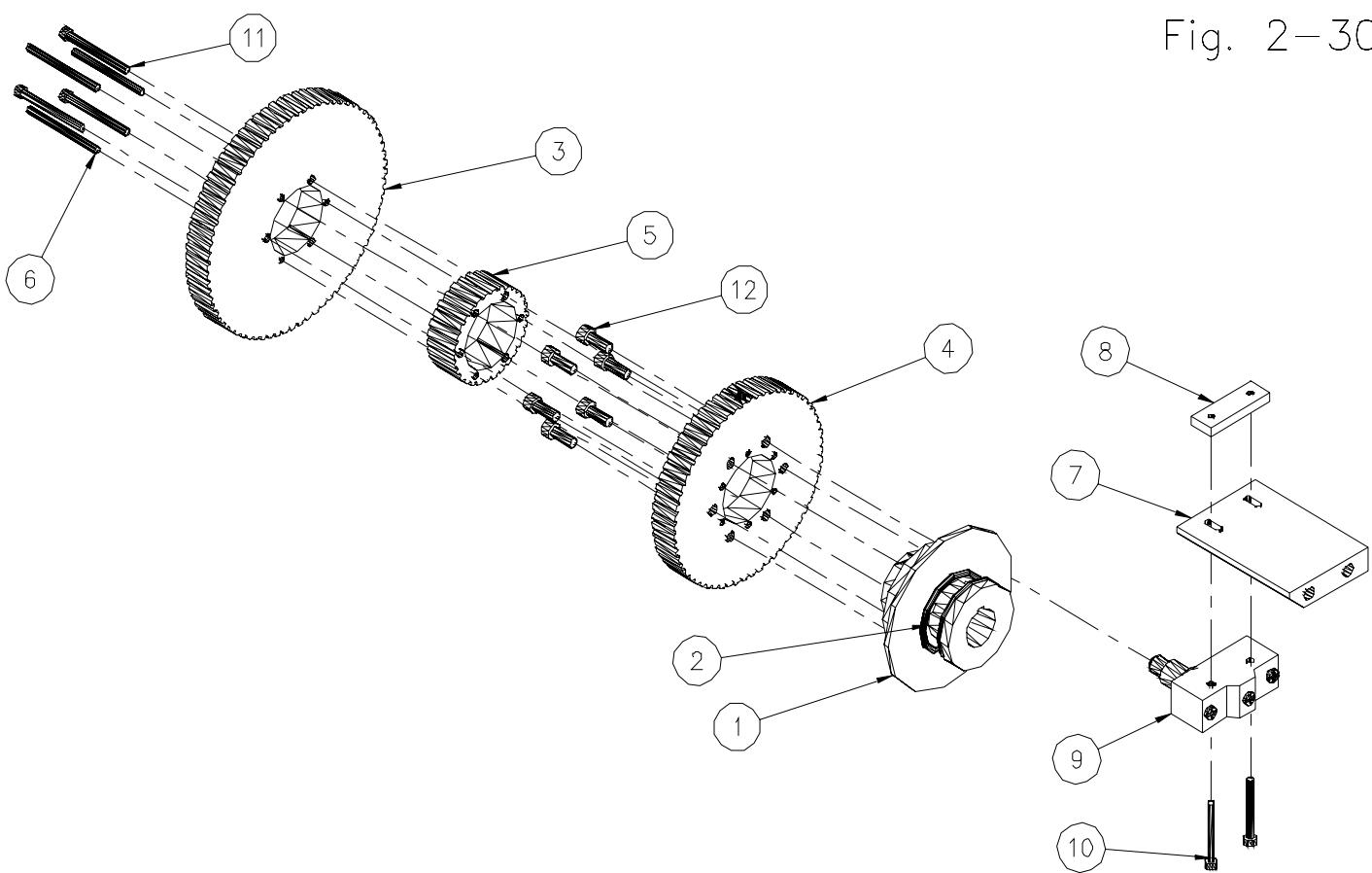
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**COLLATOR – PUSHER DRIVE (Fig. 2-30)**  
**CLUTCH ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	99008-002	1	CLUTCH, OVERLOAD
2	99005-004	1	SPRING, OVERLOAD CLUTCH
3	18006-031	1	PULLEY, CLUTCH, 72XL037
4	18006-022	1	PULLEY, CLUTCH, 60XL037
5	18006-023	1	PULLEY, CLUTCH, 30XL037
6	99006-009	3	PIN, DOWEL, 1/8 X 1-3/4
7	18009-021	1	BRACKET, SWITCH MTG.
8	18011-022	1	NUT PLATE, SWITCH
9	98000-002	1	SWITCH, OVERLOAD
10		2	SCREW, SKT HD, 6-32 X 1-1/4
11		3	SCREW, SKT HD, 6-32 X 1-1/2
12		6	SCREW, SKT HD, 10-24 X 1/2

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Fig. 2-30



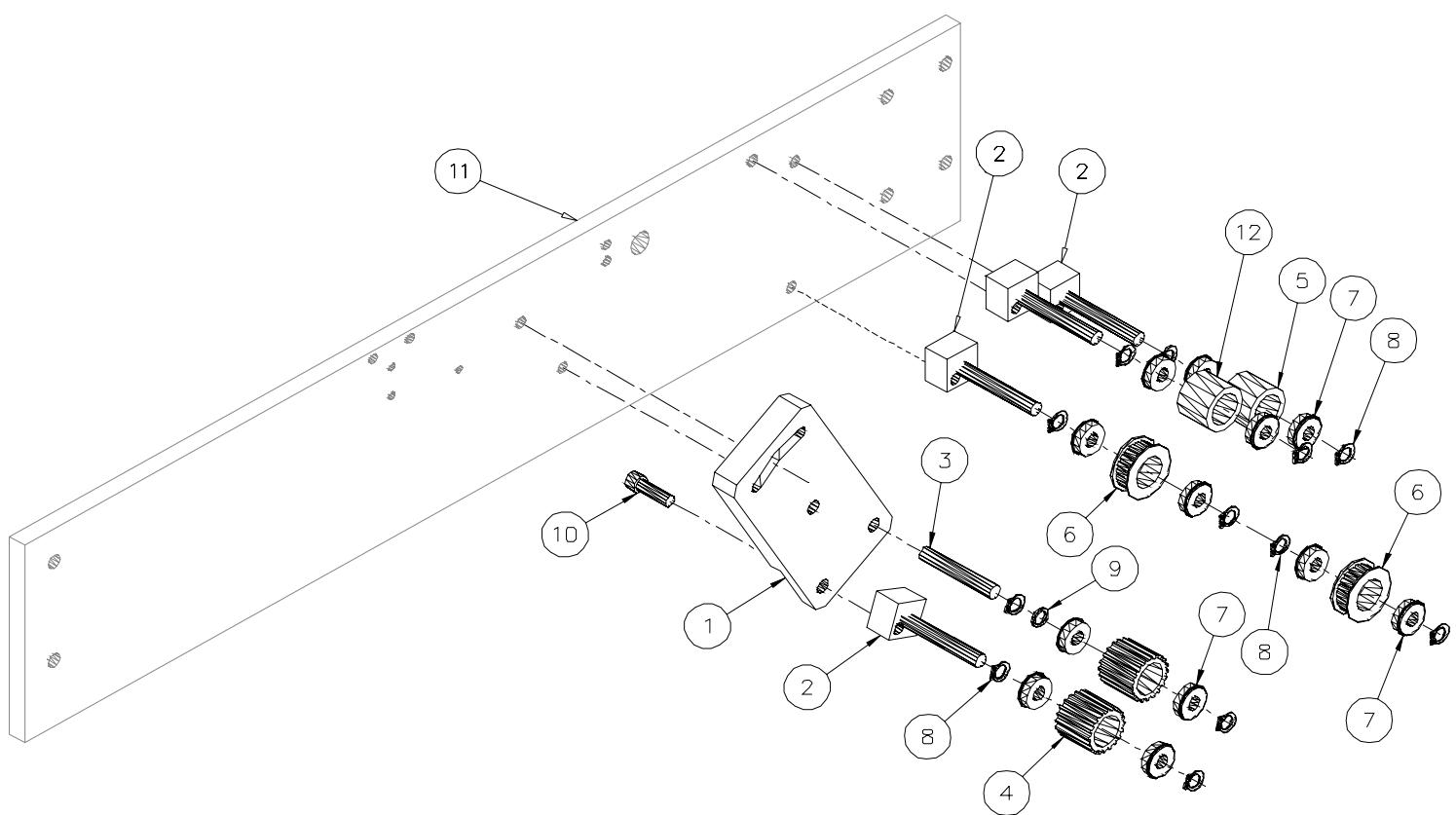
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**COLLATOR – PUSHER DRIVE (Fig. 2-31)**  
**TENSIONER / IDLER PULLEY (FLAT & 20XL037) ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18007-075	1	BLOCK, IDLER TENSIONER
2	18004-050	3	SHAFT, ECCENTRIC IDLER, 3/8 X 3-1/4
3	18004-035	1	SHAFT, STUB IDLER, 3/8 X 2-3/8
4	10006-027	2	PULLEY, IDLER, 20XL, 1-1/8" WIDE
5	18006-012	1	PULLEY, FLAT IDLER, 1-1/2 DIAM X 1-1/8" WIDE
6	18006-024	2	PULLEY, IDLER, 20XL037, 7/8 BORE W/ FLANGES
7	99003-020	10	BEARING, SEALED W/ SNAP RING, 3/8 X 7/8
8	99022-003	10	SNAP RING, 3/8
9	99003-017	1	WASHER, NYLON, 3/8
10		1	SCREW, SKT HD, 5/16-18 X 1
11	18011-065	1	PLATE, FEEDER DRIVE MTG. (REF. ONLY)
12	18006-051	1	PULLEY, FLAT IDLER, 1-1/2 DAIM. X 1" WIDE

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*FIG. 2-31*



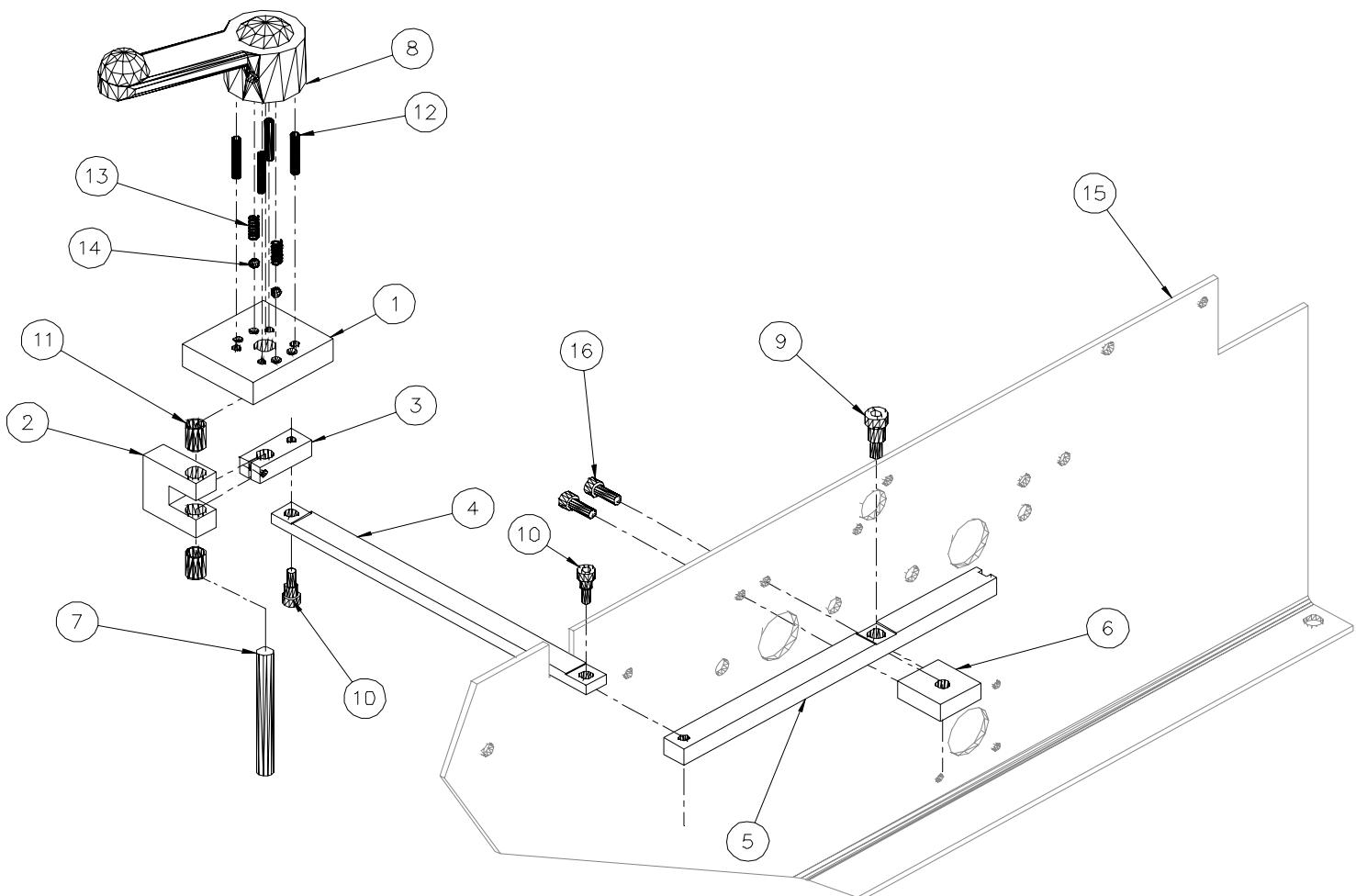
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**COLLATOR – PUSHER DRIVE (Fig. 2-32)**  
**GEAR SHIFT LEVER ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18007-085	1	BLOCK, GEAR ADJ
2	18007-084	1	BLOCK, SHAFT ADJ
3	18008-047	1	BAR, CLAMP
4	18008-046	1	BAR, PUSH ROD
5	18008-045	1	BAR, PIVOT
6	18007-083	1	BLOCK, PIVOT
7	18004-056	1	SHAFT, PIVOT TRANSMISION
8	99004-010	1	LEVER, CONTROL
9	99033-010	1	BOLT, SHOULDER, 5/16 X 3/8
10	99033-006	2	BOLT, SHOULDER, 1/4 X 1/4
11	99003-041	2	BUSHING, 5/16 X 3/8 X 1/2
12	99006-023	4	PIN, ROLL, 5/32 X 7/8
13	99005-013	2	SPRING, .180 X .028 X .500
14	99037-002	2	BALL, CHROME, 3/16 DIAMETER
15	18000-006	1	SIDEFRAME, LH, 10 X 13 (REF. ONLY)
16		2	SCREW, SKT HD, 10-24 X 1/2

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*FIG. 2-32*



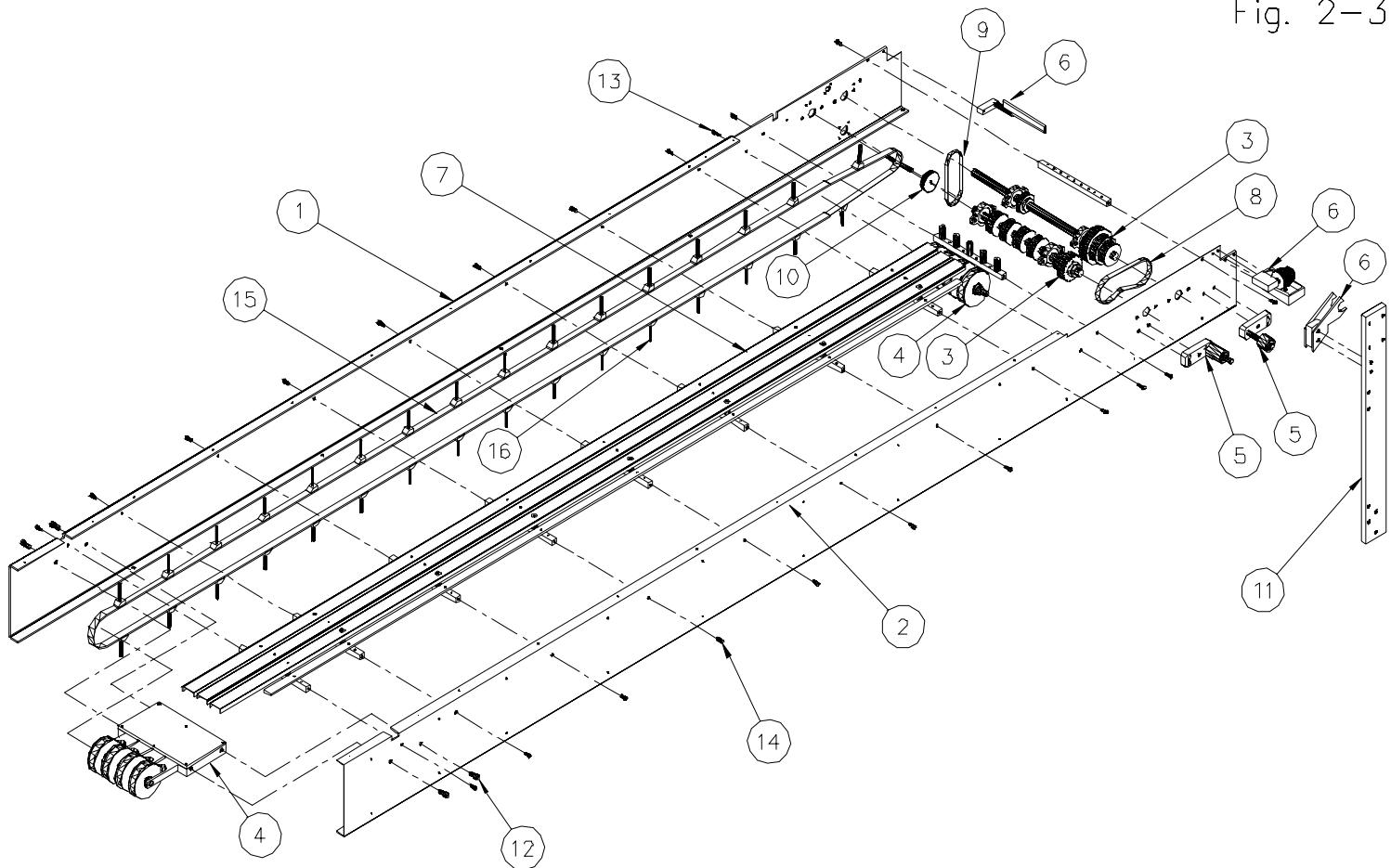
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**COLLATOR – CONVEYOR ASSEMBLY (Fig. 2-33)**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18000-006	1	SIDEFRAME, LH, 10 X 13
2	18000-005	1	SIDEFRAME, RH, 10 X 13
3	(SEE FIG. 2-34)	1	COLLATOR BELT DRIVE SHAFT ASSEMBLY
4	(SEE FIG. 2-35)	1	IDLER SHAFT ASSEMBLY, FRONT AND REAR PULLEY
5	(SEE FIG. 2-36)	1	TENSIONER ASSY, IDLER PULLEY, FLAT & 2" FLAT
6	(SEE FIG. 2-37)	1	DRIP PAN / ROLLER / STRIP BRUSH / YOKE ASSY.
7	(SEE FIG. 2-38)	1	CONVEYOR BELT TRACK ASSEMBLY
8	99000-021	1	BELT, TIMING, 187L075
9	99000-008	1	BELT, TIMING, 150XL037
10	99002-022	1	PULLEY, 32XL037, 3/8 BORE
11	18010-003	1	LEG, COLLATOR, END (REF. ONLY)
12		4	SCREW, SKT HD, 3/8-16 X 3/4
13		2	SCREW, SKT HD, 1/4-20 X 3/4
14		20	SCREW, SKT HD, 1/2-20 X 1/2
15a	18014-027	1	BELT, COLLATOR, 10X13 – 6 STATION , 36 PINS
15b	18014-020	1	BELT, COLLATOR, 10X13 – 9 STATION
15c	18014-026	1	BELT, COLLATOR, 10X13 – 12 STATION
15d	18014-034	1	BELT, COLLATOR, 10X13 – 18 STATION
15e	18014-029	1	BELT, COLLATOR, 10X13 – 24 STATION
15f	18014-033	1	BELT, COLLATOR, 10X13 – 3 STATION
16	18004-039	139	PIN, COLLATOR

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Fig. 2-33



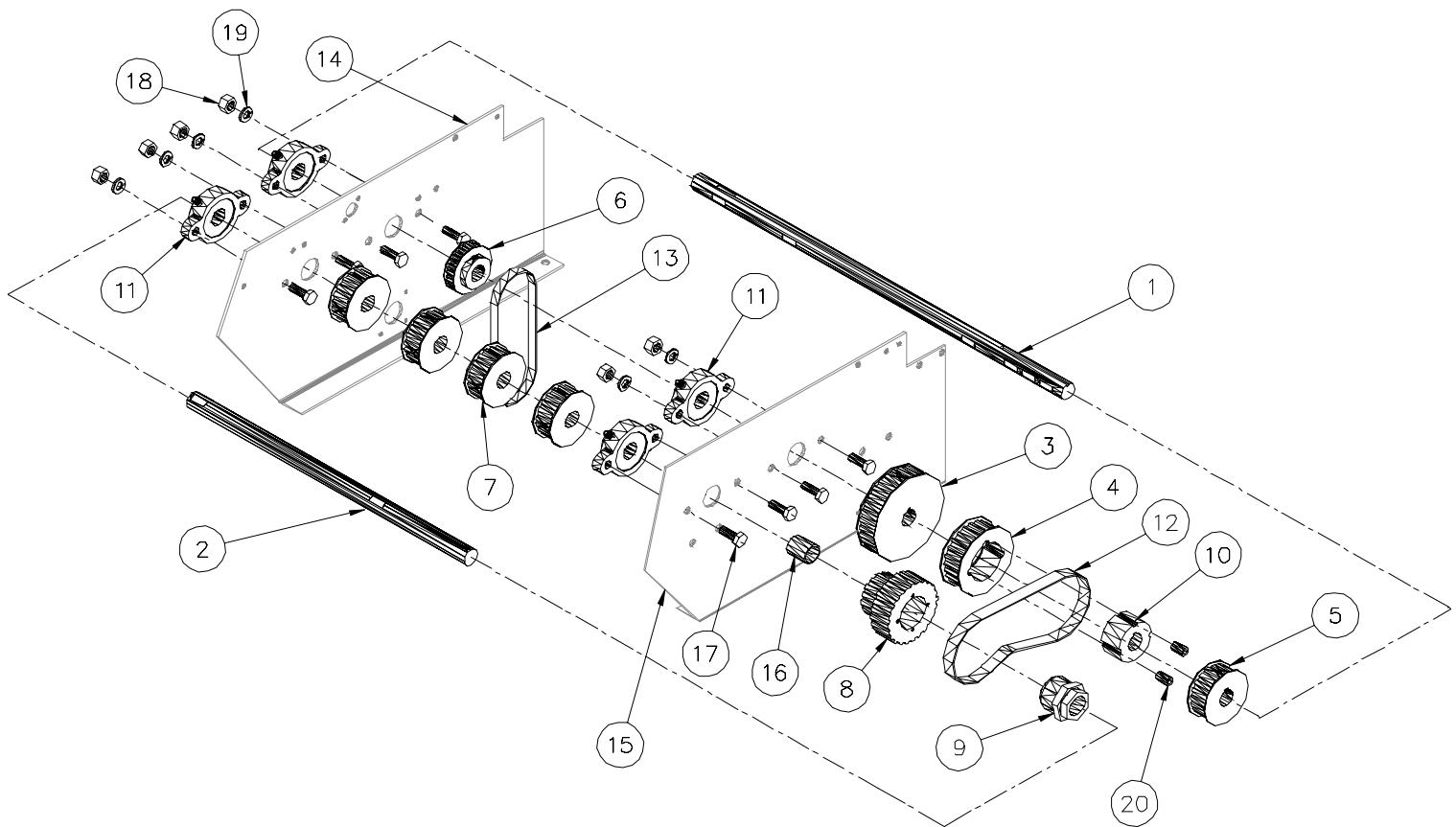
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**COLLATOR – CONVEYOR (Fig. 2-34)**  
**COLLATOR BELT DRIVE SHAFT ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18004-042	1	SHAFT, COLLATOR DRIVE (1 TO 1)
2	18004-048	1	SHAFT, COLLATOR DRIVE
3	18006-029	1	PULLEY, 32L075, 3/4 BORE W/ KEYWAY
4	99002-043	1	PULLEY, TL24L075 (1210)
5	18006-025	1	PULLEY, 19L075, 3/4 BORE W/ KEYWAY, NO HUB
6	99002-011	1	PULLEY, 32XL037, 3/4 BORE
7	18006-039	4	PULLEY, 19L075, 3/4 BORE
8	18006-030	1	PULLEY, DOUBLE, 16L075 / 24L075
9	99017-014	1	TRANTORQUE, 3/4 BORE
10	99017-016	1	BUSHING, TAPERLOCK, 1210, 3/4 BORE
11	99003-019	4	BEARING, 2 BOLT FLANGE
12	99000-021	1	BELT, TIMING, 187L075
13	99000-008	1	BELT, TIMING, 150XL037
14	18000-006	1	SIDEFRAME, LH, 10 X 13 (REF. ONLY)
15	18000-005	1	SIDEFRAME, RH, 10 X 13 (REF. ONLY)
16	99003-025	1	BUSHING, 3/4 X 7/8 X 1
17		8	BOLT, HEX HD, 3/8-16 X 1
18		8	NUT, HEX HD, 3/8-16
19		8	WASHER, LOCK, 3/8
20		2	SCREW, SET, 3/8-16 X 5/8

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**FIG. 2-34**



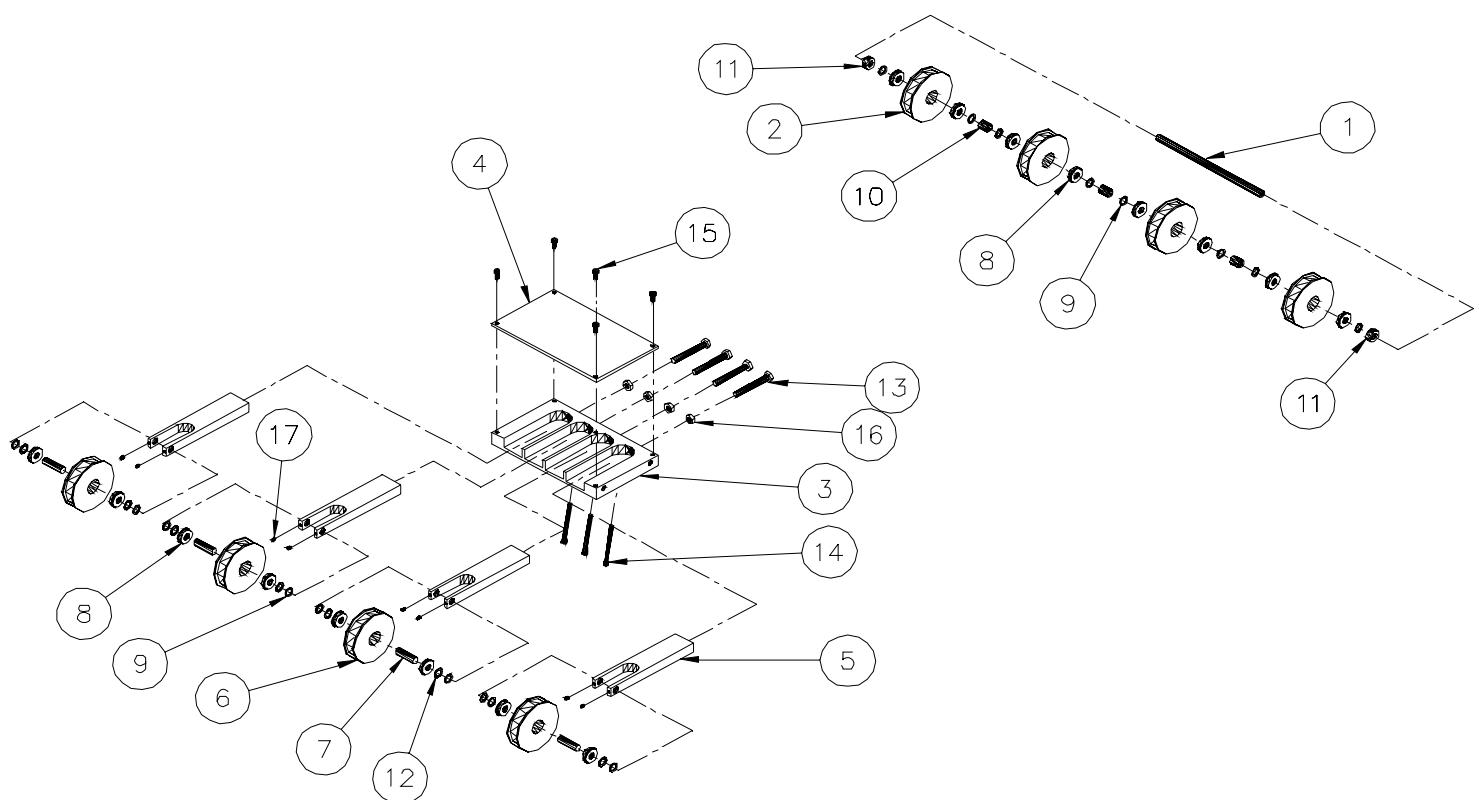
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**COLLATOR – CONVEYOR (Fig. 2-35)**  
**IDLER SHAFT ASSEMBLY (FRONT & REAR PULLEYS)**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18004-013	1	SHAFT, IDLER
2	18006-005	4	PULLEY, IDLER
3	18007-014	1	BLOCK, IDLER MTG.
4	18011-006	1	PLATE, IDLER BLOCK
5	18008-008	4	BAR, IDLER MTG.
6	18006-005	4	PULLEY, IDLER
7	18004-002	4	SHAFT, STUB IDLER
8	99003-007	16	BEARING, SEALED, 1/2 X 1-1/8
9	99003-018	16	WASHER, NYLON, 1/2 X 1/16
10	99003-038	3	BUSHING, 1/2 X 5/8 X 3/4
11	99017-004	2	COLLAR, SHAFT, 1/2
12	99036-004	8	SHIM, 1/2 X 3/4 X .020
13		4	BOLT, HEX HD, 3/8-16 X 3
14		3	SCREW, SKT HD, 1/4-20 X 3
15		5	SCREW, SKT HD, 1/4-20 X 1/2
16		4	NUT, HEX HD, 3/8-16
17		8	SCREW, SET, 10-24 X 1/4

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*FIG. 2-35*



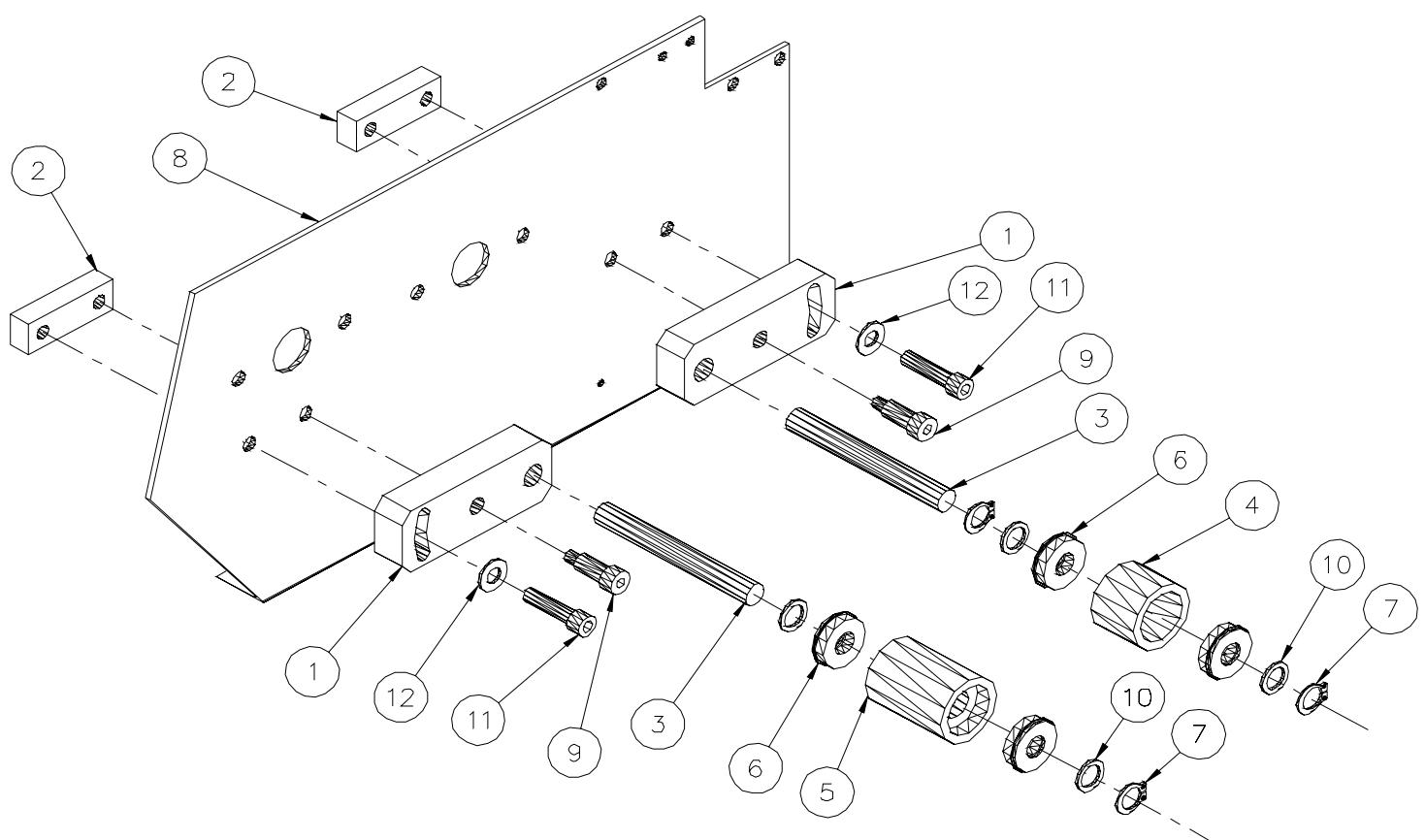
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**COLLATOR – CONVEYOR (Fig. 2-36)**  
**TENSIONER ASSEMBLY (FLAT IDLER PULLEY)**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18007-072	2	BLOCK, TENSIONER
2	18011-025	2	NUT PLATE, TENSIONER
3	18004-051	1	SHAFT, STUB IDLER, 4-1/32
4	18006-012	1	PULLEY, FLAT IDLER, 1-1/2 DIAM. X 1-1/8
5	18006-043	1	PULLEY, FLAT IDLER, 2"
6	99003-007	2	BEARING, SEALED, 1/2 X 1-1/8
7	99022-004	2	SNAP RING, 1/2
8	18000-005	1	SIDEFRAME, RH, 10 X 13 (REF. ONLY)
9	99033-011	1	BOLT, SHOULDER, 3/8 X 3/4
10	99003-018	2	WASHER, NYLON, 1/2 X 1/16
11		1	SCREW, SKT HD, 5/16-18 X 1-1/4
12		1	WASHER, FLAT, 5/16

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*FIG. 2-36*



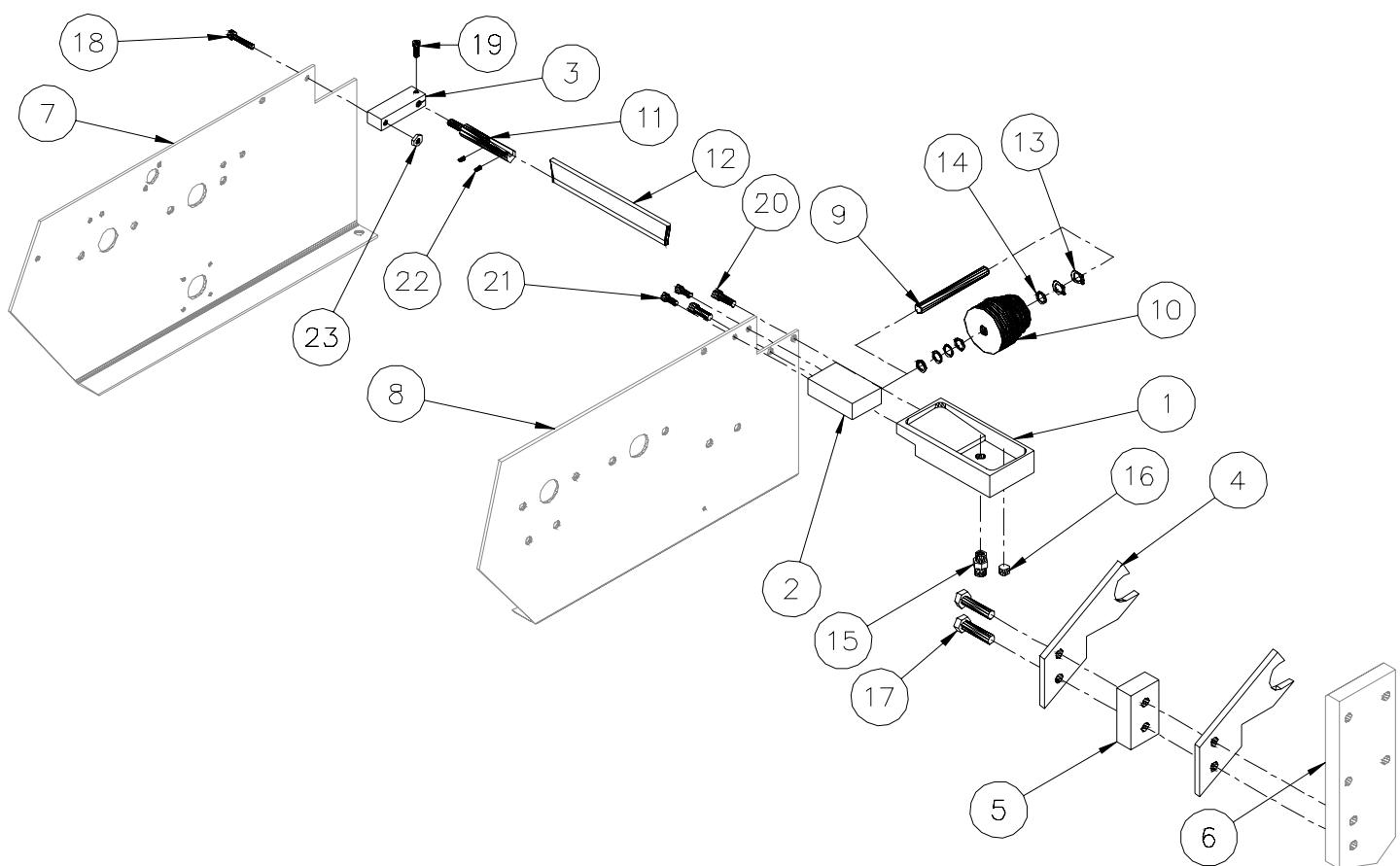
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**COLLATOR – CONVEYOR (Fig. 2-37)**  
**DRIP PAN / ROLLER / STRIP BRUSH / YOKE ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18019-004	1	DRIP PAN, 10 X 13
2	18007-071	1	BLOCK, ROLLER MTG.
3	18007-080	1	BLOCK, LOWER BRUSH MTG
4	18007-070	2	BLOCK, YOKE, 10 X 13
5	18012-012	1	SPACER, PULLEY GUIDE YOKE
6	18010-003	1	LEG, COLLATOR, END (REF. ONLY)
7	18000-005	1	SIDEFRAME, RH, 10 X 13 (REF. ONLY)
8	18000-006	1	SIDEFRAME, LH, 10 X 13 (REF. ONLY)
9	18004-032	1	SHAFT, ROLLER MTG.
10	18006-019	1	ROLLER, BRUSH
11	18009-023	1	BRACKET, LOWER BRUSH CLAMP
12	99023-001	1	BRUSH STRIP, 6" X 1" X .003
13	99022-007	2	SNAP RING, 3/8, SST
14	99003-017	5	WASHER, NYLON, 3/8 X 1/16
15	99028-029	1	FITTING, HOSE BARB, 1/4 NPT X 3/8 ID HOSE
16	99028-009	1	PLUG, FLUSH 1/4 NPT
17		2	BOLT, HEX HEAD, 3/8-16 X 1-1/2
18		1	SCREW, SKT HD, 10-24 X 3/4
19		1	SCREW, SKT HD, 8-32 X 1/2
20		2	SCREW, SKT HD, 1/4-20 X 3/4
21		2	SCREW, SKT HD, 10-24 X 1/2
22		2	SCREW, SET, 6-32 X 1/4
23		1	NUT, HEX, #10

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*FIG. 2-37*



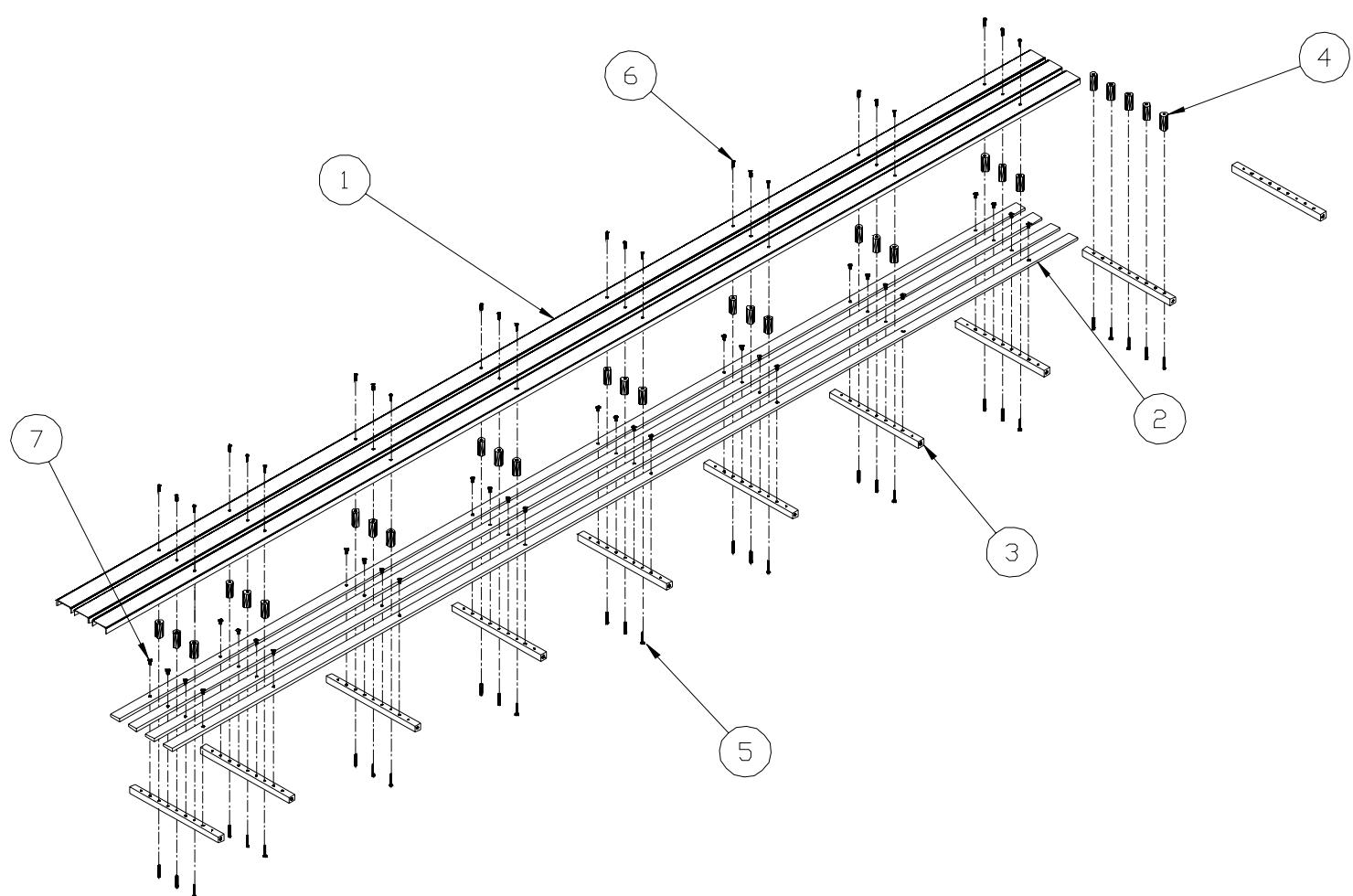
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**COLLATOR – CONVEYOR (Fig. 2-38)**  
**CONVEYOR BELT TRACK ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1a	18005-078	3	GUIDE, PAPER SLIDE, FRONT (10X13)
1b	18005-079	3	GUIDE, PAPER SLIDE, REAR (10X13 – 12 STATION)
1c	18005-076	3	GUIDE, PAPER SLIDE, REAR (10X13 – 9 STATION)
1d	18005-075	3	GUIDE, PAPER SLIDE, REAR (10X13 – 24 STATION)
2a	18008-067	4	BAR, BELT SUPPORT, FRONT (10X13)
2b	18008-068	4	BAR, BELT SUPPORT, REAR (10X13 – 12 STATION)
2c	18008-076	4	BAR, BELT SUPPORT, REAR (10X13 – 9-STATION)
2d	18008-068	4	BAR, BELT SUPPORT, REAR (10X13 – 24 STATION)
3	18003-009	8	BAR, CROSS, 10"
4	18012-001	24	STANDOFF, 5/8-DIAM X 1.42 LG.
5		24	SCREW, SKT HD, 6-32 X 1
6		24	SCREW, FLAT HD, 6-32 X 1/2
7		32	SCREW, FLAT HD, 10-24 X 1/4

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*FIG. 2-38*



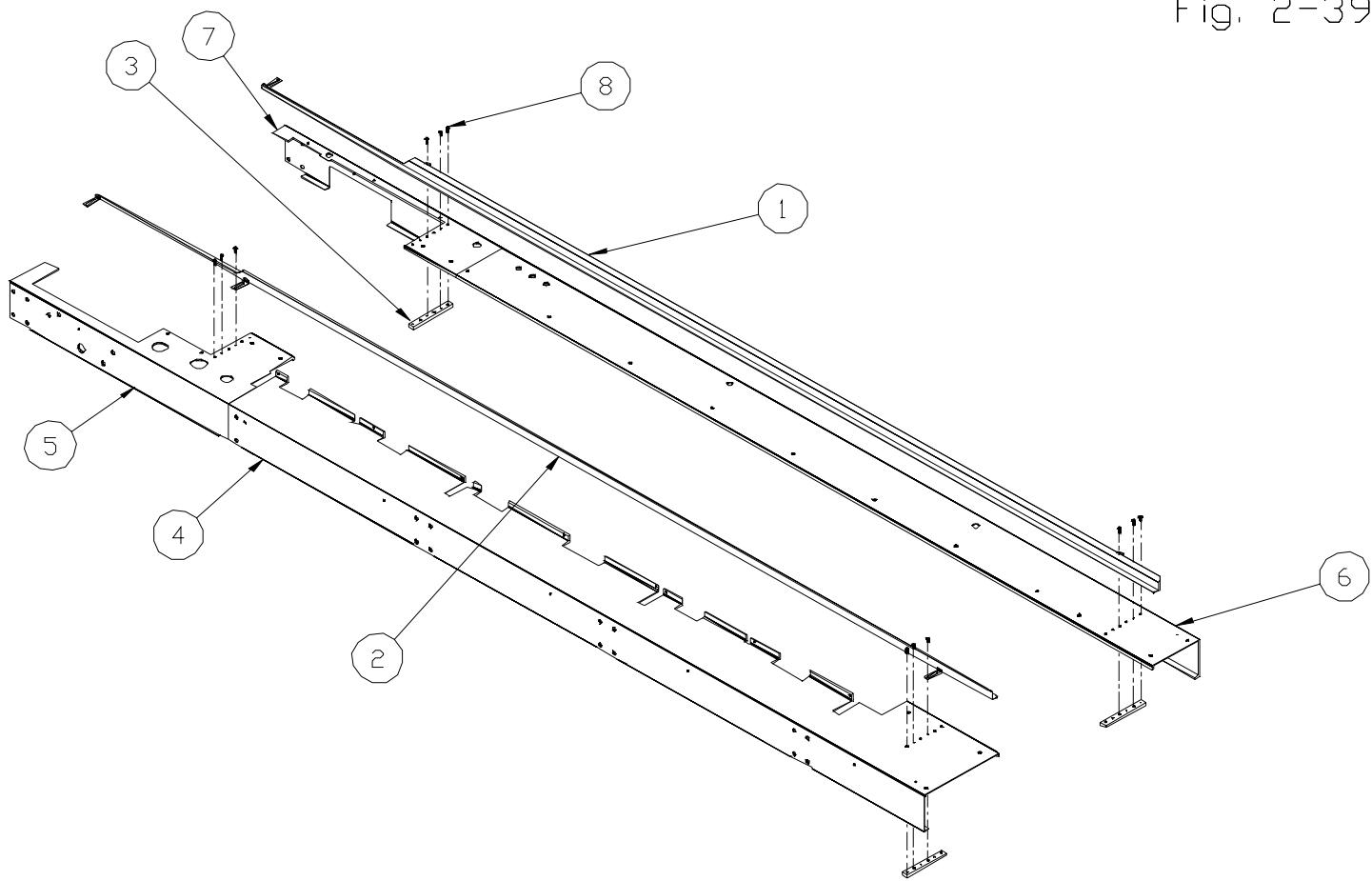
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**COLLATOR – CONVEYOR (Fig. 2-39)**  
**SIDE GUIDE ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18005-088	1	SIDE GUIDE, RH
2	18005-081	1	SIDEGUIDE, LH
3	18011-036	4	PLATE, NUT (SIDE GUIDE)
4	18001-009	1	COVER, TOP, LH (REF ONLY)
5	18001-010	1	COVER, TOP, LH SHORT (REF ONLY)
6	18001-008	1	COVER, TOP, RH (REF ONLY)
7	18001-014	1	COVER, TOP, RH SHORT (REF ONLY)
8		12	SCREW, BUTTON HD, 10-24 X 1/2

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Fig. 2-39



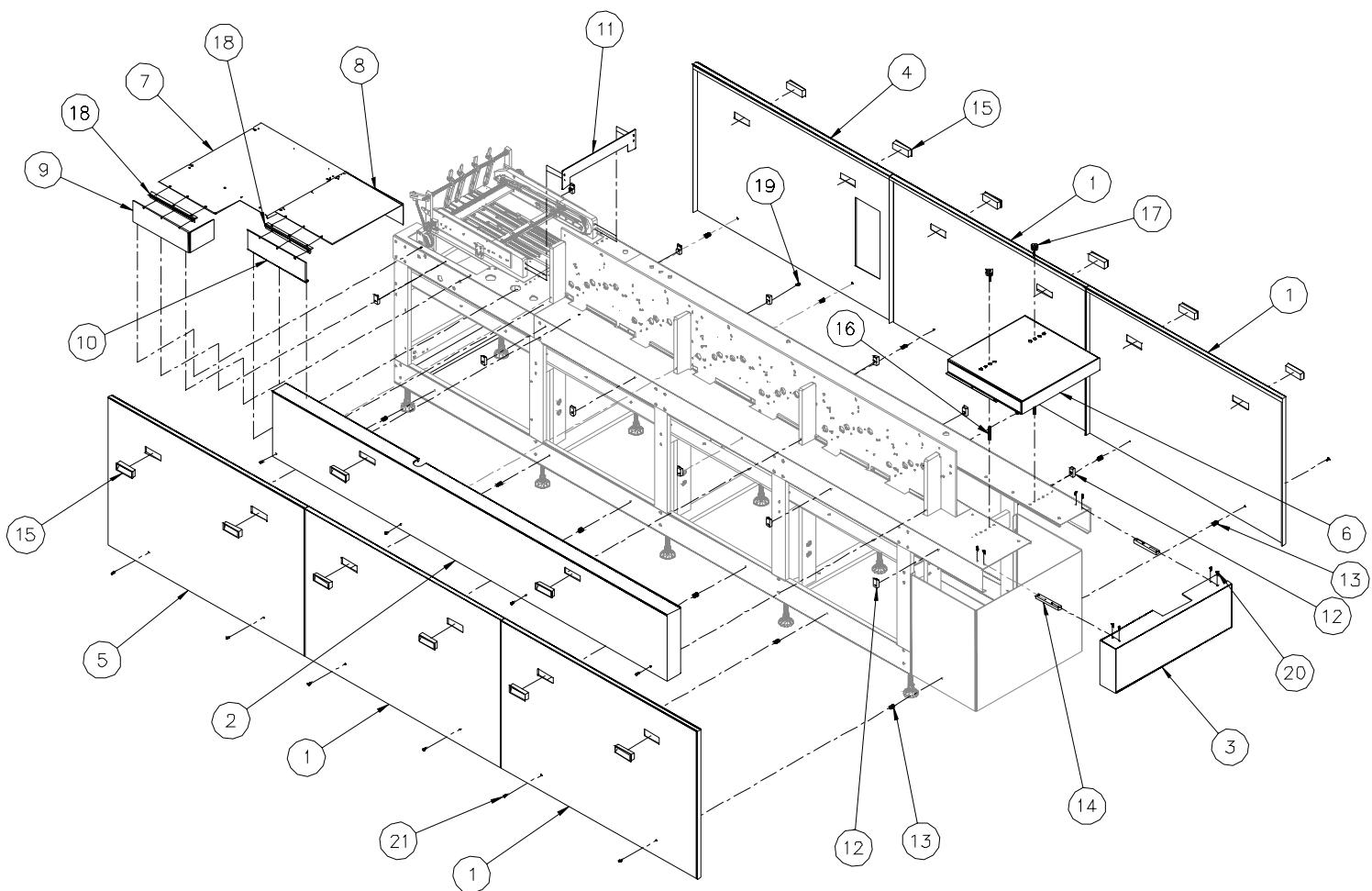
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**COLLATOR – COVERS (Fig. 2-40)**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18013-044	4	COVER, LOWER SIDE
2	18013-019	1	COVER, FEEDER DRIVE
3	18013-003	1	COVER, REAR
4	18013-110	1	COVER, LOWER SIDE, POWER ENTRY
5	18013-038	1	COVER, LOWER SIDE, FRONT
6	18013-026	1	COVER, REAR TRACK, COLLATOR
7	18013-051	1	COVER, PUSHER (10X13)
8	18013-101	1	COVER, REAR PUSHER (10X13)
9	18002-006	1	MOUNT, PUSHER COVER (10X13)
10	18002-008	1	MOUNT, REAR PUSHER COVER (10X13)
11	18013-032	1	GUARD, REAR PUSHER (10X13)
12	18007-042	16	BLOCK, SIDE COVER MTG
13	18012-006	12	STANDOFF, SIDE COVER MTG
14	18007-043	2	BLOCK, END COVER MTG
15	99012-002	14	HANDLE, POCKET PULL
16	18012-021	2	STANDOFF, REAR TRACK COVER
17	99004-014	2	HANDLE, MALE, 10-24 X 3/4
18	18013-104	2	HINGE, CONTINUOUS, 9" LONG
19		13	SCREW, SKT HD, 10-24 X 1/2
20		12	SCREW, BUT HD, 10-24 X 1/2
21		12	SCREW, BUT HD, 10-24 X 3/8

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**FIG. 2-40**



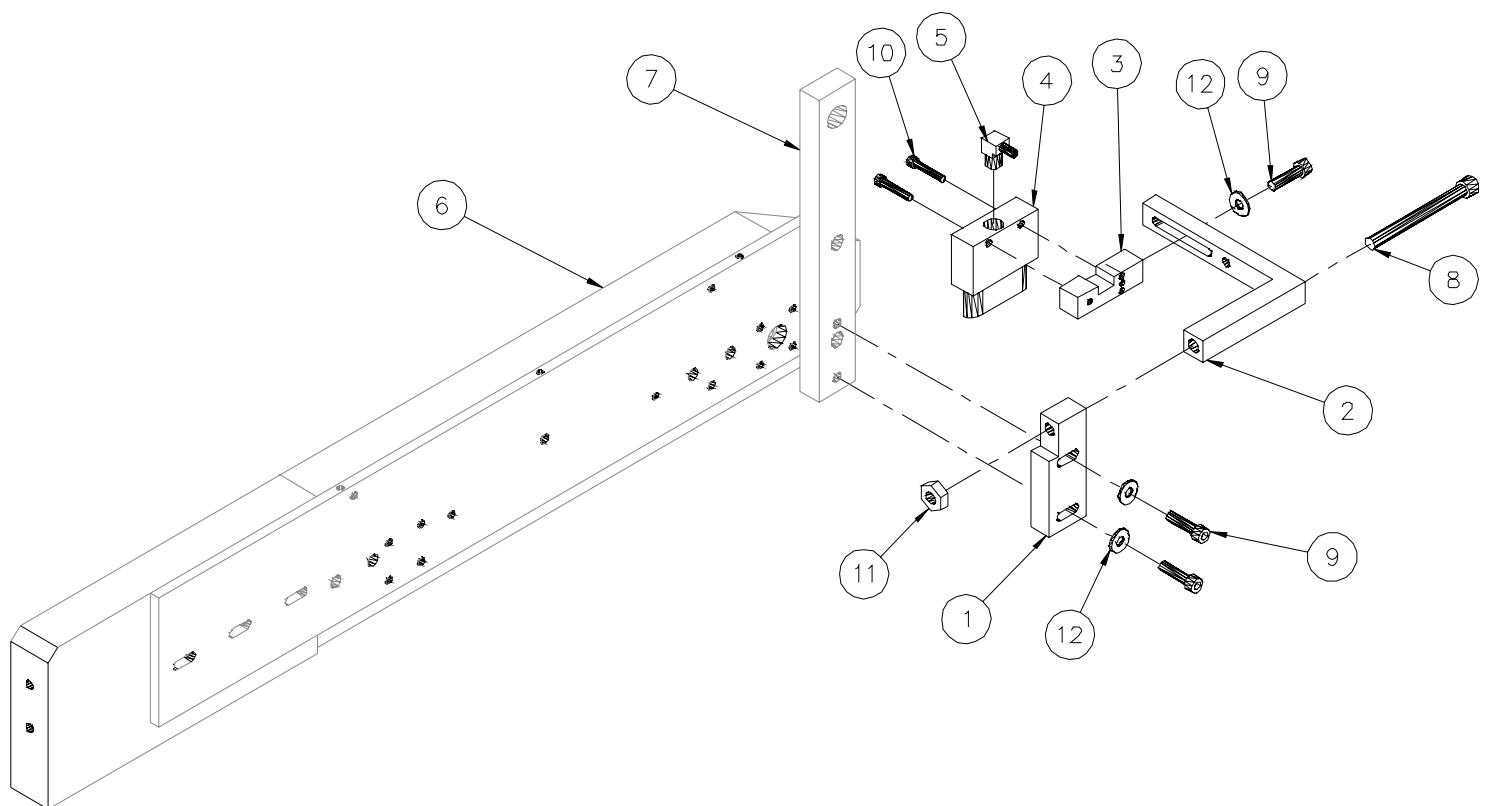
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**COLLATOR – WATER BRUSH ASSEMBLY (Fig. 2-41)**  
**(WATER BRUSH)**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18007-053	1	BLOCK, BRUSH MTG.
2	18009-008	1	BRACKET, BRUSH MTG.
3	18007-067	1	BLOCK, BRUSH ADJ.
4	18019-005	1	BRUSH, WATER
5	99028-038	1	HOSE BARB, ELBOW, 1/4 OD TUBE X 1/16 NPT
6	18016-002	1	CAM, PUSHER CONTROL, RH FRONT (REF. ONLY)
7	18007-005	1	BAR, FINGER SUPPORT, RH (REF. ONLY)
8		1	SCREW, SKT HD, 1/4-20 X 2-1/2
9		3	SCREW, SKT HD, 10-24 X 3/4
10		2	SCREW, SKT HD, 6-32 X 3/4
11		1	NUT, LOCK, 1/4-20
12		3	WASHER, FLAT, #10
13	99031-005	4'	TUBING, 1/8 ID X 1/8 OD

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**FIG. 2-41**

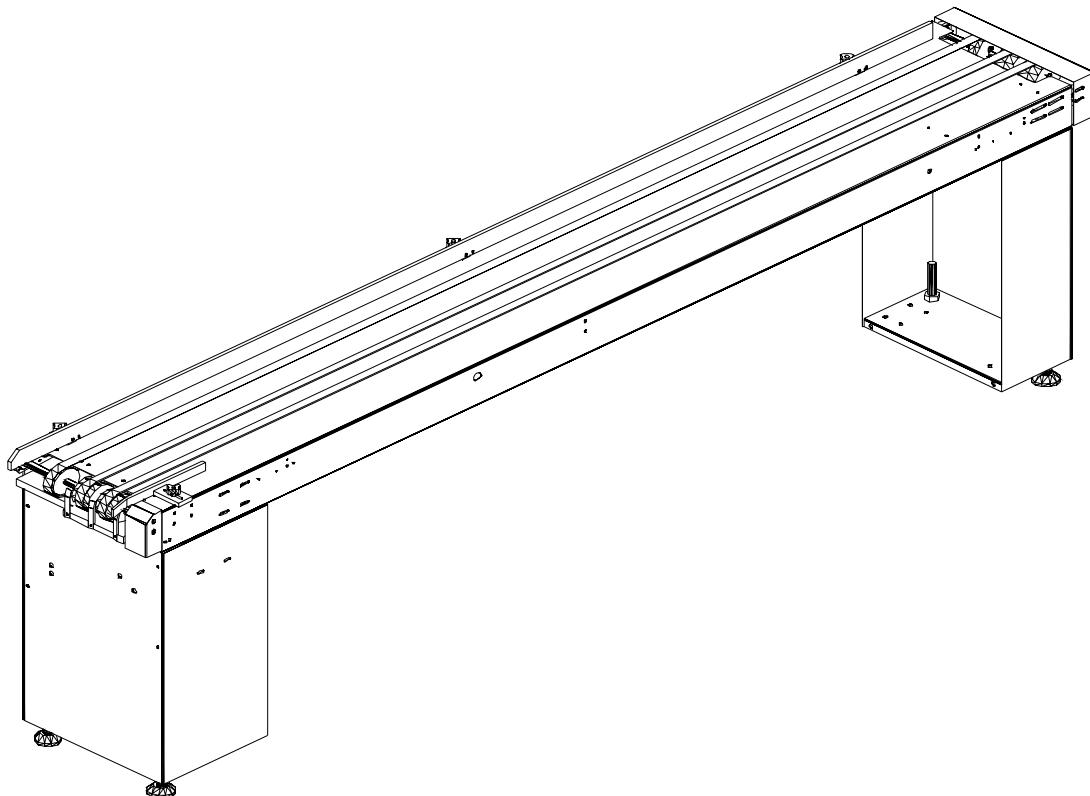


NOTE: TUBING NOT SHOWN (ITEM 13) – CONNECTS TO HOSE BARB (ITEM 5)

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**INFEED  
CONVEYOR  
10 x 13**



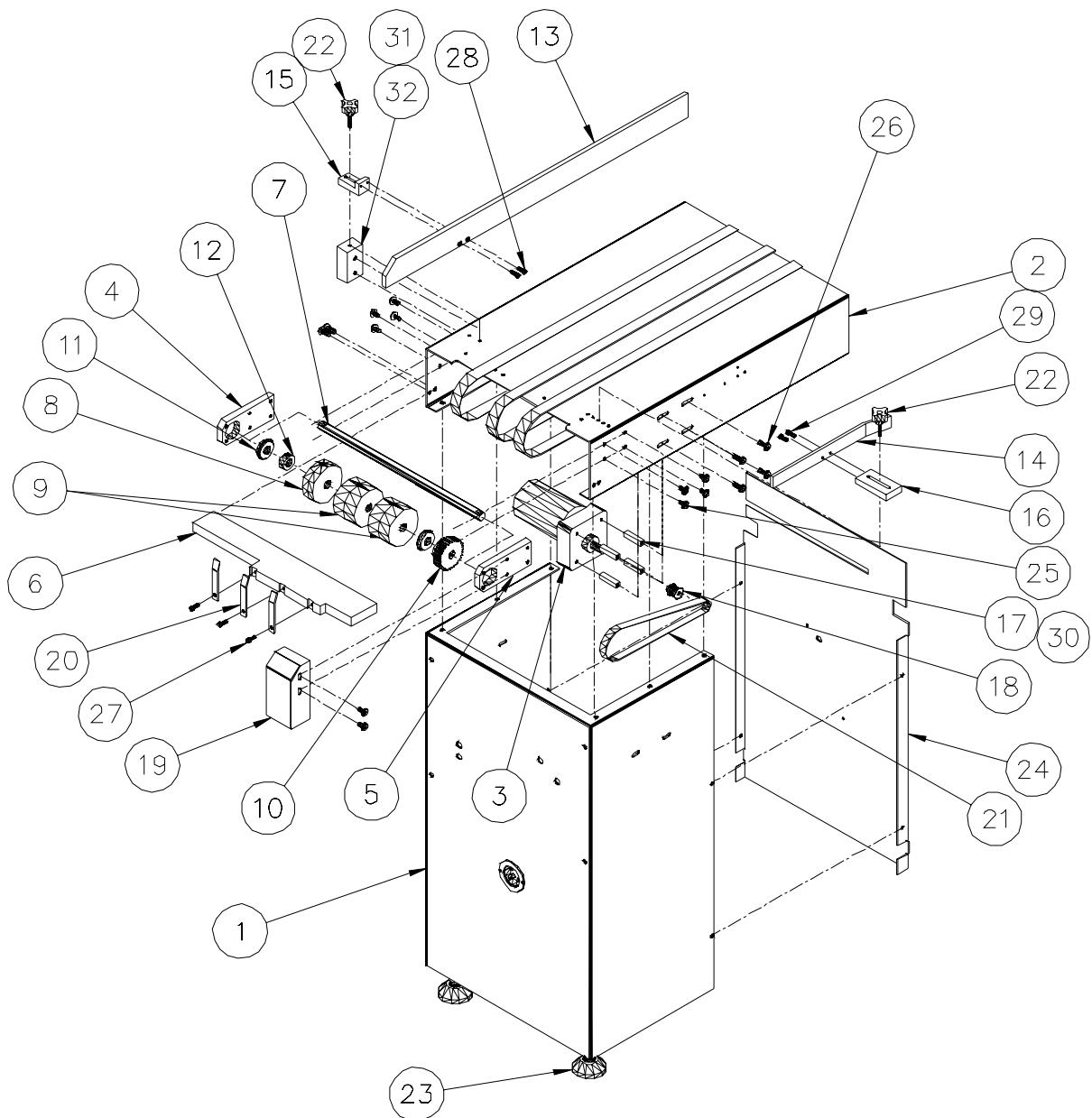
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**INFEED CONVEYOR (Fig. 3-1)**  
**DRIVE SHAFT ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	12010-002	1	LRG, DRIVE, 36"
2	12000-007	1	SIDE FRAME, 9' CONVEYOR
3	99001-008	1	MOTOR, 11 RPM
4	12007-009	1	BLOCK, BEARING (SHORT)
5	12007-001	1	BLOCK, BEARING
6	18008-023	1	BAR, REAR ENVELOPE GUIDE MTG.
7	12004-003	1	SHAFT, DRIVE, CONVEYOR
8	12006-001	1	PULLEY, CROWNED, 1" WIDE
9	12006-002	2	PULLEY, CROWNED, 2" WIDE
10	99002-033	1	PULLEY, 36XL037
11	99003-006	2	BEARING, SEALED, 5/8 X 1-3/8
12	99017-005	1	COLLAR, SET, 5/8
13	18005-029	1	GUIDE, RH SIDE, ENVELOPE CONVEYOR
14	12005-010	1	GUIDE, SIDE, LH
15	18008-031	3	BAR, RH SIDE GUIDE MTG.
16	12007-008	1	BLOCK, SIDE GUIDE MTG.
17	12012-001	4	STANDOFF, MOTOR
18	99002-008	1	PULLEY, 12XL037
19	12011-009	1	END CAP, DRIVE
20	18005-017	3	GUIDE, REAR ENVELOPE
21	99000-030	1	BELT, 220XL037
22	99004-011	2	KNOB, MALE, 10-32 X 3/4 (BEFORE DEC. 2001)
	99004-014	2	KNOB, MALE, 10-24 X 3/4 (AFTER DEC. 2001)
23	99010-001	2	FOOT, ADJUSTING
24	12013-006	1	GUARD, CONVEYOR LEG DRIVE (LONG)
25		10	SCREW, BUTTON HD, 1/4-20 X 1/2
26		6	SCREW, BUTTON HD, 1/4-20 X 3/4
27		3	SCREW, BUTTON HD, 10-24 X 3/4
28		6	SCREW, SKT HD, 10-24 X 1/2
29		2	SCREW, FLAT HD, 8-32 X 1/2
30		4	SCREW, SET, 10-32 X 1
31		6	SCREW, SKT HD, 1/4-20 X 1-1/2
32	12007-010	3	BLOCK, GUIDE MTG.

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**FIG. 3-1**



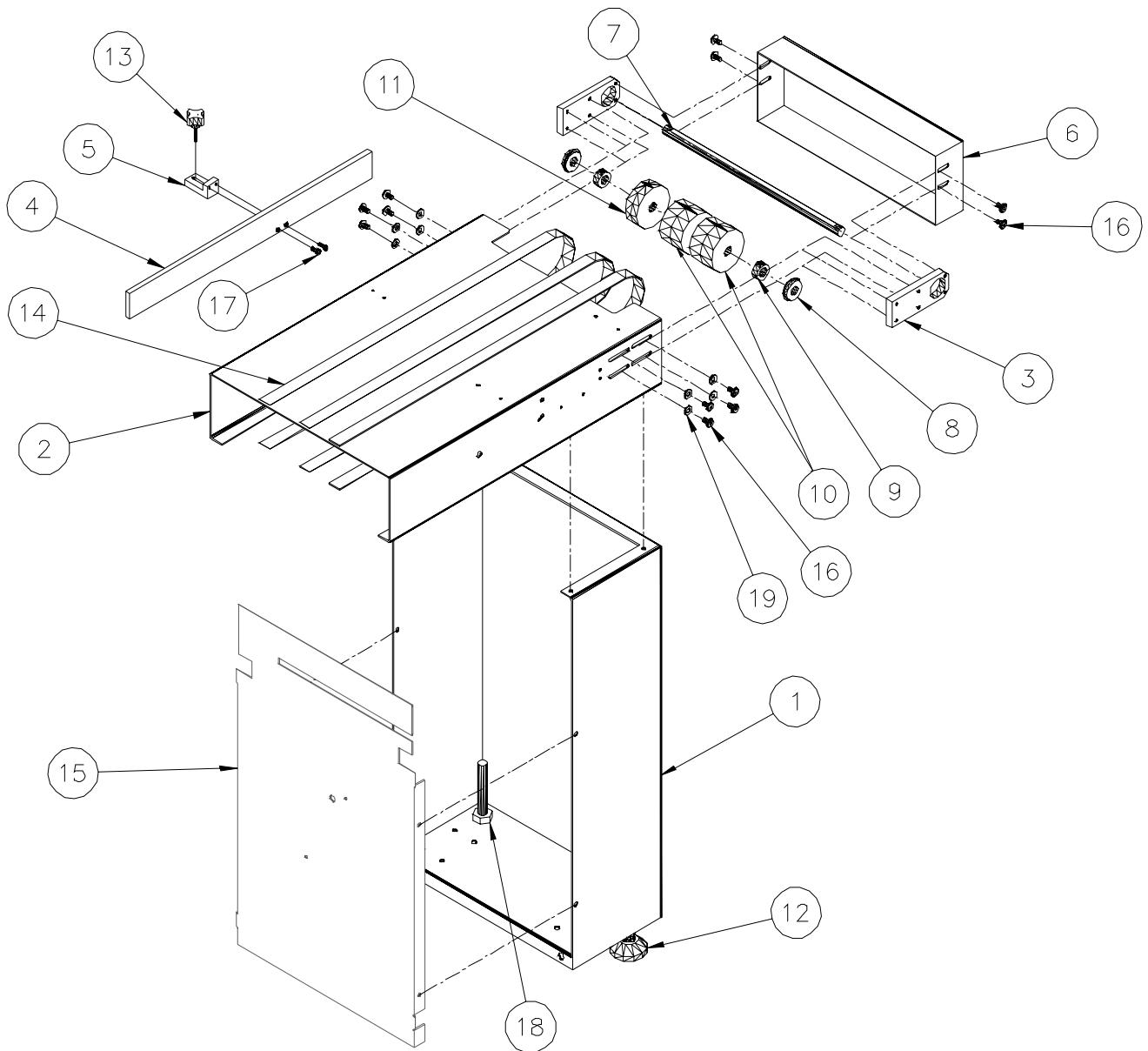
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**INFEED CONVEYOR (Fig. 3-2)**  
**IDLER SHAFT ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	12010-001	1	LEG, IDLE, 36"
2	12000-007	1	SIDE FRAME, 9' CONVEYOR (REF ONLY)
3	12007-001	2	BLOCK, BEARING
4	18005-029	1	GUIDE, RH SIDE, ENVELOPE CONVEYOR (REF.)
5	18008-031	3	BAR, RH SIDE GUIDE MTG. (REF)
6	12011-006	1	END CAP, IDLE
7	12004-003	1	SHAFT, DRIVE, CONVEYOR
8	99003-006	2	BEARING, SEALED, 5/8 X 1-3/8
9	99017-005	2	COLLAR, SET, 5/8
10	12006-002	2	PULLEY, CROWNED, 2" WIDE
11	12006-001	1	PULLEY, CROWNED, 1" WIDE
12	99010-001	2	FOOT, ADJUSTING
13	99004-011	1	KNOB, MALE, 10-32 X 3/4 (BEFORE DEC. 2001)
	99004-014	1	KNOB, MALE, 10-24 X 3/4 (AFTER DEC. 2001)
14	99000-053	3	BELT, ENDLESS, 18'- 1" X 1" W
15	12013-009	1	GUARD, CONVEYOR LEG IDLER (LONG)
16		8	SCREW, BUT HD, 1/4-20 X 1/2
17		2	SCREW, SKT HD, 10-24 X 1/2
18		4	NUT, HEX HD, 5/8-11
19		8	WASHER, FLAT, 1/4

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**FIG. 3-2**

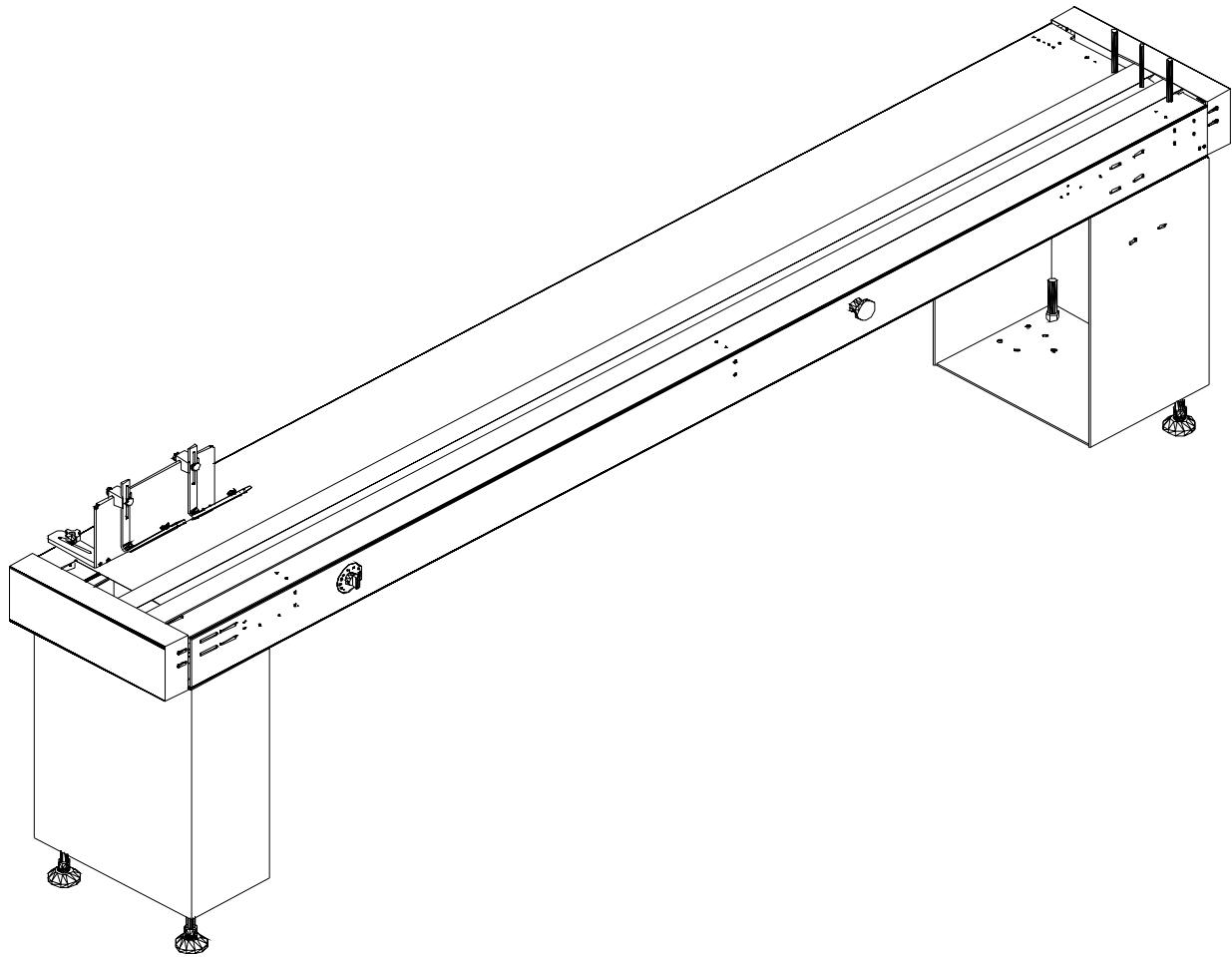


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# **SHINGLE CONVEYOR**

## **10 x 13**



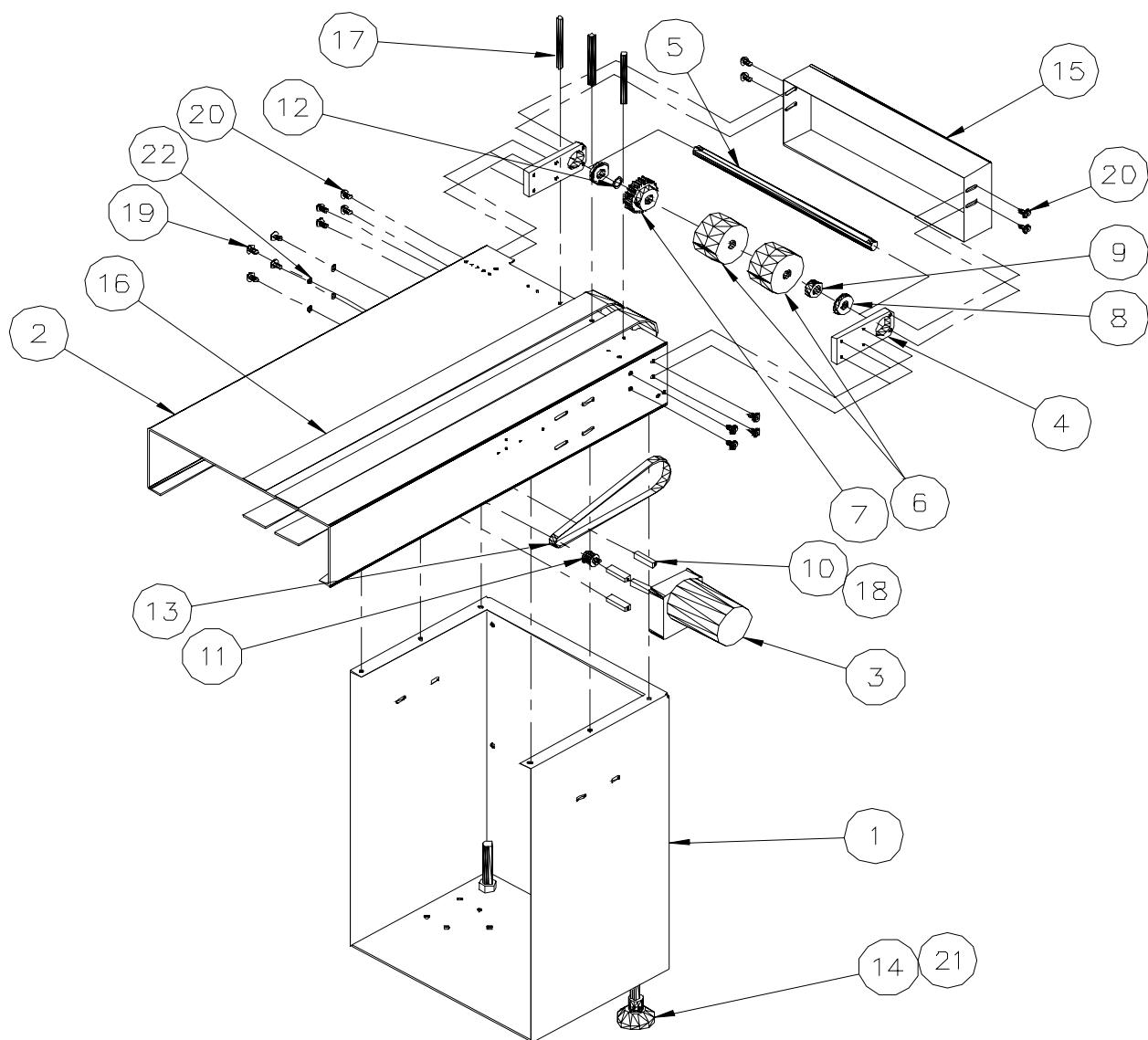
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**SHINGLE CONVEYOR ASSEMBLY (Fig. 4-1)  
DRIVE SHAFT / MOTOR ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	12010-004	1	LEG, DRIVE, 30"
2	12000-007	1	SIDE FRAME, 9' CONVEYOR
3	99001-009	1	MOTOR, 32 RPM
4	12007-001	2	BLOCK, BEARING
5	12006-002	2	PULLEY, CROWNED, 2" WIDE
6	99002-033	1	PULLEY, 36XL037
7	12004-003	1	SHAFT, DRIVE, CONVEYOR
8	99003-006	2	BEARING, SEALED, 5/8 X 1-3/8
9	99017-005	1	COLLAR, SET, 5/8
10	12012-001	4	STANDOFF, MOTOR
11	99002-008	1	PULLEY, 12XL037
12	99003-021	1	WASHER, NYLON, 5/8 X 1/16
13	99000-030	1	BELT, 220XL037
14	99010-001	2	FOOT, ADJUSTING
15	12011-006	1	END CAP, IDLE
16	99000-052	2	BELT, ENDLESS, 18'- 1" X 2" W
17	12004-008	3	SHAFT, STOP
18		4	SCREW, SET, 10-32 X 1
19		4	SCREW, BUTTON HD, 1/4-20 X 3/4
20		12	SCREW, BUTTON HD, 1/4-20 X 1/2
21		2	NUT, HEX HD, 5/8-11
22		4	WASHER, FLAT, 1/4

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**FIG. 4-1**



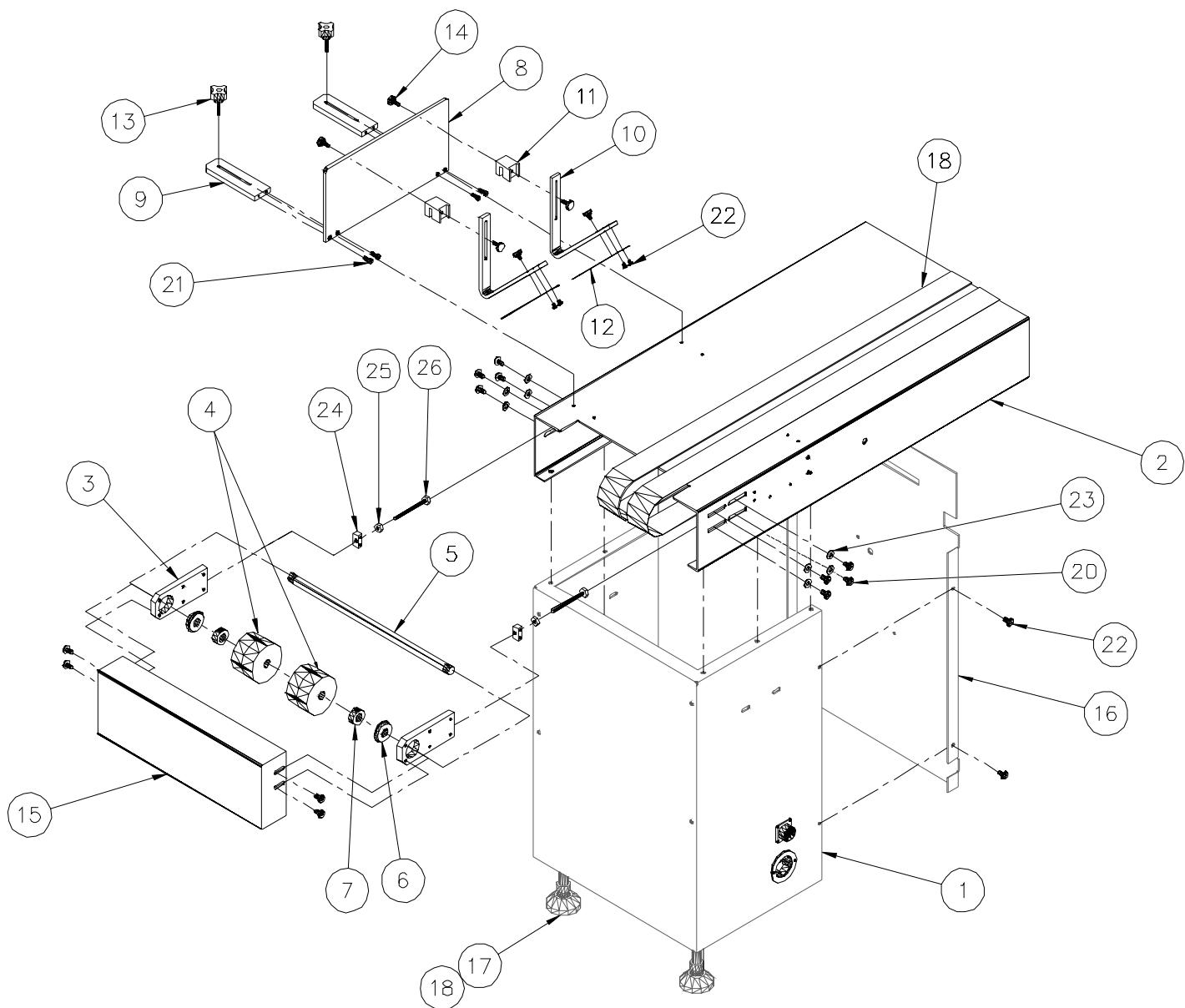
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**SHINGLE CONVEYOR (Fig. 4-2)**  
**IDLER SHAFT ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	12010-003	1	LEG, IDLE, 30"
2	12000-007	1	SIDE FRAME, 9' CONVEYOR (REF)
3	12007-001	2	BLOCK, BEARING
4	12006-002	2	PULLEY, CROWNED, 2" WIDE
5	12004-003	1	SHAFT, DRIVE, CONVEYOR
6	99003-006	2	BEARING, SEALED, 5/8 X 1-3/8
7	99017-005	2	COLLAR, SET, 5/8
8	12011-007	1	PLATE, KNOCK DOWN
9	12007-006	2	BAR, PLATE MTG.
10	12008-001	2	BRACKET, KNOCK DOWN
11	12007-007	2	BRACKET, KNOCK DOWN MTG.
12	12005-007	2	STRAP, KNOCK DOWN
13	99004-011	2	KNOB, MALE, 10-32 X 3/4 (BEFORE DEC. 2001)
	99004-014	2	KNOB, MALE, 10-24 X 3/4 (AFTER DEC. 2001)
14	99004-002	6	KNOB, #10 SCREW
15	12011-006	1	END CAP, IDLE
16	12013-005	1	GUARD, CONVEYOR LEG, DRIVE
17	99010-001	2	FOOT, ADJUSTING
18	99000-052	2	BELT, ENDLESS, 18'- 1" X 2" W (REF)
19		2	NUT, HEX HD, 5/8-11
20		12	SCREW, BUTTON HD, 1/4-20 X 1/2
21		4	SCREW, SKT HD, 10-24 X 1/2
22		4	SCREW, BUTTON HD, 10-24 X 1/4
23		8	WASHER, FLAT, 1/4
24	12007-002	2	BLOCK, BEARING ADJ.
25		2	NUT, HEX, 1/4-20
26		2	BOLT, HEX HEAD, 1/4-20 X 1-1/2

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**FIG. 4-2**

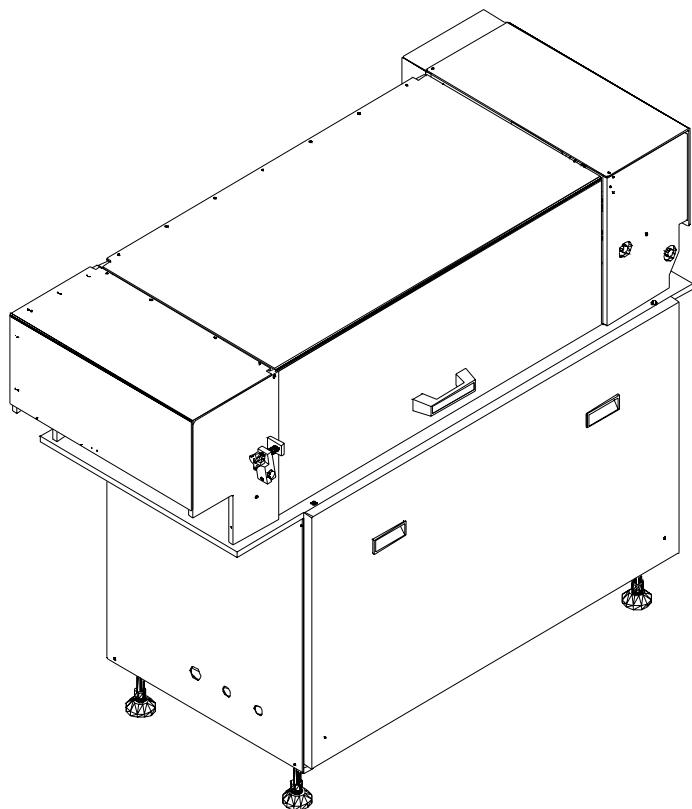


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# **TURNOVER**

## **10 X 13**



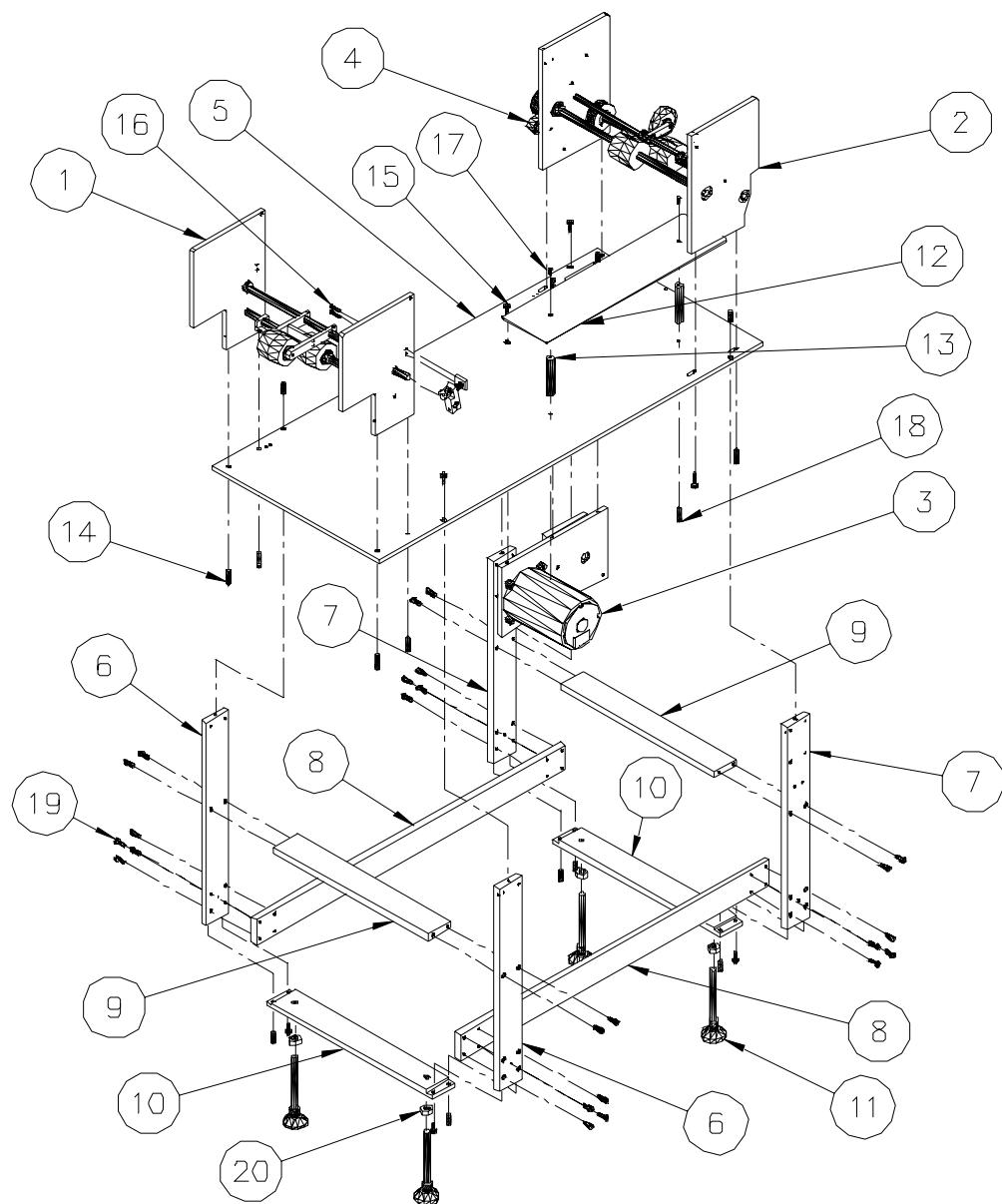
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**TURNOVER ASSEMBLY (Fig. 5-1)**

ITEM	PART NO.	QTY.	DESCRIPTION
1	(SEE FIG. 5-2)	1	INFEED / SEPERATOR ADJUSTOR ASSEMBLY
2	(SEE FIG. 5-3)	1	DISCHARGE ASSEMBLY
3	(SEE FIG. 5-4)	1	MOTOR / MOTOR MOUNT ASSEMBLY
4	(SEE FIG. 5-5)	1	DRIVE ASSEMBLY
5	20001-001	1	PLATE, DECK
6	20010-002	2	LEG, INFEED, TURNOVER
7	20010-001	2	LEG, DISCHARGE, TURNOVER
8	20003-003	2	CROSSBAR, SIDE, TURNOVER
9	20003-005	2	CROSSBAR, UPPER, TURNOVER
10	20003-004	2	CROSSBAR, LOWER, TURNOVER
11	99010-001	4	FOOT, ADJUSTING
12	20011-003	1	PLATE, SKID
13	18012-013	2	STANDOFF, SKID PLATE
14		8	SCREW, SKT HD, 5/16-18 X 1-1/4
15		7	SCREW, SKT HD, 5/16-18 X 3/4
16		2	SCREW, SKT HD, 1/4-20 X 1
17		2	SCREW, FLAT HD, 10-24 X 1/2
18		2	SCREW, SKT HD, 10-24 X 3/4
19		32	SCREW, SKT HD, 5/16-18 X 1
20		4	NUT, HEX, 5/8-11
21	99000-038	1	BELT, TURNOVER, 91.645 (NOT SHOWN)
22	99000-039	1	BELT, TURNOVER, 111.601 (NOT SHOWN)
23	20005-001	1	GUIDE, ENVELOPE TWIST (NOT SHOWN)
24	(SEE FIG. 5-6)	1	TURNOVER COVER ASSEMBLY (NOT SHOWN)

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**FIG. 5-1**



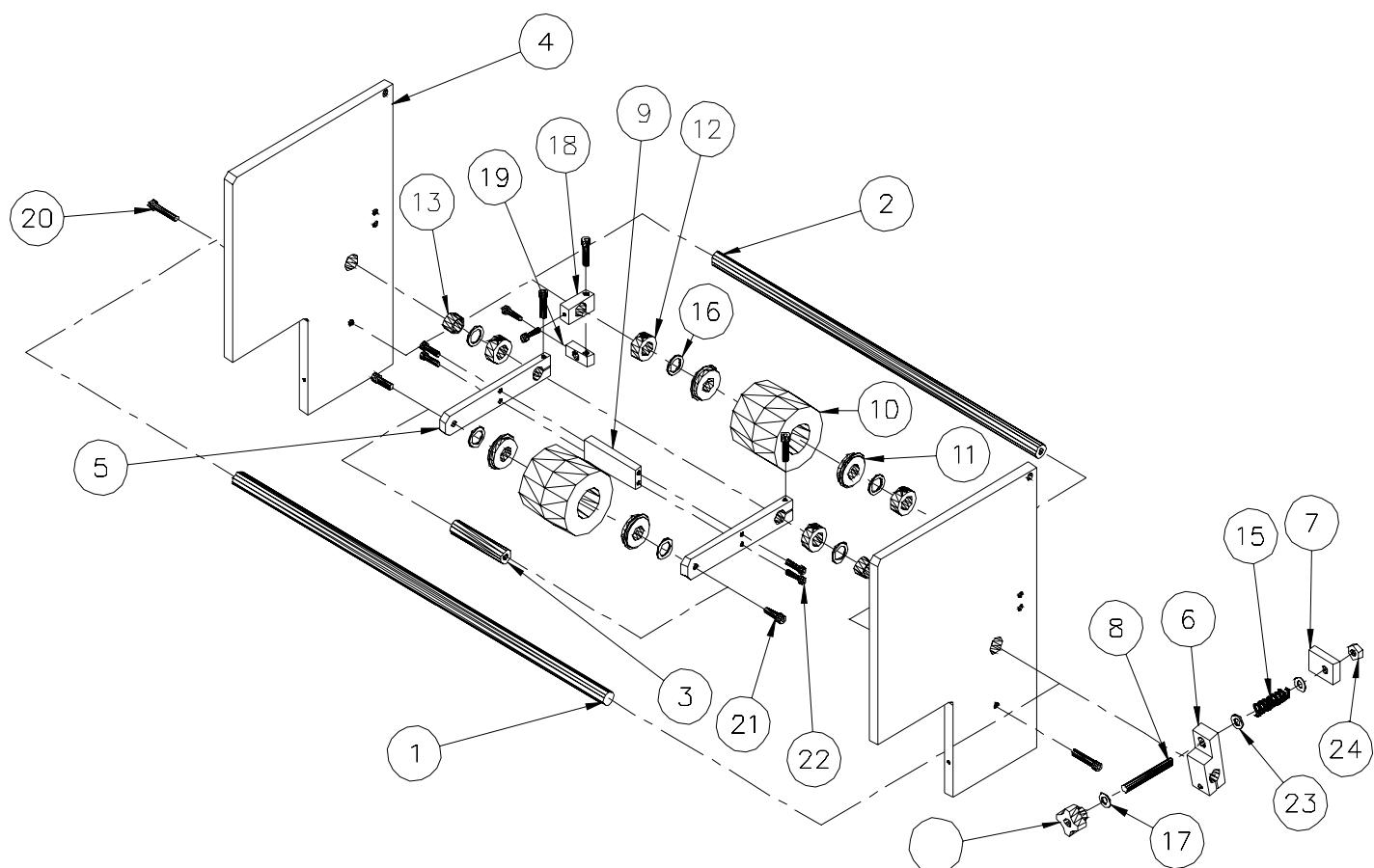
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**TURNOVER (Fig. 5-2)**  
**INFEED ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	20004-010	1	SHAFT, IDLER PIVOT
2	20004-009	1	SHAFT, IDLER (LONG)
3	20004-001	1	SHAFT, IDLER (SHORT)
4	20000-004	2	SIDEPLATE, INFEED
5	20008-001	2	BAR, IDLER ROLLER MTG.
6	20007-002	1	BLOCK, SHAFT CLAMP
7	20007-001	1	BLOCK, SHAFT ADJUSTING
8	10004-028	1	STUD, SEPERATOR ADJUSTING
9	20012-002	1	SPACER, IDLER ROLLER
10	20006-001	2	ROLLER, CROWNED (IDLER)
11	99003-006	4	BEARING, SEALED, 5/8 X 1-3/8
12	99017-005	4	COLLAR, SET, 5/8
13	99003-029	2	BUSHING, 5/8 X 3/4 X 1/2
14	99004-001	1	KNOB, FEMALE, 5/16-24
15	10019-001	1	SPRING, SEPERATOR (ROTATING)
16	99003-021	6	WASHER, NYLON, 5/8 X 1/16
17	99003-015	1	WASHER, NYLON, 5/16 X 1/16
18	20009-002	1	BRACKET, GUIDE MTG. (.625)
19	20009-004	1	BRACKET, GUIDE SUPPORT (.375)
20		5	SCREW, SKT HD, 1/4-20 X 1
21		2	SCREW, SKT HD, 1/4-20 X 3/4
22		6	SCREW, SKT HD, 10-24 X 3/4
23		2	WASHER, FLAT, 5/16
24		1	NUT, HEX HD, 5/16-24

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*FIG. 5-2*



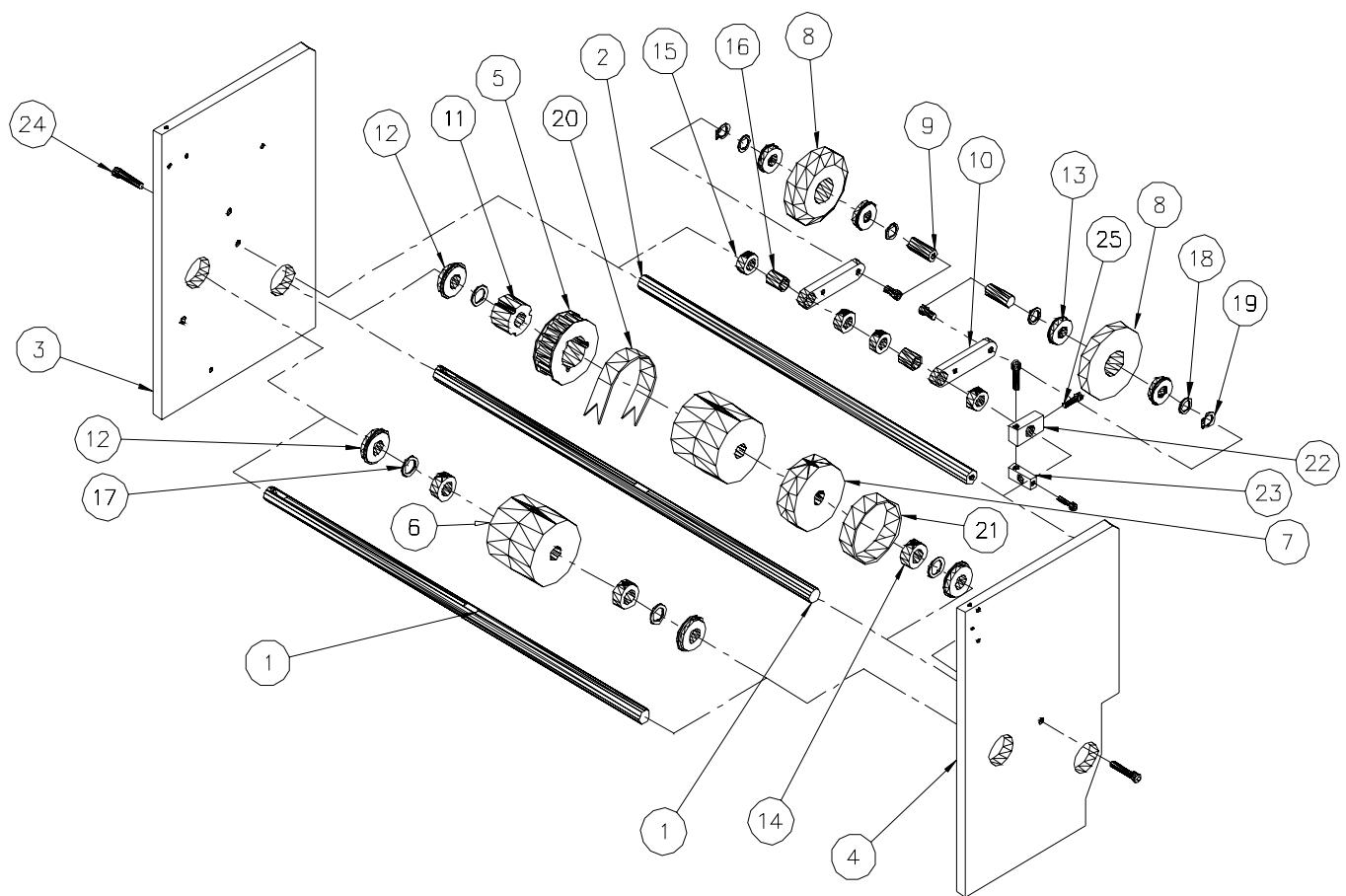
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**TURNOVER (Fig. 5-3)**  
**DISCHARGE ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	20004-012	2	SHAFT, DRIVE
2	20004-011	1	SHAFT, NIP PIVOT
3	20000-006	1	SIDEPLATE, DISCHARGE, LH
4	20000-005	1	SIDEPLATE, DISCHARGE, RH
5	99002-035	1	PULLEY, TL22L075, 1008
6	20006-002	2	PULLEY, CROWNED (DRIVE)
7	12006-001	1	ROLLER, CONVEYOR
8	20006-003	2	ROLLER, EXIT
9	20004-005	2	SHAFT, EXIT ROLLER
10	20008-002	2	BAR, EXIT, ROLLER MTG.
11	99017-019	1	BUSHING, TAPERLOCK 1008, 5/8 BORE
12	99003-006	4	BEARING, SEALED, 5/8 X 1-3/8
13	99003-007	4	BEARING, SEALED, 1/2 X 1-1/8
14	99017-005	3	COLLAR, SET, 5/8
15	99017-004	4	COLLAR, SET, 1/2
16	99003-038	2	BUSHING, 1/2 X 5/8 X 3/4
17	99003-021	4	WASHER, NYLON, 5/8 X 1/16
18	99003-018	4	WASHER, NYLON, 1/2 X 1/16
19	99022-004	2	SNAP RING, 1/2
20	99000-028	1	BELT, 255L075
21	10014-001	1	BELT, URETHANE
22	20009-003	1	BRACKET, GUIDE, MTG. (.500)
23	20009-004	1	BRACKET, GUIDE SUPPORT (.375)
24		3	SCREW, SKT HD, 1/4-20 X 1
25		2	SCREW, SKT HD, 10-24 X 3/4

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**FIG. 5-3**



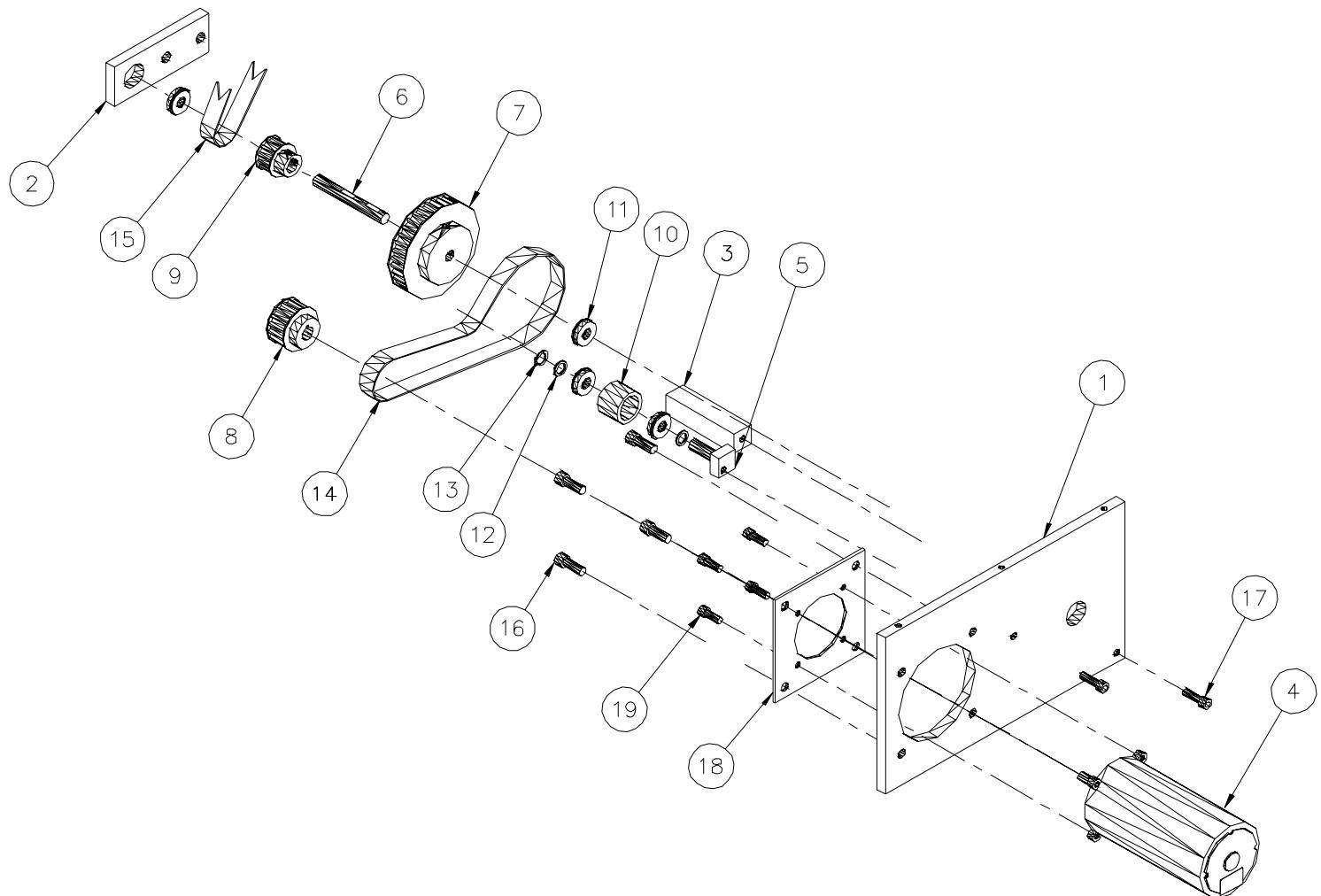
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**TURNOVER (Fig. 5-4)**  
**MOTOR / MOTOR MOUNT ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	20011-001	1	PLATE, MOTOR MOUNT
2	20011-002	1	PLATE, INTERMEDIATE SHAFT
3	20012-004	1	STANDOFF, MOTOR SUPPORT
4	99001-019	1	MOTOR, 1/4 HP, DC DRIVE
5	18004-022	1	TENSIONER, ECCENTRIC
6	20004-008	1	SHAFT, INTERMEDIATE
7	99002-019	1	PULLEY, 36L075, 1/2 BORE
8	99002-036	1	PULLEY, 16L075, 5/8 BORE
9	99002-018	1	PULLEY, 12L075, 1/2 BORE
10	18006-012	1	ROLLER, TENSIONER
11	99003-007	4	BEARING, SEALED W/ SNAP RING, 1/2 X 1-1/8
12	99003-018	2	WASHER, NYLON, 1/2 X 1/16
13	99022-004	1	SNAP RING, 1/2
14	90000-035	1	BELT, 270L075
15	90000-028	1	BELT, 255L075
16		4	SCREW, SKT HD, 3/8-16 X 1
17		2	SCREW, SKT HD, 5/16-18 X 1
18	20011-005	1	MOTOR MOUNT ADAPTOR PLATE
19		4	SCREW, SKT HD, 1/4-20 X 5/8

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**FIG. 5-4**



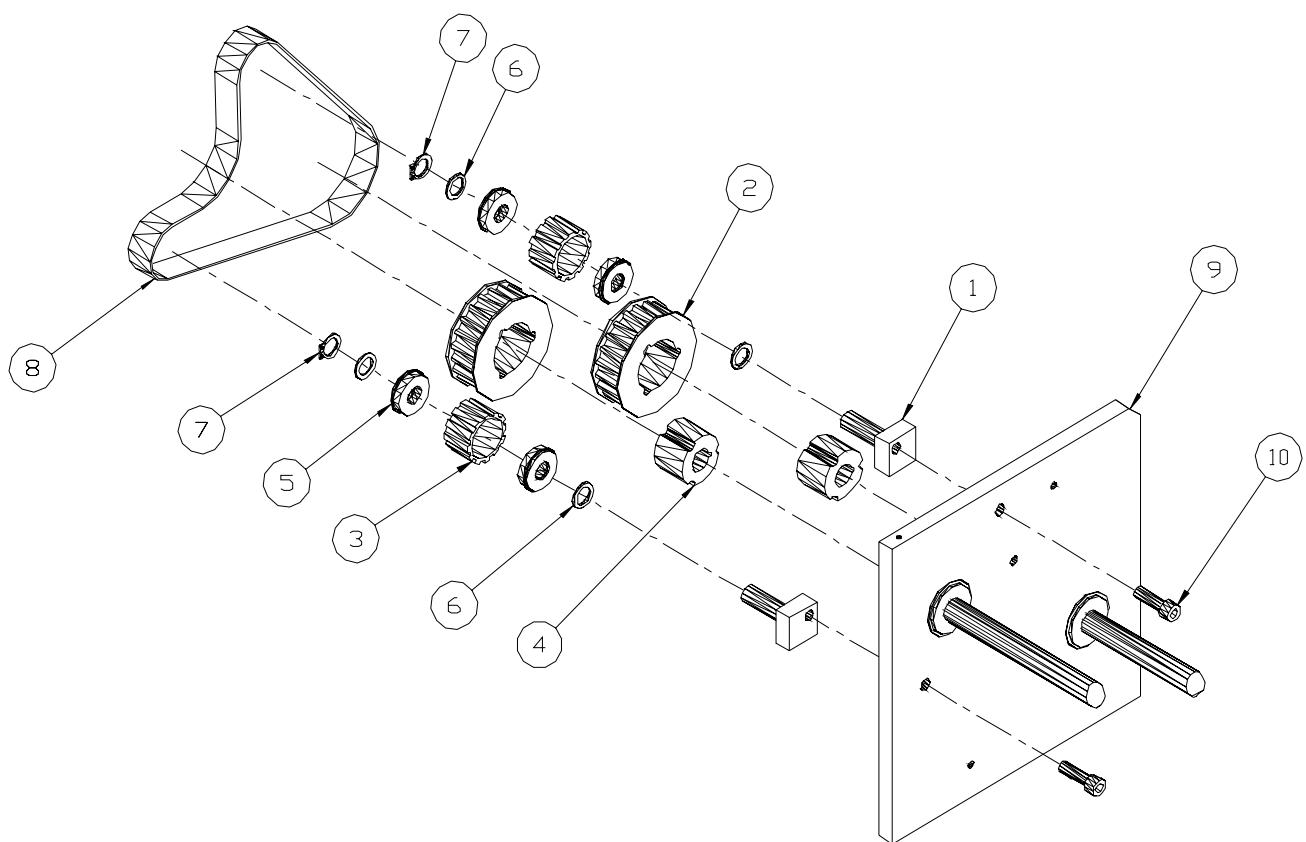
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**TURNOVER (Fig. 5-5)**  
**DRIVE ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18004-022	2	TENSIONER, ECCENTRIC
2	99002-035	2	PULLEY, TL22L075 1008
3	20006-004	2	PULLEY, IDLER, 12L075
4	99017-019	2	BUSHING, TAPERLOCK, 1008, 5/8 BORE
5	99003-007	4	BEARING, SEALED W/ SNAP RING, 1/2 X1-1/8
6	99003-018	4	WASHER, NYLON, 1/2 X 1/16
7	99022-004	2	SNAP RING, 1/2
8	99000-034	1	BELT, D240L075
9	20000-006	1	SIDEPLATE, DISCHARGE, LH (REF. ONLY)
10		2	SCREW, SKT HD, 5/16-18 X 1

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*FIG. 5-5*



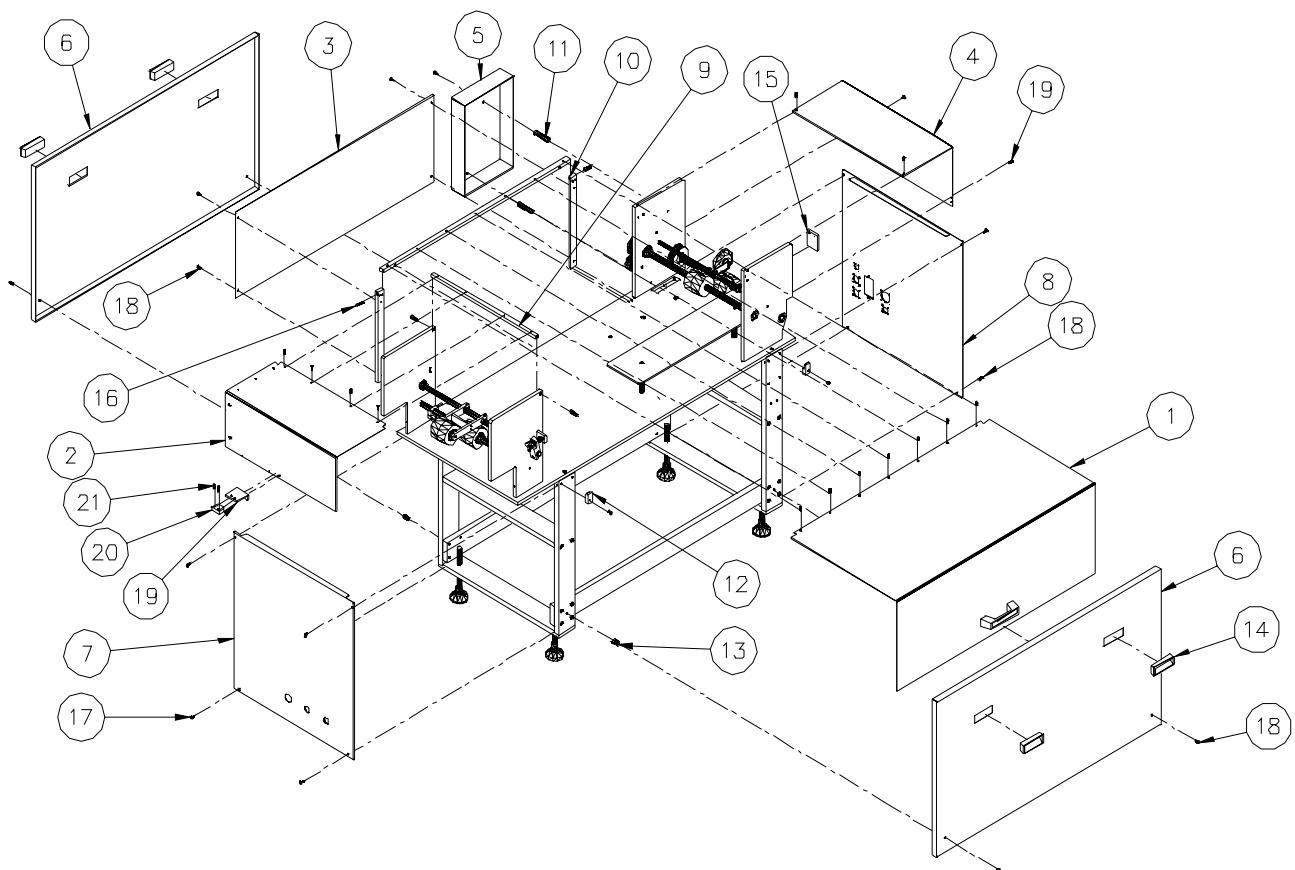
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**TURNOVER - COVERS (Fig. 5-6)**

ITEM	PART NO.	QTY.	DESCRIPTION
1	(SEE FIG. 5-8)	1	CENTER COVER ASSEMBLY
2	20013-009	1	COVER, INFEED
3	20013-015	1	COVER, SIDE
4	20013-010	1	COVER, DISCHARGE
5	20013-013	1	COVER, DRIVE
6	20013-003	2	GUARD, SIDE
7	20013-011	1	COVER, END (INFEED)
8	20013-012	1	COVER, END (DISCHARGE)
9	20008-005	1	BAR, END COVER MTG.
10	20007-005	2	POST, COVER MTG.
11	20012-003	2	STANDOFF, DRIVE COVER
12	18007-042	4	BLOCK, SIDE GUARD MTG.
13	18012-006	4	STANDOFF, SIDE GUARD MTG.
14	99012-002	4	HANDLE, SIDE GUARD
15	20009-001	1	BRACKET, SWITCH MTG.
16	99006-024	4	PIN, STUD, 5/16-24 X 1-1/8
17		14	SCREW, BUTTON HD, 10-24 X 1/2
18		21	SCREW, BUTTON HD, 8-32 X 1/2
19	99018-002	1	BRACKET, SENSOR MTG.
20	98009-002	1	SENSOR, SENDER & RECIEVER, P& F THRU BEAM
21		2	SCREW, PAN HD, 6-32 X 1/4

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*FIG. 5-6*



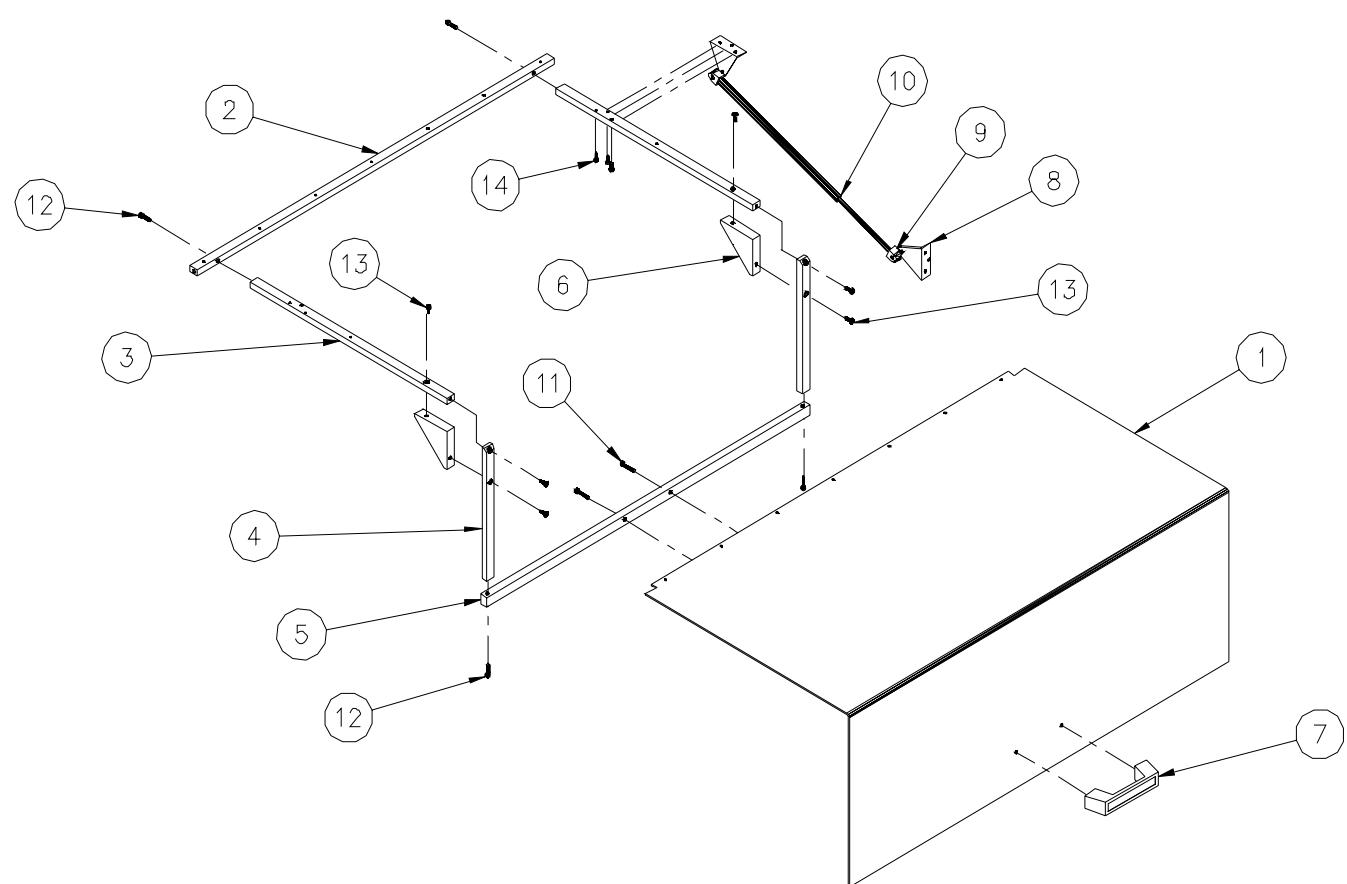
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**TURNOVER - COVERS (Fig. 5-7)**  
**CENTER COVER ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	20013-014	1	COVER, CENTER
2	20008-004	1	BAR, COVER MTG.
3	20008-008	2	BAR, COVER SUPPORT (TOP)
4	20008-007	2	BAR, COVER SUPPORT (SIDE)
5	20008-006	1	BAR, COVER SUPPORT (HANDLE)
6	20007-006	2	GUSSET, COVER SUPPORT
7	99012-001	1	HANDLE, CENTER COVER
8	99014-008	2	BALL STUD ANGLE BRACKET
9	99014-005	2	BALL SOCKET END FITTING
10	99014-007	1	GAS SPRING
11		2	SCREW, SKT HD, 1/4-20 X 1
12		4	SCREW, SKT HD, 1/4-20 X 3/4
13		6	SCREW, SKT HD, 1/4-20 X 1/2
14		3	SCREW, PAN HD, 10-24 X 1/2

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**FIG. 5-7**

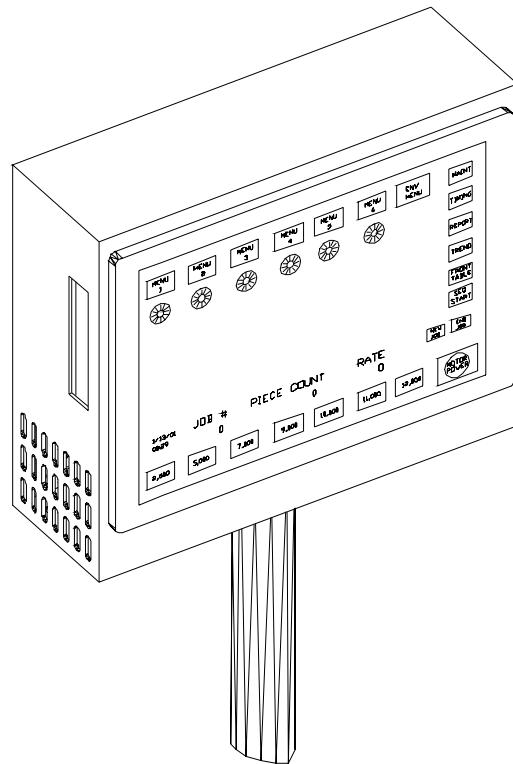


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# **TOUCH SCREEN**

## **10 X 13**



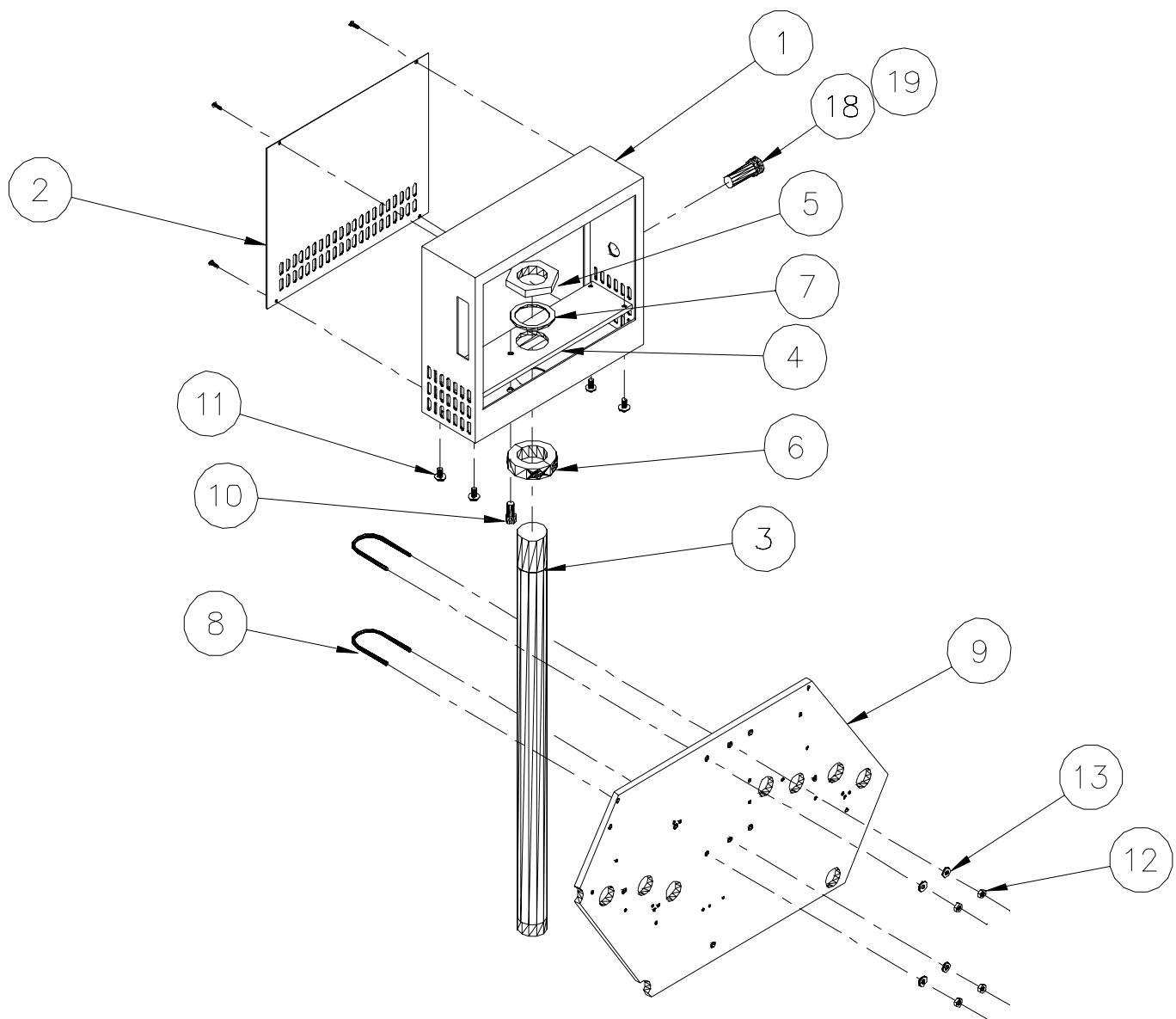
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**TOUCH SCREEN ASSEMBLY (Fig.6-1)**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18013-001	1	ENCLOSURE, OPERATOR INTERFACE
2	18011-021	1	PLATE, BACK – OPERATOR INTERFACE
3	18019-003	1	POST, OPERATOR INTERFACE SUPPORT
4	18011-020	1	PLATE, STIFFENER
5	18019-002	1	NUT, OPERATOR INTERFACE MTG.
6	99017-015	1	COLLAR, SHAFT, 1-5/8
7	99005-014	1	SPRING WASHER, 45.5 MM ID
8	99024-002	2	U-BOLT, 1-1/4 PIPE
9	18011-026	1	PLATE, FEEDER MOUNTING, 10 X 13 (REF. ONLY)
10		1	SCREW, SKT HD, 3/8-16 X 3/4
11		4	SCREW, BUTTON HD, 1/4-20 X 1/2
12		4	NUT, HEX HEAD, 5/16-18
13		4	WASHER, FLAT (SAE), 5/16
14	98013-003	1	TOUCH SCREEN INTERFACE, MITS. (NOT SHOWN)
15	98013-005	1	MEMORY CARD, 1 MEG, MITS. (NOT SHOWN)
16	98010-003	1	CABLE, COMM, MITSUBISHI (NOT SHOWN)
17	98013-006	1	COMM. MODULE, RS422, MITS. (NOT SHOWN)

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**FIG. 6-1**



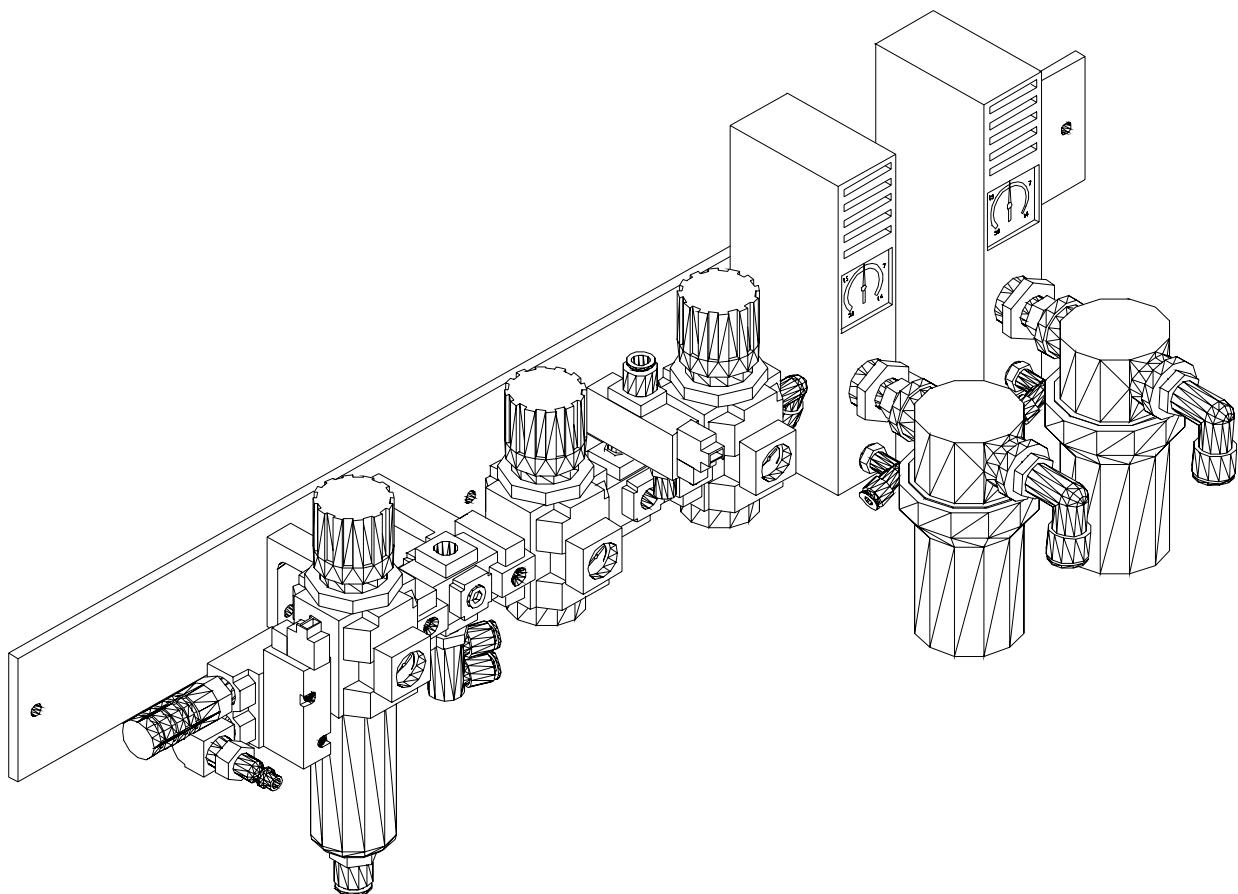
NOTE: INTERFACE, COMM MODULE, MEMORY CARD, COMM CABLE,  
1A FUSE, AND POWER CORD NOT SHOWN (ITEMS 14-17, 19, 20)

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# PNEUMATICS

## 10 X 13



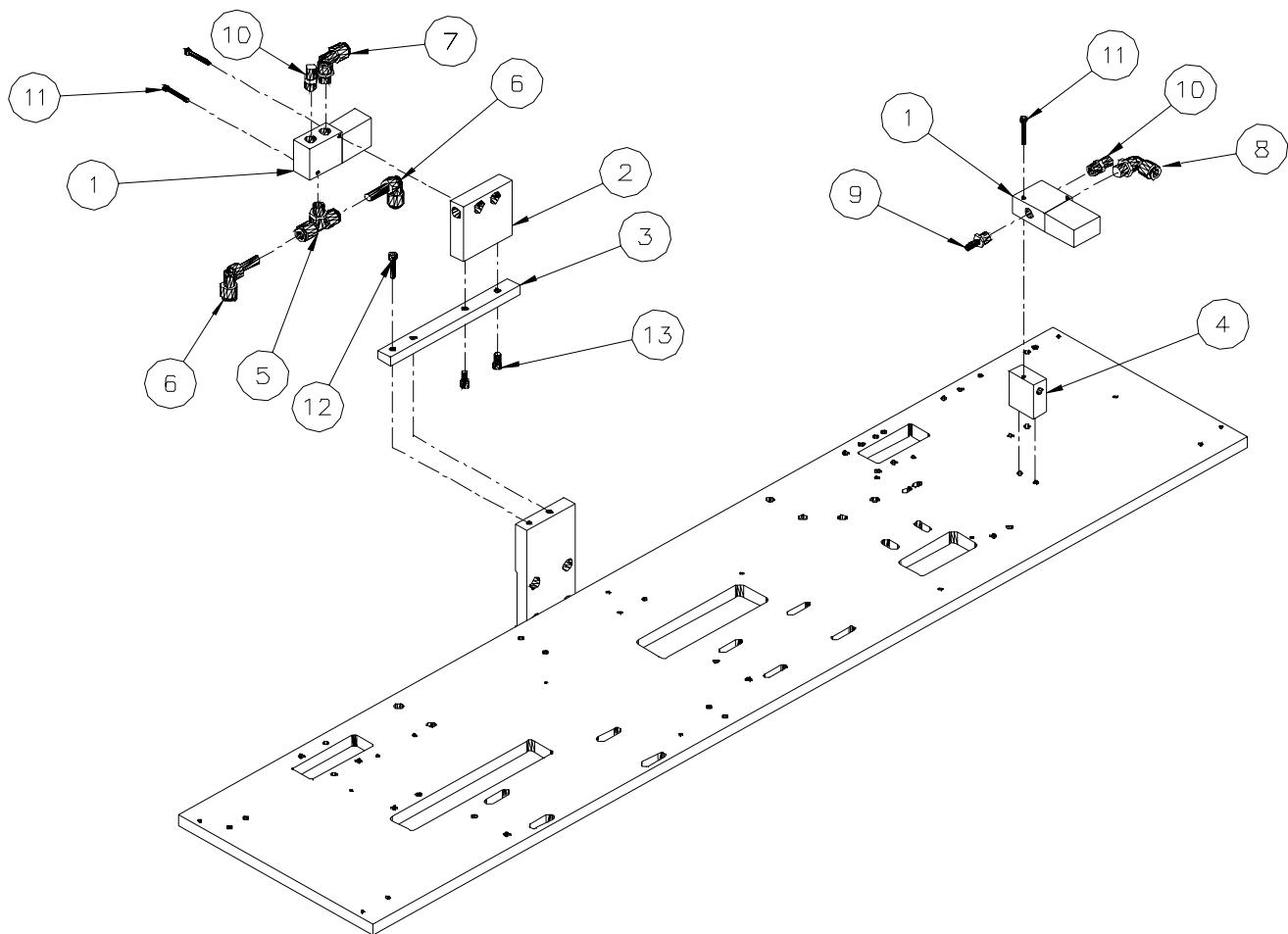
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**PNEUMATICS (Fig. 7-1)**  
**VACUUM SHUTTLE / VACUUM DISH SOLENOID ASSY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	99025-006	2	VALVE, SOLENOID (VACUUM)
1	99025-033	1	Valve, Solenoid, Envelope Vac. Shuttle (On models manufactured after July 2003)
2	18007-063	1	BLOCK, MANIFOLD
3	18008-034	1	BAR, MANIFOLD MTG.
4	18007-030	1	BLOCK, IDLER MTG
5	99028-064	1	FITTING, MALE BRANCH TEE, 1/4 NPT X 3/8 TUBE
6	99028-073	2	FITTING, ELBOW ADAPTER, 3/8 MALE TUBE X 3/8 TUBE
7	99028-085	1	FITTING, MALE ELBOW, 1/4 NPT X 3/8 TUBE
8	99028-080	1	FITTING, MALE ELBOW, 1/4 NPT X 1/2 ID HOSE
9	99028-017	1	FITTING, MALE CONNECTOR, 1/4 NPT X 3/8 TUBE
10	99028-006	2	MUFFLER, 1/4 NPT
11		3	SCREW, SKT HD, 8-32 X 1-1/4
12		1	SCREW, SKT HD, 1/4-20 X 1
13		2	SCREW, SKT HD, 1/4-20 X 1/2
14	99031-011	6'	HOSE, BLUE, 1/2" ID (NOT SHOWN)
15	99031-010	7'	HOSE, BLUE, 3/8" ID (NOT SHOWN)

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*FIG. 7-1*



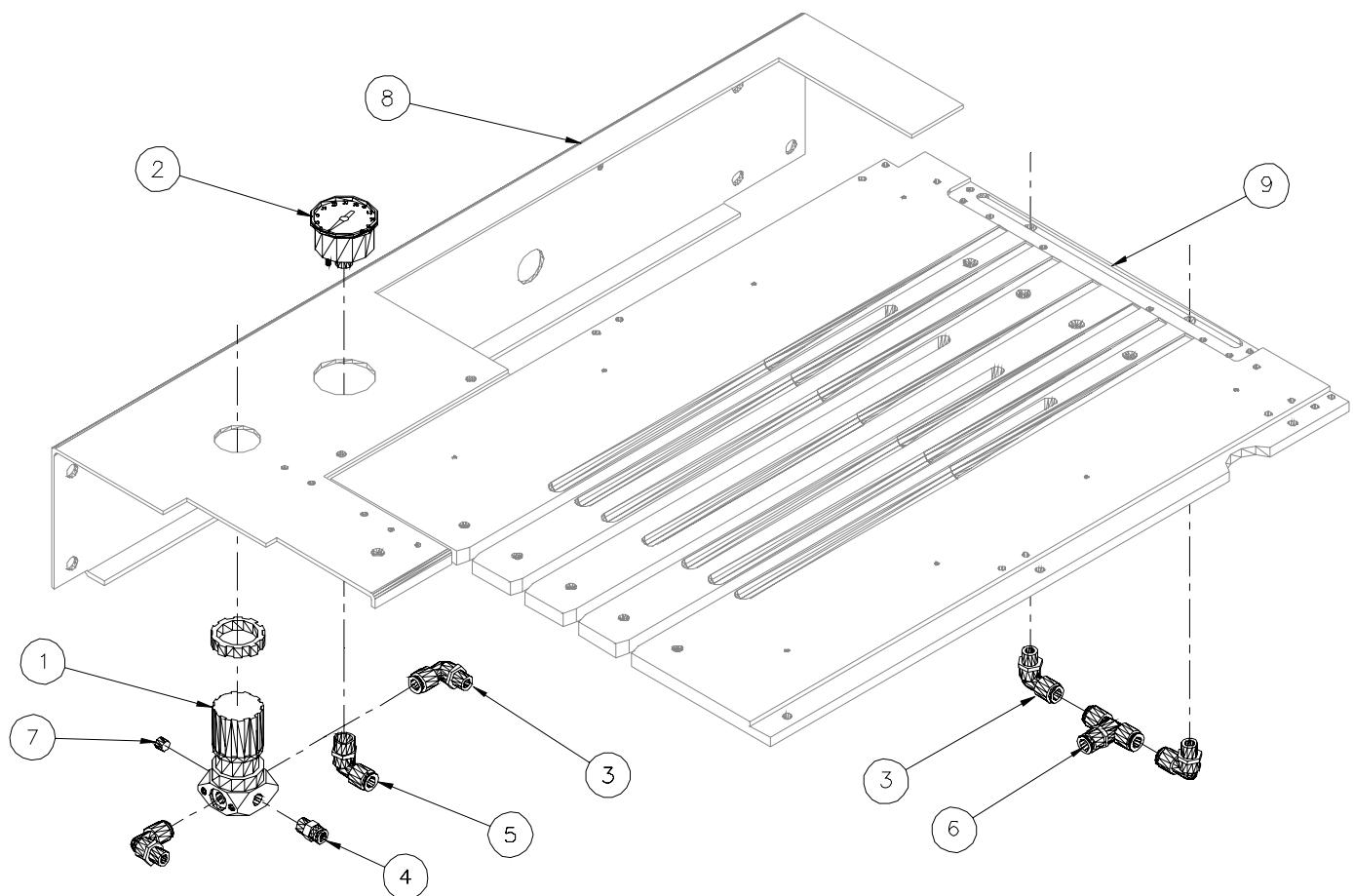
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**PNEUMATICS (Fig. 7-2)**  
**INSERT AIR ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	99026-005	1	REGULATOR, INSERT AIR
2	99030-002	1	GUAGE, PANEL MOUNT, 0-60, W/ BRACKET
3	99028-022	4	FITTING, MALE ELBOW, 3/8 TUBE X 1/8 NPT
4	99028-016	2	FITTING, MALE CONNECTOR, 1/4 TUBE X 1/8 NPT
5	99028-083	1	FITTING, MALE ELBOW, 1/4T X 1/8 FEMALE NPT
6	99028-036	1	FITTING, TEE, 3/8 TUBE
7	99028-008	1	PLUG, FLUSH, 1/8 NPT
8	18001-007	1	COVER, TOP, LH SHORT (REF ONLY)
9	18005-001	1	PLATE, PUSHER GUIDE (REF. ONLY)
10	99031-010	1	HOSE, BLUE, 3/8 (NOT SHOWN)
11	99031-013	1	HOSE, BLACK, 1/4 (NOT SHOWN)

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FIG. 7-2



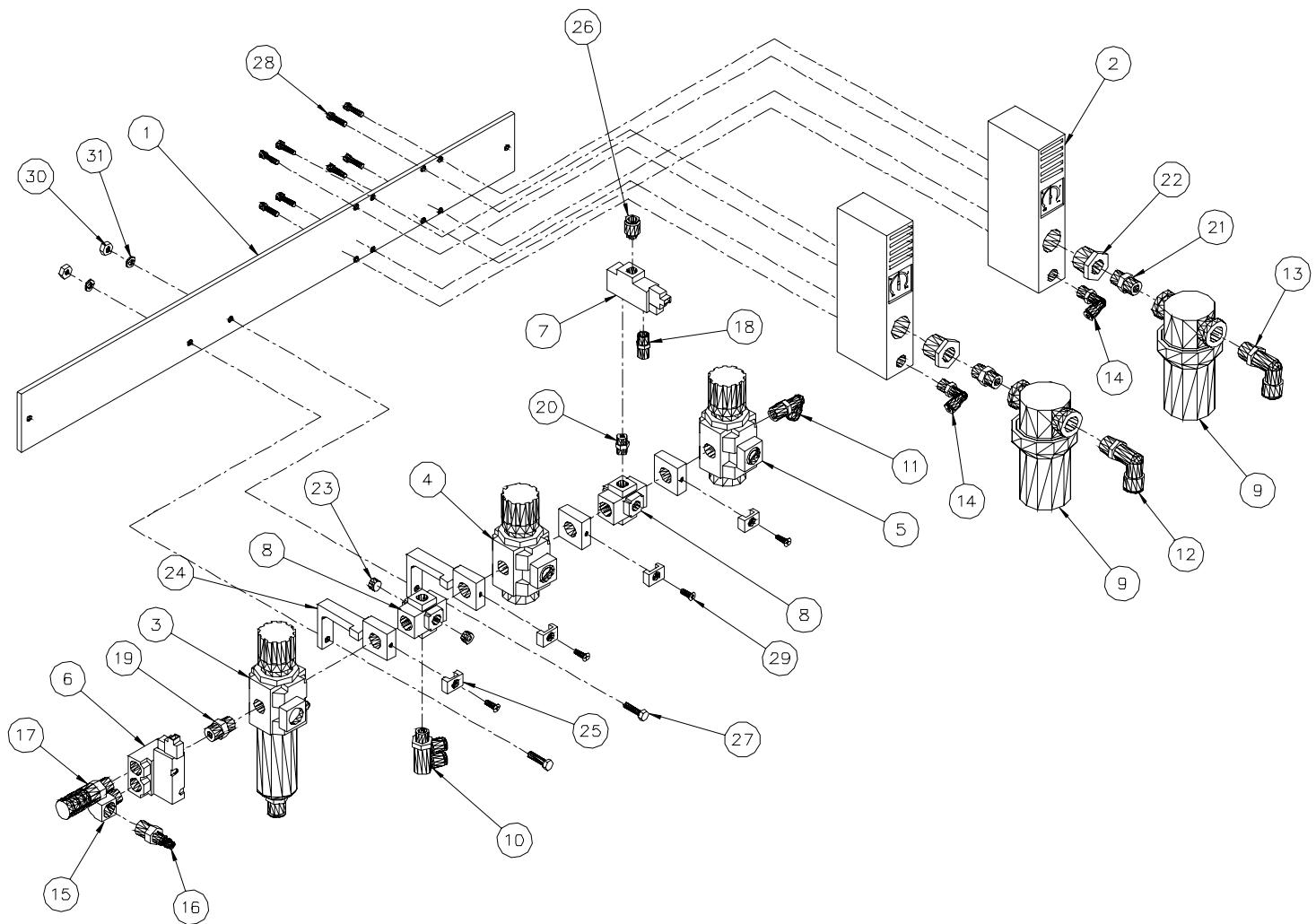
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**PNEUMATICS (Fig. 7-3)  
MOUNTING BAR ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18008-083	1	BAR, MOUNTING, PNEUMATICS
2	99029-004	2	VACUUM GENERATOR, MULTI STAGE, ZL SERIES
3	99026-008	1	REGULATOR, FILTER
4	99026-015	1	REGULATOR, AIR
5	99026-009	1	REGULATOR, WATER
6	99025-010	1	VALVE, SOLENOID, BASE MOUNTED PORTS
7	99025-011	1	VALVE, SOLENOID, BODY MOUNTED PORTS
8	99026-010	1	BLOCK, DIVERT
9	99027-005	2	FILTER, VACUUM
10	99028-068	1	FITTING, DOUBLE MALE ELBOW, 5/16 TUBE X 1/4 NPT
11	99028-020	1	FITTING, MALE ELBOW, 1/4 TUBE X 3/8 NPT
12	99028-063	1	FITTING, MALE ELBOW, 3/8 TUBE X 1/2 NPT
13	99028-066	1	FITTING, MALE ELBOW, 1/2 TUBE X 1/2 NPT
14	99028-084	2	FITTING, MALE ELBOW, 3/8 TUBE X 1/8 NPT
15	99028-004	1	ELBOW, STREET BRASS, 3/8 NPT
16	99028-001	1	COUPLING, QUIKE DISCONNECT, 1/4 X 3/8 NPT
17	99028-069	1	MUFFLER, 3/8 NPT
18	99028-006	1	MUFFLER, 1/4 NPT
19	99028-071	1	NIPPLE, HEX, 3/8 NPT
20	99028-070	1	NIPPLE, HEX, 1/4 NPT
21	99028-072	2	NIPPLE, HEX, 1/2 NPT
22	99028-037	2	FITTING, BRASS REDUCER, 3/4 NPT TO 1/2 NPT
23	99028-009	2	PLUG, FLUSH, 1/4 NPT
24	99026-011	2	BRACKET, PNEUMATIC MOUNTING
25	99026-012	2	NUT, PNEUMATIC MOUNTING
26	99028-017	1	FITTING, MALE CONNECTOR, 3/8 TUBE X 1/4 NPT
27		2	SCREW, HEX HD, 1/4-20 X 1
28		8	SCREW, SKT HD, 10-24 X 3/4
29		4	SCREW, FLAT HD, 8-32 X 1/2
30		2	NUT, HEX HD, 1/4 -20
31		2	WASHER, LOCK, 1/4
32	99027-006	2	FILTER ELEMENT, REPLACEMENT (NOT SHOWN)
33	99031-010	4'	HOSE, BLUE, 3/8" (NOT SHOWN)

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**FIG. 7-3**



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**ELECTRICAL  
COMPONENTS**  
**10 X 13**

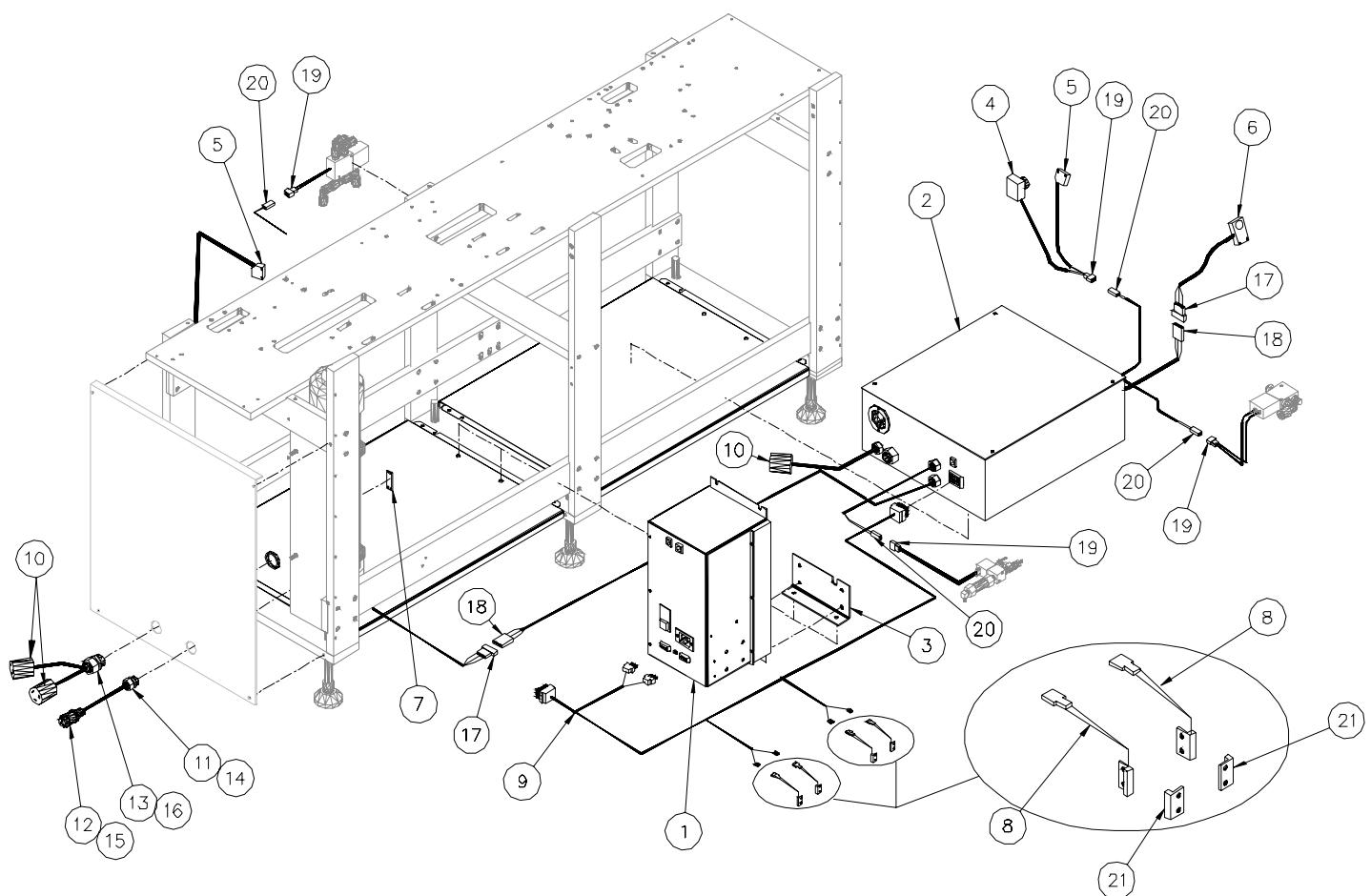
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**ELECTRICAL COMPONENTS (FRONT TABLE) (Fig. 8-1)**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18021-003	1	ASSEMBLY, INVERTER ENCLOSURE (SEE FIG. 8-2)
2	18020-087	1	ASSEMBLY, REMOTE I/O (SEE FIG. 8-3)
3	18009-045	1	BRACKET, INVERTER ENCLOSRE MTG.
4	98009-017	1	SENSOR / CABLE ASSY
5	98009-002	2	PHOT EYE, P+F THRU BEAM
6	98009-001	1	SENSOR, BANNER, AN7
7	98009-019	1	SENSOR, LOW WATER
8	98000-036	4	(2) – 2-POLE REED SWITCH (FRONT TABLE DOORS) (2) – 2-POLE REED SWITCH (TOP COVERS)
9	<b>18021-013</b>	<b>1</b>	<b>FRONT TABLE INTERLOCK HARNESS</b>
	98016-089	2	CONNECTOR – 15 POS. MALE
	98016-085	2	CONNECTOR – 3 POS. MALE
	98016-086	4	CONNECTOR – 4 POS. FEMALE
10	98016-073	3	PLUG, HUBEL, 3-PIN, 115V
11	98015-001	1	STRAIN RELIEF, 1/2"
12	98016-012	1	PLUG, AMP, 17-16, FEMALE
13	98015-002	1	STRAIN RELIEF, 3/4"
14	98015-003	1	LOCKNUT, 1/2"
15	98016-005	1	BACKSHELL, PLASTIC, SIZE 17
16	98015-004	1	LOCKNUT, 3/4"
17	98016-021	2	CONNECTOR – 5 POS. MALE
18	98016-022	2	CONNECTOR – 5 POS. FEMALE
19	98016-023	4	CONNECTOR – 2 POS. MALE
20	98016-024	4	CONNECTOR – 2 POS. FEMALE
21	98020-024	4	MAGNET, REED SWITCH ACTUATOR

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**FIG. 8-1**



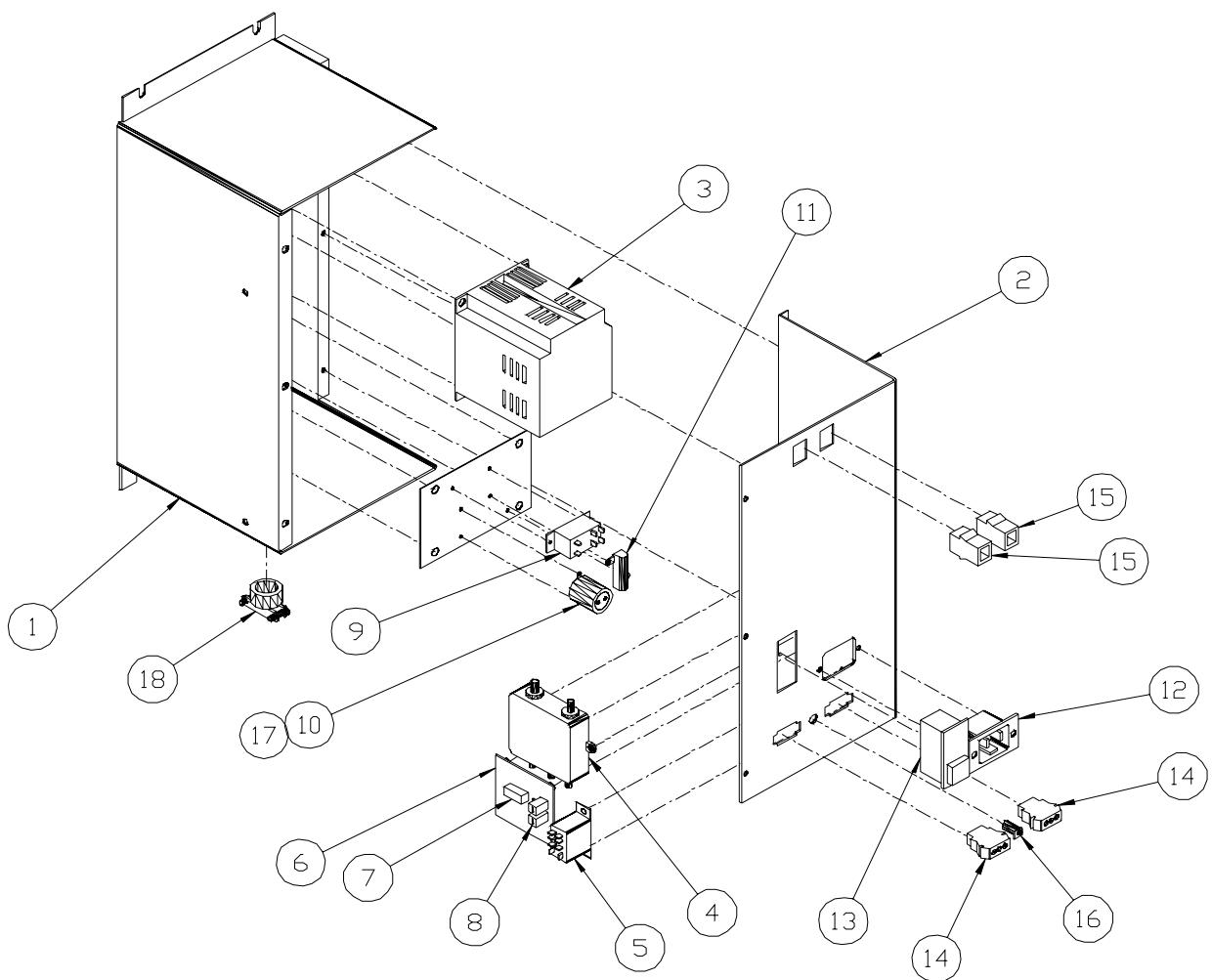
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**INVERTER ENCLOSURE ASSY. (FRONT TABLE) (Fig. 8-2)**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18013-092	1	ENCLOSURE, AC FREQUENCY DRIVE
2	18013-093	1	COVER, AC FREQ. DRIVE ENCLOSURE
3	98013-034	1	AC DRIVE, 1.5 KW, MITSUBISHI
4	98020-025	1	AC LINE FILTER
5	98002-015	1	RELAY, PILOT
6	98006-014	1	RAW CIRCUIT BOARD
7	98002-016	1	RELAY, DPDT, 2 AMP
8	98016-080	2	CONNECTOR HEADER, 3 POS, .100
9	98002-017	1	RELAY, 24V DC, 2-POLE
10	98020-036	1	CAPICATOR, 2200 uF
11	98020-038	1	RESISTOR, POWER, 16 OHMS
12	98020-026	1	IEC 320 C-20 INLET
13	98004-016	1	CIRCUIT BREAKER, 2-POLE, 10 AMP
14	98016-077	2	CONNECTOR – 3 POS. FEMALE
15	98020-028	2	RJ45 / RJ45, F/F ADAPTOR
16	98022-003	1	LED, STATUS LIGHT
17	98020-037	1	CAPACITOR MTG HARDWARE
18	98015-015	1	STRAIN RELIEF, 1"

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**FIG 8-2**



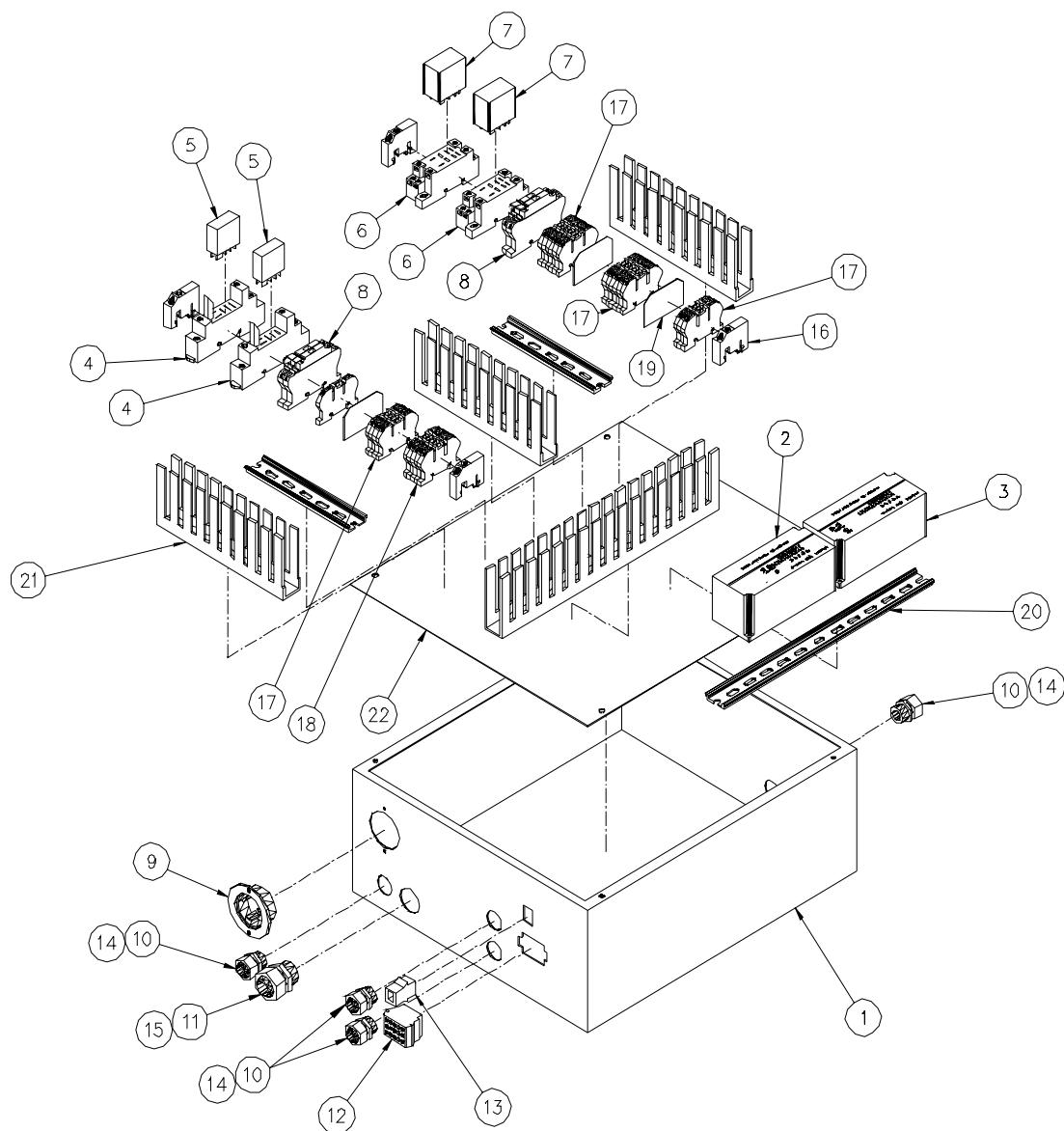
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**REMOTE I/O (FRONT TABLE) (Fig. 8-3)**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18013-111	1	ENCLOSURE, 16 X 14 X 6, REMOTE I/O
2	98013-020	1	REMOTE INPUT MODULE
3	98013-021	1	REMOTE OUTPUT MODULE
4	98002-012	2	SOCKET, SPDT RELAY
5	98002-011	2	RELAY, SPDT, 24V DC, 10 AMP
6	98002-005	2	SOCKET, DPDT RELAY
7	98002-007	2	RELAY, DPDT, 24V DC, 10 AMP
8	98001-012	5	FUSE BLOCK, ENTRELEC
9	98016-074	1	RECEPTICAL, FLANGED, 3-PIN, 115V, 15A
10	98015-001	4	STRAIN RELIEF, 1/2"
11	98015-002	1	STRAIN RELIEF, 3/4"
12	98016-084	1	CONNECTOR – 15 POS. FEMALE
13	98020-028	1	RJ45 / RJ45, F/F ADAPTOR
14	98015-003	4	LOCKNUT, 1/2"
15	98015-004	1	LOCKNUT, 3/4"
16	98001-014	4	END STOP, TERMINAL
17	98001-010	20	TERMINAL BLOCK, ENTRELEC
18	98001-013	5	TERMINAL GROUND, ENTRELEC
19	98001-026	3	CIRCUIT DIVIDER
20	98001-022	4'	DIN RAIL, ENTRELEC
21	98012-003	5'	WIREWAY, 1" X 3"
22	98014-007	1	PANEL, BACK, REMOTE I/O
23	98004-017	1	FUSE, 1A, SLOW BLOW 5 X 20 MM (NOT SHOWN)
24	98004-023	1	FUSE, 2A, SLOW BLOW 5 X 20 MM (NOT SHOWN)
25	98004-018	3	FUSE, 3A, SLOW BLOW 5 X 20 MM (NOT SHOWN)
26	98004-021	1	FUSE, 10A, SLOW BLOW 5 X 20 MM (NOT SHOWN)
27	98001-027	1	JUMPER, 4 POLE (NOT SHOWN)
28	98001-024	3	JUMPER, 5 POLE (NOT SHOWN)

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**FIG. 8-3**



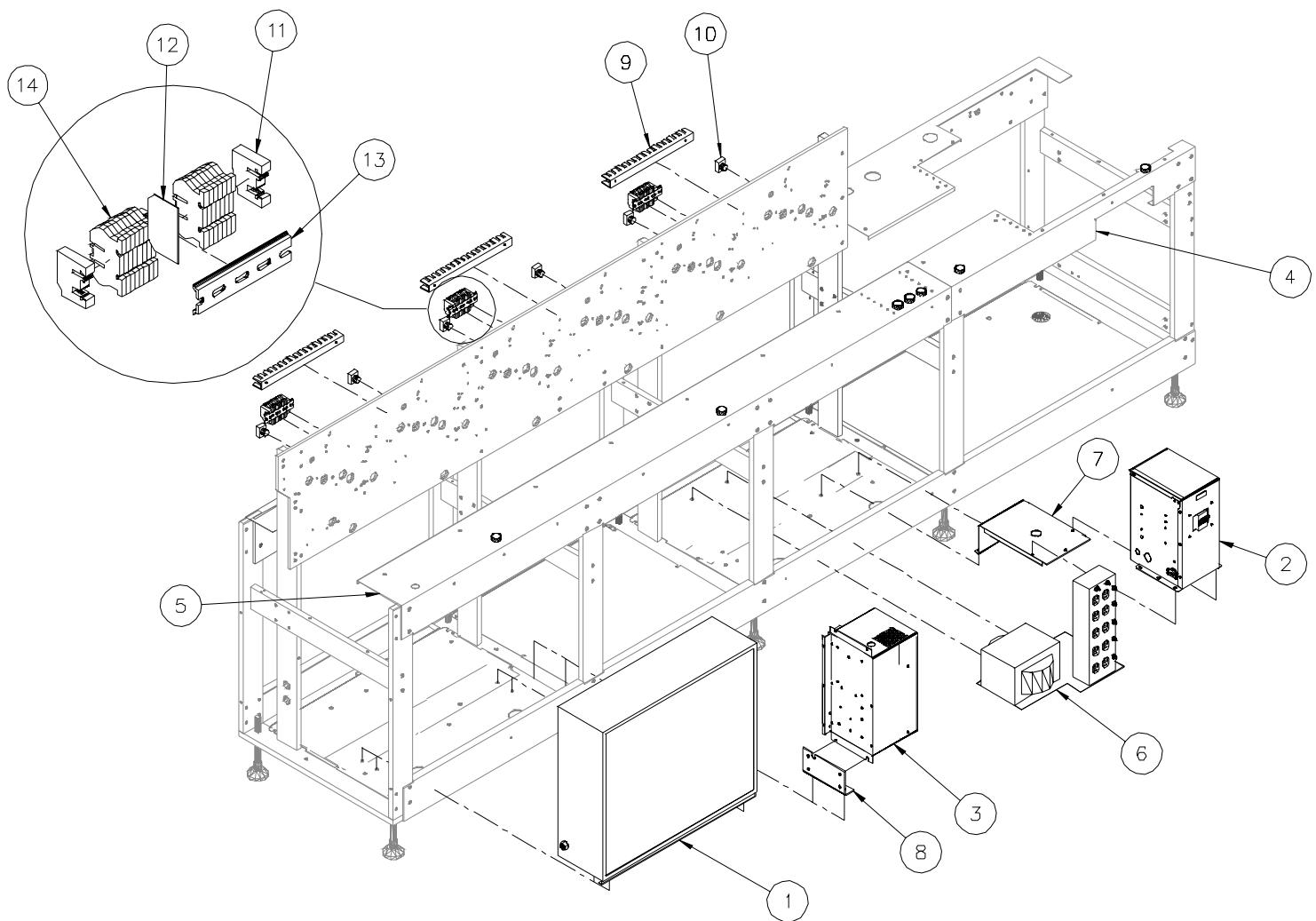
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**ELECTRICAL COMPONENTS (COLLATOR) (Fig. 8-4)**  
**COLLATOR ELECTRICAL ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18020-105	1	PLC ENCLOSURE ASSEMBLY (SEE FIG. 8-8)
2	18021-001	1	POWER ENTRY MODULE ASSEMBLY (SEE FIG. 8-6)
3	18021-002	1	INVERTER ENCLOSURE ASSEMBLY (SEE FIG. 8-7)
4	18021-025	1	OPERATOR SWITCH PLATE ASSEMBLY, FRONT (SEE FIG. 8-5)
5	18021-029	1	OPERATOR SWITCH PLATE ASSEMBLY, MAIN (SEE FIG. 8-5)
6	98008-006	1	TRANSFORMER MODULE
7	18009-044	1	BRACKET, POWER ENTRY MODULE MTG.
8	18009-045	1	BRACKET, INVERTER ENCLOSURE MTG.
9	98012-004	2'	WIREWAY, 1" X 1"
10	98009-016	6	SENSOR / REFLECTOR / CABLE ASSY.
11	98001-014	6	END STOP, ENTRELEC
12	98001-026	3	CIRCUIT DIVIDER
13	98001-022	1.5'	DIN RAIL, ENTRELEC
14	98001-010	43	TERMINAL BLOCK, ENTRELEC

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**FIG. 8-4**



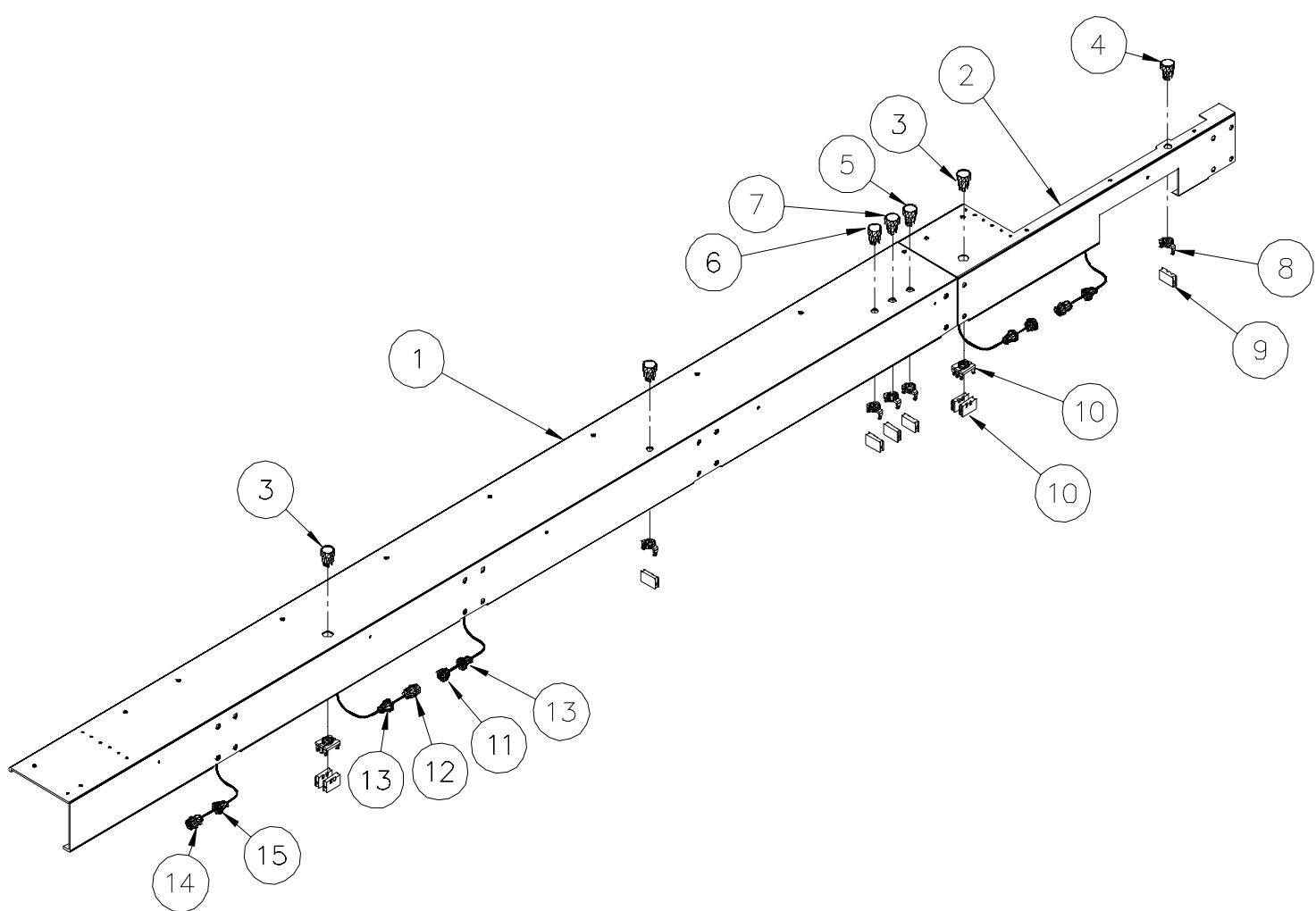
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**ELECTRICAL COMPONENTS (COLLATOR) (Fig. 8-5)**  
**OPERATOR CONTROL SWITCH ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18001-008	1	COVER, TOP, RH
2	18001-014	1	COVER, TOP, RH SHORT
3	98000-035	2	SWITCH, PUSH BUTTON ROUND, BLACK
4	98000-032	2	SWITCH, PUSH BUTTON ROUND, BLUE
5	98000-030	1	SWITCH, PUSH BUTTON ROUND, GREEN
6	98000-031	1	SWITCH, PUSH BUTTON ROUND, YELLOW
7	98000-029	1	SWITCH, PUSH BUTTON ROUND, RED
8	98000-027	5	SWITCH ASSY CLIP
9	98000-028	5	CONTACT BLOCK, 1 X NO
10	98000-017	2	CONTACT BLOCK, 1 X NO + 1 X NC + CLIP
11	98016-007	2	PLUG, AMP, SERIES 1, 13-9 STD
12	98016-016	2	RECEPTACLE, FR. HANGING, AMP, SERIES 1, 13-9 STD.
13	98016-008	4	BACKSHELL, PLASTIC, SIZE 13
14	98016-094	1	PLUG, AMP, 17-9 MALE
15	98016-005	1	BACKSHELL, PLASTIC, SIZE 17

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**FIG. 8-5**



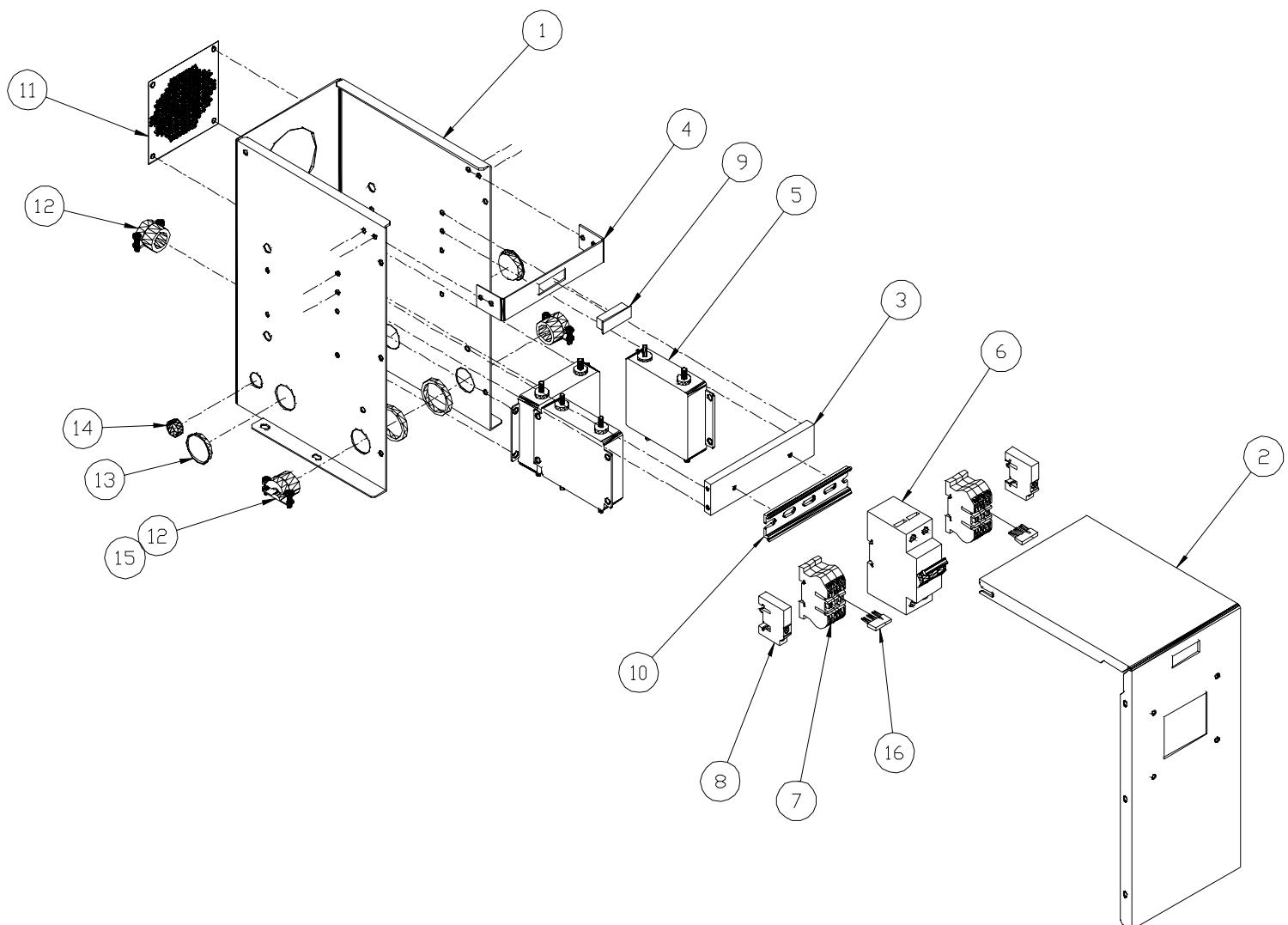
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**ELECTRICAL COMPONENTS (COLLATOR) (Fig. 8-6)**  
**POWER ENTRY MODULE ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18013-076	1	ENLCOSURE, POWER ENTRY MODULE
2	18013-094	1	COVER, POWER ENTRY MODULE
3	18009-039	1	BRACKET, POWER ENTRY DIN RAIL
4	18009-038	1	BRACKET, POWER ENTRY POWER SWITCH
5	98020-023	3	FILTER, RF1 115/250V, 30A
6	98004-014	1	BREAKER, 2-POLE, 30A, RAIL MOUNT
7	98001-028	6	TERMINAL STRIP, SINGLE 50A, 600V
8	98001-037	2	END CLAMP, TERMIANL STRIP
9	98022-002	1	LAMP, POWER INDICATOR
10	98001-022	5.5"	DIN RAIL MTG STRIP
11	18013-075	1	SCREEN, MESH AIR VENT
12	98015-018	3	STRAIN RELIEF, 3/4" (STEEL)
13	98015-012	2	FINISHING PLUG, 1-1/8 HOLE
14	99003-053	1	BUSHING, SNAP IN
15	98015-004	3	LOCKNUT, 3/4"
16	98001-029	2	JUMPER, 3-POLE

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**FIG. 8-6**



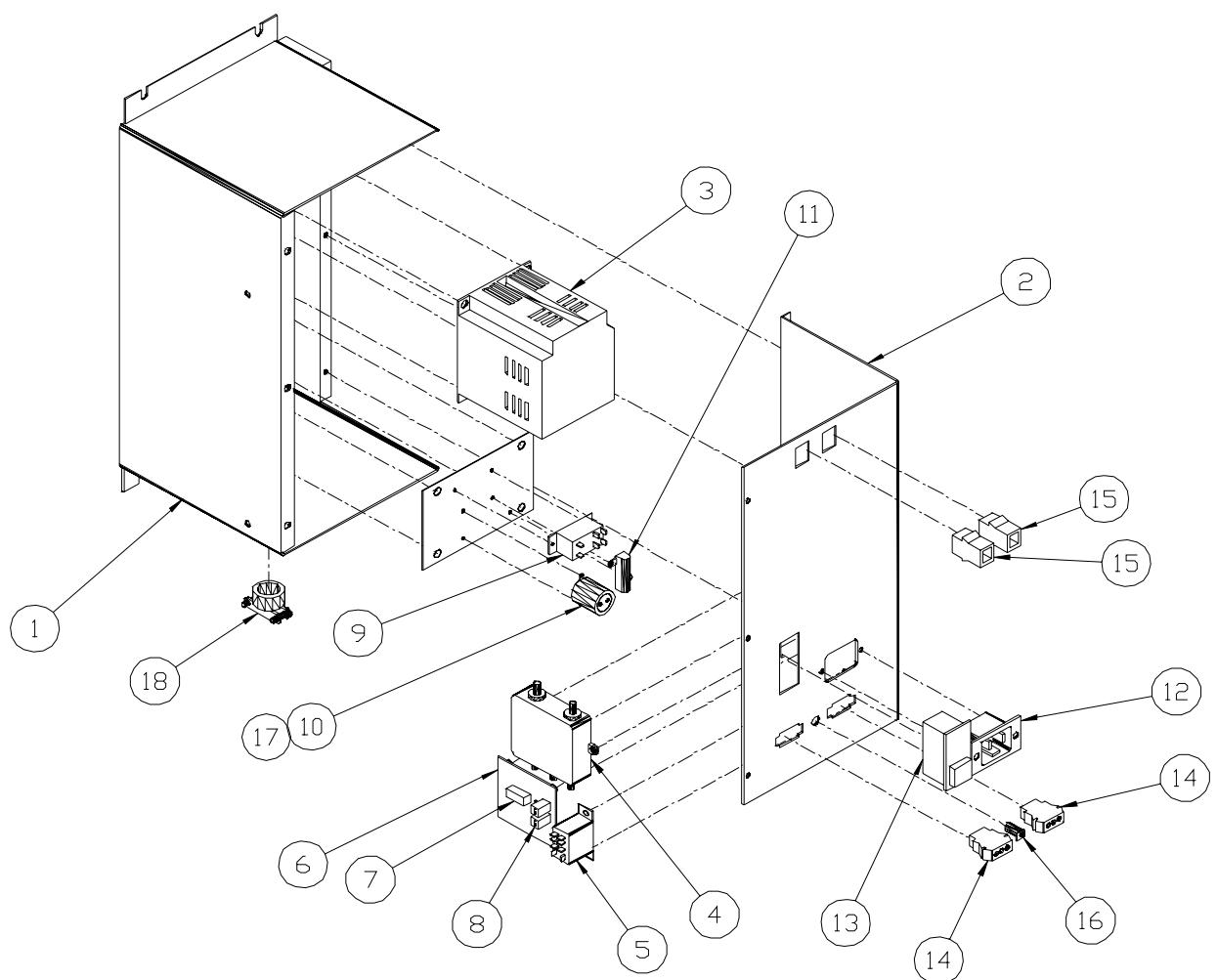
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**ELECTRICAL COMPONENTS (COLLATOR) (Fig. 8-7)  
INVERTER ENCLOSURE ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18013-092	1	ENCLOSURE, AC FREQUENCY DRIVE
2	18013-093	1	COVER, AC FREQ. DRIVE ENCLOSURE
3	98013-034	1	AC DRIVE, 1.5 KW, MITSUBISHI
4	98020-025	1	AC LINE FILTER
5	98002-015	1	RELAY, PILOT
6	98006-014	1	RAW CIRCUIT BOARD
7	98002-016	1	RELAY, DPDT, 2 AMP
8	98016-080	2	CONNECTOR HEADER, 3 POS, .100
9	98002-017	1	RELAY, 24V DC, 2-POLE
10	98020-036	1	CAPICATOR, 2200 uF
11	98020-038	1	RESISTOR, POWER, 16 OHMS
12	98020-026	1	IEC 320 C-20 INLET
13	98004-015	1	CIRCUIT BREAKER, 2-POLE, 5 AMP
14	98016-077	2	CONNECTOR – 3 POS. FEMALE
15	98020-028	2	RJ45 / RJ45, F/F ADAPTOR
16	98022-003	1	LED, STATUS LIGHT
17	98020-037	1	CAPACITOR MTG HARDWARE
18	98015-015	1	STRAIN RELIEF, 1"

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**FIG. 8-7**



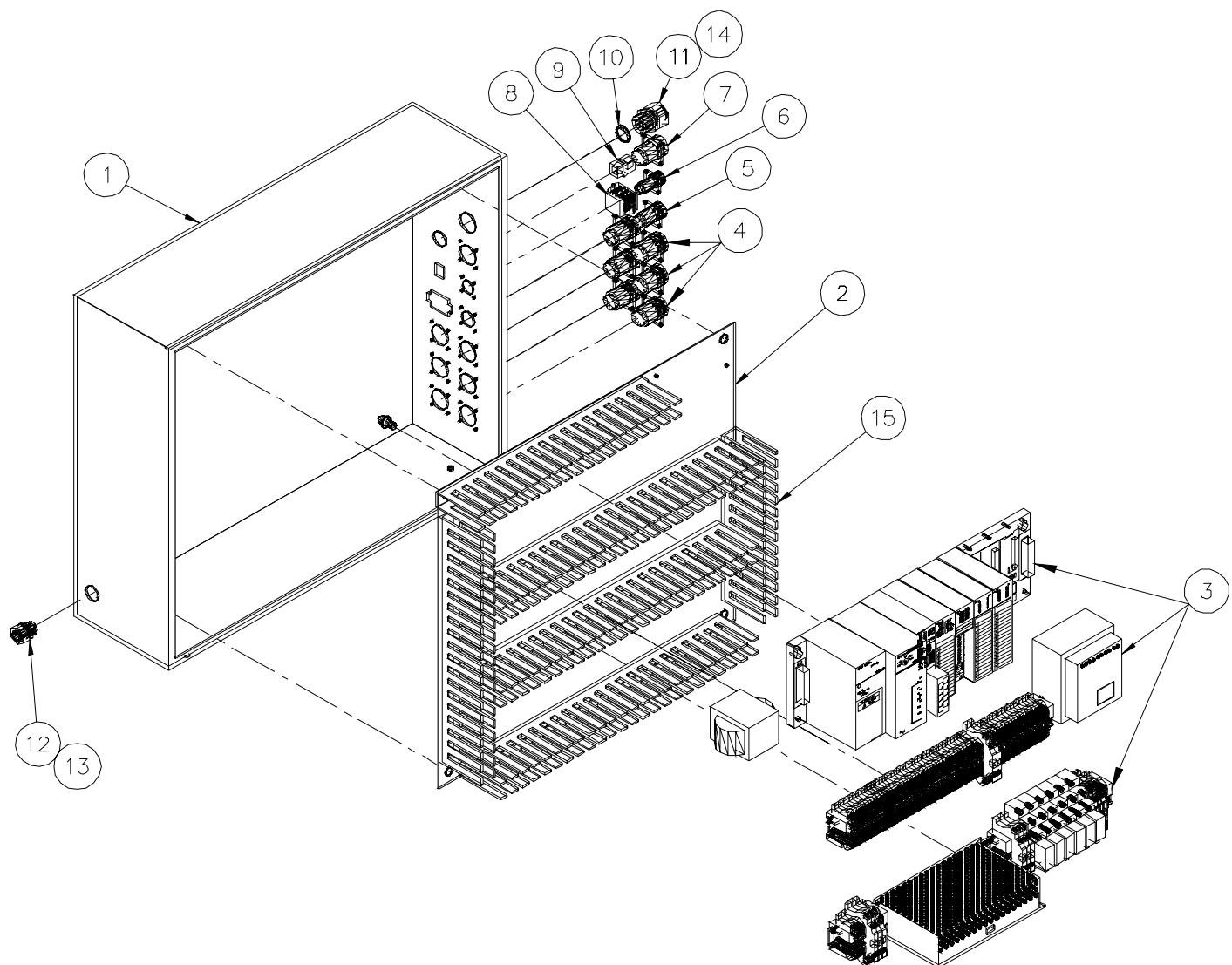
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**ELECTRICAL COMPONENTS (COLLATOR) (Fig. 8-8)**  
**PLC ENCLOSURE ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	18013-107	1	PLC ENCLOSURE, 24" X 20" X 7"
2	98014-003	1	PANEL, BACK, PLC ENCLOSURE
3	SEE FIG. 8-9	1	PLC COMPONENTS ASSY
4	98016-091	6	RECEP, SQ FL, AMP, 17-14 FEMALE
5	98016-087	1	RECEP, SQ FL, AMP, 13-7 FEMALE
6	98016-011	1	RECEP, SQ FL, AMP, 11-4- FEMALE
7	98016-093	1	RECEP, SQ FL, AMP, 17-9 FEMALE
8	98016-084	1	CONNECTOR, 15-POS. FEMALE
9	98020-028	1	RJ45 / RJ45, F/F ADAPTOR
10	98015-012	1	FINISHING PLUG, 1-1/8 HOLE
11	98015-002	1	STRAIN RELIEF, 3/4"
12	98015-001	1	STRAIN RELIEF, 1/2"
13	98015-003	1	NUT, LOCK, 1/2
14	98015-004	1	NUT, LOCK, 3/4
15	98012-003	5'	WIREWAY, 1" X 3"

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**FIG. 8-8**



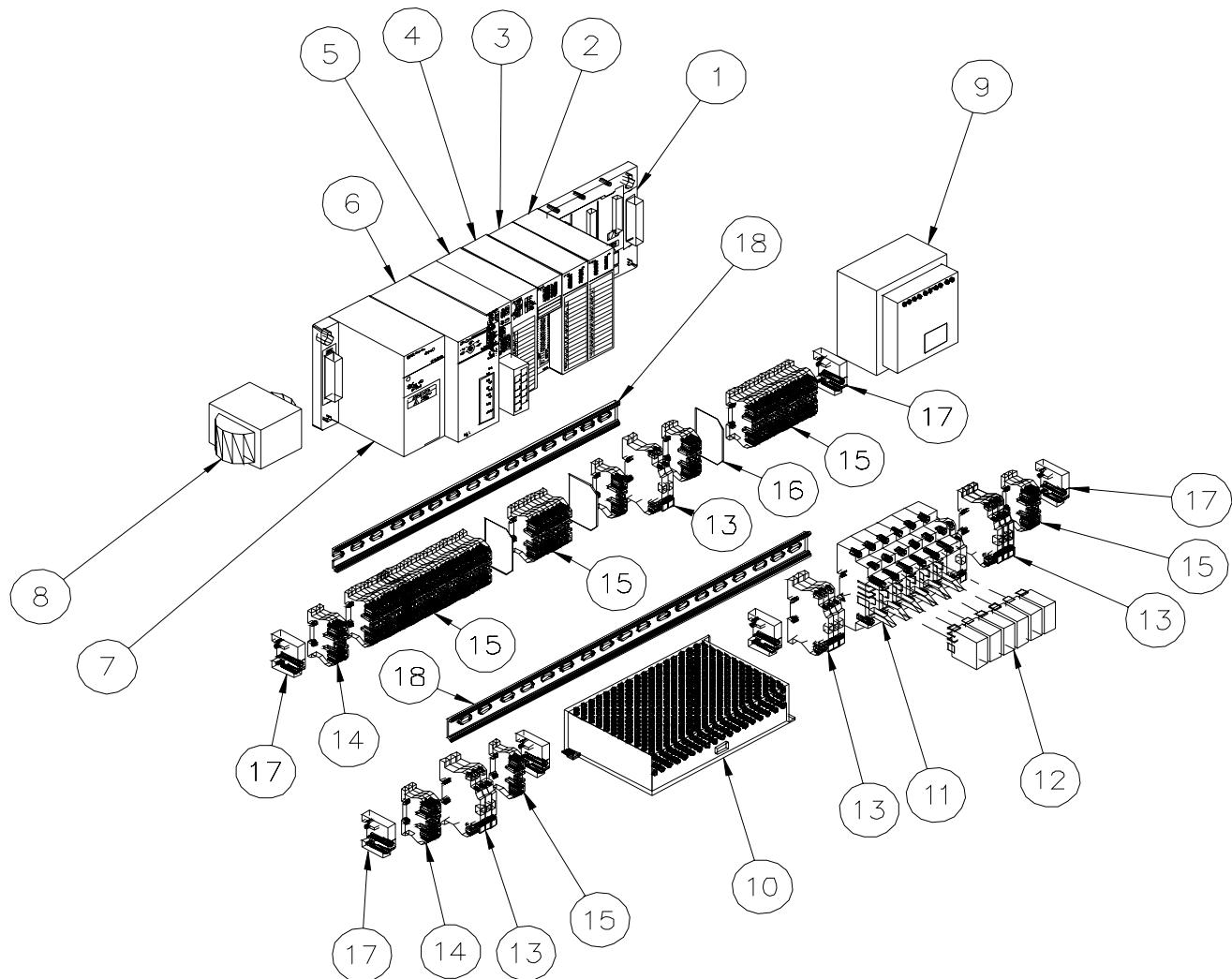
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**ELECTRICAL COMPONENTS (COLLATOR) (Fig. 8-9)  
PLC COMPONENTS ASSEMBLY**

ITEM	PART NO.	QTY.	DESCRIPTION
1	98013-029	1	RACK, 8 SLOT (MITSUBISHI)
2	98013-027	1	OUTPUT SOURCE, 16 POINT
3	98013-026	1	INPUT SOURCE, 32 POINT
4	98013-025	1	COUNTER, HIGH SPEED
5	98013-024	1	CC-LINK MASTER
6	98013-023	1	CPU
7	98013-022	1	POWER SUPPLY, 5-VOLT
8	98008-005	1	TRANSFORMER, 24V AC
9	98009-020	1	LIGHT CURTAIN CONTROLLER
10	98011-003	1	POWER SUPPLY, 24 VOLT, 150W
11	98002-011	6	SOCKET, SPDT RELAY
12	98002-012	6	RELAY, SPDT, 24V DC, 10 AMP
13	98001-012	11	FUSE BLOCK, ENTRELEC
14	98001-013	6	GROUND TERMINAL, ENTRELEC
15	98001-010	64	TERMINAL BLOCK, ENTRELEC
16	98001-026	3	CIRCUIT DIVIDER
17	98001-014	6	END STOP, SCREW TYPE, ENTRELEC
18	98001-022	4'	DIN RAIL, ENTRELEC

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**FIG. 8-9**



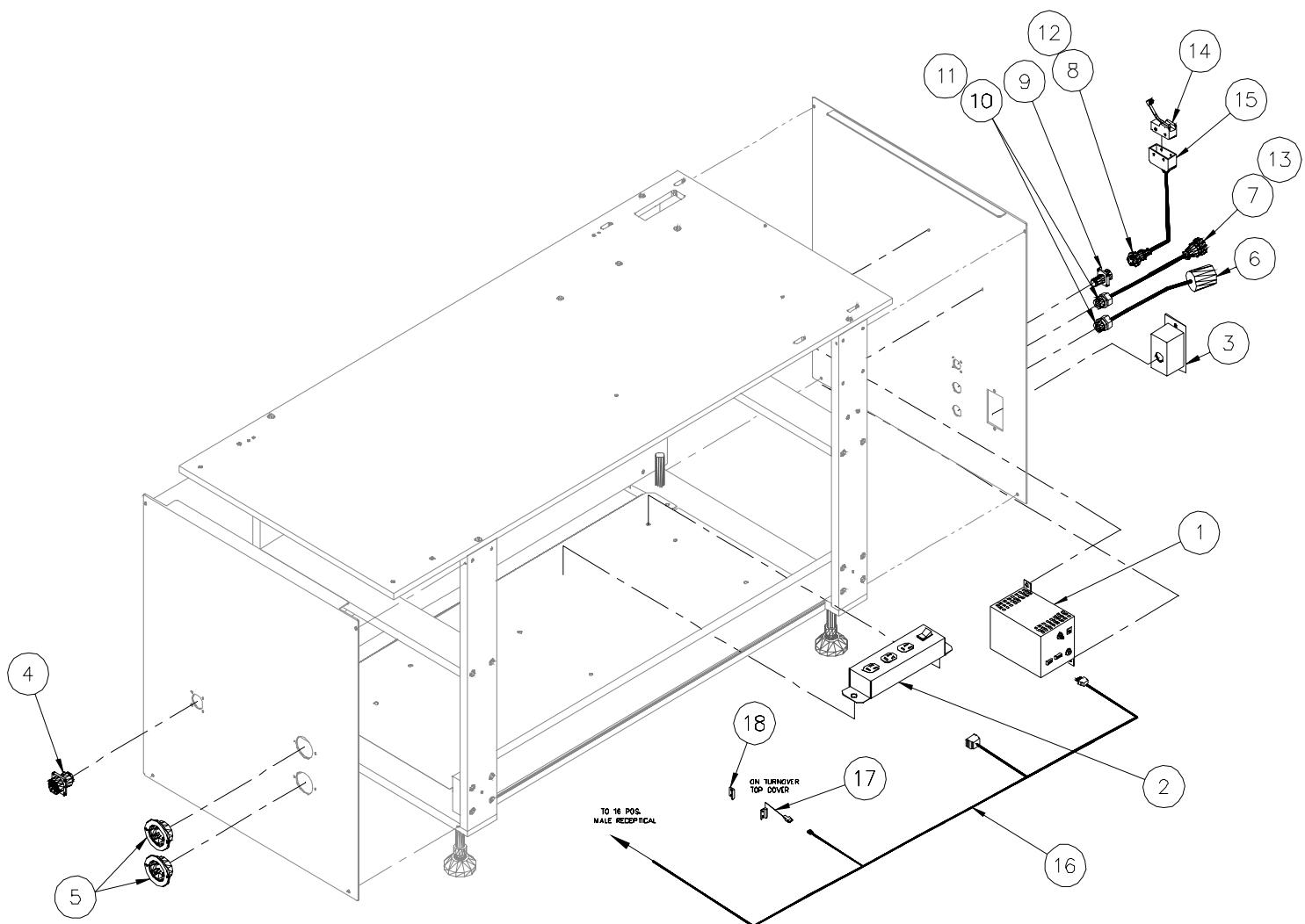
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**ELECTRICAL COMPONENTS (TURNOVER) (Fig. 8-10)**

ITEM	PART NO.	QTY.	DESCRIPTION
1	98005-010	1	MOCON BOX ASSY, 4 AMP
2	98003-009	1	3 OUTLET RECEPTICAL STRIP
3		1	OUTLET ASSEMBLY (DISCHARGE COVER)
	98016-030	1	RECPETICAL, 110 V STANDARD OUTLET
	98016-031	1	CONDUIT BOX
	98016-032	1	COVER PLATE
	98015-009	1	STRAIN RELIEF, 3/8 (STEEL)
4	98016-010	1	RECEPT, SQ FL, AMP, 17-16 MALE
5	98016-074	2	RECEPTICAL, FLANGED, 3 PIN, 115V, 15A
6	98016-073	1	PLUG, HUBEL, 3PIN, 115V, 1 PH
7	98016-012	1	PLUG, AMP, 17-16 FEMALE
8	98016-029	1	PLUG, AMP, 11-4 MALE
9	98016-011	1	RECEP, SQ FL, AMP, 11-4 FEMALE
10	98015-001	2	STRAIN RELIEF, 1/2"
11	98015-003	2	LOCK NUT, 1/2"
12	98016-015	1	BACKSHELL, PLASTIC, SIZE 11
13	98016-005	1	BACKSHELL, PLASTIC, SIZE 17
14	98000-020	1	LIMIT SWITCH W/ ROLLER (MICROSWITCH)
15	98000-021	1	COVER, LIMIT SWITCH
16	<b>18021-015</b>	<b>1</b>	<b>TURNOVER INTERLOCK HARNESS</b>
	98016-083	1	CONNECTOR, 6-POS. FEMALE
	98016-085	1	CONNECTOR, 3-POS. MALE
	98016-086	1	CONNECTOR, 4-POS. FEMALE
17	98000-036	1	2-POLE REED SWITCH ASSY
18	98020-024	1	MAGNET, REED SWITCH ACTUATOR
19	98007-008	1	POWER CABLE, MOCON BOX (NOT SHOWN)

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**FIG. 8-10**



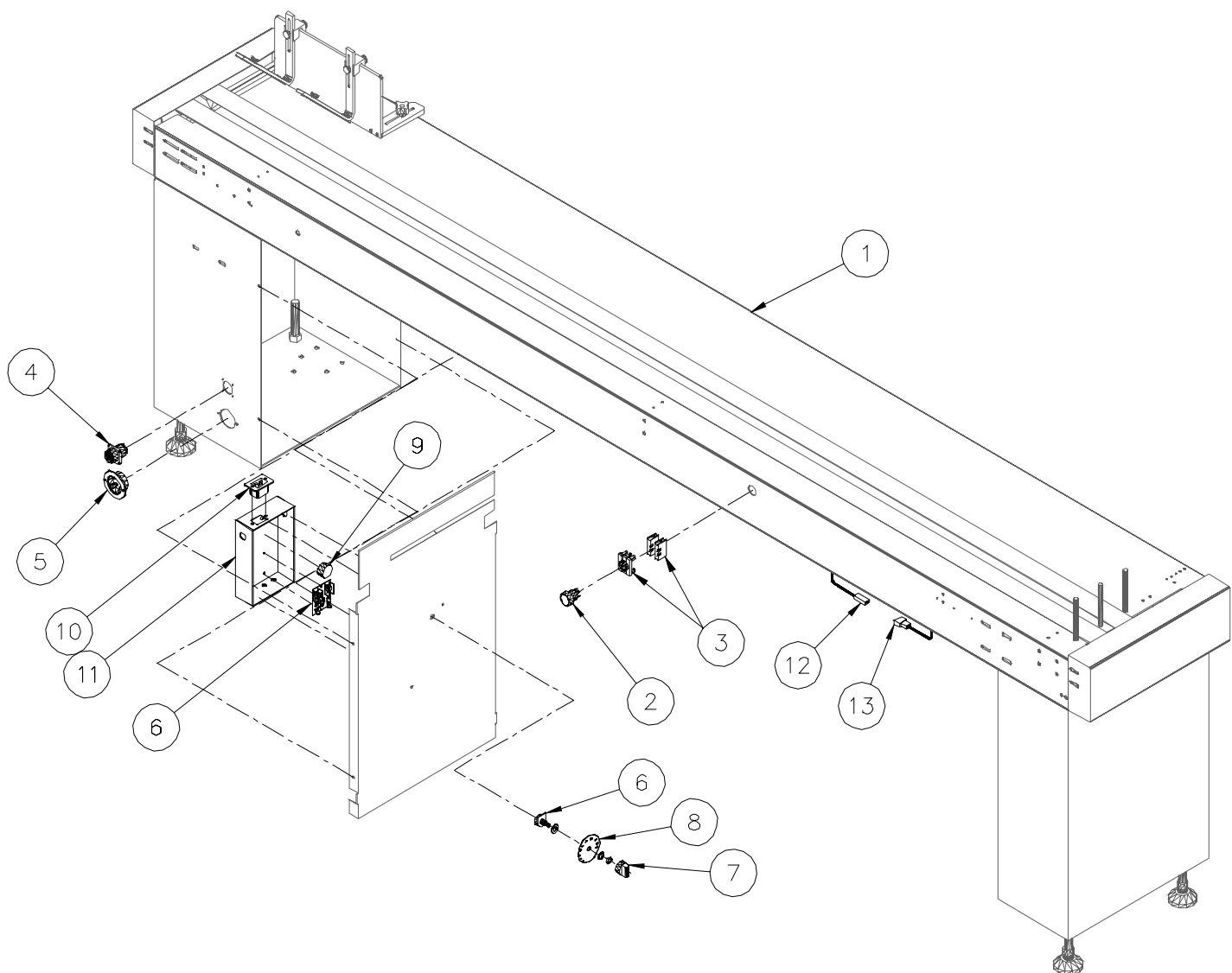
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**ELECTRICAL COMPONENTS (Fig. 8-11)**  
**(SHINGLE CONVEYOR)**

ITEM	PART NO.	QTY.	DESCRIPTION
1	REF.	1	SHINGLE CONVEYOR
2	98000-016	1	PUSH BUTTON ROUND, BLACK (STOP)
3	98000-017	1	CONTACT BLOCK, 1 X NO + 1 X NC + CLIP
4	98016-012	1	RECEPTICAL, SQ FL, AMP, 17-16 MALE
5	98016-004	1	RECEPTICAL FLANGED, 3-PIN, 115V, 15A
6	98005-001	1	CONTROLLER, MOTOR, 90V DC W SPEED POT
7	99004-015	1	KNOB, SPEED POT, SHINGLE CONVEYOR
8	98006-004	1	DAIL, SPEED POT
9	98020-032	1	ELECTRICAL CHOKE
10	98003-006	1	FILTERED INLET
11	12013-007	1	ENCLOSURE, SPEED CONTROL
12	98016-024	1	FEMALE CONNECTOR, 2 PIN
13	98016-023	1	MALE CONNECTOR, 2 PIN
14	98007-007	1	POWER CORD (NOT SHOWN)

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**FIG. 8-11**



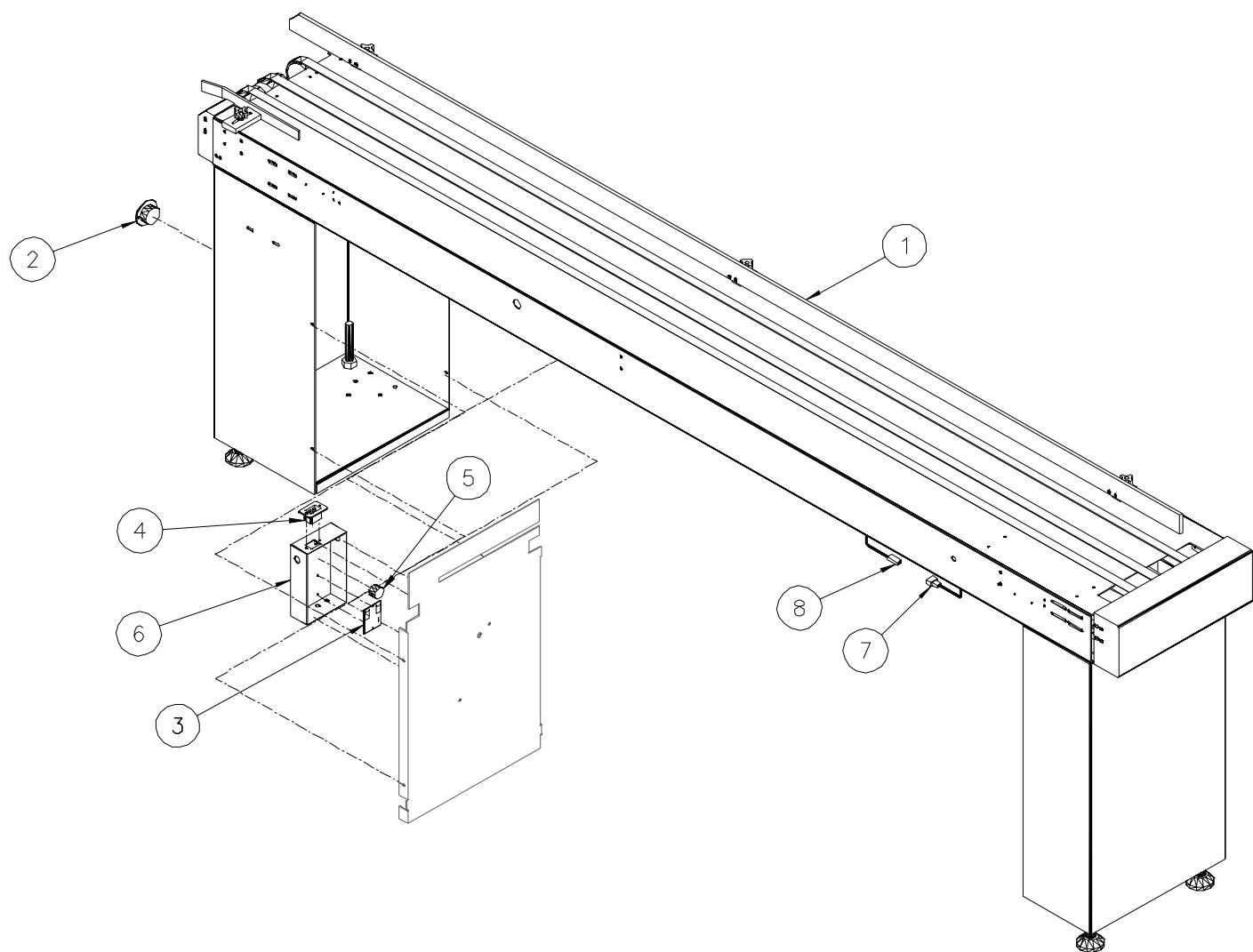
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**ELECTRICAL COMPONENTS (Fig. 8-12)**  
**(INFEED CONVEYOR)**

ITEM	PART NO.	QTY.	DESCRIPTION
1	REF.	1	INFEED CONVEYOR
2	98016-074	1	RECEPTICAL, FLANGED, 3-PIN, 115V, 15A
3	98005-001	1	CONTROLLER, MOTOR, 90V DC
4	98003-006	1	FILTERED INLET
5	98020-032	1	ELCTRICAL CHOKE
6	12013-007	1	ENCLOSURE, SPEED CONTROL
7	98016-023	2	MALE CONNECTOR, 2 PIN
8	98016-024	2	FEMALE CONNECTOR, 2 PIN
9	98007-007	1	POWER CORD (NOT SHOWN)

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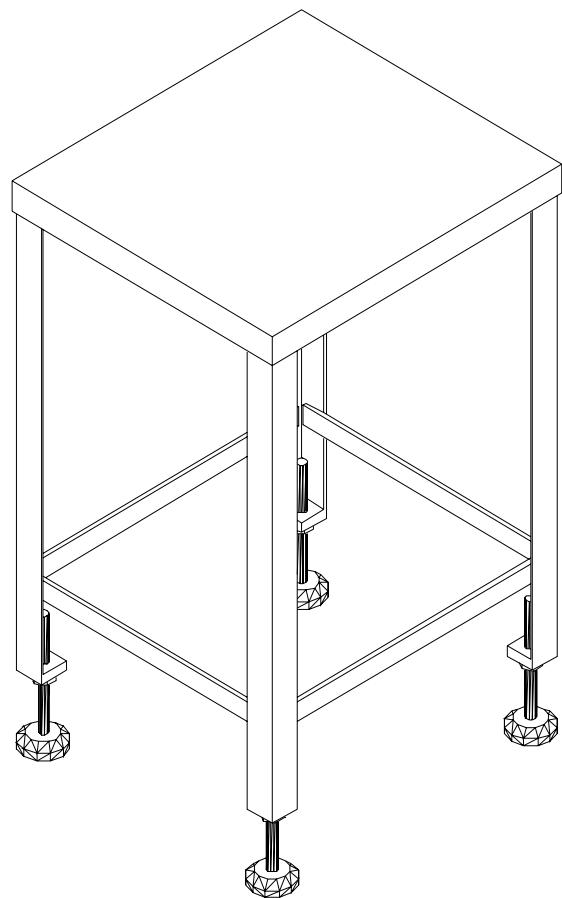
*FIG. 8-12*



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# **METER STAND**



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**METER STAND (Fig. 9-1)**

ITEM	PART NO.	QTY.	DESCRIPTION
1	19000-004	1	BASE, METER STAND
2	99010-007	4	FOOT, ADJUSING, 1/2-13 X 6
3		4	NUT, HEX HD, 1/2-13

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Fig. 9-1

