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# **FlowMaster FX10/ FX14 Inserter Parts List**

*For DC Systems produced from November 2001 - July 2005*



*documentation*  
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# Version History

The table below summarizes the history of this document. It identifies the version, date of issue, and revisions and changes.

## Version History

<b>SV#</b>	<b>Date</b>	<b>Comments</b>
SV41112-PL	09/21/01	Initial Release
SV41112-PL Rev1	11/05/01	Workflow parts edited, and Pitney Bowes part numbers added.
SV41112-PL Rev2	06/19/02	New style parts, and electrical section added. Numerical Section does not include new style parts.
SV41112-PL Rev3	08/20/02	New style parts, electrical section, and PCN's were added and updated. Numerical Section does not include new style parts.
PL_F_INSR_052005_Rev04	10/18/05	SV # change to reflect new numbering system. Replaces SV41112-PL Rev3 and all preceding manuals. Updated in all sections, 6x9 and 10x13 combined into one parts manual.
PL_F_INSR_052005_Rev05	10/15/06	Manual Updates: Revision to the entire Parts List. Part number change R68411 to MD84132 and R684112 to MD84131 on page 3-11 (items 126, 129) and page 3-41 (items 127, 128)
PL_F_INSR_052005_Rev06	12/15/08	Updates to Chapter 1, 3, and 9. Figures 1-27, 3-4, 3-19, and 9-9.
PL_F_INSR_052005_Rev07	6/15/09	Updates to Section 4 - Gast Pump Combo
PL_F_INSR_052005_Rev08	6/15/09	Updates to Section 3 - Addition of 3-2A Front Table Cover Assembly.
PL_F_INSR_052005_Rev09	10/15/09	Updates to Section 1, 4, and 5.
PL_F_INSR_052005_Rev10	04/15/11	Updates to pages 3-34 - add a balloon for 14a on page 3-35. Added item 14a FL00515 - SHAFT, COLLATOR DRIVE, 6X9. On PG 1-97 added item 1a - 18020-074D - CLUTCH/BRAKE/PULLEY/SHAFT ASSY 24 VOLT DMT (DC Systems).
PL_F_INSR_052005_Rev11	02/15/2012	Updates to Chapter 1
PL_F_INSR_052005_Rev12	10/31/2012	Complete updates throughout the manual.



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## **Direct Connect FlowMaster Evolution and History**

In late 2001, Pitney Bowes started producing the FlowMaster Inserter with the Direct Connect control system. It was called the Phase 2 Chassis, (Phase 1 was the PLC Chassis) since then, it has been a constantly evolving product. Initially using a Windows NT 4 operating system, that was replaced in early 2005 with Windows XP Imbedded.

Beginning in July of 2005 all DC FlowMasters are produced on the new Phase 2A. servo feeder chassis called "FPS" (Flexible Productivity Series) The "FPS" systems are covered in a separate parts list PL\_F\_INSR\_051305\_RevA.

**This parts manual will attempt to cover the FX-10 and FX-14 Direct Connect FlowMasters Phase 2 systems produced between November 2001 and July of 2005 (Pre-FPS).**

Three styles of Insert Feeders, six styles of Transmissions, eight styles of Air Legs, three different Chassis and four Front Table variations have been used along with numerous other changes and enhancements. Make sure you are looking at the correct drawing when looking up part #s. Every attempt has been made to label each drawing as clearly as possible.

### **Buffer/Transport**

The Phase 2 DC Flowmaster uses the Y179 Buffer/Transport. It differs from the Y172/173 Buffer used on the 8 series. The Y179 parts list is included in this manual.

### **On Edge Stacker (OES)**

Three versions of the KFW/Baum On Edge Stacker have been used on DC Phase 2 Flowmasters. The first two versions are the KFW built Y390 series with either Stepper or Servo motor controlled "D" rollers. Both of these stackers are described in the *Y300 Parts List* (PL\_AF\_Outp\_062204). The third version is the Baum Folder built Y490 series Servo Stacker that is also used on APS systems and is described in the *Y400 Parts List* (PL\_AF\_Outp\_061405) and the *APS Parts List* (PL\_A\_INSR\_120604).

### **Twist Module**

DC Flowmasters use a twist module that is mechanically identical to the one used on APS systems except for the Photocells and LEDs, their harnesses, and the side and lower cabinet covers. The Photocells are the familiar R692043 and the LEDs are the R692042. Their harnesses are labeled with the part # and the mechanical parts are described in the *APS Parts List* SV 41129-PL and PL\_A\_INSR\_120604\_RevC.

## What's In This Book

This book is divided into the following sections.

- ▶ Section 1: Chassis
- ▶ Section 2: Feeders
- ▶ Section 3: Front Table
- ▶ Section 4: Infeed Conveyor
- ▶ Section 5: Turnover
- ▶ Section 6: Output Stacker
- ▶ Section 7: Electrical
- ▶ Section 8: Pneumatics
- ▶ Section 9: Buffer
- ▶ Section 10: Site Spares

## Related Documentation

- ▶ OG\_F\_INSR\_051305\_RevA - Flexible Productivity Series (FPS) Operator Guide
- ▶ SM\_F\_INSR\_051305\_RevA - Flexible Productivity Series (FPS) Service Manual
- ▶ PL\_F\_INSR\_052005\_Rev04 FX10 and FX14 Direct Connect FlowMaster Parts List
- ▶ SV41024-PL - Y121, Y122, Y196, Y198 Cutter Modules Parts List
- ▶ SV41024-SM - Cutter Module (Y121 & Y122) Service Manual
- ▶ SV41024-OG - Cutter Module (Y121 Y122) Operating Manual
- ▶ SV41118-SM - Y21S, Y22D, Y25S Cutters Service Manual
- ▶ SV41118-OG - Rev2 - Y21S/Y25S/Y21D CEM Cutter Operator Guide
- ▶ PL\_ADFS\_INPU\_040805\_Rev01 - Y21S/Y25S/Y21D Cutter Module Parts List
- ▶ SV41138-PL Y250 High Speed Sheet Feeder Parts List
- ▶ SV41022-SM - Burster Modular Input (Y110) Service Manual
- ▶ SV41022-PL Rev 3 - Model Y110/Y111 Burster & Turbo Burster Parts List
- ▶ SV41022-OG - Burster Module (Y110) Operating Guide
- ▶ SM\_F\_MOS\_061705-Rev00 - Y316 Heavies Divert Stacker Service Manual
- ▶ PL\_F\_MOS\_011005\_Rev00 - Y316 Heavies Divert Stacker P/L Manual
- ▶ IG\_AFS\_METE\_092004\_RevD - DM Infinity™ Series R750/R760 Installation Guide
- ▶ OG\_AFS\_METE\_110204\_E - DM Infinity™ Series R750/R760 Operator Guide
- ▶ SM\_AFS\_METE\_092004\_Rev00 - DM Infinity™ Series R750/R760 Service Manual
- ▶ PL\_AFS\_METE\_060104\_Rev00 - DM Infinity™ Series R750/R760 Parts List
- ▶ PL\_A\_OUTP\_061405\_Rev00 - Y400 Series On Edge Stacker Parts List

## Related Web Sites

- ▶ DMT Service Web Site:  
<http://pmweb.ct.pb.com/home/custser/cswebsite/pmcscfm>

## Safety Information

- ▶ Familiarize yourself with proper procedures and methods before you install, operate or repair the system to avoid personal injury or damage to the equipment.
- ▶ If you train service people or equipment operators, it's important to explain safety precautions to your students and encourage safety awareness.
- ▶ Only documented electrically trained service personnel should service this equipment per OSHA requirements.
- ▶ Disconnect power before removing covers and servicing equipment. If you must service circuits under power, check first with a neon tester or voltmeter. Treat all circuits as potentially dangerous or "live."
- ▶ The machine is equipped with safety interlocks on various doors and covers. If they are ever bypassed to perform service procedures, make sure they are fully operational upon completion of service. Not to do so will put the operator's safety in jeopardy.
- ▶ CSRs must use the full Lockout/Tagout procedure (as stated in the SV70123 Energy Control Program pamphlet and TSB N1018) when working on any part of any Pitney Bowes, Inc. equipment where potentially dangerous, hazardous energy must be isolated.
- ▶ Avoid touching moving parts or materials while the machine is in use. Before clearing a jam, be sure machine mechanisms come to a stop.
- ▶ Keep loose clothing, jewelry, long hair and neck ties away from all moving parts.
- ▶ Do not wear a watch or other jewelry when working on electrical circuits. Even low voltage circuits can supply enough energy to cause a burn if a metal object contacts a circuit.
- ▶ Use the power cord supplied with the machine and plug it into a properly grounded and easily accessible wall outlet located near the machine. Failure to properly ground the machine can result in severe personal injury and/or fire.
- ▶ The power cord wall plug is the primary means of disconnecting the machine from AC supply.
- ▶ DO NOT use an adapter plug on the line cord or wall outlet.
- ▶ DO NOT remove the ground pin from the line cord.
- ▶ Avoid using wall outlets that are controlled by wall switches or shared with other equipment.
- ▶ DO NOT route the power cord over sharp edges or trap it between furniture.
- ▶ Ensure there is no strain on the power cord where it becomes jammed between the equipment, walls or furniture.

- ▶ Be certain the area in front of the wall receptacle into which the machine is plugged is free from obstruction.
- ▶ Use the right tool for the job. A tool that slips can cause a short or a shock. Be aware of the dangers when reaching into a circuit with metal tools. These tools should have insulated handles.
- ▶ Do not replace fuses with ones of larger current values. The maximum safe current in a circuit is determined by the designers. Too large a fuse can pass excessive current and damage expensive equipment.
- ▶ Perform routine inspections, and carry out corrective/preventative maintenance .
- ▶ When lifting covers, wait for all parts to stop moving before placing hands near feeder path or printer.
- ▶ When removing jammed material, avoid using too much force to prevent personal injury and damaging equipment.
- ▶ Use only Pitney Bowes approved printer ink and cleaners.
- ▶ To prevent overheating, do not cover the vent openings.
- ▶ Do not store flammable fluids inside this machine.
- ▶ Do not use flammable cleaners in the machines.
- ▶ Do not use aerosol air canisters. The propellant may be flammable. Use only shop air or an appropriate type of vacuum cleaner.
- ▶ Read all instructions before attempting to operate the equipment.
- ▶ Use this equipment only for its intended purpose.
- ▶ In addition, follow any specific occupational safety and health standards for your workplace or area.

## Support Phone Numbers

- ▶ Pitney Bowes - DMT Service Support - 866 877-3683 (Toll Free) 8:30 AM - 5:00 PM (EST)

# **1 FlowMaster Chassis FX10/ FX14**



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## ***FlowMaster Chassis***

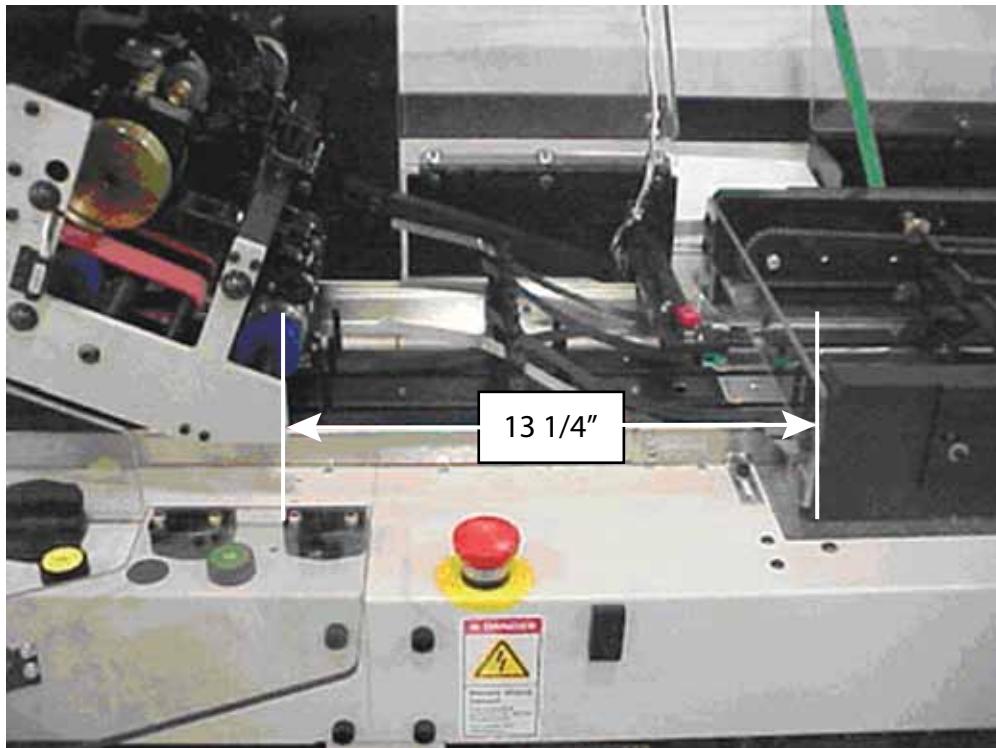
Direct Connect Flowmaster Chassis have been produced in two models. The **FX-14 6x9** chassis and the **FX-10 10x13** chassis.

Beginning in July of 2003 some FX-14 6x9 systems were built on the FX-10 10x13 chassis. Since mid 2004, all Direct Connect Flowmasters have been built on this "Universal" chassis. If you have an FX-14 6x9 chassis use the two figures below to determine whether you have an early 6x9 "Standard" chassis or the later "Universal" chassis. The dimension shown is the distance from the front edge of the side frame of first feeder closest to insert area to the rear edge of the insert pusher cam box.

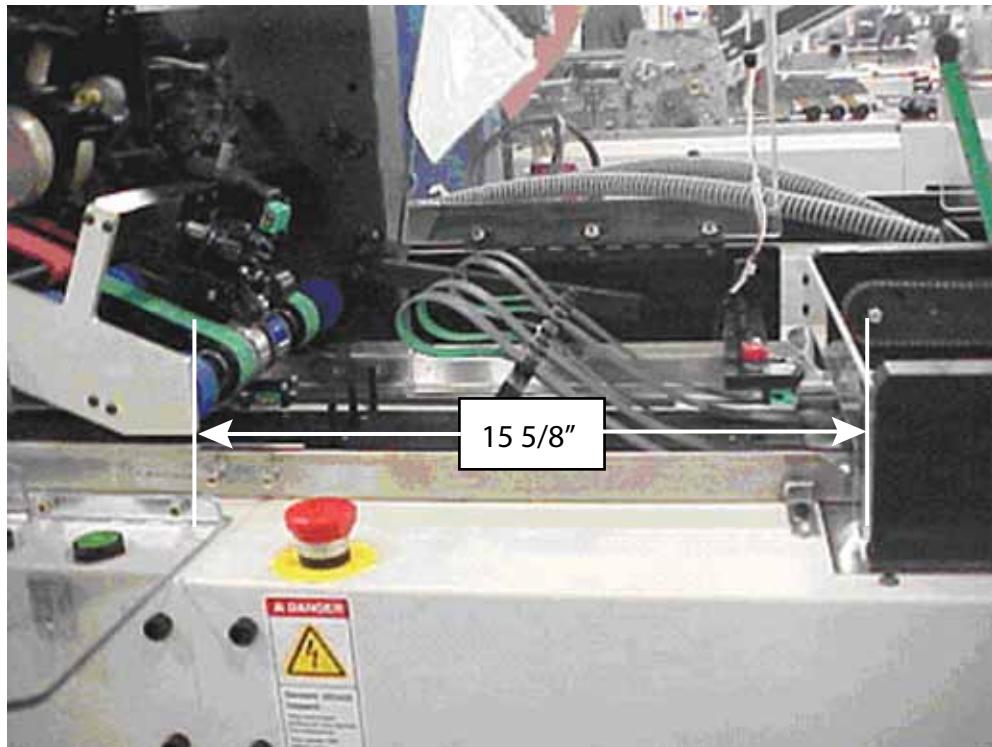
Pages in this section will be clearly marked as to the chassis type the parts drawing applies to.

\* The Chassis Frame drawings shown in this section are for the 6x9/10x13 Universal Chassis only. There are no 6x9 Standard Chassis drawings. The 6x9 covers are called out on the 6 Station drawings.

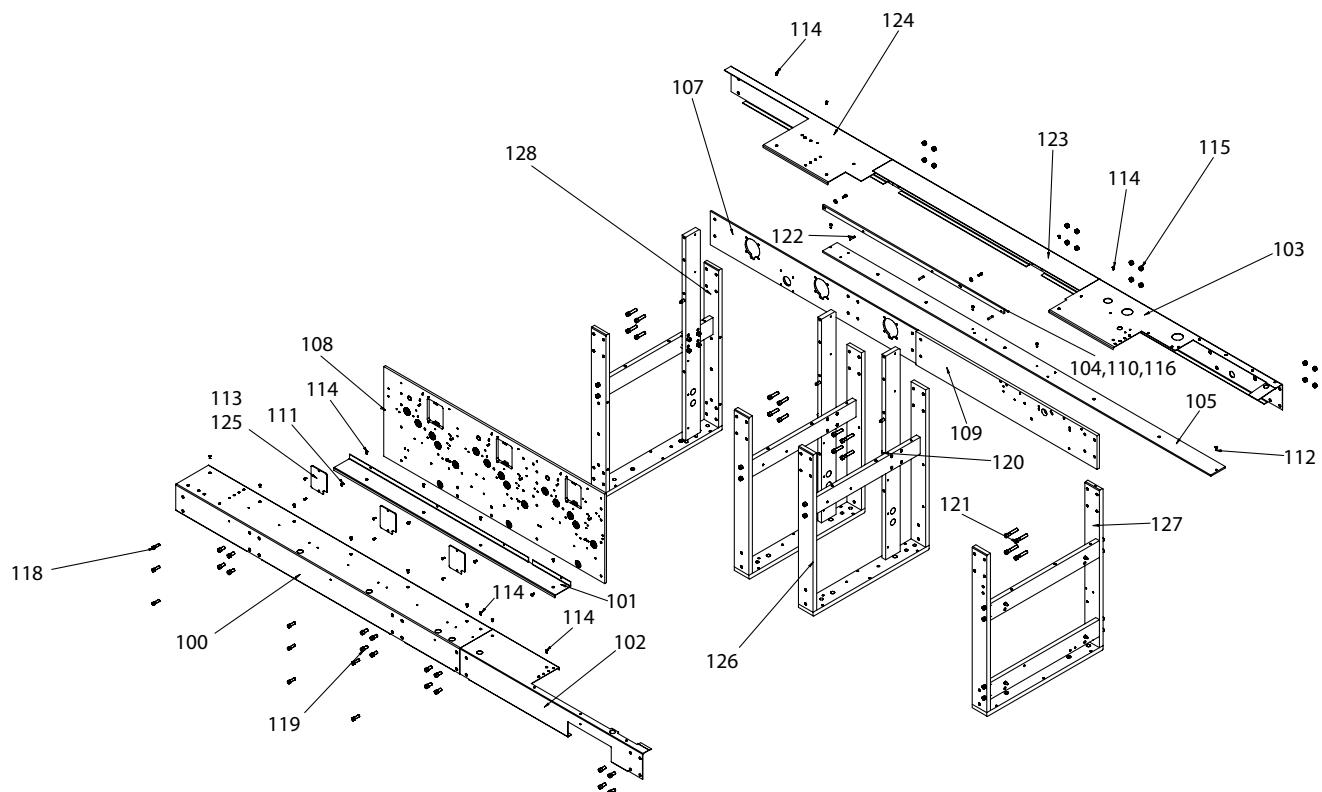
6x9 &amp; 10x13 Standard/ Universal Chassis



6x9 Standard Chassis



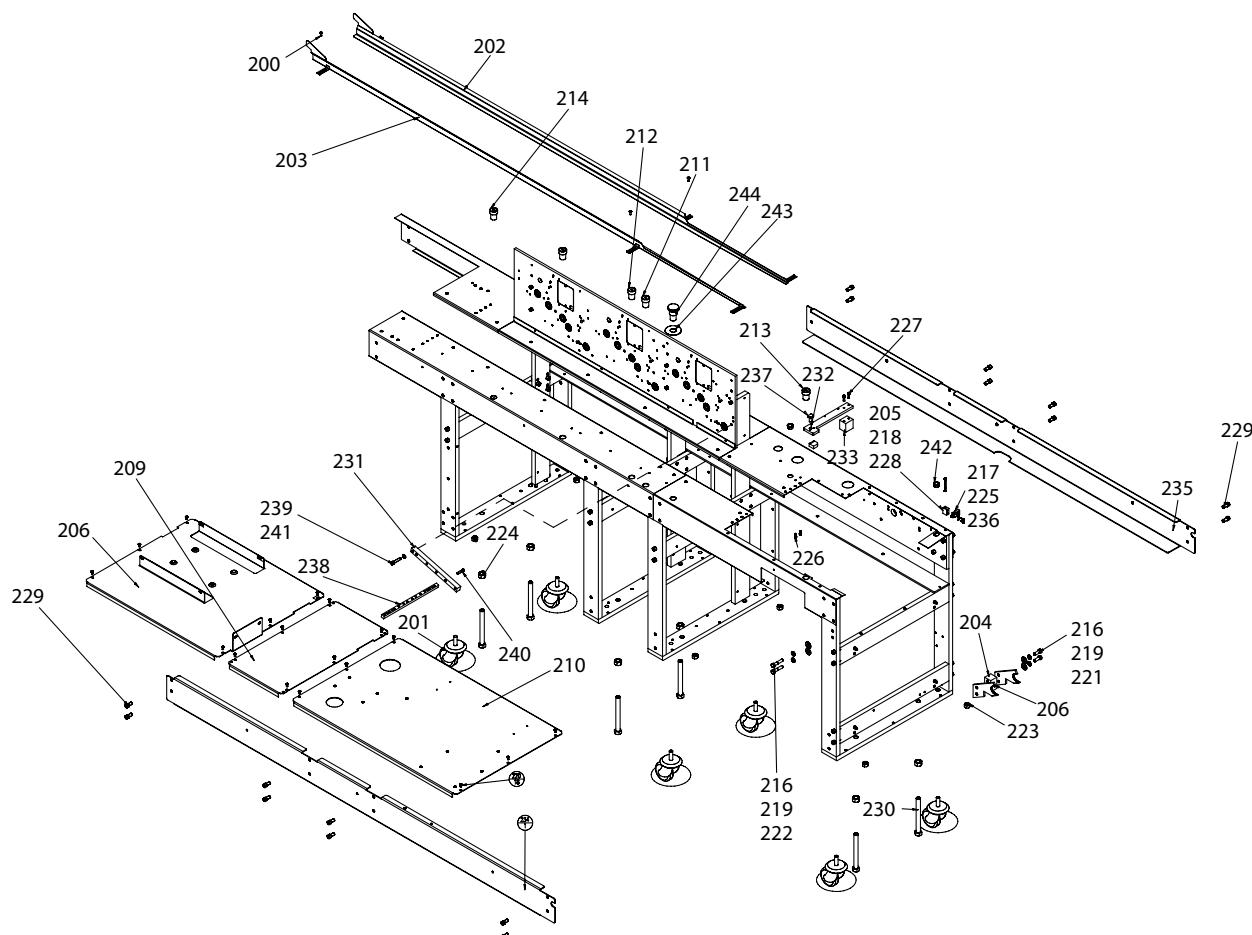
10x13/ 6x9 Universal Chassis

**Figure 1-1: 3 Station Assembly Frame Covers/ FL80101**

## Parts List 1-1: 3 Station Assembly Frame Covers/FL80101

Item	Part Number	Qty	Description
100	18001-035	1	COVER - TOP RH REAR
101	18001-037	1	COVER - TOP INNER REAR
102	18001-029	1	COVER TOP RH SHORT
103	18001-030	1	COVER, TOP-LH-SHORT
104	18008-077	1	BAR - CLUTCH STOP REAR
105	18008-095	1	BAR - WIREWAY MTG REAR
107	18011-063	1	CLUTCH MTG PLATE REAR (3 STATION)
108	FL80146	1	PLATE FDR MULTI 3 STA 10X13
109	18011-065	1	PLATE, PUSHER DRIVE MTG.
110	50-0017	2	WASHER PLAIN .245 ID
111	68-0831	4	SCREW BTNHD CAP HEX SKT
112	68-0833	4	SCREW BTNHD CAP HEX SKT
113	74-0501	6	SCREW FLAT HEAD PH
114	74-0611	17	SCREW FLAT HEAD PH
115	80-0027	16	NUT HEX
116	81-0833	2	SCREW CAP HEX SOCKET
118	81-1336	8	SCREW CAP HEX SOCKET
119	81-1442	16	SCREW CAP HEX SOCKET
120	81-1450	10	SCREW CAP HEX SOCKET
121	81-1454	6	SCREW CAP HEX SOCKET
122	99006-022	3	PIN, 10-32 X 3/4
123	FL51124	1	COVER-TOP LEFT, 10X13 3 STATION
124	FL58064	1	COVER - TOP LH REAR
125	FL62046	3	COVER - FEEDER BOARD
126	FL80014	2	ASSY - FRAME #1
127	FL80015	1	ASSY - FRAME #2
128	FL80016	1	ASSY - FRAME #3

Figure 1-2: 3 Station Assembly Frame Covers/ FL80101

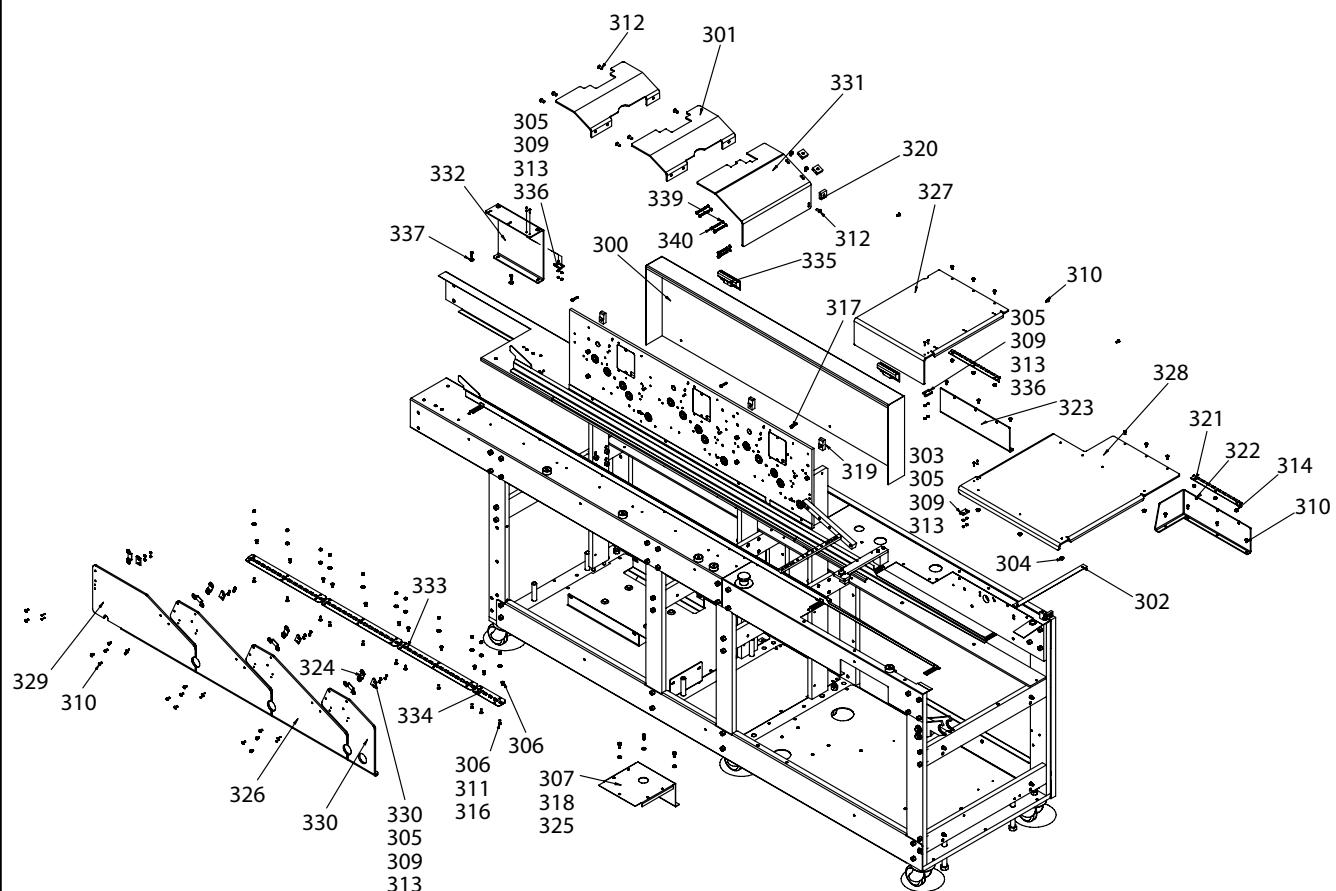


## Parts List 1-2: 3 Station Assembly Frame Covers/ FL80101

Item	Part Number	Qty	Description
200	68-0833	4	SCREW BTNHD CAP HEX SKT
201	3184086	6	CASTER
202	FL80121	1	PAPER GUIDE - LH 3 STA
203	FL80122	1	PAPER GUIDE - RH 3 STA
204	18007-050	1	BLOCK, PULLEY GUIDE YOKE MTG
205	18007-064	1	BLOCK, PHOTO EYE MTG (FLAP)
206	18007-070	2	BLOCK, PULLEY GUIDE YOKE
208	FL58091	1	PANEL - ELECTRICAL COMPONENTS
209	18013-106	1	PLATE - FLOOR 9 STATION
210	18013-071	1	PLATE, FLOOR (COLLATOR-PNEUMATICS)
211	213-2516	1	SW PUSH BUTTON
212	213-2517	1	SW PUSH BUTTON
213	213-2518	2	SW PUSH BUTTON
214	213-2519	2	SW PUSH BUTTON
216	50-0028	4	WASHER PLAIN
217	52-0006	2	LK WASH HELICAL SPRING
218	52-0016	1	LK WASH HELICAL SPRING
219	52-0027	4	LK WASH HELICAL SPRING
220	68-0831	18	SCREW BTNHD CAP HEX SKT
221	79-1446	2	SCREW CAP HEX HEAD
222	79-1452	2	SCREW CAP HEX HEAD
223	80-0032	6	NUT HEX
224	80-0034	6	NUT HEX
225	81-0283	2	SCREW CAP HEX SOCKET
226	81-0833	2	SCREW CAP HEX SOCKET
227	81-0837	2	SCREW CAP HEX SOCKET
228	81-0845	1	SCREW CAP HEX SOCKET
229	81-1442	16	SCREW CAP HEX SOCKET
230	79-1781	6	SCREW CAP HEX HEAD
231	FL45053	1	BLOCK, BAR STRAP MOUNTING
232	FL45059	1	BAR, SENSOR MTG
233	FL45070	1	BLOCK, SENSOR BRACKET
234	FL58090	1	COVER - LOWER RH 3 STATION
235	FL58089	1	COVER - LOWER LH 3 STA
236	FL84021	1	REFLECTIVE SENSOR - FLAP DETECT/ENVELOPE PRESENT
237	R692043	1	OPTICAL DETECTOR
238	18008-030	1	BAR, STRAP MTG INSERTER
239	52-0025	1	LK WASH HELICAL SPRING
240	81-1226	1	SCREW CAP HEX SOCKET
241	81-1340	1	SCREW CAP HEX SOCKET
242	88-0116	2	BUSHING ELECTRICAL
243	213-1914	1	SW.ACC. PUSHBUTTON LABEL
244	213-2515	1	SW PUSH BUTTON

Figure 1-3: 3 Station Assembly Frame Covers/ FL80101

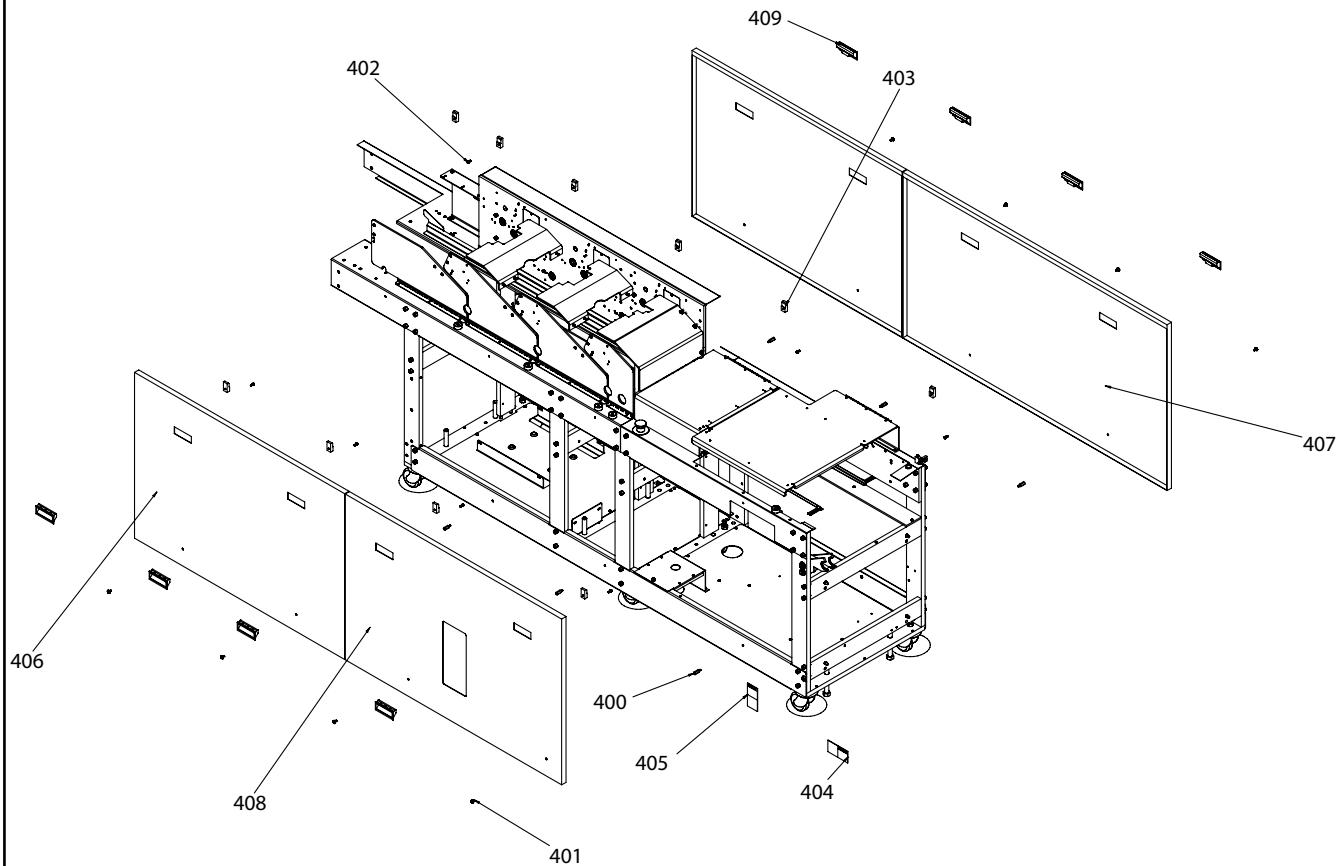
10x13



## Parts List 1-3: 3 Station Assembly Frame Covers/ FL80101

Item	Part Number	Qty	Description
300	FL51120	1	COVER - FDR DRIVE 10X13 3 STA
301	18013-054	2	COVER, FEEDER 10X13
302	18019-020	1	STRAP, PUSHER COVER
303	200-0701	5	MAGNET ACTUATOR
304	244-0310	6	BUMPER MOLDED RUBBER
305	50-0005	14	WASHER PLAIN
306	50-0576	11	WASHER PLAIN .214 ID
307	52-0023	3	LK WASH HELICAL SPRING
308	60-0831	11	SCREW TPG PAN HD PH
309	68-0283	14	SCREW BTNHD CAP HEX SKT
310	68-0831	30	SCREW BTNHD CAP HEX SKT
311	68-0833	11	SCREW BTNHD CAP HEX SKT
312	68-1218	9	SCREW BTNHD CAP HEX SKT
313	71-0001	14	NUT HEX W/LCKWSH 4-40
314	71-0006	6	NUT HEX & LK WASH
316	80-0071	11	NUT SELF LOCK 10-32 THD
317	81-0839	3	SCREW CAP HEX SOCKET
318	81-1218	3	SCREW CAP HEX SOCKET
319	FL45021	3	BLOCK - SIDE COVER MOUNT
320	FL45022	3	BLOCK-COVER MOUNT
321	FL46000	2	HINGE, 9 IN. LONG
322	FL58003	1	COVER A MOUNT 6X9,10X13
323	FL58004	1	REAR PUSHER COVER MOUNT
324	FL58031	7	LATCH - MAGNET
325	FL58044	1	BRACKET - POWER ENTRY
326	FL62004	2	COVER-FRONT (HINGED)
327	FL62012	1	COVER, REAR PUSHER (10X13)
328	FL62013	1	FLAT COVER A 10X13
329	FL62022	1	COVER-FRONT (UPSTREAM) 10 X 13
330	FL62023	1	COVER-FRONT (DOWNSTREAM) 10 X 13
331	FL62027	1	FRONT (DOWNSTREAM) COVER, FEEDER (10X13)
332	FL51136	1	SIDE COVER
333	FL84032	3	HINGE - STD 10X13
334	FL84033	1	HINGE - SHORT 10X13
335	Y162000	2	HANDLE - COVER
336	Y583035	2	HARNESS ASSY-SWITCH 2 POLE REED
337	50-0017	2	WASHER PLAIN .245 ID
339	52-0016	6	LK WASH HELICAL SPRING
340	81-0845	6	SCREW CAP HEX SOCKET

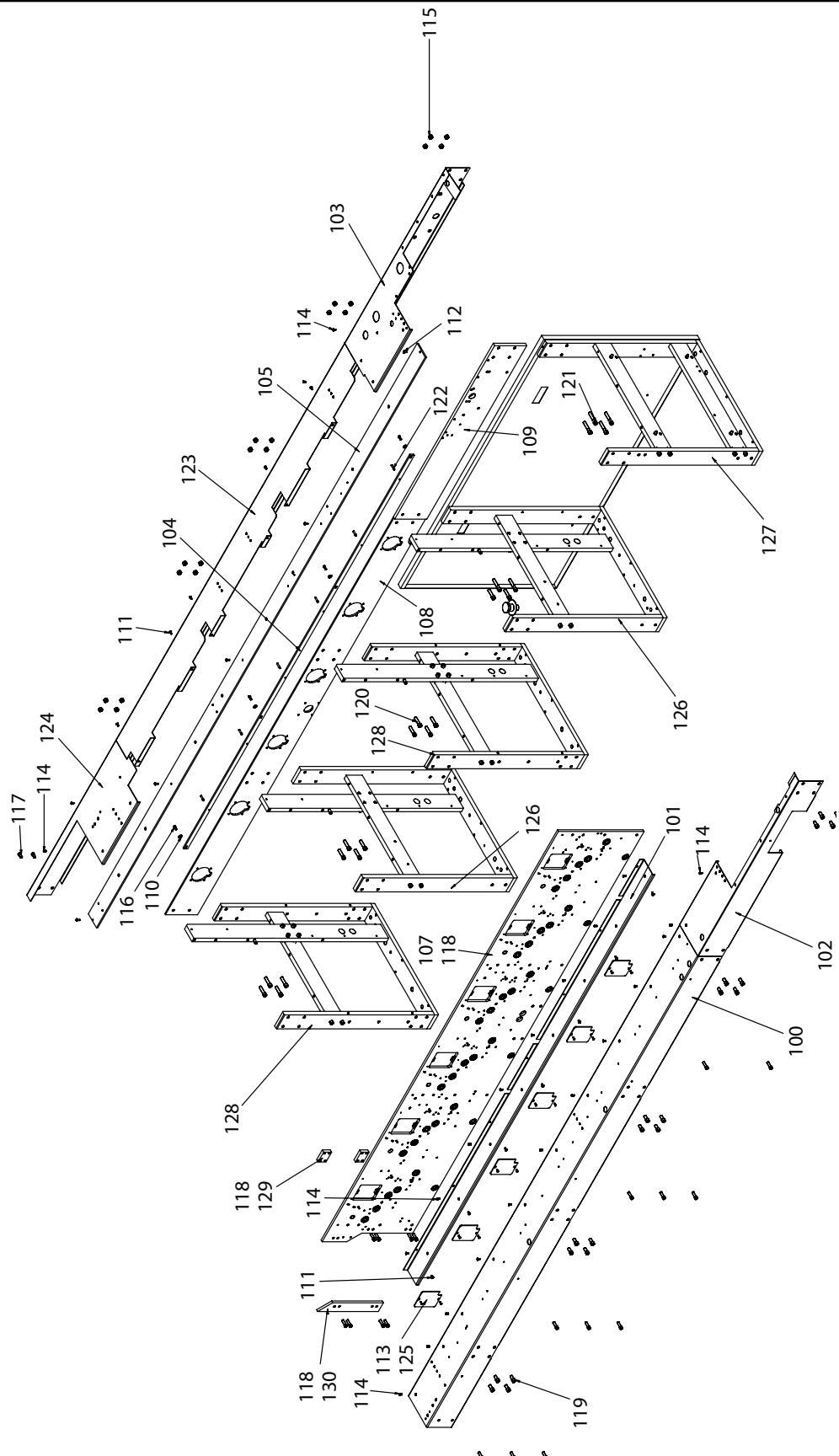
Figure 1-4: 3 Station Assembly Frame Covers/ FL80101



## Parts List 1-4: 3 Station Assembly Frame Covers/ FL80101

Item	Part Number	Qty	Description
400	258-0521	6	STANDOFF #10-32 HEX M/F
401	8484227	8	PAN-L-SCREW
402	81-0831	10	SCREW CAP HEX SOCKET
403	FL45021	10	BLOCK - SIDE COVER MOUNT
404	FL62055	1	SAFETY LABEL - CRUSH WARNING
405	FL62056	1	SAFETY LABEL - SHOCK HAZARD
406	18013-044	2	COVER LOWER SIDE
407	18013-038	1	COVER LOWER SIDE, FRONT
408	18013-110	1	COVER, LOWER SIDE (POWER ENTRY) (10X13)
409	Y162000	8	HANDLE - COVER

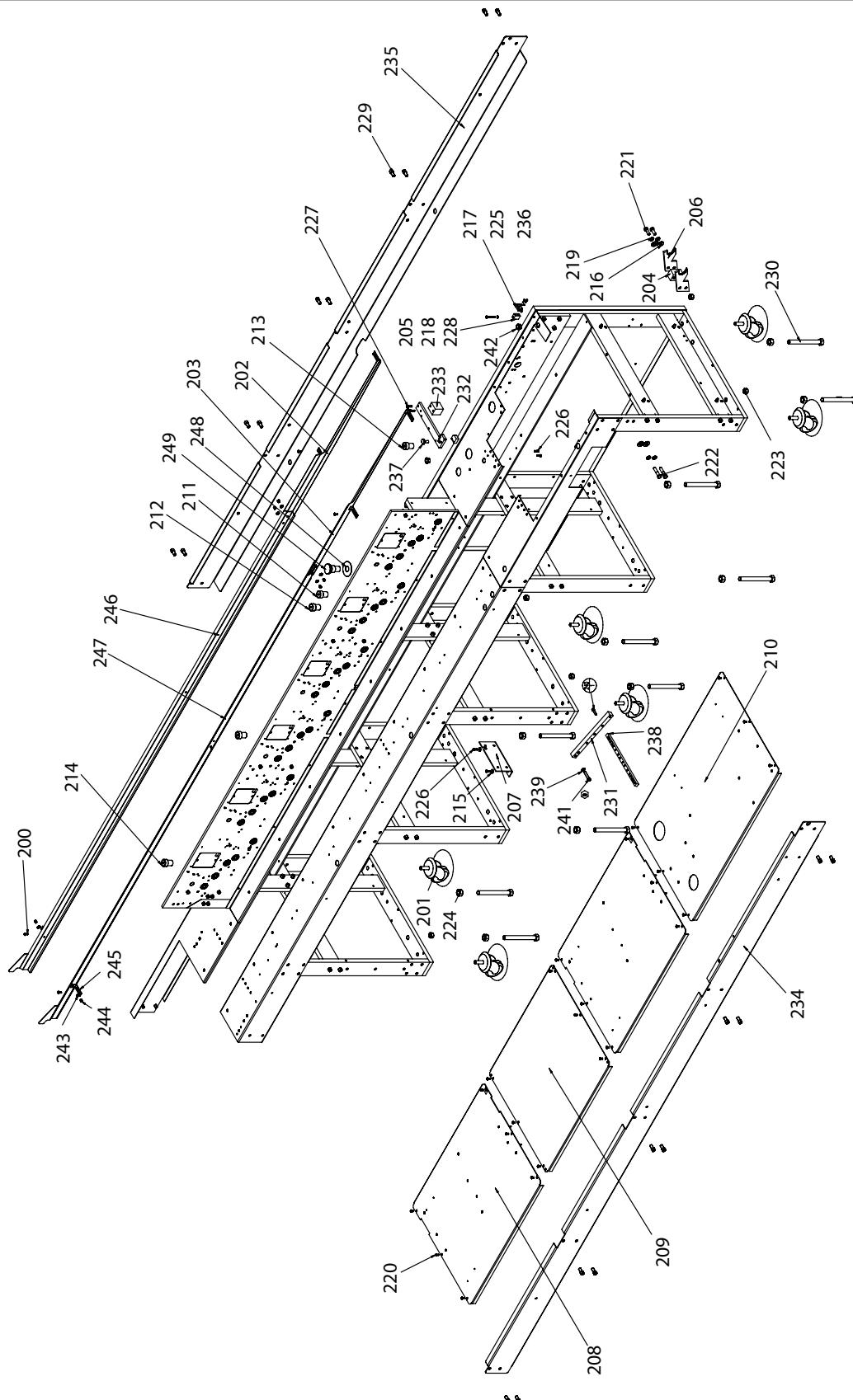
Figure 1-5: 6 Station Assembly Frame Covers/ FL80022



## Parts List 1-5: 6 Station Assembly Frame Covers/ FL80022

Item	Part Number	Qty	Description
100	FL58069	1	COVER - TOP REAR RH
101	18001-024	1	COVER TOP INNER
102	18001-029	1	COVER TOP RH SHORT
103	18001-030	1	COVER, TOP-LH-SHORT
104	18008-029	1	BAR, CLUTCH STOP
105	18008-069	1	BAR, WIREWAY MTG
107	FL80143	1	PLATE FDR MOUNTING 10X13
108	18011-050	1	PLATE CLUTCH MTG
109	18011-065	1	PLATE, PUSHER DRIVE MTG
110	50-0017	4	WASHER PLAIN .245 ID
111	68-0831	13	SCREW BTNHD CAP HEX SKT
112	68-0833	5	SCREW BTNHD CAP HEX SKT
113	74-0501	12	SCREW FLAT HEAD PH
114	74-0611	24	SCREW FLAT HEAD PH
115	80-0027	20	NUT HEX
116	81-0833	4	SCREW CAP HEX SOCKET
117	81-1328	2	SCREW CAP HEX SOCKET
118	81-1336	19	SCREW CAP HEX SOCKET
119	81-1442	20	SCREW CAP HEX SOCKET
120	81-1450	14	SCREW CAP HEX SOCKET
121	81-1454	6	SCREW CAP HEX SOCKET
122	99006-022	6	PIN, 10-32 X 3/4
123	FL51116	1	COVER - TOP REAR A, 10X13
124	FL58064	1	COVER - TOP LH REAR
125	FL62046	6	COVER - FEEDER BOARD
126	FL80014	2	ASSY - FRAME #1
127	FL80015	1	ASSY - FRAME #2
128	FL80016	2	ASSY - FRAME #3
129	18011-060	2	PLATE - SPLICE FEEDER PLATE
130	18011-068	1	PLATE - FILLER FEEDER PLATE

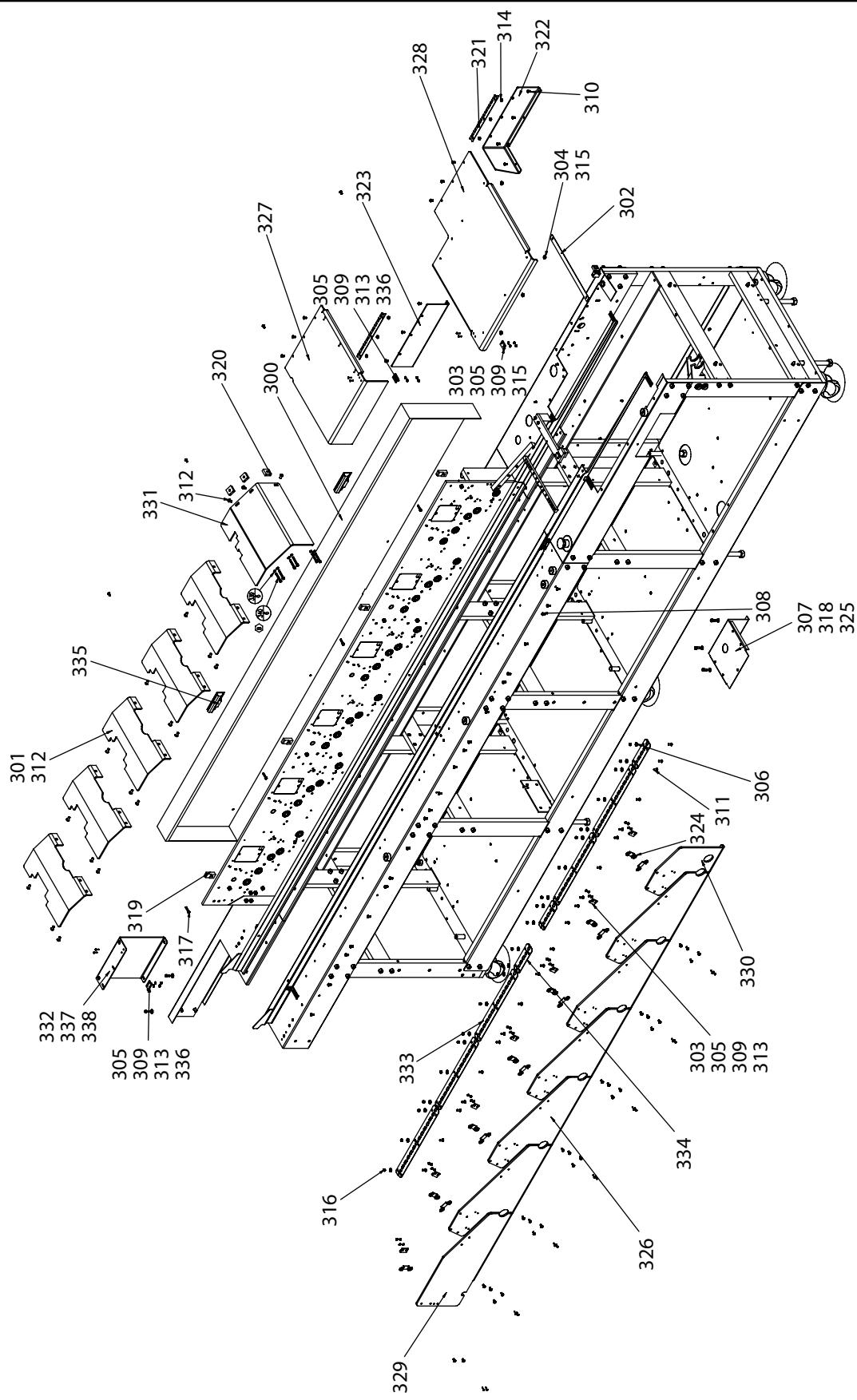
Figure 1-6: 6 Station Assembly Frame Covers/ FL80022



## Parts List 1-6: 6 Station Assembly Frame Covers/ FL80022

Item	Part Number	Qty	Description
200	68-0833	4	SCREW BTNHD CAP HEX SKT
201	3184086	6	CASTER
202	FL80109	1	FRONT SIDE GUIDE
203	FL80110	1	FRONT SIDE GUIDE
204	18007-050	1	BLOCK, PULLEY GUIDE YOKE MTG
205	18007-064	1	BLOCK, PHOTO EYE MTG (FLAP)
206	18007-070	2	BLOCK, PULLEY GUIDE YOKE
207	18009-045	1	BRACKET, INVERTER ENCLOSURE MTG.
208	18013-069	2	PLATE, FLOOR (COLLATOR-MAIN)
209	18013-070	1	PLATE, FLOOR (COLLATOR)
210	18013-071	1	PLATE, FLOOR (COLLATOR-PNEUMATICS)
211	213-2516	1	SW PUSH BUTTON
212	213-2517	1	SW PUSH BUTTON
213	213-2518	2	SW PUSH BUTTON
214	213-2519	1	SW PUSH BUTTON
215	50-0017	2	WASHER PLAIN .245 ID
216	50-0028	4	WASHER PLAIN
217	52-0006	2	LK WASH HELICAL SPRING
218	52-0016	1	LK WASH HELICAL SPRING
219	52-0027	4	LK WASH HELICAL SPRING
220	68-0831	25	SCREW BTNHD CAP HEX SKT
221	79-1446	2	SCREW CAP HEX HEAD
222	79-1452	2	SCREW CAP HEX HEAD
223	80-0032	6	NUT HEX
224	80-0034	10	NUT HEX
225	81-0283	2	SCREW CAP HEX SOCKET
226	81-0833	4	SCREW CAP HEX SOCKET
227	81-0837	2	SCREW CAP HEX SOCKET
228	81-0845	1	SCREW CAP HEX SOCKET
229	81-1442	20	SCREW CAP HEX SOCKET
230	79-1781	10	SCREW CAP HEX HEAD
231	FL45053	1	BLOCK, BAR STRAP MOUNTING
232	FL45059	1	BAR, SENSOR MTG
233	FL45070	1	BLOCK, SENSOR BRACKET
234	FL58056	1	COVER - LOWER RH
235	FL58057	1	COVER - LOWER LH
236	FL84021	1	REFLECTIVE SENSOR - FLAP DETECT/ENVELOPE PRESENT
237	R692043	1	OPTICAL DETECTOR
238	18008-030	1	BAR, STRAP MTG INSERTER
239	52-0025	1	LK WASH HELICAL SPRING
240	81-1226	1	SCREW CAP HEX SOCKET
241	81-1340	1	SCREW CAP HEX SOCKET
242	88-0116	2	BUSHING ELECTRICAL
243	50-0576	6	WASHER PLAIN .214 ID
244	87-0016	6	NUT HEX SOCKET 10-32 THD
245	FL51139	2	BRACKET - GUIDE
246	FL80111	1	SIDE GUIDE,REAR,LH
247	FL80112	1	SIDE GUIDE,REAR,RH
248	213-1914	1	SW.ACC. PUSHBUTTON LABEL
249	213-2515	1	SW PUSH BUTTON

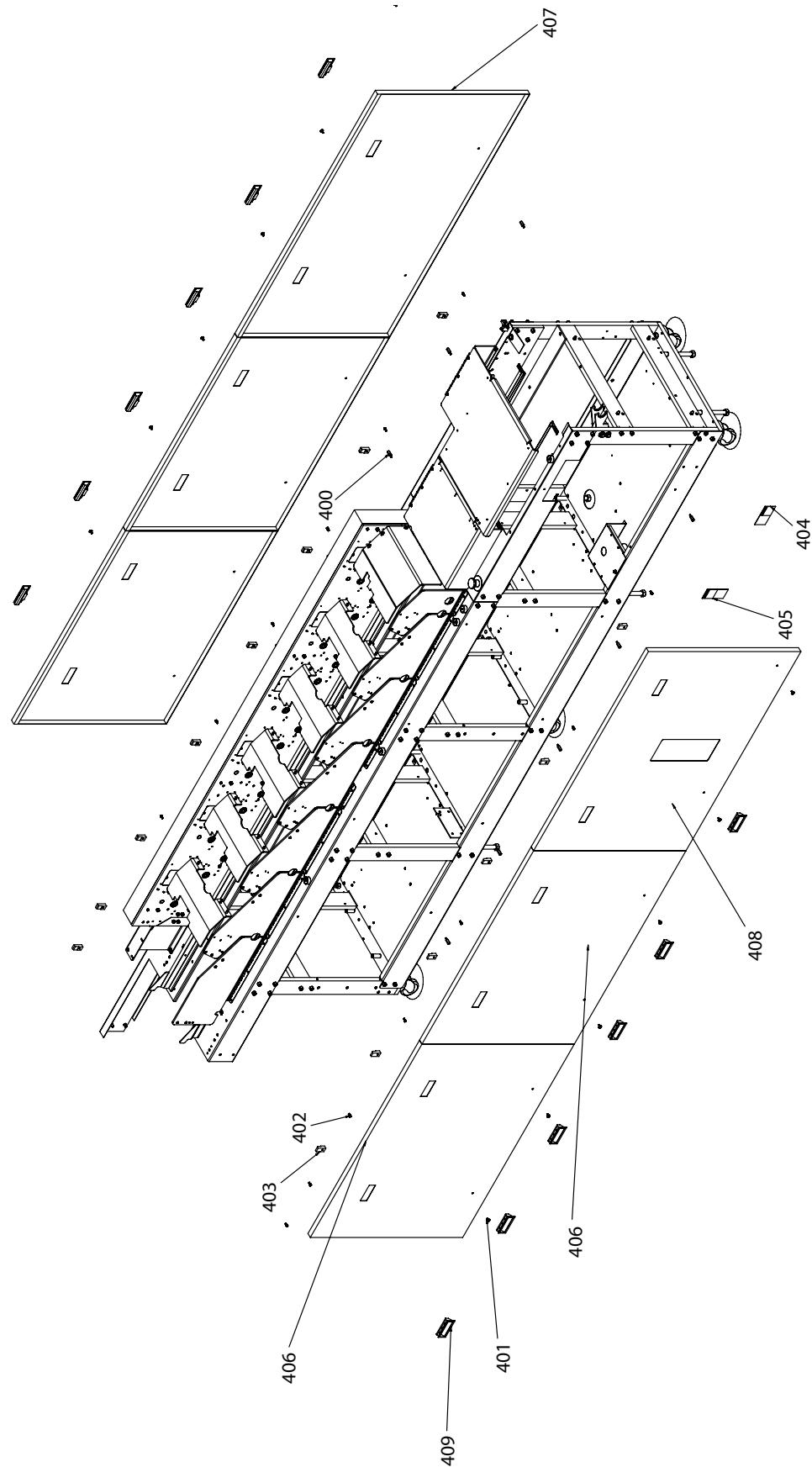
Figure 1-7: 6 Station Assembly Frame Covers/ FL80022



## Parts List 1-7: 6 Station Assembly Frame/ Covers FL80022

Item	Part Number	Qty	Description
300	FL51123	1	COVER - FEEDER DRIVE - 10X13
301	18013-054	5	COVER, FEEDER 10X13
301	18013-052	5	COVER, FEEDER 6X9
302	18019-020	1	STRAP, PUSHER COVER
303	200-0701	8	MAGNET ACTUATOR
304	244-0310	6	BUMPER MOLDED RUBBER
305	50-0005	18	WASHER PLAIN
306	50-0576	21	WASHER PLAIN .214 ID
307	52-0023	3	LK WASH HELICAL SPRING
308	60-0831	21	SCREW TPG PAN HD PH
309	68-0283	18	SCREW BTNHD CAP HEX SKT
310	68-0831	42	SCREW BTNHD CAP HEX SKT
311	68-0833	21	SCREW BTNHD CAP HEX SKT
312	68-1218	18	SCREW BTNHD CAP HEX SKT
313	71-0001	18	NUT HEX W/LCKWSH 4-40
314	71-0006	6	NUT HEX & LK WASH
315	73-0279	6	SCREW PAN HEAD PH
316	80-0071	21	NUT SELF LOCK 10-32 THD
317	81-0839	4	SCREW CAP HEX SOCKET
318	81-1218	3	SCREW CAP HEX SOCKET
319	FL45021	4	BLOCK - SIDE COVER MOUNT
320	FL45022	3	BLOCK-COVER MOUNT
321	FL46000	2	HINGE, 9 IN. LONG
322	FL58003	1	COVER A MOUNT 6X9, 10X13
323	FL58004	1	REAR PUSHER COVER MOUNT
324	FL58031	12	LATCH - MAGNET
325	FL58044	1	BRACKET - POWER ENTRY
326	FL62004	5	COVER-FRONT (HINGED) 10X13
326	FL62003	5	COVER-FRONT (HINGED) 6X9
327	FL62012	1	COVER, REAR PUSHER 6X9
327	FL62024	1	COVER, REAR PUSHER 10X13
328	FL62013	1	FLAT COVER A 10X13
328	FL62009	1	FLAT COVER A 6X9
329	FL62022	1	COVER-FRONT (UPSTREAM) 10X13
329	FL62025	1	COVER-FRONT (UPSTREAM) 6X9
330	FL62023	1	COVER-FRONT (DOWNSTREAM) 10X13
330	FL62026	1	COVER-FRONT (DOWNSTREAM) 6X9
331	FL62027	1	FRONT (DOWNSTREAM) COVER, FEEDER 10X13
331	18013-053	1	FRONT (DOWNSTREAM) COVER, FEEDER 6X9
332	FL51136	1	SIDE COVER
333	FL84032	5	HINGE - STD 10X13
334	FL84033	3	HINGE - SHORT 10X13
335	Y162000	2	HANDLE - COVER
336	Y583035	1	HARNESS ASSY-SWITCH 2 POLE REED
339	52-0016	6	LK WASH HELICAL SPRING (NOT SHOWN)
340	81-0845	6	SCREW CAP HEX SOCKET (NOT SHOWN)

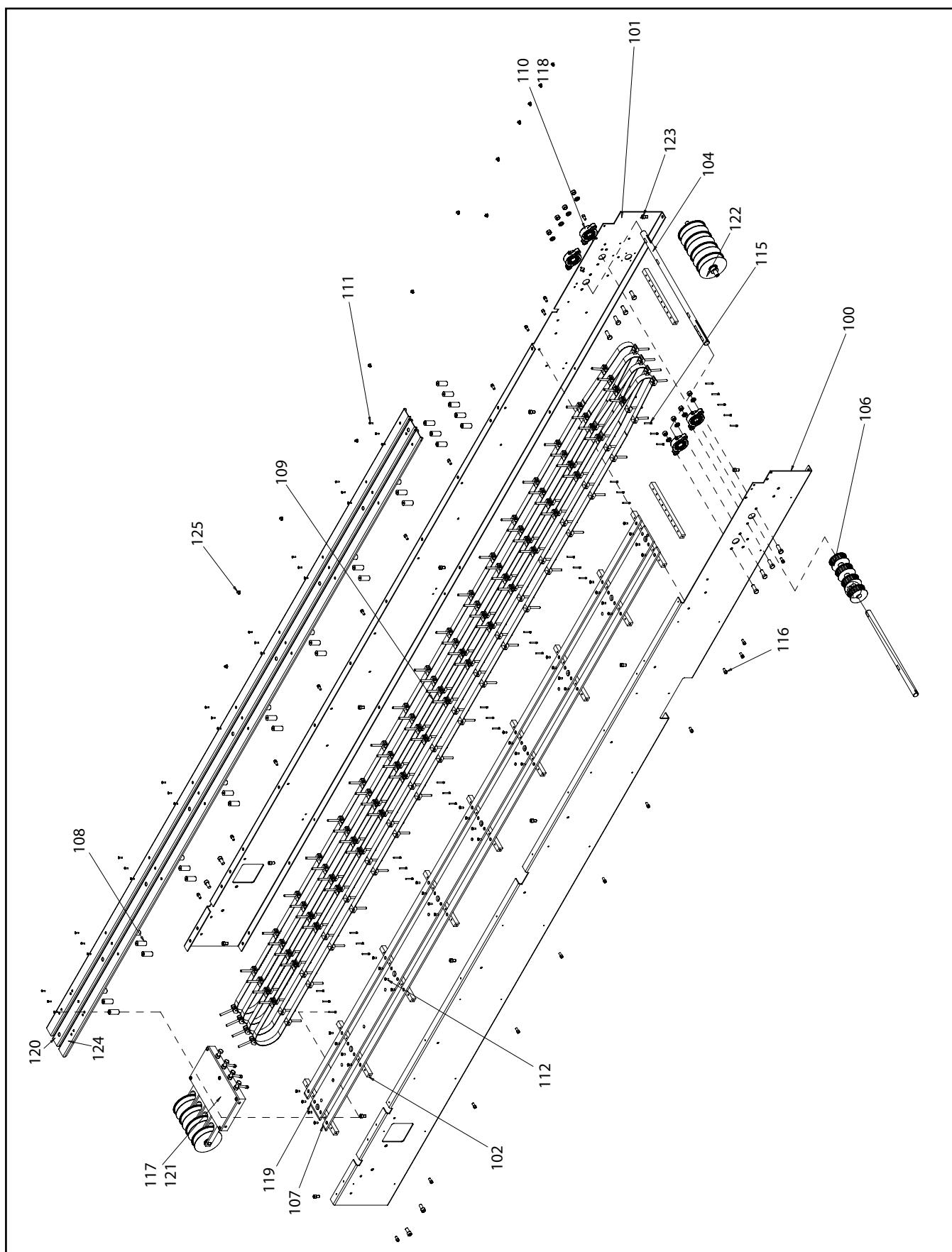
Figure 1-8: 6 Station Assembly Frame Covers/ FL80022



## Parts List 1-8: 6 Station Assembly Frame Covers/ FL80022

Item	Part Number	Qty	Description
400	258-0521	10	STANDOFF #10-32 HEX M/F
401	8484227	12	PAN-L-SCREW
402	81-0831	14	SCREW CAP HEX SOCKET
403	FL45021	14	BLOCK - SIDE COVER MOUNT
404	FL62055	1	SAFETY LABEL - CRUSH WARNING
405	FL62056	1	SAFETY LABEL - SHOCK HAZARD
406	18013-044	4	COVER LOWER SIDE
407	18013-038	1	COVER LOWER SIDE, FRONT
408	18013-110	1	COVER, LOWER SIDE (POWER ENTRY) (10X13)
409	Y162000	12	HANDLE - COVER

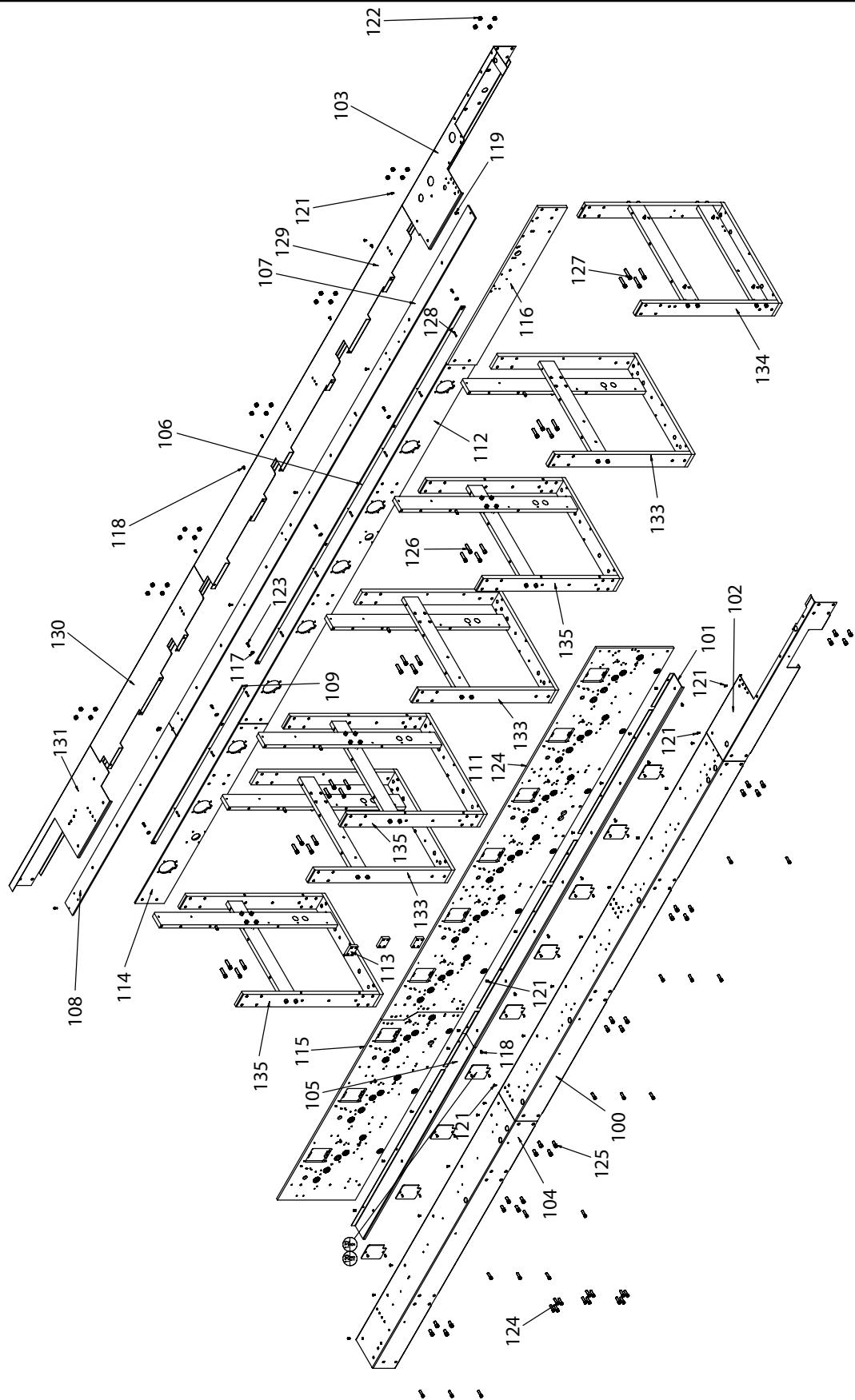
Figure 1-9: 6 Station Assembly Conveyor/ FL80052



## Parts List 1-9: 6 Station Assembly Conveyor/ FL80052

Item	Part Number	Qty	Description
100	18000-005	1	SIDE FRAME RH 10 X 13
101	18000-006	1	SIDE FRAME LH 10 X 13
102	18003-009	11	CROSS BRACE
104	18004-042	1	SHAFT COLLATOR DRIVE (1 TO 1)
105	18004-048	1	SHAFT COLLATOR DRIVE
106	18006-039	4	PULLEY, 19L075 3/4 B.
107	18008-067	2	BAR, BELT SUPPORT 10 X 13 INSERTER
108	18012-001	32	STANDOFF, PAPER GUIDE
109	FL80165	4	BELT, COLLATOR CONVEYOR 6 STATION
110	52-0027	8	LK WASH HELICAL SPRING
111	74-0503	27	SCREW FLAT HEAD PH
112	74-0833	36	SCREW FLAT HEAD PH
113	79-1446	8	SCREW CAP HEX HEAD
114	80-0027	8	NUT HEX
115	81-0511	32	SCREW CAP HEX SOCKET
116	81-1218	24	SCREW CAP HEX SOCKET
117	81-1442	4	SCREW CAP HEX SOCKET
118	99003-019	4	BEARING, 2 BOLT FLANGE
119	FL45055	1	OLDSTYLE:GUIDE, BELT SLIDE, 10X13
120	FL51141	1	DECK - PAPER (SENSOR)
121	FL80004	1	ASSY-CONVEYOR TENSIONER
122	FL80058	1	ASSY-FRONT IDLER
123	81-1328	12	SCREW CAP HEX SOCKET
124	FL58095	2	DECK - SIDE
125	227-0281	13	PUSH BUTTON MOUNT

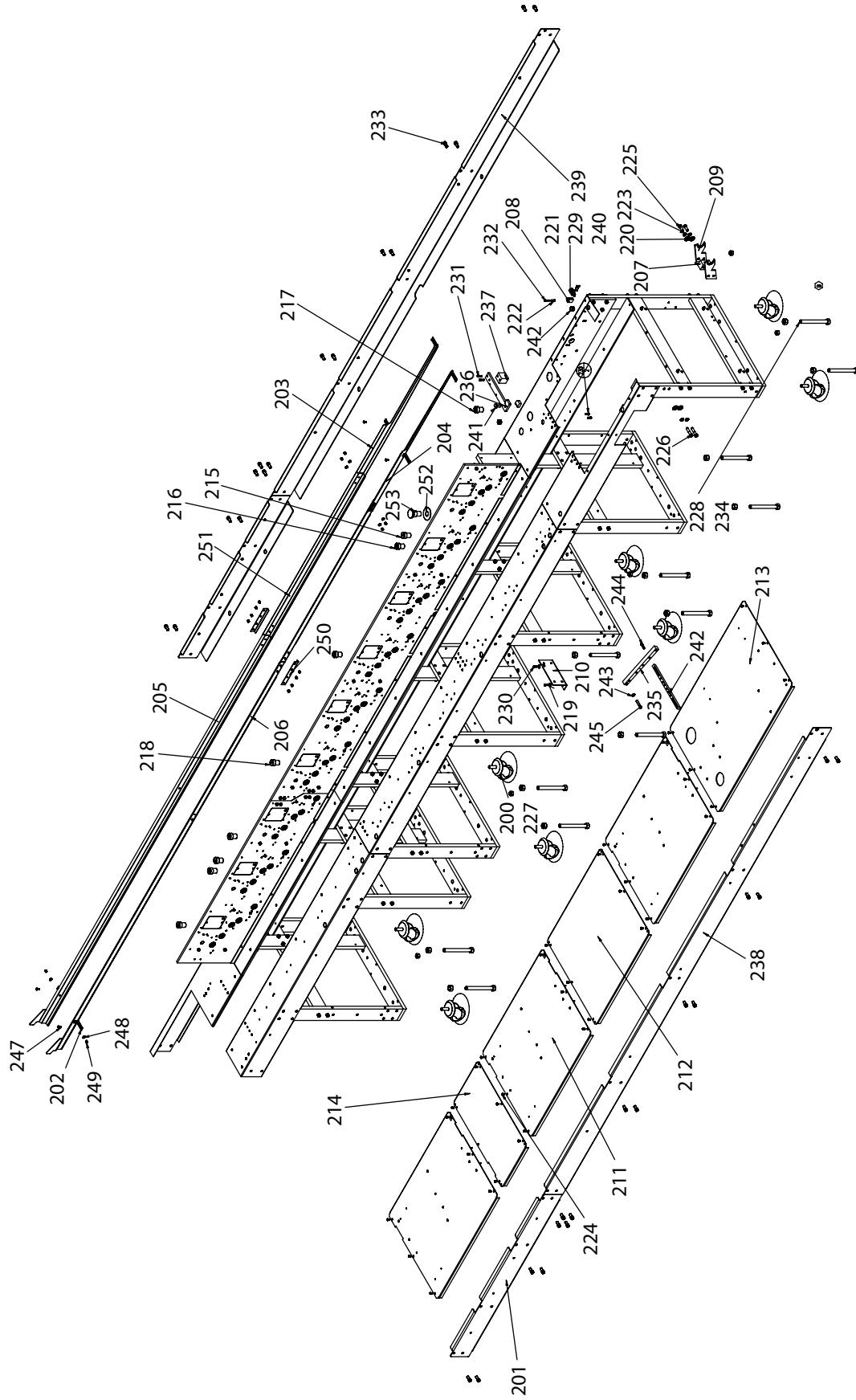
Figure 1-10: 9 Station Assembly Frame Covers/ FL80080



## Parts List 1-10: 9 Station Assembly Frame Covers/ FL80080

Item	Part Number	Qty	Description
100	18001-019	1	COVER TOP RH CENTER
101	18001-023	1	COVER-TOP INNER FRONT
102	18001-029	1	COVER TOP RH SHORT
103	18001-030	1	COVER, TOP-LH-SHORT
104	FL58074	1	COVER - TOP RH REAR 9 STA 10X13
105	18001-037	1	COVER - TOP INNER REAR
106	18008-029	1	BAR, CLUTCH STOP
107	18008-069	1	BAR, WIREWAY MTG
108	18008-075	1	BAR, WIRE MTG, REAR
109	18008-077	1	BAR - CLUTCH STOP REAR
111	FL80143	1	PLATE FDR MOUNTING 10X13
112	18011-050	1	PLATE CLUTCH MTG
113	18011-060	1	PLATE - SPLICE FEEDER PLATE
114	18011-063	1	CLUTCH MTG PLATE REAR (3 STATION)
115	FL80148	1	PLATE FDR, 3STA MULTI, 10X13
116	18011-065	1	PLATE, PUSHER DRIVE MTG
117	50-0017	6	WASHER PLAIN .245 ID
118	68-0831	24	SCREW BTNHD CAP HEX SKT
119	68-0833	7	SCREW BTNHD CAP HEX SKT
120	74-0501	18	SCREW FLAT HEAD PH
121	74-0611	33	SCREW FLAT HEAD PH
122	80-0027	28	NUT HEX
123	81-0833	6	SCREW CAP HEX SOCKET
124	81-1336	29	SCREW CAP HEX SOCKET
125	81-1442	28	SCREW CAP HEX SOCKET
126	81-1450	22	SCREW CAP HEX SOCKET
127	81-1454	6	SCREW CAP HEX SOCKET
128	99006-022	9	PIN, 10-32 X 3/4
129	FL51116	1	COVER - TOP REAR A, 10X13
130	FL58079	1	COVER - TOP LH REAR 3 STA EXTENSION
131	FL58064	1	COVER - TOP LH REAR
132	FL62046	9	COVER - FEEDER BOARD
133	FL80014	3	ASSY - FRAME #1
134	FL80015	1	ASSY - FRAME #2
135	FL80016	3	ASSY - FRAME #3

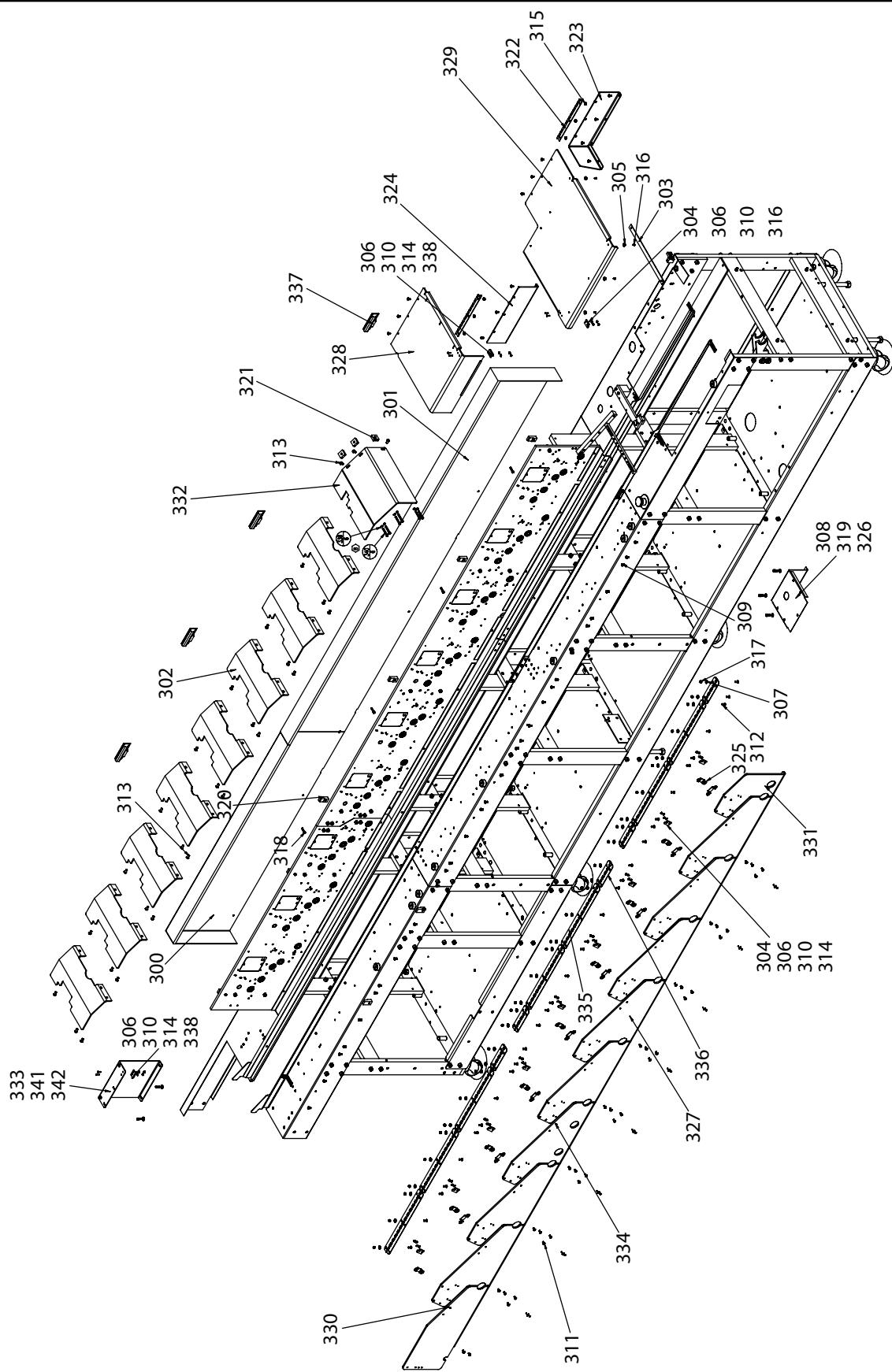
**Figure 1-11: 9 Station Assembly Frame Covers/ FL80080**



## Parts List 1-11: 9 Station Assembly Frame Covers/ FL80080

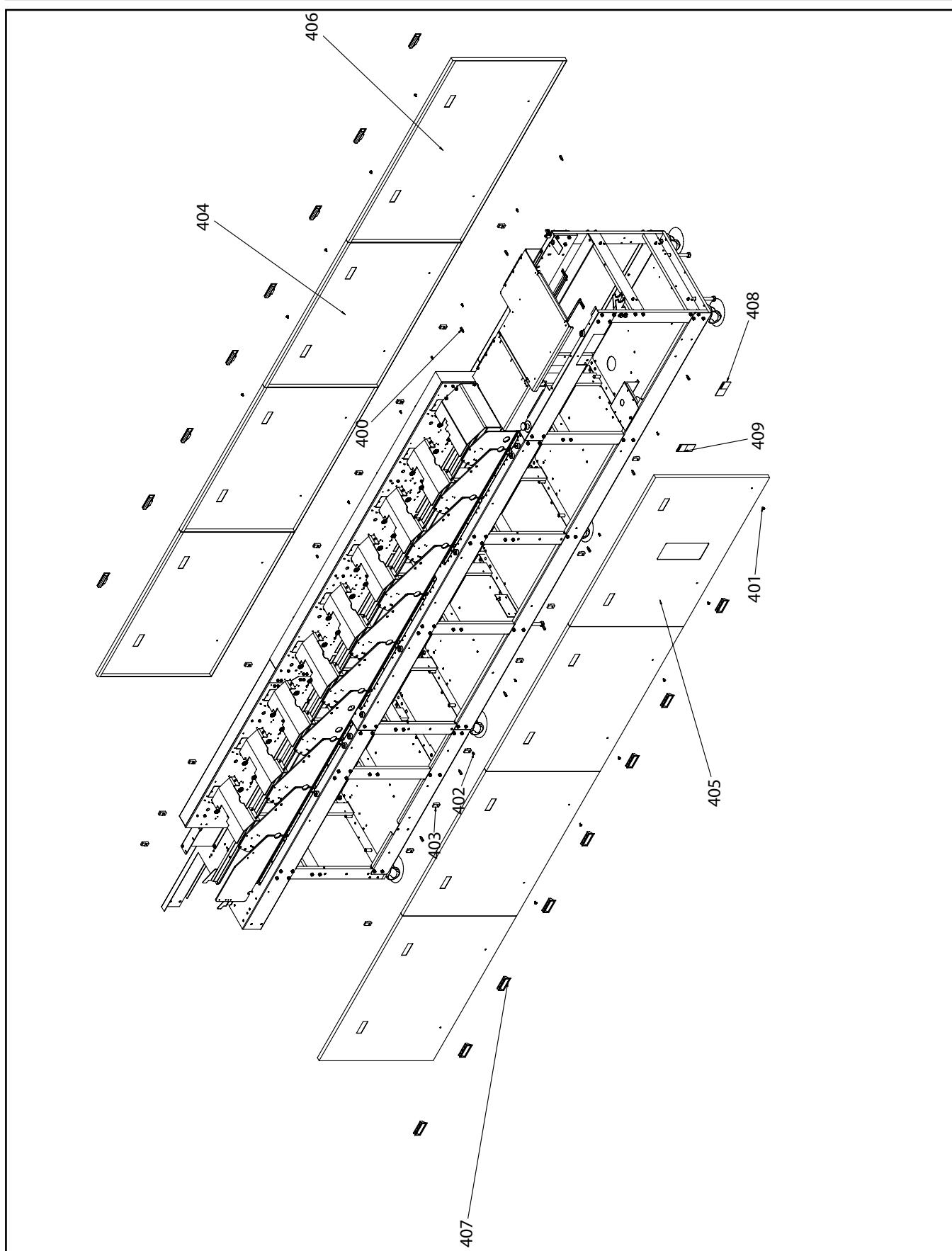
Item	Part Number	Qty	Description
200	3184086	8	CASTER
201	FL58076	2	COVER - LOWER REAR 3 STA EXT
202	FL51139	2	BRACKET - GUIDE
203	FL80109	1	FRONT SIDE GUIDE
204	FL80110	1	FRONT SIDE GUIDE
205	FL80111	1	SIDE GUIDE, REAR, LH
206	FL80112	1	SIDE GUIDE, REAR, RH
207	18007-050	1	BLOCK, PULLEY GUIDE YOKE MTG
208	18007-064	1	BLOCK, PHOTO EYE MTG (FLAP)
209	18007-070	2	BLOCK, PULLEY GUIDE YOKE
210	18009-045	1	BRACKET, INVERTER ENCLOSURE MTG.
211	18013-069	1	PLATE, FLOOR (COLLATOR-MAIN)
212	18013-070	1	PLATE, FLOOR (COLLATOR)
213	18013-071	1	PLATE, FLOOR (COLLATOR-PNEUMATICS)
214	18013-106	1	PLATE - FLOOR 9 STATION
215	213-2516	2	SW PUSH BUTTON
216	213-2517	2	SW PUSH BUTTON
217	213-2518	3	SW PUSH BUTTON
218	213-2519	2	SW PUSH BUTTON
219	50-0017	4	WASHER PLAIN .245 ID
220	50-0028	4	WASHER PLAIN
221	52-0006	2	LK WASH HELICAL SPRING
222	52-0016	1	LK WASH HELICAL SPRING
223	52-0027	4	LK WASH HELICAL SPRING
224	68-0831	37	SCREW BTNHD CAP HEX SKT
225	79-1446	2	SCREW CAP HEX HEAD
226	79-1452	2	SCREW CAP HEX HEAD
227	80-0032	8	NUT HEX
228	80-0034	12	NUT HEX
229	81-0283	2	SCREW CAP HEX SOCKET
230	81-0833	6	SCREW CAP HEX SOCKET
231	81-0837	2	SCREW CAP HEX SOCKET
232	81-0845	1	SCREW CAP HEX SOCKET
233	81-1442	32	SCREW CAP HEX SOCKET
234	79-1781	12	SCREW CAP HEX HEAD
235	FL45053	1	BLOCK, BAR STRAP MOUNTING
236	FL45059	1	BAR, SENSOR MTG
237	FL45070	1	BLOCK, SENSOR BRACKET
238	FL58056	1	COVER - LOWER RH
239	FL58057	1	COVER - LOWER LH
240	FL84021	1	REFLECTIVE SENSOR - FLAP DETECT/ENVELOPE PRESENT
241	R692043	1	OPTICAL DETECTOR
242	18008-030	1	BAR, STRAP MTG INSERTER
243	52-0025	1	LK WASH HELICAL SPRING
244	81-1226	1	SCREW CAP HEX SOCKET
245	81-1340	1	SCREW CAP HEX SOCKET
246	88-0116	2	BUSHING ELECTRICAL
247	68-0833	4	SCREW BTNHD CAP HEX SKT
248	50-0576	6	WASHER PLAIN .214 ID
249	87-0016	14	NUT HEX SOCKET 10-32 THD
250	FL51140	2	JOINER
251	FL58093	2	GUIDE - SIDE (3 STA EXTENSION)
252	213-1914	1	SW.ACC. PUSHBUTTON LABEL
253	213-2515	1	SW PUSH BUTTON

Figure 1-12: 9 Station Assembly Frame Covers/ FL80080



## Parts List 1-12: 9 Station Assembly Frame Covers/ FL80080

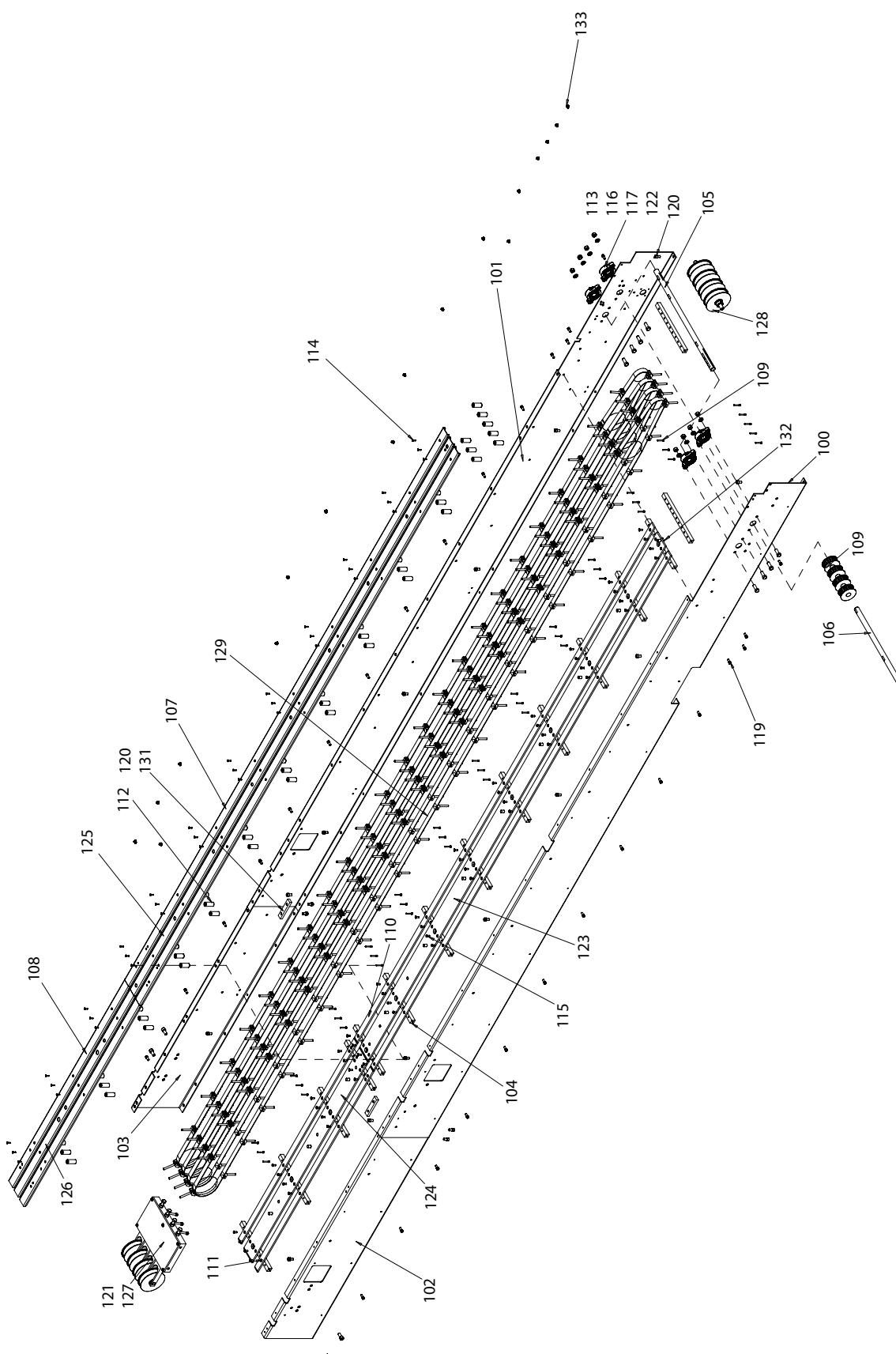
Item	Part Number	Qty	Description
300	18013-040	1	COVER - FEEDER DRIVE 3 STA 10X13
301	FL51125	1	COVER - FEEDER DRIVE 9 STA 10X13
302	18013-054	8	COVER, FEEDER 10X13
303	18019-020	1	STRAP, PUSHER COVER
304	200-0701	10	MAGNET ACTUATOR
305	244-0310	6	BUMPER MOLDED RUBBER
306	50-0005	24	WASHER PLAIN
307	50-0576	31	WASHER PLAIN .214 ID
308	52-0023	3	LK WASH HELICAL SPRING
309	60-0831	31	SCREW TPG PAN HD PH
310	68-0283	24	SCREW BTNHD CAP HEX SKT
311	68-0831	60	SCREW BTNHD CAP HEX SKT
312	68-0833	33	SCREW BTNHD CAP HEX SKT
313	68-1218	25	SCREW BTNHD CAP HEX SKT
314	71-0001	24	NUT HEX W/LCKWSH 4-40
315	71-0006	6	NUT HEX & LK WASH
316	73-0279	6	SCREW PAN HEAD PH
317	80-0071	31	NUT SELF LOCK 10-32 THD
318	81-0839	6	SCREW CAP HEX SOCKET
319	81-1218	3	SCREW CAP HEX SOCKET
320	FL45021	8	BLOCK - SIDE COVER MOUNT
321	FL45022	3	BLOCK-COVER MOUNT
322	FL46000	2	HINGE, 9 IN. LONG
323	FL58003	1	COVER A MOUNT 6X9,10X13
324	FL58004	1	REAR PUSHER COVER MOUNT
325	FL58031	17	LATCH - MAGNET
326	FL58044	1	BRACKET - POWER ENTRY
327	FL62004	7	COVER-FRONT (HINGED)
328	FL62012	1	COVER, REAR PUSHER (10X13)
329	FL62013	1	FLAT COVER A 10X13
330	FL62022	1	COVER-FRONT (UPSTREAM) 10 X 13
331	FL62023	1	COVER-FRONT (DOWNSTREAM) 10 X 13
332	FL62027	1	FRONT (DOWNSTREAM) COVER, FEEDER (10X13)
333	FL51136	1	SIDE COVER
334	FL62057	1	COVER - FRONT 9 STATION 10X13
335	FL84032	7	HINGE - STD 10X13
336	FL84033	5	HINGE - SHORT 10X13
337	Y162000	4	HANDLE - COVER
338	Y583035	2	HARNESS ASSY-SWITCH 2 POLE REED
339	52-0016	6	LK WASH HELICAL SPRING
340	81-0845	6	SCREW CAP HEX SOCKET
341	50-0017	2	WASHER
342	81-0833	2	SCREW

**Figure 1-13: 9 Station Assembly Frame Covers/ FL80080**

## Parts List 1-13: 9 Station Assembly Frame Covers/ FL80080

Item	Part Number	Qty	Description
400	258-0521	13	STANDOFF #10-32 HEX M/F
401	8484227	16	PAN-L-SCREW
402	81-0831	12	SCREW CAP HEX SOCKET
403	FL45021	19	BLOCK - SIDE COVER MOUNT
404	18013-044	6	COVER LOWER SIDE
405	18013-110	1	COVER, LOWER SIDE (POWER ENTRY) (10X13)
406	18013-038	1	COVER LOWER SIDE, FRONT
407	Y162000	16	HANDLE - COVER
408	FL62055	1	SAFETY LABEL - CRUSH WARNING
409	FL62056	1	SAFETY LABEL - SHOCK HAZARD

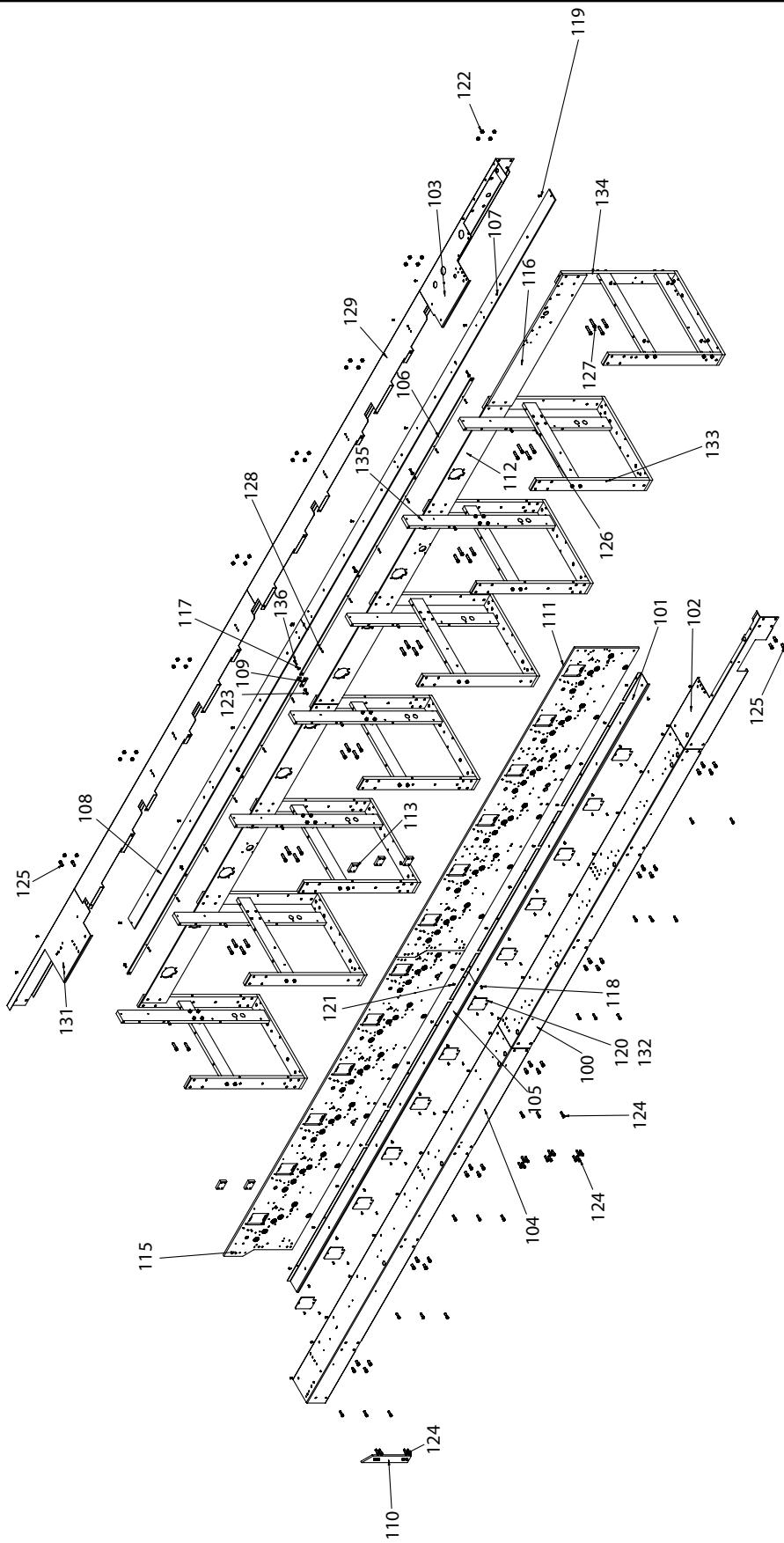
Figure 1-14: 9 Station Assembly Conveyor/ Fl80094



## Parts List 1-14: 9 Station Assembly Conveyor/ FL80094

Item	Part Number	Qty	Description
100	18000-005	1	SIDE FRAME RH 10 X 13
101	18000-006	1	SIDE FRAME LH 10 X 13
102	18000-011	1	SIDE FRAME, CONV, RH REAR
103	18000-012	1	SIDE FRAME, CONV, LH STA
104	18003-009	15	CROSS BRACE
105	18004-042	1	SHAFT COLLATOR DRIVE (1 TO 1)
106	18004-048	1	SHAFT COLLATOR DRIVE
107	FL58095	2	DECK - SIDE
108	FL58096	2	DECK - PAPER (9 STA)
109	18006-039	4	PULLEY, 19L075 3/4 B.
110	18008-067	2	BAR, BELT SUPPORT 10 X 13 INSERTER
111	18008-076	2	BAR, BELT SUPPORT REAR
112	18012-001	43	STANDOFF, PAPER GUIDE
113	52-0027	8	LK WASH HELICAL SPRING
114	74-0503	36	SCREW FLAT HEAD PH
115	74-0833	52	SCREW FLAT HEAD PH
116	79-1446	8	SCREW CAP HEX HEAD
117	80-0027	8	NUT HEX
118	81-0511	41	SCREW CAP HEX SOCKET
119	81-1218	30	SCREW CAP HEX SOCKET
120	81-1328	18	SCREW CAP HEX SOCKET
121	81-1442	4	SCREW CAP HEX SOCKET
122	99003-019	4	BEARING, 2 BOLT FLANGE
123	FL45055	1	OLDSTYLE: GUIDE, BELT SLIDE, 10X13
124	FL45085	1	BELT GUIDE W/SENSORS, 3 STATION EXTENSION, 6X9
125	FL51141	1	DECK - PAPER (SENSOR)
126	FL51142	1	DECK - PAPER (SENSOR)
127	FL80004	1	ASSY-CONVEYOR TENSIONER
128	FL80058	1	ASSY-FRONT IDLER
129	FL80166	4	BELT, COLLATOR CONVEYOR 9 STATION
131	18011-061	2	PLATE, CONV SPLICE
132	R692043	1	OPTICAL DETECTOR
133	227-0281	17	PUSH BUTTON MOUNT

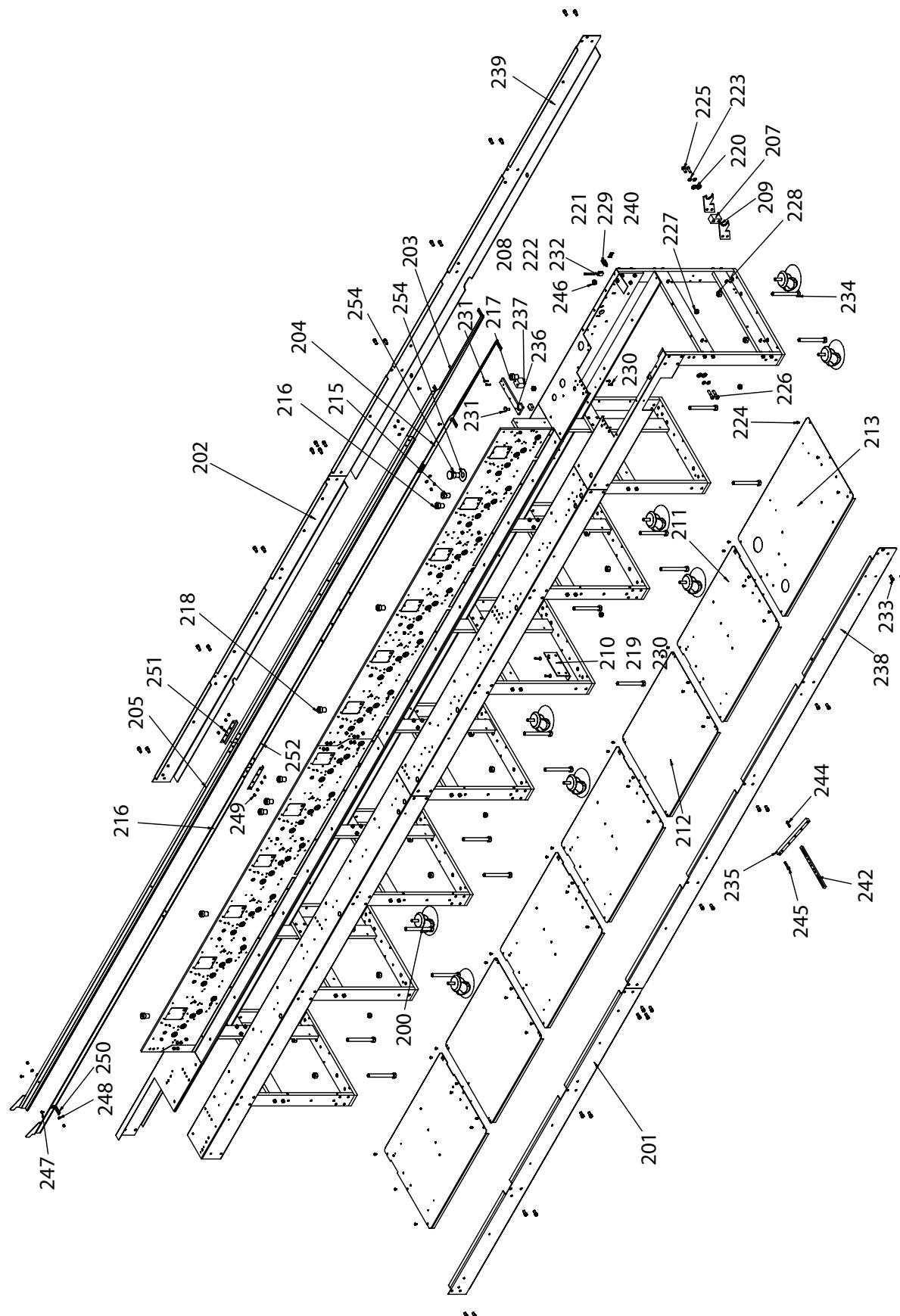
Figure 1-15: 12 Station Assembly Frame Covers/ FL80097



## Parts List 1-15: 12 Station Assembly Frame Covers/ FL80097

Item	Part Number	Qty	Description
100	18001-019	1	COVER TOP RH CENTER
101	18001-023	1	COVER-TOP INNER FRONT
102	18001-029	1	COVER TOP RH SHORT
103	18001-030	1	COVER, TOP-LH-SHORT
104	FL58069	1	COVER - TOP REAR RH
105	18001-024	1	COVER TOP INNER
106	18008-029	2	BAR, CLUTCH STOP
107	18008-069	1	BAR, WIREWAY MTG
108	18008-070	1	BAR, WIREWAY MTG, MULTI
109	18009-056	1	BRACKET, CLUTCH BAR CONN
110	18011-068	1	PLATE - FILLER FEEDER PLATE
111	FL80143	1	PLATE FDR MOUNTING 10X13
112	18011-050	2	PLATE CLUTCH MTG
113	18011-060	5	PLATE - SPLICE FEEDER PLATE
115	FL80145	1	PLATE FDR MULTI STA 10X13
116	18011-065	1	PLATE, PUSHER DRIVE MTG
117	50-0017	8	WASHER PLAIN .245 ID
118	68-0831	14	SCREW BTNHLD CAP HEX SKT
119	68-0833	9	SCREW BTNHLD CAP HEX SKT
120	74-0501	24	SCREW FLAT HEAD PH
121	74-0611	40	SCREW FLAT HEAD PH
122	80-0027	30	NUT HEX
123	81-0835	7	SCREW CAP HEX SOCKET
124	81-1336	40	SCREW CAP HEX SOCKET
125	81-1442	34	SCREW CAP HEX SOCKET
126	81-1450	24	SCREW CAP HEX SOCKET
127	81-1454	6	SCREW CAP HEX SOCKET
128	99006-022	12	PIN, 10-32 X 3/4
129	FL51116	2	COVER - TOP REAR A, 10X13
131	FL58064	1	COVER - TOP LH REAR
132	FL62046	12	COVER - FEEDER BOARD
133	FL80014	3	ASSY - FRAME #1
134	FL80015	1	ASSY - FRAME #2
135	FL80016	4	ASSY - FRAME #3
136	81-0839	1	SCREW CAP HEX SOCKET

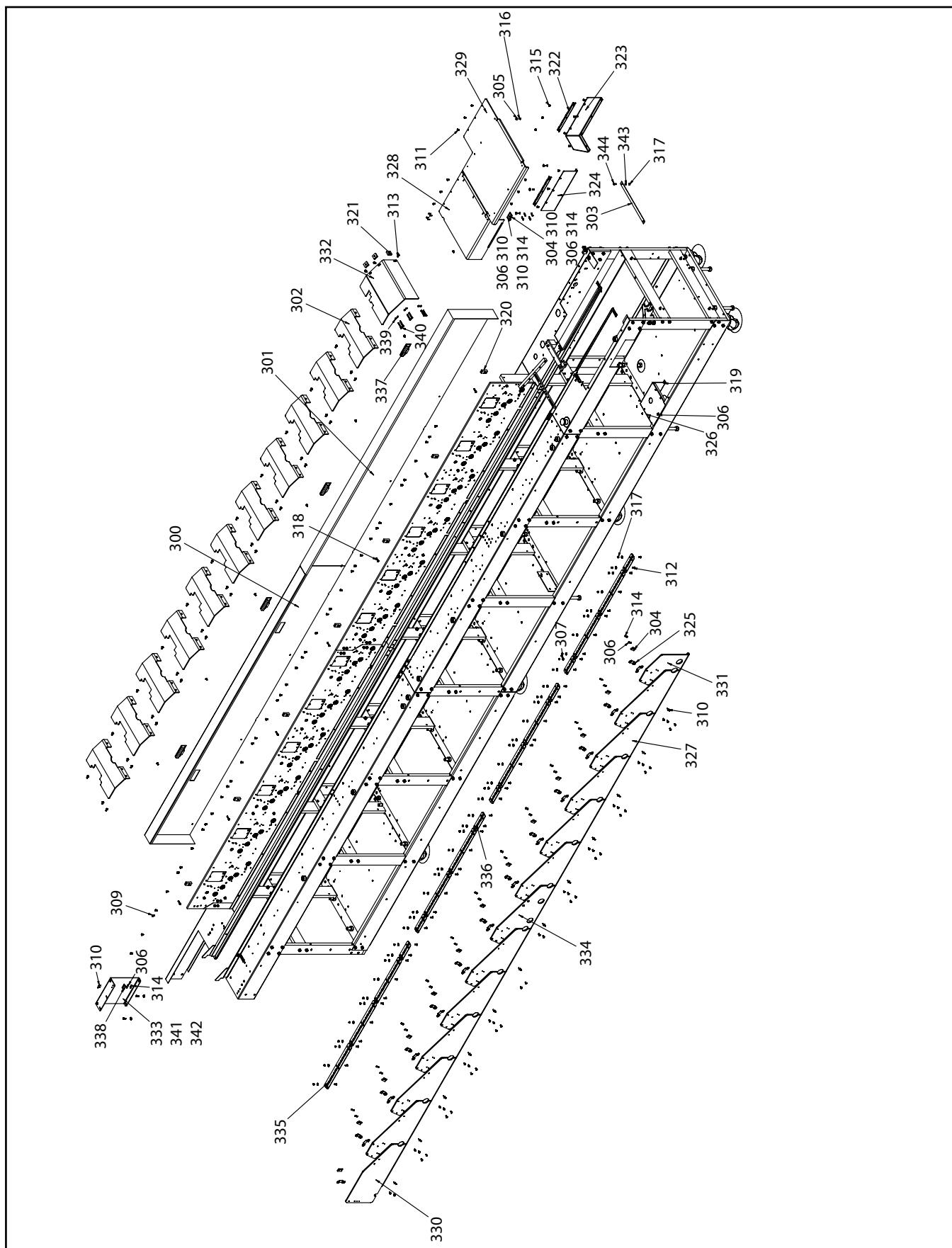
Figure 1-16: 12 Station Assembly Frame Covers/ FL80097



## Parts List 1-16: 12 Station Assembly Frame Covers/ FL80097

Item	Part Number	Qty	Description
200	3184086	8	CASTER
201	FL58065	1	COVER, LOWER RH REAR
202	FL58066	1	COVER, LOWER LH REAR
203	FL80109	1	FRONT SIDE GUIDE
204	FL80110	1	FRONT SIDE GUIDE
205	FL80111	1	SIDE GUIDE, REAR, LH
206	FL80112	1	SIDE GUIDE, REAR, RH
207	18007-050	1	BLOCK, PULLEY GUIDE YOKE MTG
208	18007-064	1	BLOCK, PHOTO EYE MTG (FLAP)
209	18007-070	2	BLOCK, PULLEY GUIDE YOKE
210	18009-045	1	BRACKET, INVERTER ENCLOSURE MTG.
211	18013-069	4	PLATE, FLOOR (COLLATOR-MAIN)
212	18013-070	2	PLATE, FLOOR (COLLATOR)
213	18013-071	1	PLATE, FLOOR (COLLATOR-PNEUMATICS)
215	213-2516	2	SW PUSH BUTTON
216	213-2517	2	SW PUSH BUTTON
217	213-2518	3	SW PUSH BUTTON
218	213-2519	4	SW PUSH BUTTON
219	50-0017	2	WASHER PLAIN .245 ID
220	50-0028	4	WASHER PLAIN
221	52-0006	2	LK WASH HELICAL SPRING
222	52-0016	1	LK WASH HELICAL SPRING
223	52-0027	4	LK WASH HELICAL SPRING
224	68-0831	42	SCREW BTNHD CAP HEX SKT
225	79-1446	2	SCREW CAP HEX HEAD
226	79-1452	2	SCREW CAP HEX HEAD
227	80-0032	8	NUT HEX
228	80-0034	16	NUT HEX
229	81-0283	2	SCREW CAP HEX SOCKET
230	81-0833	4	SCREW CAP HEX SOCKET
231	81-0837	2	SCREW CAP HEX SOCKET
232	81-0845	1	SCREW CAP HEX SOCKET
233	81-1442	36	SCREW CAP HEX SOCKET
234	79-1781	16	SCREW CAP HEX HEAD
235	FL45053	1	BLOCK, BAR STRAP MOUNTING
236	FL45059	1	BAR, SENSOR MTG
237	FL45070	1	BLOCK, SENSOR BRACKET
238	FL58056	1	COVER - LOWER RH
239	FL58057	1	COVER - LOWER LH
240	FL84021	1	REFLECTIVE SENSOR - FLAP DETECT/ENVELOPE PRESENT
241	R692043	1	OPTICAL DETECTOR
242	18008-030	1	BAR, STRAP MTG INSERTER
244	81-1226	1	SCREW CAP HEX SOCKET
245	81-1340	1	SCREW CAP HEX SOCKET
246	88-0116	2	BUSHING ELECTRICAL
247	68-0833	4	SCREW BTNHD CAP HEX SKT
248	50-0576	6	WASHER PLAIN .214 ID
249	87-0016	14	NUT HEX SOCKET 10-32 THD
250	FL51139	2	BRACKET - GUIDE
251	FL51140	2	JOINER
252	FL58094	2	GUIDE - LH/RH 12 STA EXT

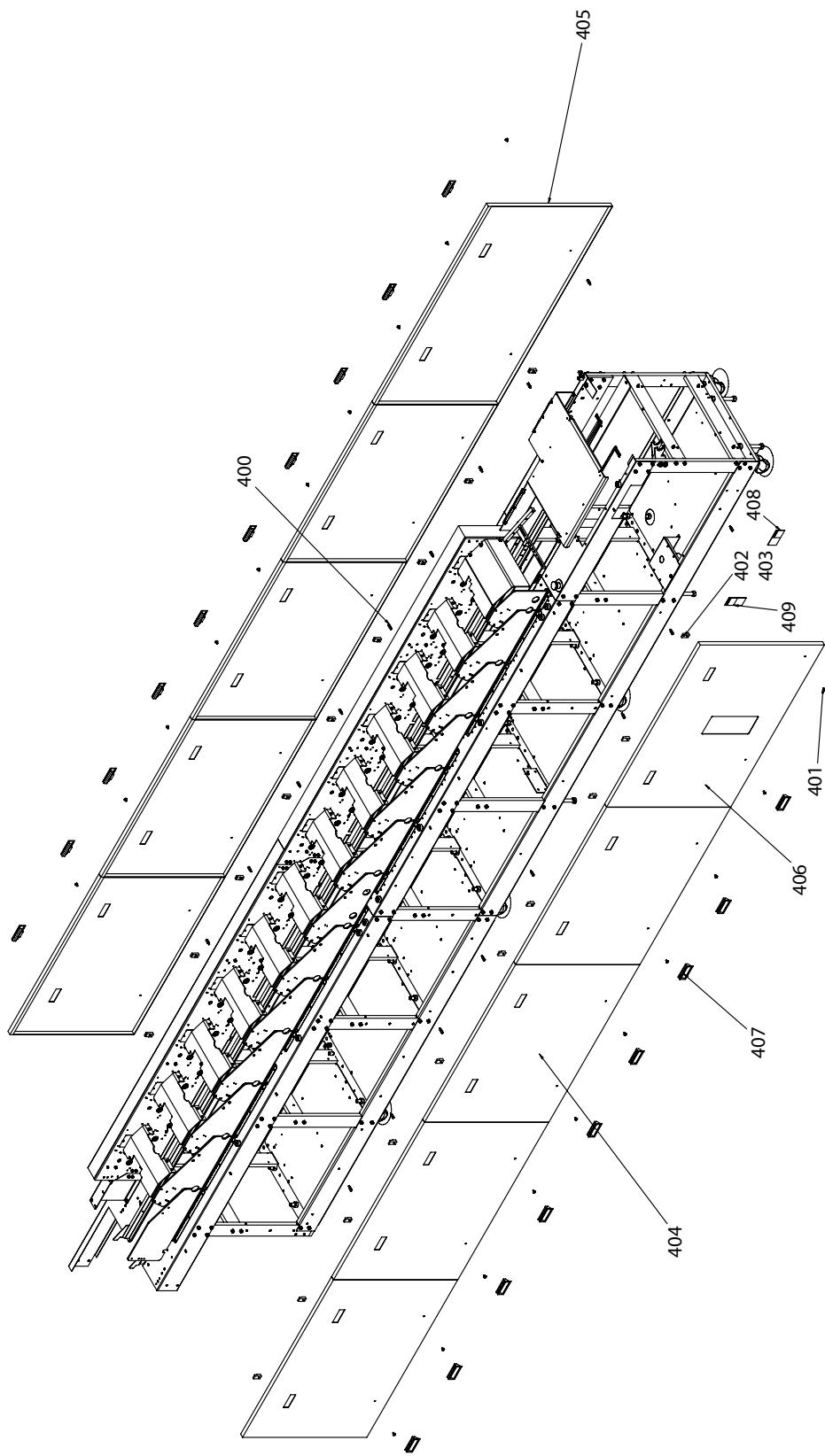
**Figure 1-17: 12 Station Assembly Frame Covers/ FL80097**



## Parts List 1-17: 12 Station Assembly Frame Covers/ FL80097

Item	Part Number	Qty	Description
300	FL51130	1	COVER-FEEDER DRIVE, U.S. 10X13
301	FL51125	1	COVER - FEEDER DRIVE 9 STA 10X13
302	18013-054	11	COVER, FEEDER 10X13
303	18019-020	1	STRAP, PUSHER COVER
304	200-0701	14	MAGNET ACTUATOR
305	244-0310	6	BUMPER MOLDED RUBBER
306	50-0005	30	WASHER PLAIN
307	50-0576	41	WASHER PLAIN .214 ID
308	52-0023	3	LK WASH HELICAL SPRING
309	60-0831	41	SCREW TPG PAN HD PH
310	68-0283	30	SCREW BTNHD CAP HEX SKT
311	68-0831	66	SCREW BTNHD CAP HEX SKT
312	68-0833	41	SCREW BTNHD CAP HEX SKT
313	68-1218	36	SCREW BTNHD CAP HEX SKT
314	71-0001	30	NUT HEX W/LCKWSH 4-40
315	71-0006	6	NUT HEX & LK WASH
316	68-0499	6	SCREW BTNHD CAP HEX SKT
317	80-0071	42	NUT SELF LOCK 10-32 THD
318	81-0839	7	SCREW CAP HEX SOCKET
319	81-1218	3	SCREW CAP HEX SOCKET
320	FL45021	7	BLOCK - SIDE COVER MOUNT
321	FL45022	3	BLOCK-COVER MOUNT
322	FL46000	2	HINGE, 9 IN. LONG
323	FL58003	1	COVER A MOUNT 6X9,10X13
324	FL58004	1	REAR PUSHER COVER MOUNT
325	FL58031	25	LATCH - MAGNET
326	FL58044	1	BRACKET - POWER ENTRY
327	FL62004	10	COVER-FRONT (HINGED)
328	FL62012	1	COVER, REAR PUSHER (10X13)
329	FL62013	1	FLAT COVER A 10X13
330	FL62022	1	COVER-FRONT (UPSTREAM) 10 X 13
331	FL62023	1	COVER-FRONT (DOWNSTREAM) 10 X 13
332	FL62027	1	FRONT (DWNSTREAM) COVER, FEEDER (10X13)
333	FL51136	1	SIDE COVER
334	FL62057	1	COVER - FRONT 9 STATION 10X13
335	FL84032	9	HINGE - STD 10X13
336	FL84033	7	HINGE - SHORT 10X13
337	Y162000	4	HANDLE - COVER
338	Y583035	2	HARNESS ASSY-SWITCH 2 POLE REED
339	52-0016	6	LK WASH HELICAL SPRING
340	81-0845	6	SCREW CAP HEX SOCKET
341	50-0017	2	WASHER PLAIN .245 ID
342	81-0833	2	SCREW CAP HEX SOCKET
343	50-0009	1	WASHER PLAIN
344	72-0833	1	SCREW PAN HEAD SEM PHILLIPS 10-32X 1/2

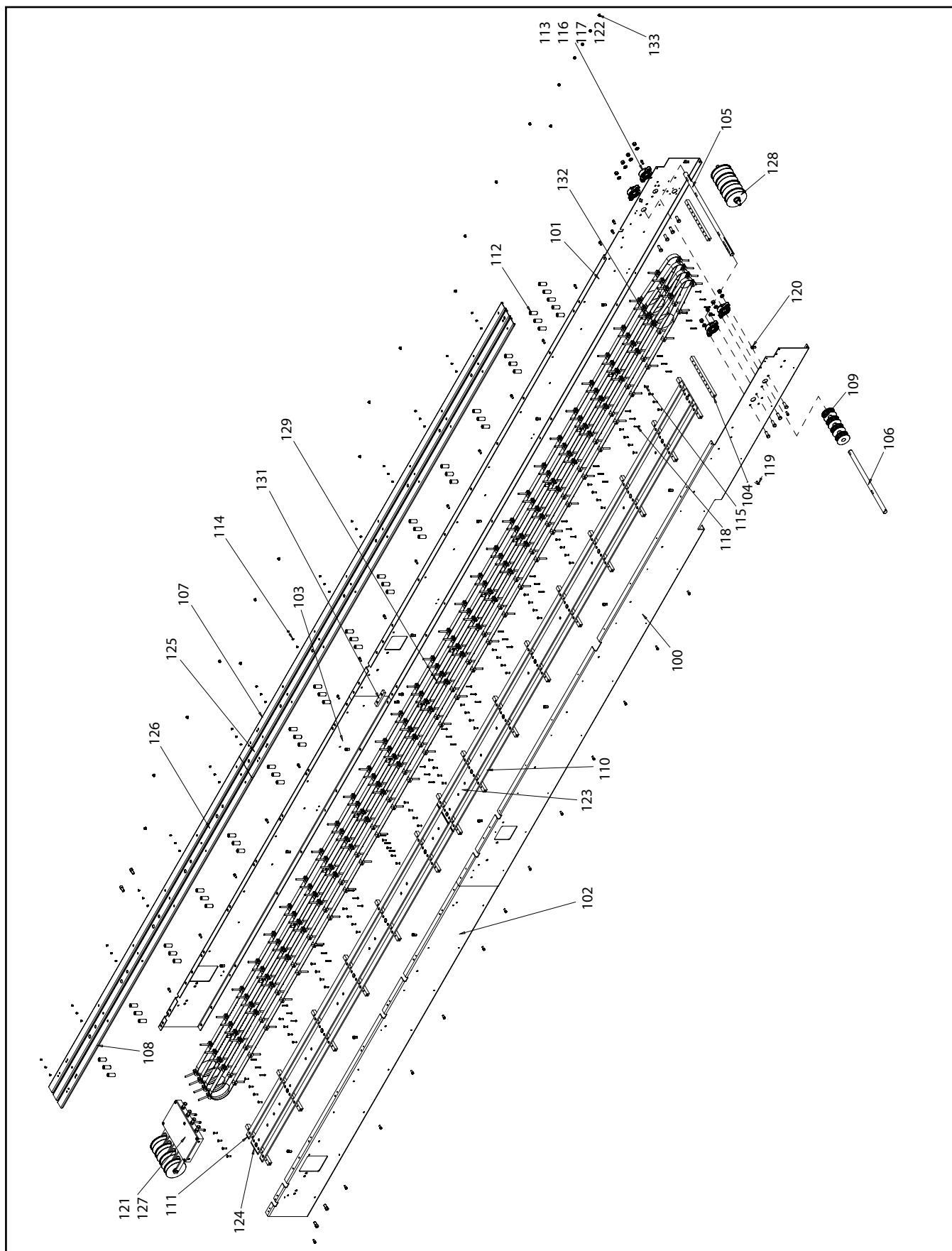
Figure 1-18: 12 Station Assembly Frame Covers/ FL80097



## Parts List 1-18: 12 Station Assembly Frame Covers/ FL80097

Item	Part Number	Qty	Description
400	258-0521	18	STANDOFF #10-32 HEX M/F
401	8484227	20	PAN-L-SCREW
402	81-0831	19	SCREW CAP HEX SOCKET
403	FL45021	19	BLOCK - SIDE COVER MOUNT
404	FL80074	8	OLDSTYLE: ASSY - COVER/FOAM - DOOR 1
405	FL80075	1	OLDSTYLE: ASSY - COVER/FOAM - DOOR 2
406	FL80077	1	OLDSTYLE: ASSY - COVER/FOAM - DOOR 3
407	Y162000	20	HANDLE - COVER
408	FL62055	1	SAFETY LABEL - CRUSH WARNING
409	FL62056	1	SAFETY LABEL - SHOCK HAZARD

Figure 1-19: 12 Station Assembly Conveyor/ FL80098



## Parts List 1-19: 12 Station Assembly Conveyor/ FL80098

Item	Part Number	Qty	Description
100	18000-005	1	SIDE FRAME RH 10 X 13
101	18000-006	1	SIDE FRAME LH 10 X 13
102	18000-007	1	SIDEFRAME, CONV, MULTI, RR
103	18000-008	1	SIDEFRAME, CONV, MULTI, LR
104	18003-009	17	CROSS BRACE
105	18004-042	1	SHAFT COLLATOR DRIVE (1 TO 1)
106	18004-048	1	SHAFT COLLATOR DRIVE
107	FL58095	2	DECK - SIDE
108	FL58097	2	DECK - PAPER (12 STA)
109	18006-039	4	PULLEY, 19L075 3/4 B.
110	18008-067	2	BAR, BELT SUPPORT 10 X 13 INSERTER
111	18008-068	2	BAR, BELT SUPPORT, MULTI
112	18012-001	50	STANDOFF, PAPER GUIDE
113	52-0027	8	LK WASH HELICAL SPRING
114	74-0499	45	SCREW FLAT HEAD PH
115	74-0837	60	SCREW FLAT HEAD PH
116	79-1446	8	SCREW CAP HEX HEAD
117	80-0027	8	NUT HEX
118	81-0511	50	SCREW CAP HEX SOCKET
119	81-1218	36	SCREW CAP HEX SOCKET
120	81-1328	20	SCREW CAP HEX SOCKET
121	81-1442	4	SCREW CAP HEX SOCKET
122	99003-019	4	BEARING, 2 BOLT FLANGE
123	FL45055	1	OLDSTYLE:GUIDE, BELT SLIDE, 10X13
124	FL45088	1	BAR, BELT SUPPORT
125	FL51141	1	DECK - PAPER (SENSOR)
126	FL51143	1	DECK - PAPER (SENSOR)
127	FL80004	1	ASSY-CONVEYOR TENSIONER
128	FL80058	1	ASSY-FRONT IDLER
129	FL80167	4	BELT, COLLATOR CONVEYOR 12 STATION
131	18011-061	2	PLATE, CONV SPLICE
132	R692043	0	OPTICAL DETECTOR
133	227-0281	20	PUSH BUTTON MOUNT



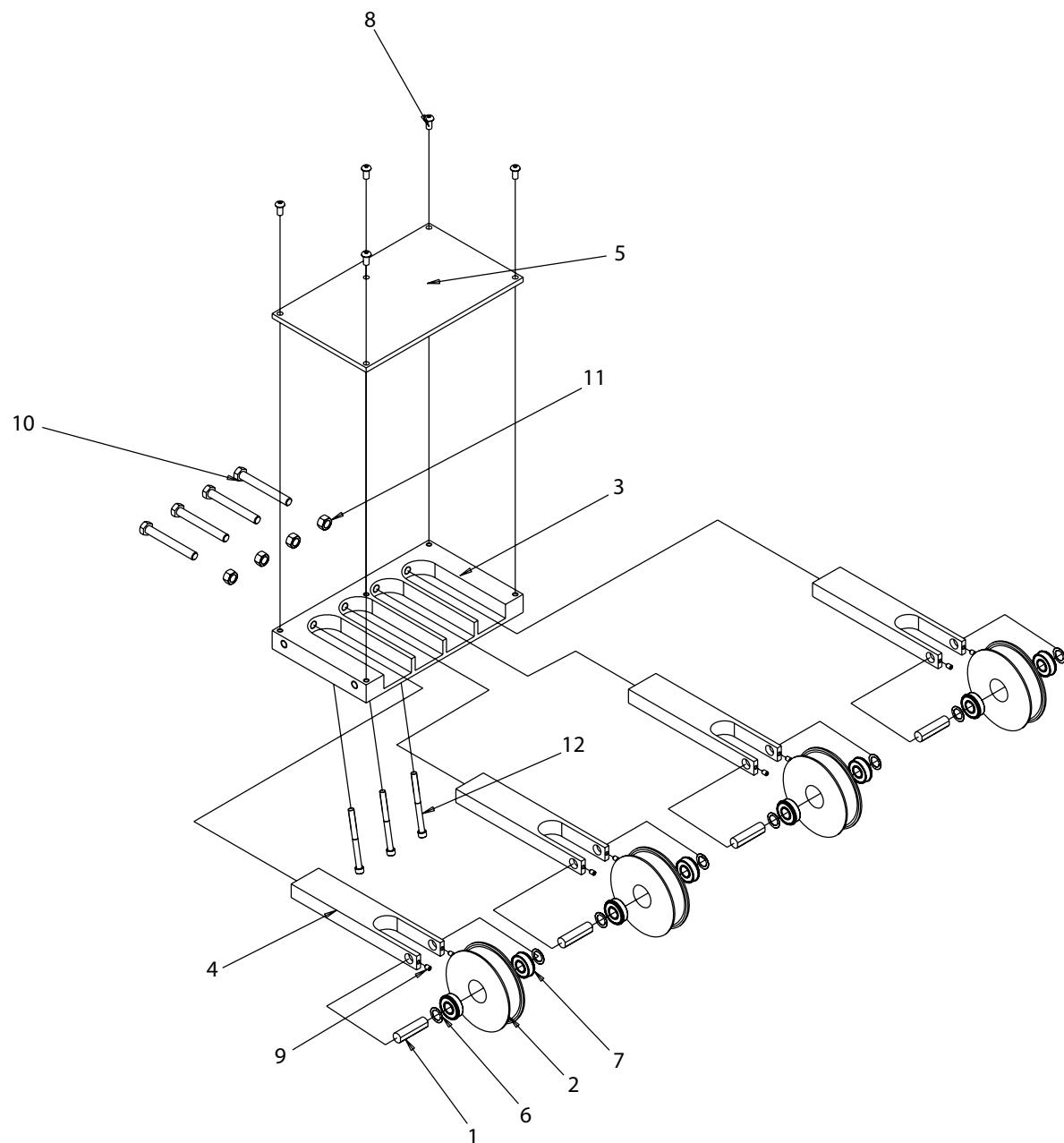
## Pusher Belt Chart

***Pusher Belt Chart***

P/N	# of Pins	Description
18014-038	12	6X9 standard 1 station chassis (ADP) (fold down pins)
18014-028	32	6X9 standard 6 station chassis
18014-030	44	6X9 standard 9 station chassis
18014-019	56	6X9 standard 12 station chassis
FL80168	24	6x9/10X13 Universal 3 station chassis (fold down pins)
FL80165	36	6x9/10X13 Universal 6 station chassis (fold down pins)
FL80166	48	6x9/10X13 Universal 9 station chassis (fold down pins)
FL80167	60	6x9/10X13 Universal 12 station chassis (fold down pins)
FL62071	-	Fold down pin
59-0009	-	Dowel pin used to retain fold down pin
18004-039	-	Old style push in pin

\* Four Belts required per Chassis

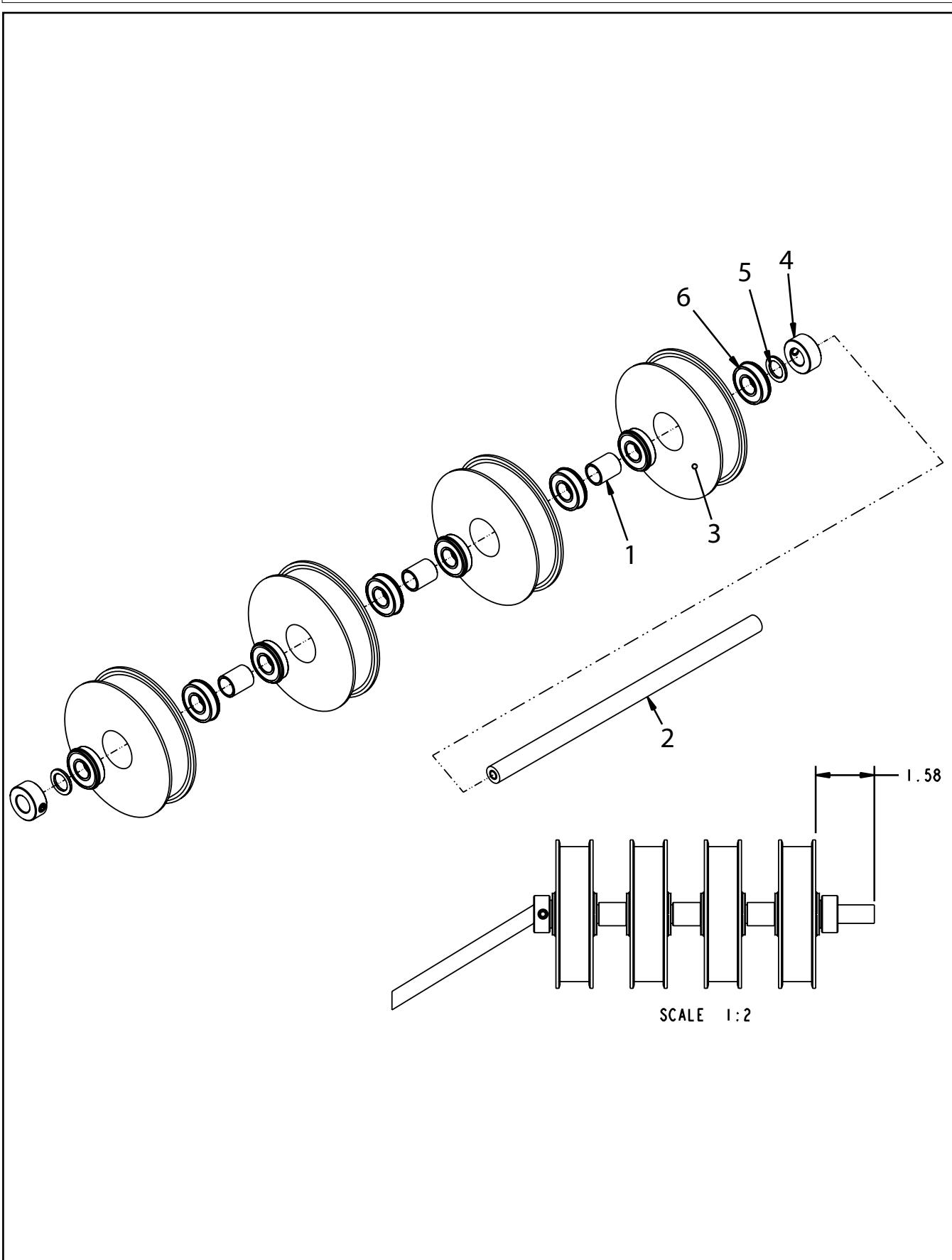
Figure 1-20: Assembly Conveyor Tensioner/ FL80004



## Parts List 1-20: Assembly Conveyor Tensioner/ FL80004

Item	Part Number	Qty	Description
1	18004-002	4	SHAFT STUB IDLER
2	18006-005	4	PULLEY IDLER
3	18007-014	1	BLOCK IDLER MTG
4	18008-008	4	BAR IDLER MTG
5	18011-006	1	PLATE IDLER BLOCK
6	20-0602	8	SHIM, STEEL
7	591-0289	8	BEARING BALL W/SNAP RING .5000 ID
8	68-1218	5	SCREW BTNHLD CAP HEX SKT
9	75-0553	8	SET SCREW HEX SOCKET
10	79-1780	4	SCREW CAP HEX HEAD
11	80-0027	4	NUT HEX
12	81-1242	3	SCREW CAP HEX SOCKET

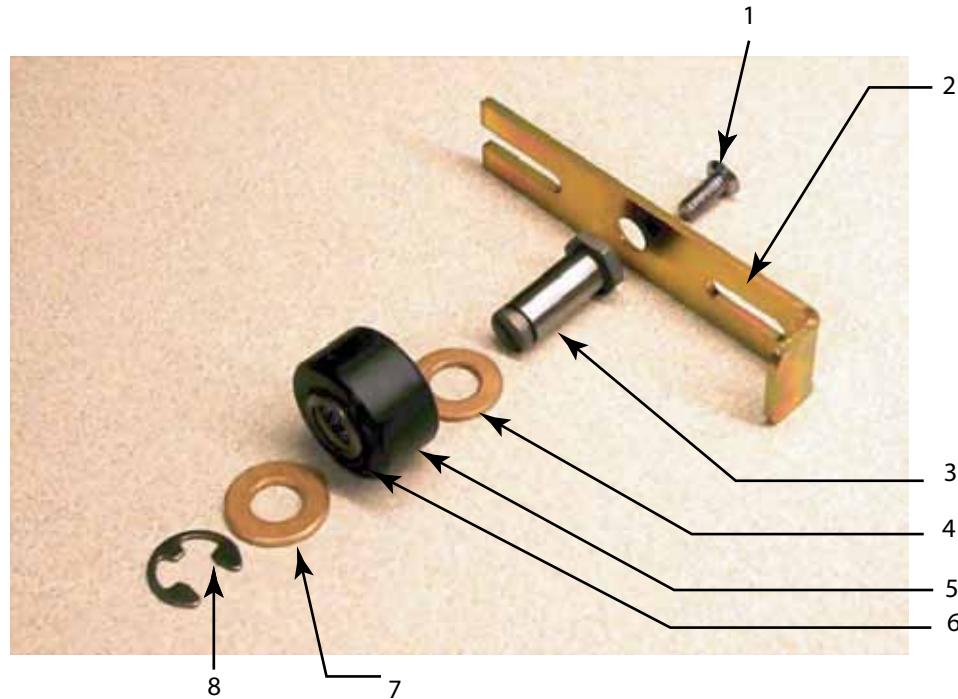
Figure 1-21: Assembly Front Idler/ FL80058



## Parts List 1-21: Assembly Front Idler/ FL80058

Item	Part Number	Qty	Description
1	170-0204	3	BEARING PLAIN
2	18004-013	1	SHAFT, IDLER
3	18006-005	4	PULLEY IDLER
4	185-0414	2	COLLAR, CLAMP
5	50-0704	2	WASHER, PLAIN NYLON 6/6
6	591-0289	8	BALL BRG SGL ROW SNAP RG

Figure 1-22: Encoder Tensioner / ZX80803



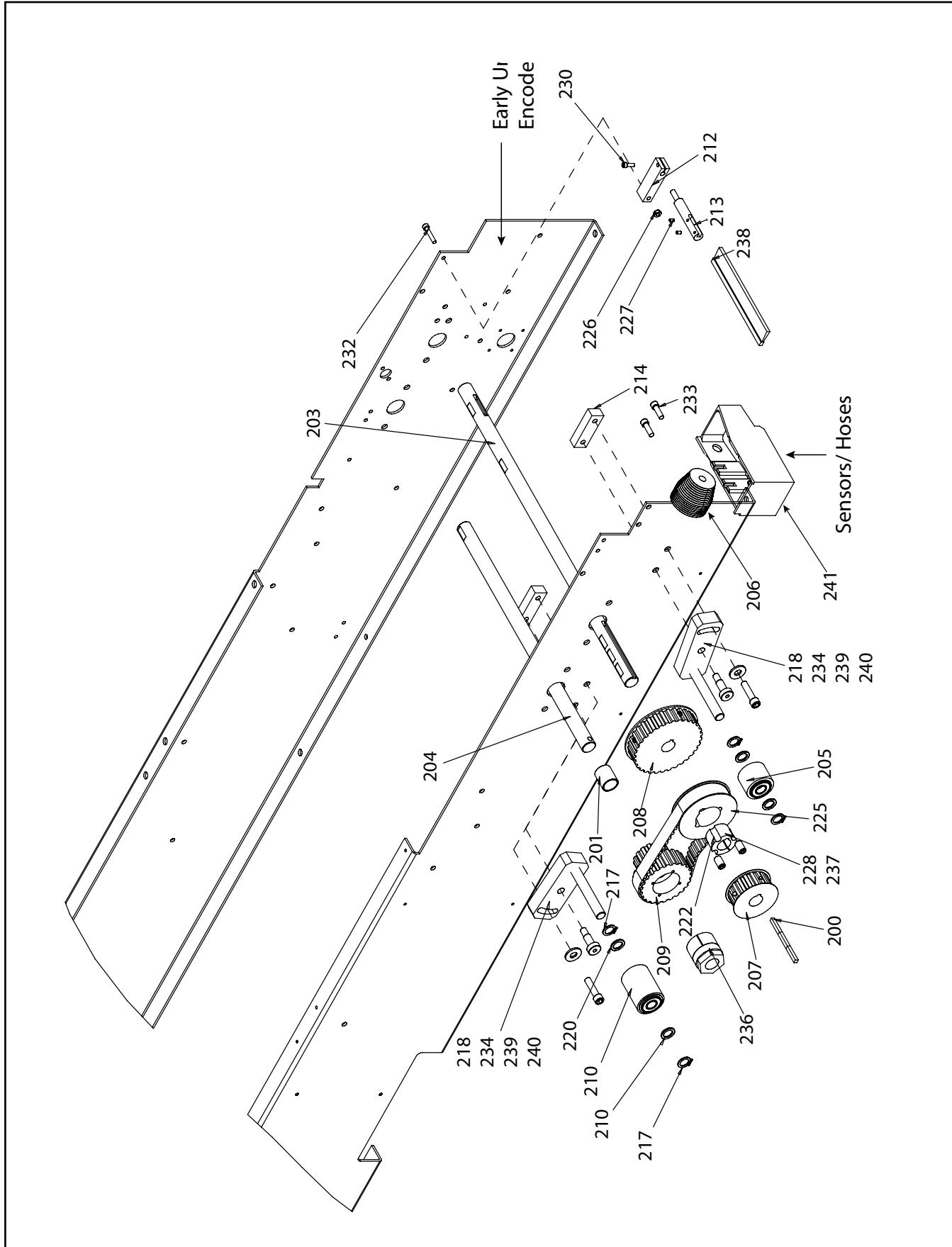
The graphics, (above and left), depict a recently developed encoder tensioner for use on the 10X13 FlowMaster units. The tensioner is similar to the one used on previous Burster units and can be mounted as shown. The unit pictured is not currently released as an assembly, however, all parts can be ordered from Newtown.

This encoder tensioner may eliminate some DC chassis overrun errors. Chassis overrun errors may occur due to a loose encoder belt causing the encoder timing to float a degree during normal machine operation. Mail pieces currently located on the deck could be declared bad due to encoder belt bounce back during machine stops.

## Parts List 1-22: Encoder Tensioner/ ZX80803

Item	Part Number	Qty	Description
1	74-0831	1	SCREW
2	8451199	1	BRACKET
3	8411033	1	STUD IDLER PULLEY
4	170-0087	1	BRONZE PULLEY
5	8480263	1	BEARING
6	8410101	1	TAKEUP ROLLER
7	170-0087	1	BRONZE PULLEY
8	23-0037	1	E CLIP

Figure 1-23: 6 Station Assembly Conveyor/ FL80052



## Parts List 1-23: 6 Station Assembly Conveyor/ FL80052

Item	Part Number	Qty	Description
200	158-0116	3	KEY SQUARE
201	170-0357	1	BEARING, PLAIN
203	18004-042	0	SHAFT COLLATOR DRIVE (1 TO 1)
204	18004-048	0	SHAFT COLLATOR DRIVE
205	18006-012	1	ROLLER, TENSIONER
206	18006-019	1	ROLLER, BRUSH
207	18006-025	1	PULLEY, 19L075 3/4 B. KW NO HUB
208	FL37004	1	PULLEY, 32L075, 3/4B W/KEYWAY
209	18006-030	1	PULLEY, DBL 16L075/24L075
210	18006-043	1	PULLEY FLAT IDLER 2
212	18007-080	1	BLOCK, LOWER BRUSH MTG.
213	18009-023	1	BRACKET, CLAMP, LOWER BRUSH
214	18011-025	2	NUT PLATE, TENSIONER
217	26-0957	4	RING RETAINING EXT
218	50-0024	2	WASHER PLAIN
220	50-0704	4	WASHER, PLAIN NYLON 6/6
222	566-0325	1	BELT, TIMING 3/8 P (L)
225	592-0021	1	PULLEY, TIMING L TAPER LK
226	71-0006	1	NUT HEX & LK WASH
227	75-0337	2	SET SCREW HEX SOCKET
228	75-0913	2	SCREW SET CUP POINT HEX 3/8-16X .625
230	81-0613	1	SCREW CAP HEX SOCKET
232	81-0841	1	SCREW CAP HEX SOCKET
233	81-1222	2	SCREW CAP HEX SOCKET
234	81-1338	2	SCREW CAP HEX SOCKET
236	99017-014	1	TRANTORQUE, 3/4 B.
237	99017-016	1	BUSHING, TAPERLOCK 1210 3/4 B.
238	99023-001	1	BRUSH, STRIP, 6 X 1 X .003
239	99033-011	2	SHOULDER BOLT, 3/8 X 3/4
240	FL80034	2	ASSY-TENSIONER
241	FL62058	1	PAN. DRIP INSERTER

Figure 1-24: Moistener Tank Assembly/ FL80158



## Parts List 1-24: Moistner Tank Assembly/ FL80158

Item	Part Number	Qty	Description
1	FL62058	1.0	PAN,DRIP (MOISTENER)
2	FL84069	1.0	LEVEL SWITCH - SEALER OVERFLOW
3	FL10028	1.0	SHAFT,GROOVED ROLLER
4	18006-019	1.0	ROLLER, BRUSH
5	50-0703	2.0	WASHER, PLAIN NYLON 6/6 (NS)
6	509-3037	2.0	FTG ELBOW ADAPTOR SWIVEL
7	523-0342	10.0	TUBING PVC CLEAR 1/2 DIA.
8	227-0157	4.0	CABLE-TIE 11.08 X .140
9	227-0158	1.0	CLAMP CABLE-TIE 7.437



## FlowMaster Transmissions

DC FX-10 and FX-14 FlowMasters have been built with several styles of transmissions FX-10 (10x13) systems used two different transmissions. While FX-14 (6x9) systems used four different transmissions.

This section will describe all 6 styles. Belts and pulleys will be called out as to which style transmission they apply to. Please read carefully to make sure you order the correct part(s).

### **FX-10 10x13 systems:**

Early systems used square toothed timing belts on shallow square toothed pulleys which use XL 037, 1/5" pitch, 3/8" wide belts.

Late systems use rounded tooth timing belts on deeper round toothed pulleys which use HTD, 5mm pitch, 9mm wide belts.

### **FX-14 6x9 systems:**

First, determine if you have a "6x9 Standard" or "10x13/6x9 Universal" Chassis (See Section 1-4 and 1-5 of this manual to identify Chassis type).

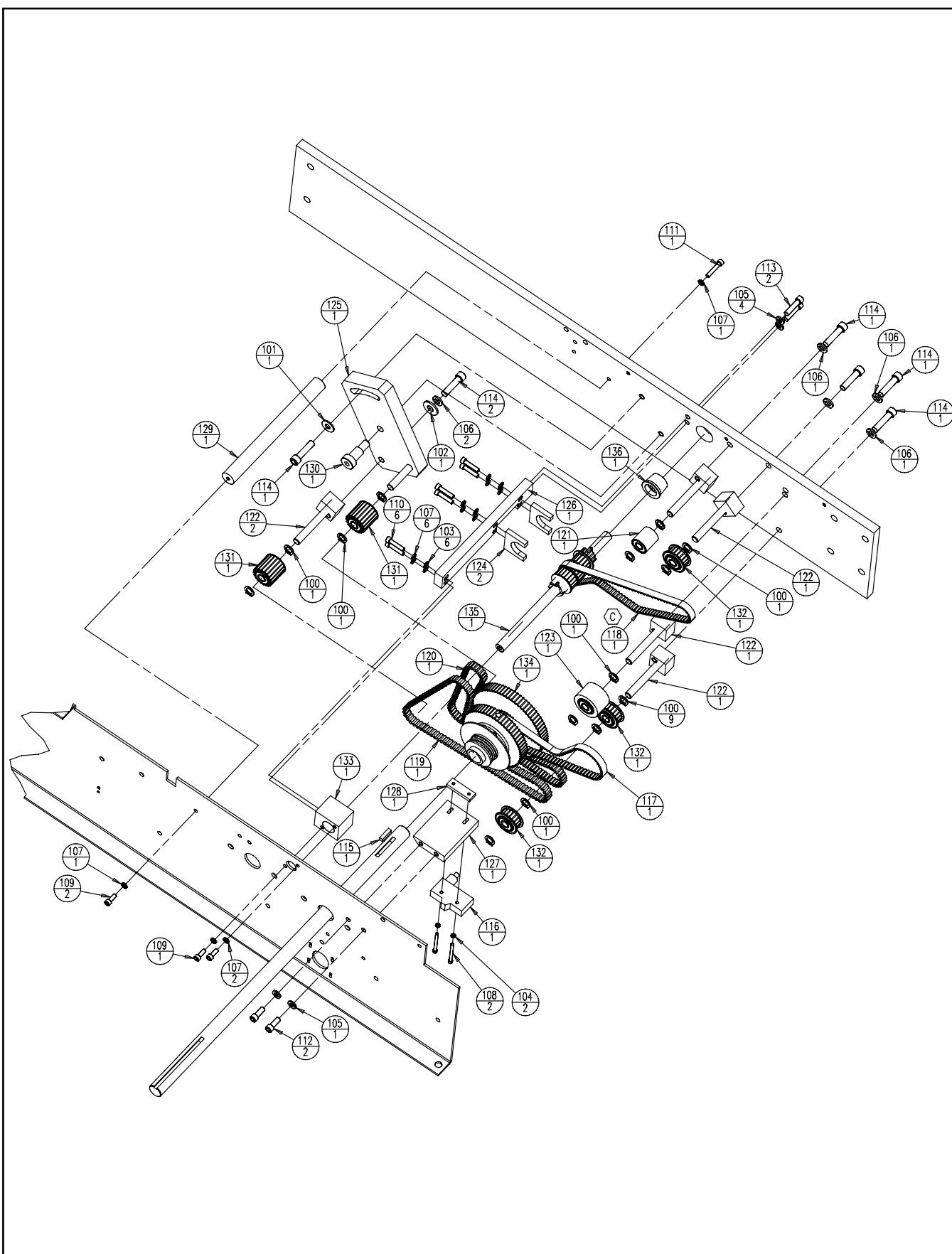
Early systems and the custom ADP/Paychex 1 station systems built on the "Standard" 6x9 chassis used square toothed timing belts on shallow square toothed pulleys which use XL 037, 1/5" pitch, 3/8" wide belts.

Late systems built on the "Standard" 6x9 chassis use rounded tooth timing belts on deeper round toothed pulleys which use HTD, 5mm pitch, 9mm wide belts.

Early systems built on the "Universal" 6x9/10x13 chassis used square toothed timing belts on shallow square toothed pulleys which use XL 037, 1/5" pitch, 3/8" wide belts.

Late systems built on the "Universal" 6x9/10x13 chassis use rounded tooth timing belts on deeper round toothed pulleys which use HTD, 5mm pitch, 9mm wide belts.

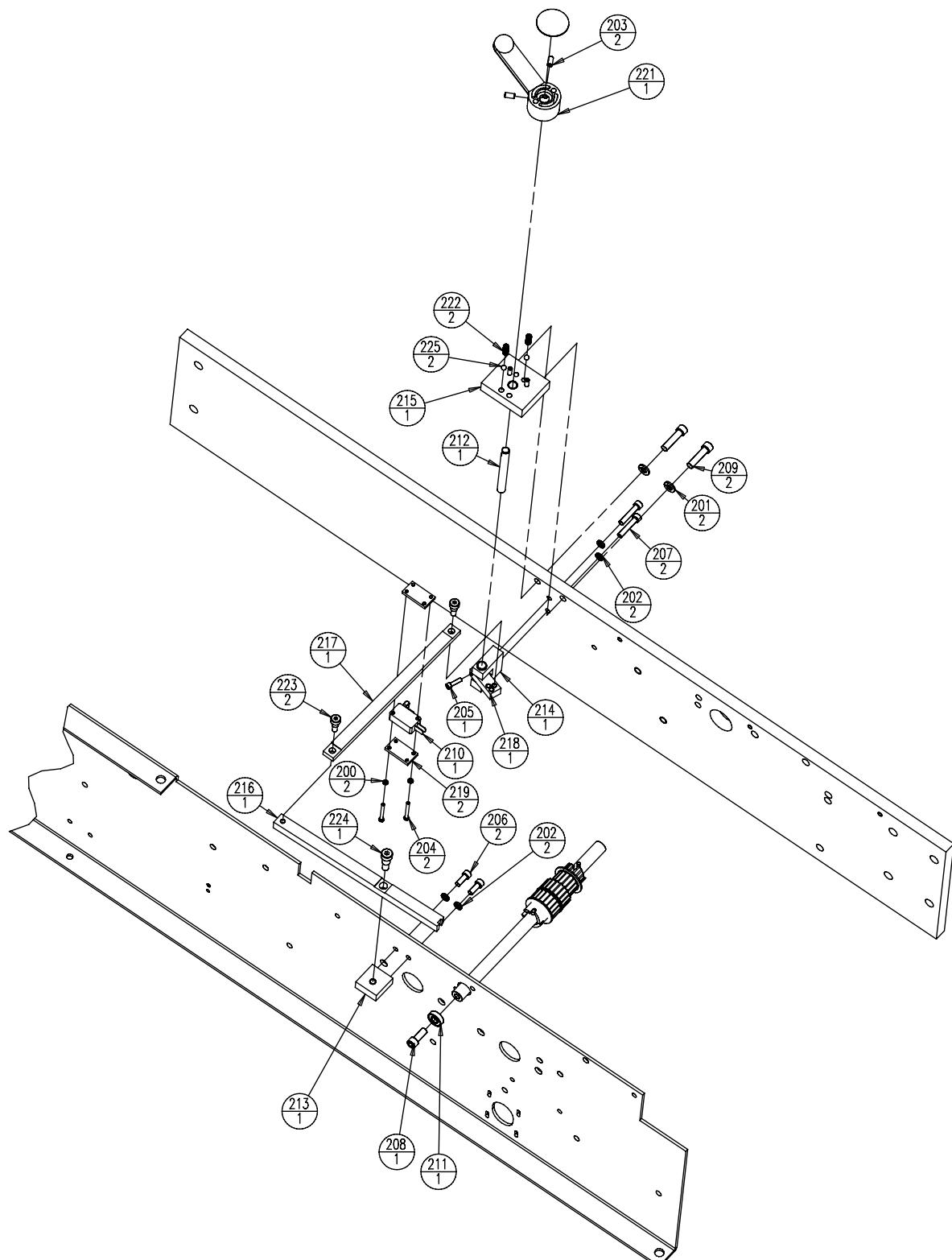
Figure 1-25: 10x13Transmission/ FL80149



## Parts List 1-25: 10x13 Transmission/ FL80149

Item	Part Number	Qty	Description
<b>10x13 (Late Style) Transmission with 9mm wide, 5mm HTD Deep Rounded Tooth Belts</b>			
100	26-0956	14	RING RETAINING EXT
101	50-0020	1	WASHER LOC-16
102	50-0024	1	WASHER PLAIN
103	50-0556	6	WASHER PLAIN 5.3MM ID
104	52-0010	2	LK WASH HELICAL SPRING
105	52-0023	5	LK WASH HELICAL SPRING
106	52-0025	5	LK WASH HELICAL SPRING
107	52-0553	10	LOCKWASHER-METRIC
108	81-0515	2	SCREW CAP HEX SOCKET
109	81-0833	3	SCREW CAP HEX SOCKET
110	81-0839	6	SCREW CAP HEX SOCKET
111	81-0841	1	SCREW CAP HEX SOCKET
112	81-1220	2	SCREW SOCKET HEAD CAP 1/4-20X 5/8
113	81-1226	2	SCREW CAP HEX SOCKET
114	81-1338	6	SCREW CAP HEX SOCKET
115	158-0115	1	KEY SQUARE
116	215-2520	1	SW PANEL MTG ROLLER SNAP
117	566-2121	1	BELT TIMING 5MM HTD 92 TEETH, 9MM WIDE
118	566-2163	1	BELT TIMING 5MM HTD 100TEETH, 9MM WIDE
119	566-2124	1	BELT TIMING DOUBLE SIDED HTD, 5MM HTD 134 TEETH, 9MM WIDE
120	566-2123	1	BELT TIMING DOUBLE SIDED 5MM HTD, 120 TEETH, 9MM WIDE
121	10006-012	1	ROLLER, IDLER SUPPORT
122	18004-050	5	ECCENTRIC IDLER SHAFT 3/8 X 3-1/4
123	18006-051	1	ROLLER, IDLER, 1.5
124	18007-074	2	BLOCK, YOKE
125	18007-075	1	BLOCK, IDLER TENSIONER
126	18008-037	1	BAR, YOKE MTG
127	18009-021	1	BRACKET, SWITCH MTG
128	18011-022	1	NUT PLATE, SWITCH
129	18012-017	1	STANDOFF - TRANSMISSION
130	99033-009	1	BOLT, SHOULDER 1/2 X 3/4
131	FL37012	2	PULLEY, IDLER, 20 TEETH 5MM HTD, 28.5MM WIDE
132	FL37014	3	PULLEY, FLANGED IDLER, 20 TEETH 5MM HTD, 14MM WIDE
133	FL45086	1	BLOCK, TRANSMISSION BEARING
134	FL80127	1	ASSY-10X13 CLUTCH
135	FL80128	1	ASSY-TRANS. SHIFT
136	FL84047	1	BEARING, SELF ALIGNING
<b>10x13 (Early Style) Transmission with 3/8" wide XL037 Shallow Square Tooth Belts" – parts that are different</b>			
117	566-0214	1	BELT TIMING, 176 XL037, 88 TEETH, 3/8" WIDE
118	566-0218	1	BELT TIMING, 192 XL037, 96 TEETH 3/8" WIDE
119	566-0215	1	BELT TIMING, DOUBLE SIDED, 260 XL037, 130 TEETH, 3/8" WIDE
120	566-0216	1	BELT TIMING, DOUBLE SIDED, 230 XL037, 115 TEETH, 3/8" WIDE
131	10006-027	2	PULLEY IDLER, 20 TEETH XL037, 1 1/8" WIDE
132	18006-024	3	PULLEY FLANGED IDLER, 20 TEETH XL037, 9/16" WIDE
134	18020-096	1	ASSY-THROW OUT CLUTCH
135	18004-065	1	ASSY TRANS SHIFT

Figure 1-26: 10x13 Transmission/ FL80149

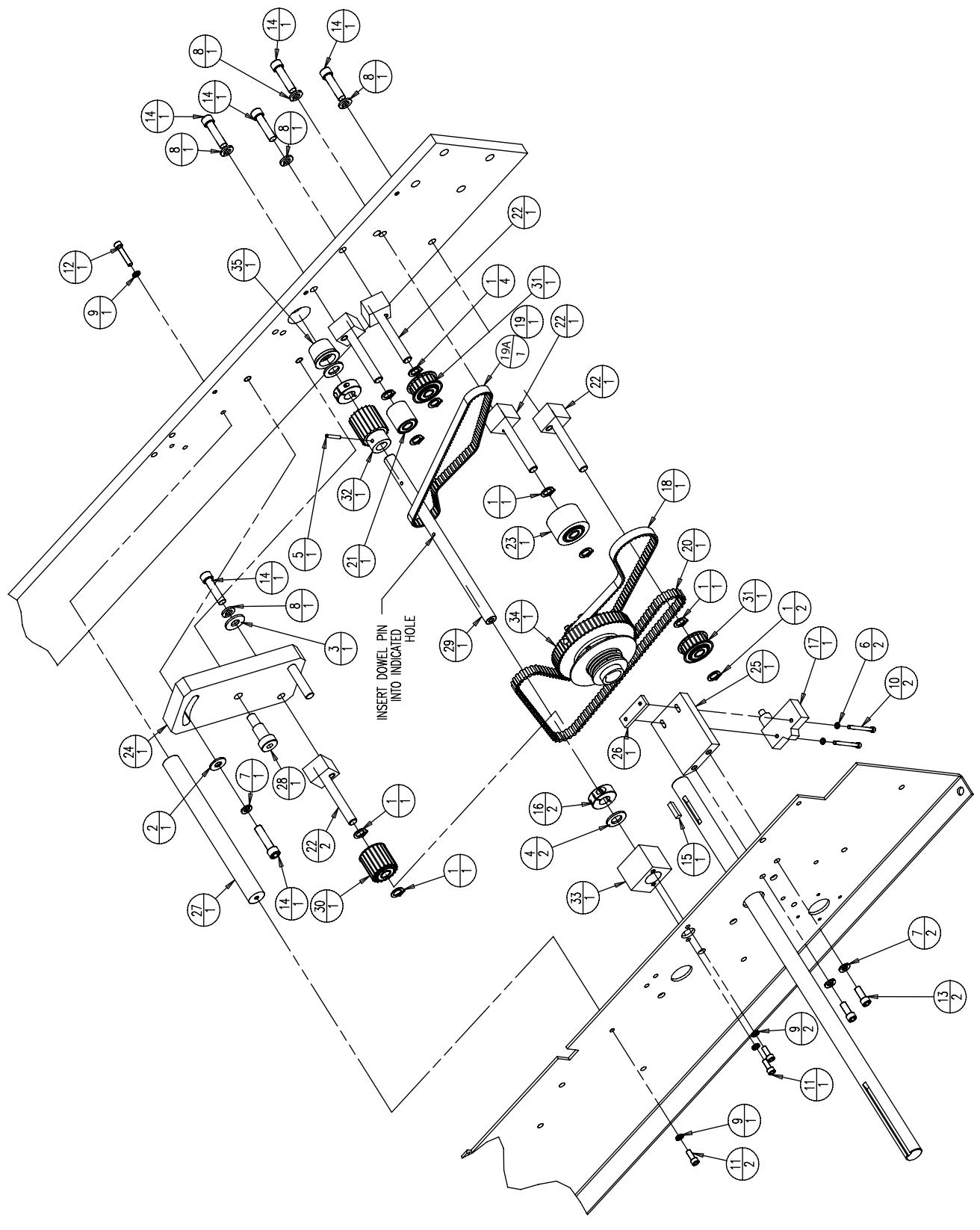


## Parts List 1-26: 10x13 Transmission/ FL80149

Item	Part Number	Qty	Description
200	52-0006	2	LK WASH HELICAL SPRING
201	52-0023	2	LK WASH HELICAL SPRING
202	52-0553	4	LOCKWASHER-METRIC
203	75-0565	2	SET SCREW HEX SOCKET
204	79-0291	2	SCREW MACHINE HEX HEAD
205	81-0503	1	SCREW CAP HEX SOCKET
206	81-0833	2	SCREW CAP HEX SOCKET
207	81-0841	2	SCREW CAP HEX SOCKET
208	81-1220	1	SCREW SOCKET HEAD CAP 1/4-20X 5/8
209	81-1226	2	SCREW CAP HEX SOCKET
210	213-2540	1	SW ROLLER INTLCK MOMEN
211	591-0259	1	BALL BEARING SGL ROW RDL
212	18004-056	1	SHAFT, PIVOT TRANSMISSION
213	18007-083	1	BLOCK, PIVOT
214	18007-084	1	BLOCK, SHAFT ADJ
215	18007-085	1	BLOCK, GEAR ADJ
216	18008-045	1	BAR, PIVOT
217	18008-046	1	BAR, PUSHROD
218	18008-047	1	BAR, CLAMP
219	18011-047	2	PLATE, TRANS, SWITCH, 10X13
220	18017-007	1	LABEL - TRANSMISSION LEVER
221	18019-011	1	HANDLE - TRANSMISSION SHIFT
222	99005-013	2	SPRING, .180 X .028 X .500
223	99033-006	2	SHOULDER BOLT 1/4 X 1/4
224	99033-010	1	SHOULDER BOLT, 5/16 X 3/8
225	99037-002	2	BALL, CHROME 3/16 DIA.

**Figure 1-27: 6x9 Universal Chassis Transmission/ FL80187**

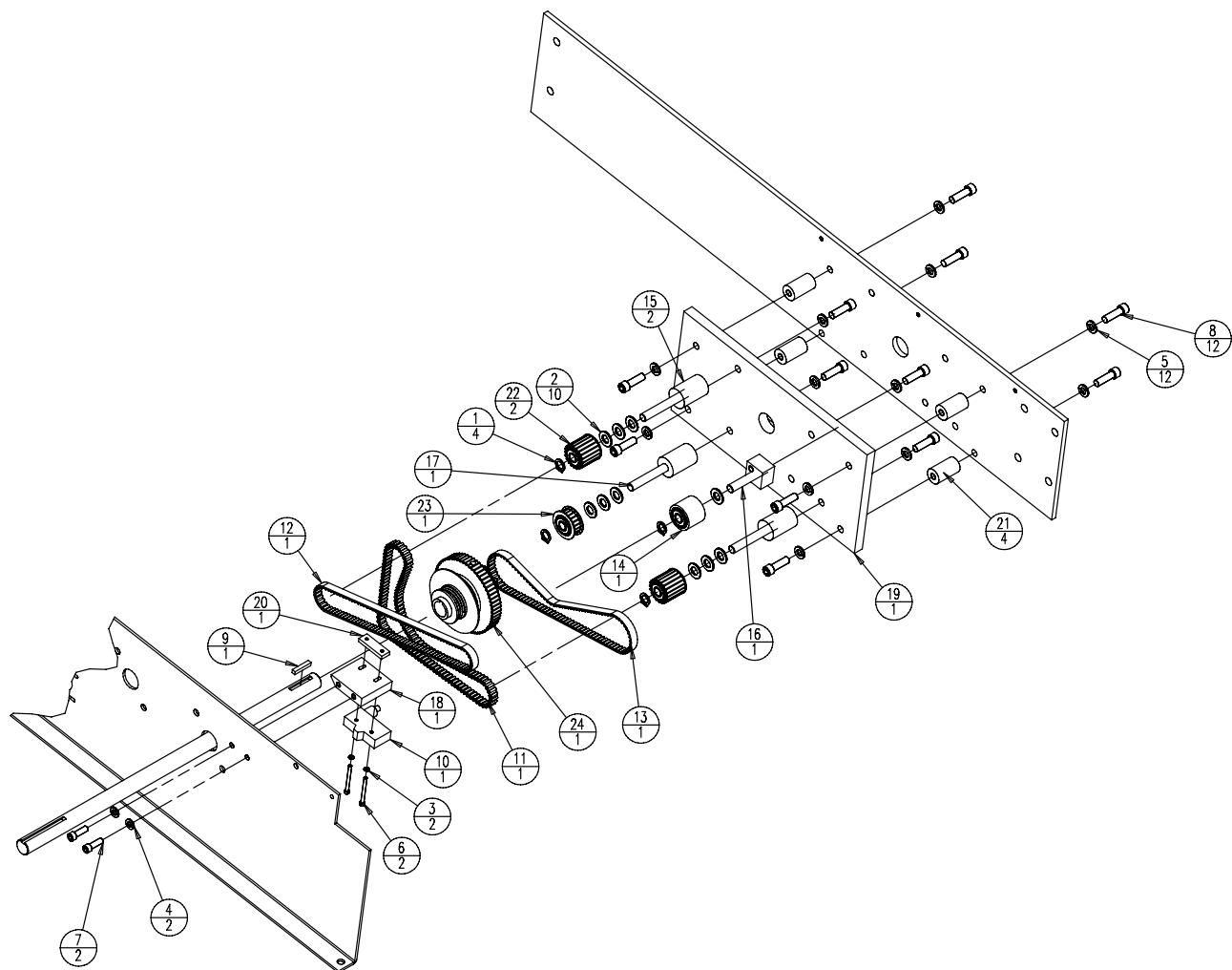
6x9 Universal HTD



## Parts List 1-27: 6x9 Universal Chassis Transmission/ FL80187

Item	Part Number	Qty	Description
<b>6x9 Universal Chassis (Late Style) Transmission with 9mm wide, 5mm HTD Deep Rounded Tooth Belts</b>			
1	26-0956	10	RING RETAINING EXT
2	50-0020	1	WASHER LOC-16
3	50-0024	1	WASHER PLAIN
4	20-0308	2	SPCR PLAIN NYLON .500 .9
5	51-0078	1	PIN ROLL
6	52-0010	2	LK WASH HELICAL SPRING
7	52-0023	3	LK WASH HELICAL SPRING
8	52-0025	5	LK WASH HELICAL SPRING
9	52-0553	4	LOCKWASHER-METRIC
10	81-0515	2	SCREW CAP HEX SOCKET
11	81-0833	3	SCREW CAP HEX SOCKET
12	81-0841	1	SCREW CAP HEX SOCKET
13	81-1220	2	SCREW SOCKET HEAD CAP 1/4-20X 5/8
14	81-1338	6	SCREW CAP HEX SOCKET
15	158-0115	1	KEY SQUARE
16	185-0308	2	COLLAR, SPLIT, ONE-PIECE
17	215-2520	1	SW PANEL MTG ROLLER SNAP
18	566-2121	1	BELT TIMING, 5MM HTD 92T, 9MM WIDE
19	566-2163	1	BELT TIMING, 5MM HTD 100T, 9MM WIDE
20	566-2124	1	BELT TIMING, DOUBLE SIDED, 5MM HTD 134T, 9MM WIDE
21	10006-012	1	ROLLER, IDLER SUPPORT
22	18004-050	5	ECCENTRIC IDLER SHAFT 3/8 X 3-1/4
23	18006-051	1	ROLLER, IDLER, 1.5
24	18007-075	1	BLOCK, IDLER TENSIONER
25	18009-021	1	BRACKET, SWITCH MTG
26	18011-022	1	NUT PLATE, SWITCH
27	18012-017	1	STANDOFF - TRANSMISSION
28	99033-009	1	BOLT, SHOULDER 1/2 X 3/4
29	FL10034	1	SHAFT, TRANSMISSION, 10X13
30	FL37012	1	PULLEY, IDLER, 20T
31	FL37014	2	PULLEY, IDLER, 20T
32	FL37024	1	PULLEY, 20T
33	FL45086	1	BLOCK, TRANSMISSION BEARING
34	FL80130	1	ASSY-6X9 CLUTCH WITH HTD PULLEYS
35	FL84047	1	BEARING, SELF ALIGNING
<b>6x9 Universal Chassis (Early Style) Transmission with 3/8" wide XL037 Shallow Square Tooth Belts" – parts that are different</b>			
18	566-0214	1	BELT TIMING, 176 XL037, 88T, 3/8" WIDE
19	566-0218	1	BELT TIMING, 192 XL037, 96T, 3/8" WIDE
20	566-0215	1	BELT TIMING, DOUBLE SIDED, 260T, XL037, 9/16" WIDE
30	10006-027	1	PULLEY IDELR, 20T, XL037, 1 1/8" WIDE
31	18006-024	1	PULLEY FLANGED IDLER, 20T XL037, 9/16" WIDE
32	FL37015	1	PULLEY TRANSMISSION, 20T, XL037
34	18020-075	1	ASSY 6X9 CLUTCH WITH XL037 PULLEYS

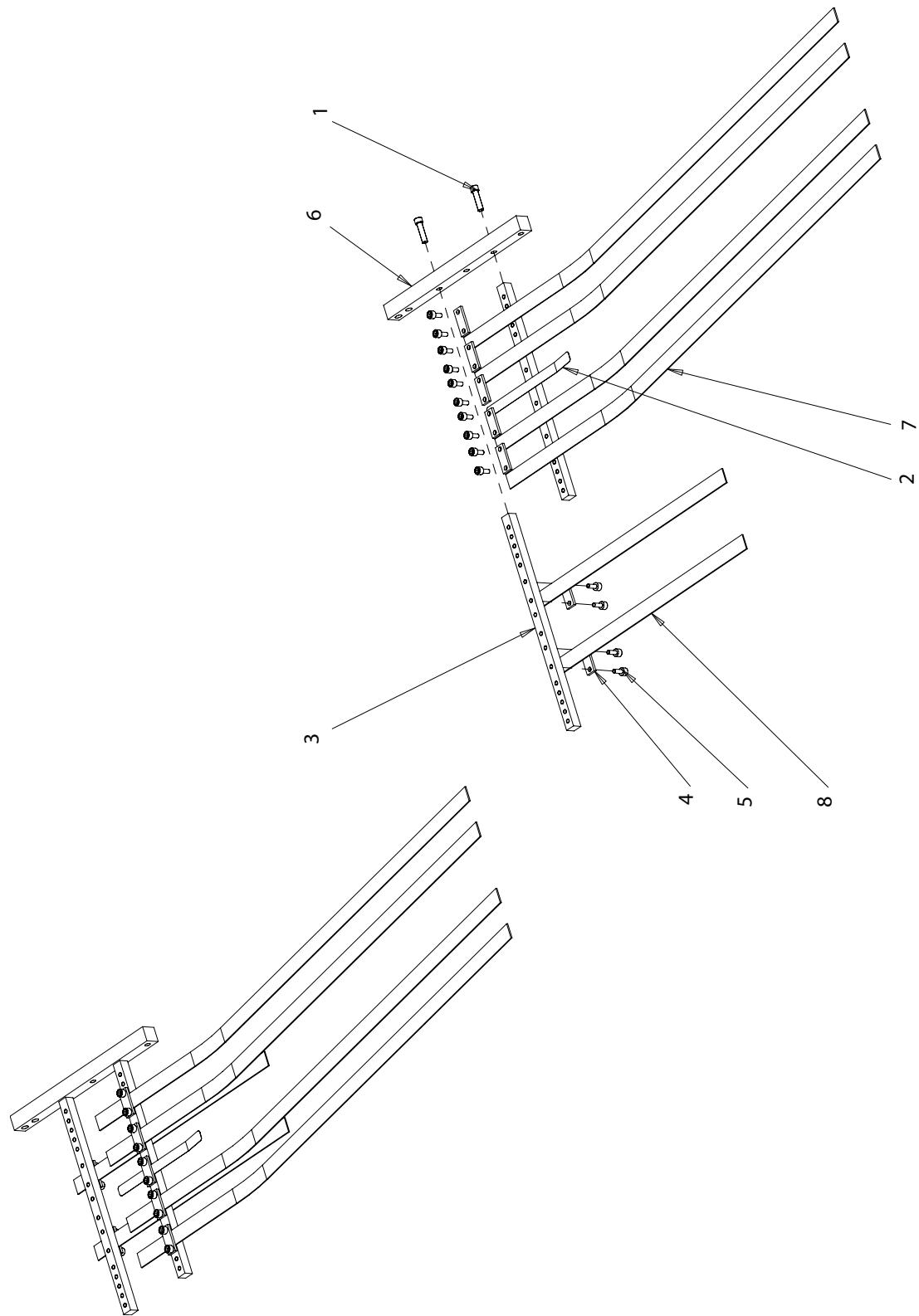
Figure 1-28: 6x9 Standard Chassis Transmission/ FL80150



## Parts List 1-28: 6x9 Standard Chassis Transmission/ FL80150

Item	Part Number	Qty	Description
<b>6X9 UNIVERSAL CHASSIS (LATE STYLE) TRANSMISSION WITH 9MM WIDE, 5MM HTD DEEP ROUNDED TOOTH BELTS</b>			
1	26-0956	4	RING RETAINING EXT
2	50-0703	10	WASHER, PLAIN NYLON 6/6
3	52-0010	2	LK WASH HELICAL SPRING
4	52-0023	2	LK WASH HELICAL SPRING
5	52-0025	12	LK WASH HELICAL SPRING
6	81-0515	2	SCREW CAP HEX SOCKET
7	81-1222	2	SCREW CAP HEX SOCKET
8	81-1336	12	SCREW CAP HEX SOCKET
9	158-0116	1	KEY SQUARE
10	215-2520	1	SW PANEL MTG ROLLER SNAP
11	566-2123	1	BELT TIMING DOUBLE SIDED 5MM HTD, 120T, 9MM WIDE
12	566-2125	1	BELT TIMING 5MM HTD, 113T, 9MM WIDE
13	566-2126	1	BELT TIMING 5MM HTD, 107T, 9MM WIDE
14	18006-001	1	PULLEY IDLER FLAT 1-1/4 DIA. X 1
15	18007-012	2	BLOCK IDLER MTG ECCENTRIC
16	18007-058	1	ECCENTRIC IDLER SHAFT 3/8 X 2-1/4
17	18007-059	1	BLOCK IDLER MTG STRAIGHT
18	18009-003	1	BRACKET, SWITCH MTG
19	18011-018	1	PLATE, IDLER MTG
20	18011-022	1	NUT PLATE, SWITCH
21	18012-009	4	STANDOFF IDLER MTG PLATE
22	FL37012	2	PULLEY, IDLER, 20T, 5MM HTD, 28.5MM WIDE
23	FL37014	1	PULLEY, FLANGED IDLER, 20T, 5MM HTD, 14MM WIDE
24	FL80130	1	ASSY-6X9 CLUTCH WITH HTD PULLEYS
<b>6X9 STANDARD CHASSIS (EARLY STYLE) TRANSMISSION WITH 3/8" WIDE XL037 SHALLOW SQUARE TOOTH BELTS" – PARTS THAT ARE DIFFERENT</b>			
11	99000-031	1	BELT TIMING, DOUBLE SIDED, 220 XL037, 100T, 3/8" WIDE
12	566-0027	1	BELT TIMING, 220 XL037, 110T, 3/8" WIDE
13	566-0033	1	BELT TIMING, 210 XL037, 105T, 3/8" WIDE
22	10006-027	1	PULLEY IDELR, 20T, XL037, 1 1/8" WIDE
23	18006-024	1	PULLEY FLANGED IDLER, 20T, XL037, 9/16" WIDE
24	18020-075	1	ASSY- 6X9 CLUTCH WITH XL037 PULLEYS

Figure 1-29: Assembly Pusher Strap/ FL80216

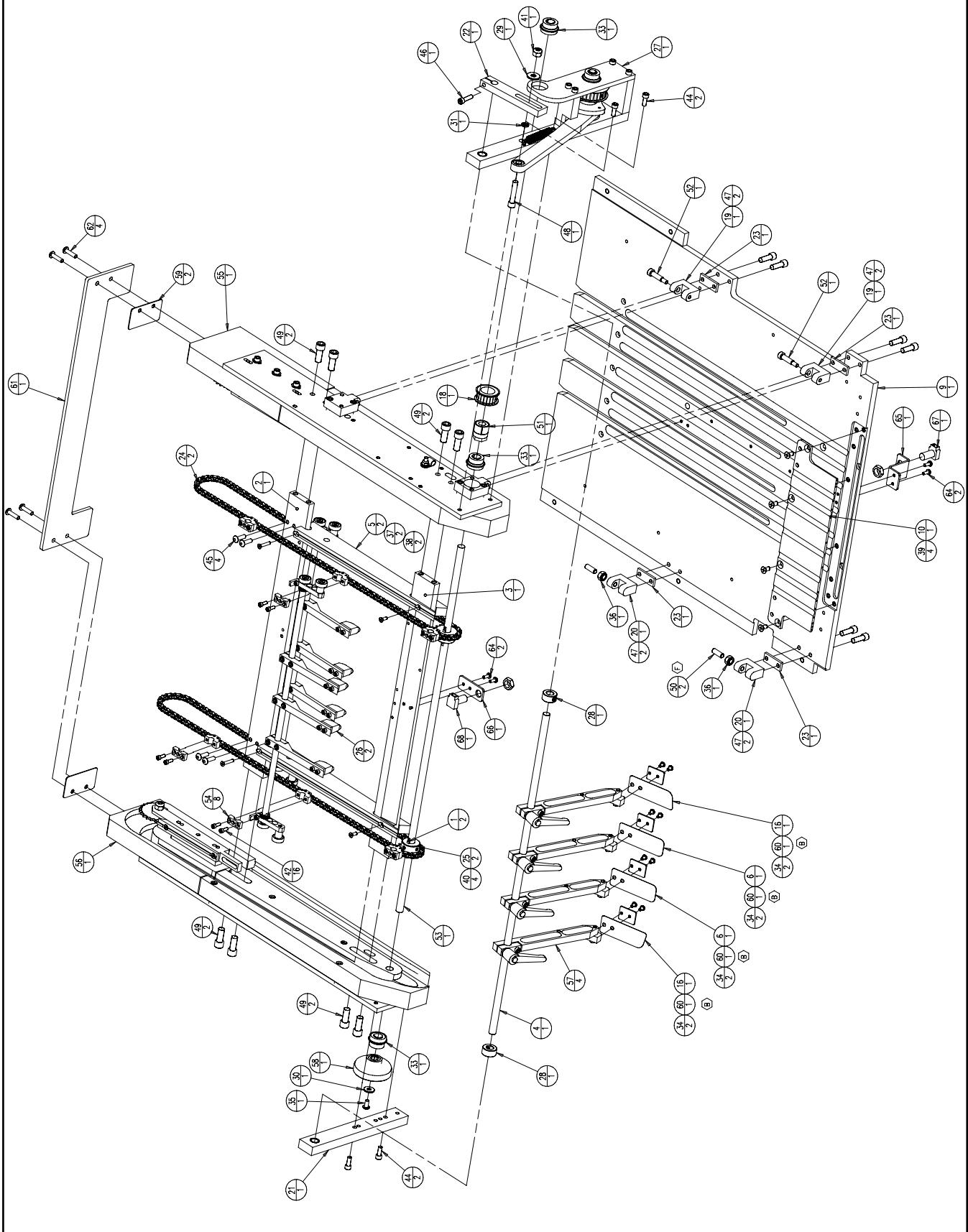


## Parts List 1-29: Assembly Pusher Strap/ FL80216

Item	Part Number	Qty	Description
1	81-1226	2.0	SCREW CAP HEX SOCKET
2	18005-063	1.0	SPRING STEEL-DRAG STRAP 6X9
3	18008-030	2.0	BAR, STRAP MTG INSERTER
4	18009-016	7.0	BRACKET,STRAP MTG INSERTER
5	3170098	14.0	SCREW 3/16HX BLUE POU
6	FL45053	1.0	BLOCK,BAR STRAP MOUNTING
7	FL62061	4.0	DRAG STRAP 36 IN. - RUBBER
7	FL50021	4.0	STRAP STAINLESS STEEL 33"
8	FL62822	2.0	DRAG STRAP 14IN

**Figure 1-30: 10x13 Assembly Pusher/ 18020-026**

## **6x9/10x13 Universal**

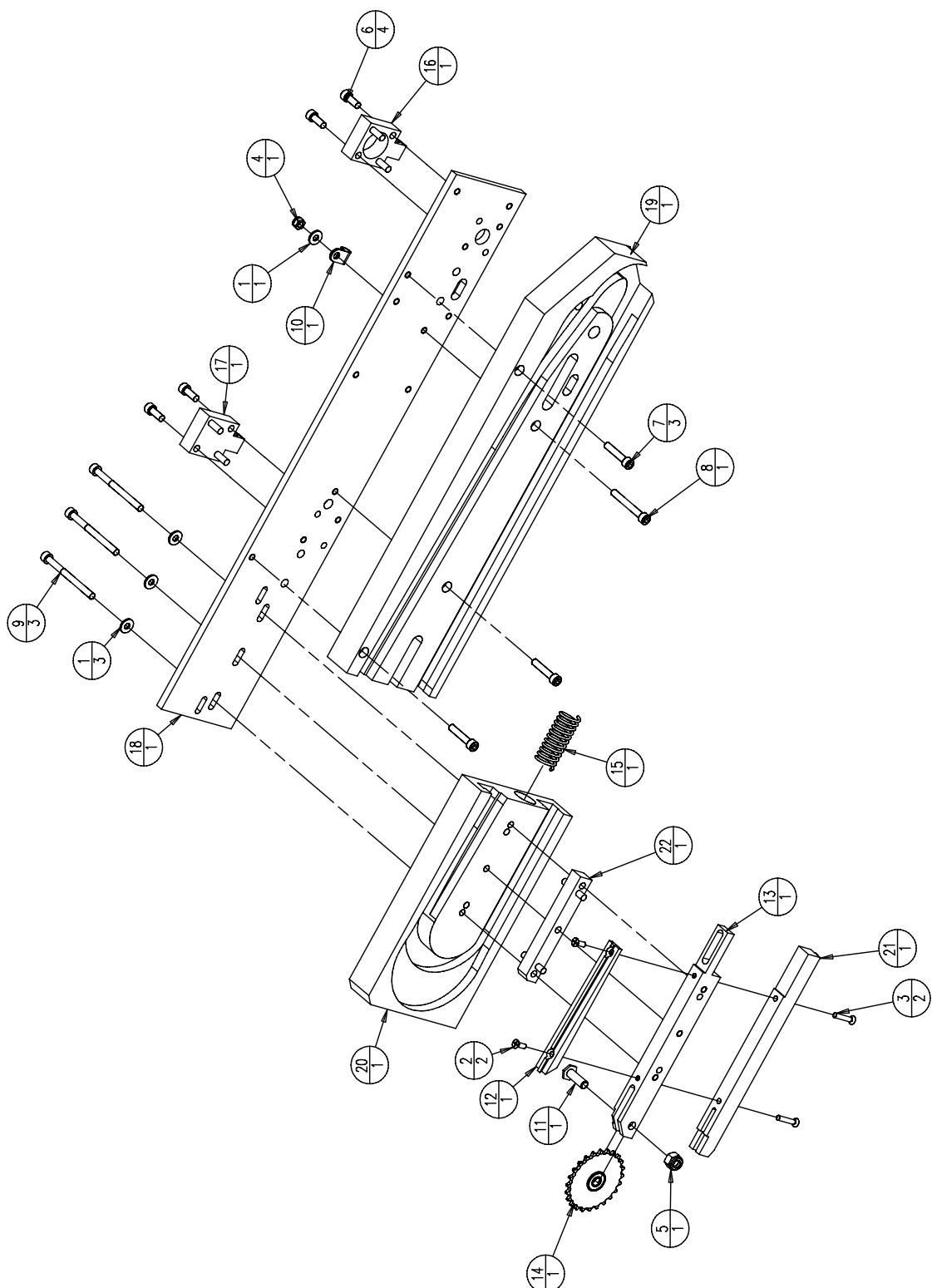


## Parts List 1-30: 10x13 Assembly Pusher/ 18020-026

Item	Part Number	Qty	Description
1	158-0108	2	KEY SQUARE
2	18003-017	1	BRACE, PUSHER, A, 10X13
3	18003-018	1	BRACE, PUSHER B, 10X13
4	18004-046	1	SHAFT, ENVELOPE FINGER
5	18005-007	2	GUIDE, CHAIN, FRONT
6	18005-008	2	FINGER, INNER
9	18005-034	1	PLATE, PUSHER GUIDE, 10X13
10	18005-043	1	PLATE, PUSHER EXTENSION 9.25IN
16	18005-090	2	FINGER, OUTER
16	FL00339	2	FINGER, OUTER, DOUBLE WIDE
18	FL37005	1	PULLEY, PUSHER DRIVE, 18T
19	18007-001	2	BLOCK, PUSHER FRAME PIVOT
20	18007-002	2	BLOCK, PUSHER FRAME LATCH
21	18007-005	1	BAR, FINGER SUPPORT, RIGHT
22	18008-015	1	BAR, FINGER
23	FL50012	4	SPACER, PUSHER FRAME
24	18014-006	2	ASSY-PUSHER CHAIN, 10X13
25	18015-002	2	SPROCKET, PUSHER DRIVE
26	18020-050	2	ASSY-PUSHER ARM 10X13
27	FL80134	1	ASSY-FINGER DRIVE, 10X13 (SEE FIG. 1-34)
28	185-0415	2	COLLAR, CLAMP
29	20-0012	1	SPACER PLAIN
30	20-0051	1	SPACER PLAIN
31	20-0600	1	SHIM, STEEL
33	591-0400	3	BALL BEARING SINGLE ROW
34	68-0499	8	SCREW BTNHD CAP HEX SKT
35	68-0831	1	SCREW BTNHD CAP HEX SKT
36	71-0007	2	NUT HEX & LK WASH
37	74-0501	2	SCREW FLAT HEAD PH
38	74-0507	2	SCREW FLAT HEAD PH
39	74-0831	4	SCREW FLAT HEAD PH
40	75-0445	4	SET SCREW HEX SOCKET
41	80-0074	1	NUT SELF LOCKING
42	81-0501	16	SCREW CAP HEX SOCKET
44	81-0833	4	SCREW CAP HEX SOCKET
45	68-0835	4	SCREW BTNHD CAP HEX SKT
46	81-0837	1	SCREW CAP HEX SOCKET
47	81-1222	8	SCREW CAP HEX SOCKET
48	81-1228	1	SCREW CAP HEX SOCKET
49	81-1332	8	SCREW CAP HEX SOCKET
50	11-0041	2	PLUNGER ASSEMBLY 1/4X20
51	99017-013	1	TRANTORQUE 3/8
52	99033-005	2	SHOULDER BOLT 1/4 X 3/4
53	FL10021	1	SHAFT, PUSHER DRIVE, 10X13
54	FL46015	8	BLOCK, PUSHER CHAIN MTG, UPPER
55	FL80151	1	ASSY-PUSHER GUIDE, LH
56	FL80152	1	ASSY-PUSHER GUIDE, RH
57	FL80013	4	ASSY-FINGER ARM
58	FL80020	1	KNOB, PUSHER RESET
59	18005-041	2	GUIDE, SPRING STEEL ANTI-FLIP
60	18011-046	4	PLATE, FINGER SUPPORT
61	18013-032	1	GUARD, REAR PUSHER, 10X13
62	68-0837	4	SCREW BTNHD CAP HEX SKT
64	72-0501	4	SCREW & LK WASH
65	FL51073	1	SENSOR BRACKET, PUSHER
66	FL51074	1	SENSOR BRACKET, PUSHER
67	R692042	1	INFRARED LED
68	R692043	1	OPTICAL DETECTOR

Figure 1-31: Assembly Pusher Guide/ FL80151

## 6x9/10x13 Universal and Standard 6x9

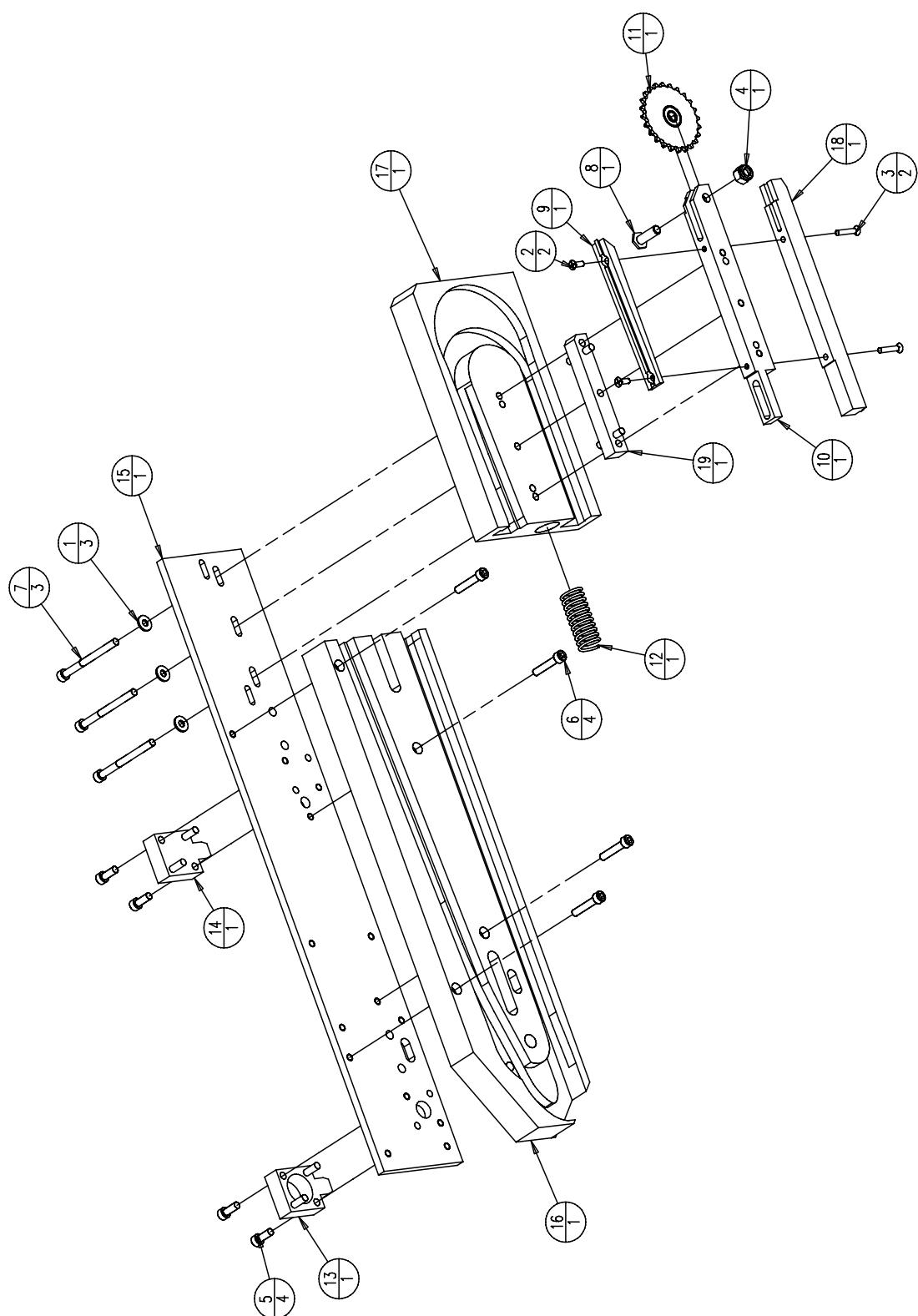


## Parts List 1-31: Assembly Pusher Guide/ FL80151

Item	Part Number	Qty	Description
1	50-0009	4	WASHER PLAIN
2	74-0501	2	SCREW FLAT HEAD PH
3	74-0507	2	SCREW FLAT HEAD PH
4	80-0071	1	NUT SELF LOCK 10-32 THD
5	80-0074	1	NUT SELF LOCKING
6	81-0833	4	SCREW CAP HEX SOCKET
7	81-0841	3	SCREW CAP HEX SOCKET
8	81-0845	1	SCREW CAP HEX SOCKET
9	81-0854	3	SCREW CAP HEX SOCKET
10	227-0286	1	CLMP CABLE 3/8" NYLON
11	18004-047	1	SHAFT, PUSHER IDLER
12	18005-006	1	GUIDE, CHAIN, UPPER REAR
13	18008-050	1	BAR, LH IDLER MTG
14	18015-001	1	SPROCKET, PUSHER IDLER
15	99005-005	1	SPRING, SHUTTLE
16	FL45090	1	BLOCK, PUSHER MOUNT, LEFT FRONT
17	FL45092	1	BLOCK, PUSHER MOUNT, LEFT REAR
18	FL45094	1	PLATE, PUSHER CAM MTG
19	FL45108	1	CAM, PUSHER, LEFT FRONT
20	FL45110	1	CAM, PUSHER, LEFT REAR
21	FL45117	1	GUIDE, LOWER CHAIN
22	FL45119	1	STANDOFF, PUSHER CHAIN GUIDE

Figure 1-32: Assembly Pusher Right Guide/ FL80152

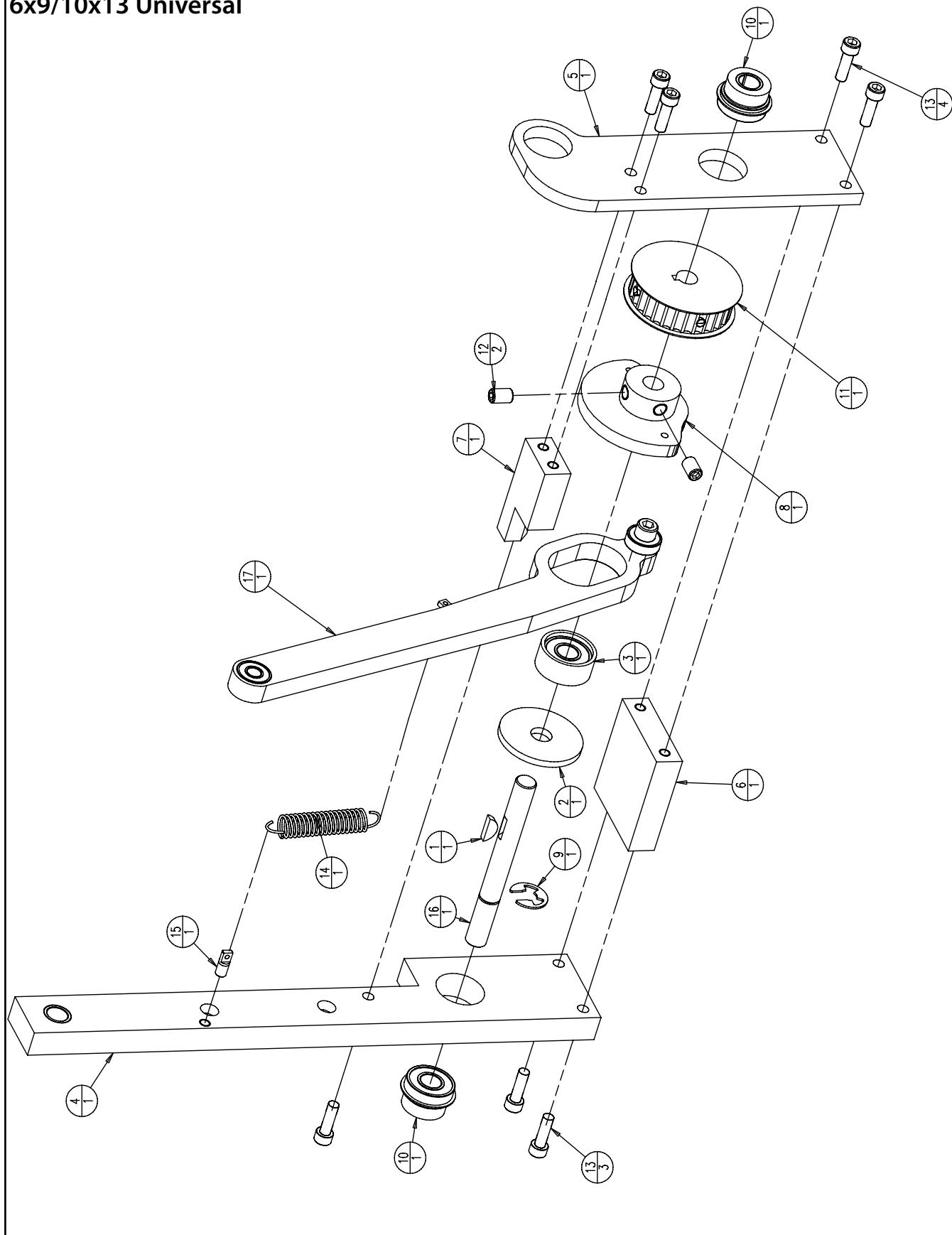
6x9/10x13 Universal and Standard



## Parts List 1-32: Assembly Pusher Right Guide/ FL80152

Item	Part Number	Qty	Description
1	50-0009	3	WASHER PLAIN
2	74-0501	2	SCREW FLAT HEAD PH
3	74-0507	2	SCREW FLAT HEAD PH
4	80-0074	1	NUT SELF LOCKING
5	81-0833	4	SCREW CAP HEX SOCKET
6	81-0841	4	SCREW CAP HEX SOCKET
7	81-0851	3	SCREW CAP HEX SOCKET
8	18004-047	1	SHAFT, PUSHER IDLER
9	18005-006	1	GUIDE, CHAIN, UPPER REAR
10	18008-007	1	BAR, RH IDLER MTG
11	18015-001	1	SPROCKET, PUSHER IDLER
12	99005-005	1	SPRING, SHUTTLE
13	FL45091	1	BLOCK, PUSHER MOUNT, RIGHT FRONT
14	FL45093	1	BLOCK, PUSHER MOUNT, RIGHT REAR
15	FL45094	1	PLATE, PUSHER CAM MTG
16	FL45109	1	CAM, PUSHER, RIGHT FRONT
17	FL45111	1	CAM, PUSHER, RIGHT REAR
18	FL45117	1	GUIDE, LOWER CHAIN
19	FL45119	1	STANDOFF, PUSHER CHAIN GUIDE

Figure 1-33: Assembly Finger Drive/ FL80134

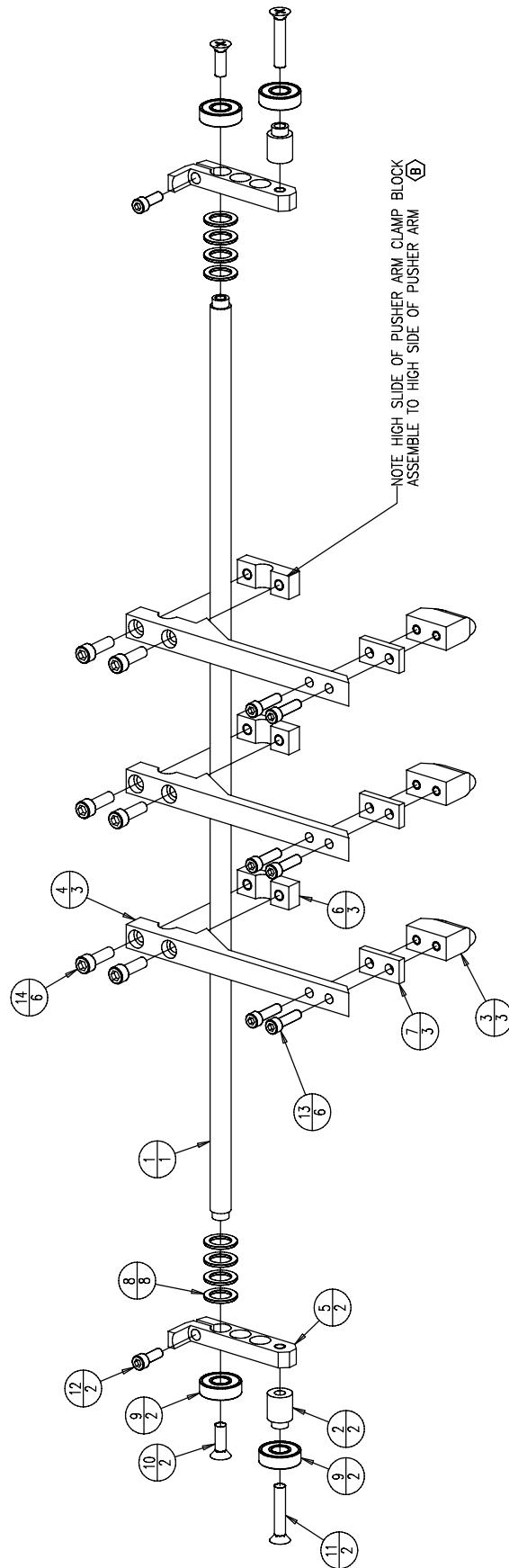
**6x9/10x13 Universal**

## Parts List 1-33: Assembly Finger Drive/ FL80134

Item	Part Number	Qty	Description
1	158-0018	1	KEY WOODRUFF
2	18006-010	1	WASHER, THRUST
3	18006-027	1	ROLLER, FINGER LINK
4	18007-006	1	BAR, FINGER SUPPORT, LEFT
5	FL45103	1	PLATE, FINGER BRG MTG
6	18008-005	1	BAR, FINGER DRIVE SPACER, LOWER
7	18008-006	1	BAR, FINGER DRIVE SPACER, LEFT
8	FL40002	1	CAM, FINGER
9	23-0037	1	RETAIN RING E
10	591-0400	2	BALL BEARING SINGLE ROW
<b>REFER TO TRANSMISSION SECTION TO DETERMINE WHICH TOOTH STYLE PULLEY YOU REQUIRE FOR ITEM 11 (5MM HTD DEEP ROUNDED TEETH OR XL037 SHALLOW SQUARE TEETH)</b>			
11	FL37013	1	PULLEY FLANGED 30T, 5MM HTD, 14MM WIDE
11	592-0015	1	PULLEY FLANGED 30T XL037, 9/16" WIDE
12	75-8015	2	SCR, SET BRASS-TIPPED
13	81-0835	7	SCREW CAP HEX SOCKET
14	99005-009	1	SPRING, EXTENSION - RH JAW
15	99006-016	1	PIN, SPRING CLIP 10-32 X 3/8
16	FL10020	1	SHAFT, FINGER DRIVE
17	FL80133	1	ASSY-FINGER LINKAGE

Figure 1-34: Assembly Pusher Arm/ 18020-050

6x9/10x13 Universal

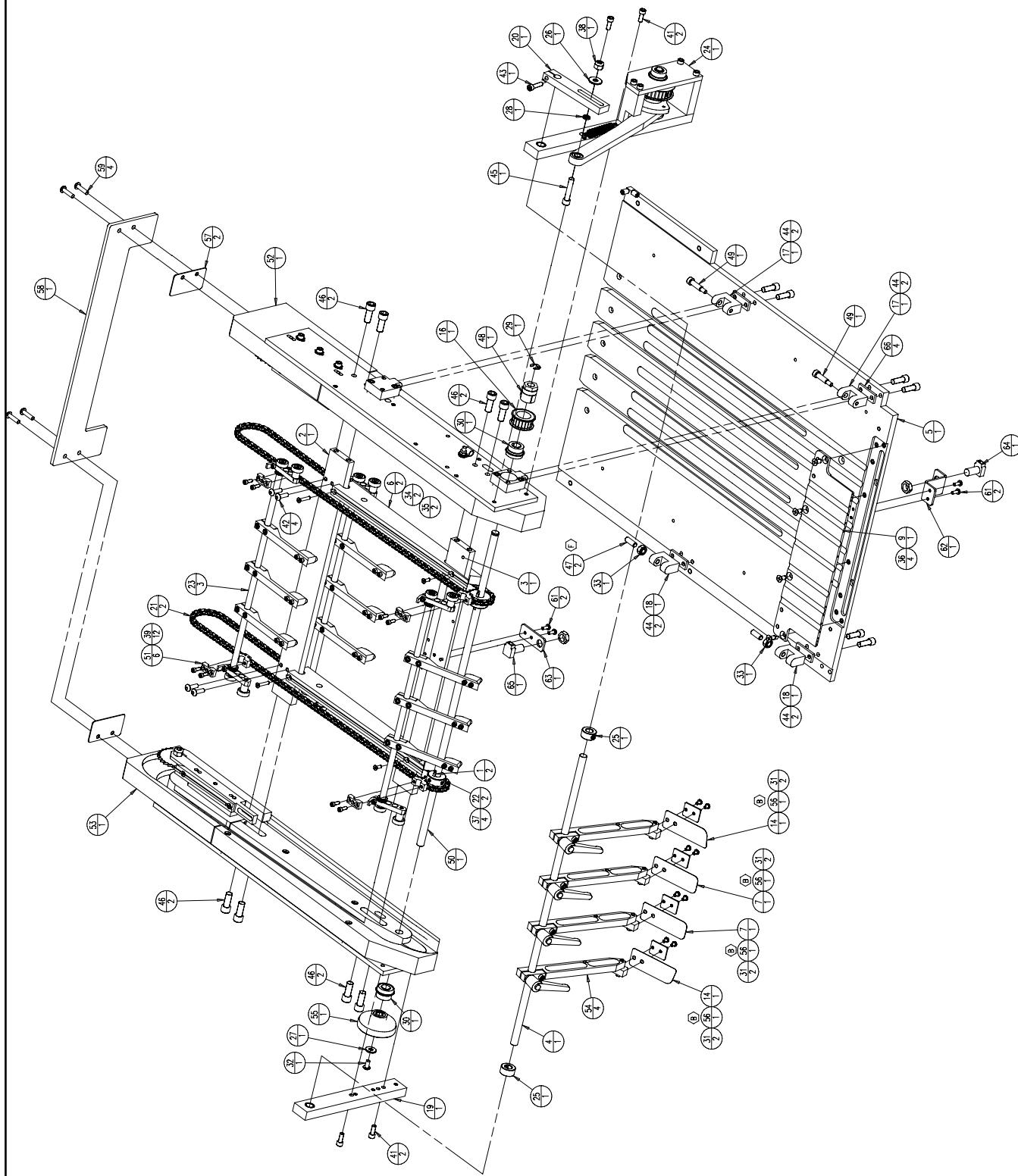


## Parts List 1-34: Assembly Pusher Arm/ 18020-050

Item	Part Number	Qty	Description
1	18004-044	1	SHAFT, PUSHER 10X13
2	18006-004	2	SPACER, PUSHER ARM BEARING
3	18007-015	3	BLOCK, PUSHER
4	18008-009	3	ARM, PUSHER
5	18008-010	2	BAR, PUSHER LINK
6	18008-053	3	CLAMP, PUSHER ARM
7	18012-022	3	SPACER, PUSHER BLOCK
8	20-0284	8	SPACER PLAIN
9	591-0259	4	BALL BEARING SGL ROW RDL
10	74-0613	2	SCREW FLAT HEAD PH
11	74-0619	2	SCREW FLAT HEAD PH
12	81-0501	2	SCREW CAP HEX SOCKET
13	81-0503	6	SCREW CAP HEX SOCKET
14	81-0613	6	SCREW CAP HEX SOCKET

Figure 1-35: Assembly Pusher/ 18020-025

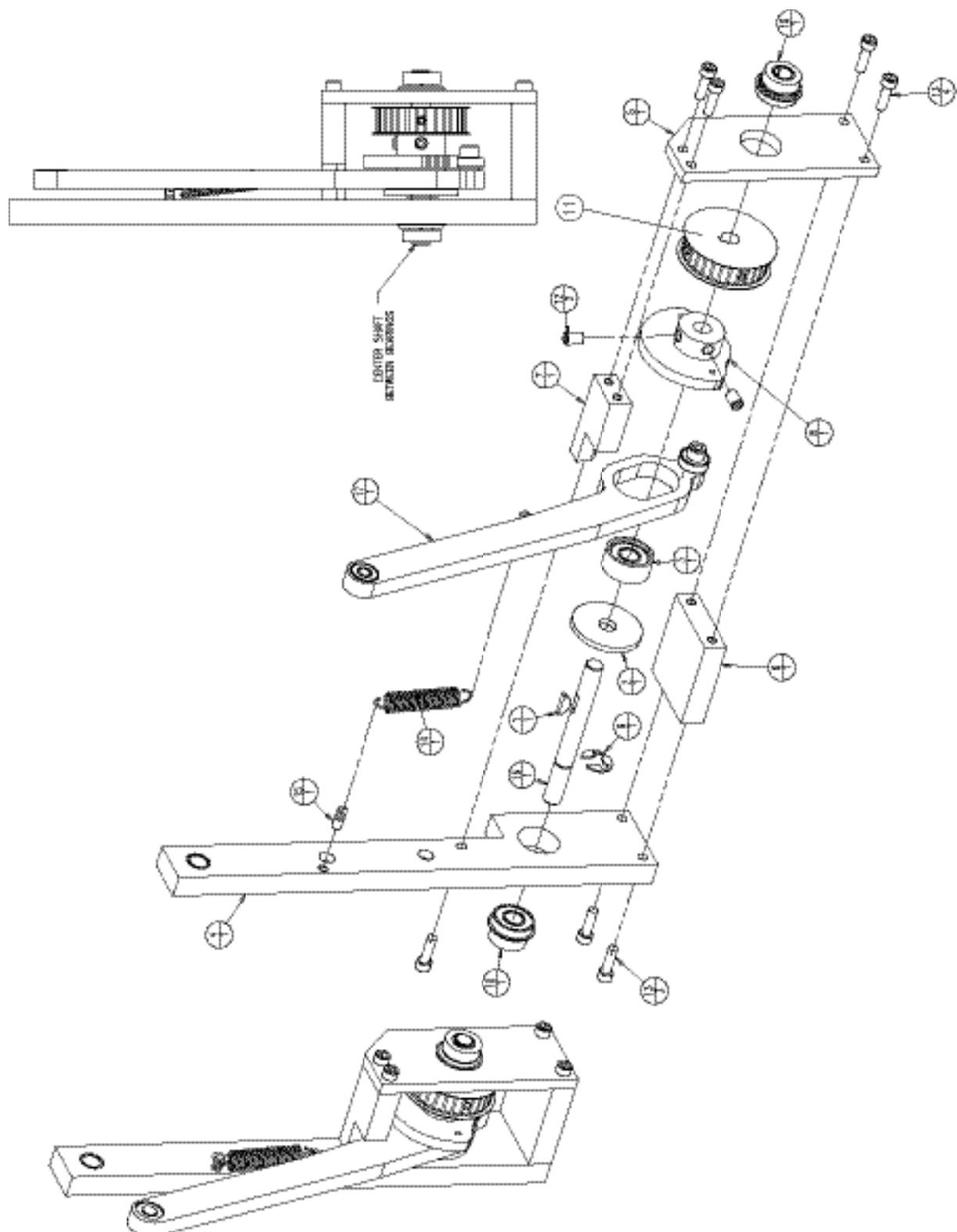
6x9 Standard



## Parts List 1-35: Assembly Pusher/ 18020-025

Item	Part Number	Qty	Description
1	158-0108	2	KEY SQUARE
2	18003-007	1	BRACE, PUSHER, A
3	18003-008	1	BRACE, PUSHER,B
4	18004-010	1	SHAFT, FINGER PIVOT, 6X9
5	18005-001	1	PLATE, PUSHER GUIDE 6X9
6	18005-007	2	GUIDE, CHAIN, FRONT
7	18005-008	2	FINGER, INNER
9	18005-043	1	PLATE, PUSHER EXTENSION 9.25IN
14	18005-090	2	FINGER, OUTER
14	FL00339	2	FINGER, OUTER, DOUBLE WIDE
16	FL37005	1	PULLEY, PUSHER DRIVE, 18T
17	18007-001	2	BLOCK, PUSHER FRAME PIVOT
18	18007-002	2	BLOCK, PUSHER FRAME LATCH
19	18007-005	1	BAR, FINGER SUPPORT, RIGHT
20	18008-015	1	BAR, FINGER
21	18014-002	2	ASSY-PUSHER CHAIN, 6X9
22	18015-002	2	SPROCKET, PUSHER DRIVE
23	18020-051	3	ASSY-PUSHER ARM 6X9
24	18020-076	1	ASSY-FINGER DRIVE (SEE FIG. 1-37)
25	185-0415	2	COLLAR, CLAMP
26	20-0012	1	SPACER PLAIN
27	20-0051	1	SPACER PLAIN
28	20-0600	1	SHIM, STEEL
29	23-0031	1	RING 'E' RETAINING
30	591-0400	2	BALL BEARING SINGLE ROW
31	68-0499	8	SCREW BTNHD CAP HEX SKT
32	68-0831	1	SCREW BTNHD CAP HEX SKT
33	71-0007	2	NUT HEX & LK WASH
34	74-0501	2	SCREW FLAT HEAD PH
35	74-0507	2	SCREW FLAT HEAD PH
36	74-0831	4	SCREW FLAT HEAD PH
37	75-0445	4	SET SCREW HEX SOCKET
38	80-0074	1	NUT SELF LOCKING
39	81-0501	12	SCREW CAP HEX SOCKET
41	81-0833	4	SCREW CAP HEX SOCKET
42	68-0835	4	SCREW BTNHD CAP HEX SKT
43	81-0837	1	SCREW CAP HEX SOCKET
44	81-1222	8	SCREW CAP HEX SOCKET
45	81-1228	1	SCREW CAP HEX SOCKET
46	81-1332	8	SCREW CAP HEX SOCKET
47	11-0041	2	PLUNGER ASSEMBLY 1/4X20
48	99017-013	1	TRANTORQUE 3/8
49	99033-005	2	SHOULDER BOLT 1/4 X 3/4
50	FL10019	1	SHAFT, PUSHER DRIVE, 6X9
51	FL46015	6	BLOCK, PUSHER CHAIN MTG, UPPER
52	FL80151	1	ASSY-PUSHER GUIDE, LH
53	FL80152	1	ASSY-PUSHER GUIDE, RH
54	FL80013	4	ASSY-FINGER ARM
56	18011-046	4	PLATE, FINGER SUPPORT
57	18005-041	2	GUIDE, SPRING STEEL ANTI-FLIP
58	18013-031	1	GUARD, REAR PUSHER, 6X9
59	68-0837	4	SCREW BTNHD CAP HEX SKT
61	72-0501	4	SCREW & LK WASH
62	FL51073	1	SENSOR BRACKET, PUSHER
63	FL51074	1	SENSOR BRACKET, PUSHER
64	R692042	1	INFRARED LED
65	R692043	1	OPTICAL DETECTOR
66	FL50012	4	SPACER, PUSHER FRAME

Figure 1-36: Finger Drive Assembly/ 18020-076

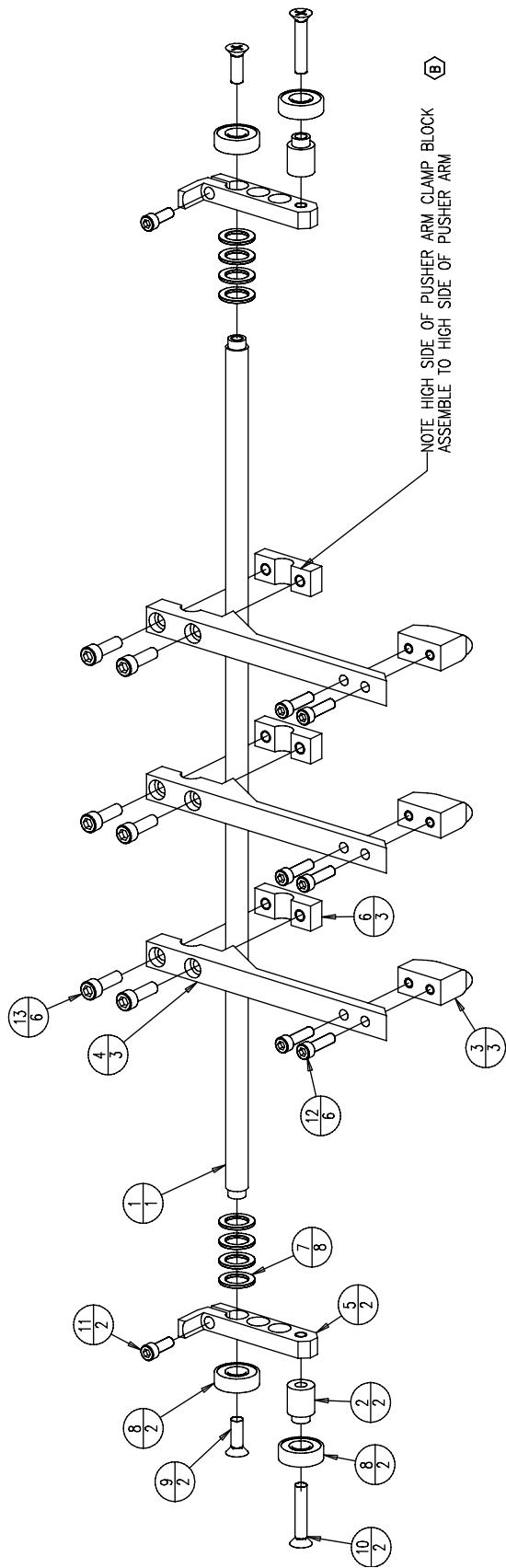
**6x9 Standard**

## Parts List 1-36: Finger Drive Assembly/ 18020-076

Item	Part Number	Qty	Description
1	158-0018	1	KEY WOODRUFF
2	18006-010	1	WASHER, THRUST
3	18006-027	1	ROLLER, FINGER LINK
4	18007-006	1	BAR, FINGER SUPPORT, LEFT
5	18007-007	1	PLATE, FINGER BEARING MTG
6	18008-005	1	BAR, FINGER DRIVE SPACER, LOWER
7	18008-006	1	BAR, FINGER DRIVE SPACER, LEFT
8	FL40002	1	CAM, FINGER
9	23-0037	1	RETAIN RING E
10	591-0400	2	BALL BEARING SINGLE ROW
<b>REFER TO TRANSMISSION SECTION TO DETERMINE WHICH TOOTH STYLE PULLEY YOU REQUIRE FOR ITEM 11 (5MM HTD DEEP ROUNDED TEETH OR XL037 SHALLOW SQUARE TEETH)</b>			
11	FL37013	1	PULLEY FLANGED 30T, 5MM HTD, 14MM WIDE
11	592-0015	1	PULLEY FLANED, 30T XL037, 9/16" WIDE
12	75-8015	2	SCR, SET BRASS-TIPPED
13	81-0835	7	SCREW CAP HEX SOCKET
14	99005-009	1	SPRING, EXTENSION - RH JAW
15	99006-016	1	PIN, SPRING CLIP 10-32 X 3/8
16	FL10020	1	SHAFT, FINGER DRIVE
17	FL80133	1	ASSY-FINGER LINKAGE

**Figure 1-37: Pusher Arm Assembly/ 18020-051**

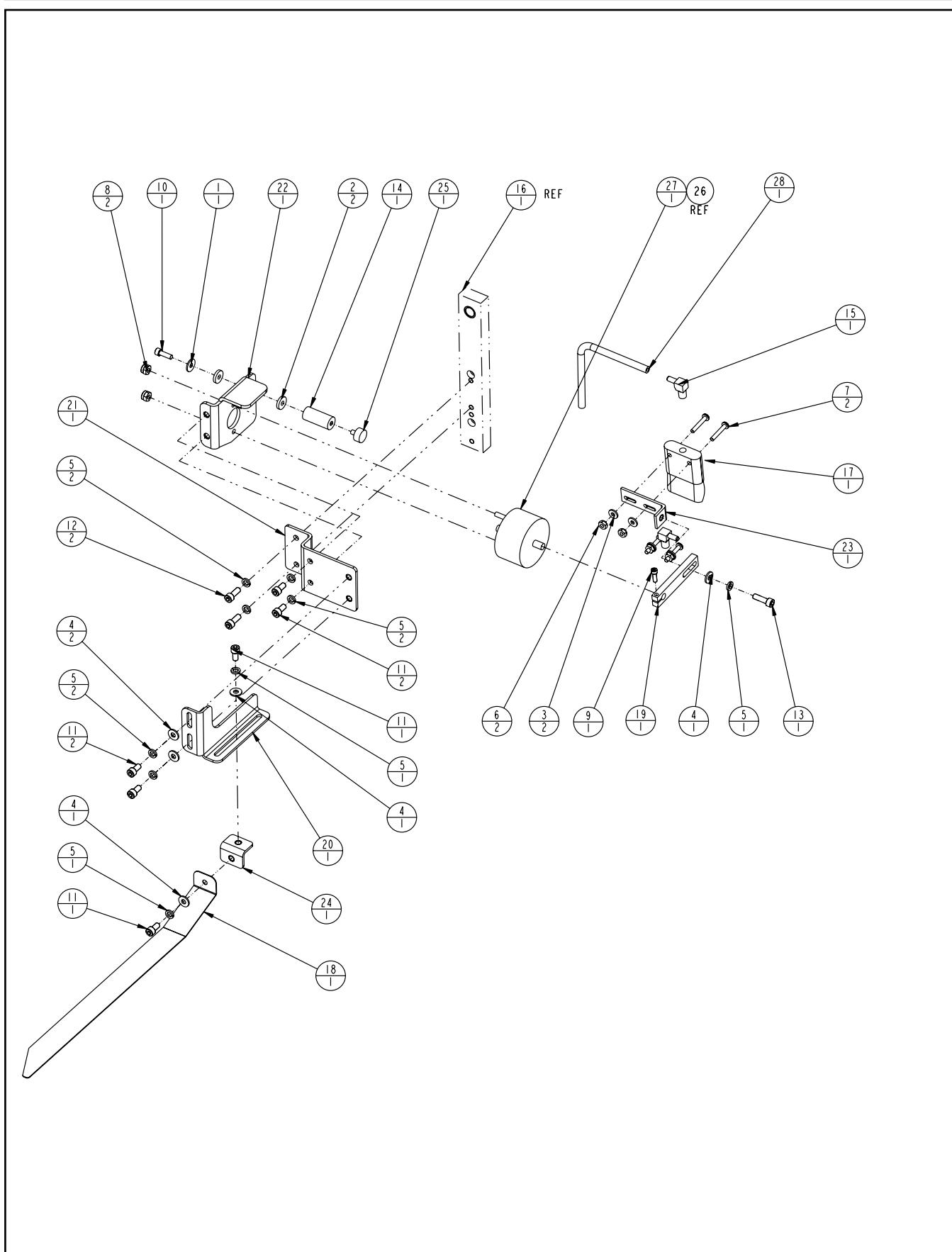
## **6x9 Standard**



## Parts List 1-37: Pusher Arm Assembly/ 18020-051

Item	Part Number	Qty	Description
1	18004-001	1	SHAFT, PUSHER 6X9
2	18006-004	2	SPACER, PUSHER ARM BEARING
3	18007-015	3	BLOCK, PUSHER
4	18008-009	3	ARM, PUSHER
5	18008-010	2	BAR, PUSHER LINK
6	18008-053	3	CLAMP, PUSHER ARM
7	20-0284	8	SPACER PLAIN
8	591-0259	4	BALL BEARING SGL ROW RDL
9	74-0613	2	SCREW FLAT HEAD PH
10	74-0619	2	SCREW FLAT HEAD PH
11	81-0501	2	SCREW CAP HEX SOCKET
12	81-0503	6	SCREW CAP HEX SOCKET
13	81-0613	6	SCREW CAP HEX SOCKET

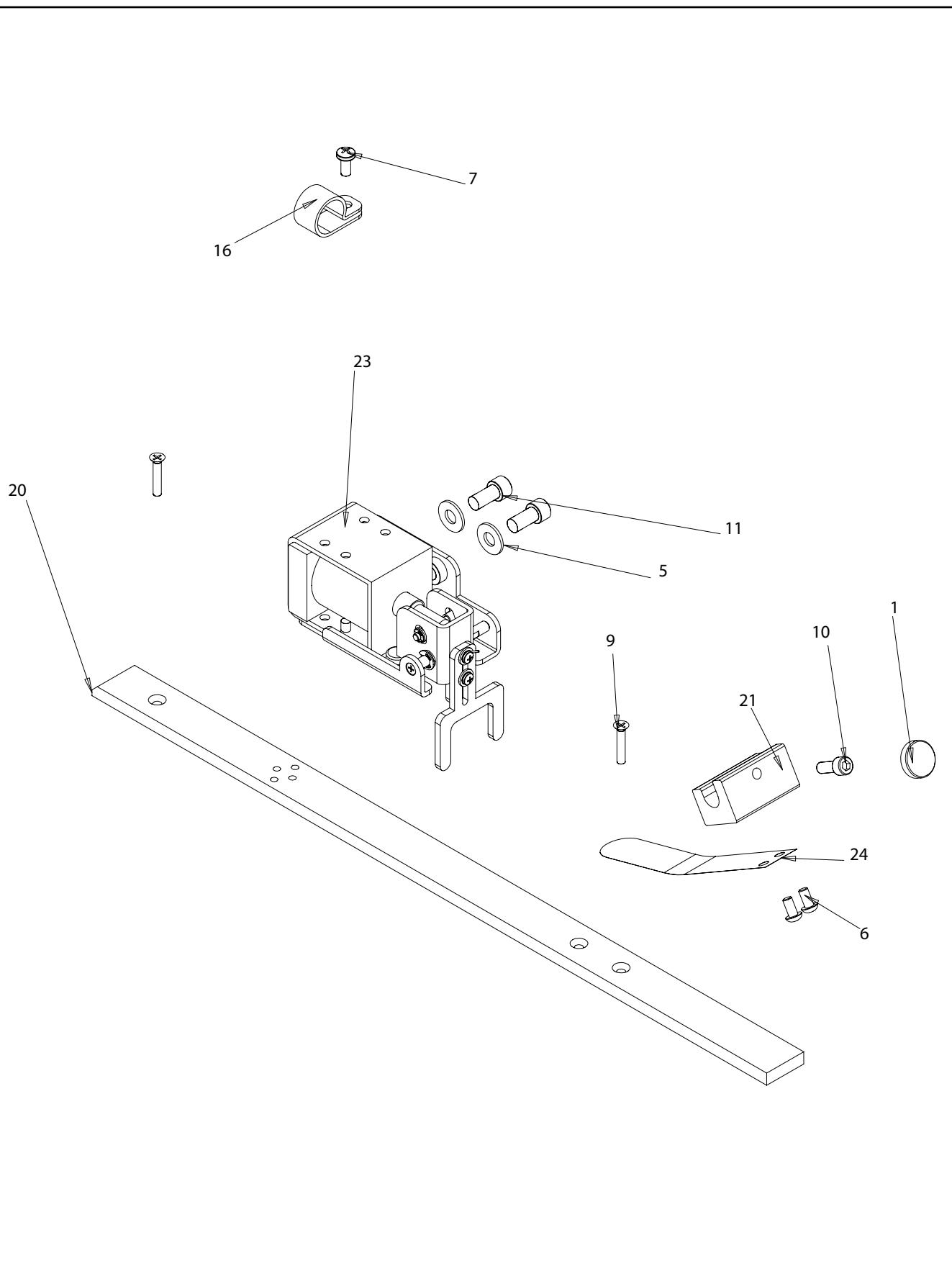
Figure 1-38: Assembly Select Seal/ FL80119



## Parts List 1-38: Assembly Select Seal/ FL80119

Item	Part Number	Qty	Description
1	20-0019	1	SPACER PLAIN
2	50-0725	2	WASHER, PLAIN RUBBER
3	50-0007	2	WASHER .151/. 164 X .370/. 390""
4	50-0009	5	WASHER LOC-09
5	52-0553	9	LOCKWASHER-METRIC
6	71-0003	2	NUT HEX & LK WASH
7	72-0509	2	SCREW & LK WASH
8	80-0070	2	NUT SELF LOCKING
9	81-0502	1	SCREW CAP HEX SOCKET
10	81-0613	1	SCREW CAP HEX SOCKET
11	81-0831	6	SCREW CAP HEX SOCKET
12	81-0833	2	SCREW CAP HEX SOCKET
13	81-0835	1	SCREW CAP HEX SOCKET
14	258-0048	1	STDF THREADED ROUND 8-32
15	509-1040	1	FTG PIPE&HOSE ADAPTER EL
16	18007-005	0	BAR, FINGER SUPPORT, RIGHT
17	18019-005	1	BRUSH, WATER
18	FL23000	1	STRAP
19	FL42000	1	ARM- BRUSH PIVOT
20	FL51128	1	BRACKET- STRAP ADJUST.
21	FL58085	1	BRACKET- MAIN ASSEMBLY MTG.
22	FL58086	1	BRACKET- SOLENOID
23	FL58087	1	BRACKET- BRUSH MTG.
24	FL58088	1	BRACKET- STRAP, ANGLE
25	R284037	1	STOP-DIVERTER
26	R683200	0	JUMPER ASSY-IN4002/IN5349P
27	Y184375	1	SOLENOID, SMART DEFLECT
28	99031-005	1	TUBING, CLEAR VINYL, 1/8 ID X 1/4 OD

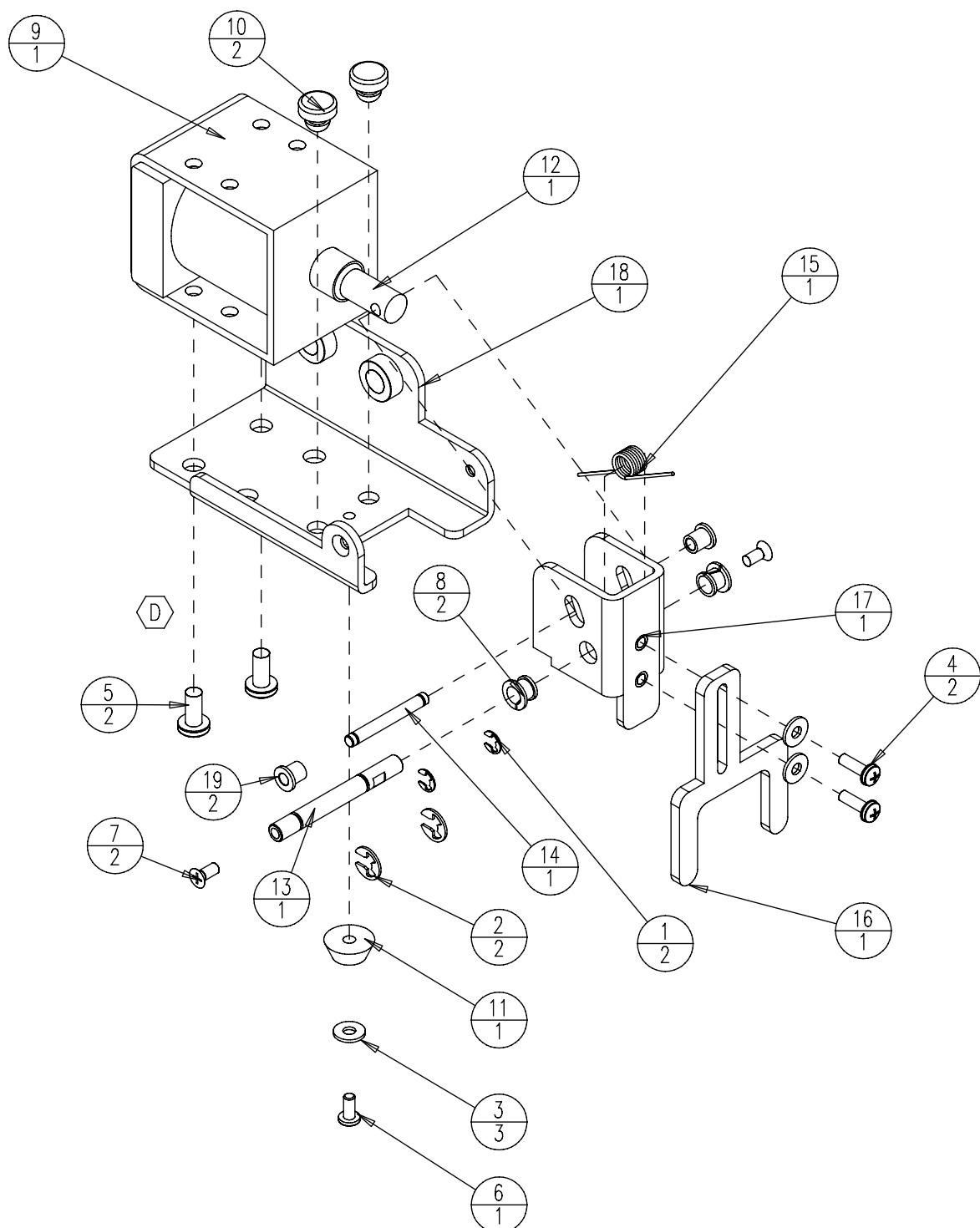
**Figure 1-39: Assembly Overhead Stop/ FL80129**



## Parts List 1-39: Assembly Overhead Stop/ FL80129

Item	Part Number	Qty	Description
1	13-0102	1	KNOB KNULED SCREW THUMB
5	50-0017	2	WASHER LOC-09
6	68-5198	2	SCREW BTNHD CAP HEX SKT
7	72-0611	1	SCREW & LK WASH
9	74-0507	2	SCREW FLAT HEAD PH
10	81-0833	1	SCREW CAP HEX SOCKET
11	81-1218	2	SCREW CAP HEX SOCKET
16	227-0018	1	CLAMP CABLE .625 DIA
20	FL45113	1	RAISED DECK
21	FL46013	1	CLAMP
23	FL80157	1	ASSY - SOLENOID
24	FL62068	1	STRAP - BUFFER SUBSET

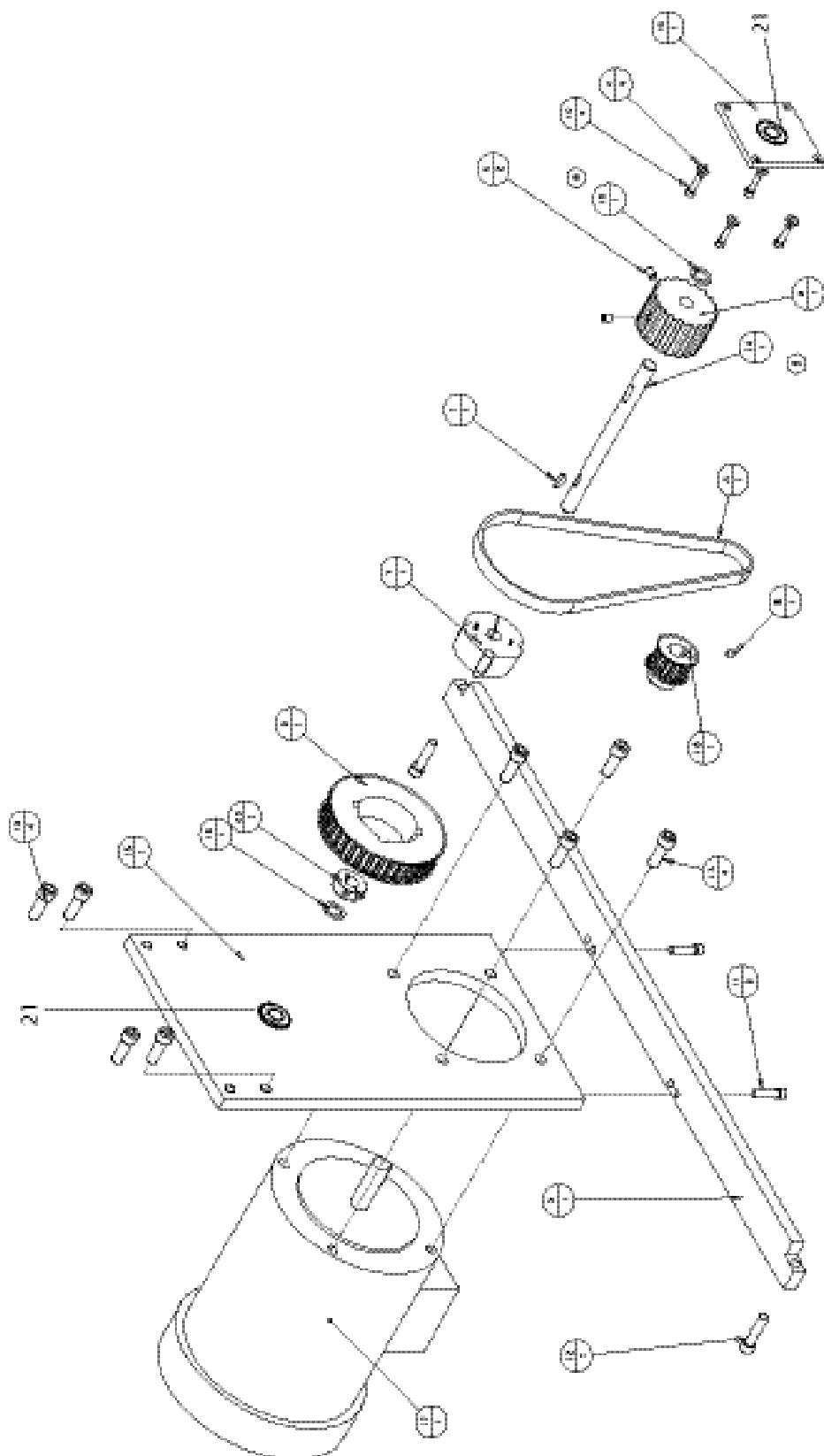
Figure 1-40: Assembly Solenoid/ FL80157



## Parts List 1-40: Assembly Solenoid/ FL80157

Item	Part Number	Qty	Description
1	23-0012	2	E-RING.094 ID X .230 OD X .015
2	23-0018	2	E-RING.145 ID X .335 OD X .025
3	50-0005	3	WASHER PLAIN
4	72-0281	2	SCREW & LK WASH
5	72-0611	2	SCREW & LK WASH
6	73-0279	1	SCREW PAN HEAD PH
7	74-0279	2	SCREW FLAT HEAD PH
8	173-0004	2	BEARING FLANGED SNAP-IN
9	219-0516	1	SOLENOID 24VDC OPEN FRAME
10	244-0277	2	BUMPER GROMMET TYPE
11	244-0310	1	BUMPER MOLDED RUBBER
12	FL00001	1	PLUNGER
13	FL10032	1	SHAFT - OVERHEAD STOP
14	FL10033	1	SHAFT - SOLENOID
15	FL21001	1	SPRING - TORSION (OVERHEAD STOP)
16	FL50026	1	BRACKET - PRONG
17	FL51160	1	BRACKET - STOP
18	FL58108	1	BRACKET - SOLENOID MOUNT
19	FL62072	2	BUSHING - FLANGED (PLASTIC)

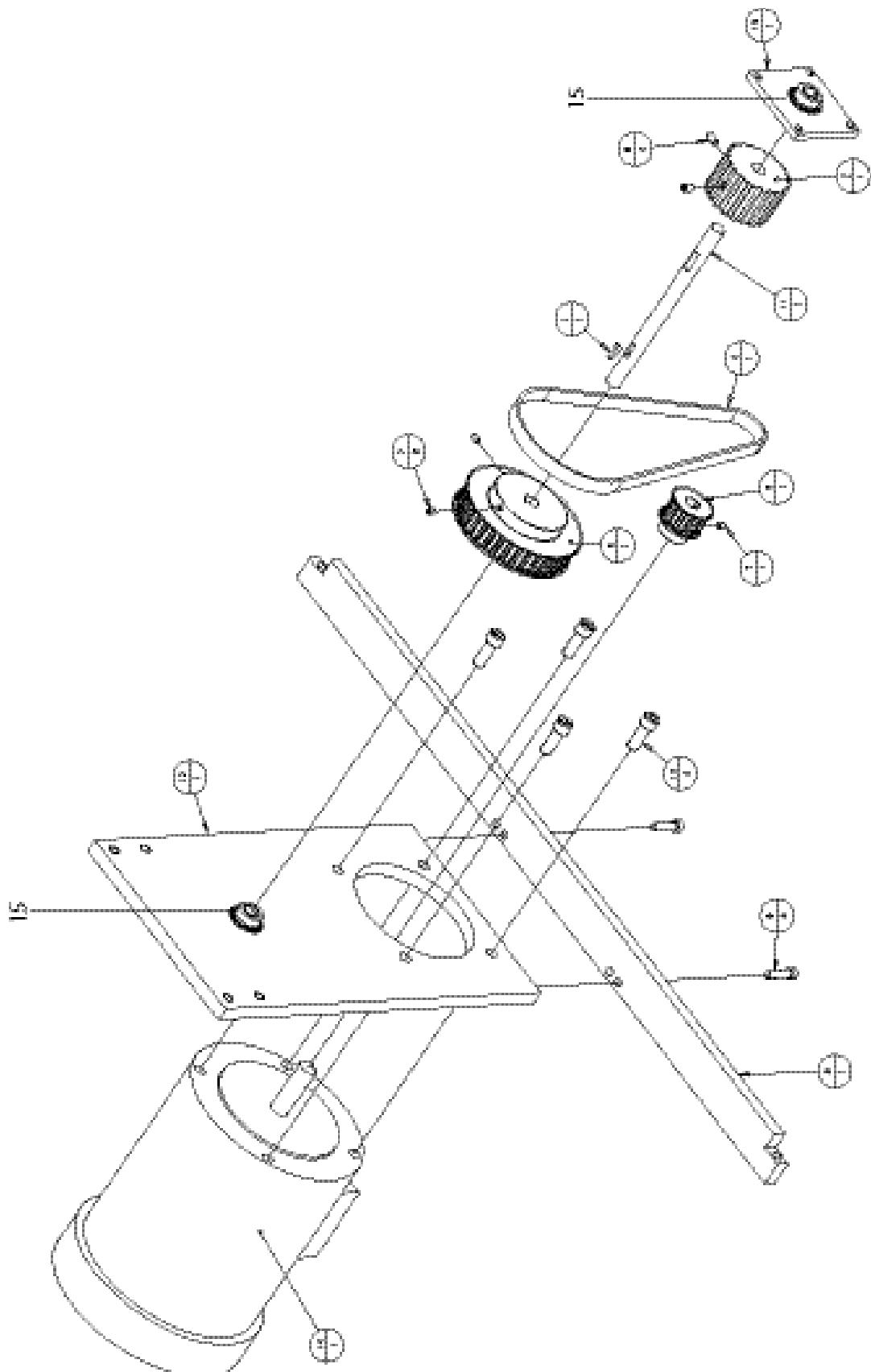
Figure 1-41: Assembly Feeder Drive/ FL80027 w/ 2 piece Motor Pulley from 9/2002



## Parts List 1-41: Assembly Feeder Drive/ FL80027 w/ 2 piece Motor Pulley from 9/2002

Item	Part Number	Qty	Description
1	158-0020	1	KEY WOODRUFF 1/8W X 5/8L
2	18006-017	1	PULLEY, WIDE 20L050
3	18008-028	1	BAR, MOTOR MOUNT SUPPORT
4	50-0009	4	WASHER PLAIN
5	566-0329	1	BELT, TIMING 3/8 P (L)
6	592-0028	1	PULLEY, TIMING L TAPER LK
7	592-0029	1	TAPER LOCK BUSHING
8	75-0553	1	SET SCREW HEX SOCKET
9	75-0673	2	SET SCREW HEX SOCKET
10	81-0837	4	SCREW CAP HEX SOCKET
11	81-1226	2	SCREW CAP HEX SOCKET
12	81-1338	2	SCREW CAP HEX SOCKET
13	81-1446	8	SCREW CAP HEX SOCKET
14	18004-016	1	SHAFT, INTERMEDIATE
15	FL80025	1	ASSY - MOTOR MOUNT PLATE
16	FL80026	1	ASSY - BEARING BLOCK
17	FL84003	1	MOTOR 1/2 HP 1750 RPM
18	FL37002	1	12L075 5/8 KEYED PULLEY
19	50-0704	2	WASHER, PLAIN NYLON 6/6
20	185-0308	1	COLLAR,SPLIT,ONE-PIECE
21	591-0402	2	BEARING WITH SNAP RING, .5" ID X 1.125" OD

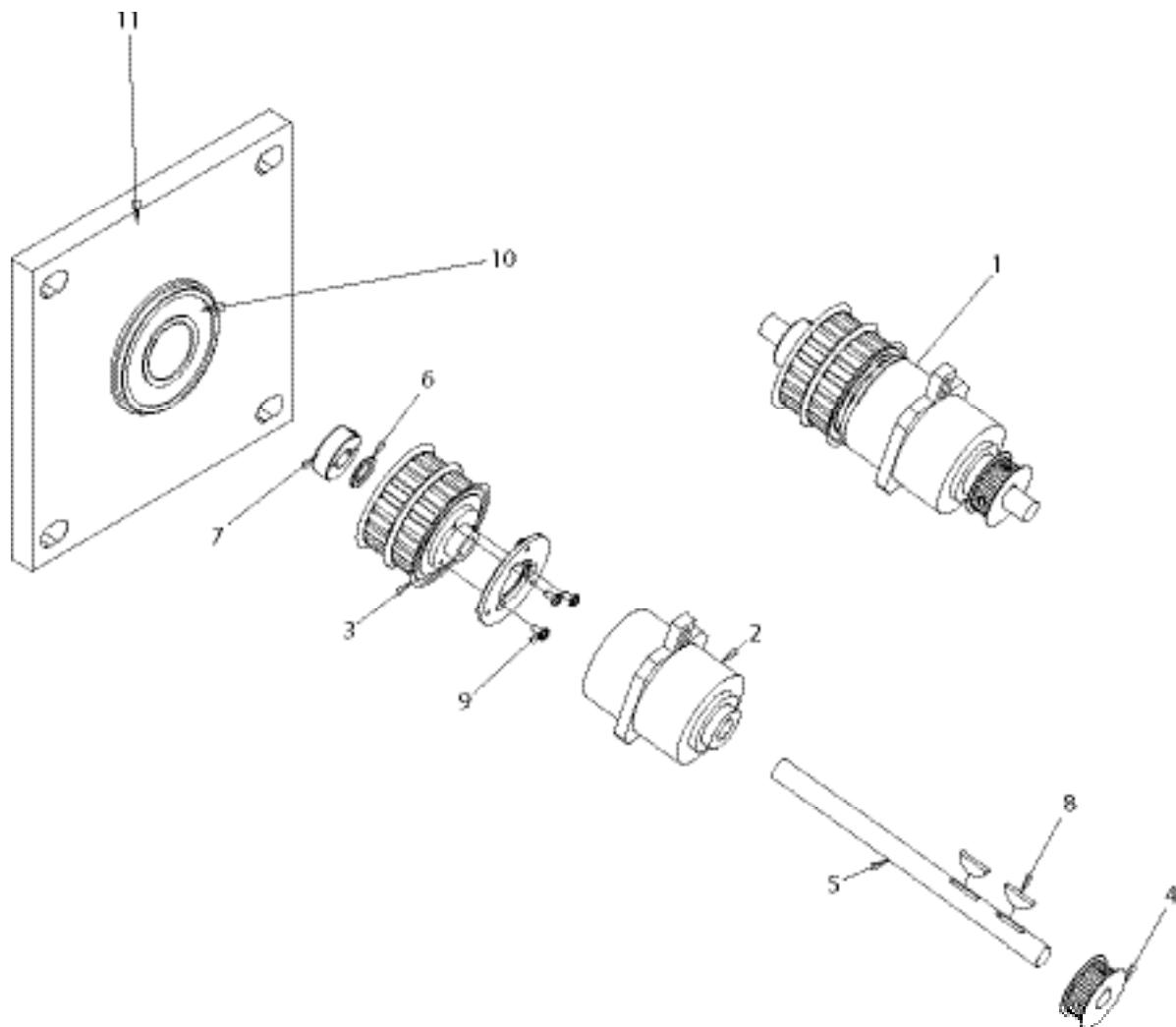
Figure 1-42: Assembly Feeder Drive/ FL80027 w/ 2 piece Motor Pulley till 9/2002



## Parts List 1-42: Assembly Feeder Drive/ FL80027 w/2 piece Motor Pulley till 9/2002

Item	Part Number	Qty	Description
1	158-0020	1	1/8 X 5/8 WOODRUFF KEY
2	18006-017	1	PULLEY - 20L050
3	18008-028	1	BAR - MOTOR MNT SUPPORT
4	566-0329	1	BELT TIMING 225L075
5	592-0013	1	PULLEY TIMING 12L075
6	592-0014	1	PULLEY TIMING 36L075
7	75-0553	3	10-32 X 1/4 CUP POINT SET SCREW
8	75-0673	2	1/4-20 X 3/8 CUP POINT SET SCREW
9	81-1226	2	1/4-20 X 1 SHCS
10	81-1448	4	3/8-16 X 1 SHCS
11	FL10023	1	SHAFT-INTERMIDIATE
12	FL80025	1	ASSY MOTOR MOUNT
13	FL80028	1	ASSY BEARING BLOCK
14	FL84003	1	MOTOR
15	591-0289	2	BEARING WITH SNAP RING, 5" ID X 1.125" OD

Figure 1-43: Feeder Drive Clutch Assembly/ FL80026 &amp; 18020-074



## Parts List 1-43: Feeder Drive Clutch Assembly/ FL80026 &amp; 18020-074

Item	Part Number	Qty	Description
1	18020-074D	1	CLUTCH/ BRAKE PULLEY SHAFT ASSEMBLY 24 VOLT DMT (DC SYSTEMS)
2	FL84024	1	CLUTCH/ BRAKE 24 VOLT TERMINATED FOR DC SYSTEMS
3	18006-008	1	PULLEY, DOUBLE 20L50
4	592-0023	1	PULLEY, 20XL037 1/2"BORE
5	18004-015	1	SHAFT CLUTCH
6	50-0704	1	WASHER. NYLON 1/2 X 1/16
7	185-0308	1	COLLAR. SPLIT 1/2"
8	158-0027	2	WOODRUFF KEY 1/8 X 3/4
9	72-0499	3	SCREW, PAN HD 6-32 X 1-4
10	591-0289	1	BEARING. SEALED 1/2 X 1 1/8
11	18007-051	1	BLOCK. BEARING



## **2 FlowMaster Feeders FX10/ FX14**



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## FlowMaster Insert Feeders

FX-10 FlowMaster systems built prior to March of 2004 and FX-14 FlowMaster systems built prior to August of 2004 used Sure-Feed Engineering's dual Rotating separator and center drive transport system for insert separation and delivery.

FX-10 FlowMaster systems built since March of 2004 and FX-14 FlowMaster systems built since August of 2004 and some earlier systems retrofitted in the field use Pitney Bowes' stationary center Nip Separator and dual drive transport system for insert separation and delivery.

While many parts are shared between the 6x9 and 10x13 feeders, there are some parts specific to each feeder. Parts drawings that deal with a specific size feeder will be clearly labeled.

This section will cover both these feeder designs, beginning with the center Nip feeder.

### ***Feeder Retrofit Kits***

Three retrofit kits are available for the Flowmaster Insert Feeder. Two convert a feeder from Sure-Feed Engineering's dual rotating Separator to Pitney Bowes' stationary center Nip Separator and one will convert the Center Nip Separator from a urethane slug to stone with shield.

FL90800 10x13 (FX-10) Center Nip Conversion Kit

FL90801 6x9 (FX-14) Center Nip Conversion Kit

\* These kits take 4 hours per feeder to install and are not inexpensive

FL80268 Stone Separator Kit

\* This kit can only be installed on a center Nip Feeder and should take less than 15 minutes per feeder to install

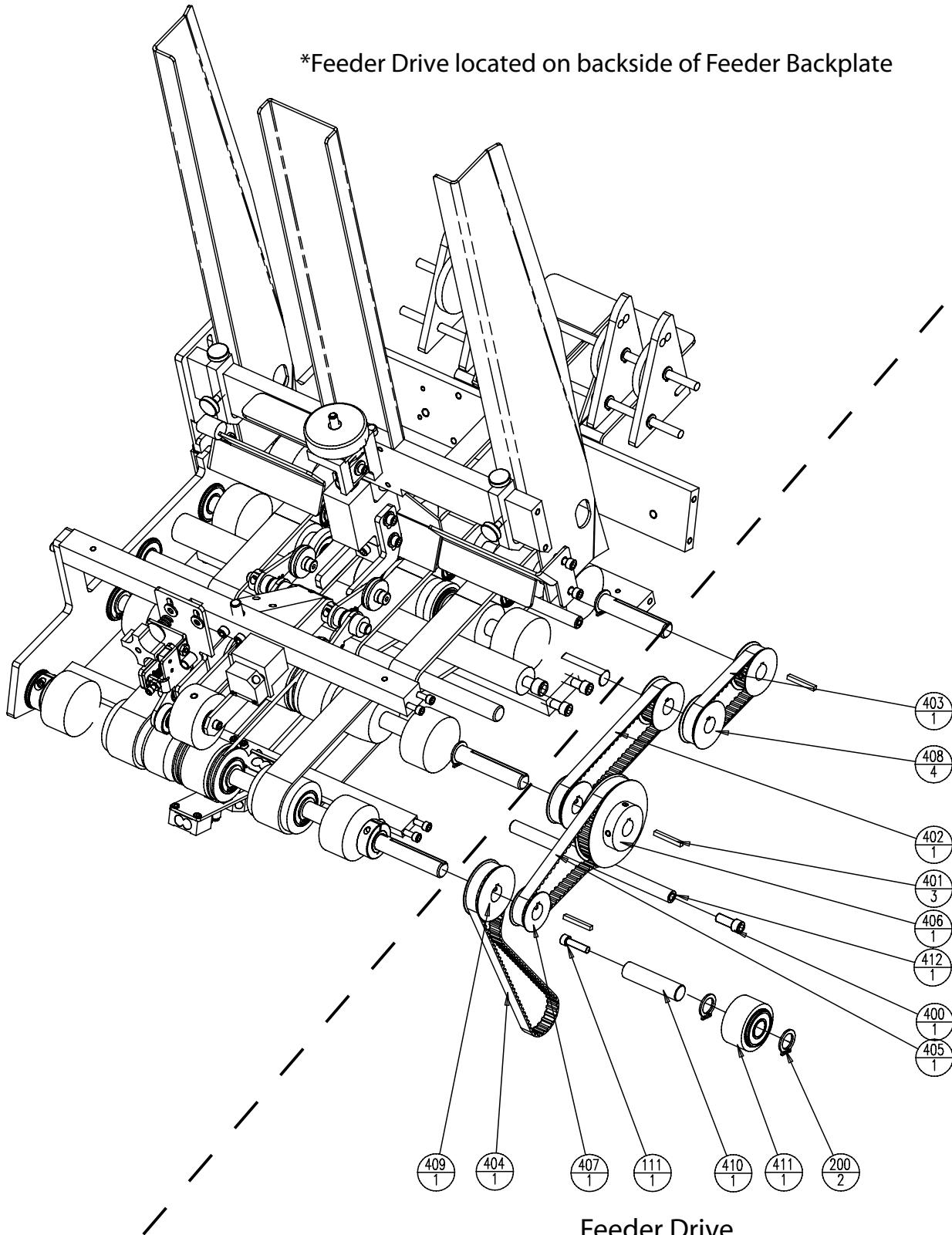
### ***Upgraded Feeder Belts***

A new style grooved red gum belt is now available for the FlowMaster Insert Feeders. It is a direct replacement for the flat red gum belt as has been able to feed materials that the Flat belts could not. It is the suggested replacement belt for all center Nip feeders.

FL65800 Grooved Red Gum Belt

Figure 2-1: Center Nip Feeder/ FL2b\_4/ Used Since 3/2004

10x13

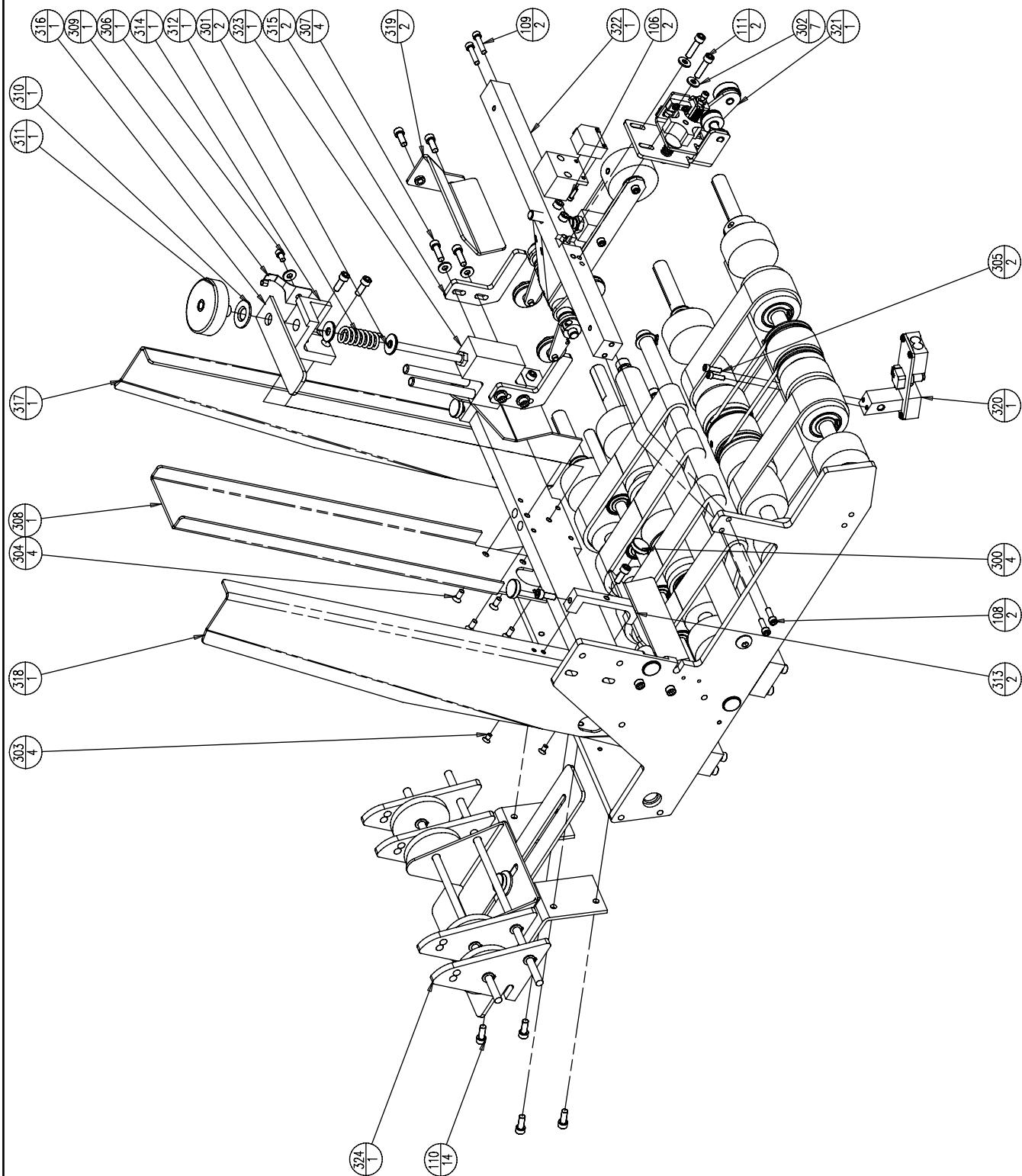


## Parts List 2-1: Center Nip Feeder/FL2b\_4/ Used Since 3/2004

Item	Part Number	Qty	Description
111	81-0837	10	SCREW CAP HEX SOCKET
400	81-1220	1	SCREW SOCKET HEAD CAP 1/4-20X 5/8
401	158-0109	3	KEY SQUARE
402	566-0017	1	BELT TIMING 1/5 XL 65T
403	566-0025	1	BELT TIMING 1/5 P(XL)
404	566-0028	1	BELT TIMING 1/5 P(XL)
405	566-0212	1	BELT TIMING 1/5 P (XL)
406	592-0011	1	PULLEY, TIMING XL
407	592-0017	1	PULLEY, TIMING XL
408	592-0023	4	PULLEY, TIMING XL
409	592-0024	1	PULLEY, TIMING XL
410	18004-031	1	SHAFT, STUB IDLER
411	18006-011	1	PULLEY, IDLER
412	FL11005	1	FEEDER WIRING STAND-OFF
413	FL80189	1	ASSY - FEEDER ELECTRICAL - DC

Figure 2-2: Center Nip Feeder/ FL2b

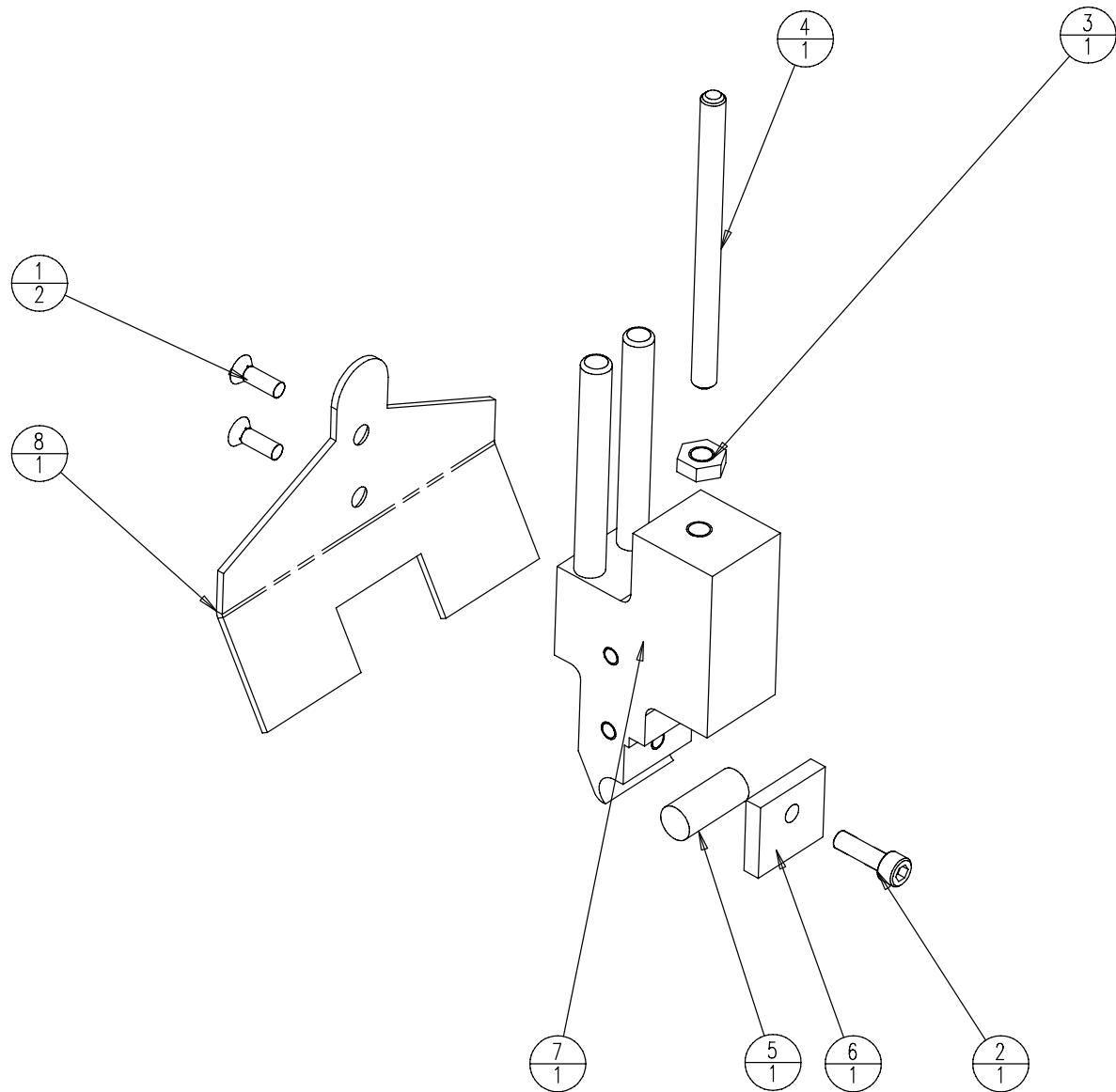
10x13



## Parts List 2-2: Center Nip Feeder/ FL2b

Item	Part Number	Qty	Description
106	81-0281	6	SCREW CAP HEX SOCKET
108	81-0613	4	SCREW CAP HEX SOCKET
109	81-0617	4	SCREW CAP HEX SOCKET
111	81-0837	10	SCREW CAP HEX SOCKET
300	13-0102	4	KNOB, #10 SCREW
301	20-0012	2	SPACER PLAIN
302	50-0009	7	WASHER PLAIN
303	74-0499	4	SCREW FLAT HEAD PH
304	74-0611	4	SCREW FLAT HEAD PH
305	81-0503	2	SCREW CAP HEX SOCKET
306	81-0609	1	SCREW CAP HEX SOCKET
307	81-0835	4	SCREW CAP HEX SOCKET
308	10005-002	1	FRONT PAPER GUIDE
309	3123017	1	SPRING DETENT BLUE
310	3150083	1	INSRT ADJUSTING NUT BLUE
311	3186013	1	KNOB SEP ROLL ADJ 1050 POU
312	FL20006	1	SEPARATOR SPRING - HEAVY
313	FL44000	2	BRACKET, SIDE GUIDE
314	FL45814	1	SEPARATOR BLOCK ADJUSTER
315	FL46800	2	GUIDE SEP EXIT
316	FL50802	1	SEPARATOR JAM RELEASE
317	FL51801	1	SIDE GUIDE LH
318	FL51802	1	SIDE GUIDE RH
319	FL51805	2	HOPPER SHIELD
320	FL80053	1	FEEDER TRACKING PC ASSY
321	FL80067	1	DOUBLE DETECT ASSY
322	FL80252	1	TRANSPORT ASSY 10X13
323	FL80253	1	SEPARATOR ASSY
324	FL80257	1	PAPER SUPPORT 10X13

Figure 2-3: Separator Assembly Center Nip Feeder/ FL80253

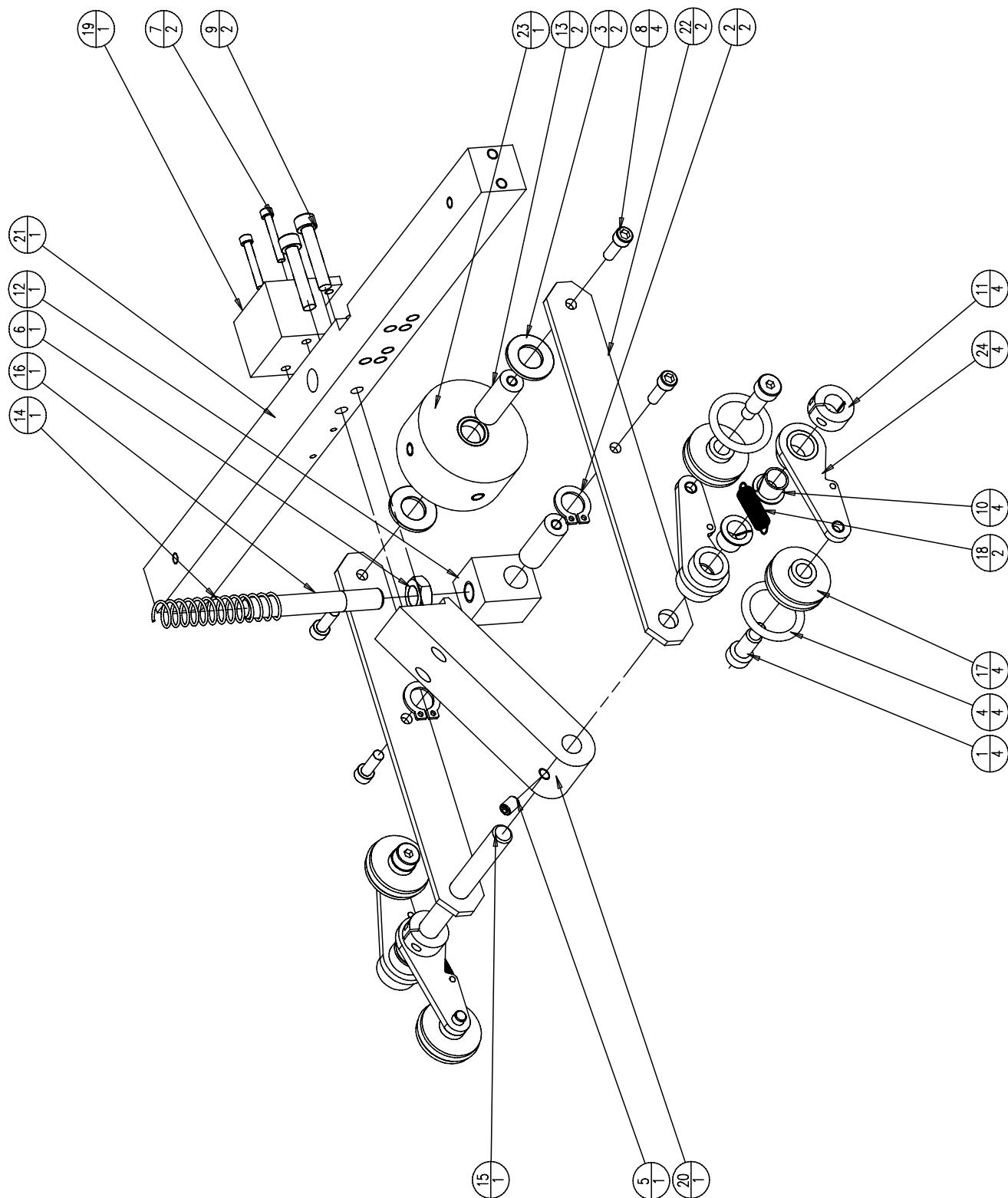
**Standard Center Nip Separator**

## Parts List 2-3: Seperator Assembly Center Nip Feeder/ FL80253

Item	Part Number	Qty	Description
1	74-0613	2	SCREW FLAT HEAD PH
2	81-0835	1	SCREW CAP HEX SOCKET
3	317122	1	NUT LOCK STANDARD B3130
4	FL11801	1	STUD SEPARATOR ADJUSTER
5	FL17800	1	SEPARATOR ROD
6	FL45811	1	SEPARATOR CLAMP
7	FL45813	1	SEPARATOR BLOCK
8	FL51800	1	SHROUD, SEPARATOR

Figure 2-4: Transport Assembly Center Nip Feeder/ FL80252

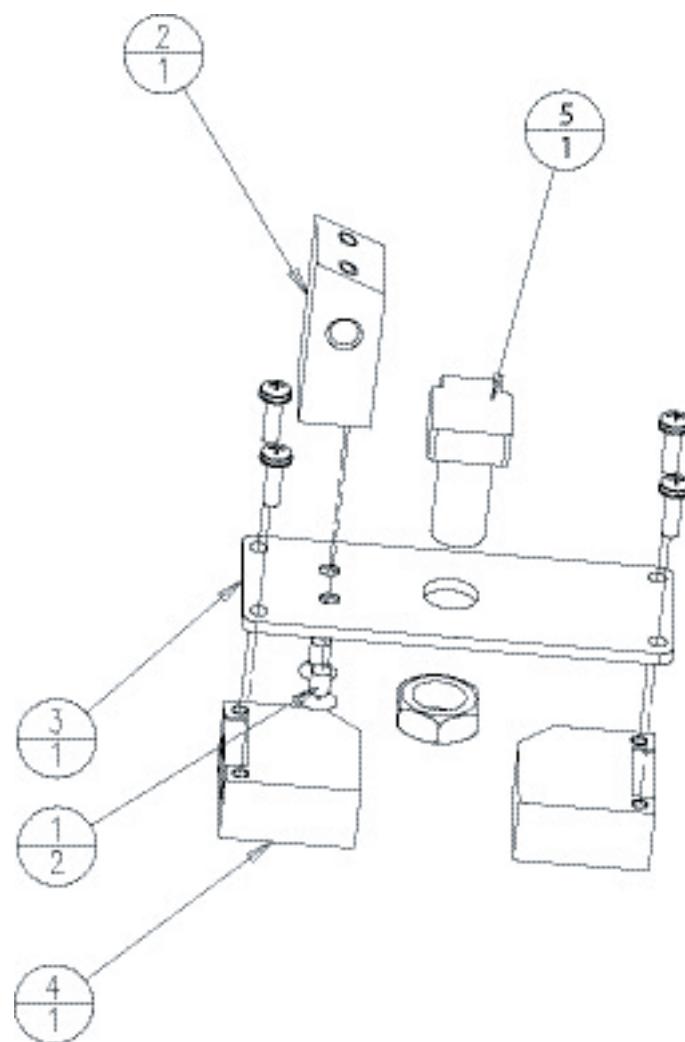
10x13



## Parts List 2-4: Transport Assembly Center Nip Feeder/ FL80252

Item	Part Number	Qty	Description
1	13-1021	4	SCREW SOCKET HEAD SHOULDER HEX 10-32X .500
2	26-0956	2	RING RETAINING EXT
3	50-0703	2	WASHER, PLAIN NYLON 6/6
4	54-0122	4	O RING .075 ID
5	75-0553	1	SET SCREW HEX SOCKET
6	80-0026	1	NUT HEX
7	81-0287	2	SCREW CAP HEX SOCKET
8	81-0613	4	SCREW CAP HEX SOCKET
9	81-0841	2	SCREW CAP HEX SOCKET
10	173-0027	4	BEARING FLANGED SNAP IN
11	185-0402	4	COLLAR SPLIT ONE-PIECE
12	10007-012	1	BLOCK, TONGUE ADJUST
13	10012-003	2	SPACER
14	99005-006	1	SPRING, ACCELERATOR ADJ.
15	FL10800	1	PIVOT SHAFT TRANSPORT
16	FL11800	1	STUD SPRING TRANSPORT
17	FL13801	4	TRANSPORT IDLER ROLLER
18	FL20800	2	TRANSPORT IDLER SPRING
19	FL45146	1	BRACKET, PC
20	FL45807	1	SUPPORT BAR TRANSPORT 10X13
21	FL45812	1	BAR DOUBLE DETECT
22	FL50800	2	TRANSPORT SIDE PLATE 10X13
23	FL80803	1	EXIT ROLLER TRANSPORT
24	FL80804	4	TRANSPORT IDLER ARM

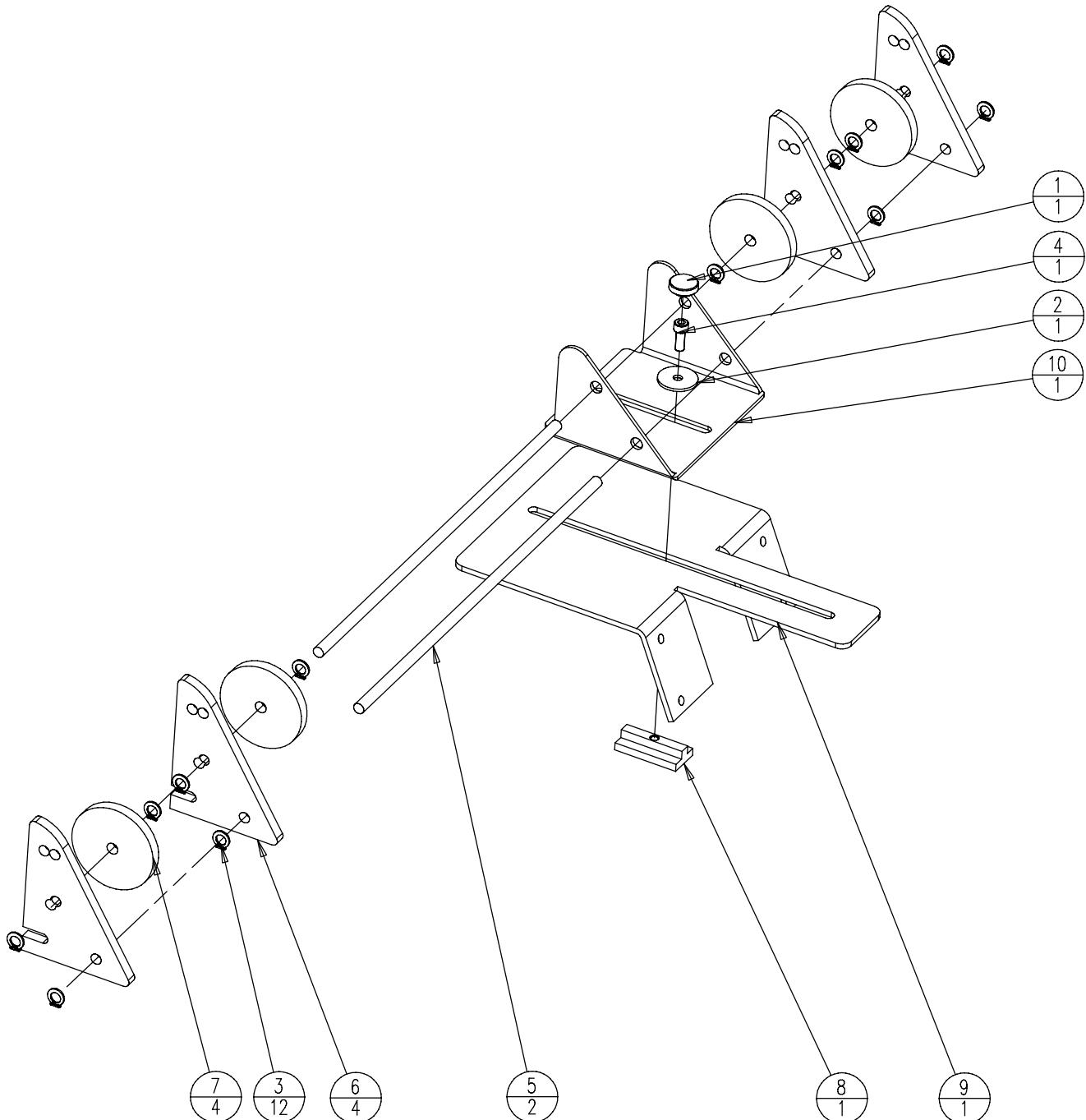
Figure 2-5: Tracking PC Assembly/ FL80053



## Parts List 2-5: Tracking PC Assembly/ FL80053

Item	Part Number	Qty	Description
1	74-0499	2	SCREW FLAT HEAD PH
2	FL45054	1	FEEDER TRACKING PC BLOCK
3	FL50014	1	FEEDER TRACKING PC PLATE
4	FL84017EE	1	THRU-BEAM SENSOR - FEEDER JAM
5	R692043	1	OPTICAL DETECTOR

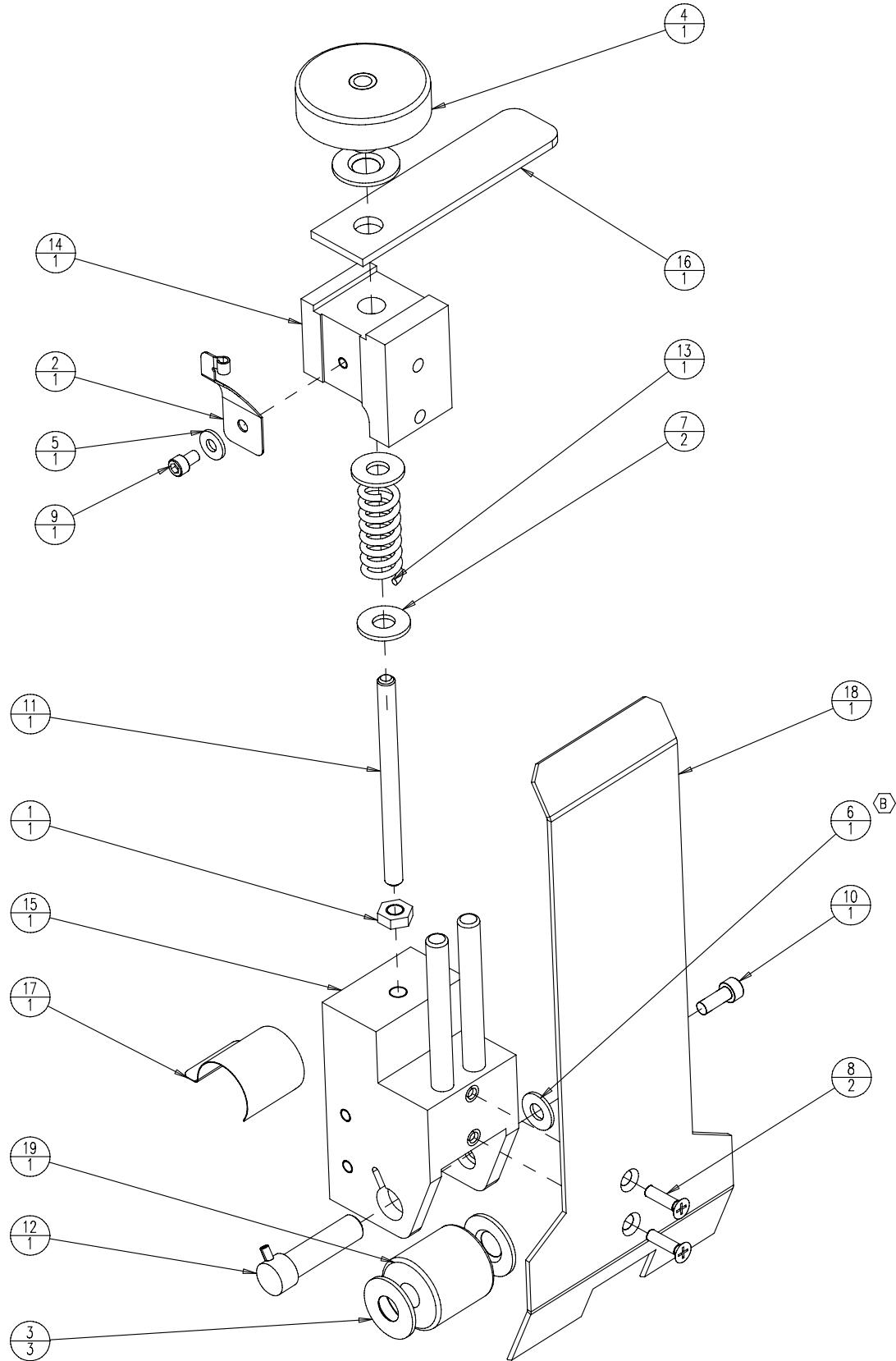
Figure 2-6: Paper Prop for Center Nip Feeder/ FL80257

**Center Nip Feeder Only**

## Parts List 2-6: Paper Prop for Center Nip Feeder/ FL80257

Item	Part Number	Qty	Description
1	13-0102	1	KNOB, #10 SCREW
2	20-0166	1	WASHER PLAIN
3	26-0950	12	RING RETAINING EXT
4	81-0833	1	SCREW CAP HEX SOCKET
5	10004-006	2	SHAFT PAPER SLIDE
6	10005-016	4	PAPER SLIDE
7	10006-033	4	ROLLER, PAPER SLIDE FEEDER
8	FL44800	1	NUT PAPER SLIDE
9	FL51803	1	SUPPORT PAPER SLIDE 10X13
10	FL51804	1	BRACKET PAPER SLIDE

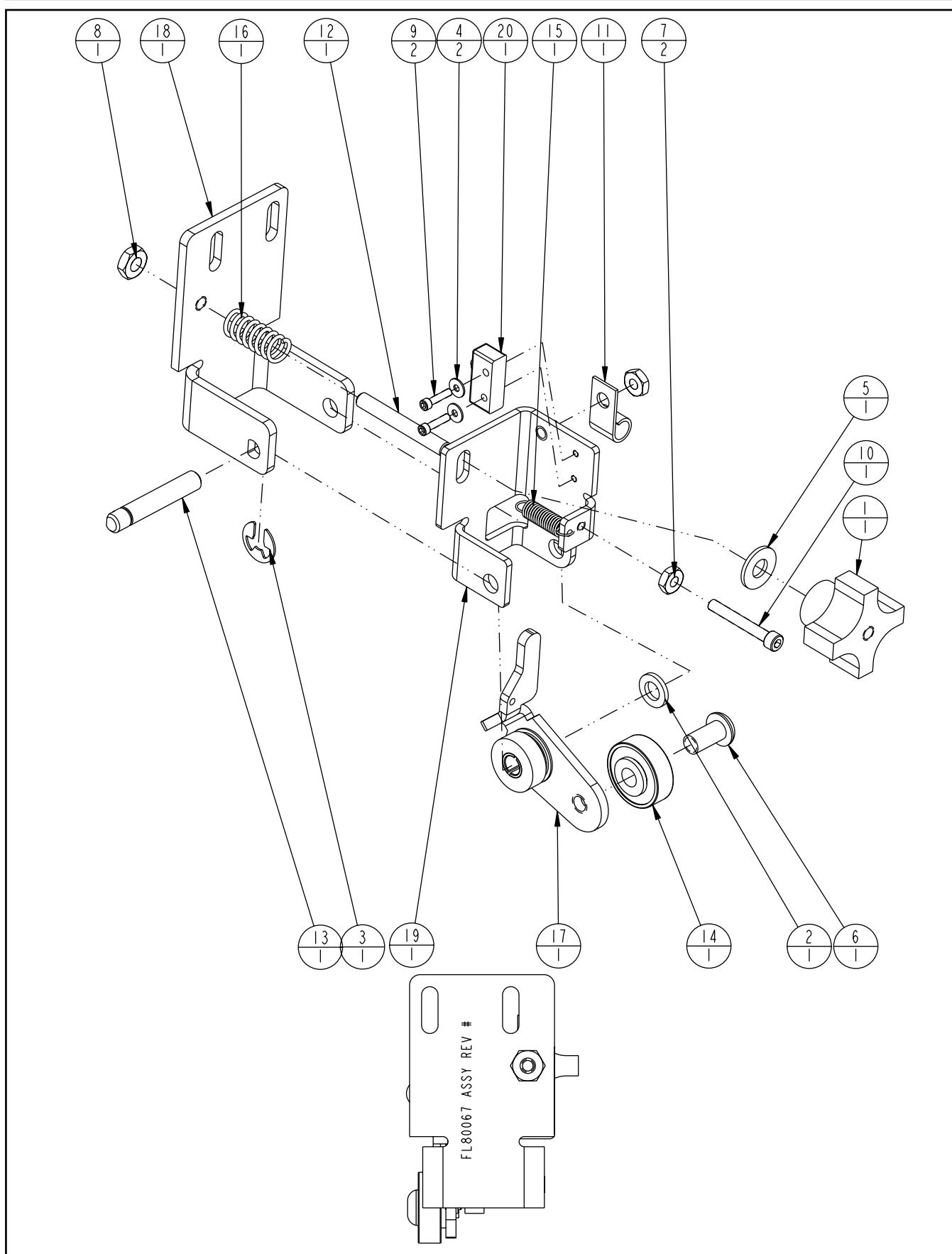
Figure 2-7: Separator Stone Assembly/ FL80268

**Optional Stone Separator for Center Nip Feeder**

## Parts List 2-7: Separator Stone Assembly/ FL80268

Item	Part Number	Qty	Description
1	317122	1	NUT LOCK STANDARD B3130
2	3123017	1	SPRING DETENT BLUE
3	3150083	3	INSRT ADJUSTING NUT BLUE
4	3186013	1	KNOB SEP ROLL ADJ 1050 POU
5	50-0009	1	WASHER PLAIN
6	50-0017	1	WASHER PLAIN .245 ID
7	50-0020	2	WASHER LOC-16
8	74-0615	2	SCREW FLAT HEAD PH
9	81-0609	1	SCREW CAP HEX SOCKET
10	81-0833	1	SCREW CAP HEX SOCKET
11	FL11801	1	STUD SEPARATOR ADJUSTER
12	FL16008	1	STONE SPINDLE
13	FL20006	1	SEPARATOR SPRING - HEAVY
14	FL45814	1	SEPARATOR BLOCK ADJUSTER
15	FL46028	1	BLOCK, SEPARATOR
16	FL50802	1	SEPARATOR JAM RELEASE
17	FL51170	1	STONE SHIELD
18	FL51817	1	SHROUD, SEPARATOR
19	Y180032	1	STONE-SEPARATOR

Figure 2-8: Double Detect Assembly/ FL80067



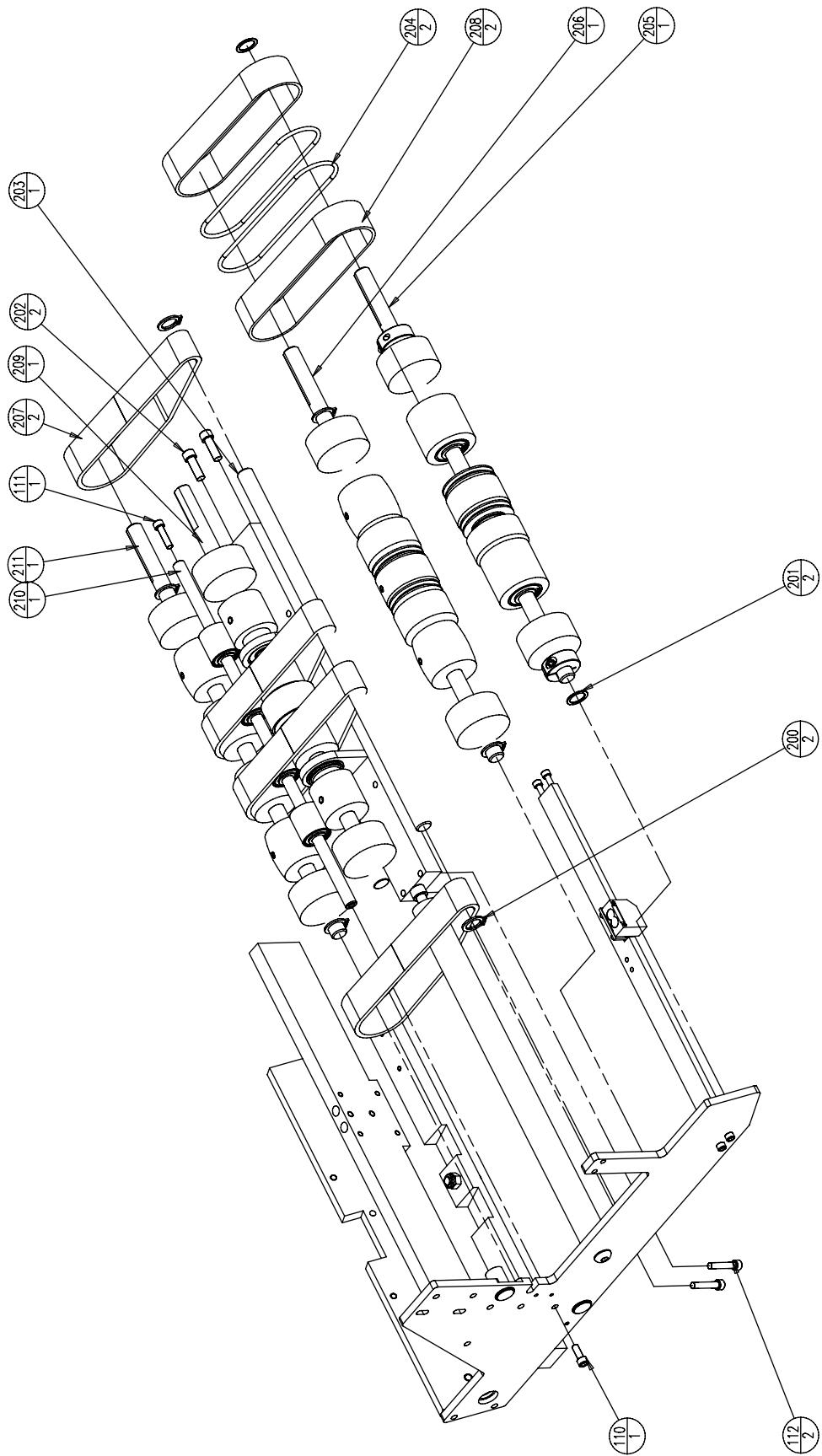
## Parts List 2-8: Double Detect Assembly/ FL80067

Item	Part Number	Qty	Description
1	19-0014	1	KNOB CONTROL
2	20-0065	1	SPACER PLAIN
3	23-0025	1	RING 'E' RETAINING
4	50-0003	2	WASHER
5	50-0017	1	WASHER LOC-09
6	68-1218	1	SCREW BTNHD CAP HEX SKT
7	80-0010	2	NUT
8	80-0016	1	NUT
9	81-0006	2	SCREW CAP HEX SOCKET
10	81-0511	1	SCREW CAP HEX SOCKET
11	227-0646	1	CLAMP, CABLE 1/4
12	99032-003	1	STUD, 10-32 X 1-1/2
13	FL10024	1	DOUBLE DETECT PIVOT
14	FL11004	1	DOUBLE DETECT ROLLER STUD
15	FL20003	1	EXTENSION SPRING DOUBLE DETECT
16	FL20004	1	COMPRESSION SPRING DOUBLE DETECT
17	FL50018	1	DOUBLE DETECT ARM
18	FL51088	1	DOUBLE DETECT BRACKET
19	FL51089	1	DOUBLE DETECT SWITCH MOUNT
20	FL83062	1	SWITCH WITH HARNESS

**\*A PREVIOUS DOUBLE DETECT DESIGN WAS USED ON EARLIER DC FEEDERS - NO REPLACEMENT PARTS ARE AVAILABLE FOR THIS DESIGN. IF REPAIR IS NECESSARY, REPLACE THE ENTIRE ASSY WITH FL80067.**

Figure 2-9: Center Nip Feeder/ FL2B

10x13

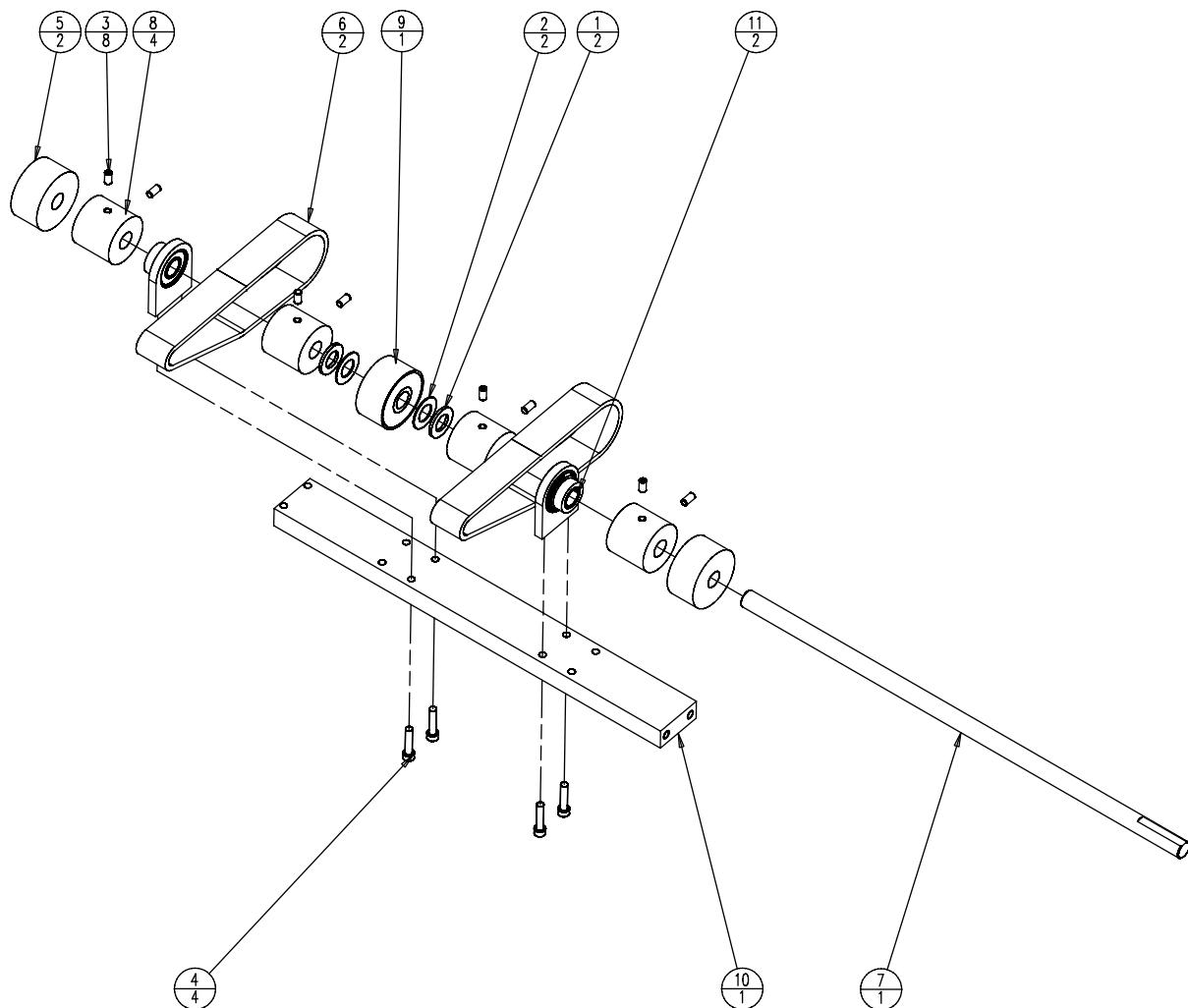


## Parts List 2-9: Center Nip Feeder/ FL2b

Item	Part Number	Qty	Description
111	81-0837	10	SCREW CAP HEX SOCKET
200	26-0957	2	RING RETAINING EXT
201	50-0722	2	WASHER, PLAIN NYLON 6/6
202	81-1222	2	SCREW CAP HEX SOCKET
203	18004-007	1	SHAFT, FRONT INSERTER
204	18014-007	2	O-RING ACCELERATOR 10X13
205	18020-110	1	DOUBLE DETECT SHAFT ASSY 10X13
206	18020-111	1	BELT DRIVE SHAFT ASSY 10X13
207	99000-004	4	BELT, RED GUM
	FL65800	4	BELT, RED GUM GROOVED (OPTIONAL-PREFERRED)
208	99000-042	2	BELT, ACCELERATOR
209	FL80251	1	SEP SHAFT ASSY
210	FL80255	1	IDLER SUPPORT SHAFT ASSY
211	FL80256	1	BELT DRIVE SHAFT ASSY

Figure 2-10: Shaft Assembly/ FL80251

6x9/ 10x13

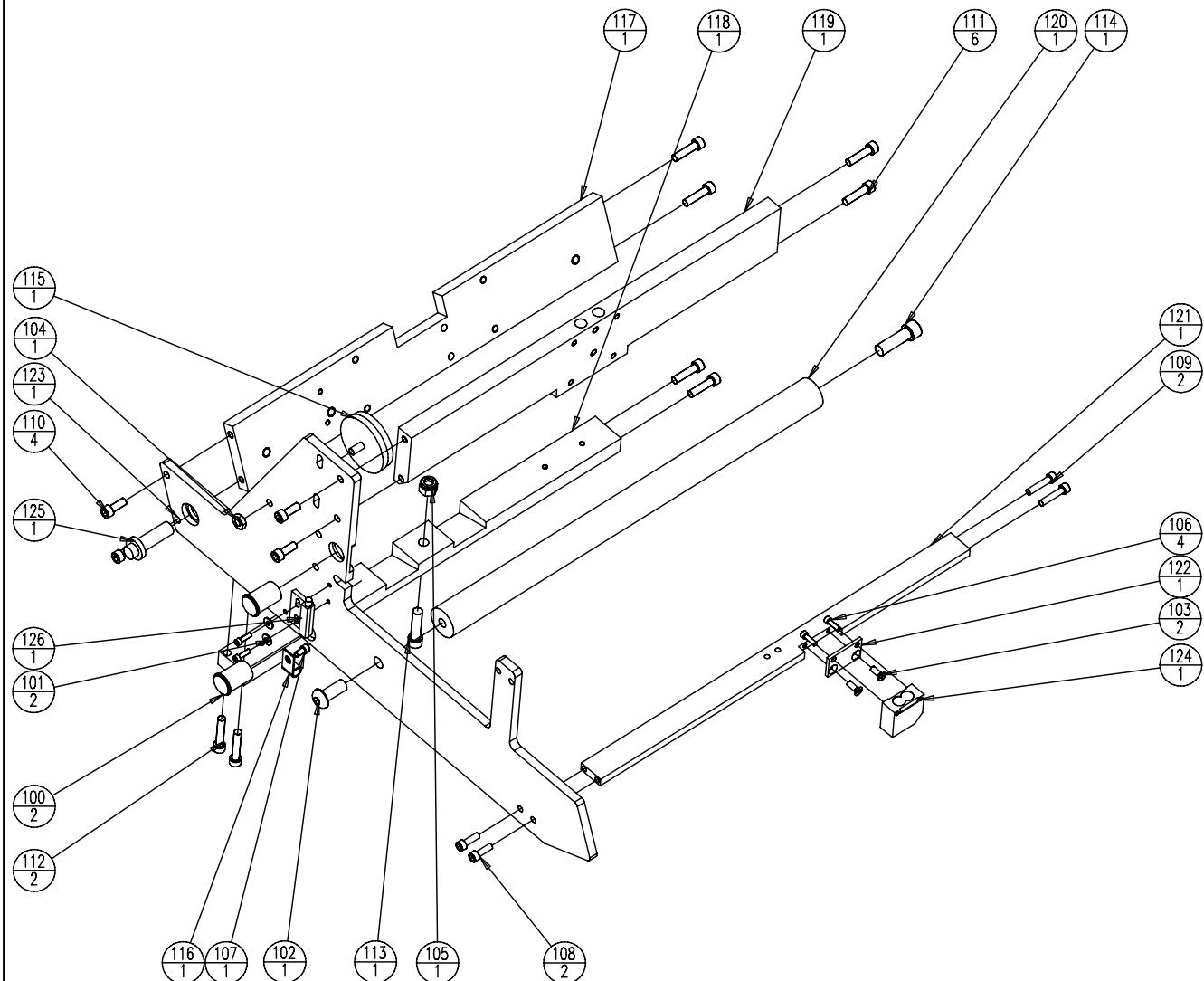


## Parts List 2-10: Shaft Assembly/ FL80251

Item	Part Number	Qty	Description
1	20-0308	2	SPCR PLAIN NYLON .500 .9
2	20-0315	2	SPCR PLAIN NYLON
3	75-0565	8	SET SCREW HEX SOCKET
4	81-0839	4	SCREW CAP HEX SOCKET
5	10006-007	2	ROLLER FEEDER
6	99000-004	2	BELT, RED GUM
7	FL10801	1	SHAFT SEPERATOR DRIVE
8	FL13004	4	PULLEY, MATE CROWNED
9	FL13800	1	SEPARATOR ROLLER
10	FL45804	1	SEPARATOR SHAFT SUPPORT BAR
11	FL45805	2	SEPARATOR BEARING BLOCK

Figure 2-11: Center Nip Feeder/ FL2B

10x13

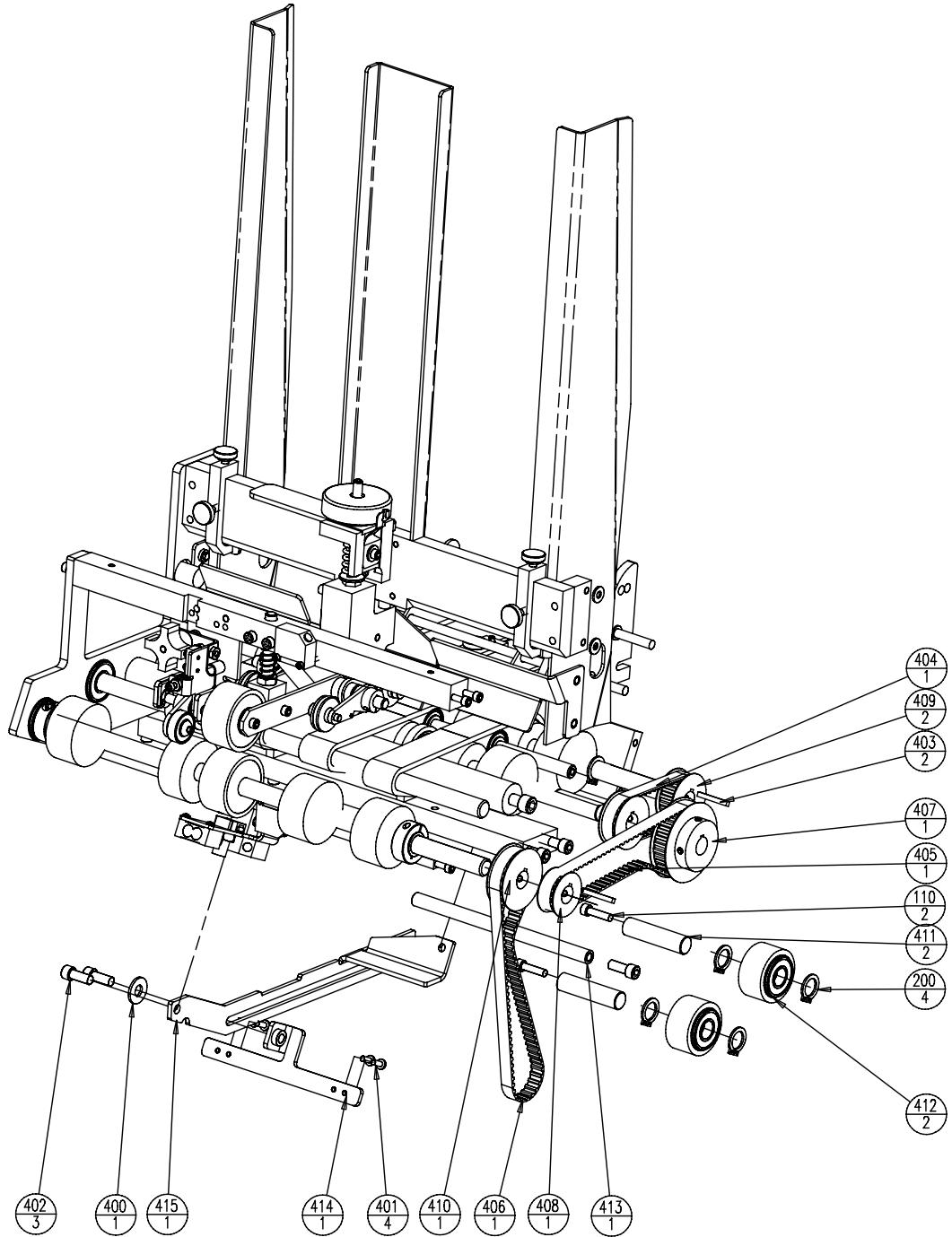


## Parts List 2-11: Center Nip Feeder/ FL2b

Item	Part Number	Qty	Description
100	10-0113	2	MAGNETIC CATCH SNAP-IN
101	50-0005	2	WASHER PLAIN
102	68-1332	1	SCREW BTNHD CAP HEX SKT
103	74-0501	2	SCREW FLAT HEAD PH
104	80-0016	1	NUT HEX
105	80-0074	1	NUT SELF LOCKING
106	81-0281	6	SCREW CAP HEX SOCKET
107	81-0499	1	SCREW CAP HEX SOCKET
108	81-0613	4	SCREW CAP HEX SOCKET
109	81-0617	4	SCREW CAP HEX SOCKET
110	81-0833	19	SCREW CAP HEX SOCKET
111	81-0837	10	SCREW CAP HEX SOCKET
112	81-0841	4	SCREW CAP HEX SOCKET
113	81-1226	1	SCREW CAP HEX SOCKET
114	81-1336	1	SCREW CAP HEX SOCKET
115	213-1911	1	SW.ACC. REFLECTOR TARGETS
116	227-0646	1	CLAMP, CABLE 1/4
117	10008-019	1	BACK SUPPORT 10X13
118	10008-020	1	ELEVATOR BELT SPRT
119	18003-010	1	BAR, CROSS FEEDER
120	18004-003	1	SHAFT, MAIN SUPPORT
121	18008-013	1	BAR, SENSOR MOUNTING
122	FL50000	1	PLATE, SENSOR ADAPTOR (6X9)
123	FL80259	1	SIDE FRAME, 10X13 FEEDER
124	FL84017AA	1	THRU-BEAM SENSOR - FEEDER ARMING
125	R683123	1	ASSY-LED LAMP
126	Y583035	1	HARNESS ASSY-SWITCH 2 POLE REED

Figure 2-12: Center Nip Feeder/ FL2A

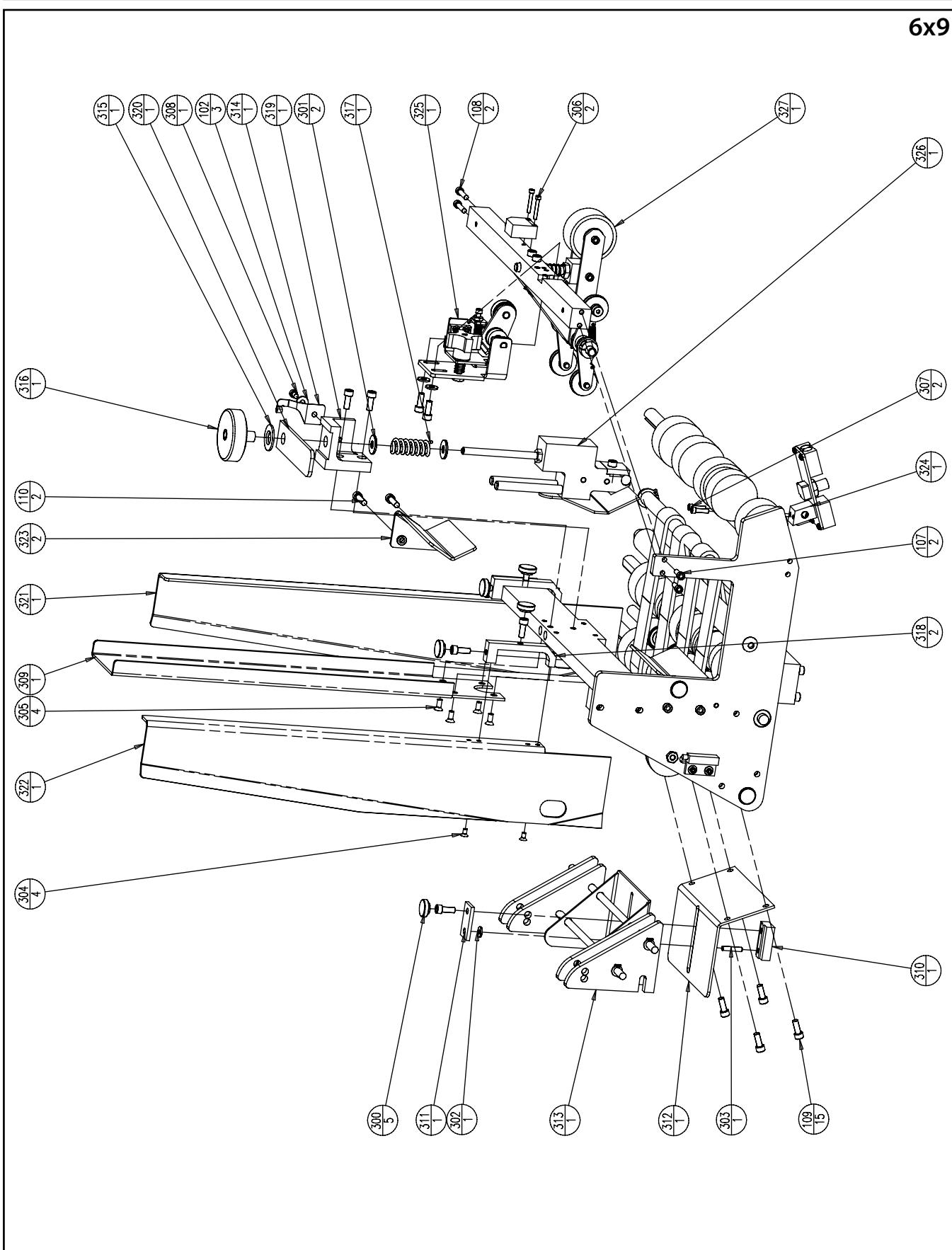
6x9



## Parts List 2-12: Center Nip Feeder/ FL2A

Item	Part Number	Qty	Description
400	50-0020	1	WASHER LOC-16
401	72-0501	4	SCREW & LK WASH
402	81-1220	3	SCREW SOCKET HEAD CAP 1/4-20X 5/8
403	158-0109	2	KEY SQUARE
404	566-0025	1	BELT TIMING 1/5 P(XL)
405	566-0026	1	BELT TIMING 1/5 P(XL)
406	566-0028	1	BELT TIMING 1/5 P(XL)
407	592-0012	1	PULLEY, TIMING XL
408	592-0017	1	PULLEY, TIMING XL
409	592-0023	2	PULLEY, TIMING XL
410	592-0024	1	PULLEY, TIMING XL
411	18004-031	2	SHAFT, STUB IDLER
412	18006-011	2	PULLEY, IDLER
413	FL11005	1	FEEDER WIRING STAND-OFF
414	FL51104	1	DRAG STRAP BRACKET
415	FL51806	1	DRAG STRAP MOUNT 6X9

**Figure 2-13: Center Nip Feeder/ FL2A**

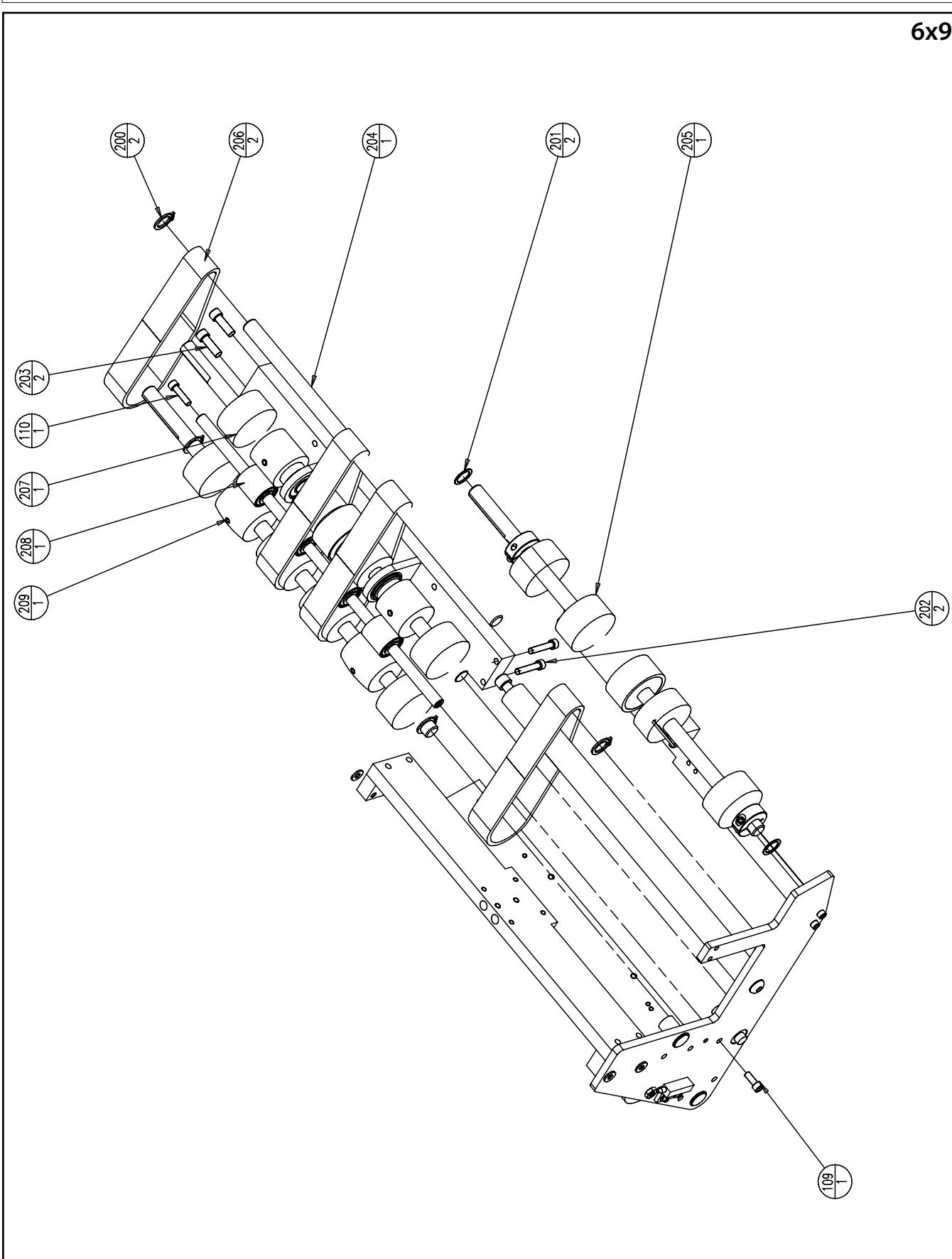


## Parts List 2-13: Center Nip Feeder/ FL2A

Item	Part Number	Qty	Description
300	13-0102	5	KNOB, #10 SCREW
301	20-0012	2	SPACER PLAIN
302	50-0007	1	WASHER .151/.164 X .370/.390""
303	51-0098	1	PIN ROLL
304	74-0499	4	SCREW FLAT HEAD PH
305	74-0611	4	SCREW FLAT HEAD PH
306	81-0287	2	SCREW CAP HEX SOCKET
307	81-0503	2	SCREW CAP HEX SOCKET
308	81-0609	1	SCREW CAP HEX SOCKET
309	10005-002	1	FRONT PAPER GUIDE
310	10007-003	1	NUT, PAPER SLIDE
311	10007-004	1	WASHER, PAPER SLIDE
312	18005-005	1	SUPPORT, PAPER SLIDE
313	18020-072	1	PAPER GUIDE ASSY
314	3123017	1	SPRING DETENT BLUE
315	3150083	1	INSRT ADJUSTING NUT BLUE
316	3186013	1	KNOB SEP ROLL ADJ 1050 POU
317	FL20006	1	SEPARATOR SPRING - HEAVY
318	FL44000	2	BRACKET, SIDE GUIDE
319	FL45814	1	SEPARATOR BLOCK ADJUSTER
320	FL50802	1	SEPARATOR JAM RELEASE
321	FL51801	1	SIDE GUIDE LH
322	FL51802	1	SIDE GUIDE RH
323	FL51805	2	HOPPER SHIELD
324	FL80054	1	FDR TRACKING 6X9 PC ASSY
325	FL80067	1	DOUBLE DETECT ASSY
326	FL80253	1	SEPARATOR ASSY
327	FL80258	1	TRANSPORT ASSY 6X9

Figure 2-14: Center Nip Feeder/ FL2A

6x9

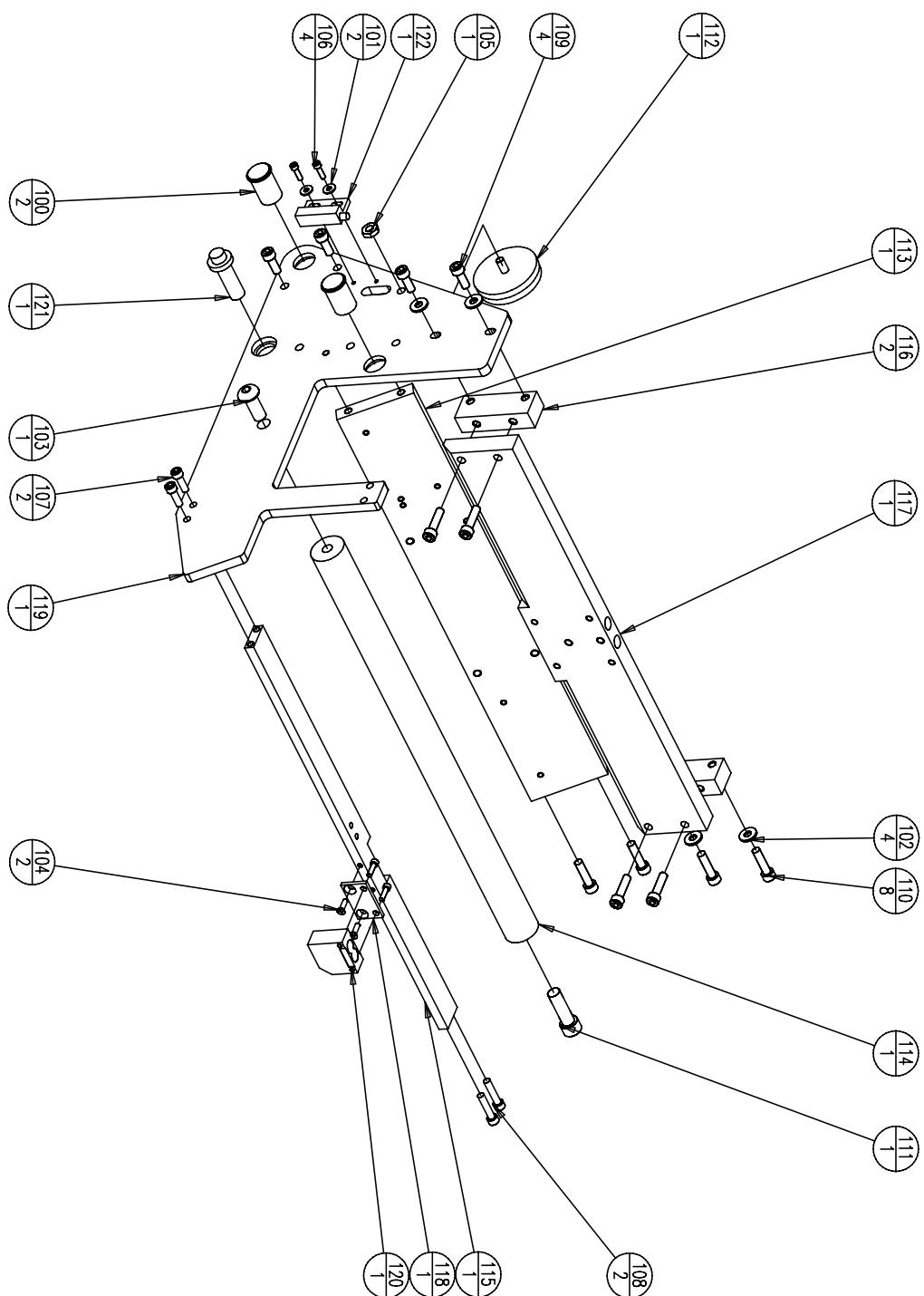


## Parts List 2-14: Center Nip Feeder/ FL2A

Item	Part Number	Qty	Description
200	26-0957	4	RING RETAINING EXT
201	50-0722	2	WASHER, PLAIN NYLON 6/6
202	81-0841	2	SCREW CAP HEX SOCKET
203	81-1222	2	SCREW CAP HEX SOCKET
204	18004-007	1	SHAFT, FRONT INSERTER
205	18020-106	1	DOUBLE DETECT SHAFT ASSY
206	99000-004	2	BELT, RED GUM
207	FL80251	1	SEP SHAFT ASSY
208	FL80255	1	IDLER SUPPORT SHAFT ASSY
209	FL80256	1	BELT DRIVE SHAFT ASSY

Figure 2-15: Center Nip Feeder/ FL2A

6x9

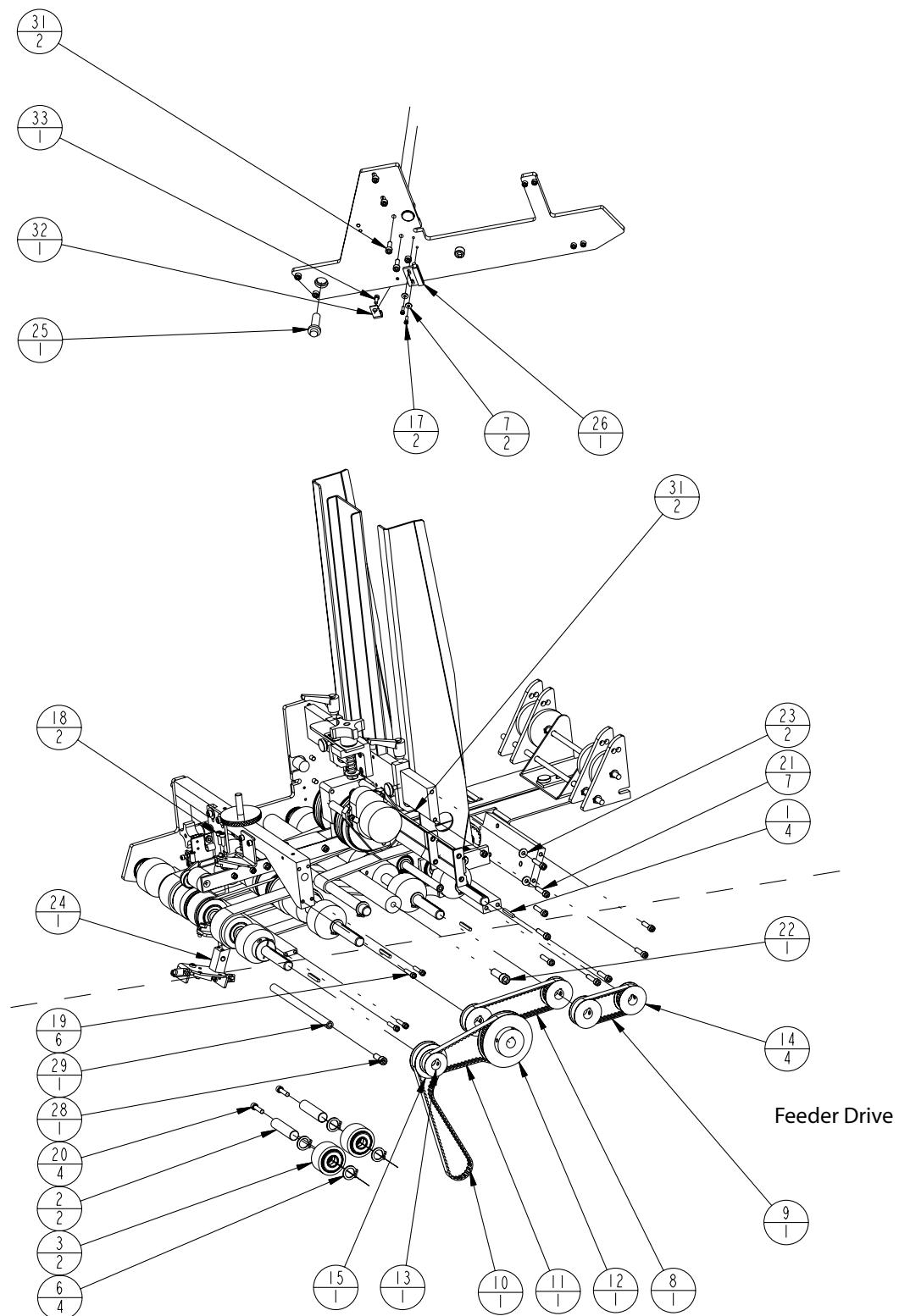


## Parts List 2-15: Center Nip Feeder/ FL2A

Item	Part Number	Qty	Description
100	10-0113	2	MAGNETIC CATCH SNAP-IN
101	50-0005	2	WASHER PLAIN
102	50-0009	7	WASHER PLAIN
103	68-1332	1	SCREW BTNHD CAP HEX SKT
104	74-0281	2	SCREW FLAT HEAD PH
105	80-0016	1	NUT HEX
106	81-0281	4	SCREW CAP HEX SOCKET
107	81-0613	4	SCREW CAP HEX SOCKET
108	81-0617	4	SCREW CAP HEX SOCKET
109	81-0833	20	SCREW CAP HEX SOCKET
110	81-0837	13	SCREW CAP HEX SOCKET
111	81-1336	1	SCREW CAP HEX SOCKET
112	213-1911	1	SW.ACC. REFLECTOR TARGETS
113	18003-011	1	BAR, BACK SUPPORT
114	18004-003	1	SHAFT, MAIN SUPPORT
115	18008-013	1	BAR, SENSOR MOUNTING
116	FL45806	2	BRIDGE SPACER
117	FL45810	1	BAR BRIDGE FDR
118	FL50000	1	PLATE, SENSOR ADAPTOR (6X9)
119	FL80254	1	SIDE FRAME 6X9 FDR
120	FL84017AA	1	THRU-BEAM SENSOR - FEEDER ARMING
121	R683123	1	ASSY-LED LAMP
122	Y583035	1	HARNESS ASSY-SWITCH 2 POLE REED

Figure 2-16: Dual Separator Feeder Drive/ FL8B/Used until 3/2004

10x13

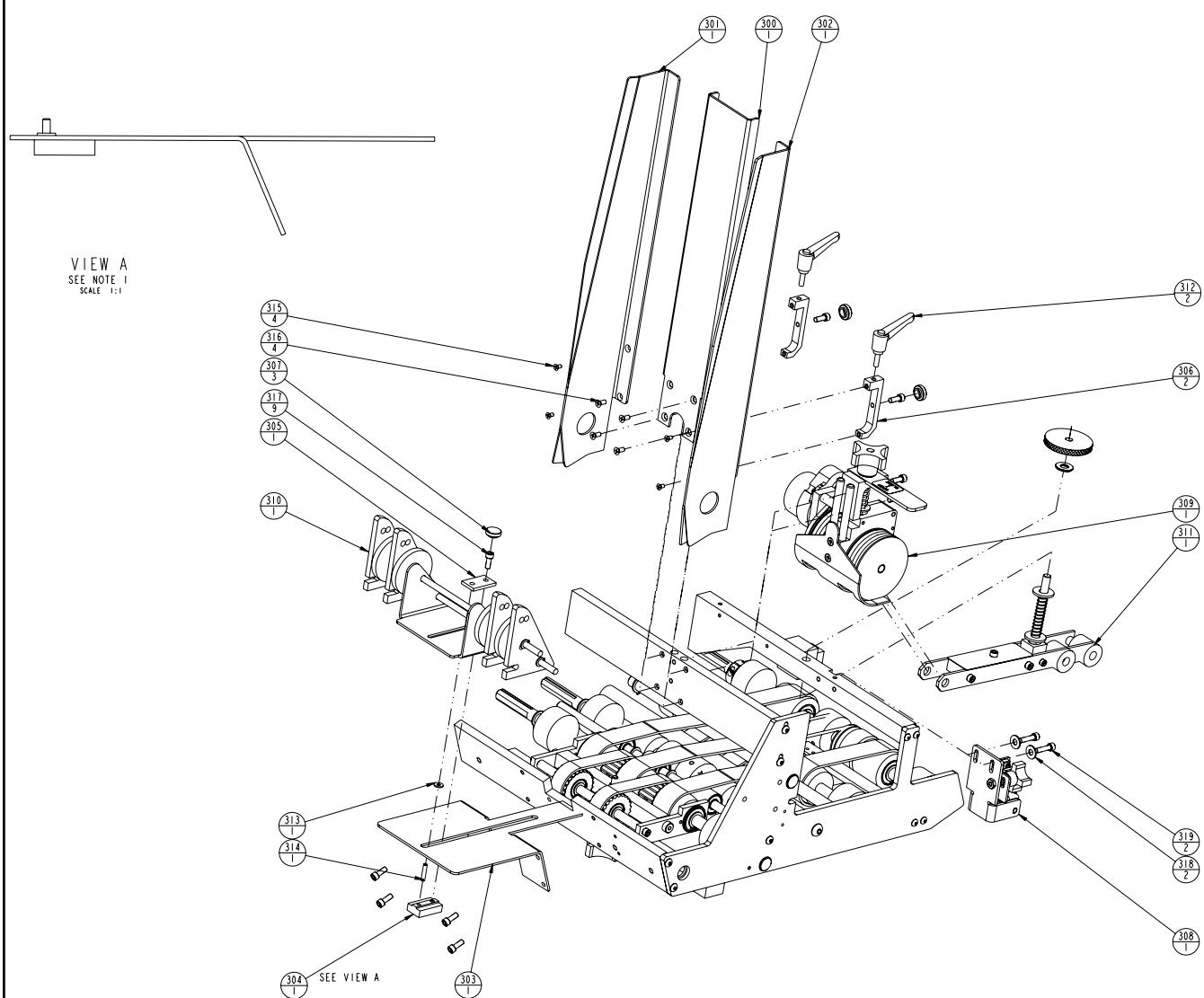


## Parts List 2-16: Dual Separator Feeder Assy/ FL8B

Item	Part Number	Qty	Description
1	158-0109	4	KEY SQUARE
2	18004-031	2	SHAFT, STUB IDLER
3	18006-011	2	PULLEY, IDLER
4	FL81021	1	10X13 FEEDER ASSY
6	26-0957	4	RING RETAINING EXT
7	50-0005	2	WASHER
8	566-0017	1	BELT TIMING 1/5 P(XL)
9	566-0025	1	BELT TIMING 1/5 P(XL)
10	566-0028	1	BELT TIMING 1/5 P(XL)
11	566-0212	1	BELT TIMING 1/5 P (XL)
12	592-0011	1	PULLEY, TIMING XL
13	592-0017	1	PULLEY, TIMING XL
14	592-0023	4	PULLEY, TIMING XL
15	592-0024	1	PULLEY, TIMING XL
17	81-0281	2	SCREW CAP HEX SOCKET
18	81-0613	2	SCREW CAP HEX SOCKET
19	81-0617	6	SCREW CAP HEX SOCKET
20	81-0837	4	SCREW CAP HEX SOCKET
21	81-0839	7	SCREW CAP HEX SOCKET
22	81-1336	1	SCREW CAP HEX SOCKET
23	50-0009	2	WASHER LOC-09
24	FL80179	1	10X13 TRACKING PC ASSY
25	R683123	1	ASSY-LED LAMP
26	Y583035	1	HARNESS ASSY-SWITCH 2 POLE REED
28	81-1220	1	SCREW CAP HEX SOCKET
29	FL11005	1	FEEDER WIRING STAND-OFF
31	81-0833	2	SCREW CAP HEX SOCKET
32	227-0646	1	CLAMP, CABLE 1/4
33	81-0501	1	SCREW CAP HEX SOCKET
34	FL80043	1	ASSY - FEEDER ELECTRICAL - DC

Figure 2-17: Feeder Assembly/ 18020-022

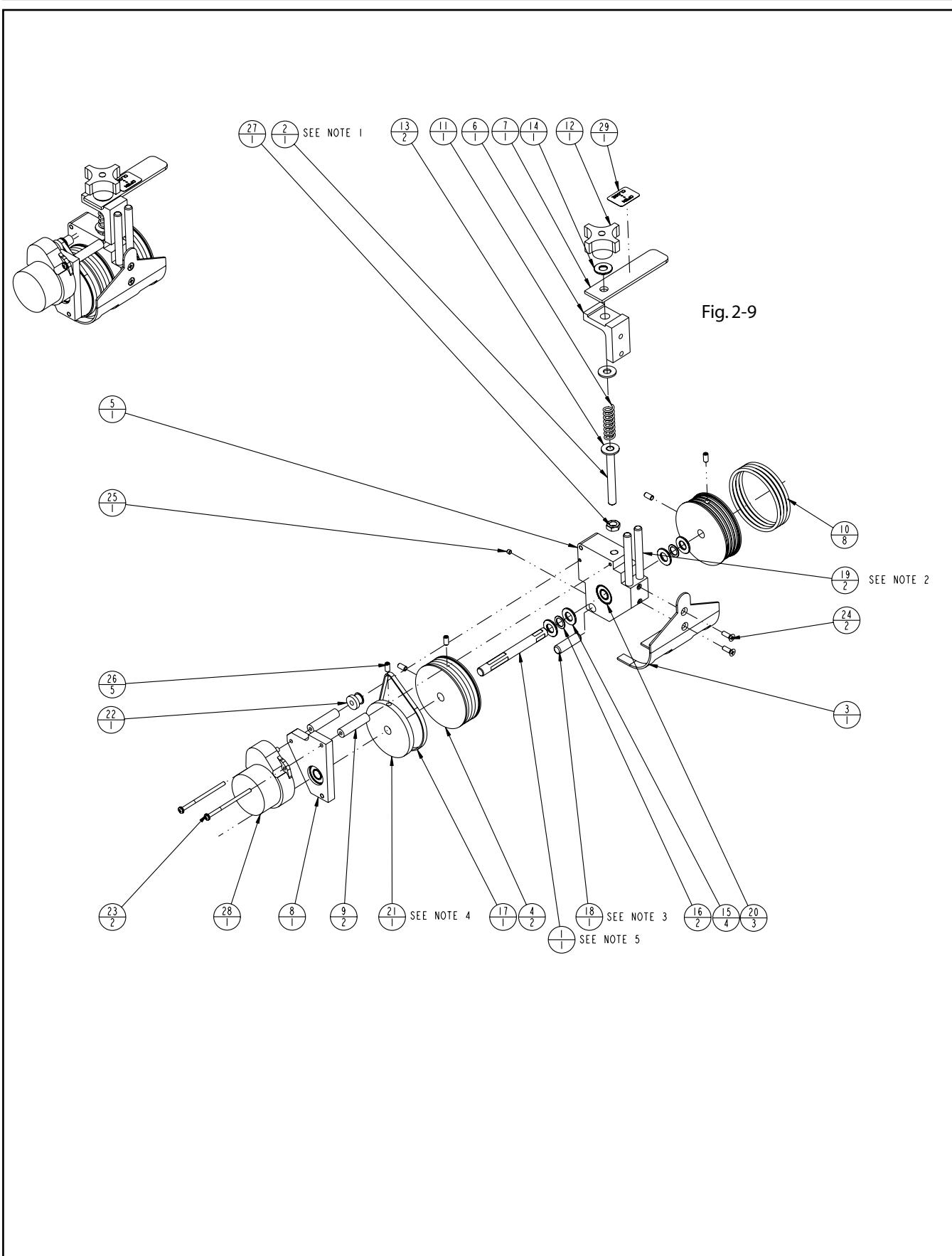
10x13



## Parts List 2-17: Feeder Assembly/ 18020-022

Item	Part Number	Qty	Description
300	10005-002	1	FRONT PAPER GUIDE
301	10005-008	1	SIDE GUIDE, LH
302	10005-009	1	SIDE GUIDE, RH
303	10005-024	1	SUPPORT, PAPER SLIDE 10X13
304	10007-003	1	NUT, PAPER SLIDE
305	10007-004	1	WASHER, PAPER SLIDE
306	FL44000	2	BRACKET, SIDE GUIDE
307	13-0102	3	KNOB KNULED SCREW THUMB
308	FL80067	1	DOUBLE DETECT ASSY
309	18020-069	1	SEPERATOR ASSEMBLY
310	18020-071	1	PAPER GUIDE ASSY W/ ROLLER
311	18020-095	1	TONGUE ASSY
312	19-0012	2	KNOB CONTROL
313	50-0007	1	WASHER .151/.164 X .370/.390"
314	51-0098	1	PIN ROLL
315	74-0499	4	SCREW FLAT HEAD PH
316	74-0611	4	SCREW FLAT HEAD PH
317	81-0833	9	SCREW CAP HEX SOCKET
318	50-0017	2	WASHER LOC-09
319	81-0837	2	SCREW CAP HEX SOCKET

Figure 2-18: Separator Assembly/18020-069

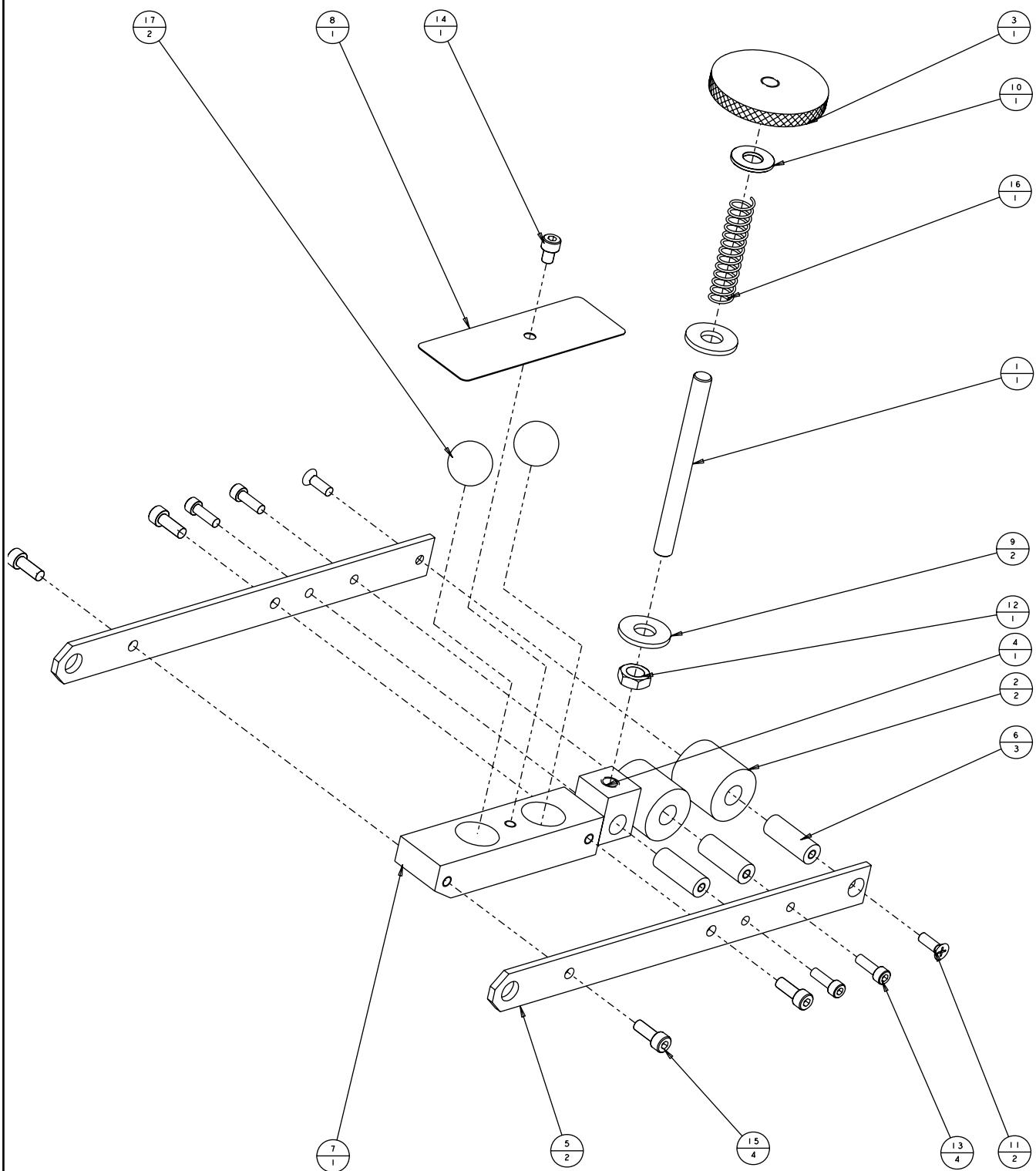


## Parts List 2-18: Separator Assembly/18020-069

Item	Part Number	Qty	Description
1	10004-001	1	SHAFT SEPARATOR
2	10004-028	1	STUD, SEPARATOR ADJ.
3	10005-003	1	SHROUD, SEPARATOR
4	10006-001	2	SEPARATOR WHEEL 3IN
5	10007-001	1	BLOCK, SEPARATOR 3IN
6	10007-010	1	BLOCK, SEPARATOR ADJUSTING
7	10008-024	1	SEPERATOR JAM RELEASE
8	10011-001	1	PLATE, SEPARATOR MOTOR MTG
9	10012-002	2	STANDOFF, SEPARATOR MOTOR
10	10014-002	8	O-RING, 3IN SEPARATOR
11	10019-001	1	SPRING, SEPARATOR ADJ.
12	19-0009	1	KNOB CONTROL
13	50-0020	2	WASHER LOC-16
14	50-0702	1	WASHER, PLAIN NYLON 6/6
15	50-0703	4	WASHER, PLAIN NYLON 6/6
16	50-0721	2	WASHER, PLAIN NYLON 6/6
17	566-0211	1	BELT TIMING 5.08P (XL)
18	59-0076	1	PIN DOWEL (PARALLEL)
19	59-0702	2	PIN, DOWEL
20	591-0266	3	BALL BEARING SGL ROW RDL
21	592-0002	1	PULLEY, TIMING MXL
22	592-0003	1	PULLEY, TIMING MXL
23	72-0523	2	SCREW & LK WASH
24	74-0613	2	SCREW FLAT HEAD PH
25	75-0433	1	SET SCREW HEX SOCKET
26	75-0565	5	SCREW,SET,HEXAGON
27	80-0026	1	NUT HEX
28	99001-018	1	SEPARATOR MOTOR, 24VAC
29	18017-008	1	FEEDER SEPERATOR ADJ LABEL

Figure 2-19: Tongue Assembly/ 18020-095

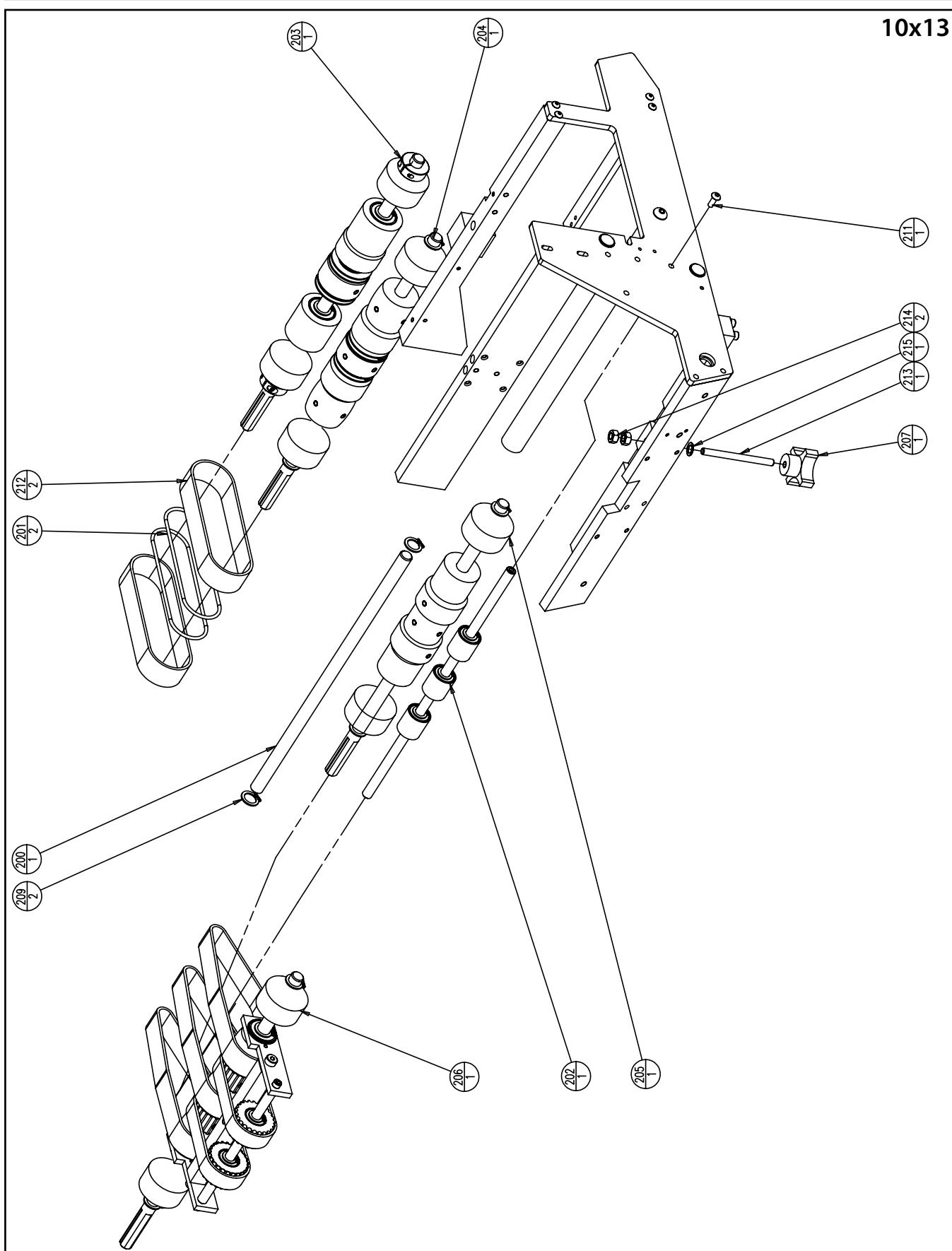
10x13



## Parts List 2-19: Tongue Assembly/18020-095

Item	Part Number	Qty	Description
1	10004-055	1	STUD, NIP ROLLER ADJ.
2	10006-016	2	ROLLER, TONGUE
3	10006-028	1	DISK, TONGUE ADJ 10X13
4	10007-012	1	BLOCK, TONGUE ADJUST
5	10008-021	2	TONGUE SPRT, RH 10X13
6	10012-003	3	SPACER
7	18007-090	1	BLOCK, BALL RACK 10X13
8	18011-088	1	COVER PLATE
9	50-0024	2	WASHER PLAIN
10	50-0702	1	WASHER, PLAIN NYLON 6/6
11	74-0613	2	SCREW FLAT HEAD PH
12	80-0026	1	NUT HEX
13	81-0613	4	SCREW CAP HEX SOCKET
14	81-0829	1	SCREW CAP HEX SOCKET
15	81-0833	4	SCREW CAP HEX SOCKET
16	99005-006	1	SPRING, ACCELERATOR ADJ.
17	99037-001	2	BALL 3/4

**Figure 2-20: Feeder Assembly/ 18020-022**

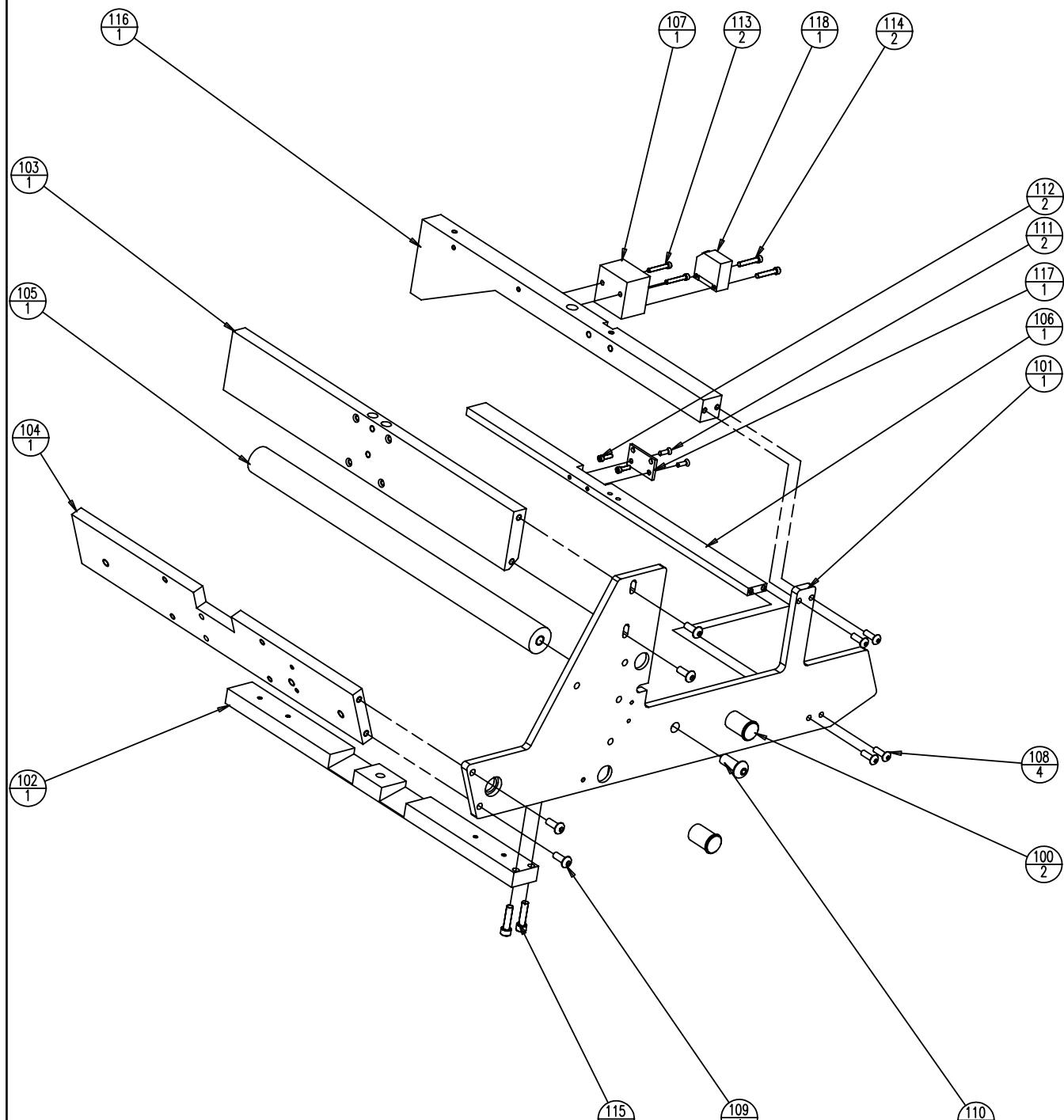


## Parts List 2-20: Feeder Assembly/18020-022

Item	Part Number	Qty	Description
200	18004-007	1	SHAFT, FRONT INSERTER
201	18014-007	2	O-RING ACCELERATOR 10X13
202	18020-107	1	ASSY-IDLER SUPPORT SHAFT
203	18020-110	1	DOUBLE DETECT SHAFT ASSY 10X13
204	18020-111	1	BELT DRIVE SHAFT ASSY 10X13
205	18020-112	1	MAIN SHAFT ASSY
206	18020-113	1	ELEVATOR SHAFT ASSY
207	19-0016	1	KNOB CONTROL
209	26-0957	2	RING RETAINING EXT
211	68-0833	1	SCREW BTNHD CAP HEX SKT
212	99000-042	2	BELT, ACCELERATOR
213	99032-002	1	STUD, 1/4-20 X 3
214	80-0023	2	NUT HEX
215	50-0720	1	WASHER, PLAIN NYLON 6/6

Figure 2-21: Feeder Assembly/ 18020-022

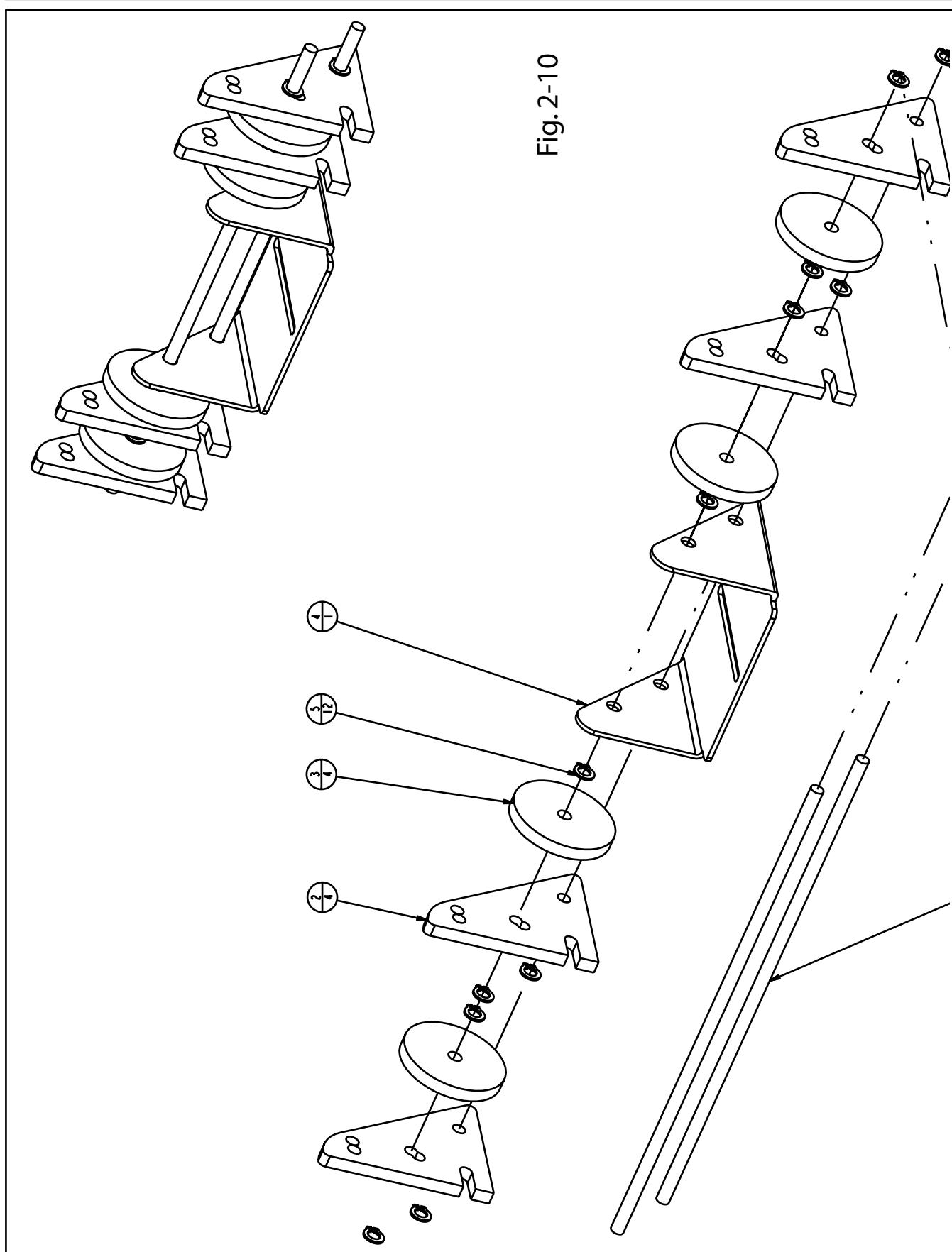
10x13



## Parts List 2-21: Feeder Assembly/18020-022

Item	Part Number	Qty	Description
100	10-0113	2	MAGNETIC CATCH SNAP-IN
101	FL80132	1	FEEDER SIDE FRAME 10X13
102	10008-020	1	ELEVATOR BELT SPRT
103	18003-010	1	BAR, CROSS FEEDER
104	10008-019	1	BACK SUPPORT 10X13
105	18004-003	1	SHAFT, MAIN SUPPORT
106	18008-013	1	BAR, SENSOR MOUNTING
107	18009-024	1	BRACKET, PHOTO EYE SPACER
108	68-0613	4	SCREW BTNHD CAP HEX SKT
109	68-0833	4	SCREW BTNHD CAP HEX SKT
110	68-1332	1	SCREW BTNHD CAP HEX SKT
111	74-0281	2	SCREW FLAT HEAD PH
112	81-0281	2	SCREW CAP HEX SOCKET
113	81-0287	2	SCREW CAP HEX SOCKET
114	81-0397	2	SCREW CAP HEX SOCKET
115	81-0837	2	SCREW CAP HEX SOCKET
116	FL45063	1	BAR DOUBLE DETECT 10X13
117	FL50000	1	PLATE, SENSOR ADAPTOR (6X9)
118	FL84017AA	1	THRU-BEAM SENSOR - FEEDER ARMING

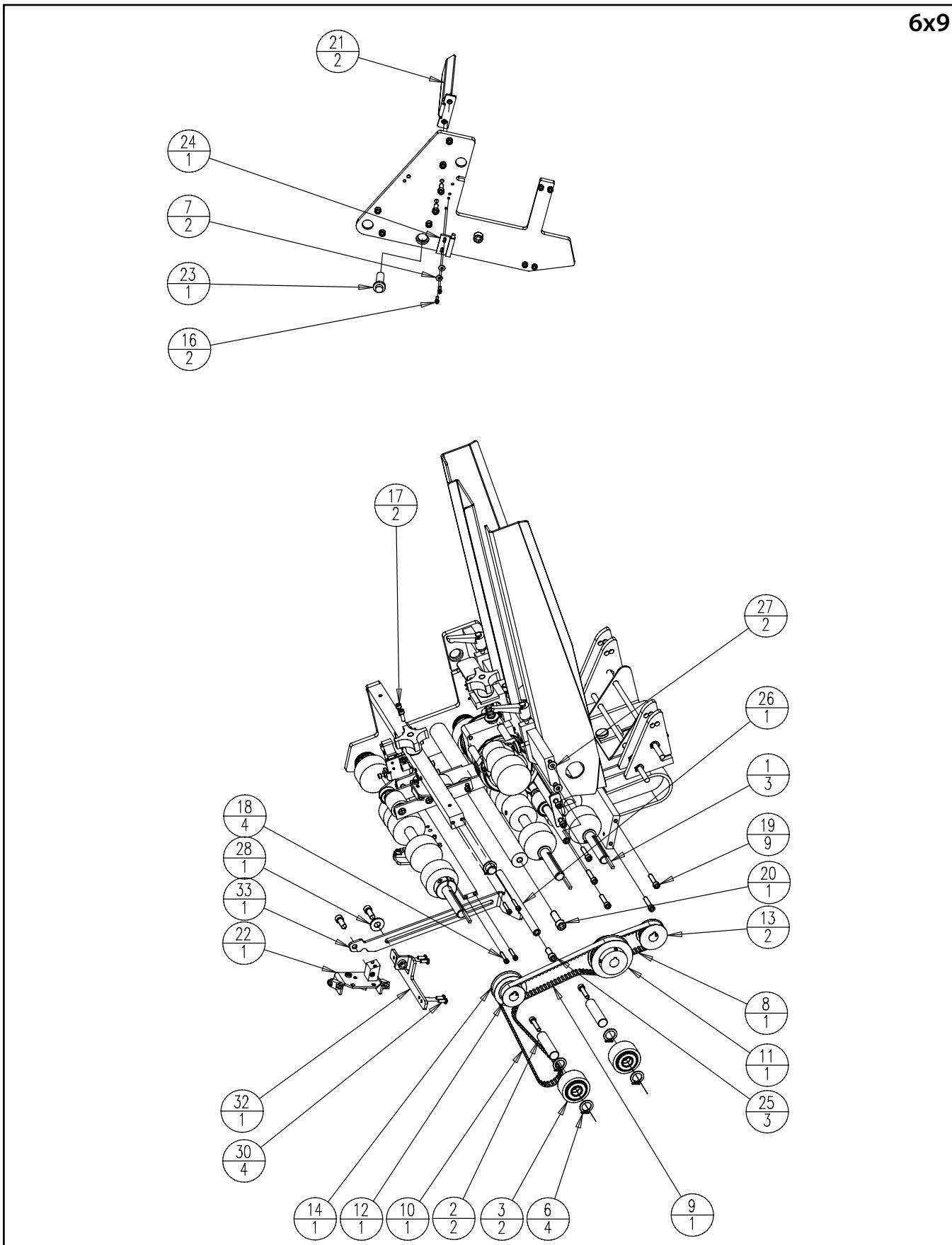
Figure 2-22: Paper Guide Assembly/ 18020-071



## Parts List 2-22: Paper Guide Assembly/18020-071

Item	Part Number	Qty	Description
1	10004-006	2	SHAFT PAPER SLIDE
2	10005-016	4	PAPER SLIDE
3	10006-033	4	ROLLER, PAPER SLIDE FEEDER
4	10009-003	1	BRACKET, PAPER SLIDE
5	26-0950	12	RING RETAINING EXT

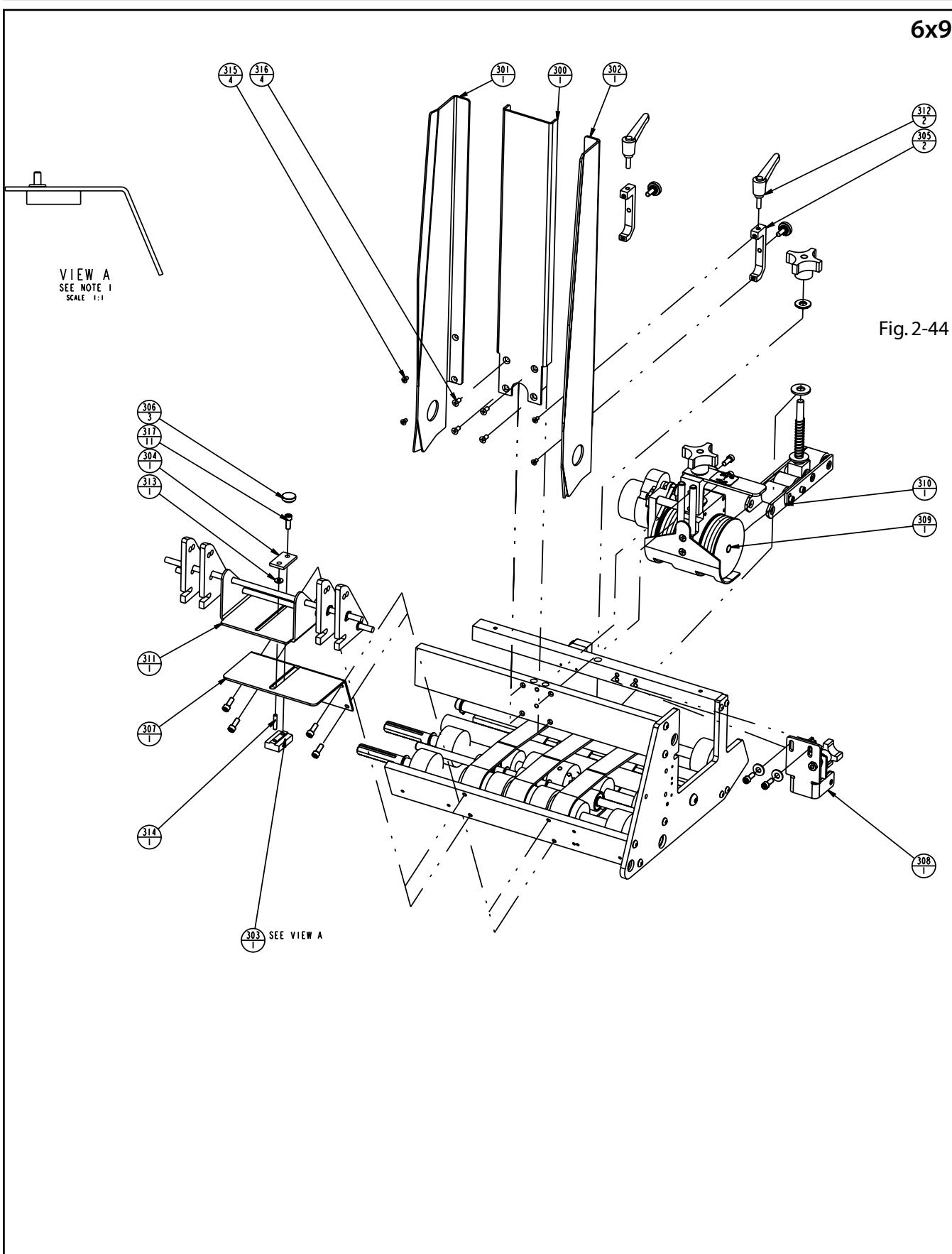
Figure 2-23: 6x9 Feeder Assembly/ FL8B



## Parts List 2-23: 6x9 Feeder Assembly/ FL8B

Item	Part Number	Qty	Description
1	158-0109	3	KEY SQUARE
2	18004-031	2	SHAFT, STUB IDLER
3	18006-011	2	PULLEY, IDLER
4	18020-021	1	6X9 FEEDER ASSY
5	213-1911	1	SW.ACC. REFLECTOR TARGETS
6	26-0957	4	RING RETAINING EXT
7	50-0005	2	WASHER PLAIN
8	566-0025	1	BELT TIMING 1/5 P (XL)
9	566-0026	1	BELT TIMING 1/5 P (XL)
10	566-0028	1	BELT TIMING 1/5 P (XL)
11	592-0012	1	PULLEY, TIMING XL
12	592-0017	1	PULLEY, TIMING XL
13	592-0023	2	PULLEY, TIMING XL
14	592-0024	1	PULLEY, TIMING XL
15	68-0833	2	SCREW BTNHD CAP HEX SKT
16	81-0281	2	SCREW CAP HEX SOCKET
17	81-0501	2	SCREW CAP HEX SOCKET
18	81-0507	4	SCREW CAP HEX SOCKET
19	81-0839	9	SCREW CAP HEX SOCKET
20	81-1336	1	SCREW CAP HEX SOCKET
21	FL51084	2	FEEDER HOPPER SHIELD
22	FL80054	1	FDR TRACKING 6X9 PC ASSY
23	R683123	1	ASSY-LED LAMP
24	Y583035	1	HARNESS ASSY-SWITCH 2 POLE REED
25	81-1220	1	SCREW SOCKET HEAD CAP 1/4-20X 5/8
26	FL11005	1	FEEDER WIRING STAND-OFF
27	50-0009	2	WASHER PLAIN
28	50-0020	1	WASHER LOC-16
29	68-1218	1	SCREW BTNHD CAP HEX SKT
30	72-0501	4	SCREW & LK WASH
31	80-0016	1	NUT HEX
32	FL51104	1	DRAG STRAP BRACKET
33	FL51105	1	DRAG STRAP MOUNT 6X9

Figure 2-24: 6x9 Feeder Assembly/ 18020-021

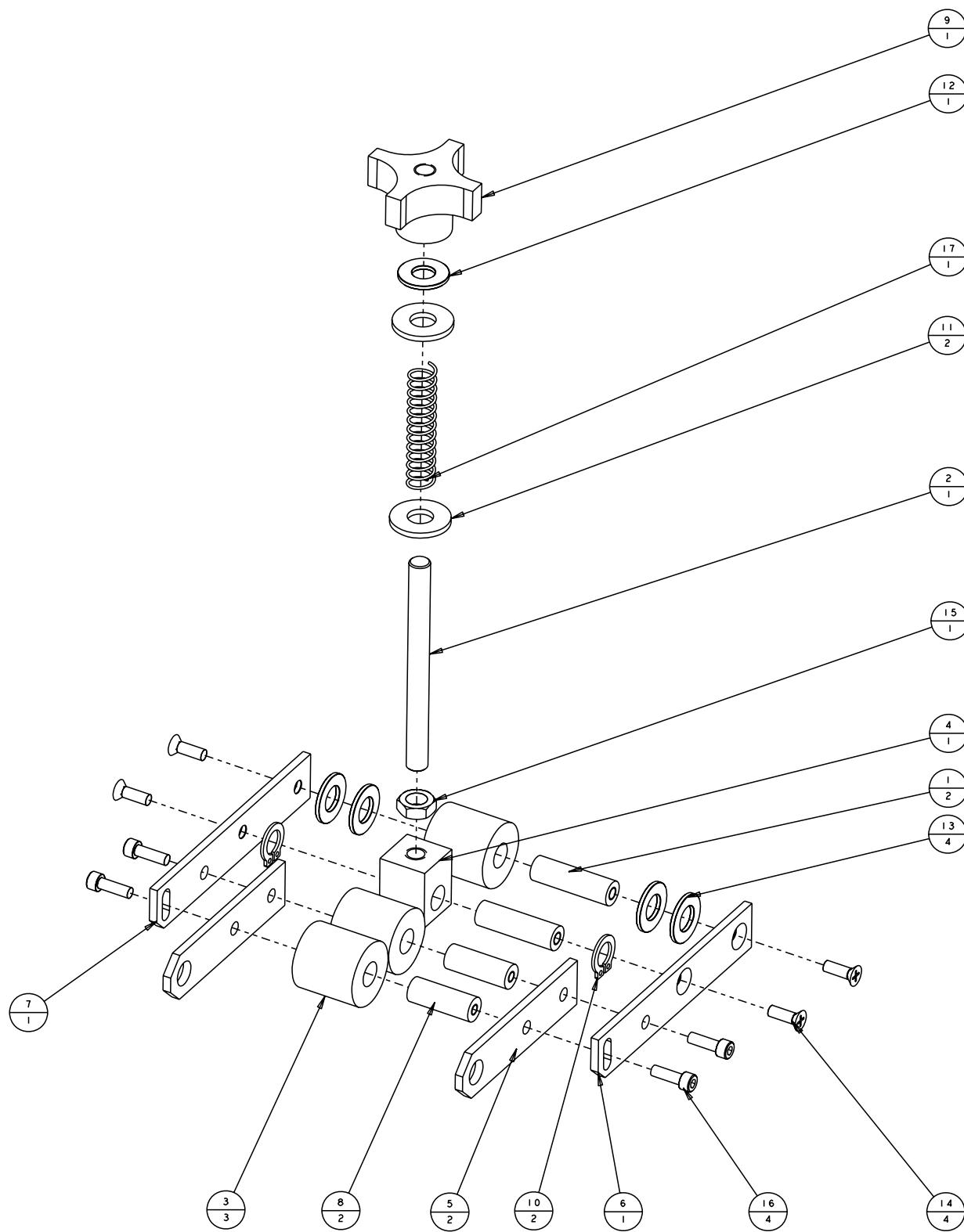


## Parts List 2-24: 6x9 Feeder Assembly/ 18020-021

Item	Part Number	Qty	Description
300	10005-002	1	FRONT PAPER GUIDE
301	10005-008	1	SIDE GUIDE, LH
302	10005-009	1	SIDE GUIDE, RH
303	10007-003	1	NUT, PAPER SLIDE
304	10007-004	1	WASHER, PAPER SLIDE
305	FL44000	2	BRACKET, SIDE GUIDE
306	13-0102	3	KNOB, #10 SCREW
307	18005-005	1	SUPPORT, PAPER SLIDE
308	FL80067	1	DOUBLE DETECT ASSY
309	18020-069	1	SEPERATOR ASSEMBLY
310	18020-070	1	TONGUE ASSY 6X9
311	18020-072	1	PAPER GUIDE ASSY
312	19-0012	2	KNOB CONTROL
313	50-0007	1	WASHER .151/.164 X .370/.390""
314	51-0098	1	PIN ROLL
315	74-0499	4	SCREW FLAT HEAD PH
316	74-0611	4	SCREW FLAT HEAD PH
317	81-0833	11	SCREW CAP HEX SOCKET
318	50-0017	2	WASHER PLAIN .245 ID

Figure 2-25: 6x9 Tongue Assembly/ 18020-070

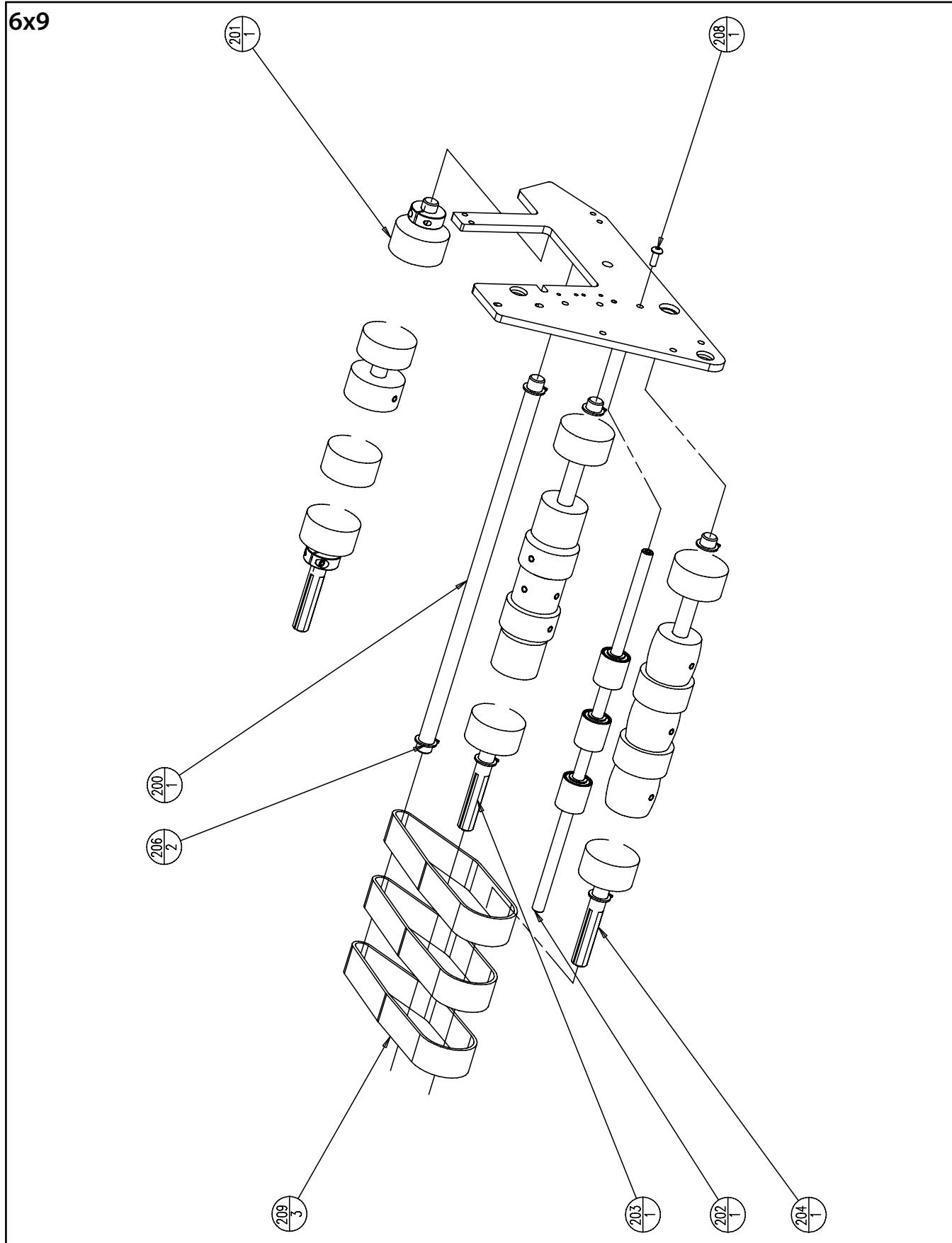
6x9



## Parts List 2-25: 6x9 Tongue Assembly/ 18020-070

Item	Part Number	Qty	Description
1	10004-054	2	SHAFT TRAILING ARM 1-1/4
2	10004-055	1	STUD, NIP ROLLER ADJ.
3	10006-016	3	ROLLER, TONGUE
4	10007-012	1	BLOCK, TONGUE ADJUST
5	10008-015	2	PLATE, REAR TONGUE SUPPORT
6	10008-016	1	PLATE, FRONT TONGUE SPRT, RH
7	10008-017	1	PLATE, FRONT TONGUE SPRT, RH
8	10012-003	2	SPACER
9	19-0009	1	KNOB CONTROL
10	26-0956	2	RING RETAINING EXT
11	50-0024	2	WASHER PLAIN
12	50-0702	1	WASHER, PLAIN NYLON 6/6
13	50-0703	4	WASHER, PLAIN NYLON 6/6
14	74-0613	4	SCREW FLAT HEAD PH
15	80-0026	1	NUT HEX
16	81-0613	4	SCREW CAP HEX SOCKET
17	99005-006	1	SPRING, ACCELERATOR ADJ.

Figure 2-26: 6x9 Feeder Assembly/ 18020-021

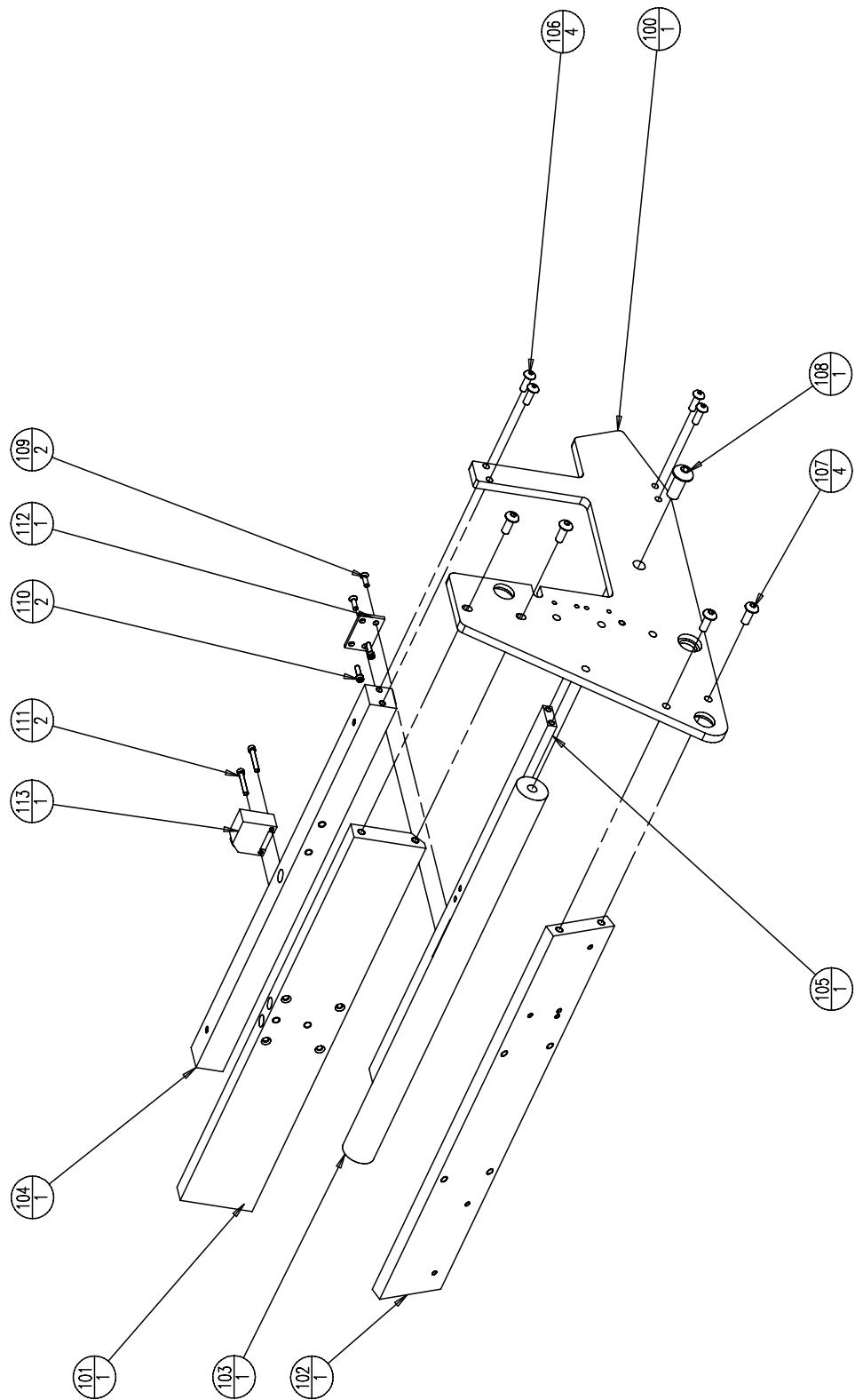


## Parts List 2-26: 6x9 Feeder Assembly/ 18020-021

Item	Part Number	Qty	Description
200	18004-007	1	SHAFT, FRONT INSERTER
201	18020-106	1	DOUBLE DETECT SHAFT ASSY
202	18020-107	1	ASSY-IDLER SUPPORT SHAFT
203	18020-112	1	MAIN SHAFT ASSY
204	18020-109	1	REAR MAIN SHAFT ASSY
206	26-0957	2	RING RETAINING EXT
208	68-0833	1	SCREW BTNHD CAP HEX SKT
209	99000-004	3	BELT, RED GUM

Figure 2-27: 6x9 Feeder Assembly/ 18020-021

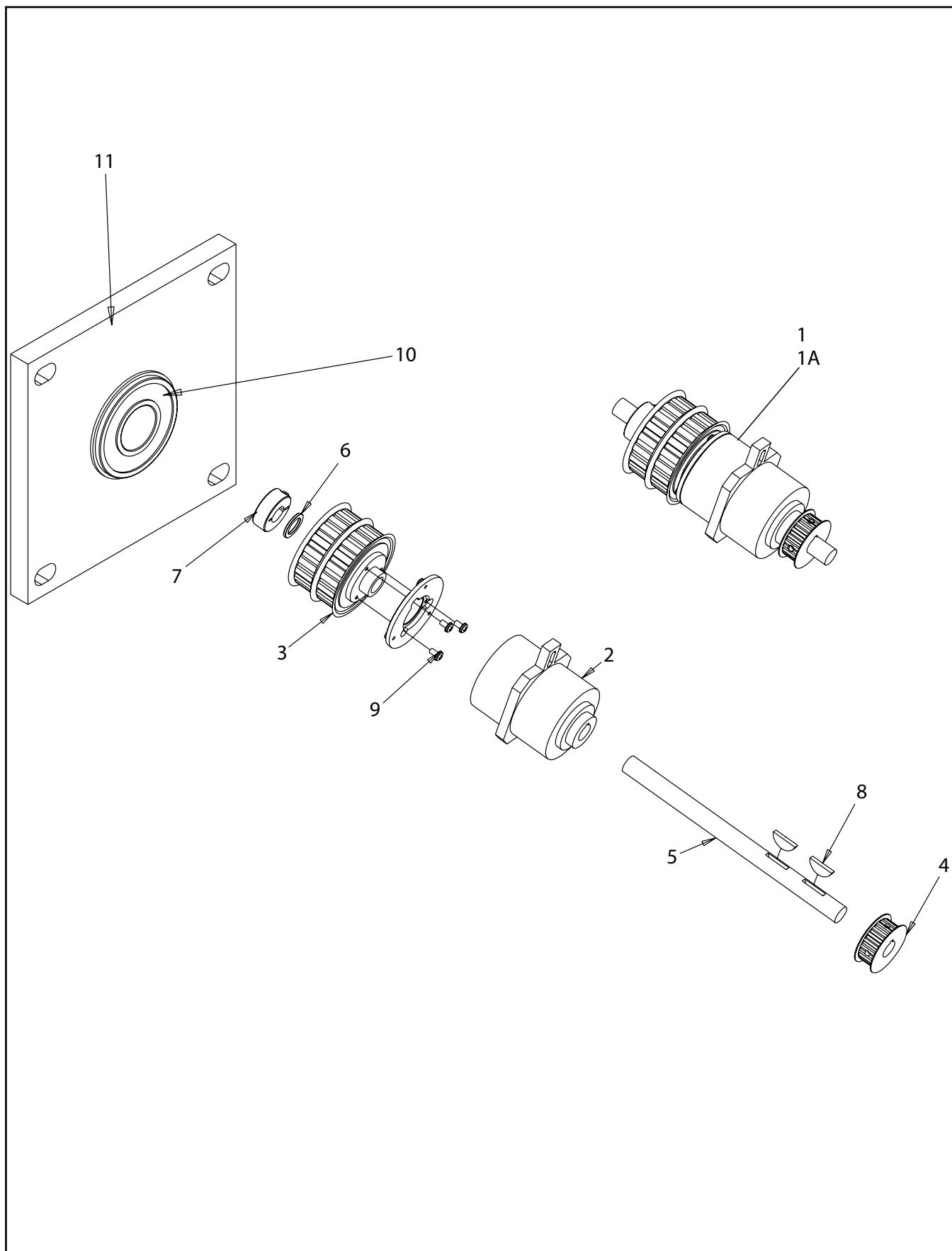
6x9



## Parts List 2-27: 6x9 Feeder Assembly/ 18020-021

Item	Part Number	Qty	Description
100	FL80131	1	FEEDER SIDE FRAME 6X9
101	18003-010	1	BAR, CROSS FEEDER
102	18003-011	1	BAR, BACK SUPPORT
103	18004-003	1	SHAFT, MAIN SUPPORT
104	18008-012	1	BAR, DOUBLE DETECT
105	18008-013	1	BAR, SENSOR MOUNTING
106	68-0613	4	SCREW BTNHD CAP HEX SKT
107	68-0833	4	SCREW BTNHD CAP HEX SKT
108	68-1332	1	SCREW BTNHD CAP HEX SKT
109	74-0281	2	SCREW FLAT HEAD PH
110	81-0281	2	SCREW CAP HEX SOCKET
111	81-0287	2	SCREW CAP HEX SOCKET
112	FL50000	1	PLATE, SENSOR ADAPTOR (6X9)
113	FL84017AA	1	THRU-BEAM SENSOR - FEEDER ARMING

Figure 2-28: Feeder Drive Clutch Assembly/ FL80026 &amp; 18020-074



## Parts List 2-28: Feeder Drive Clutch Assembly/ FL80026 &amp; 18020-074

Item	Part Number	Qty	Description
1	18020-074D	1	CLUTCH/ BRAKE/PULLEY/SHAFT ASSY 24 VOLT (FOR DC SYSTEMS)
2	FL84024	1	CLUTCH/ BRAKE 24 VOLT TERMINATED FOR DC SYSTEMS
3	18006-008	1	PULLEY, DOUBLE 20L50
4	592-0023	1	PULLEY, 20XL037 1/2"BORE
5	18004-015	1	SHAFT CLUTCH
6	50-0704	1	WASHER, NYLON 1/2 X 1/16
7	185-0308	1	COLLAR, SPLIT 1/2"
8	158-0027	2	WOODRUFF KEY 1/8 X 3/4
9	72-0499	3	SCREW, PAN HD 6-32 X 1-4
10	591-0289	1	BEARING, SEALED 1/2 X 1 1/8
11	18007-051	1	BLOCK, BEARING



### **3   *FlowMaster Front Table* *FX10/FX14***

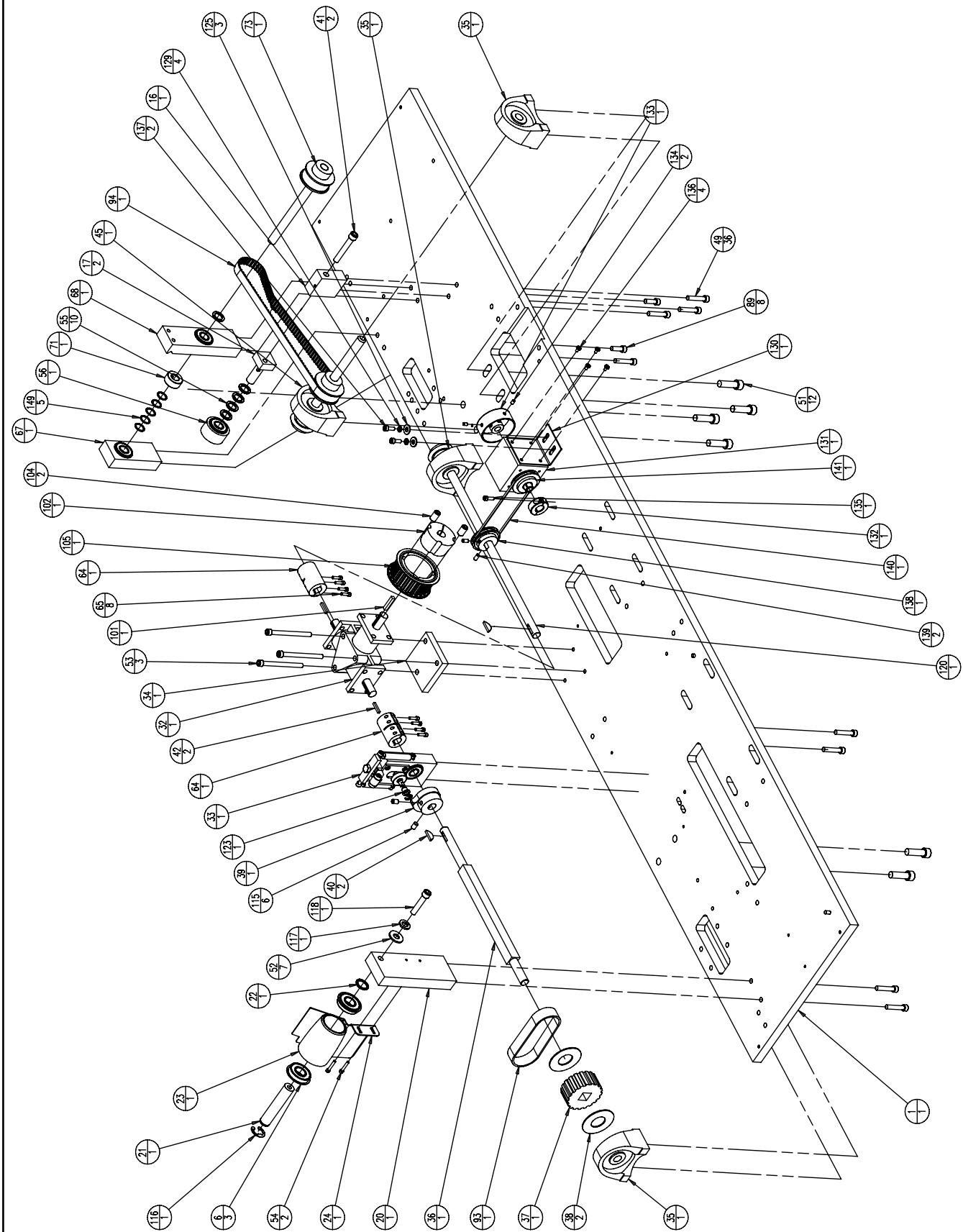


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Figure 3-1: Drive Plate Assembly / FL80059

10x13

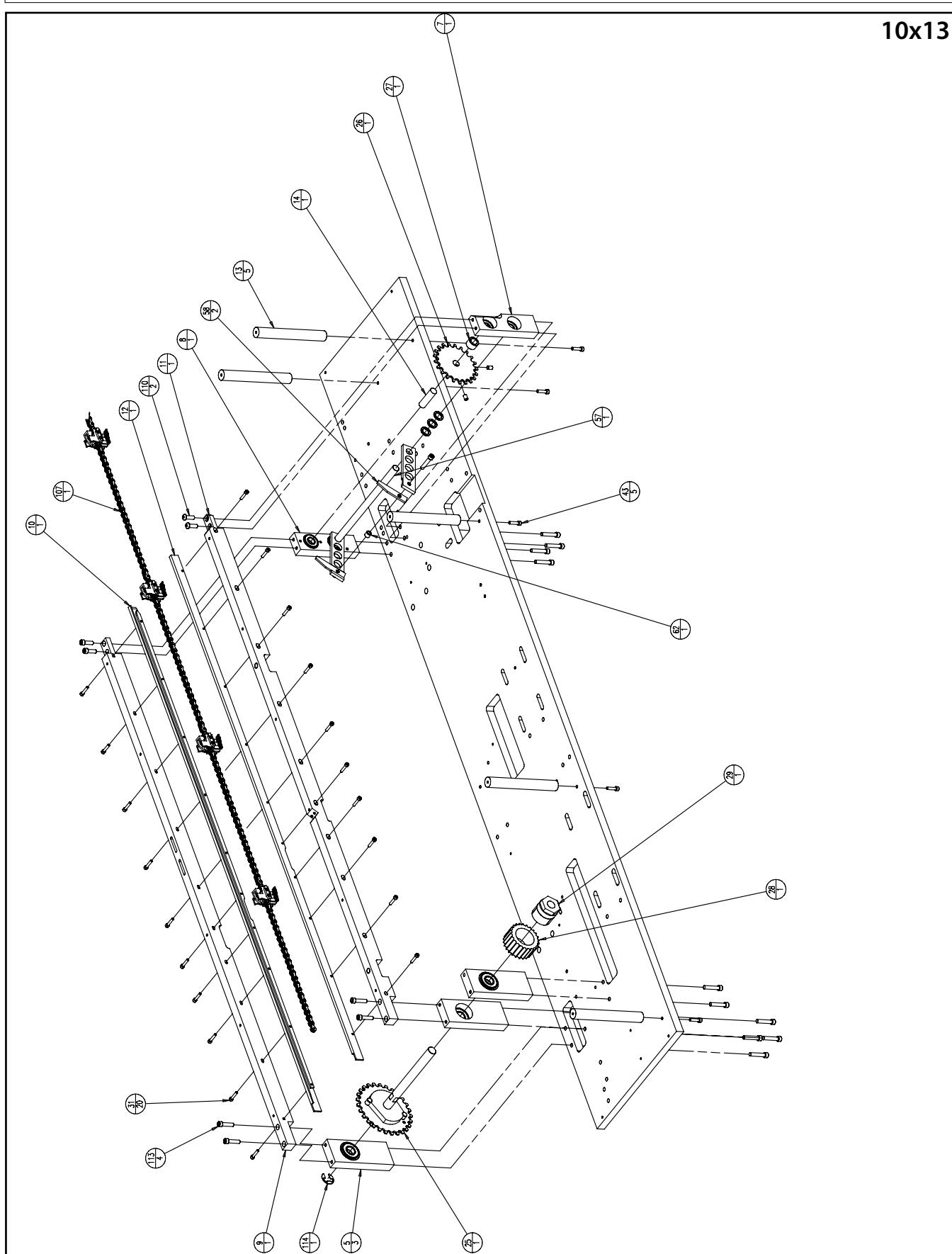


## Parts List 3-1: Drive Plate Assembly/ FL80059

Item	Part Number	Qty	Description
1	18011-028	1	PLATE, FRONT TABLE DRIVE 10X13
6	591-0403	3	BBRG SEALED W/SNAP RING
16	18007-030	1	BLOCK, IDLER PULLEY
17	18004-022	2	SHAFT, TENSIONER, ECCENTRIC
20	FL45009	1	BLOCK, FRONT TABLE IDLER
21	FL10003	1	FRONT TABLE ROLLER SHAFT
22	50-0723	1	WASHER, PLAIN NYLON 6/6
23	FL13000	1	PULLEY, TURNOVER
24	FL51028	1	SHIELD, INPUT ROLLER
32	99015-002	1	GEAR BOX RIGHT ANGLE
33	18020-010	1	ASSY-CENTER JAW OPENER
34	18011-009	1	SPACER, GEARBOX
35	99003-009	3	BEARING PILLOW BLOCK 1/2
36	18004-052	1	SHAFT, COLLATOR DRIVE, 10X13
37	FL37001	1	PULLEY, CONVEYOR DRIVE
38	FL18000	2	WASHER, DRIVE PULLEY THRUST
39	18016-008	1	CAM CTR JAW OPENER
40	158-0027	2	KEY WOODRUFF
41	81-1344	2	SCREW CAP HEX SOCKET
42	158-0108	2	KEY SQUARE
45	18004-062	1	SHAFT ASSY, SECONDARY SHUTTLE DRIVE FRT.TABLE
49	81-1228	36	SCREW CAP HEX SOCKET
51	81-1448	12	SCREW CAP HEX SOCKET
52	50-0024	7	WASHER PLAIN
53	81-1242	3	SCREW CAP HEX SOCKET
54	81-0507	2	SCREW CAP HEX SOCKET
55	50-0704	10	WASHER, PLAIN NYLON 6/6
56	18006-011	1	PULLEY, IDLER
64	185-0413	2	COUPLING, ONE-PIECE W/KEY
65	81-0503	8	SCREW CAP HEX SOCKET
67	18007-021	1	BLOCK, CAM SHAFT MTG
68	18007-020	1	BLOCK, CAM ROLLER SHAFT MTG
71	185-0414	1	COLLAR, CLAMP
73	18004-063	1	SHAFT ASSY, SHUTTLE GUIDE 6X9
89	81-1222	8	SCREW CAP HEX SOCKET
93	566-0314	1	TIMING BELT
94	566-0323	1	BELT TIMING 3/8 P (L)
101	158-0116	1	KEY SQUARE
102	99017-012	1	BUSHING TAPERLOCK 1210 1/2 B.
104	75-0913	2	SCREW SET CUP POINT HEX 3/8-16X .625
105	592-0009	1	PULLEY, TIMING L TAPER LK
115	75-8015	6	SCR, SET BRASS-TIPPED
116	26-0756	1	E RING RETAINING EXT
117	52-0027	1	LK WASH HELICAL SPRING
120	18004-061	1	SHAFT ASSY, PRIMARY SHUTTLE DRIVE
123	175-0061	1	BEARING FLANGED
125	50-0017	3	WASHER PLAIN .245 ID
129	52-0016	4	LK WASH HELICAL SPRING
130	FL45102	1	BRACKET-ENCODER MOUNT
131	FL84030	1	360 COUNT ENCODER
132	185-0307	1	COLLAR SPLIT ONE-PIECE
133	FL84065	1	KNOB - ENCODER ADJUST
134	75-0445	2	SET SCREW HEX SOCKET
135	81-0613	1	SCREW CAP HEX SOCKET
136	72-0499	4	SCREW & LK WASH
137	81-0833	2	SCREW CAP HEX SOCKET
138	FL84064	1	PULLEY - ENCODER DRIVE
139	75-0565	2	SET SCREW HEX SOCKET
140	FL84066	1	BELT - ENCODER DRIVE
141	FL84063	1	PULLEY - ENCODER SHAFT
149	20-0023	5	SPACER PLAIN

Figure 3-2: Drive Plate Assembly/ FL80059

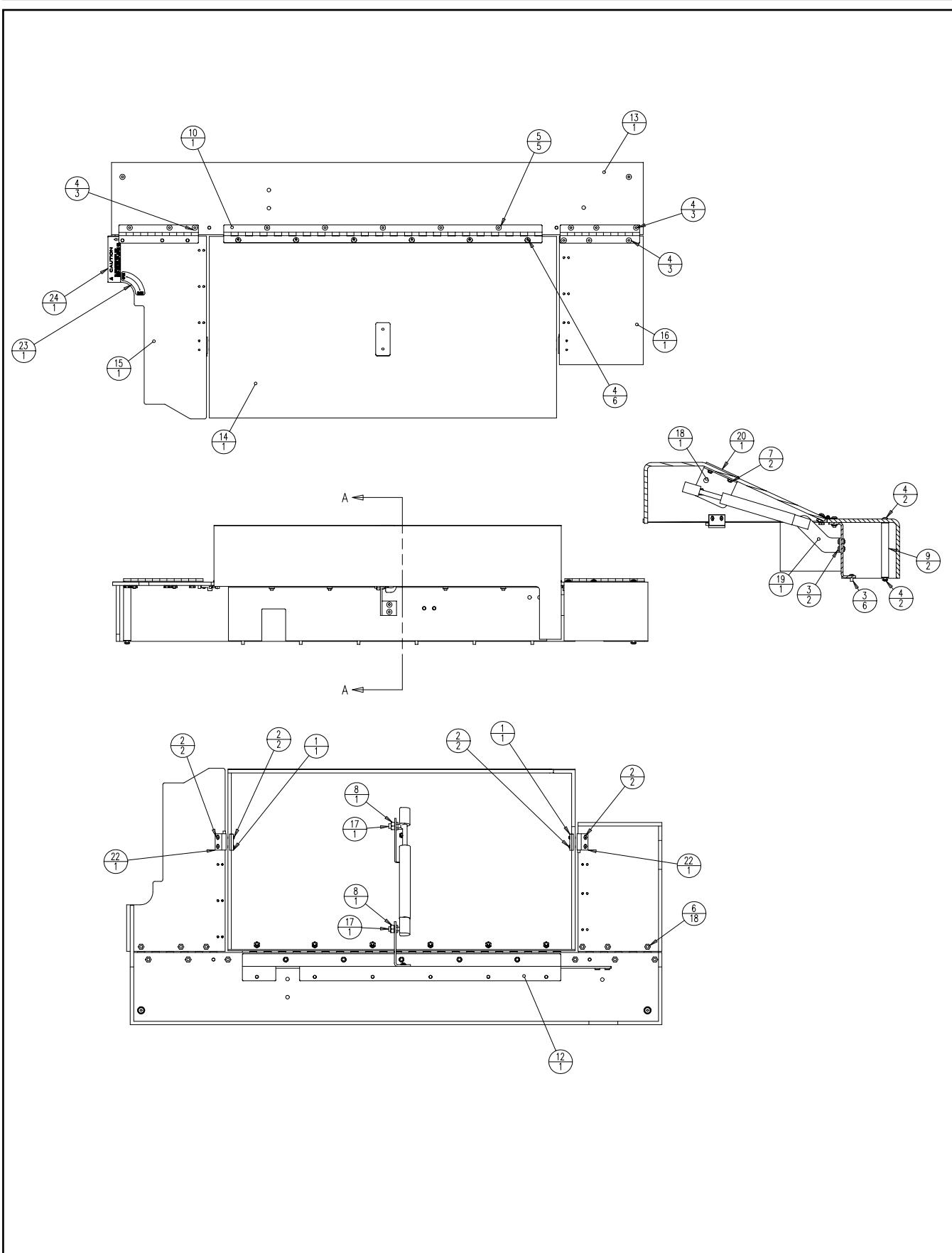
10x13



## Parts List 3-2: Drive Plate Assembly/ FL80059

Item	Part Number	Qty	Description
5	18007-076	3	BEARING BLOCK CHAIN SUPPORT 10X13
7	18007-026	1	BEARING BLOCK CHAIN SUPPORT 10X13
8	18007-046	1	BEARING BLOCK CHAIN SUPPORT
9	18003-021	1	BAR-ENV.CHAIN GUIDE SUPPORT 10X13
10	18005-038	1	GUIDE ENVELOPE CHAIN RH 10X13
11	FL00424	1	BAR; ENV CHAIN GUIDE SUPPORT (10X13)
12	18005-039	1	GUIDE ENVELOPE CHAIN LH 10X13
13	18012-008	5	STANDOFF, FRONT TABLE
14	18004-030	1	SHAFT IDLER FRT TABLE
25	18004-054	1	SPROCKET-SHAFT ASSY 27T FRT.TABLE 10X13
26	18015-005	1	SPROCKET, IDLER 21T FRT.TABLE
27	170-0223	1	BEARING PLAIN
28	18006-020	1	PULLEY 24-8M-20 1-1/2 B.
29	99017-010	1	TRANTORQUE 5/8 B.
31	81-0617	20	SCREW CAP HEX SOCKET
43	81-0837	5	SCREW CAP HEX SOCKET
57	18004-072	1	ASSY, RH JAW OPENER SHAFT
58	18008-048	2	BAR, RH JAW OPENER
62	20-0601	1	SHIM, STEEL
107	18014-009	1	ASSY-GRIPPER CHAIN, 10X13
110	68-1222	2	SCREW BTNHD CAP HEX SKT
113	81-1226	4	SCREW CAP HEX SOCKET
114	23-0062	1	E RING RETAINING

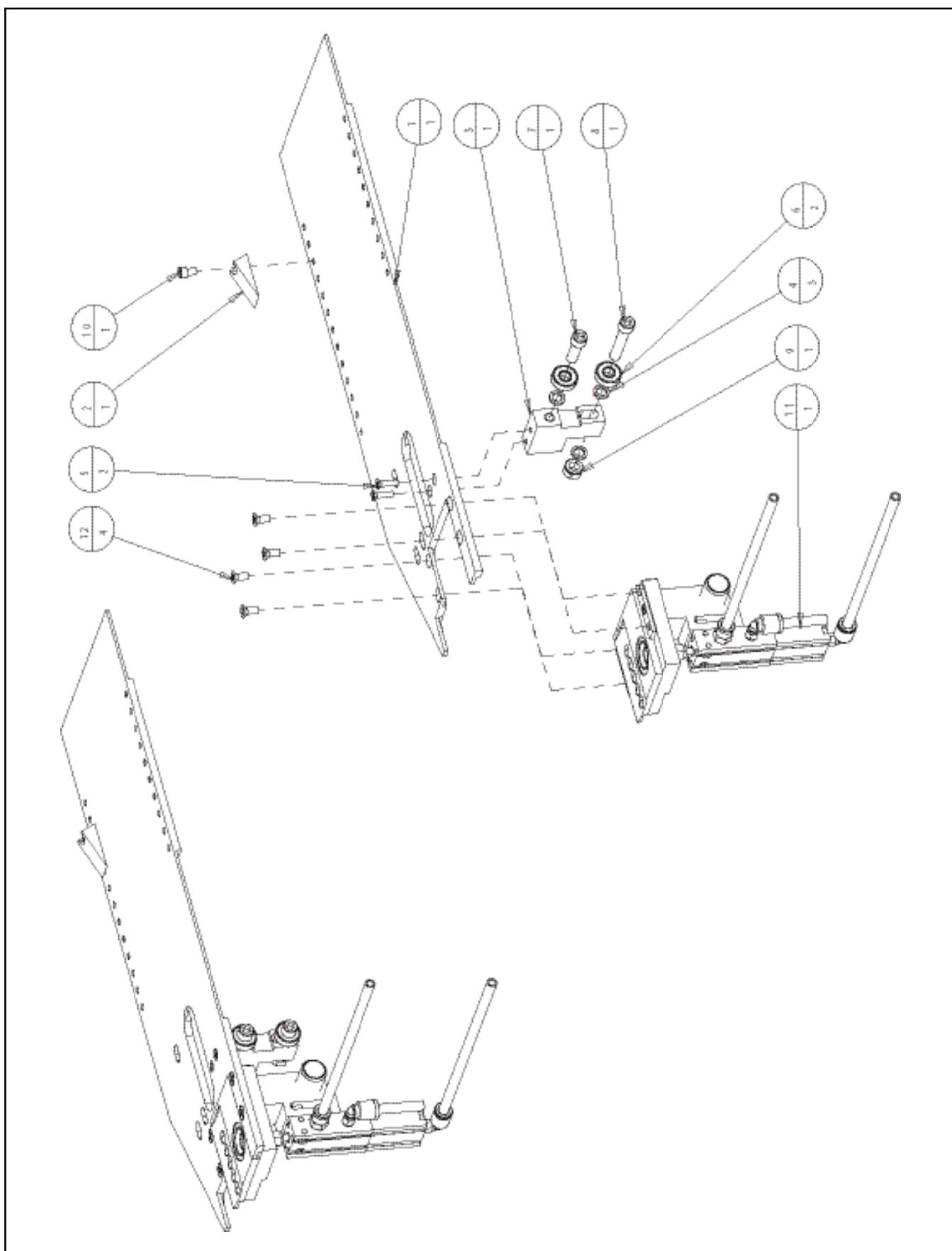
Figure 3-2A: Cover Assembly Front Table 6x9/ FL80018



## Parts List 3-2A: Cover Assembly Front Table 6x9/ FL80018

Item	Part Number	Qty	Description
1	200-0701	2	MAGNET ACTUATOR
2	68-0281	8	SCREW BUTTON HEAD CAP 4-40X 3/8
3	68-0831	8	SCREW BUTTON HEAD CAP 10-32X 3/8
4	68-0833	19	SCREW BUTTON HEAD CAP 10-32X 1/2
5	68-0835	5	SCREW BUTTON HEAD CAP 10-32X 5/8
6	71-0006	18	NUT HEX SEM 10-32 THD
7	71-0120	2	NUT HEX SEM M4 THD
8	71-0128	2	NUT HEX SEM M8 THD
9	FL10002	2	Standoff
10	FL46006	1	Hinge, 22 in. Long
11	18013-186	1	HINGE, 5.5IN LONG
12	FL58000	1	Main Cover Mount (6x9)
13	FL62007	1	MAIN COVER 6X9
14	18013-183	1	TOP COVER 6X9
15	18013-184	1	COVER, FRONT TABLE, TOP RIGHT 6X9
16	18013-185	1	COVER, FRONT TABLE, TOP LEFT, 6X9
17	R484120	2	STUD- BALL, GAS SPRING
18	Y151568	1	BKT-COVER-GAS SPRING
19	Y151569	1	BRACKET-GAS SPR-SIDE
20	Y158296	1	PLATE-STUD-COVER
21	Y184513	1	SPRING-GAS
22	Y583035	2	HARNESS ASSY-SWITCH 2 POLE REED
23	18017-009	1	LABEL GATE ADJ.
24	R662014	1	LABEL-CAUTION HAZARD

Figure 3-3: Shuttle Plate Assembly 10 x 13 / 18020-089

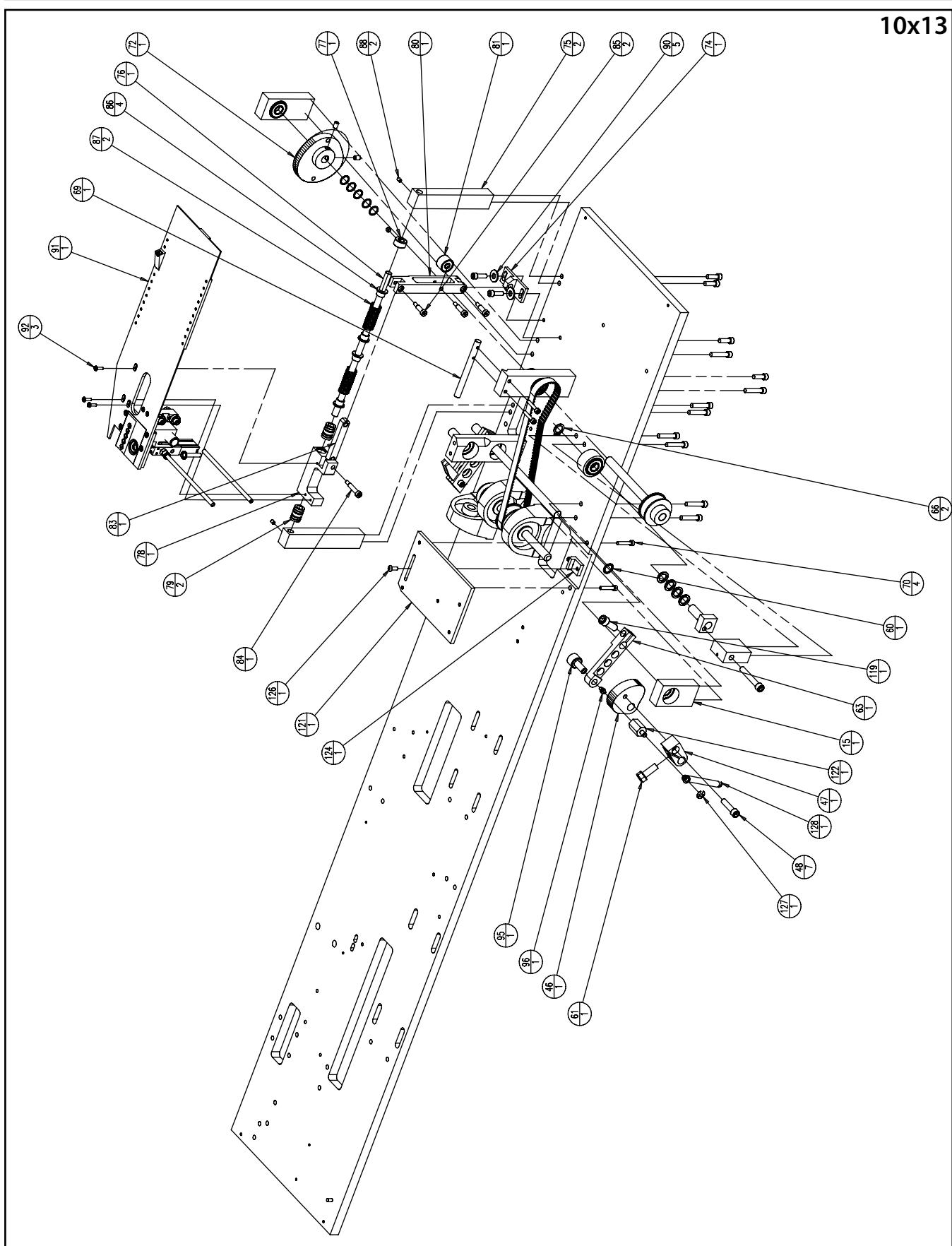


## Parts List 3-3: Shuttle Plate Assembly 10 x 13/ 18020-089

Item	Part Number	Qty	Description
1	18011-029	1	Plate Shuttle
2	18007-077	1	WEDGE, SHUTTLE
3	18007-024	1	BLOCK, CAM ROLLER
4	20-0600	3	SHIM .251 IDX .250 THK
5	74-0503	2	SCREW FLAT HEAD PHILLIPS 6-32X 1/2
6	591-0310	2	BEARING BALL DOUBLE SEALED .2495 ID
7	81-1222	1	SCREW SOCKET HEAD CAP 1/4-20X 3/4
8	81-1228	1	SCREW SOCKET HEAD CAP 1/4-20X 1 1/4
9	71-0007	1	NUT HEX SEM 1/4-20 THD
10	81-0609	1	SCREW SOCKET HEAD CAP 8-32X 1/4
11	FL00386	1	ASSY MOVING ACTUATOR
12	74-0611	4	SCREW FLAT HEAD PHILLIPS 8-32X 3/8

**Figure 3-3A: Drive Plate Assembly/ FL80059**

10x13



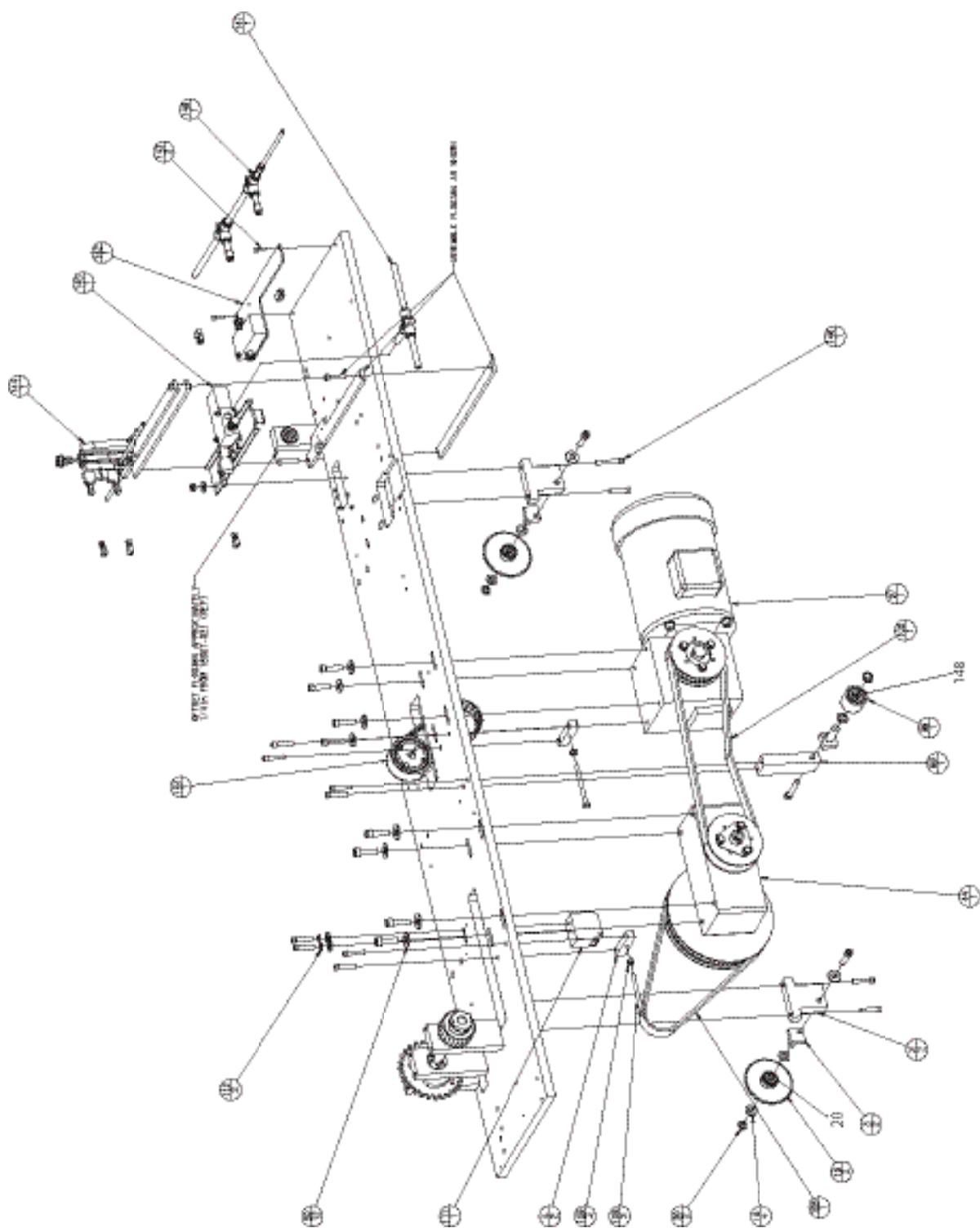
## Parts List 3-3A: Drive Plate Assembly/ FL80059

Item	Part Number	Qty	Description
15	18007-027	1	BLOCK, BEARING-RH JAW OPENER
46	18016-012	1	CAM, RH JAW
47	18007-103	1	BLOCK, RH JAW CAM CLAMP
48	81-1338	7	SCREW CAP HEX SOCKET
60	50-0722	1	WASHER, PLAIN NYLON 6/6
61	82-1446	1	SCREW HEX & LK WASH
63	18008-082	1	ARM, RH JAW ROLLER MTG
66	26-0957	2	RING RETAINING EXT
69	18004-019	1	SHAFT, CAM ROLLER
70	81-0841	4	SCREW CAP HEX SOCKET
72	18016-014	1	CAM, ENVELOPE -DRIVE PLATE ASSY
74	18007-022	1	BLOCK, PIVOT MTG
75	18007-019	2	BLOCK, SHUTTLE SHAFT MTG
76	18004-018	1	SHAFT, SHUTTLE
77	185-0415	1	COLLAR, CLAMP
78	18007-023	1	BLOCK, SHUTTLE GUIDE
79	99003-010	2	BEARING LINEAR 3/8 B.
80	18008-099	1	BAR - PIVOT
81	591-1274	1	BEARING ROLLER .250 ID
83	18008-018	1	BAR, SHUTTLE ARM
84	99033-001	1	SHOULDER BOLT 1/4 X 1
85	99033-002	2	SHOULDER BOLT 1/4 X 5/8
86	175-0195	4	BEARING FLANGED
87	99005-005	2	SPRING, SHUTTLE
88	75-0553	2	SET SCREW HEX SOCKET
90	50-0020	5	WASHER LOC-16
91	18020-089	1	SHUTTLE PLATE ASSEMBLY 10X13
92	72-0503	3	SCREW & LOCK WASHER
95	99003-052	1	CAM FOLLOWER, 3/4 DIAM.
96	157-0001	1	FITTING GREASE
119	81-1446	1	SCREW CAP HEX SOCKET
121	FL45077	1	PLATE-FILTER MOUNTING
122	FL11006	1	STUD-SHUTTLE CAM FOLLOWER SPRING
124	FL80006	1	ASSY-CAM SPRING ANCHOR
127	23-0025	1	RING E RETAINING .250 SHAFT
128	FL20002	1	SPRING-RH JAW CAM (CADRA DOC.)
129	52-0016	4	LK WASH HELICAL SPRING

Figure 3-4: Drive Plate Assembly/ FL80059

10x13

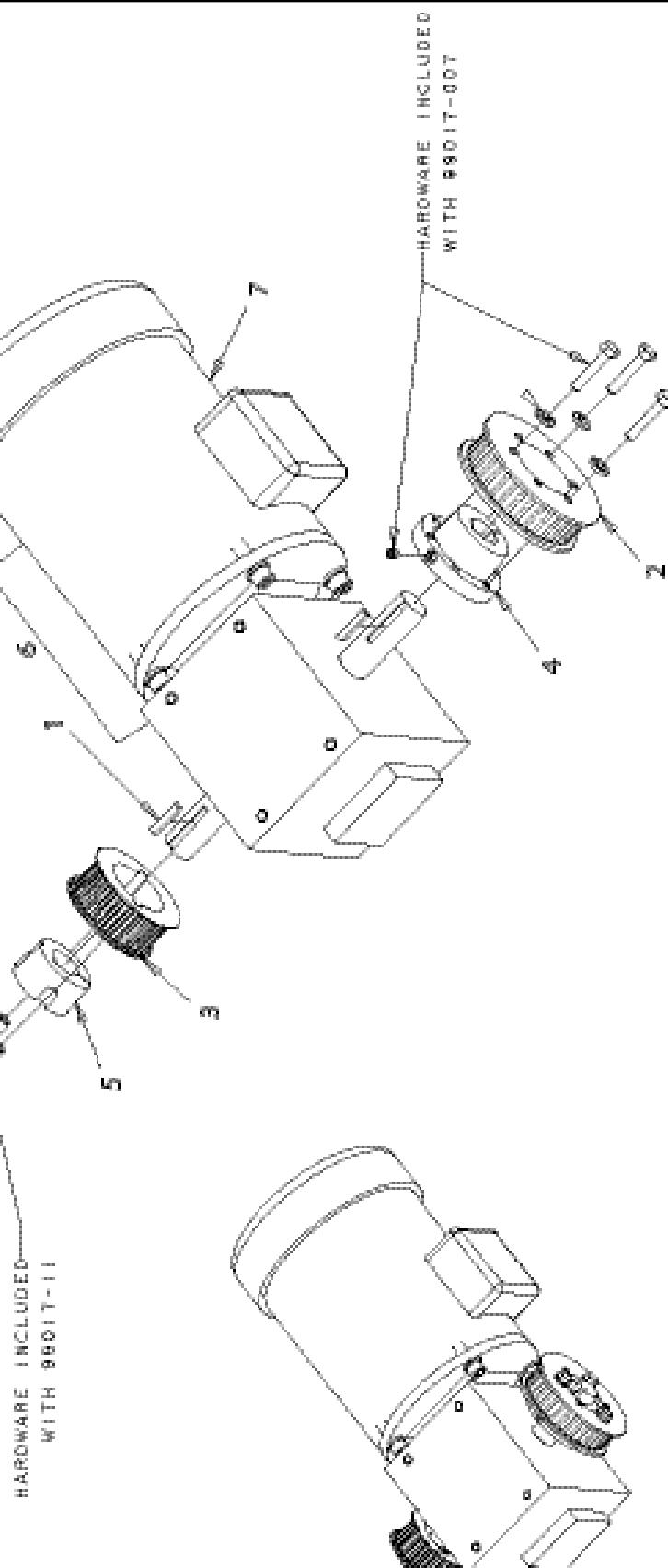
\*Note: The bolt used on the tensioner assembly used to secure the sprocket is part number 81-1338 and is 5/16"-18 x 1 1/4"



## Parts List 3-4: Drive Plate Assembly/ FL80059

Item	Part Number	Qty	Description
2	18007-034	2	BLOCK IDLER MTG FRT. TABLE
3	18004-024	2	SHAFT ECC. IDLER 3/8 ENV.DR. FRT. TABLE
4	18007-078	2	BLOCK, TAKE UP
18	50-0703	4	WASHER, PLAIN NYLON 6/6
19	18015-004	2	SPROCKET, IDLER 20T FRT.TABLE
20	591-0290	4	BEARING WITH SNAP RING, 3/8" ID X 7/8" OD
30	26-0956	2	RING RETAINING EXT
44	FL00018	1	ASSEMBLY - INDEXING BOX
50	50-0028	12	WASHER PLAIN
97	FL80064	1	ASSY FRONT TABLE MOTOR WITH GEARBOX
98	18007-031	1	BLOCK IDLER PULLEY FRT. TABLE
99	18006-012	1	ROLLER, TENSIONER
100	566-7077	1	BELT, TIMING 8MM GT
103	566-0326	1	BELT, TIMING 3/8 P (L)
106	566-7076	1	BELT, TIMING 8MM GT2
108	79-1242	2	SCREW CAP HEX HEAD
111	18007-091	1	BLOCK ACTUATOR MTG
112	52-0023	2	LK WASH HELICAL SPRING
142	FL00337	1	VALVE; VACUUM
143	81-0615	2	SCREW CAP HEX SOCKET
144	FL00384	1	ASSY - ACTUATOR MTG
145	FL00335	1	ASSY PNEUMATIC MTG
146	81-1232	1	SCREW CAP HEX SOCKET
147	FL00387	1	ASSY UNION TEE 3/8 DIA - ACTUATOR
148	591-0289	2	BEARING WITH SNAP RING, .5" ID X 1.125" OD

Figure 3-4A: Assembly Front Table with Gearbox/ FL80064

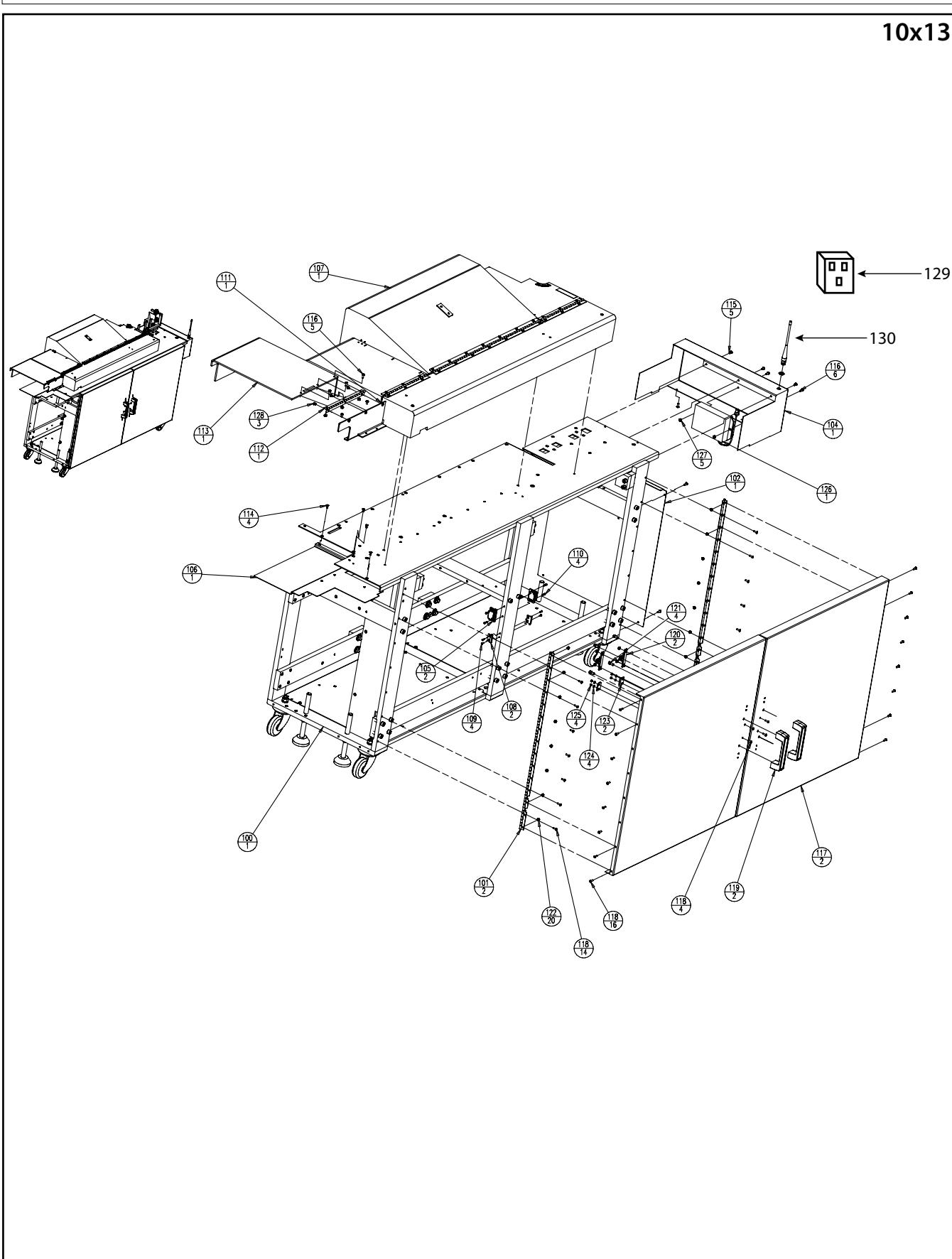


## Parts List 3-4A: Assembly Front Table with Gearbox/ FL80064

Item	Part Number	Qty	Description
1	158-0116	2.0	KEY SQUARE
2	592-0007	1.0	PULLEY, TIMING 8MM HTD
3	592-0009	1.0	PULLEY, TIMING L TAPER LK
4	99017-007	1.0	BUSHING QD SH 7/8 B.
5	99017-011	1.0	BUSHING TAPERLOCK 1210 7/8 B.
6	FL84004	1.0	MOTOR 3/4 HP 1750 RPM W/GEARBOX
7	99001-006	1.0	MOTOR ONLY
8	99015-001	1.0	REDUCER BOX-ONLY

Figure 3-5: Assembly Front Table / FL80076

10x13

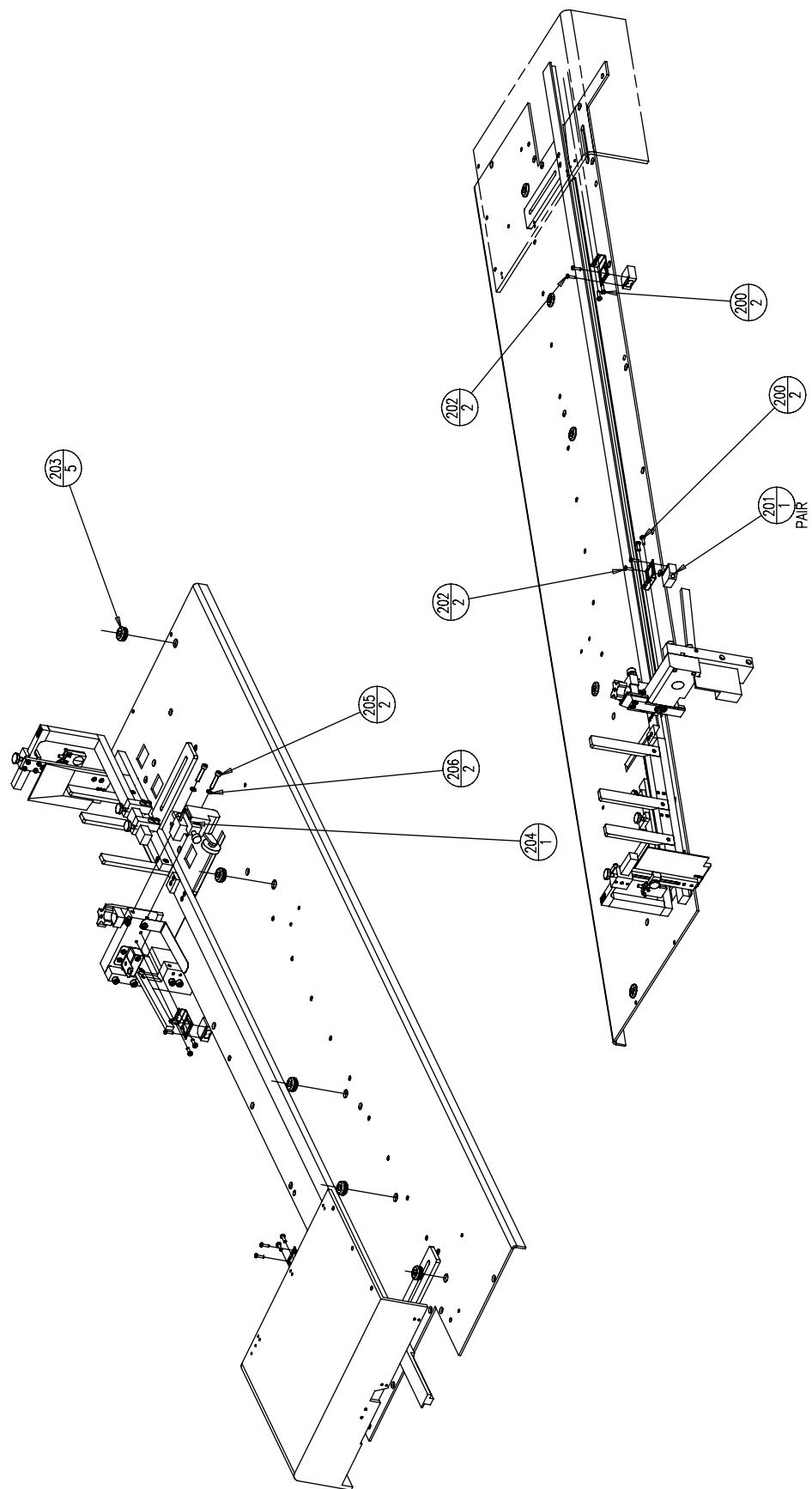


## Parts List 3-5: AssemblyFront Table/ FL80076

Item	Part Number	Qty	Description
100	FL80065	1	ASSY, FRONT TABLE SUB
101	18013-013	2	HINGE, FRONT TABLE DOOR
102	18013-007	1	COVER, END
103	18008-025	1	BAR, END COVER MTG
104	18013-015	1	COVER, END CAP RH
105	99013-001	2	LATCH W/OUT SWITCH
106	FL58012	1	FILLER PLATE, TURNOVER, 10X13
107	FL80019	1	ASSY-COVER, FRONT TABLE (10X13)
108	Y583035	2	HARNESS ASSY-SWITCH 2 POLE REED
109	68-0281	4	SCREW
110	81-0503	4	SCREW CAP HEX SOCKET
111	FL51086	1	BRACKET, TURNOVER COVER
112	FL46000	1	HINGE, 9 IN. LONG
113	FL62033	1	COVER, TURNOVER INTERFACE, 10X13
114	74-0831	4	SCREW FLAT HEAD PH
115	68-0831	5	SCREW BTNH CAP HEX SKT
116	68-0833	8	SCREW BTNH CAP HEX SKT
117	18013-021	2	DOOR, FRONT TABLE (10 X 13)
118	68-0613	34	SCREW BTNH CAP HEX SKT
119	99012-001	2	HANDLE
120	99013-001	2	LATCH W/OUT SWITCH
121	81-1218	4	SCREW CAP HEX SOCKET
122	71-0004	20	NUT HEX & LK WASH
123	200-0701	2	MAGNET, ACTUATOR
124	50-0005	4	WASHER
125	71-0001	4	NUT HEX W/LCKWSH 4-40
126	MD84132	1	REMOTE CONTROL-24V RECIEVER & ANTENNA
127	71-0006	2	NUT HEX & LK WASH
128	68-0829	3	SCREW BTNH CAP HEX SKT
129	MD84131	1	REMOTE CONTROL, TRANSMITTER
130	T01111	1	RUBBER DUCK ANTENNA

Figure 3-6: Assembly Front Table/ FL80076

10x13

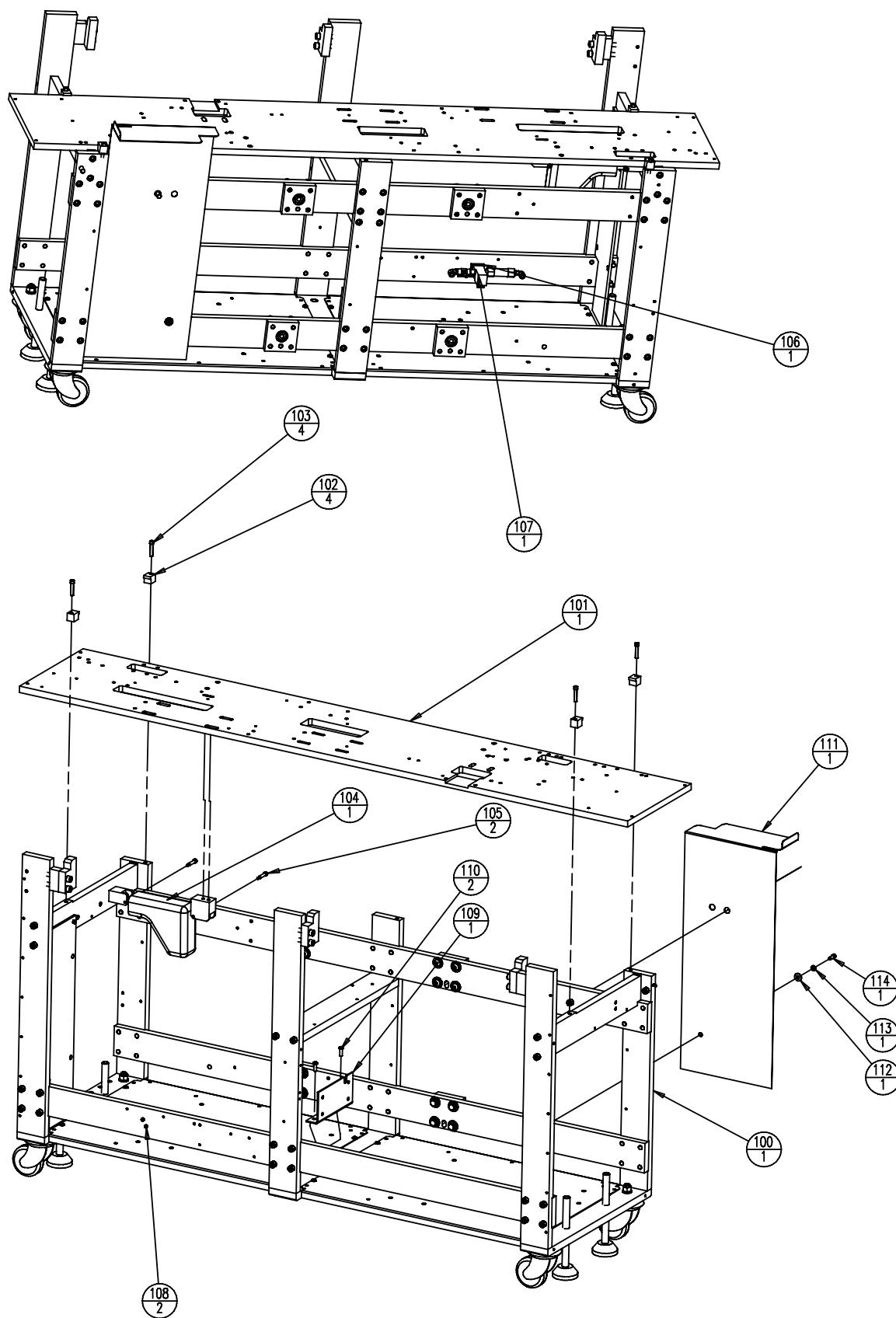


## Parts List 3-6: Assembly Front Table/ FL80076

Item	Part Number	Qty	Description
200	72-0503	4	SCREW & LOCK WASHER
201	FL84017	1	THRU-BEAM Emitter/DETECTOR
202	73-5152	4	SCREW PAN HEAD
203	244-0053	5	GROMMET/BUMPER
204	FL80144	1	ASSY-DOUBLE DETECT (CADRA DOC)
205	81-0841	2	SCREW CAP HEX SOCKET
206	52-0016	2	LK WASH HELICAL SPRING

Figure 3-7: Front Table Sub System/ FL80065

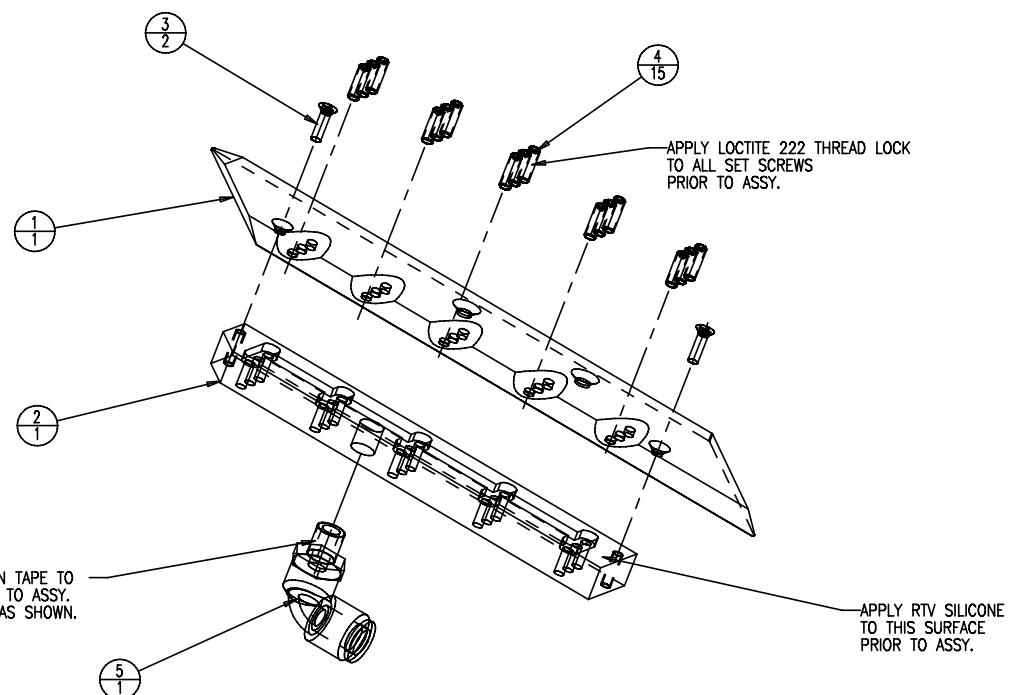
10x13



## Parts List 3-7: Front Table Sub System/ FL80065

Item	Part Number	Qty	Description
100	18020-002	1	FRONT TABLE FRAME 10 X 13
101	FL80059	1	DRIVE PLATE ASSY 10 X 13
102	18011-010	4	GIB DRIVE PLATE GUIDE
103	81-1228	4	SCREW CAP HEX SOCKET
104	99014-002	1	LINEAR ACTUATOR 4 ST.
105	99033-001	2	SHOULDER BOLT 1/4 X 1
106	18012-019	1	SPACER, WATER SOLENOID
107	18020-083	1	ASSY-WATER SOLENOID
108	81-0623	2	SCREW CAP HEX SOCKET

Figure 3-8: Adjustable Vacuum Plate 10x13/ FL80071

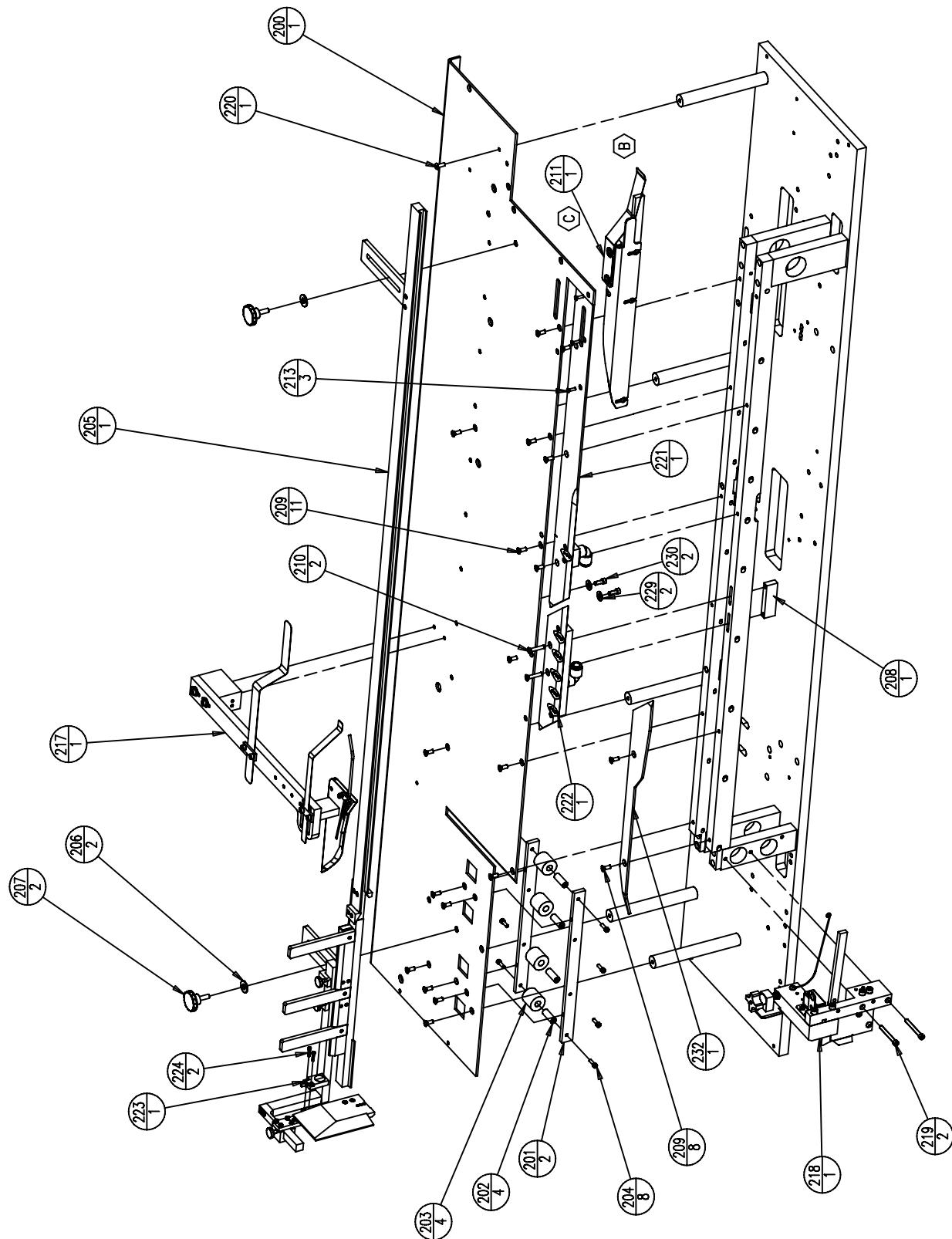


## Parts List 3-8: Adjustable Vacuum Plate 10x13/ FL80071

Item	Part Number	Qty	Description
1	18011-033	1	RAIL, INSERT GUIDE
2	18007-082	1	BLOCK, MANIFOLD (ADJ.)
3	74-0503	2	SCREW FLAT HEAD PH
4	75-0469	15	SET SCREW HEX SOCKET
5	509-1026	1	FTG ELBOW-ADAPTER

**Figure 3-9: Front Table Sub System/ FL80065**

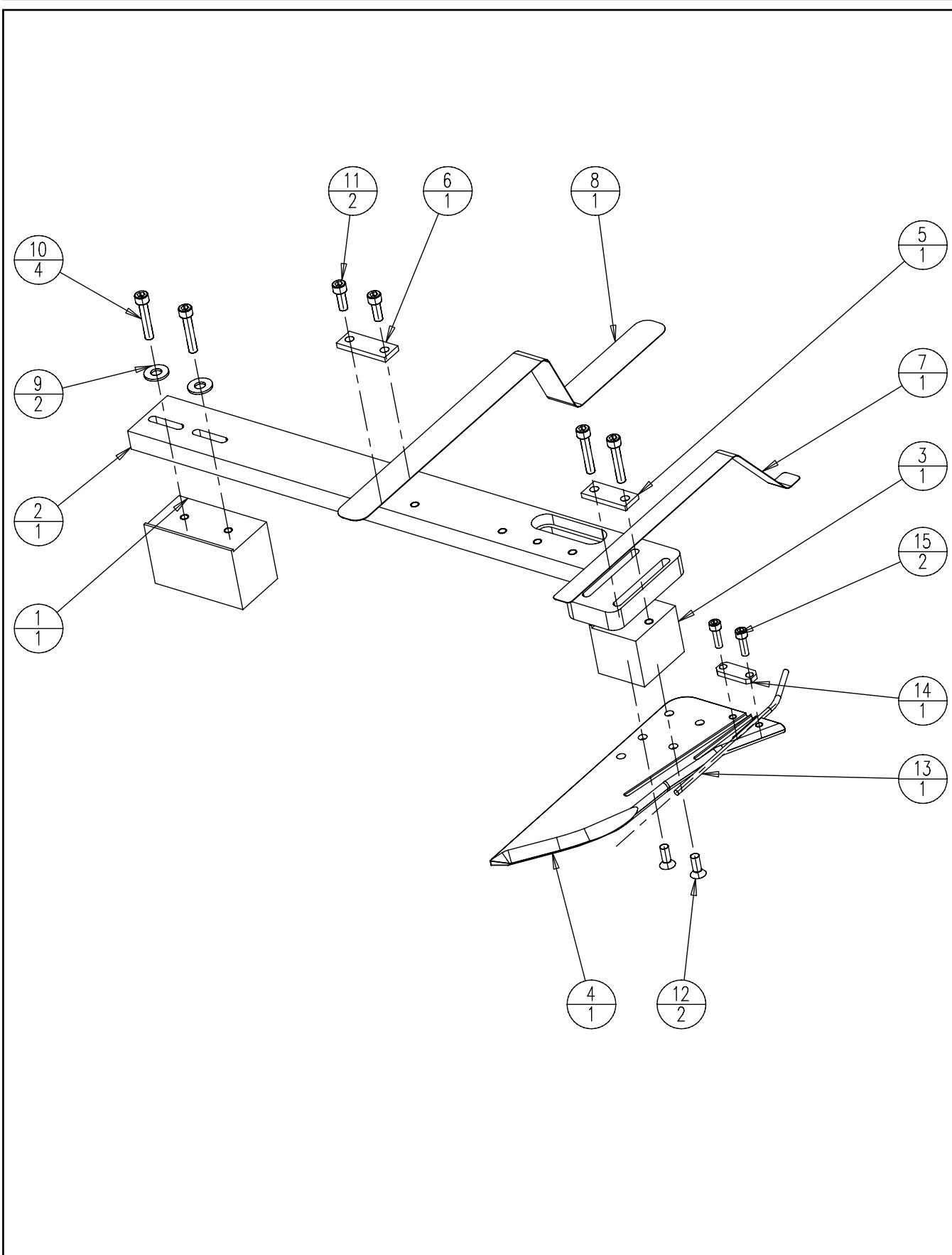
10x13



## Parts List 3-9: Front Table Sub System/ FL80065

Item	Part Number	Qty	Description
200	FL58041	1	PLATE-FRONT TABLE TOP (10X13)
201	18011-039	2	PLATE, ENVELOPE ROLLER MTG.
202	10012-003	4	SPACER
203	10006-016	4	ROLLER, TONGUE
204	81-0613	8	SCREW CAP HEX SOCKET
205	18020-090	1	PAPER GUIDE ASSEMBLY
206	50-0020	2	WASHER LOC-16
207	19-0013	2	KNOB CONTROL
208	18008-043	1	BAR, SLIDING NUT
209	74-0833	19	SCREW FLAT HEAD PH
210	74-0841	2	SCREW FLAT HEAD PH
211	FL80173	1	FLAPPER/SEALER ASSY
213	74-0503	3	SCREW FLAT HEAD PH
217	18020-092	1	ENVELOPE PLOW ASSEMBLY 10X13 (SEE FIG. 3-9)
218	18020-091	1	GATE ASSEMBLY (SEE FIG. 3-10)
219	81-0847	2	SCREW
220	68-0833	1	SCREW BTNHD CAP HEX SKT
221	FL80070	1	ASSY-FIXED VACUUM PLATE 10X13
222	FL80071	1	ASSY-ADJUSTABLE VACUUM PLATE 10X13
223	FL84021	1	REFLECTIVE SENSOR - FLAP DETECT/ENVELOPE PRESENT
224	81-0283	2	SCREW CAP HEX SOCKET
229	50-0017	2	WASHER LOC-09
230	81-0833	2	SCREW CAP HEX SOCKET
232	18011-034	1	RAIL, INSERT GUIDE

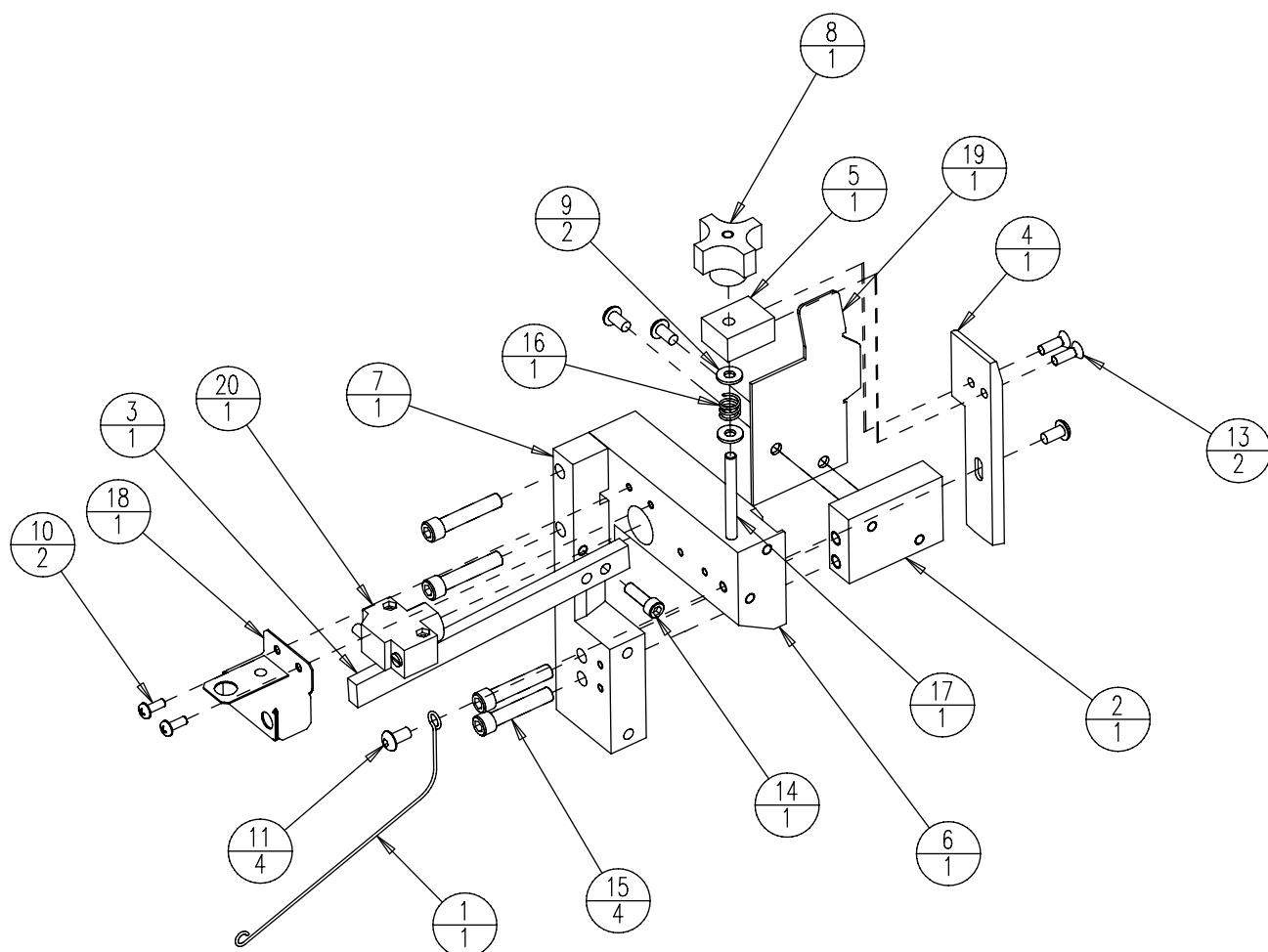
**Figure 3-10: Front Table Envelope Plow/ 18020-092**



## Parts List 3-10: Front Table Envelope Plow/ 18020-092

Item	Part Number	Qty	Description
1	18007-041	1	BLOCK, ENVELOPE PLOW SUPPORT
2	FL00461	1	SUPPORT, ENVELOPE PLOW 10X13
2	18008-024	1	SUPPORT, ENVELOPE PLOW 6X9
3	18007-010	1	BLOCK, ENVELOPE PLOW MTG (FIXED)
4	18005-021	1	PLOW, ENVELOPE OPENER
5	18009-015	1	PLATE, SPRING STEEL CLAMP - 7/8 CTRS
6	18009-016	1	BRACKET, STRAP MTG INSERTER
7	18005-074	1	GUIDE, SPRING STEEL, PLOW 10X13
7	18005-026	1	GUIDE, SPRING STEEL, PLOW 6X9
8	18005-075	1	GUIDE, SPRING STEEL, INSERT 10X13
8	18005-027	1	GUIDE, SPRING STEEL, INSERT 6X9
9	50-0017	2	WASHER PLAIN .245 ID
10	81-0841	4	SCREW CAP HEX SOCKET
11	81-0833	2	SCREW CAP HEX SOCKET
12	74-0833	2	SCREW FLAT HEAD PH
13	18005-060	1	GUIDE WIRE, ENVELOPE PLOW (LONG)
14	18009-007	1	PLATE, GUIDE WIRE CLAMP
15	81-0613	2	SCREW CAP HEX SOCKET

Figure 3-11: Front Table Separator Block/ 18020-091

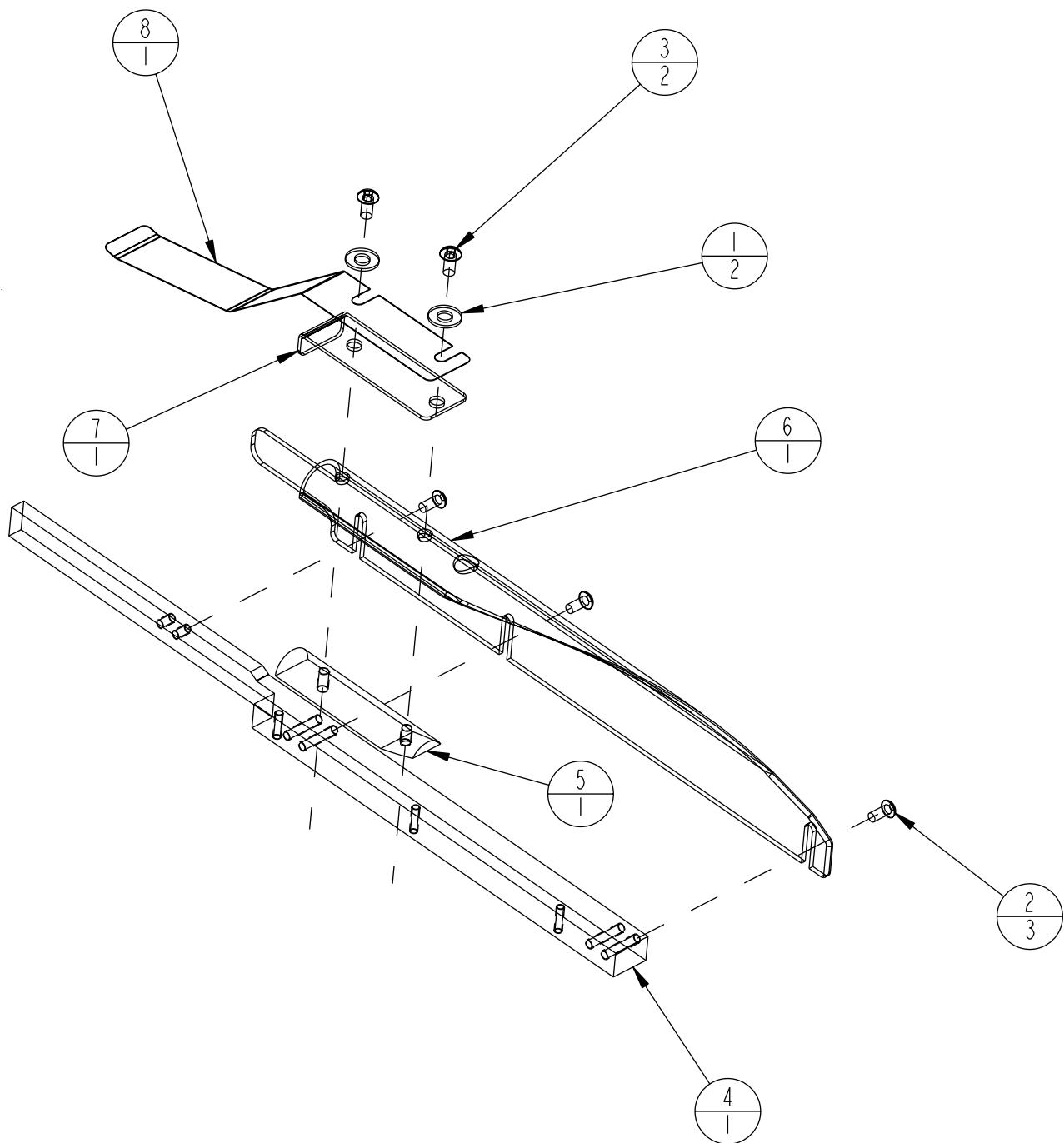


## Parts List 3-11: Front Table Separator Block/ 18020-091

Item	Part Number	Qty	Description
1	FL50022	1	GUIDE, ENVELOPE EXIT
2	FL45107	1	BLOCK-GUIDE MTG
3	18005-073	1	GUIDE, ENVELOPE PRE OPENER
4	18005-077	1	GATE-ENVELOPE HOPPER
5	18007-045	1	BLOCK, GATE ADJ
6	18007-079	1	BLOCK, GATE MTG.
7	18008-042	1	BLOCK, GATE SUPPORT
8	19-0014	1	KNOB CONTROL
9	50-0009	2	WASHER PLAIN
10	72-0501	2	SCREW & LK WASH
11	68-0831	4	SCREW BTNHD CAP HEX SKT
13	74-0613	2	SCREW FLAT HEAD PH
14	81-0835	1	SCREW CAP HEX SOCKET
15	81-1228	4	SCREW CAP HEX SOCKET
16	99005-007	1	OLDSTYLE:SPRING, DBL. DET.
17	99032-004	1	STUD, 10-32 X 2.5
18	FL51017	1	BRACKET, ENVELOPE SENSOR
19	FL51134	1	GUIDE-LOWER ENVELOPE
20	FL84023	1	PHOTO SENSOR - DIFFUSE

Figure 3-12: Flapper Sealer Assembly/ FL80173

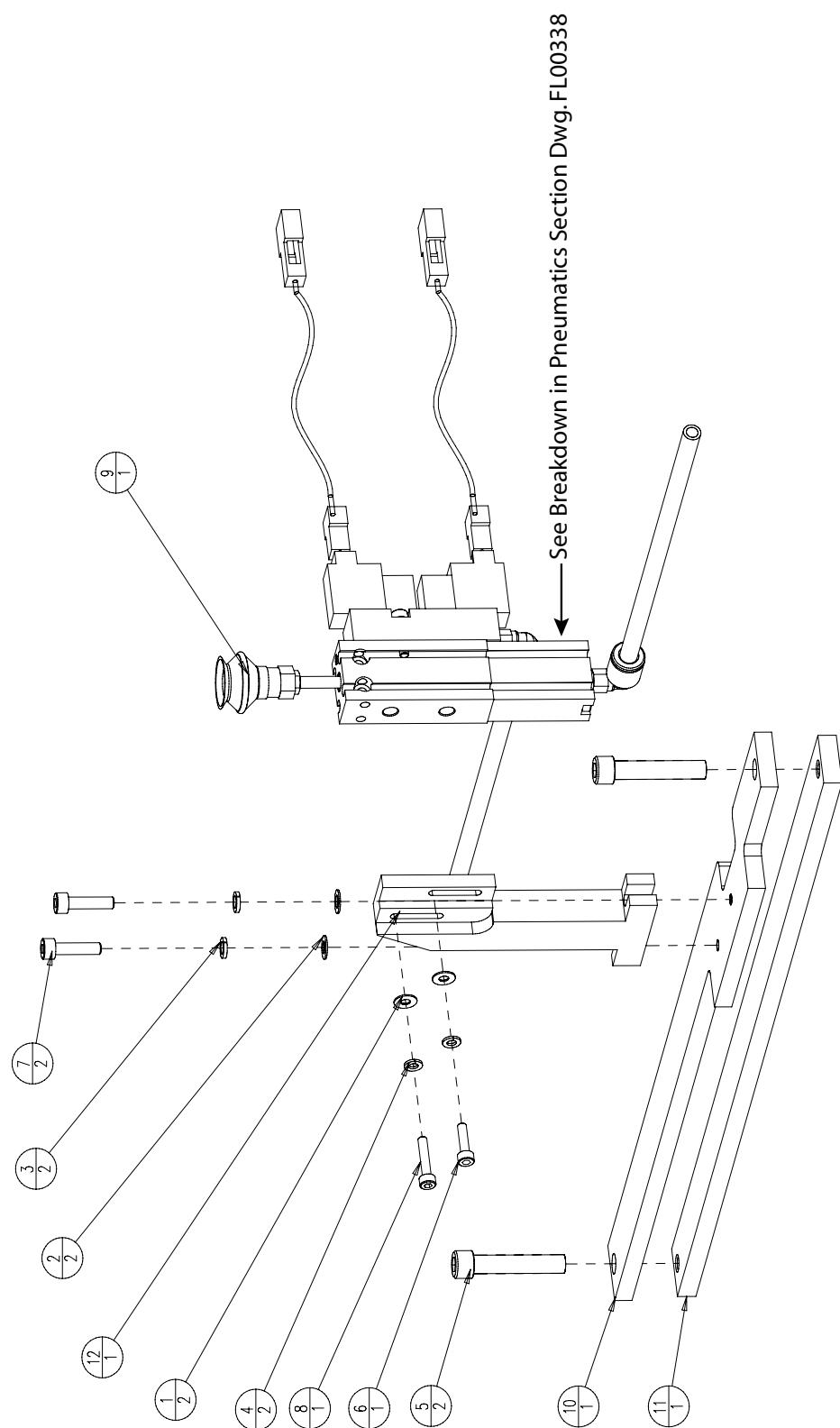
10x13



## Parts List 3-12: Flapper Sealer Assembly/ FL80173

Item	Part Number	Qty	Description
1	50-0017	2	WASHER LOC-09
2	68-0611	3	SCREW
3	68-0831	2	SCREW BTNHD CAP HEX SKT
4	FL45124	1	SEALER-ENVELOPE EDGE SUPPORT
5	FL46019	1	SHAFT-SEALER SUPPORT
6	FL51135	1	FLAPPER
7	FL51147	1	SEALER-CLOSER SUPPORT
8	FL51148	1	SEALER-FLAP CLOSER

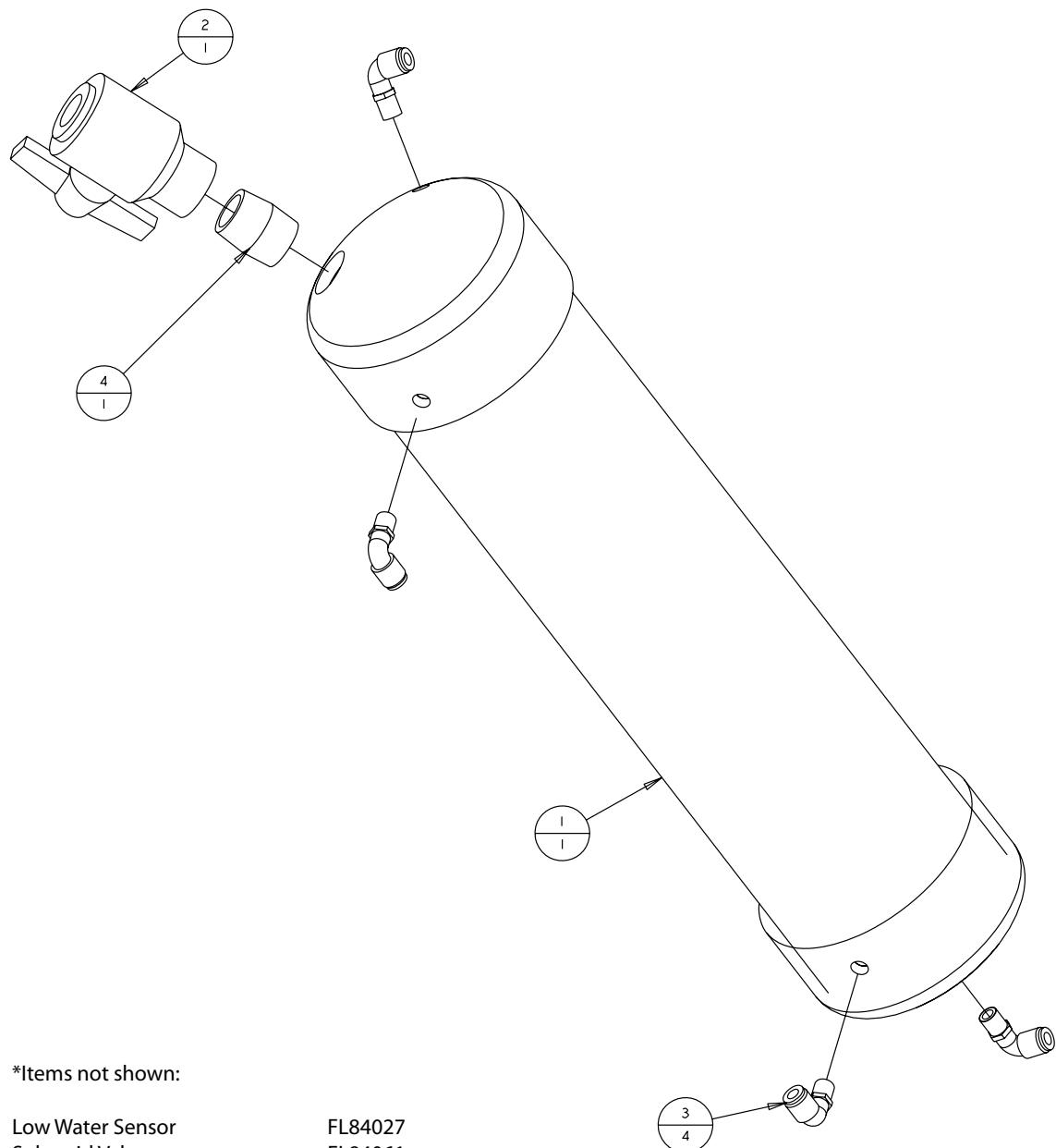
Figure 3-13: Assembly Actuator/ FL00384



## Parts List 3-13: Assembly Actuator/ FL00384

Item	Part Number	Qty	Description
1	50-0554	2	WASHER PLAIN 3.2MM ID
2	50-0586	2	WASHER PLAIN 4.3MM ID
3	52-0552	2	LK WASH HELICAL SPRING
4	52-0654	2	LOCKWASHER HELICAL SPRING 3.1MM ID
5	81-1228	2	SCREW CAP HEX SOCKET
6	81-5152	1	SCREW SOCKET HEAD CAP M3X 12MM
7	81-6609	2	SCREW
8	81-7154	2	SCR HEXAGON SOCKET CAP HD
9	FL00338	1	ACTUATOR
10	FL00354	1	PLATE, MOUNTING
11	FL00355	1	PLATE, CLAMP
12	FL00356	1	BRACKET, CYLINDER MOUNTING

Figure 3-14: Water Tank/ 18020-084



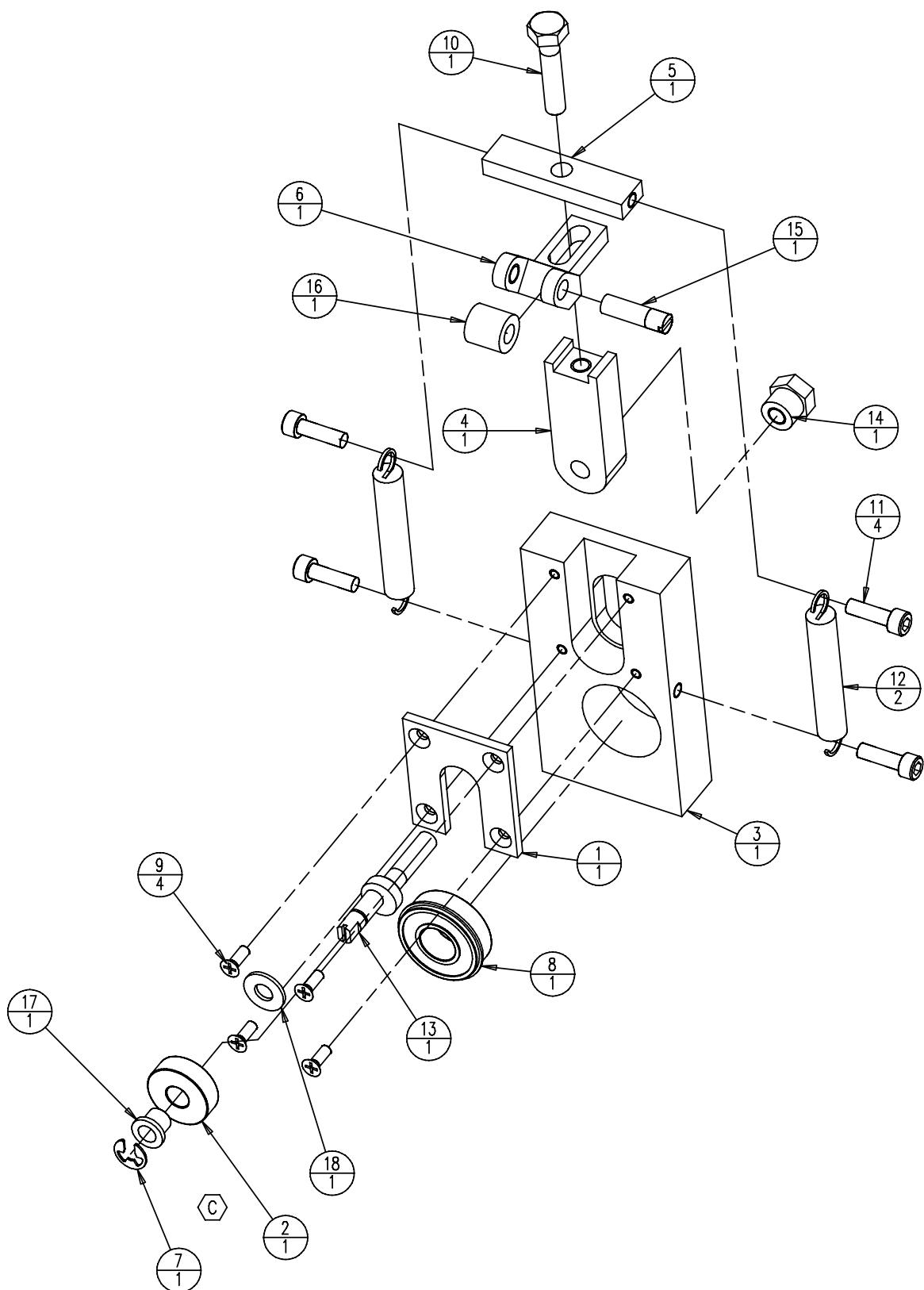
\*Items not shown:

Low Water Sensor	FL84027
Solenoid Valve	FL84061
Pet Lock	509-1042
Filter	509-1057
U Belt 4"	99024-001

## Parts List 3-14: Water Tank/ 18020-084

Item	Part Number	Qty	Description
1	18019-008	1	WATER TANK
2	99025-008	1	VALVE, BALL PVC 3/4 NPT
3	509-1053	4	FTG ELBOW-ADAPTER
4	509-2017	1	FTG, CLOSE NIPPLE 3/4 NPT

Figure 3-15: Center Jaw Opener/ 18020-010

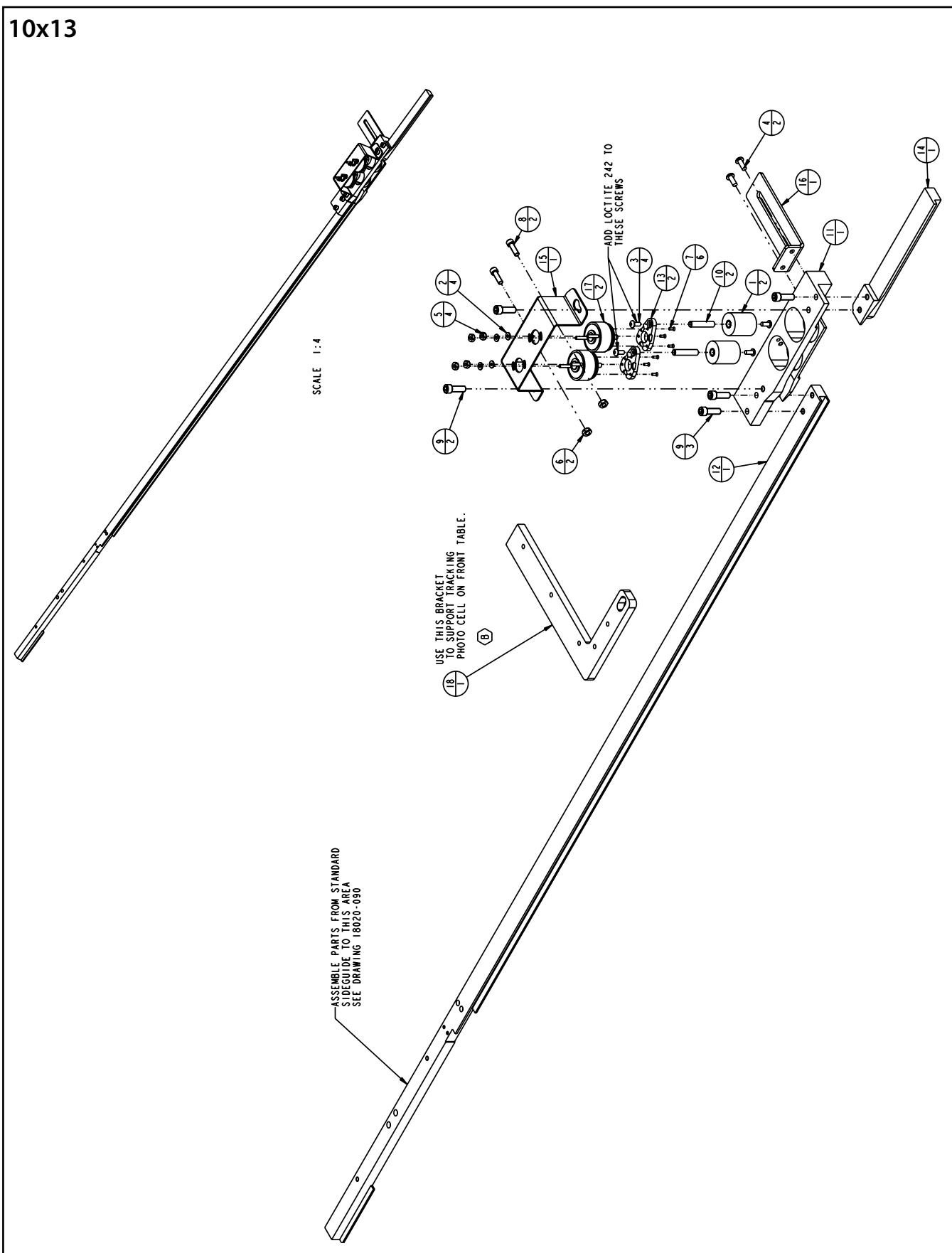


## Parts List 3-15: Center Jaw Opener/ 18020-010

Item	Part Number	Qty	Description
1	18005-024	1	GIB, CENTER JAW OPENER
2	319289	1	BEARING PUSHER CAM ROLLER
3	18007-025	1	BLOCK CTR JAW OPENER
4	18007-055	1	SLIDE, CENTER JAW OPENER
5	18009-004	1	BRACKET, CENTER JAW OPENER SPRING
6	18009-031	1	BRACKET, CTR JAW ROLLER
7	23-0021	1	E-RING.185 ID X.437 OD X .025
8	591-0289	1	BEARING BALL W/SNAP RING .5000 ID
9	74-0501	4	SCREW FLAT HEAD PH
10	79-1228	1	SCREW CAP HEX HEAD
11	81-0835	4	SCREW CAP HEX SOCKET
12	FL20001	2	SPRING-EXTENSION
13	99006-008	1	PIN, ECCENTRIC (CTR JAW OPENER)
14	99006-014	1	NUT, ECCENTRIC PIN
15	99006-015	1	PIN, CTR JAW ROLLER
16	99019-001	1	ROLLER CTR JAW OPENER
17	175-0061	1	BEARING FLANGED
18	50-0017	1	WASHER PLAIN .245 ID

Figure 3-16: Kit Bottom Edge Marker/ FL90005

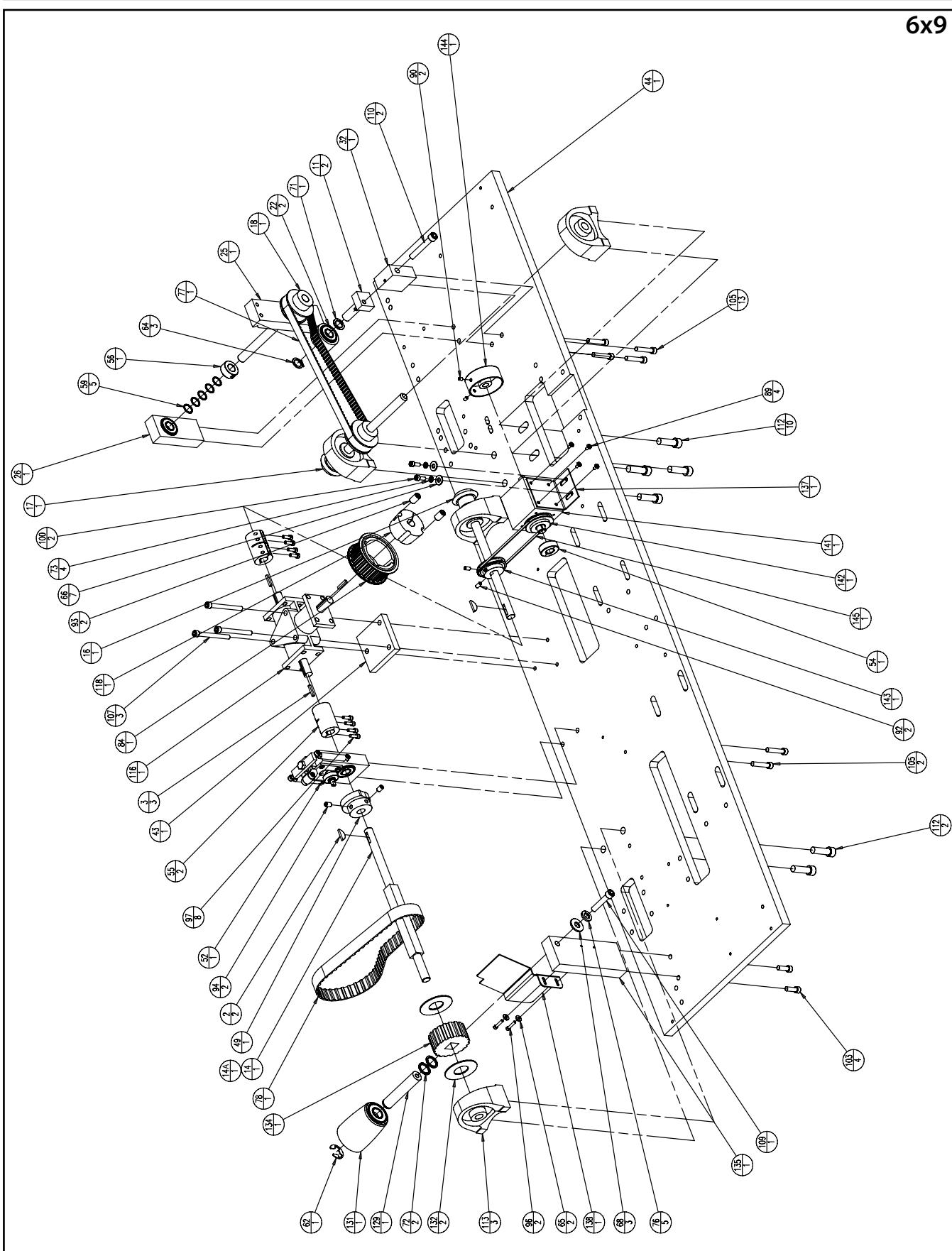
10x13



## Parts List 3-16: Kit Bottom Egde Marker/ FL90005

Item	Part Number	Qty	Description
1	6284066	2	INK TRANSFER ROLLER LOC 16
2	50-0005	4	WASHER
3	68-0611	4	SCREW
4	68-0833	2	SCREW BTNHLD CAP HEX SKT
5	71-0002	4	NUT HEX & LK WASH
6	71-0006	2	NUT HEX & LK WASH
7	74-0004	6	SCREW FLAT HEAD PH
8	81-0835	2	SCREW CAP HEX SOCKET
9	81-1222	5	SCREW CAP HEX SOCKET
10	FL10025	2	SHAFT, EDGEMARKER
11	FL45072	1	BODY, BOTTOM EDGE MARKER
12	FL45073	1	RAIL BOTTOM EDGE MARKER 10X13
13	FL45074	2	ARM, EDGEMARKER
14	FL45075	1	RAIL, BOTTOM EDGEMARKER
15	FL51091	1	BRACKET, BOTTOM EDGEMARKER
16	FL51094	1	BRACKET, EDGEMARKER HOLDDOWN
17	H184014	2	SOLEND INKR. LOC-16
18	FL45112	1	ARM, SENSOR MOUNTING (10 X 13)
19	18005-040	1	RAIL, ENVELOPE GUIDE
20	18008-019	1	BAR, RAIL MTG
21	81-0609	2	SCREW CAP HEX SOCKET
22	FL83078	1	HARNESS - BOTTOM EDGE MARKER

**Figure 3-17: 6x9 Drive Plate Assembly/ FL80063**

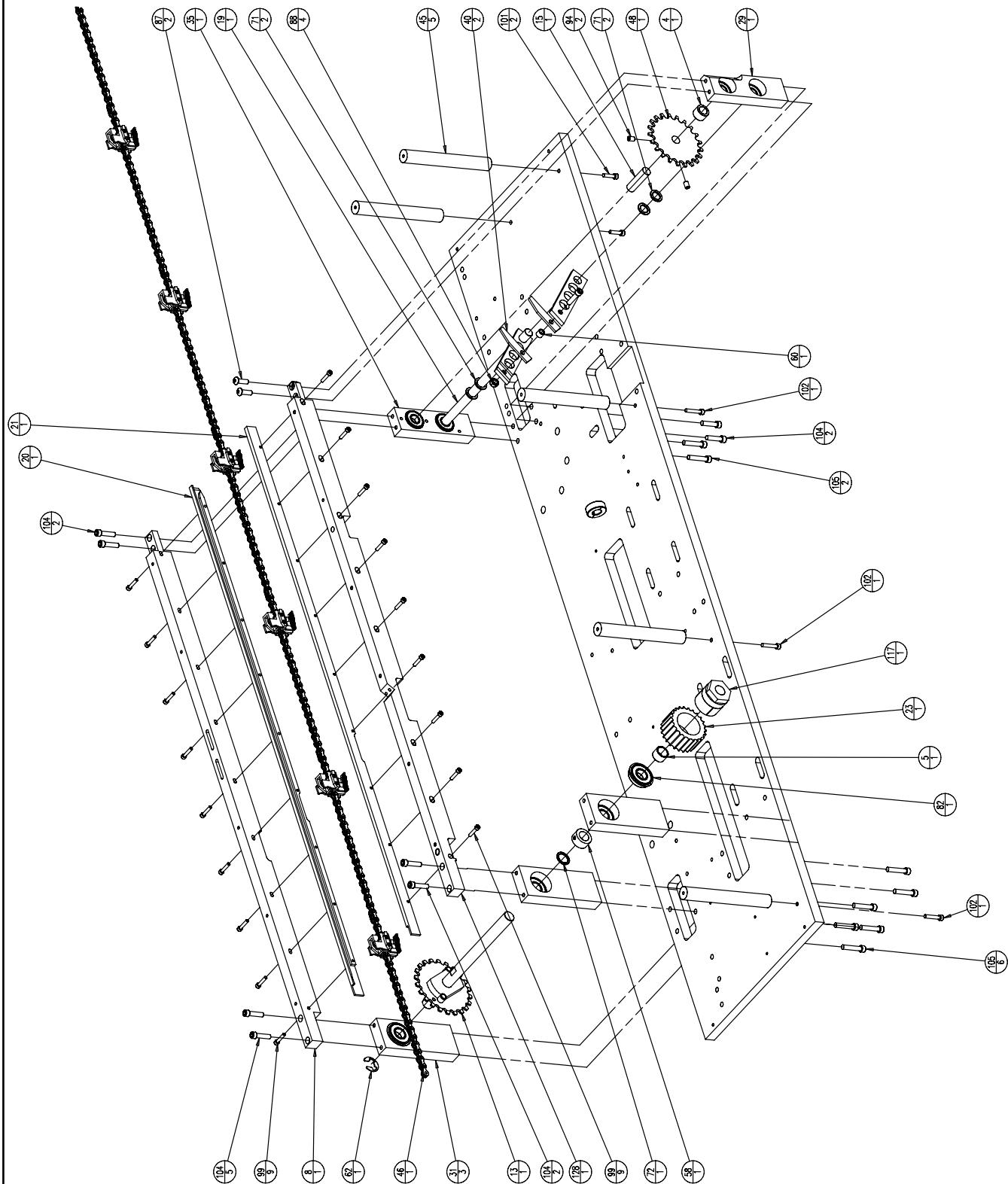


## Parts List 3-17: 6x9 Drive Plate Assembly/ FL80063

Item	Part Number	Qty	Description
2	158-0027	2	KEY WOODRUFF
3	158-0108	3	KEY SQUARE
11	18004-022	2	SHAFT, TENSIONER, ECCENTRIC
14	18004-026	1	SHAFT, COLLATOR DRIVE, 6X9
14A	FL00515	1	SHAFT, COLLATOR DRIVE, 6X9
16	18004-060	1	SHAFT ASSY, PRIMARY SHUTTLE DRIVE FRT.TABLE 6X9
17	18004-062	1	SHAFT ASSY, SECONDARY SHUTTLE DRIVE FRT.TABLE
18	18004-063	1	SHAFT ASSY, SHUTTLE GUIDE 6X9
22	18006-011	2	PULLEY, IDLER
25	18007-020	1	BLOCK, CAM ROLLER SHAFT MTG
26	18007-021	1	BLOCK, CAM SHAFT MTG
32	18007-030	1	BLOCK, IDLER PULLEY
43	18011-009	1	SPACER, GEARBOX
44	18011-014	1	PLATE, FRONT TABLE DRIVE 6X9
49	18016-008	1	CAM CTR JAW OPENER
52	18020-010	1	ASSY-CENTER JAW OPENER
54	185-0307	1	COLLAR SPLIT ONE-PIECE
55	185-0413	2	COUPLING, ONE-PIECE W/KEY
56	185-0414	1	COLLAR, CLAMP
59	20-0023	5	SPACER PLAIN
62	23-0062	2	E RING RETAINING
64	26-0957	3	RING RETAINING EXT
65	50-0007	2	WASHER .151/.164 X .370/.390""
66	50-0017	7	WASHER PLAIN .245 ID
68	50-0024	3	WASHER PLAIN
71	50-0704	7	WASHER, PLAIN NYLON 6/6
72	50-0723	3	WASHER, PLAIN NYLON 6/6
73	52-0016	4	LK WASH HELICAL SPRING
76	52-0027	5	LK WASH HELICAL SPRING
77	566-0323	1	BELT TIMING 3/8 P (L)
78	566-0314	1	BELT TIMING 3/8 P (L) WITH UNIVERSAL CHASSIS
78	566-0324	1	BELT TIMING 3/8 P (L) WITH STANDARD CHASSIS
84	592-0009	1	PULLEY, TIMING L TAPER LK
89	72-0499	4	SCREW & LK WASH
90	75-0445	2	SET SCREW HEX SOCKET
92	75-0565	2	SET SCREW HEX SOCKET
93	75-0913	2	SCREW SET CUP POINT HEX 3/8-16X .625
94	75-8015	6	SCR, SET BRASS-TIPPED
96	81-0505	2	SCREW CAP HEX SOCKET
97	81-0613	8	SCREW CAP HEX SOCKET
100	81-0833	2	SCREW CAP HEX SOCKET
103	81-1222	4	SCREW CAP HEX SOCKET
105	81-1228	33	SCREW CAP HEX SOCKET
107	81-1238	3	SCREW CAP HEX SOCKET
109	81-1340	1	SCREW CAP HEX SOCKET
110	81-1344	2	SCREW CAP HEX SOCKET
112	81-1448	12	SCREW CAP HEX SOCKET
113	99003-009	3	BEARING PILLOW BLOCK 1/2
116	99015-002	1	GEARBOX RIGHT ANGLE
118	99017-012	1	BUSHING TAPERLOCK 1210 1/2 B.
129	FL10003	1	FRONT TABLE ROLLER SHAFT
131	FL13000	1	PULLEY, TURNOVER
132	FL18000	2	WASHER, DRIVE PULLEY THRUST
134	FL37001	1	PULLEY, CONVEYOR DRIVE
135	FL45009	1	BLOCK, FRONT TABLE IDLER
137	FL45102	1	BRACKET-ENCODER MOUNT
138	FL51028	1	SHIELD, INPUT ROLLER
141	FL84030	1	360 COUNT ENCODER
142	FL84063	1	PULLEY - ENCODER SHAFT
143	FL84064	1	PULLEY - ENCODER DRIVE
145	FL84066	1	BELT - ENCODER DRIVE

**Figure 3-18: 6x9 Drive Plate Assembly/ FL80063**

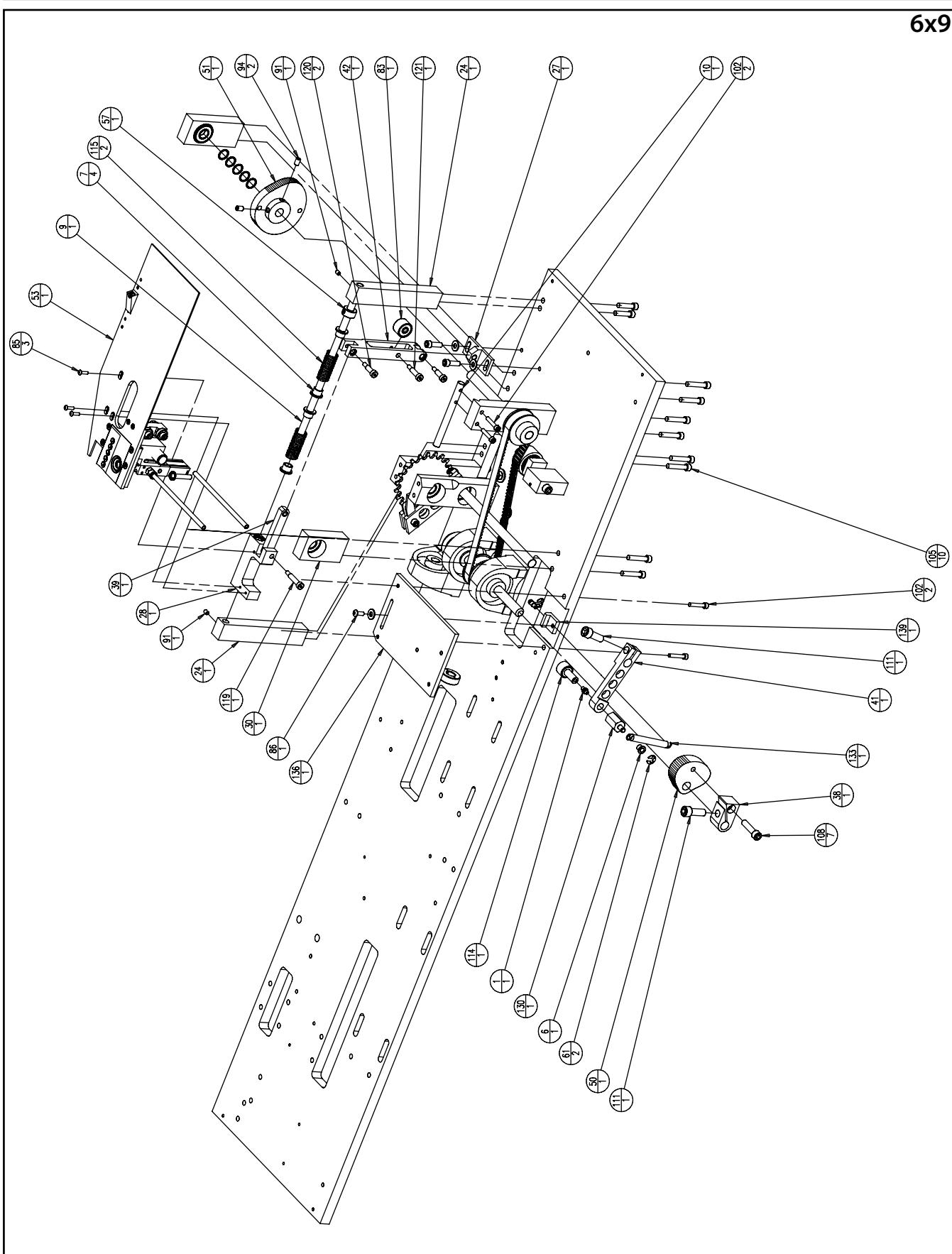
6x9



## Parts List 3-18: 6x9 Drive Plate Assembly/ FL80063

Item	Part Number	Qty	Description
4	170-0223	1	BEARING PLAIN
5	170-0358	1	BEARING, PLAIN
8	18003-020	1	BAR CHAIN GUIDE SUPPORT W/SLOT RH 6X9
13	18004-025	1	SPROCKET-SHAFT ASSY 22T ENV.CHAIN 6X9
15	18004-030	1	SHAFT IDLER FRT TABLE
19	18004-072	1	ASSY, RH JAW OPENER SHAFT
20	18005-010	1	GUIDE ENVELOPE CHAIN RH (6X9)
21	18005-011	1	GUIDE ENVELOPE CHAIN LH 6X9
23	18006-020	1	PULLEY 24-8M-20 1-1/2 B.
29	18007-026	1	BEARING BLOCK CHAIN SUPPORT 10X13
31	18007-028	3	BEARING BLOCK CHAIN SUPPORT
35	18007-046	1	BEARING BLOCK CHAIN SUPPORT
40	18008-048	2	BAR, RH JAW OPENER
45	18012-008	5	STANDOFF, FRONT TABLE
46	18014-008	1	ASSY-GRIPPER CHAIN, 6X9
48	18015-005	1	SPROCKET, IDLER 21T FRT.TABLE
58	185-0416	1	COLLAR, CLAMP
60	20-0601	1	SHIM, STEEL
62	23-0062	2	E RING RETAINING
71	50-0704	7	WASHER, PLAIN NYLON 6/6
72	50-0723	3	WASHER, PLAIN NYLON 6/6
82	591-0403	1	BBRG SEALED W/SNAP RING
87	68-1222	2	SCREW BTNHD CAP HEX SKT
88	71-0007	4	NUT HEX & LK WASH
94	75-8015	6	SCR, SET BRASS-TIPPED
99	81-0617	18	SCREW CAP HEX SOCKET
101	81-0837	2	SCREW CAP HEX SOCKET
102	81-0841	7	SCREW CAP HEX SOCKET
104	81-1226	11	SCREW CAP HEX SOCKET
105	81-1228	33	SCREW CAP HEX SOCKET
117	99017-010	1	TRANTORQUE 5/8 B
128	FL00476	1	BAR, CHAIN GUIDE SUPPORT (6X9)

**Figure 3-19: 6x9 Drive Plate Assembly/ FL80063**



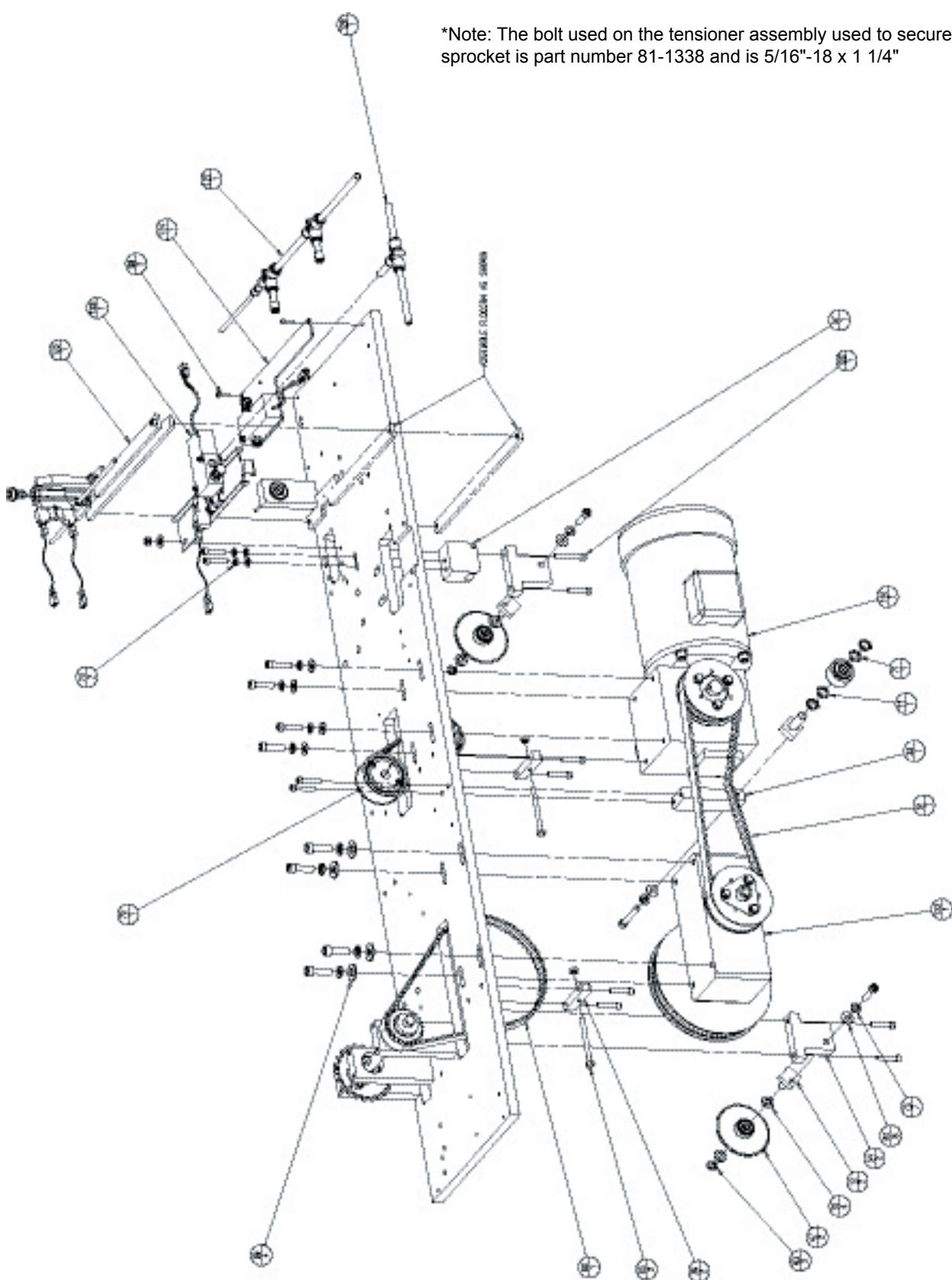
## Parts List 3-19: 6x9 Drive Plate Assembly/ FL80063

Item	Part Number	Qty	Description
1	157-0001	1	FITTING GREASE
6	175-0061	1	BEARING FLANGED
7	175-0195	4	BEARING FLANGED
9	18004-018	1	SHAFT, SHUTTLE
10	18004-019	1	SHAFT, CAM ROLLER
24	18007-019	2	BLOCK, SHUTTLE SHAFT MTG
27	18007-022	1	BLOCK, PIVOT MTG
28	18007-023	1	BLOCK, SHUTTLE GUIDE
30	18007-027	1	BLOCK, BEARING-RH JAW OPENER
38	18007-103	1	BLOCK, RH JAW CAM CLAMP
39	18008-018	1	BAR, SHUTTLE ARM
41	18008-082	1	ARM, RH JAW ROLLER MTG
42	18008-099	1	BAR - PIVOT
50	18016-012	1	CAM, RH JAW
51	18016-014	1	CAM, ENVELOPE -DRIVE PLATE ASSY
53	18020-062	1	ASSY-SHUTTLE PLATE
57	185-0415	1	COLLAR, CLAMP
61	23-0025	2	RING E RETAINING .250 SHAFT
83	591-1274	1	BEARING ROLLER .250 ID
85	68-0503	3	SCREW BTNHD CAP HEX SKT
86	68-0833	1	SCREW BTNHD CAP HEX SKT
91	75-0553	2	SET SCREW HEX SOCKET
94	75-8015	6	SCR, SET BRASS-TIPPED
102	81-0841	7	SCREW CAP HEX SOCKET
105	81-1228	33	SCREW CAP HEX SOCKET
108	81-1338	7	SCREW CAP HEX SOCKET
111	81-1446	2	SCREW CAP HEX SOCKET
114	99003-052	1	CAM FOLLOWER, 3/4 DIAM.
115	99005-005	2	SPRING, SHUTTLE
119	99033-001	1	SHOULDER BOLT 1/4 X 1
120	99033-002	2	SHOULDER BOLT 1/4 X 5/8
121	99033-005	1	SHOULDER BOLT 1/4 X 3/4
130	FL11006	1	STUD-SHUTTLE CAM FOLLOWER SPRING
133	FL20002	1	SPRING-RH JAW CAM (CADRA DOC.)
136	FL45077	1	PLATE-FILTER MOUNTING
139	FL80006	1	ASSY-CAM SPRING ANCHOR

Figure 3-20: 6x9 Drive Plate Assembly/ FL80063

6x9

\*Note: The bolt used on the tensioner assembly used to secure the sprocket is part number 81-1338 and is 5/16"-18 x 1 1/4"

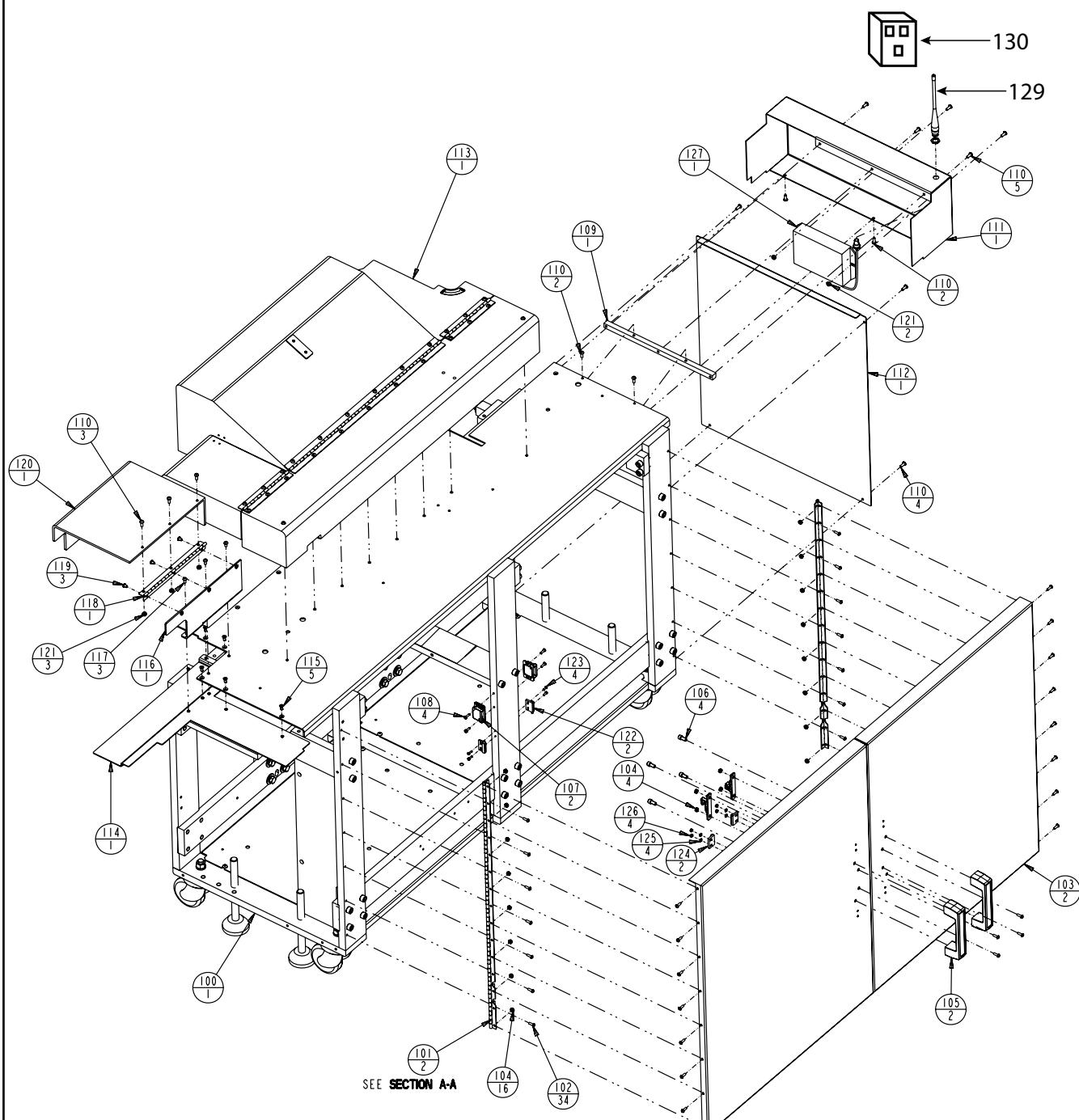


## Parts List 3-20: 6x9 Drive Plate Assembly/ FL80063

Item	Part Number	Qty	Description
12	18004-024	2	SHAFT ECC. IDLER 3/8 ENV.DR. FRT.TABLE
33	18007-031	1	BLOCK IDLER PULLEY FRT.TABLE
34	18007-034	2	BLOCK IDLER MTG FRT.TABLE
36	18007-078	2	BLOCK, TAKE UP
37	18007-091	1	BLOCK ACTUATOR MTG
47	18015-004	2	SPROCKET, IDLER 20T FRT.TABLE
63	26-0956	2	RING RETAINING EXT
67	50-0020	8	WASHER LOC-16
69	50-0028	4	WASHER PLAIN
70	50-0703	4	WASHER, PLAIN NYLON 6/6
71	50-0704	7	WASHER, PLAIN NYLON 6/6
74	52-0023	2	LK WASH HELICAL SPRING
75	52-0025	7	LK WASH HELICAL SPRING
79	566-0326	1	BELT, TIMING 3/8 P (L)
80	566-2151	1	BELT, TIMING 8MM HTD
81	566-2152	1	BELT, TIMING 8MM HTD
95	79-1242	2	SCREW CAP HEX HEAD
96	81-0505	2	SCREW CAP HEX SOCKET
106	81-1232	1	SCREW CAP HEX SOCKET
122	FL00018	1	ASSY - INDEXING BOX
123	FL00335	1	ASSY PNEUMATIC MTG
124	FL00337	1	VALVE; VACUUM
125	FL00384	1	ASSY - ACTUATOR MTG
126	FL00387	1	ASSY UNION TEE 3/8 DIA - ACTUATOR
127	FL00388	1	ASSY UNION TEE 10MM DIA.- ACTUATOR
140	FL80064	1	ASSY-FRONT TABLE MOTOR

Figure 3-21: 6x9 Front Table Assembly/ FL80062

6x9

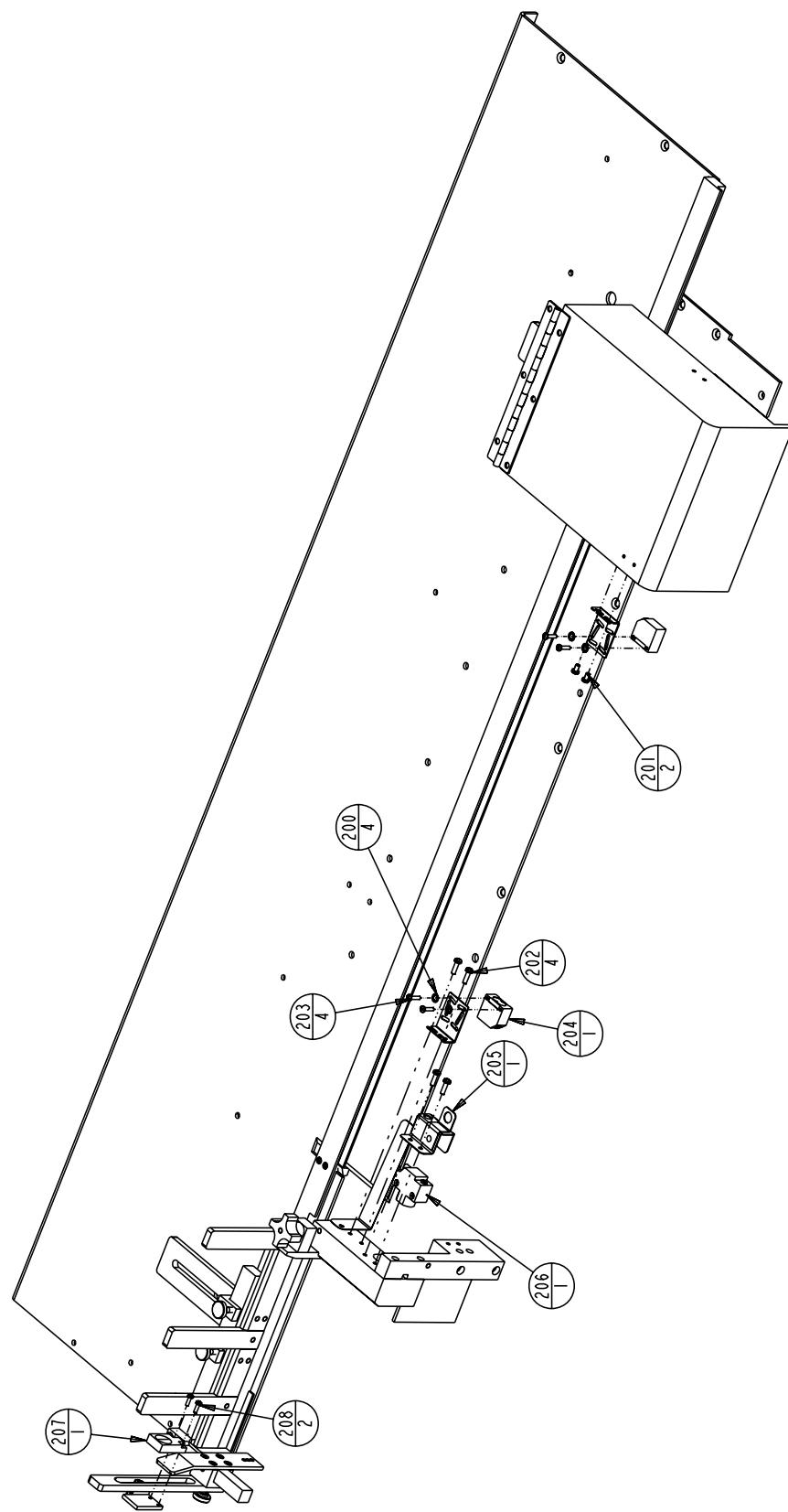


## Parts List 3-21: 6x9 Front Table Assembly/ FL80062

Item	Part Number	Qty	Description
100	FL80066	1	ASSY-6X9 FRONT TABLE SUBSYSTEM
101	18013-013	2	HINGE, FRONT TABLE DOOR
102	68-0613	34	SCREW, HEX SOCK, #8
103	18013-004	2	DOOR, FRONT TABLE, 6X9
104	71-0004	20	NUT, 8-32 LOCK
105	99012-001	2	HANDLE, DOOR
106	81-1218	4	SCREW, 1/4-20 X 1/2" CAP
107	9901-001	2	LATCH
108	72-0503	4	SCREW, 6-32 X 1/4 PANHD
109	18008-025	1	BAR, COVER MTG
110	68-0833	16	SCREW BH #10-32 X 1/2
111	18013-006	1	COVER, END CAP, RH 6X9
112	18013-007	1	COVER, END
113	FL80018	1	COVER ASSY, 6X9 FRONT TABLE
114	FL58013	1	FILLER PLATE, TURNOVER, 6X9
115	74-0831	5	SCREW, 10-32 X 3/8" FLAT HD
116	FL51086	1	BRACKET, TURNOVER COVER
117	68-0831	3	SCREW BH #10 10-32 X 3/8
118	FL46000	1	HINGE - 9.5 IN LONG
119	68-0829	3	SCREW, 10-32 X 1/4" BTN HD
120	FL62051	1	COVER, TURNOVER INTERFACE, 6X9
121	71-0006	5	NUT, 10-32 LOCK
122	Y58035	2	INTERLOCK SWITCH
123	72-0281	4	SCREW, 4-40 X 3/8" PAN HD
124	200-0701	2	ACTUATOR
125	50-0005	4	WASHER, #4 FLAT
126	71-0001	4	NUT, 4-40 LOCK
127	MD84132	1	REMOTE RECEIVER AND ANTENNA
128	MD84131	1	REMOTE CONTROL TRANSMITTER
129	TO1111	1	RUBBER DUCK ANTENNA

**Figure 3-22: 6x9 Front Table Assembly/ FL80062**

6x9

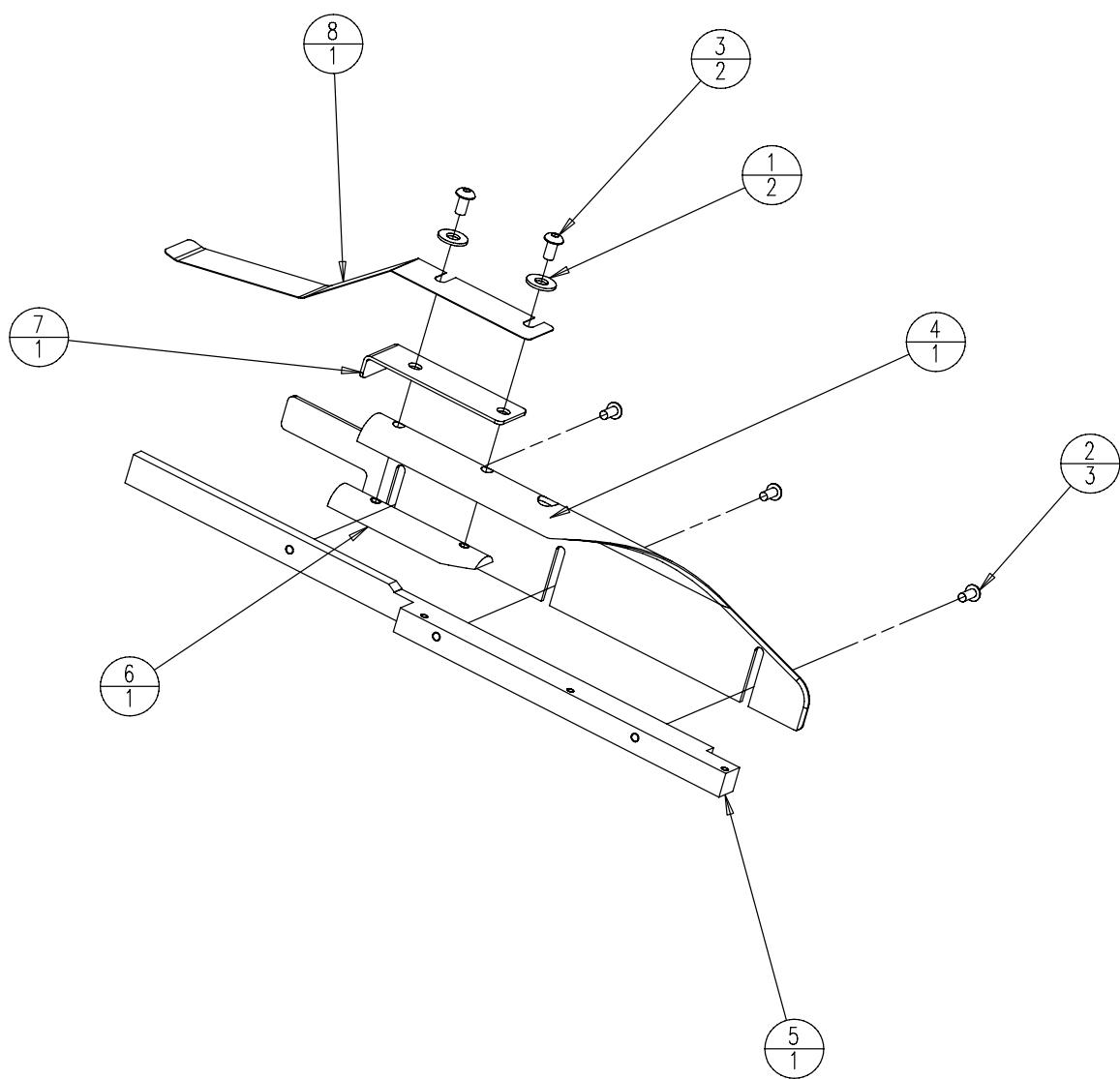


## Parts List 3-22: 6x9 Front Table Assembly/ FL80062

Item	Part Number	Qty	Description
200	52-0530	4	WASHER, LOCK
201	72-0499	2	SCREW, 6-32 X 1/4 PAN HD
202	72-0503	4	SCREW, 6-32 X 1/4 PAN HD
203	73-5152	4	SCREW, M3 X 12 PAN HD
204	FL84017CC	1	PHOTOCELL
205	FL51017	1	BRACKET, ENVELOPE SENSOR
206	FL84023	1	PHOTOCELL, REFLECTIVE
207	FL84021	1	SENSOR, REFLECTIVE, FLAP DETECT
208	72-0281	2	SCREW, 4-40 X 3/8" PAN HD

Figure 3-23: 6x9 Front Table Assembly/ FL00099

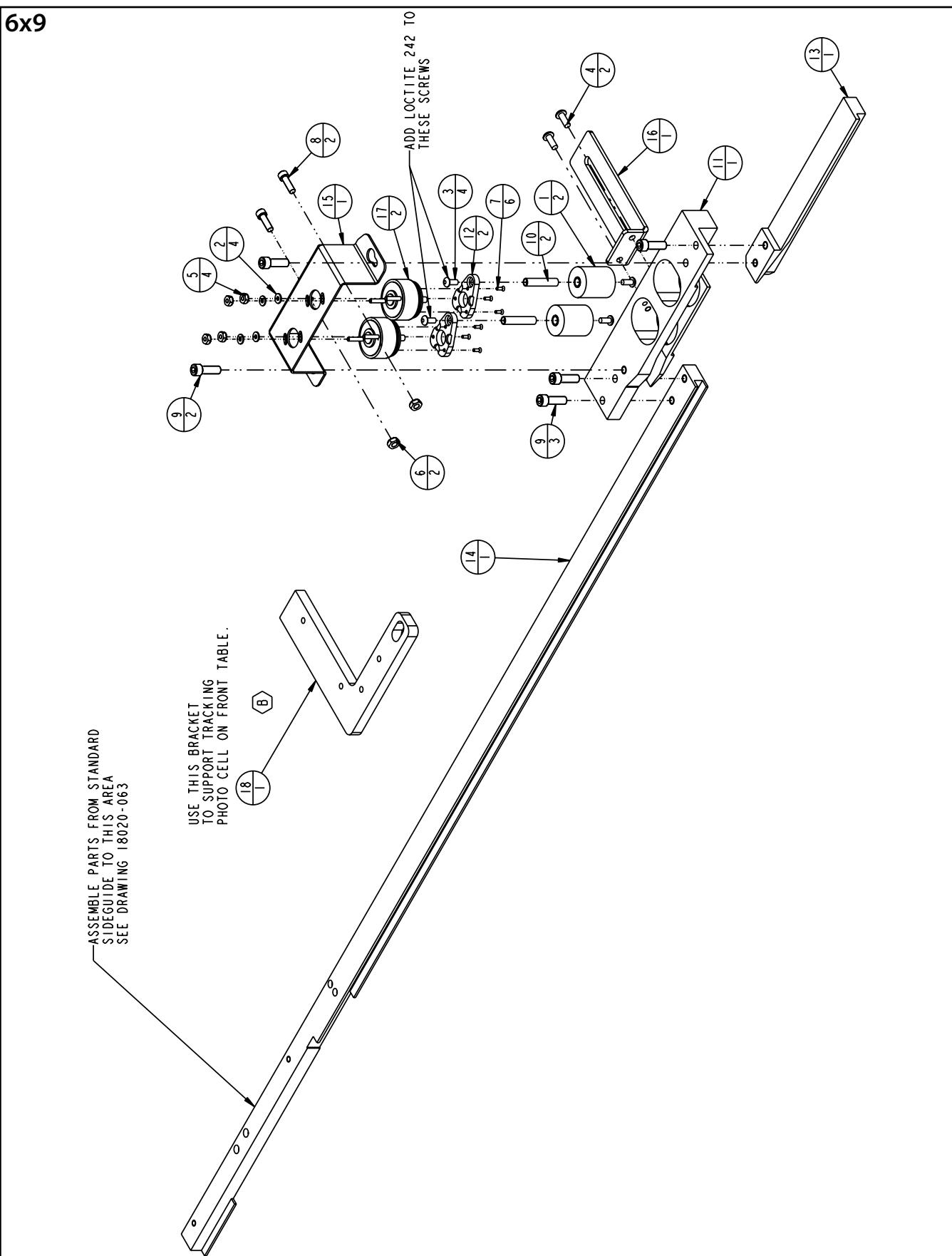
6x9



## Parts List 3-23: 6x9 Front Table Assembly/ FL00099

Item	Part Number	Qty	Description
1	50-0017	2	WASHER, FLAT, 3/16"
2	68-0611	3	SCREW, BUTTON HD, 8-32 X 3/8
3	68-0831	2	SCREW BH #10-32 X 3/8
4	FL00097	1	FLAPPER
5	FL00098	1	SEALER, DECK SUPPORT
6	FL46019	1	SEALER, SUPPORT SHAFT
7	FL51147	1	SEALER, CLOSER SUPPORT
8	FL51148	1	SEALER, FLAP CLOSER

Figure 3-24: 6x9 Kit Bottom Edge Marker/ FL90006



## Parts List 3-24: 6x9 Kit Bottom Edge Marker/ FL90006

Item	Part Number	Qty	Description
1	6284066	2	INK TRANSFER ROLLER LOC 16
2	50-0005	4	WASHER
3	68-0611	4	SCREW
4	68-0833	2	SCREW BTNHD CAP HEX SKT
5	71-0002	4	NUT HEX & LK WASH
6	71-0006	2	NUT HEX & LK WASH
7	74-0004	6	SCREW FLAT HEAD PH
8	81-0835	2	SCREW CAP HEX SOCKET
9	81-1222	5	SCREW CAP HEX SOCKET
10	FL10025	2	SHAFT, EDGEMARKER
11	FL45072	1	BODY, BOTTOM EDGE MARKER
12	FL45074	2	ARM, EDGEMARKER
13	FL45075	1	RAIL, BOTTOM EDGEMARKER
14	FL45076	1	GUIDE, EDGEMARKER BOTTOM EDGE, 6X9
15	FL51091	1	BRACKET, BOTTOM EDGEMARKER
16	FL51094	1	BRACKET, EDGEMARKER HOLDDOWN
17	H184014	2	SOLEND INKR. LOC-16
18	FL45000	1	ARM, SENSOR MOUNTING
19	18005-013	1	RAIL, ENVELOPE GUIDE (6X9)
20	18008-019	1	BAR, RAIL MTG.
21	81-0609	2	SCREW CAP HEX SOCKET
22	FL83078	1	HARNESS - BOTTOM EDGE MARKER



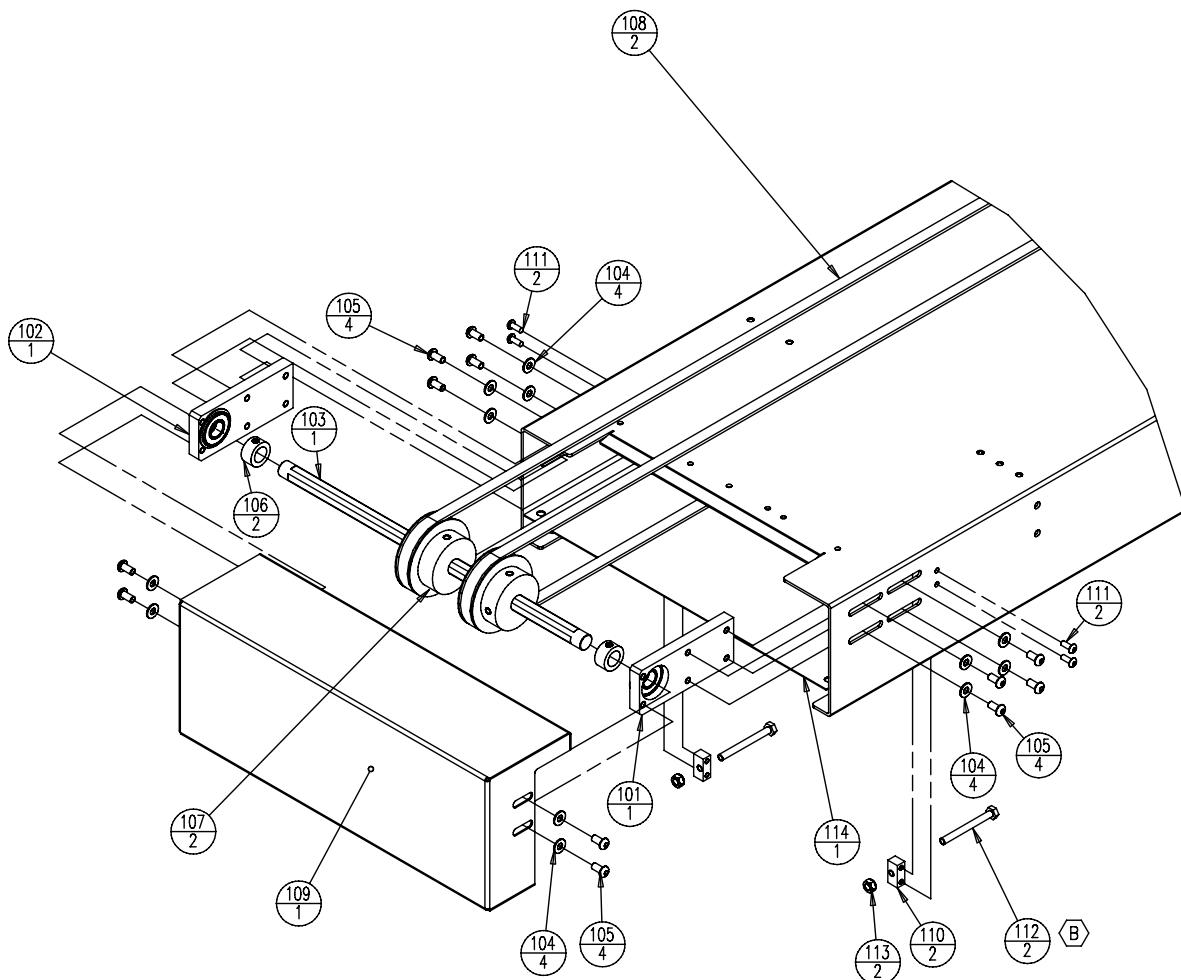
## **4    *FlowMaster Infeed* *Conveyor FX10/ FX14***



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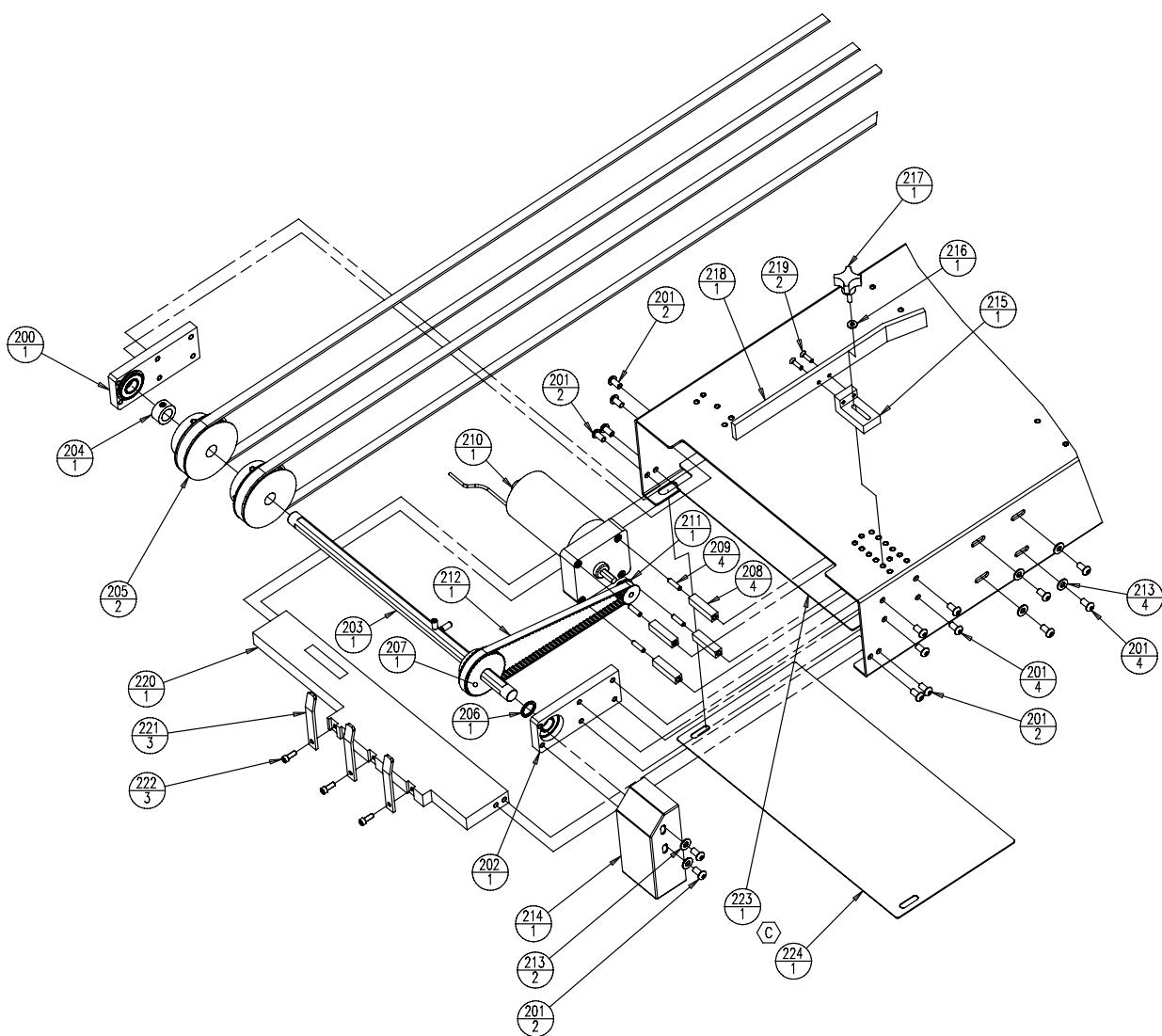
Figure 4-1: Assembly Infeed Conveyor/ FL00052



## Parts List 4-1: Assembly Infeed Conveyor/FL00052

Item	Part Number	Qty	Description
101	FL45066	1	BLOCK-INFEED CONV BEARING (LEFT)
102	FL45067	1	BLOCK-INFEED CONV BEARING (RIGHT)
103	12004-003	1	SHAFT, DRIVE
104	50-0017	12	WASHER PLAIN .245 ID
105	68-1218	12	SCREW BTNHD CAP HEX SKT
106	185-0416	2	COLLAR, CLAMP
107	592-0033	2	PULLEY TIMING DBL FLANGE L 24T
108	FL00050	2	BELT-ENV INFEED CONVEYOR 1/2" WIRE BLUE COGGED
108	FL84039	2	BELT-ENV INFEED CONVEYOR 1" WIRE BLUE COGGED
108	99000-053	3	BELT-ENV INFEED CONVEYOR 1" WIRE GREY SMOOTH
109	FL51008	1	END CAP
110	12007-002	2	BLOCK-BELT TENSIONER MTG
111	68-0833	4	SCREW BTNHD CAP HEX SKT
112	79-1239	2	SCREW HEX FULL THREAD
113	71-0007	2	NUT HEX & LK WASH
114	FL51133	1	SHIELD - IDLER LEG (INFEED CONV)

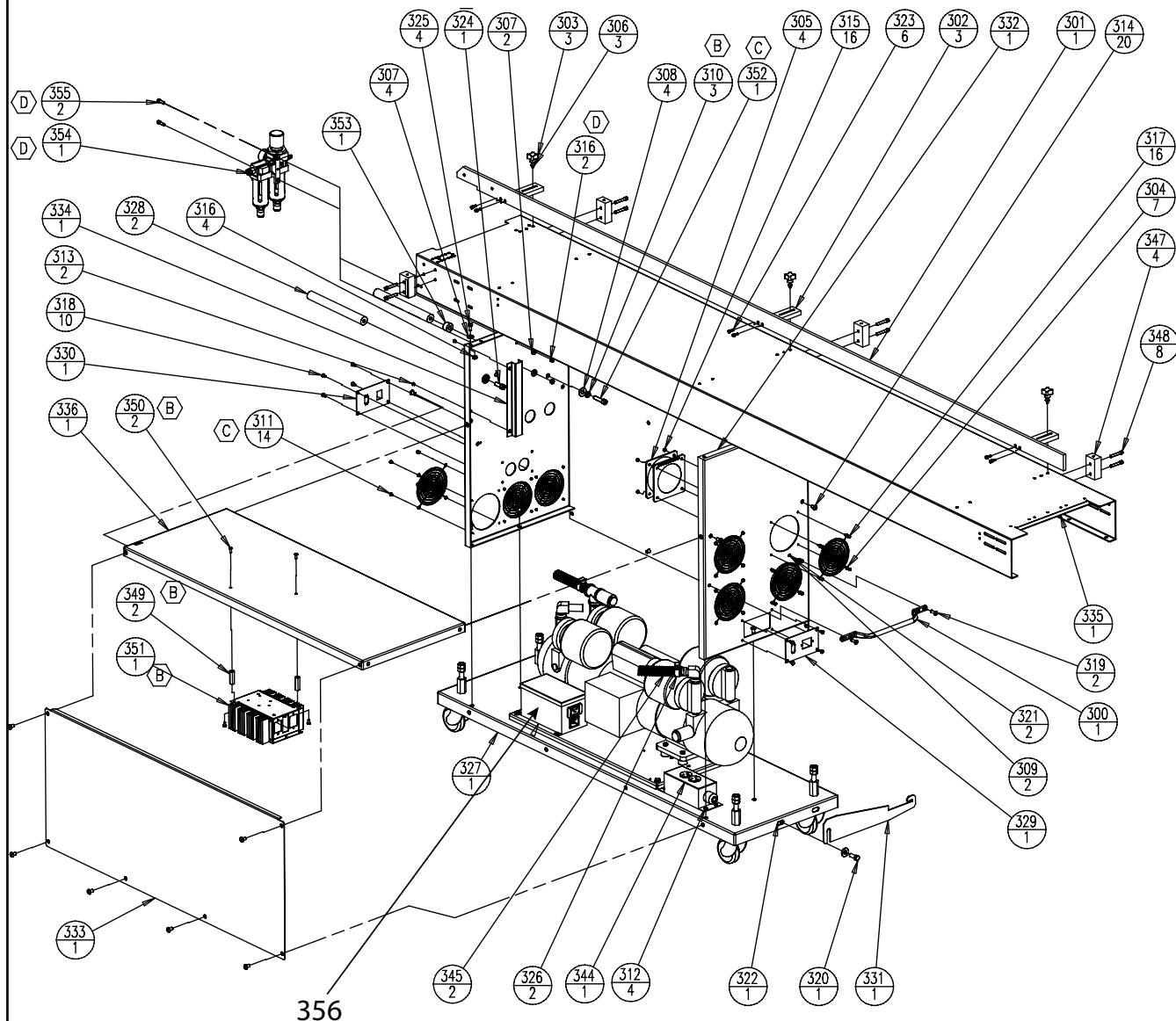
Figure 4-2: Assembly Infeed Conveyor/ FL00052\_2



## Parts List 4-2: Assembly Infeed Conveyor/FL00052\_2

Item	Part Number	Qty	Description
200	FL45067	1	BLOCK-INFEED CONV BEARING (RIGHT)
201	68-1218	16	SCREW BTNHD CAP HEX SKT
202	FL45066	1	BLOCK-INFEED CONV BEARING (LEFT)
203	12004-003	1	SHAFT, DRIVE
204	185-0416	1	COLLAR, CLAMP
205	592-0033	2	PULLEY TIMING DBL FLANGE L 24T
206	50-0723	1	WASHER, PLAIN NYLON 6/6
207	592-0018	1	PULLEY, TIMING XL
208	12012-001	4	SPACER-MOTOR CONV
209	75-0595	4	SET SCREW HEX SOCKET
210	99001-008	1	MOTOR, 11 RPM
211	592-0004	1	PULLEY, TIMING XL
212	566-0027	1	BELT TIMING 1/5 P(XL)
213	50-0017	6	WASHER PLAIN .245 ID
214	12011-009	1	END CAP, DRIVE
215	12007-008	1	BLOCK, SIDE GUIDE MTG
216	50-0009	1	WASHER PLAIN
217	19-0020	1	KNOB CONTROL
218	12005-009	1	GUIDE, SIDE
219	74-0615	2	SCREW FLAT HEAD PH
220	18008-023	1	BAR, REAR ENVELOPE GUIDE MTG
221	18005-017	3	GUIDE, REAR ENVELOPE
222	81-0833	3	SCREW CAP HEX SOCKET
223	FL00113	1	SHIELD, INFEED CONV MOTOR (REAR)
224	FL00106	1	SHIELD, INFEED CONV MOTOR - FRONT

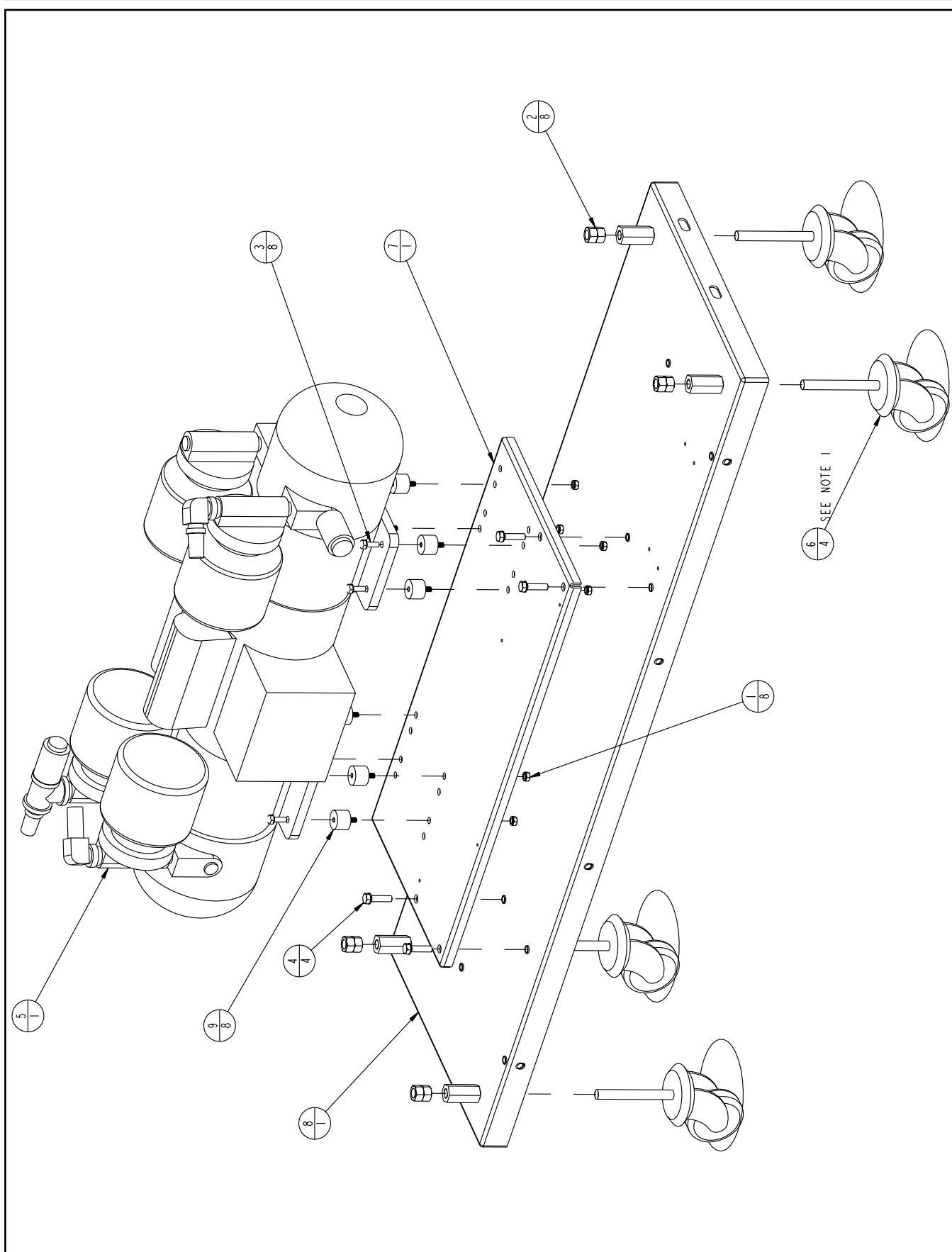
Figure 4-3: Assembly Infeed Conveyor/ FL00052\_3



## Parts List 4-3: Assembly Infeed Conveyor/ FL00052\_3

Item	Part Number	Qty	Description
300	8484198	1	PULL HANDLE
301	18005-071	1	GUIDE, RH SIDE ENVELOPE CONV.
302	18008-031	3	BAR, RH SIDE GUIDE MTG.
303	19-0020	3	KNOB CONTROL
304	240-0310	7	119MM SQ X 38MM 105.0MM
305	240-0313	4	FAN AC 230 102CFM 2900RPM
306	50-0009	3	WASHER PLAIN
307	50-0020	6	WASHER LOC-16
308	50-0028	4	WASHER PLAIN
309	52-0023	2	LK WASH HELICAL SPRING
310	52-0027	3	LK WASH HELICAL SPRING
311	60-0609	14	SCREW TPG PAN HD PH
312	60-0831	4	SCREW TPG PAN HD PH
313	68-0609	2	SCREW BTNHD CAP HEX SKT
314	68-1328	20	SCREW BTNHD CAP HEX SKT
315	71-0003	16	NUT HEX & LK WASH
316	71-0007	6	NUT HEX & LK WASH
317	72-0507	16	SCREW & LK WASH
318	73-0831	10	SCREW PAN HEAD PH
319	74-1222	2	SCREW FLAT HEAD PH
320	79-1446	1	SCREW CAP HEX HEAD
321	80-0023	2	NUT HEX
322	80-0027	1	NUT HEX
323	81-0833	6	SCREW CAP HEX SOCKET
324	81-1446	1	SCREW CAP HEX SOCKET
325	82-1220	4	SCREW HEX & LK WASH
326	97-0053	2	CLAMP, HOSE
327	FL00022	1	ASSY - VAC / PRESS PUMP BASE
328	FL16003	2	STANDOFF-COVER SUPPORT
329	FL50016	1	PLATE,CONNECTOR MOUNTING
330	FL50019	1	PLATE,CONNECTOR MOUNTING
331	FL50023	1	BRACE - CONV ALIGNMENT
332	FL51152	1	LEG; INFEED CONVEYOR
333	FL51153	1	COVER; CONVEYOR LEG
334	FL51200	1	COVER; MOTOR CABLE
335	FL58039	1	SIDEFRAME, 9'CONVEYOR
336	FL58106	1	SHELF; CONVEYOR LEG
342	FL80031	1	ASSY - ENVELOPE CONVEYOR ELECTRICAL
344	FL81017	1	ASSY - STANDALONE AIR POWER
345	FL84050	2	HOSE- PLASTIC, 3/4 IN.
347	12007-010	4	BLOCK, GUIDE MTG
348	81-1230	8	SCREW CAP HEX SOCKET
349	258-0043	2	STANDOFF HEX BLIND THD
350	68-0833	2	SCREW BTNHD CAP HEX SKT
351	Y681011CC	1	MOTOR CONTROLLER 220V HIGH CURRENT 14A
352	81-1450	1	SCREW CAP HEX SOCKET
353	FL00002	1	SPACER; CONV TO FR. TABLE
354	FL00336	1	ASSY; AIR PREP
355	81-1222	2	SCREW CAP HEX SOCKET
356	R680005MM	1	MOTOR CONTROLLER

Figure 4-4: Assembly Pump Base/ FL00022



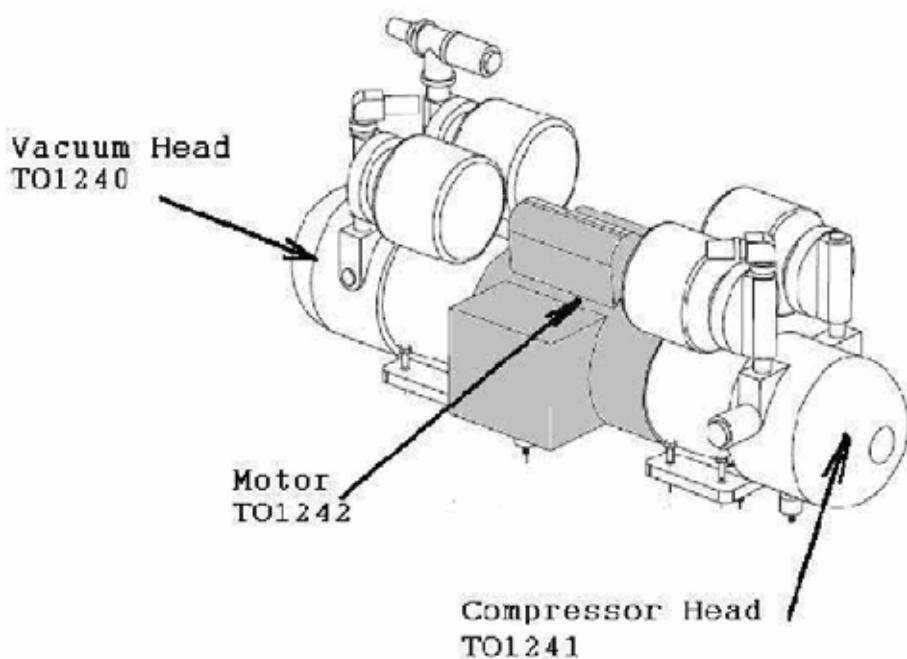
## Parts List 4-4: Assembly Pump Base/ FL00022

Item	Part Number	Qty	Description
1	71-0007	8	NUT HEX & LK WASH
2	80-0031	8	NUT HEX
3	82-1222	8	SCREW
4	82-1338	4	SCREW HEX & LK WASH
5	FL00020	1	VACUUM / PRESSURE PUMP ASSEMBLY (COMBO PUMP)
6	FL00021	4	CASTER; INFEED CONV
7	FL51201	1	PLATE; PUMP MOUNTING
8	FL58105	1	BASE, PUMP ASSY
9	FL84052	8	MOUNT- RESILIENT
COMBO PUMP COMPONENTS			
*The Combo Pump weighs 152lbs. It is recommended that only the defective component be replaced. The separable parts are listed below.			
TO1240			
TO1241			
TO1242			
TO1252			
TO1243			
TO1244			
TO1247			
TO1245			
1			
VACUUM PUMP			
COMPRESSOR			
2HP BALDOR MOTOR W/ COUPLINGS			
COUPLING KIT			
VACUUM PUMP REPAIR KIT (VANES, BEARINGS & SEALS)			
COMPRESSOR REPAIR KIT (VANES, BEARINGS & SEALS)			
FILTER CARTRIDGE			
TOOL KIT W/ MANUAL			



Figure 4-4A: Gast Combo Pump/ FL00020

# Gast Combo Pump FL00020

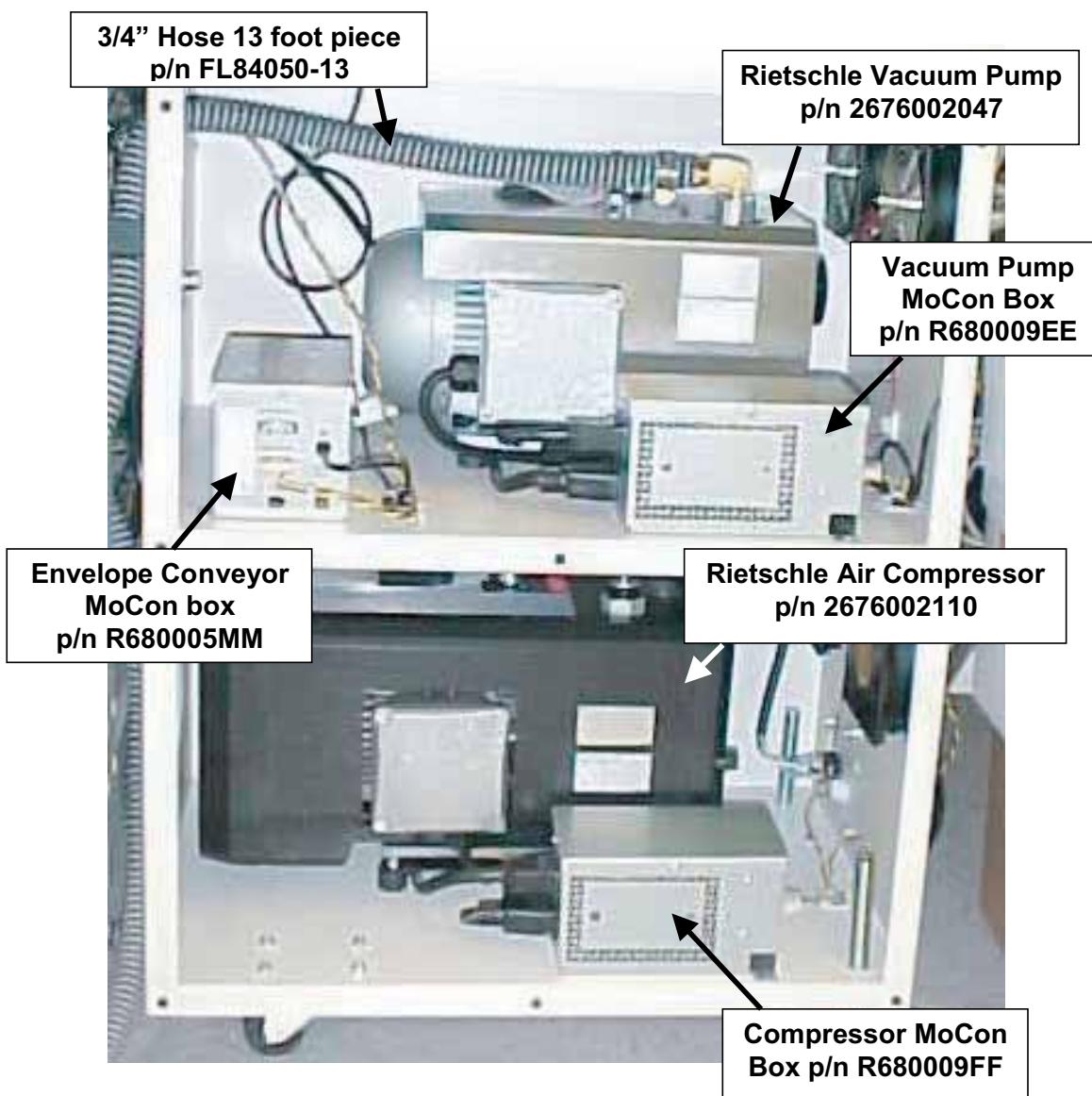


The picture above shows the Gast combo pump assembly **FL00020**. You can order the complete assembly **FL00020**. The complete assembly weighs 120 pounds before crating. We suggest ordering the appropriate components listed below.

Tool Number	Description	Gast Part number
TO1240	Vacuum head for combo unit	1567-102
TO1241	Compressor Head for combo unit	2067-119
TO1242	Gast Baldor motor kit	35U124Q458G1
TO1243	Gast 1586 Service kit	K897
TO1244	Gast 207 Service repair kit	K357
TO1245	Gast tool kit	TKROT-1
TO1246	Gast Rebuild Manual	TBA
TO1252	Gast Coupling Kit	AH198-1
AC393	Combo filter element	AC393
AC326B	Fan	AC326B
AH197	Fan ( AH17 also included in TO1252)	

Figure 4-5: Air Leg with Rietschle Pumps

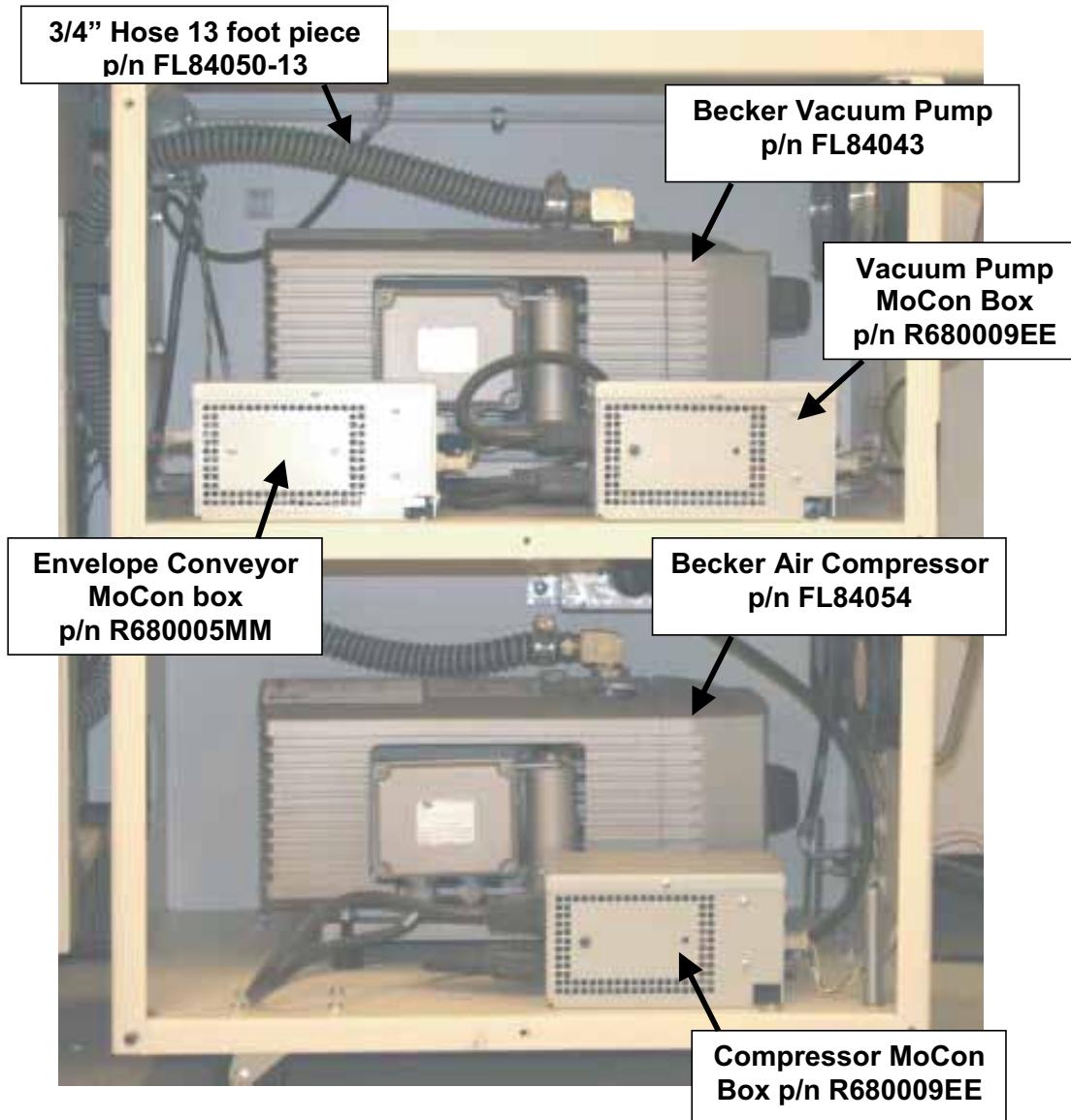
## Air Leg with Rietschle Pumps



Note: PN# 2675001048, Qty. 1, Description - Vacuum Pump/Compressor Inlet Filter  
PN# 2675001049, Qty. 6, Description - Vacuum Pump, Compressor Vane

Figure 4-6: Air Leg with Becker Pumps

### Air Leg with Becker Pumps





## **5   *FlowMaster Turnover* *FX10/FX14***

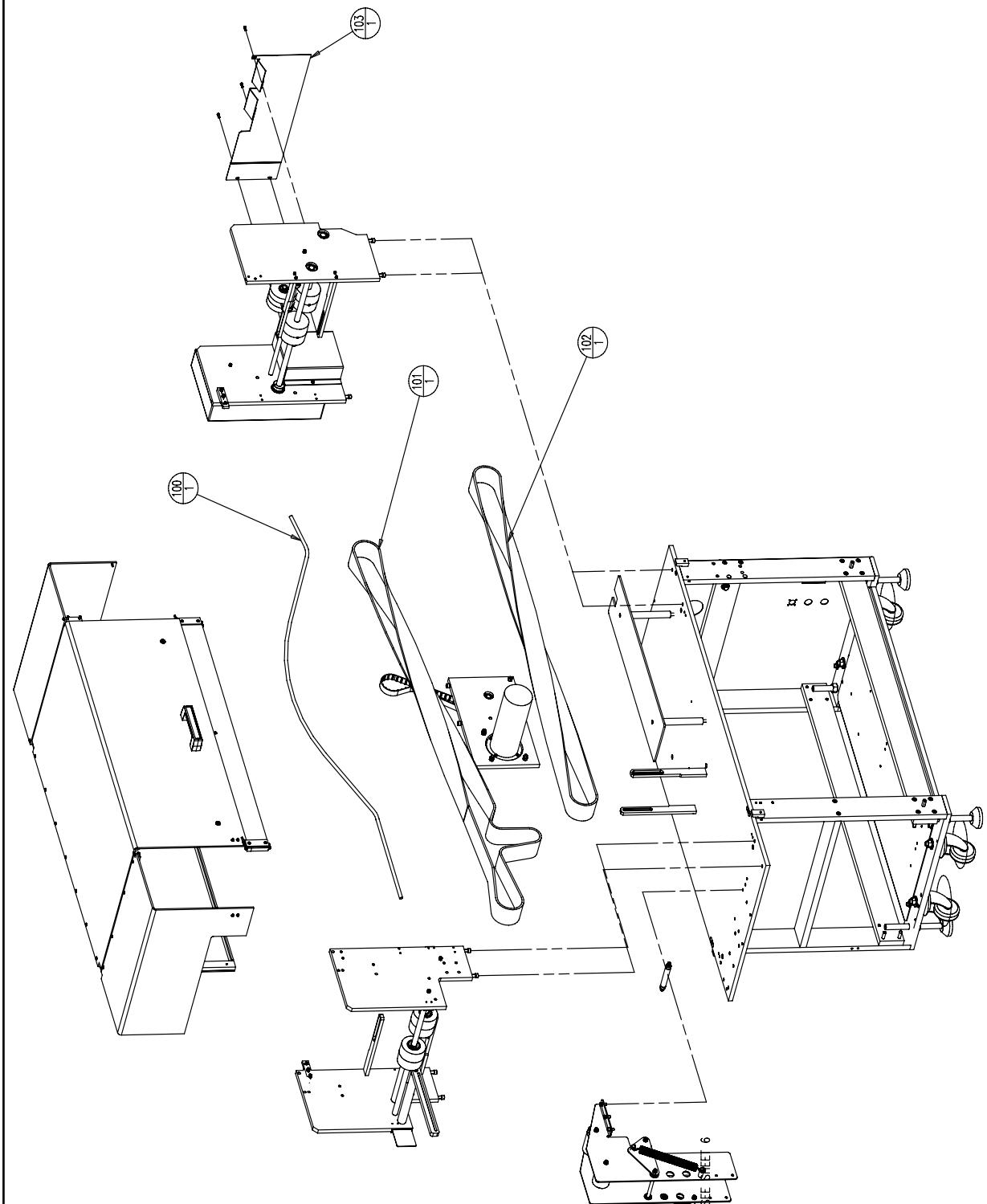


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**Figure 5-1: Assembly Turnover Module/ FL80060**

10x13

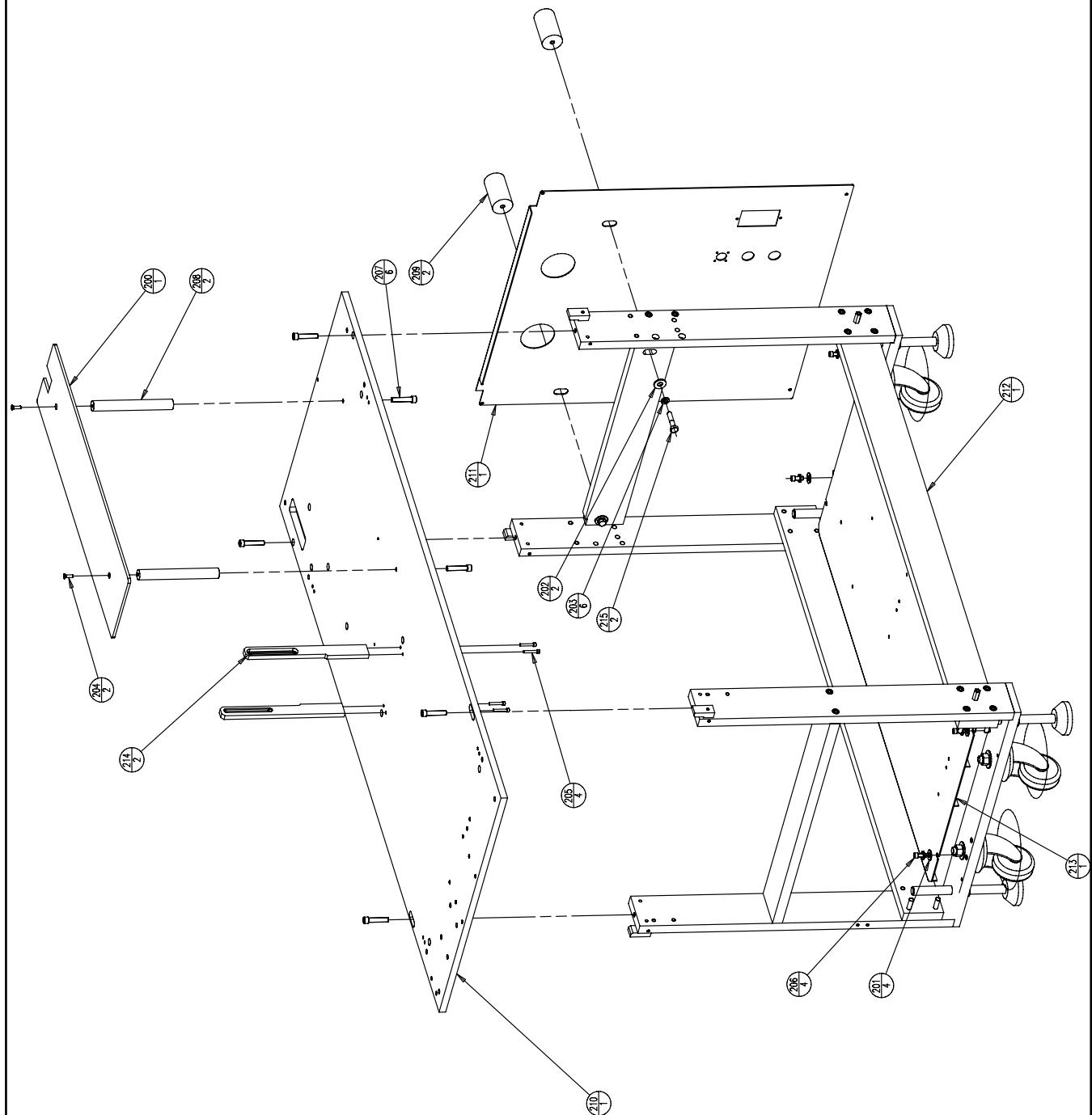


## Parts List 5-1: Assembly Turnover Module/FL80060

Item	Part Number	Qty	Description
100	20005-001	1	GUIDE - RAIL
101	FL84018	1	TURNOVER BELT 123.25 LONG
102	FL84019	1	TURNOVER BELT 108 LONG
103	FL51155	1	RAMP-TURNER/MOS INTERFACE (10X13)

**Figure 5-2: Assembly Turnover Module/ FL80060\_2**

10x13

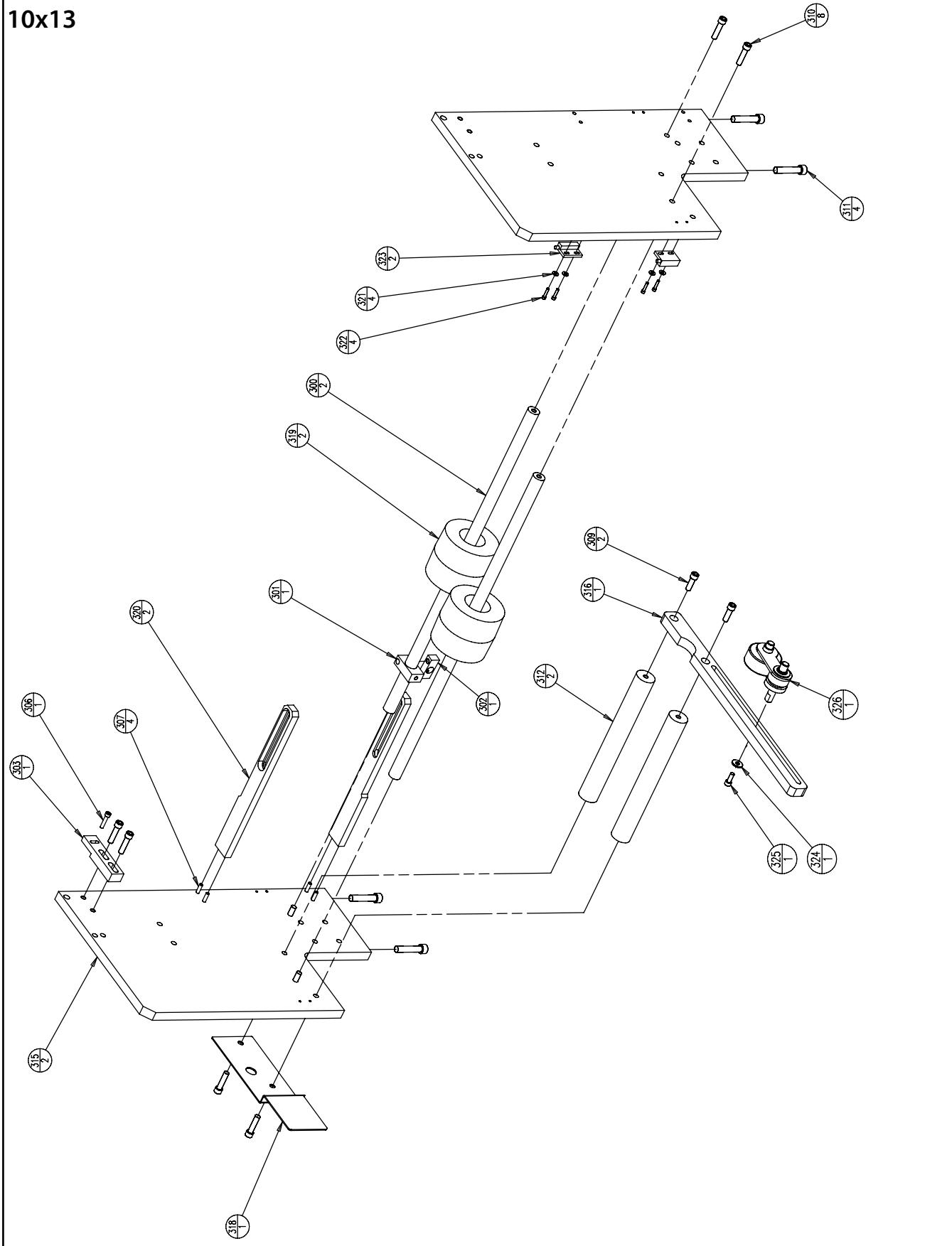


## Parts List 5-2: Assembly Turnover Module/FL80060\_2

Item	Part Number	Qty	Description
200	20011-003	1	PLATE, SKID
201	50-0020	4	WASHER LOC-16
202	50-0024	2	WASHER PLAIN
203	52-0025	6	LK WASH HELICAL SPRING
204	74-0835	2	SCREW FLAT HEAD PH
205	81-0621	4	SCREW CAP HEX SOCKET
206	81-1220	4	SCREW SOCKET HEAD CAP 1/4-20X 5/8
207	81-1340	6	SCREW CAP HEX SOCKET
208	FL10015	2	STANDOFF, TURNOVER DECK, 10X13
209	FL10016	2	STANDOFF, TURNOVER-MOS
210	FL45044	1	DECKPLATE, TURNOVER 10X13
211	FL51072	1	COVER, END, DISCHARGE (10X13)
212	FL80037	1	FRAME ASSEMBLY 10X13 TURNOVER
213	FL80049	1	PLATE, FLOOR, TURNOVER 10X13
214	R145101	2	BAR-SENSOR MTG
215	79-1340	2	SCREW CAP HEX HEAD

**Figure 5-3: Assembly Turnover Module/ FL80060\_3**

10x13

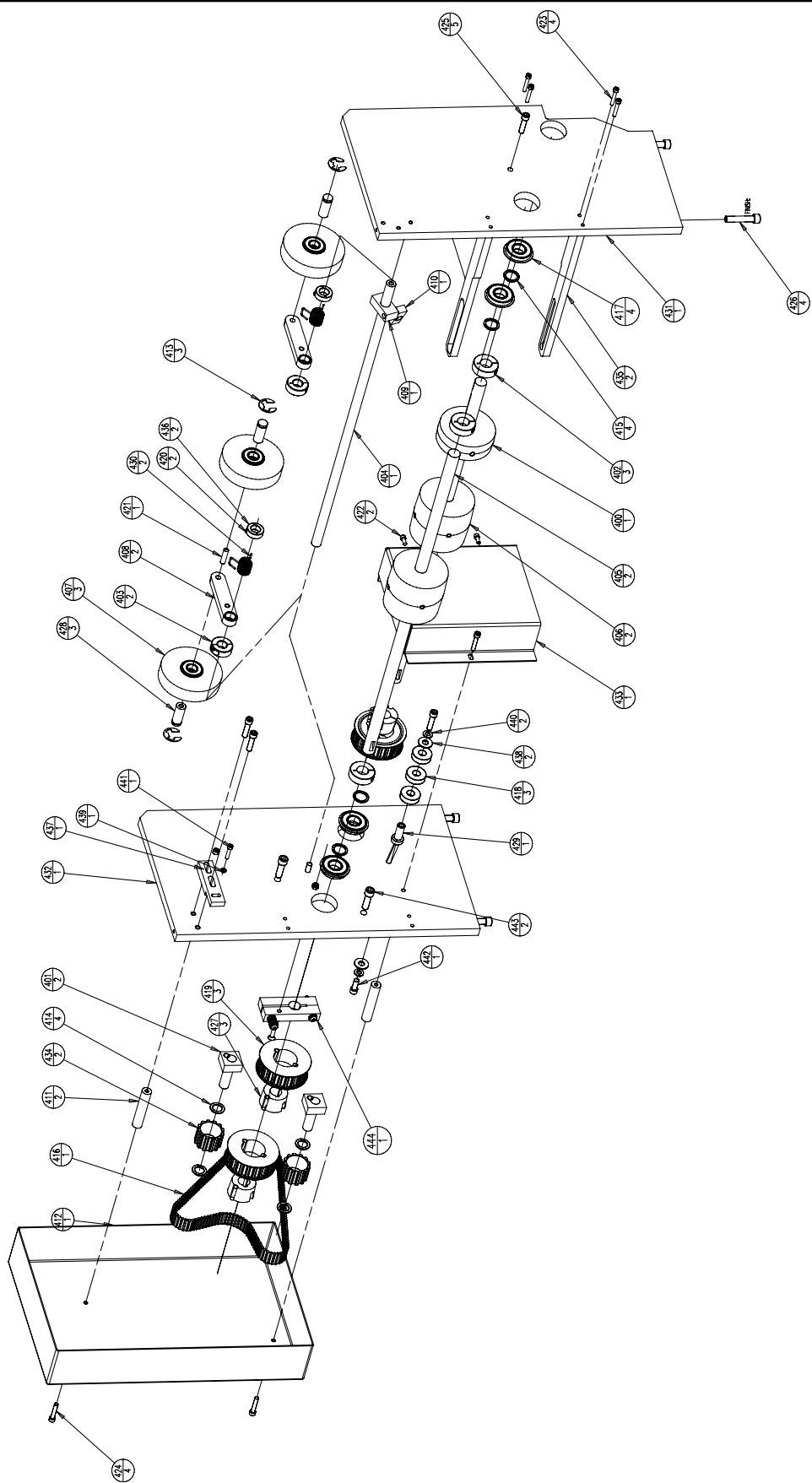


## Parts List 5-3: Assembly Turnover Module/FL80060\_3

Item	Part Number	Qty	Description
300	20004-009	2	SHAFT, IDLER (LONG) 10 X 13
301	20009-002	1	BRACKET, GUIDE MTG (.625)
302	20009-004	1	BRACKET,MTG.,ENVELOPE GUIDE
303	20009-006	1	BRACKET, COVER SUPPORT
306	81-0617	1	SCREW CAP HEX SOCKET
307	81-0621	4	SCREW CAP HEX SOCKET
309	81-1222	2	SCREW CAP HEX SOCKET
310	81-1226	8	SCREW CAP HEX SOCKET
311	81-1340	4	SCREW CAP HEX SOCKET
312	FL10007	2	NIP ROLLER STANDOFF
315	FL45004	2	SIDEPLATE, INFEED 10X13
316	FL45008	1	NIP ROLLER SUPPORT BAR
318	FL51087	1	SHIELD-FR.TABLE/TURNOVER INTERFACE
319	FL80040	2	ROLLER ASSY, IDLER, CROWNED
320	R145101	2	BAR-SENSOR MTG
321	50-0005	4	WASHER PLAIN
322	81-0283	4	SCREW CAP HEX SOCKET
323	Y583035	2	HARNESS ASSY-SWITCH 2 POLE REED
324	20-0051	1	SPACER PLAIN
325	81-0833	1	SCREW CAP HEX SOCKET
326	FL84067	1	ASSY-SEAL ROLLER

Figure 5-4: Assembly Turnover Module/ FL80060\_4

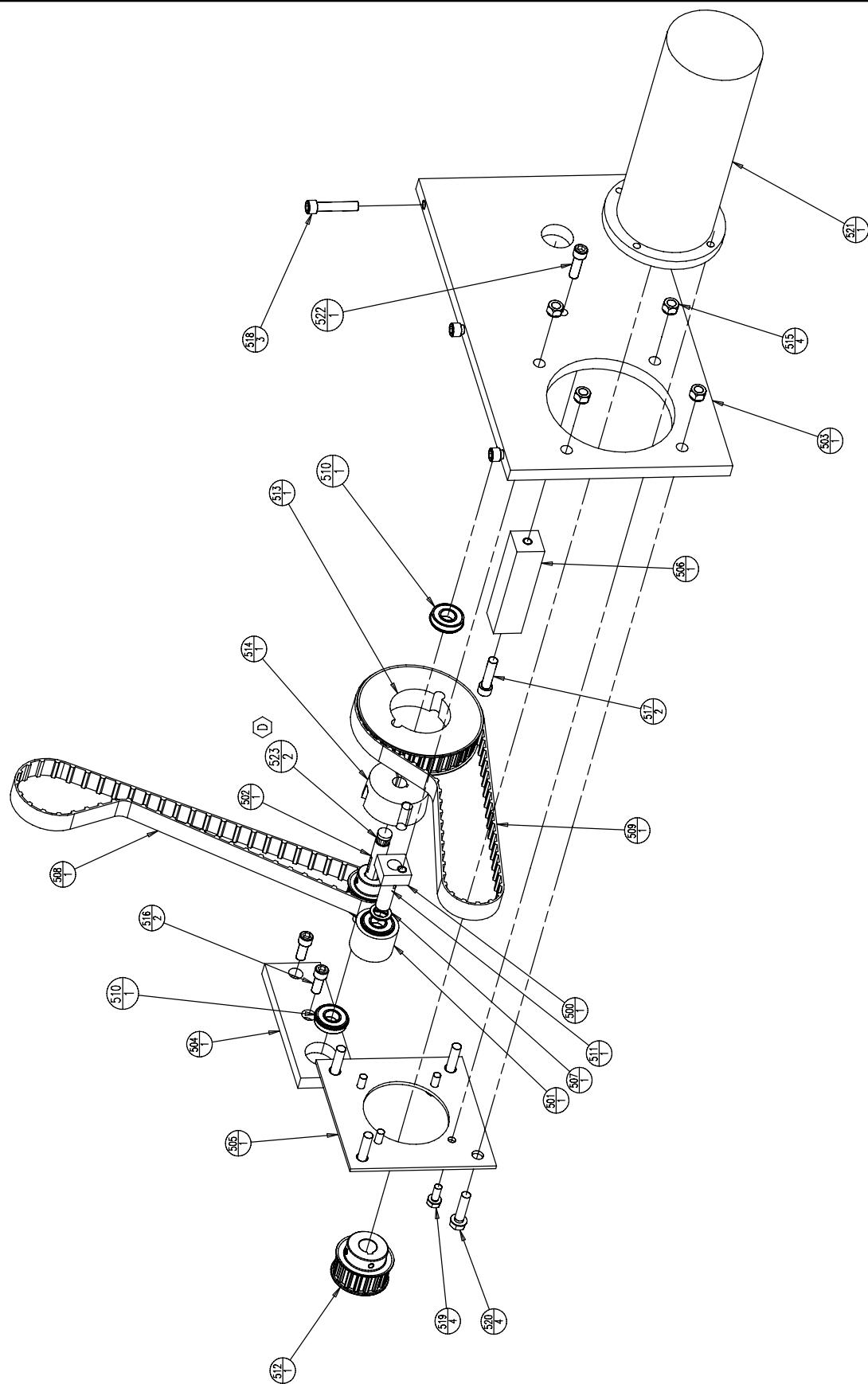
10x13



## Parts List 5-4: Assembly Turnover Module/FL80060\_4

Item	Part Number	Qty	Description
400	12006-001	1	PULLEY, 1 W. CROWNED
401	18004-022	2	SHAFT, TENSIONER, ECCENTRIC
402	185-0305	3	COLLAR SPLIT ONE-PIECE
403	185-0307	2	COLLAR SPLIT ONE-PIECE
404	20004-011	1	SHAFT, NIP PIVOT (10X13)
405	20004-012	2	SHAFT, DRIVE (10X13)
406	20006-002	2	ROLLER, CROWNED DRIVE, TURNOVER
407	20006-003	3	ROLLER, EXIT, TURNOVER
408	20008-002	2	ASSY- EXIT ROLLER BAR
409	20009-003	1	BRACKET, ENVELOPE GUIDE, DISCHARGE
410	20009-004	1	BRACKET,MTG.,ENVELOPE GUIDE
411	20012-003	2	STANDOFF, DRIVE COVER MTG.
412	20013-013	1	COVER, DRIVE (10X13)
413	23-0062	3	E RING RETAINING
414	50-0704	4	WASHER, PLAIN NYLON 6/6
415	50-0723	4	WASHER, PLAIN NYLON 6/6
416	566-0332	1	BELT, TIMING 3/8 P (L)DS
417	591-0291	4	BEARING BALL W/SNAP RING .6250 ID
418	591-2217	3	BEARING
419	592-0019	3	PULLEY, TIMING L TAPER LK
420	75-0553	2	SET SCREW HEX SOCKET
421	75-0715	1	SET SCREW HEX SOCKET
422	81-0611	2	SCREW CAP HEX SOCKET
423	81-0621	4	SCREW CAP HEX SOCKET
424	81-0841	4	SCREW CAP HEX SOCKET
425	81-1226	5	SCREW CAP HEX SOCKET
426	81-1340	4	SCREW CAP HEX SOCKET
427	99017-019	3	BUSHING, TAPERLOCK 1008 5/8 BORE
428	FL10022	3	SHAFT, EXIT ROLLER, TURNOVER
429	FL11000	1	TENSIONER STUD
430	FL21000	2	SPRING, TORSION, LH
431	FL45005	1	LH SIDEPLATE, DISCHARGE, 10X13
432	FL45006	1	RH SIDEPLATE, DISCHARGE, 10X13
433	FL51077	1	COVER, BELTGUARD
434	FL80046	2	PULLEY, IDLER, 12L075
435	R145101	2	BAR-SENSOR MTG
436	Y315011	2	COLLAR, PRESSURE ROLLER
437	20009-006	1	BRACKET, COVER SUPPORT
438	50-0020	2	WASHER LOC-16
439	52-0012	1	LK WASH HELICAL SPRING
440	52-0023	2	LK WASH HELICAL SPRING
441	81-0617	1	SCREW CAP HEX SOCKET
442	81-1220	1	SCREW SOCKET HEAD CAP 1/4-20X 5/8
443	81-1336	2	SCREW CAP HEX SOCKET
444	FL80116	1	FRICTION BRAKE ASSY

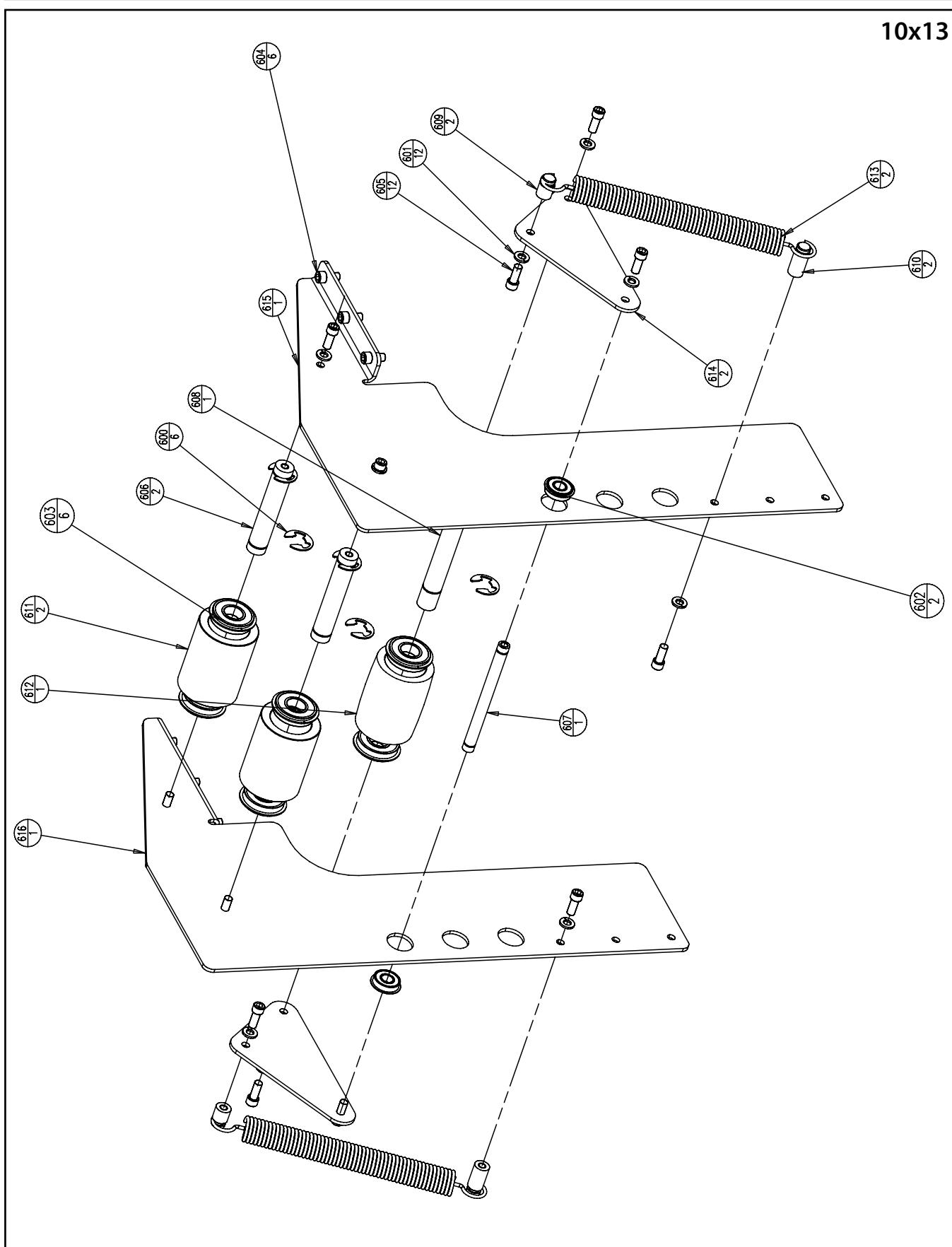
**Figure 5-5: Assembly Turnover Module/ FL80060\_5**



## Parts List 5-5: Assembly Turnover Module/FL80060\_5

Item	Part Number	Qty	Description
500	18004-022	1	SHAFT, TENSIONER, ECCENTRIC
501	18006-012	1	ROLLER, TENSIONER
502	20004-008	1	SHAFT, INTERMEDIATE, TURNOVER
503	20011-001	1	PLATE, MOTOR MTG
504	20011-002	1	PLATE, INTERMEDIATE SHAFT
505	20011-005	1	PLATE, MOTOR ADAPTOR
506	20012-004	1	STANDOFF, MOTOR SUPPORT (10X13)
507	50-0704	1	WASHER, PLAIN NYLON 6/6
508	566-0314	1	BELT TIMING 3/8 P(L)
509	566-0330	1	BELT, TIMING 3/8 P (L)
510	591-0289	2	BEARING BALL W/SNAP RING .5000 ID
511	592-0013	1	PULLEY, TIMING L
512	592-0020	1	PULLEY TIMING L 16T
513	592-0028	1	PULLEY, TIMING L TAPER LK
514	592-0029	1	TAPER LOCK BUSHING
515	71-0009	4	NUT HEX & LK WASH
516	81-1332	2	SCREW CAP HEX SOCKET
517	81-1338	2	SCREW CAP HEX SOCKET
518	81-1340	3	SCREW CAP HEX SOCKET
519	82-1220	4	SCREW HEX & LK WASH
520	82-1338	4	SCREW HEX & LK WASH
521	R284039	1	DC MOTOR, 1/4 HP
522	81-1336	1	SCREW CAP HEX SOCKET
523	FL00486	2	TOLERANCE RING

**Figure 5-6: Assembly Turnover Module/ FL80060\_6**

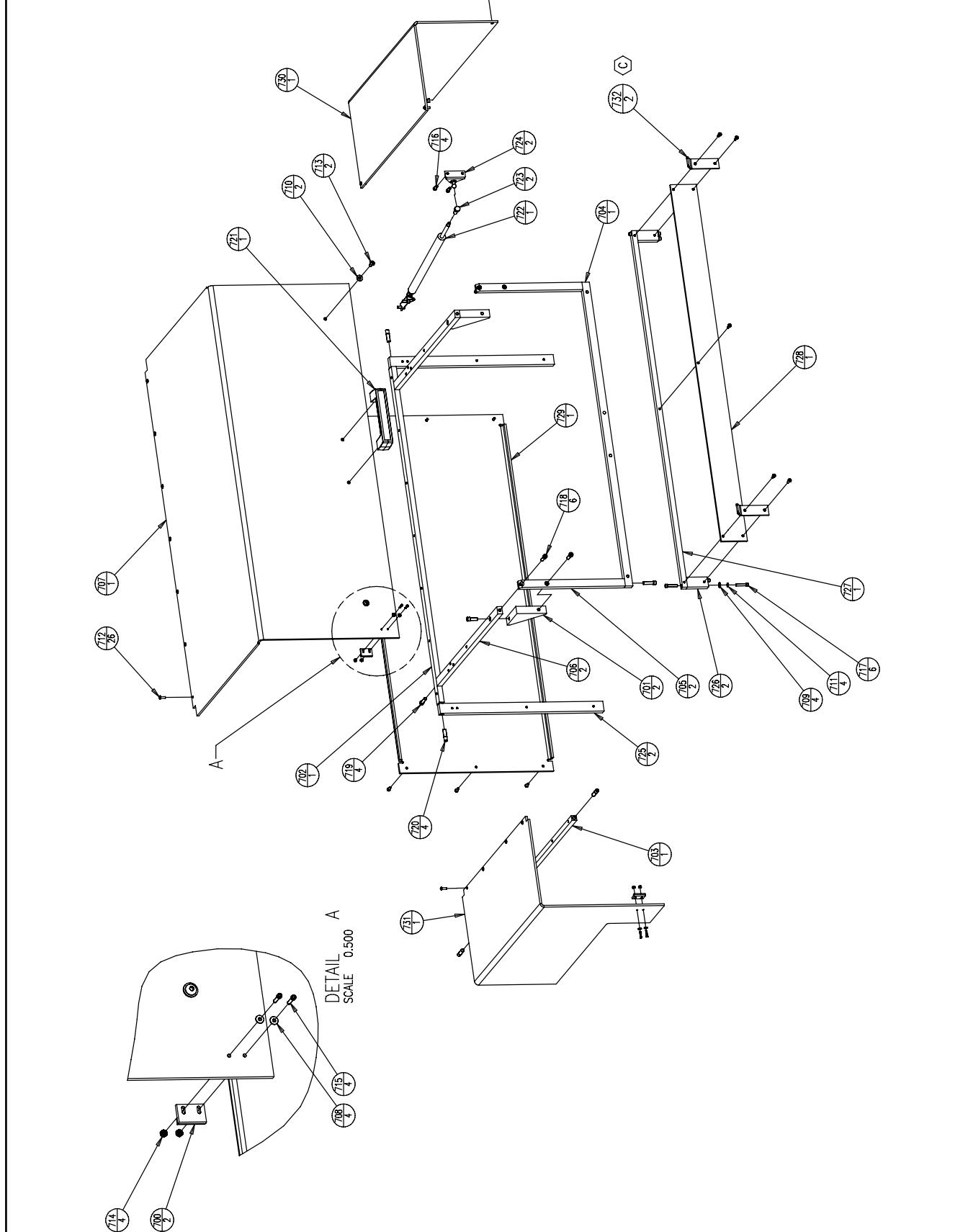


## Parts List 5-6: Assembly Turnover Module/FL80060\_6

Item	Part Number	Qty	Description
600	23-0062	6	E RING RETAINING
601	52-0023	12	LK WASH HELICAL SPRING
602	591-0290	2	BALL BRG SGL ROW SNAP RG
603	591-0291	6	BEARING BALL W/SNAP RING .6250 ID
604	81-1218	6	SCREW CAP HEX SOCKET
605	81-1220	12	SCREW SOCKET HEAD CAP 1/4-20X 5/8
606	FL10004	2	TURNOVER ROLLER SHAFT
607	FL10005	1	TENSIONER PIVOT SHAFT
608	FL10006	1	TENSIONER ARM SHAFT
609	FL12000	2	SPRING PIN, SHORT
610	FL12001	2	SPRING PIN, LONG
611	FL13001	2	IDLER ROLLER
612	FL13003	1	PULLEY, TURNOVER CROWNED
613	FL20000	2	EXTENSION SPRING
614	FL50007	2	TENSIONER ARM
615	FL51031	1	LEFT TRANSFER FRAME 10X13
616	FL51032	1	RIGHT TRANSFER FRAME 10X13

**Figure 5-7: Assembly Turnover Module/ FL80060\_7**

10x13

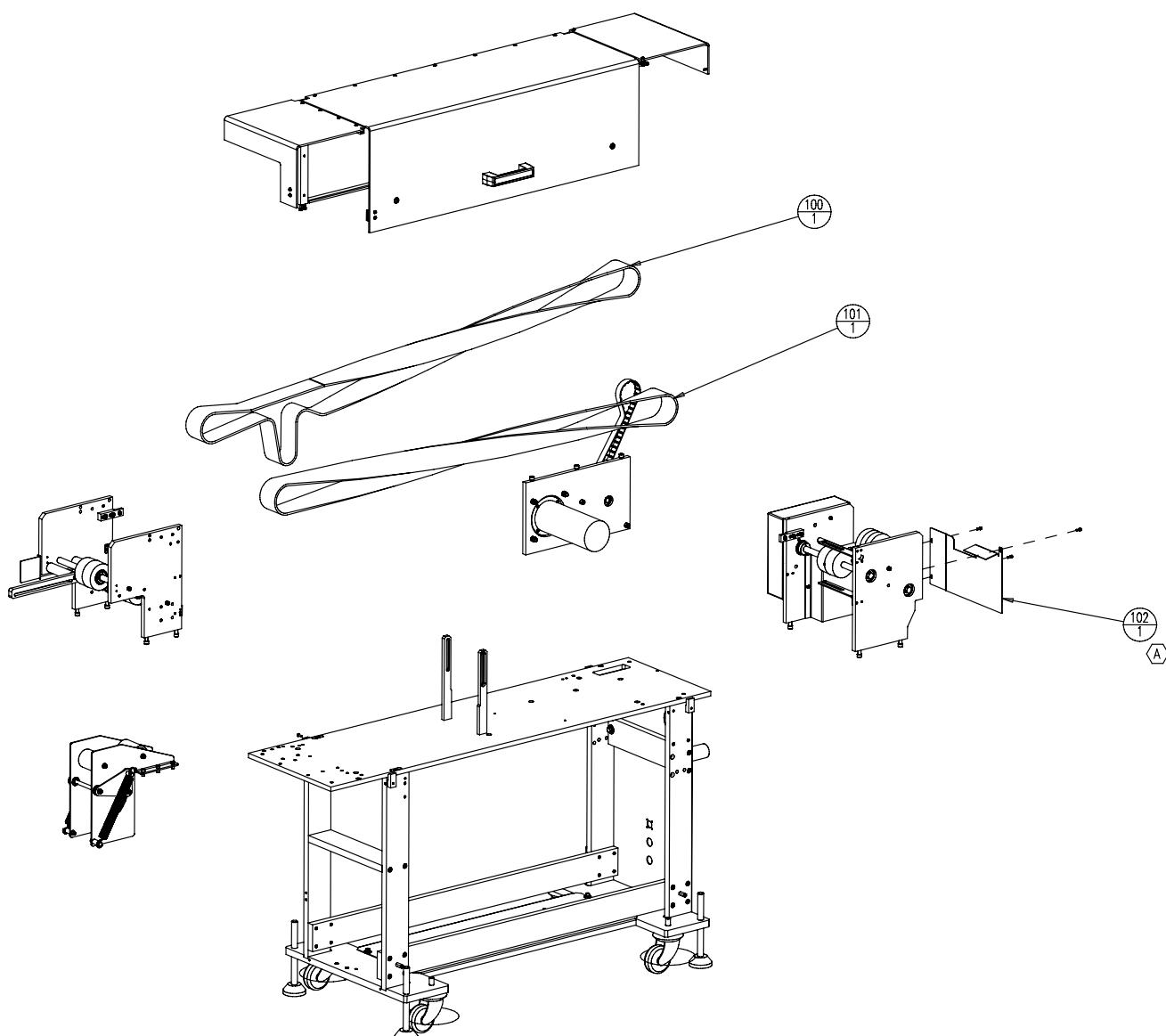


## Parts List 5-7: Assembly Turnover Module/FL80060\_7

Item	Part Number	Qty	Description
700	200-0701	2	MAGNET ACTUATOR
701	20007-006	2	GUSSET, COVER SUPPORT
702	20008-004	1	BAR, COVER MTG
703	20008-005	1	BAR, END COVER MTG
704	20008-006	1	BAR, CENTER COVER SUPPORT
705	20008-007	2	BAR, COVER SUPPORT (SIDE)
706	20008-008	2	BAR, COVER SUPPORT (TOP)
707	20013-014	1	COVER, CENTER (10X13)
708	50-0005	4	WASHER PLAIN
709	50-0009	4	WASHER PLAIN
710	50-0017	2	WASHER PLAIN .245 ID
711	52-0016	4	LK WASH HELICAL SPRING
712	68-0613	26	SCREW BTNHD CAP HEX SKT
713	68-1218	2	SCREW BTNHD CAP HEX SKT
714	71-0001	4	NUT HEX W/LCKWSH 4-40
715	81-0283	4	SCREW CAP HEX SOCKET
716	81-0833	4	SCREW CAP HEX SOCKET
717	81-0841	6	SCREW CAP HEX SOCKET
718	81-1222	6	SCREW CAP HEX SOCKET
719	81-1226	4	SCREW CAP HEX SOCKET
720	99006-024	4	PIN, STUD, 5/16-24 X 1 1/8
721	99012-001	1	HANDLE
722	99014-004	1	GAS SPRING-20LBS
723	99014-005	2	BALL, SOCKET END FITTING
724	99014-008	2	BALL STUD ANGLE BRACKET
725	FL45015	2	POST, COVER MTG
726	FL45016	2	SUPPORT, TURNOVER FRONT COVER
727	FL45017	1	CROSS BRACE, TURNOVER
728	FL62029	1	COVER, TURNOVER FRONT
729	FL62031	1	REAR COVER, TURNOVER
730	FL62032	1	COVER, TURNOVER EXIT
731	FL62039	1	COVER, TURNOVER INPUT, 10X13
732	FL51151	2	SUPPORT-MAIN COVER TURNOVER (10X13)

Figure 5-8: 6x9 Assembly Turnover Module/ FL80061

6x9

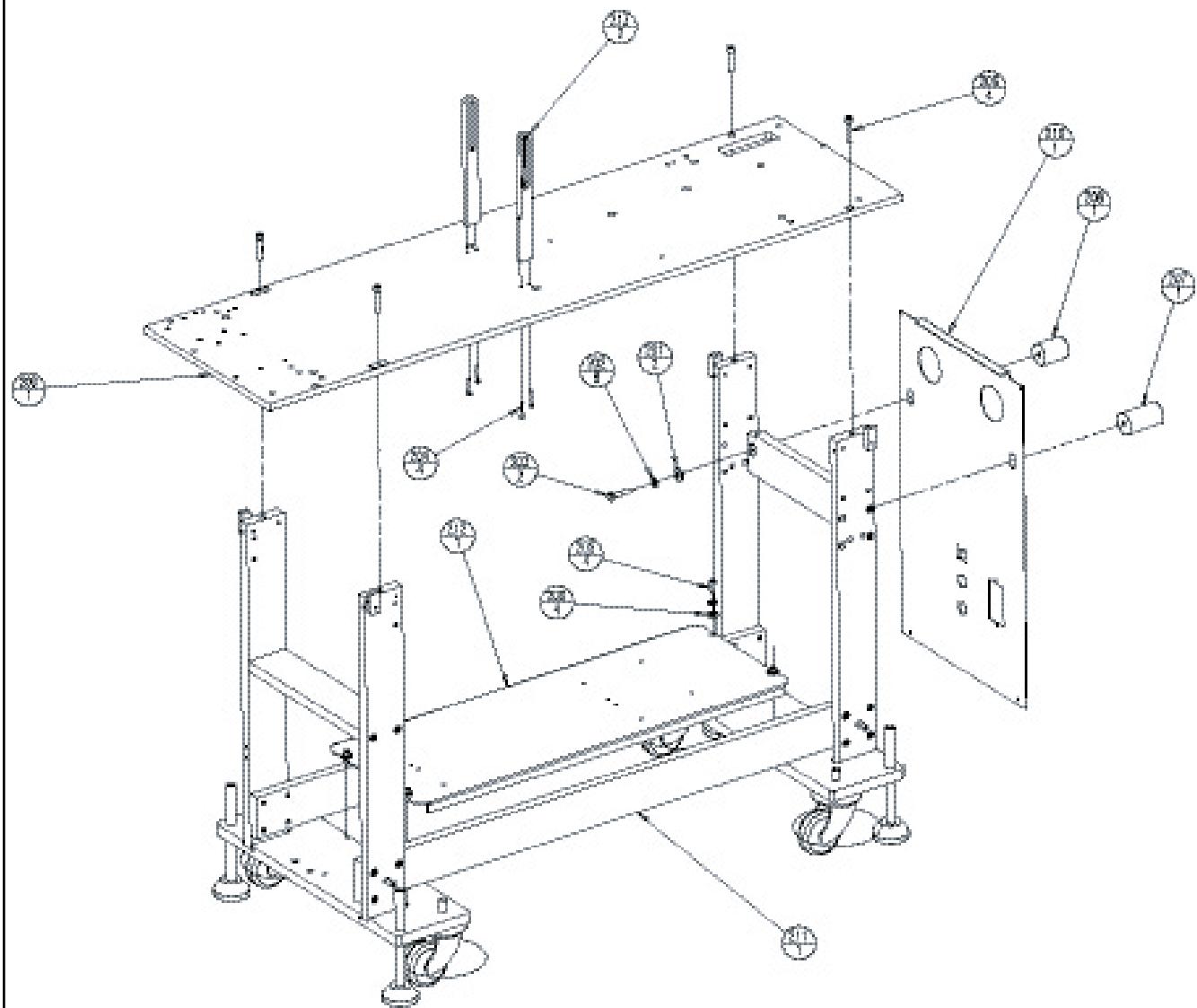


## Parts List 5-8: 6x9 Assembly Turnover Module/ FL80061

Item	Part Number	Qty	Description
100	FL84018	1	TURNOVER BELT 123.25 LONG
101	FL84019	1	TURNOVER BELT 108 LONG
102	FL51154	1	RAMP-TURNER-MOS INTERFACE (6X9)

Figure 5-9: 6x9 Assembly Turnover Module/ FL80061

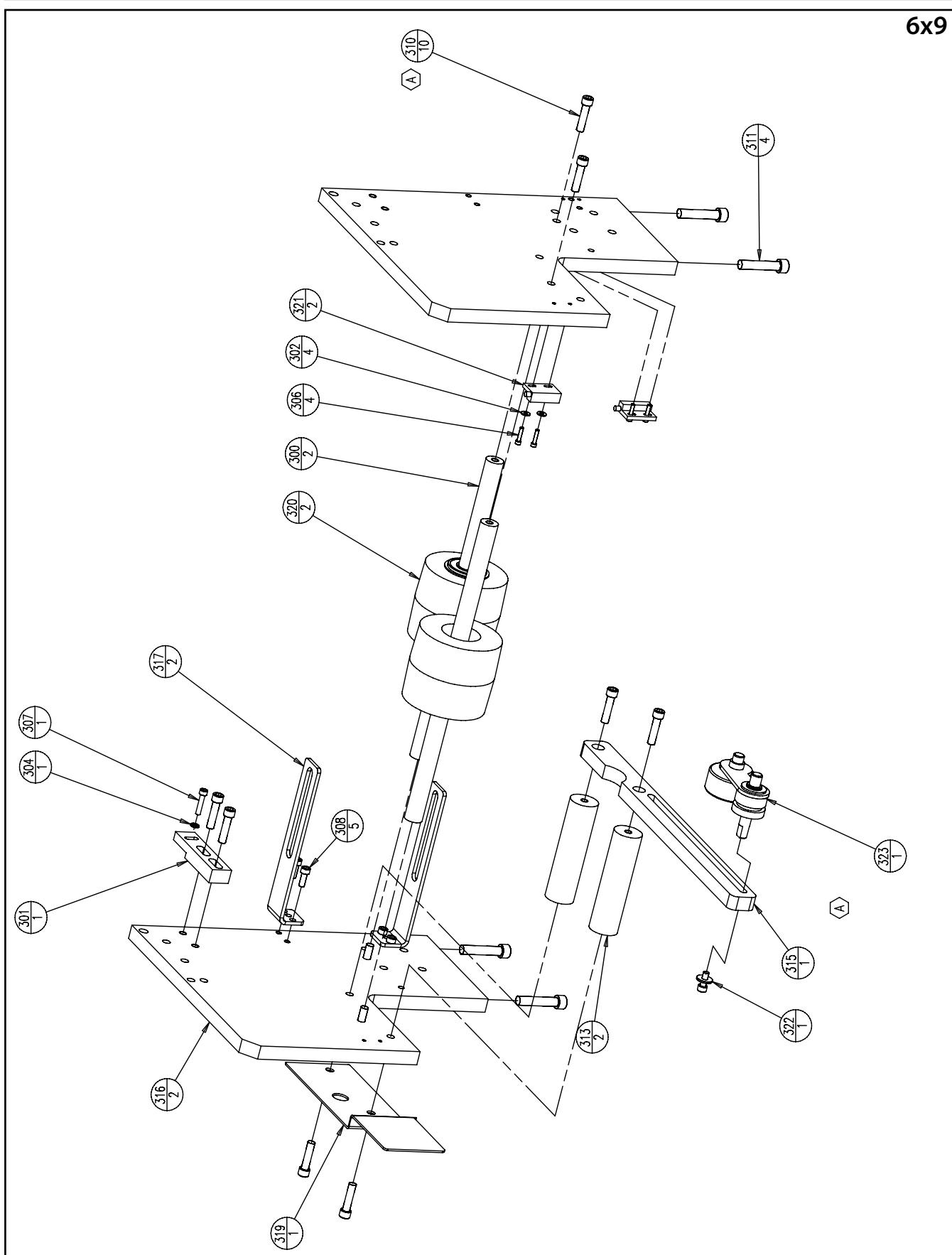
6x9



## Parts List 5-9: 6x9 Assembly Turnover Module/ FL80061

Item	Part Number	Qty	Description
200	50-0020	4	WASHER LOC-16
201	50-0024	2	WASHER PLAIN
202	52-0025	6	LK WASH HELICAL SPRING
203	79-1340	2	SCREW CAP HEX HEAD
204	81-0621	4	SCREW CAP HEX SOCKET
205	81-1220	4	SCREW SOCKET HEAD CAP 1/4-20X 5/8
206	81-1340	4	SCREW CAP HEX SOCKET
207	FL10016	1	STANDOFF, TURNOVER-MOS
208	FL16002	1	STANDOFF, SHORT, TURNOVER - MOS
209	FL45042	1	DECKPLATE, TURNOVER (6X9)
210	FL51071	1	COVER, END, DISCHARGE (6X9)
211	FL80036	1	FRAME ASSEMBLY 6X9 TURNOVER
212	FL80048	1	PLATE, FLOOR, TURNOVER 6X9
213	R145101	2	BAR-SENSOR MTG

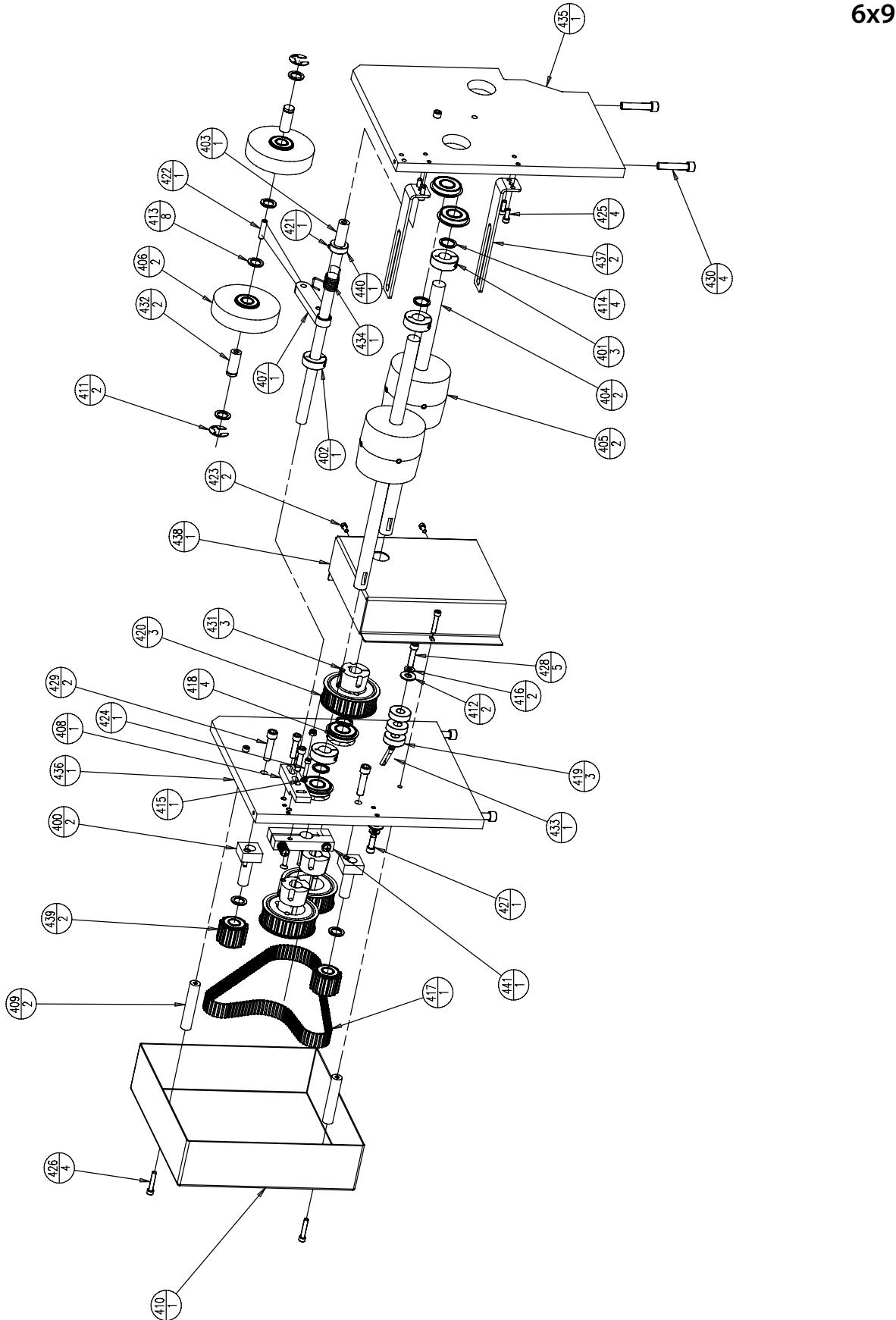
Figure 5-10: 6x9 Assembly Turnover Module/ FL80061



## Parts List 5-10: 6x9 Assembly Turnover Module/ FL80061

Item	Part Number	Qty	Description
300	20004-002	2	SHAFT, IDLER (LONG)
301	20009-006	1	BRACKET, COVER SUPPORT
302	50-0005	4	WASHER PLAIN
304	52-0012	1	LK WASH HELICAL SPRING
306	81-0283	4	SCREW CAP HEX SOCKET
307	81-0617	1	SCREW CAP HEX SOCKET
308	81-0833	5	SCREW CAP HEX SOCKET
310	81-1226	10	SCREW CAP HEX SOCKET
311	81-1340	4	SCREW CAP HEX SOCKET
313	FL10009	2	STANDOFF, NIP ROLLER 6X9
315	FL45010	1	BAR, NIP ROLLER SUPPORT 6X9
316	FL45011	2	SIDEPLATE, INFEED 6X9
317	FL51033	2	SENSOR MOUNT A (6X9)
319	FL51087	1	SHIELD-FR.TABLE/TURNOVER INTERFACE
320	FL80040	2	ROLLER ASSY, IDLER, CROWNED
321	Y583035	2	HARNESS ASSY-SWITCH 2 POLE REED
322	20-0051	1	SPACER PLAIN
323	FL84067	1	ASSY-SEAL ROLLER

**Figure 5-11: 6x9 Assembly Turnover Module/ FL80061**

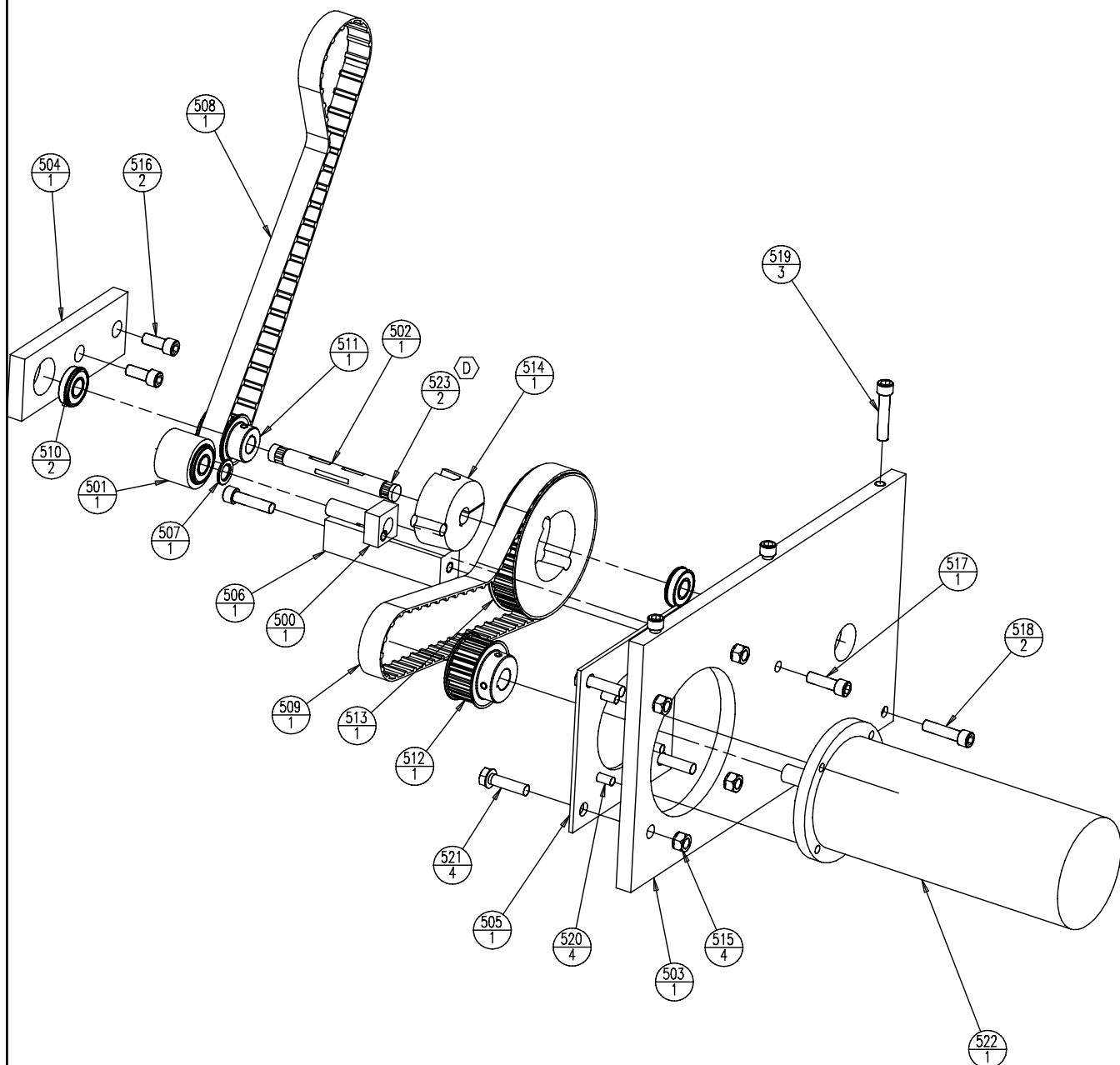


## Parts List 5-11: 6x9 Assembly Turnover Module/ FL80061

Item	Part Number	Qty	Description
400	18004-022	2	SHAFT, TENSIONER, ECCENTRIC
401	185-0305	3	COLLAR SPLIT ONE-PIECE
402	185-0307	1	COLLAR SPLIT ONE-PIECE
403	20004-004	1	SHAFT, PIVOT, TURNOVER
404	20004-007	2	SHAFT, SECONDARY, TURNOVER
405	20006-002	2	ROLLER, CROWNED DRIVE, TURNOVER
406	20006-003	2	ROLLER, EXIT, TURNOVER
407	20008-002	1	ASSY- EXIT ROLLER BAR
408	20009-006	1	BRACKET, COVER SUPPORT
409	20012-003	2	STANDOFF, DRIVE COVER MTG.
410	20013-006	1	COVER, DRIVE, TURNOVER
411	23-0062	2	E RING RETAINING
412	50-0020	2	WASHER LOC-16
413	50-0704	8	WASHER, PLAIN NYLON 6/6
414	50-0723	4	WASHER, PLAIN NYLON 6/6
415	52-0012	1	LK WASH HELICAL SPRING
416	52-0023	2	LK WASH HELICAL SPRING
417	566-0332	1	BELT, TIMING 3/8 P (L)DS
418	591-0291	4	BEARING BALL W/SNAP RING .6250 ID
419	591-2217	3	BEARING
420	592-0019	3	PULLEY, TIMING L TAPER LK
421	75-0553	1	SET SCREW HEX SOCKET
422	75-0715	1	SET SCREW HEX SOCKET
423	81-0611	2	SCREW CAP HEX SOCKET
424	81-0617	1	SCREW CAP HEX SOCKET
425	81-0833	4	SCREW CAP HEX SOCKET
426	81-0841	4	SCREW CAP HEX SOCKET
427	81-1220	1	SCREW SOCKET HEAD CAP 1/4-20X 5/8
428	81-1226	5	SCREW CAP HEX SOCKET
429	81-1338	2	SCREW CAP HEX SOCKET
430	81-1340	4	SCREW CAP HEX SOCKET
431	99017-019	3	BUSHING, TAPERLOCK 1008 5/8 BORE
432	FL10022	2	SHAFT, EXIT ROLLER, TURNOVER
433	FL11000	1	TENSIONER STUD
434	FL21000	1	SPRING, TORSION, LH
435	FL45012	1	SIDEPLATE, RH DISCHARGE 6X9
436	FL45013	1	SIDEPLATE, LH DISCHARGE 6X9
437	FL51033	2	SENSOR MOUNT A (6X9)
438	FL51077	1	COVER, BELTGUARD
439	FL80046	2	PULLEY, IDLER, 12L075
440	Y315011	1	COLLAR, PRESSURE ROLLER
441	FL80116	1	FRICTION BRAKE ASSY

Figure 5-12: 6x9 Assembly Turnover Module/ FL80061

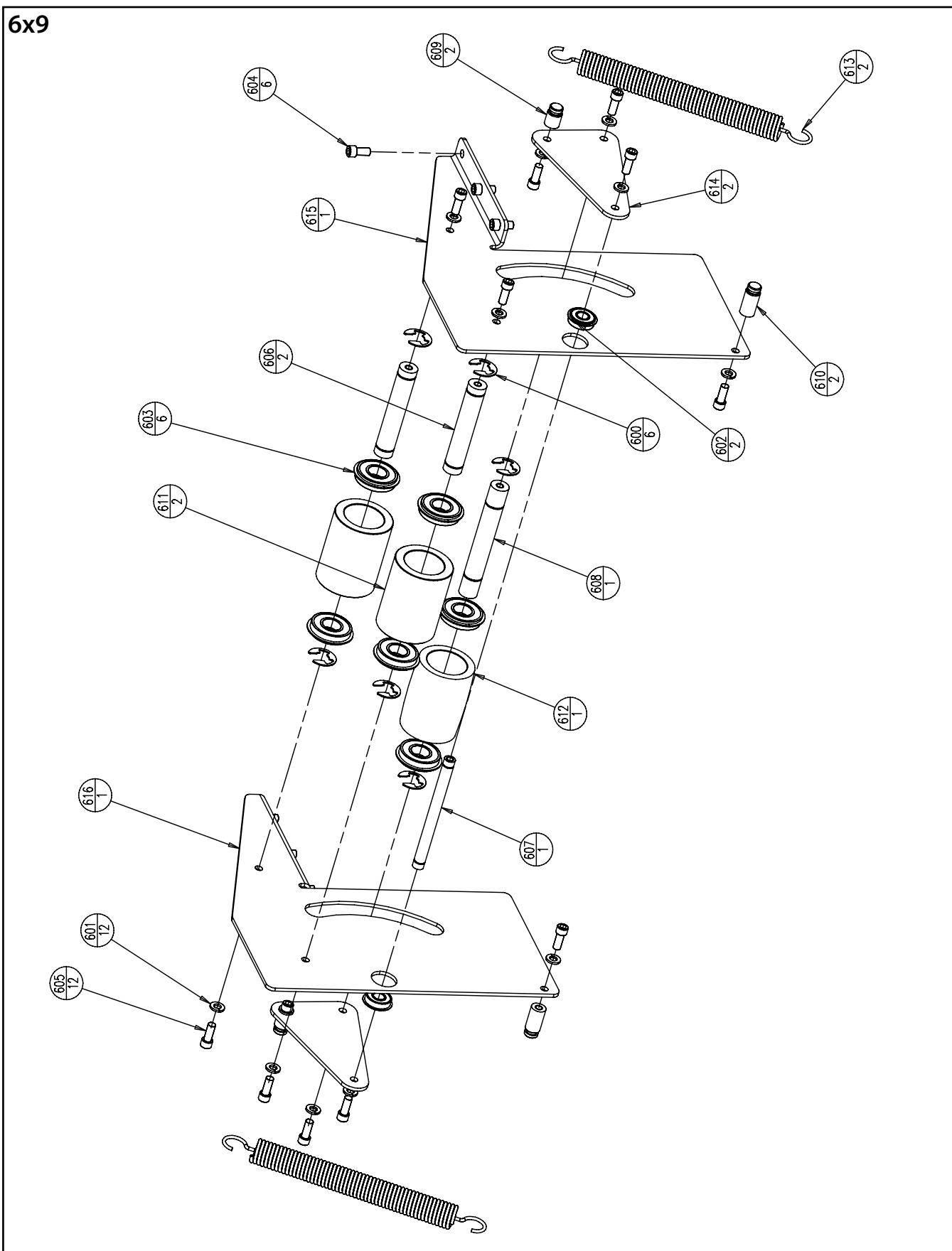
6x9



## Parts List 5-12: 6x9 Assembly Turnover Module/ FL80061

Item	Part Number	Qty	Description
500	18004-022	1	SHAFT, TENSIONER, ECCENTRIC
501	18006-012	1	ROLLER, TENSIONER
502	20004-008	1	SHAFT, INTERMEDIATE, TURNOVER
503	20011-001	1	PLATE, MOTOR MTG
504	20011-002	1	PLATE, INTERMEDIATE SHAFT
505	20011-005	1	PLATE, MOTOR ADAPTOR
506	20012-004	1	STANDOFF, MOTOR SUPPORT (10X13)
507	50-0704	1	WASHER, PLAIN NYLON 6/6
508	566-0314	1	BELT TIMING 3/8 P(L)
509	566-0330	1	BELT, TIMING 3/8 P (L)
510	591-0289	2	BEARING BALL W/SNAP RING .5000 ID
511	592-0013	1	PULLEY, TIMING L
512	592-0020	1	PULLEY TIMING L 16T
513	592-0028	1	PULLEY, TIMING L TAPER LK
514	592-0029	1	TAPER LOCK BUSHING
515	71-0009	4	NUT HEX & LK WASH
516	81-1332	2	SCREW CAP HEX SOCKET
517	81-1336	1	SCREW CAP HEX SOCKET
518	81-1338	2	SCREW CAP HEX SOCKET
519	81-1340	3	SCREW CAP HEX SOCKET
520	82-1220	4	SCREW HEX & LK WASH
521	82-1338	4	SCREW HEX & LK WASH
522	R284039	1	DC MOTOR, 1/4 HP
523	FL00486	2	TOLERANCE RING
524	158-0026	2	WOODRUFF KEY FOR ITEM 502 (NOT SHOWN)

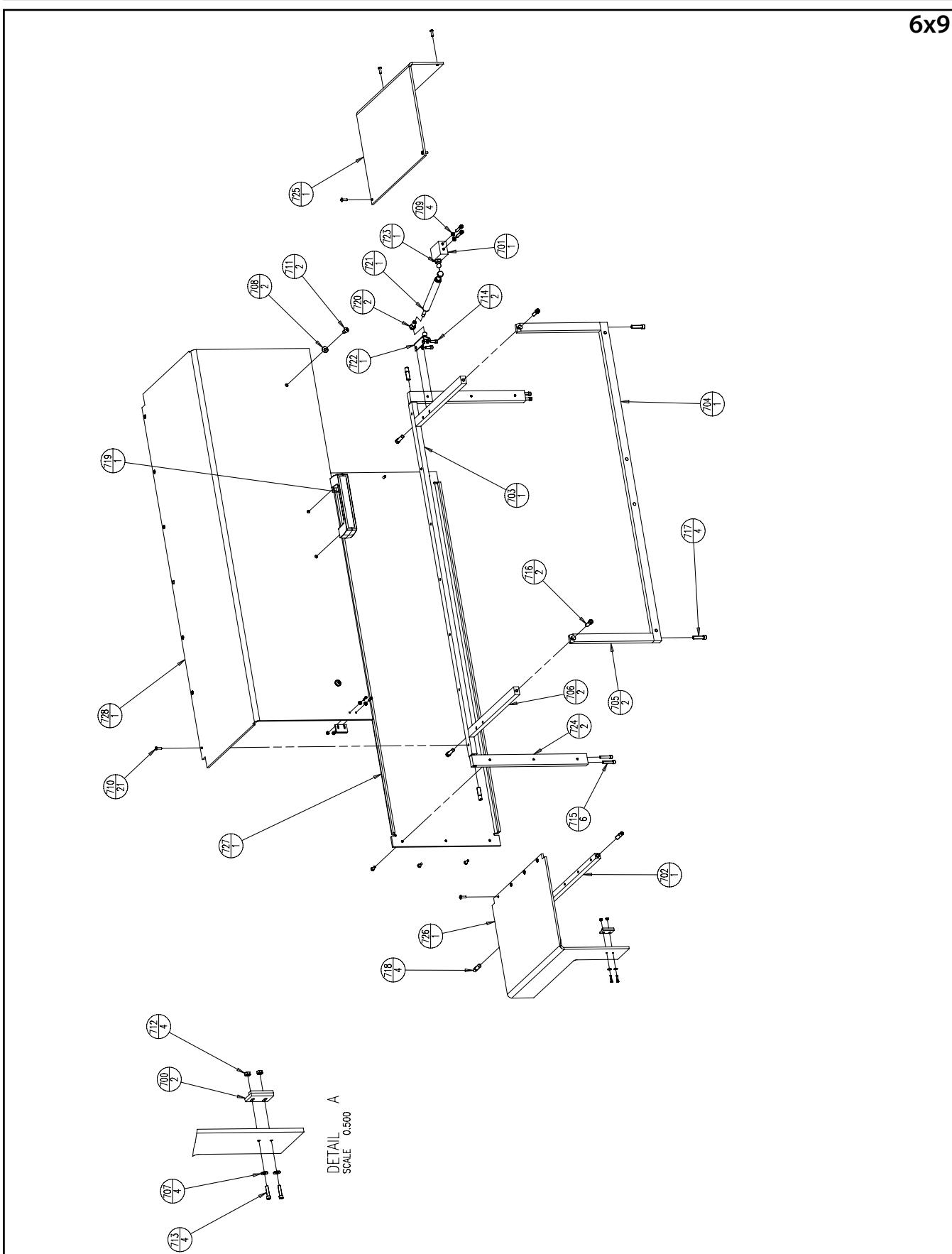
Figure 5-13: 6x9 Assembly Turnover Module/ FL80061



## Parts List 5-13: 6x9 Assembly Turnover Module/ FL80061

Item	Part Number	Qty	Description
600	23-0062	6	E RING RETAINING
601	52-0023	12	LK WASH HELICAL SPRING
602	591-0290	2	BALL BRG SGL ROW SNAP RG
603	591-0291	6	BEARING BALL W/SNAP RING .6250 ID
604	81-1218	6	SCREW CAP HEX SOCKET
605	81-1220	12	SCREW SOCKET HEAD CAP 1/4-20X 5/8
606	FL10004	2	TURNOVER ROLLER SHAFT
607	FL10005	1	TENSIONER PIVOT SHAFT
608	FL10006	1	TENSIONER ARM SHAFT
609	FL12000	2	SPRING PIN, SHORT
610	FL12001	2	SPRING PIN, LONG
611	FL13001	2	IDLER ROLLER
612	FL13003	1	PULLEY, TURNOVER CROWNED
613	FL20000	2	EXTENSION SPRING
614	FL50008	2	ARM, TENSIONER 6X9
615	FL51038	1	LEFT TRANSFER FRAME, 6X9
616	FL51039	1	RIGHT TRANSFER FRAME 6X9

Figure 5-14: 6x9 Assembly Turnover Module/ FL80061

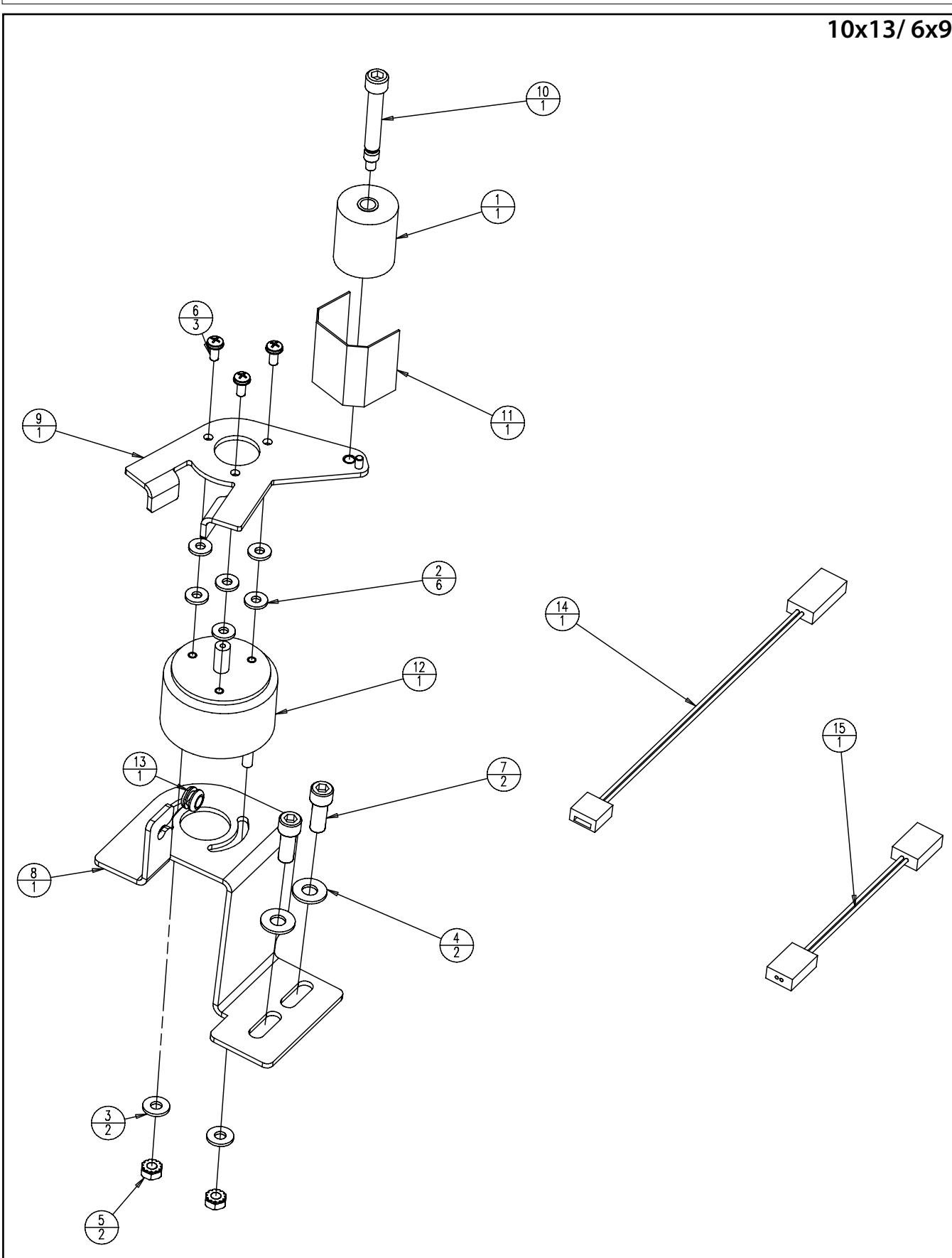


## Parts List 5-14: 6x9 Assembly Turnover Module/ FL80061

Item	Part Number	Qty	Description
700	200-0701	2	MAGNET ACTUATOR
701	20007-007	1	BLOCK, GAS SPRING MTG.
702	20008-003	1	BAR, END COVER MTG.
703	20008-004	1	BAR, COVER MTG
704	20008-006	1	BAR, CENTER COVER SUPPORT
705	20008-009	2	BAR, COVER SUPPORT(SIDE)
706	20008-010	2	BAR, COVER SUPPORT(TOP)
707	50-0005	4	WASHER PLAIN
708	50-0017	2	WASHER PLAIN .245 ID
709	52-0016	4	LK WASH HELICAL SPRING
710	68-0613	21	SCREW BTNH'D CAP HEX SKT
711	68-1218	2	SCREW BTNH'D CAP HEX SKT
712	71-0001	4	NUT HEX W/LCKWSH 4-40
713	81-0283	4	SCREW CAP HEX SOCKET
714	81-0833	2	SCREW CAP HEX SOCKET
715	81-0841	6	SCREW CAP HEX SOCKET
716	81-1222	2	SCREW CAP HEX SOCKET
717	81-1226	4	SCREW CAP HEX SOCKET
718	99006-024	4	PIN, STUD, 5/16-24 X 1 1/8
719	99012-001	1	HANDLE
720	99014-005	2	BALL, SOCKET END FITTING
721	99014-007	1	GAS SPRING
722	99014-008	1	BALL STUD ANGLE BRACKET
723	99014-009	1	BALL STUD
724	FL45019	2	MOUNT, TURNOVER COVER BACK, 6X9
725	FL62036	1	COVER, TURNOVER EXIT, 6X9
726	FL62037	1	COVER, TURNOVER INPUT, 6X9
727	FL62038	1	COVER, TURNOVER BACK, 6X9
728	FL62043	1	COVER, CENTER TURNOVER 6X9

Figure 5-15: Top Edge Marker/ FL90009

10x13/ 6x9



## Parts List 5-15: Top Edge Marker/FL90009

Item	Part Number	Qty	Description
1	6284066	1	INK TRANSFER ROLLER LOC 16
2	50-0007	6	WASHER .151/.164 X .370/.390""
3	50-0009	2	WASHER PLAIN
4	50-0017	2	WASHER PLAIN .245 ID
5	71-0004	2	NUT HEX & LK WASH
6	72-0500	3	SCREW & LK WASH
7	81-1220	2	SCREW SOCKET HEAD CAP 1/4-20X 5/8
8	FL51036	1	BRACKET, EDGEMARKER
9	FL51037	1	ARM, EDGEMARKER
10	Y370022	1	SCREW-SHOULDER
11	Y380169	1	ASSY, COVER-INK ROLLER
12	Y384125	1	SOLENOID - 45 DEG. ROTATION
13	Y384141	1	GROMMET
14	R683209AA	1	CABLE ASSY-SOLENOID EXTENSION
15	8483182	1	JUMPER IN4002/IN5359A ROTO BIN



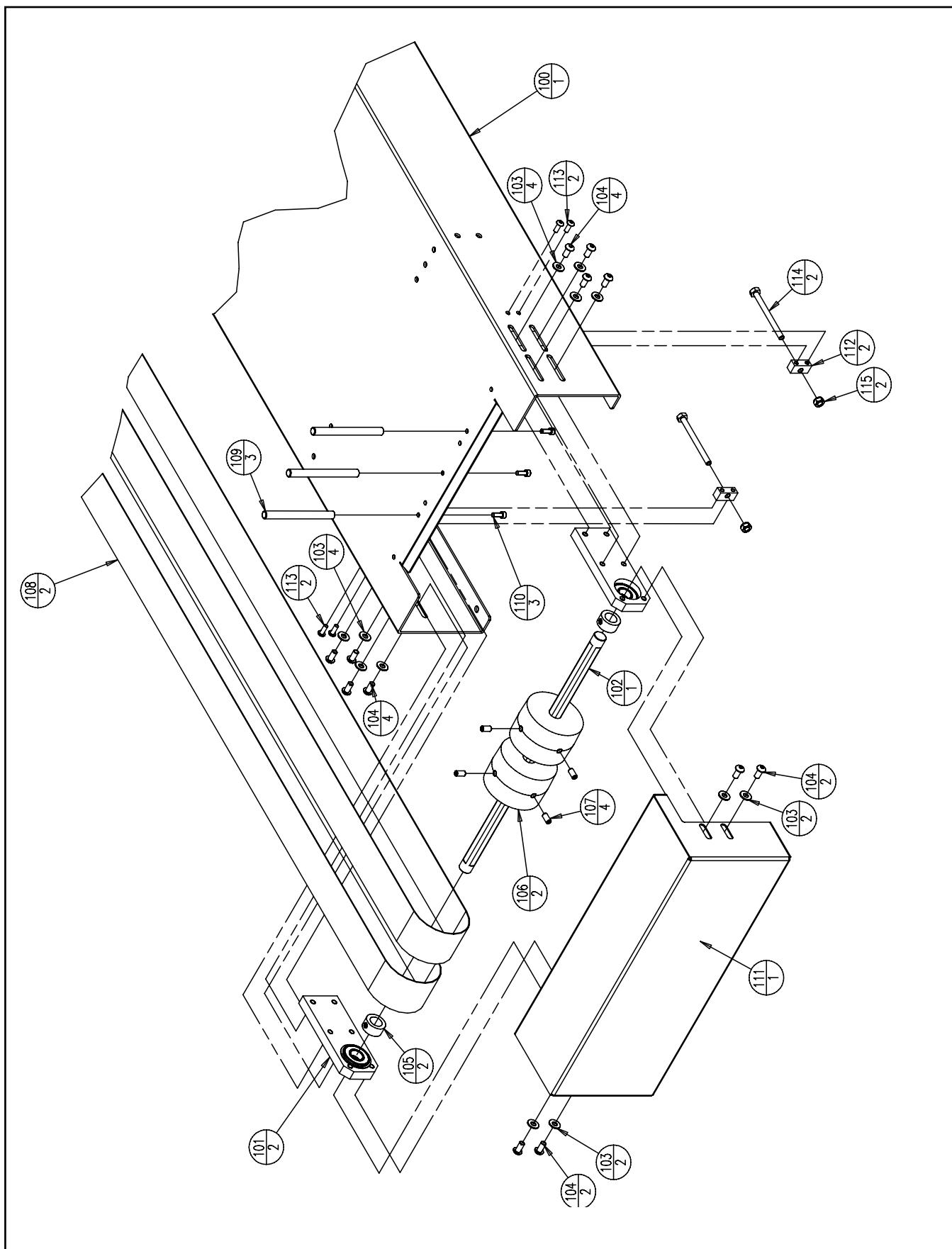
## **6    *FlowMaster Output Stacker FX10/FX14***



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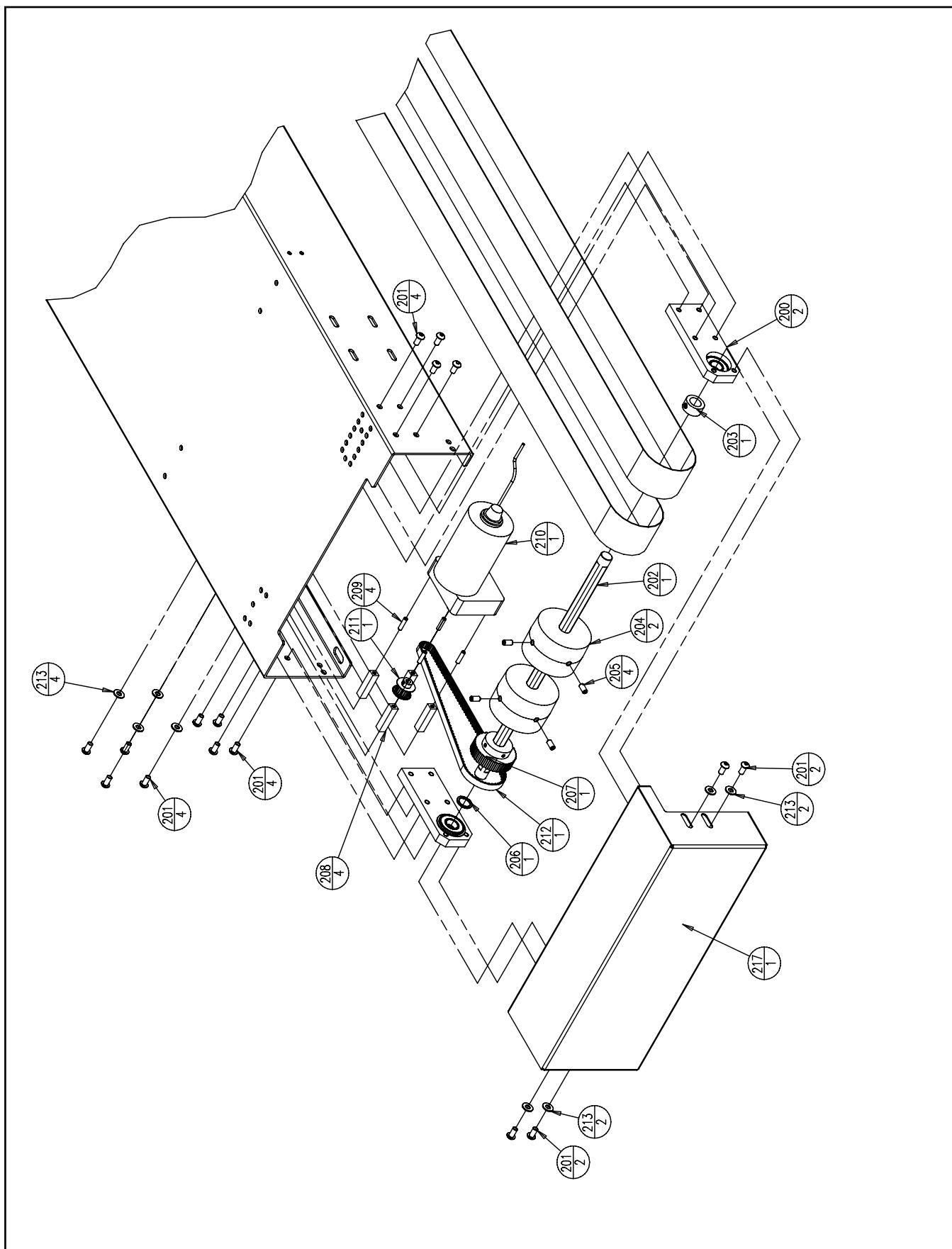
Figure 6-1: Outfeed Conveyor/ FL7E



## Parts List 6-1: Outfeed Conveyor/FL7E

Item	Part Number	Qty	Description
100	FL58039	1	SIDEFRAME, 9'CONVEYOR
101	12007-001	2	BEARING BLOCK
102	12004-003	1	SHAFT, DRIVE
103	50-0017	12	WASHER PLAIN .245 ID
104	68-1218	12	SCREW BTNH CAP HEX SKT
105	185-0416	2	COLLAR, CLAMP
106	12006-002	2	PULLEY, 3 IN. DIA X 2 IN. WIDE
107	75-0685	4	SET SCREW HEX SOCKET
108	99000-052	2	BELT, ENDLESS 18'-1INCH X 2INCH W.
109	12004-008	3	ROD, STOP CONVEYOR
110	81-0833	3	SCREW CAP HEX SOCKET
111	FL51008	1	END CAP
112	12007-002	2	BLOCK-BELT TENSIONER MTG
113	68-0833	4	SCREW BTNH CAP HEX SKT
114	79-1242	2	SCREW CAP HEX HEAD
115	71-0007	2	NUT HEX & LK WASH

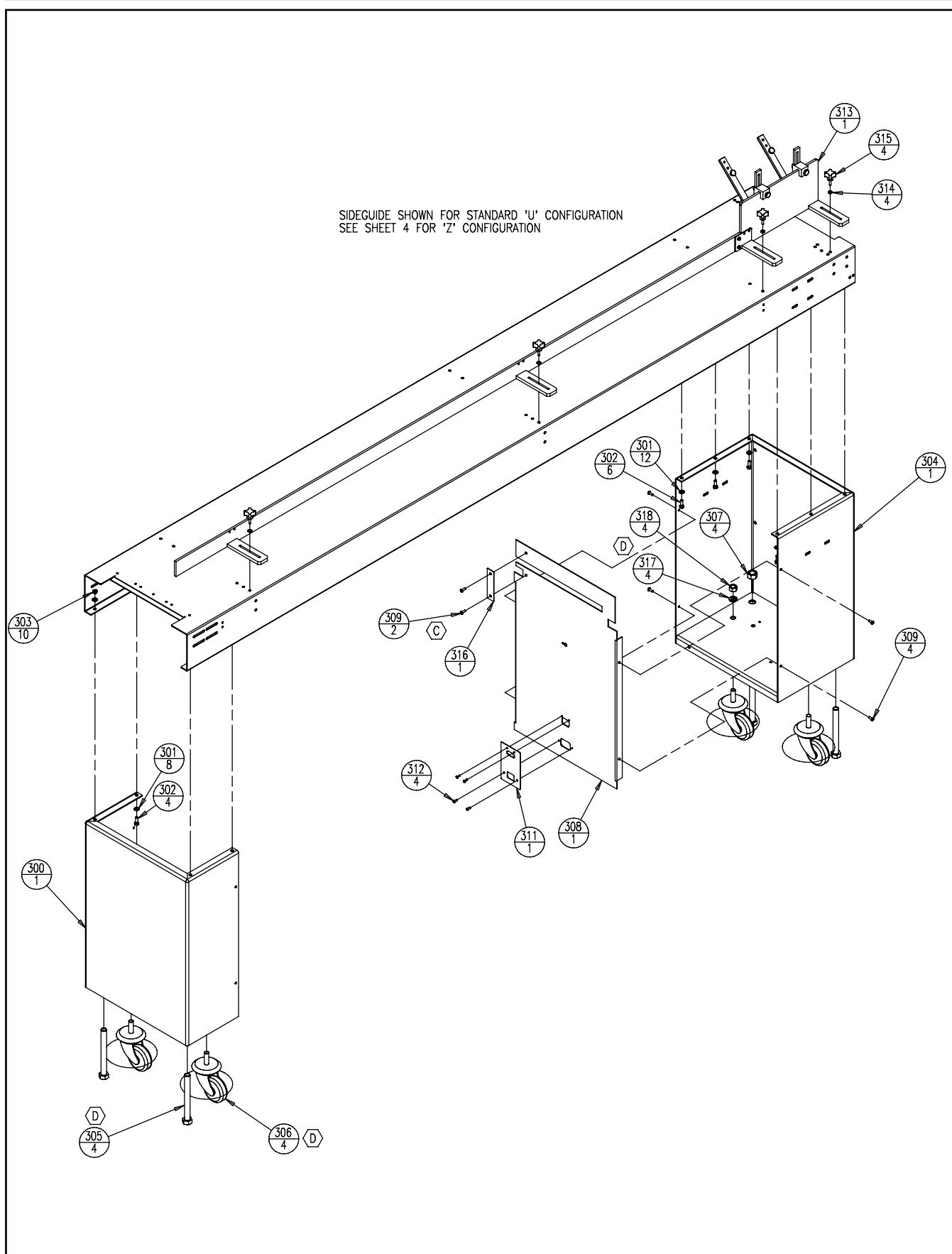
**Figure 6-2: Outfeed Conveyor/ FL7E**



## Parts List 6-2: Outfeed Conveyor/FL7E

Item	Part Number	Qty	Description
200	12007-001	2	BEARING BLOCK
201	68-1218	16	SCREW BTNHD CAP HEX SKT
202	12004-003	1	SHAFT, DRIVE
203	185-0416	1	COLLAR, CLAMP
204	12006-002	2	PULLEY, 3 IN. DIA X 2 IN. WIDE
205	75-0685	4	SET SCREW HEX SOCKET
206	50-0723	1	WASHER, PLAIN NYLON 6/6
207	592-0018	1	PULLEY, TIMING XL
208	12012-001	4	SPACER-MOTOR CONV
209	75-0595	4	SET SCREW HEX SOCKET
210	99001-009	1	MOTOR, 32 RPM
211	592-0004	1	PULLEY, TIMING XL
212	566-0027	1	BELT TIMING 1/5 P(XL)
213	50-0017	8	WASHER PLAIN .245 ID
217	FL51008	1	END CAP

Figure 6-3: Outfeed Conveyor/ FL7E



## Parts List 6-3: Outfeed Conveyor/FL7E

Item	Part Number	Qty	Description
300	12010-003	1	LEG, OUTFEED CONVEYOR, DS
301	50-0017	20	WASHER PLAIN .245 ID
302	79-1222	10	SCREW CAP HEX HEAD
303	71-0007	10	NUT HEX & LK WASH
304	12010-004	1	LEG, OUTFEED CONVEYOR, US
305	79-1781	4	SCREW CAP HEX HEAD
306	3184086	4	CASTER
307	80-0034	4	NUT HEX
308	FL58047	1	COVER, SHINGLE CONVEYOR LEG
309	68-0833	6	SCREW BTNHD CAP HEX SKT
310	FL80038	1	ASSY - SHINGLE CONVEYOR ELECTRICAL
311	FL50017	1	PLATE,CONNECTOR MOUNTING
312	60-0501	4	SCREW TPG PAN HD PH
313	12020-009	1	ASSY-OUTFEED CONVEYOR BACKSTOP
314	50-0009	4	WASHER PLAIN
315	19-0020	4	KNOB CONTROL
316	FL50024	1	PLATE - COVER SPLICE
317	52-0031	4	LK WASH HELICAL SPRING
318	80-0031	4	NUT HEX
319	R680005NN	1	MOCON BOX WITH REMOTE SPEED CONTROL (NOT SHOWN)



## **7 FlowMaster Electrical FX10/FX14**



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Figure 7-1: Electrical 24 Volt Relays in Main DC Cab/ FL81013

## 24 Volt Relays in Main DC Cabinet FL81013

Early DC systems used a Relay soldered into the socket assembly clipped to the rail. It is usually necessary to remove the rail to access the release tab to remove the relay Assembly from the rail.



Relay #	Part #
K1 & K3	214-0760
K2, K7 & K8	214-0757

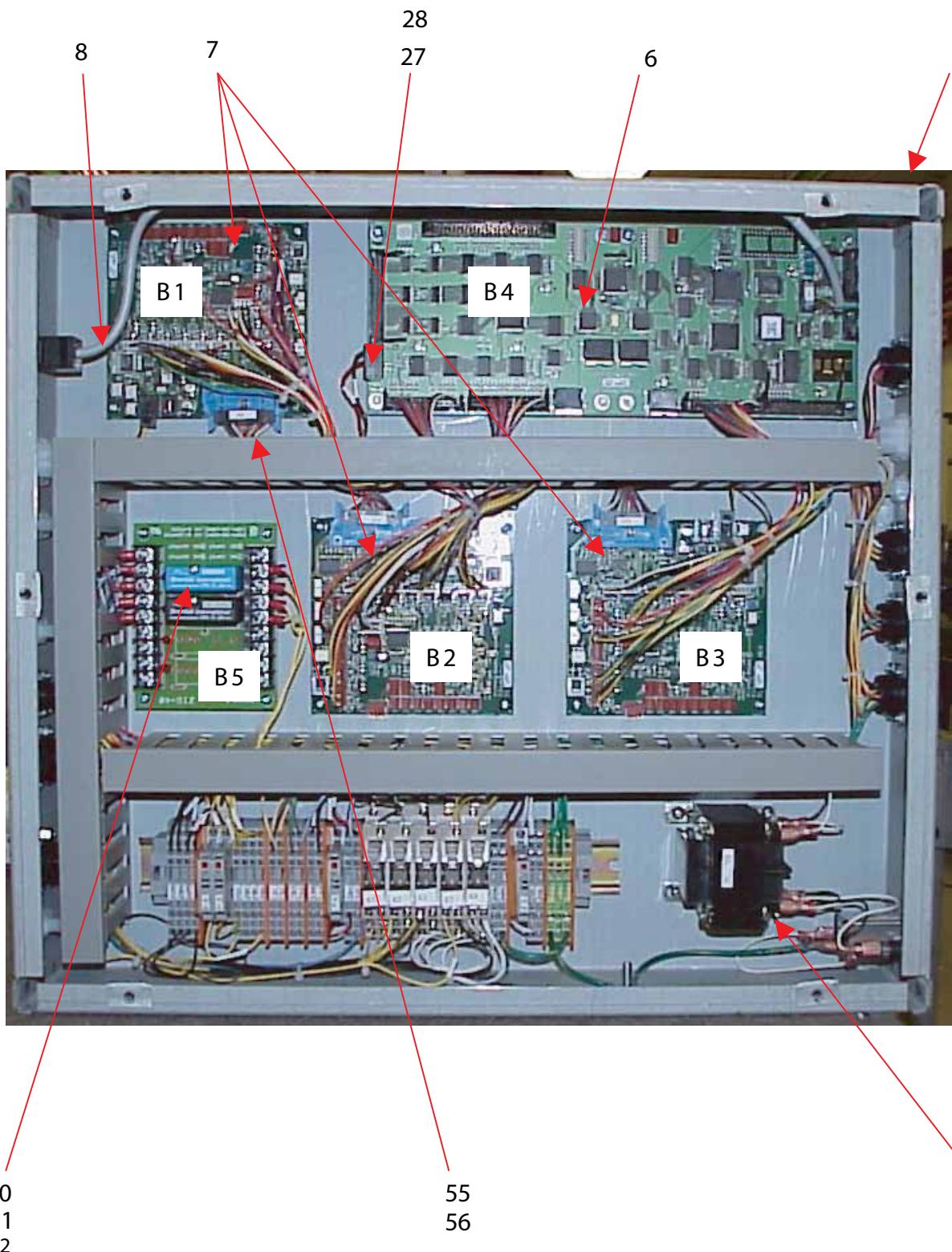
Later DC systems use a common Relay in all positions that unplugs from the socket for ease of replacement. The release tab for the socket is also accessible so it can be removed without removing the rail.



Relay #	Part #
K1, K2, K3, K7 & K8	214-0764
Socket	212-0294

\* A new style Relay and Socket can be used to replace the old style Relay/ Socket Assembly.

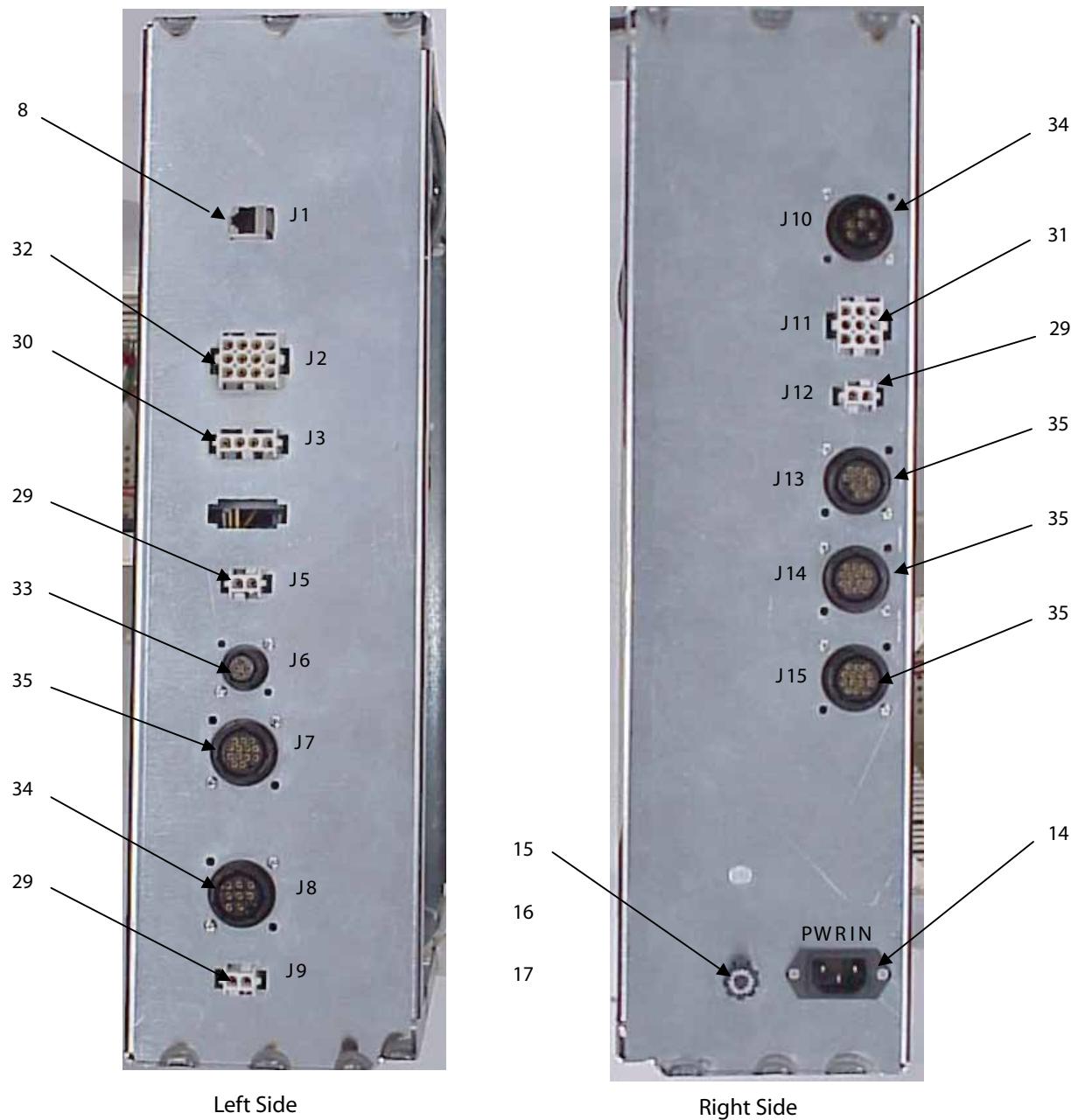
Figure 7-2: Main DC Enclosure Assembly/ FL81013



## Parts List 7-2: Main DC Enclosure Assembly/ FL81013

Item	Part Number	Qty	Description
1	FL58017	1.0	BOX, MAIN CONTROLLER, DC
2	10-0064	3.0	CAPTIVE SCREW CLIP ON
3	FL58029	1.0	COVER, DC, MAIN CONTROLLER
4	10-0065	3.0	FSTNR CAPTIVE SCREW STEEL
5	10-0066	3.0	RCPT CAPTIVE SCREW
6	Y482028	1.0	ASSEMBLY 10K CONTROLLER
7	FL82002	3.0	ASSEMBLY FEEDER INTERFACE DC
8	FL83075	1.0	HARNESS - 8051 COMMUNICATION
10	R584000	1.0	I/O MODULE
11	R584001	1.0	MODULE-WATCHDOG
12	R584002	1.0	MODULE-DRY OUTPUT
13	215-0252	1.0	XFMR STEP DN 115/230V 12V
14	220-0207	1.0	FILTER,CONN 250VAC 3A
15	228-0108	1.0	FUSE SLOW BLOW
16	228-0329	1.0	FUSEHOLDER BODY 20A 250V
17	228-0335	1.0	FUSEHOLDER 3AG 20A 250V
18	221-0861	20.0	TERM BLCK 4POS 20A AWG14
19	221-0862	3.0	TERM BLCK 1 4 AWG 28-14
20	228-0336	4.0	FUSEHOLDER SPRING
21	221-0855	2.0	TERM BLCK END STOP SCREW
22	214-0764	5.0	RLY DPDT 10 AMP 24VDC - RELAY
23	212-0294	5.0	SKT RELAY 8 PIN TRACK MT - RELAY SOCKET
24	221-0863	9.0	CVR SEPARATOR SERIES 280
25	221-0864	3.0	CVR END/INTERMEDIATE PLAT
26	221-0865	12.0	JMPR 1 SERIES 280 24A GRA
27	261-1252	1.0	CONNRCTOR
28	261-0169	1.0	COVER
29	223-0377	3.0	CONN HSG 2 PINS
30	223-0381	1.0	CONN CAP 4 PINS
31	223-0385	1.0	CONN CAP 9 PINS
32	223-0387	1.0	CONN CAP 12 PINS
33	223-0683	1.0	CONN RCPT SERIES 1
34	223-0446	2.0	CONN HOUSING 17-9 RECEPT
35	223-0447	4.0	CONN HOUSING 17-14 RECEPT
36	261-2506	31.0	CONN HSG 4 POS LOCKING
37	261-2416	14.0	CONN HSG 5 POS LOCKING
38	261-2356	3.0	CONN HSG F 4 POS LATCH
39	242-0712	6.0	WIRE RIVET MAT'L NYLON
40	FL83041	3.0	HARNESS, DC, 80151 TO FEEDER BOARD
41	236-0116	2.0	TERMINAL RING #1/4 INSUL
42	236-0074	9.0	TERMINAL
43	85-0753	8.0	CONN ELECTRICAL & INSUL
44	85-0716	1.0	TERM #16-14 .250TAB INSUL
45	85-0257	80.0	TERMINAL 22-30 AWG BRASS

Figure 7-3: Main DC Enclosure Assembly/ FL81013



## Parts List 7-3: Main DC Enclosure Assembly/ FL81013

Item	Part Number	Qty	Description
46	85-1093	6.0	CNTCT RECEPTACLE 26-22 AW
47	85-0233	32.0	WIRE TERMINAL PIN & SKT
48	85-0234	6.0	WIRE TERMINAL PIN & SKT
49	85-1127	73.0	TERM SOCKET 24-20 AWG NON
50	228-2123	1.0	FUSE FAST 0.5A 250V 5 X
51	228-2117	3.0	228-2117 2A FUSE
52	85-0754	4.0	CONN ELECTRICAL & INSUL
53	209-0439	2.0	RES,CC 2.4K 5% 1/4W
55	223-0382	1.0	CONN PLUG 6 PINS
56	223-0383	1.0	CONN CAP 6 PINS
57	230-0501	131.0	WIRE INS 24 AWG WHITE
58	230-0502	323.5	WIRE INS 24 AWG BLACK
59	230-0503	53.0	WIRE INS 24 AWG RED
60	230-0504	48.0	WIRE INS 24 AWG GREEN
61	230-0505	254.5	WIRE INS 24 AWG YELLOW
62	230-0506	12.0	WIRE INS 24 AWG LT BLUE
63	230-0507	219.0	WIRE INS 24 AWG BROWN
64	230-0508	115.5	WIRE INS 24 AWG ORANGE
65	230-0509	163.5	WIRE INS 24 AWG GRAY
66	230-0510	146.0	WIRE INS 24 AWG VIOLET
67	230-0531	77.5	WIRE INS 22 AWG WHITE
68	230-0532	100.5	WIRE INS 22 AWG BLACK
69	230-0533	18.0	WIRE INS 22 AWG RED
70	230-0534	50.0	WIRE INS 22 AWG GREEN
71	230-0535	330.5	WIRE INS 22 AWG YELLOW
72	230-0536	76.0	WIRE INS 22 AWG LT BLUE
73	230-0537	106.5	WIRE INS 22 AWG BROWN
74	230-0538	111.5	WIRE INS 22 AWG ORANGE
75	230-0539	68.0	WIRE
76	230-0540	17.5	WIRE INS 22 AWG VIOLET
77	230-0563	3.0	WIRE
78	230-0564	74.5	WIRE INS 20 AWG GREEN
79	237-0902	22.0	WIRE INS 14 AWG GRN/YEL
80	230-3042	40.5	WIRE TW/PR 22 AWG BK/RED
81	230-3044	98.5	WIRE TW/PR 22 AWG BK/YEL
82	230-3001	30.0	WIRE TW/PR 18 AWG BK/RED
83	53-1505	1.0	DECAL LOGO+INSTRUCTION PP

Figure 7-4: 3 Feeder Control Box/ FL81015

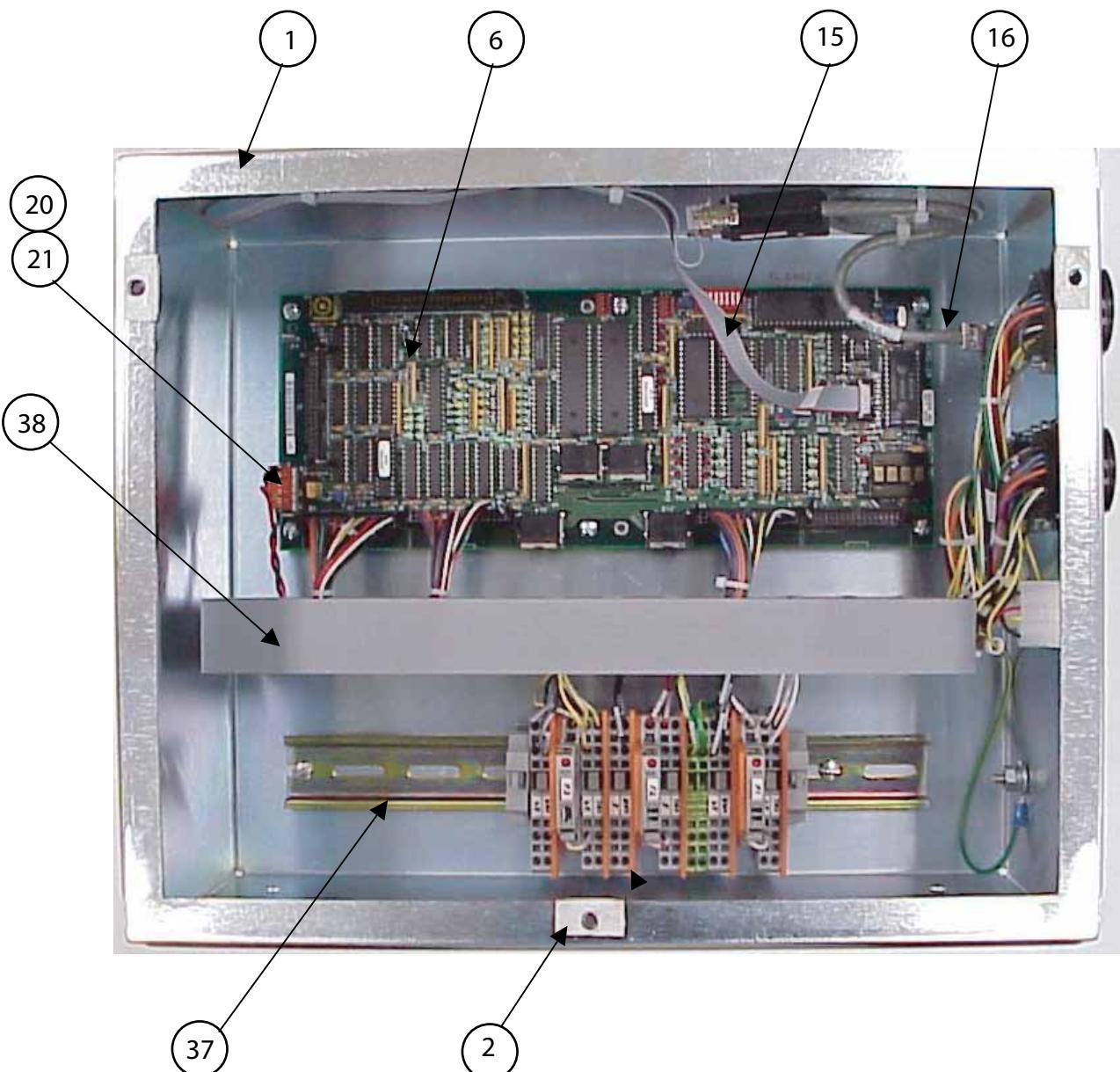
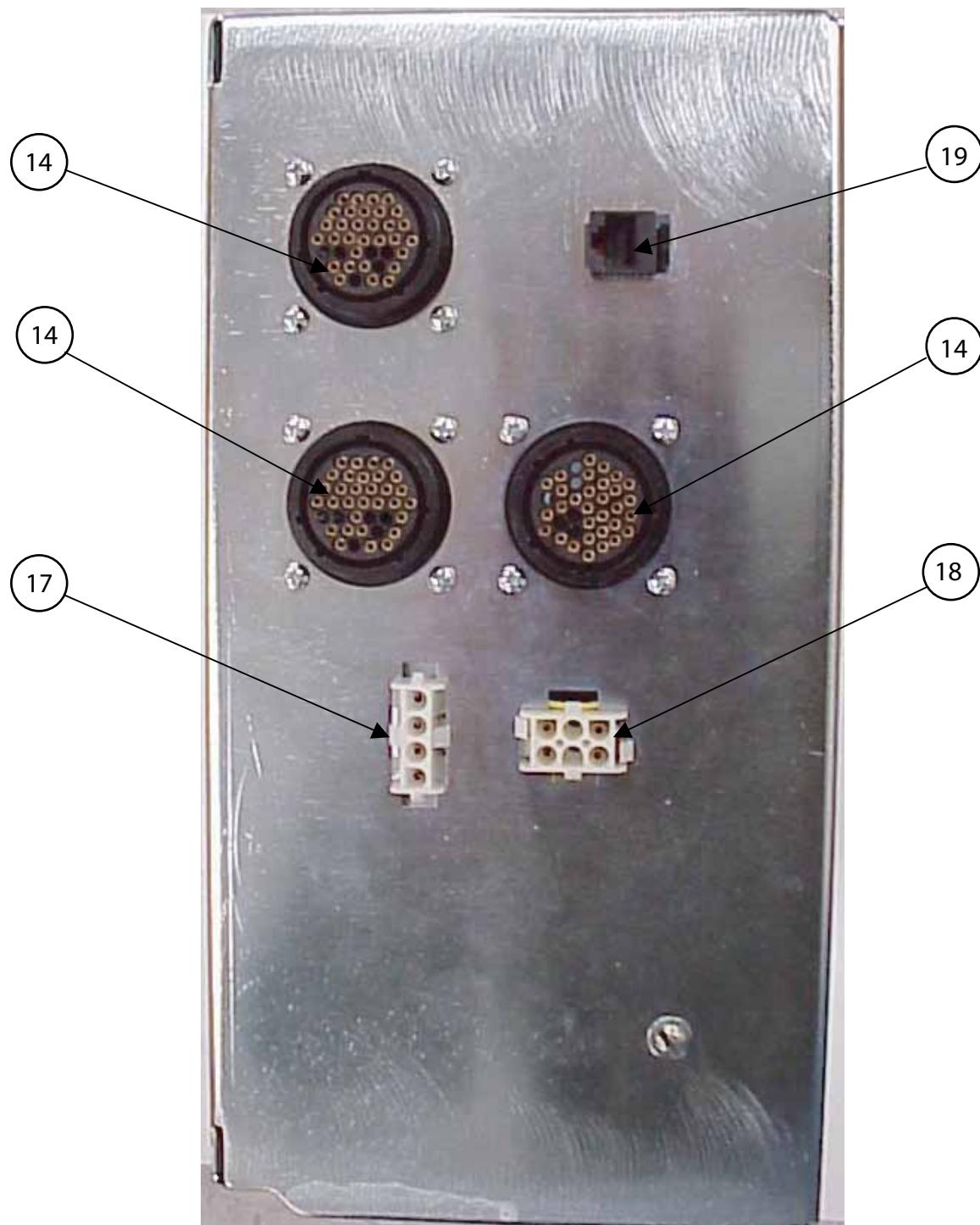


Table #2

<b>Terminal Block layout (left to right)</b>			
Item No.	PB P/N	Qty	Description
21	221-0855	1	End Stop
18	221-0861	4	24 VDC rtn
24	221-0863	1	Separator
25	221-0864	1	Fuse Separator
20	228-0336	1	F4 (24 VDC to interlock)
20	228-0336	1	F3 (24 VDC main)
18	221-0861	2	24 VDC (main)
18	221-0861	2	24 VDC (to interlock)
24	221-0863	1	Separator
18	221-0861	2	TB1
24	221-0863	1	Separator
18	221-0861	2	TB2
24	221-0863	1	Separator
18	221-0861	2	5 VDC rtn
24	221-0863	1	Separator
25	221-0864	1	Fuse Separator
20	228-0336	1	F5 (5 VDC main)
18	221-0861	2	5 VDC
24	221-0863	1	Separator
22	214-0760	1	K1
23	214-0757	1	K2
22	214-0760	1	K3
23	214-0757	1	K7
23	214-0757	1	K8
18	221-0861	2	24 VAC rtn
24	221-0863	1	Separator
25	221-0864	1	Fuse Separator
20	228-0336	1	F2 (24 VAC)
18	221-0861	2	24 VAC
24	221-0863	1	Separator
19	221-0862	3	GND
24	221-0863	1	Separator
21	221-0855	1	End Stop

Figure 7-5: 3 Feeder Control Box



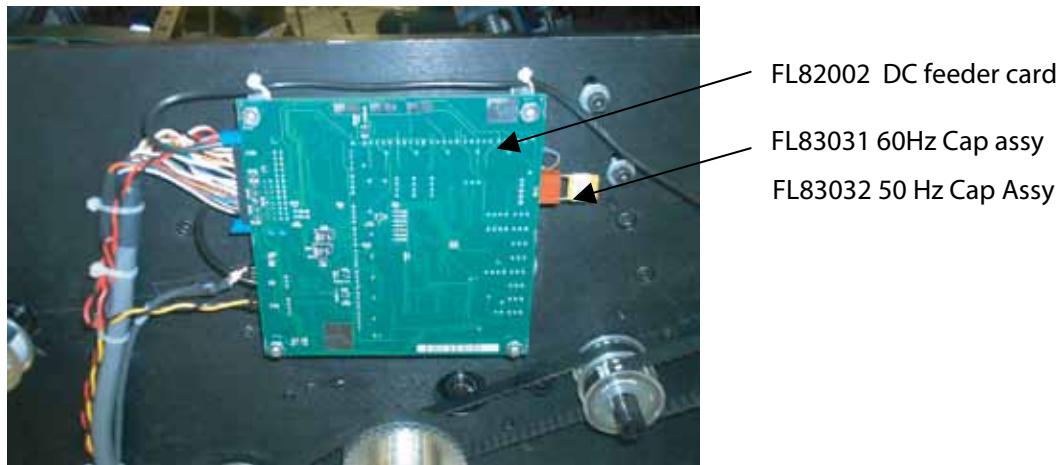
## Parts List 7-5: 3 Feeder Control Box

**PARTS LIST (Components) 3 Feeder Control Box**

<b>Item No.</b>	<b>PB Part Number</b>	<b>Qty</b>	<b>Description</b>
1	FL58020	1	Feeder Control Enclosure
2	10-0064	3	Speed Nut
3	FL58033	1	Cover, Feeder Control Enclosure
4	10-0065	3	Fastener
5	10-0066	3	Retainer
6	R682005	1	10K Controller Board
7	221-0861	12	Terminal Block, 4 Pos.
8	221-0862	2	Terminal Block, 4 Pos., Gnd
9	228-0336	3	Fuse Block w/Indicator
10	221-0855	2	End Stop
11	221-0863	6	Terminal Block Blank End
12	221-0864	3	Fuse Block Blank End
13	221-0865	6	Terminal Block Jumper
14	FL83036	3	Harness, DC Feeder
15	R683108	1	Serial Cable, Flat
16	R583108CC	1	Serial Cable
17	223-0381	1	4 Pos. Connector
18	223-0383	1	6 Pos. Connector
19	223-0824	1	Serial Feedthru
20	261-1252	1	5 Pos. Connector
21	261-0169	1	5 Pos. Cover
22	261-3129	1	1 Pos. Connector, Plug
23	261-3130	1	1 Pos. Connector, Cap
24	85-0233	9	Terminal, Socket
25	85-0234	1	Terminal, Pin
26	230-0533	2"	Wire, 22 AWG, Red
27	230-0531	12"	Wire, 22 AWG, Wht
28	230-0535	2"	Wire, 22 AWG, Yel
29	230-0532	10"	Wire, 22 AWG, Blk
30	230-0540	12"	Wire, 22 AWG, Vio
31	230-3044	16"	Wire, 22 AWG, Yel/Blk Tw Pr.
32	230-3042	16"	Wire, 22 AWG, Red/Blk Tw Pr.
33	230-3001	12"	Wire, 18 AWG, Red/Blk Tw Pr.
34	230-0902	18"	Wire, 14 AWG, Grn/Yel
35	236-0116	1	Terminal, Ring, 1/4" (16-14 AWG)
36	228-2123	3	Fuse, 1/2A, 250V Fast Acting, 5x20
37		AR	Terminal Block Markers
38		AR	DIN Rail (Wago #210-111)
39		AR	Wire Duct 1" x 3"
40			

Figure 7-6: FlowMaster Enclosure Feeder Card

## Flowmaster Enclosure Feeder Cards



## Insert Feeder Low Material Sensor

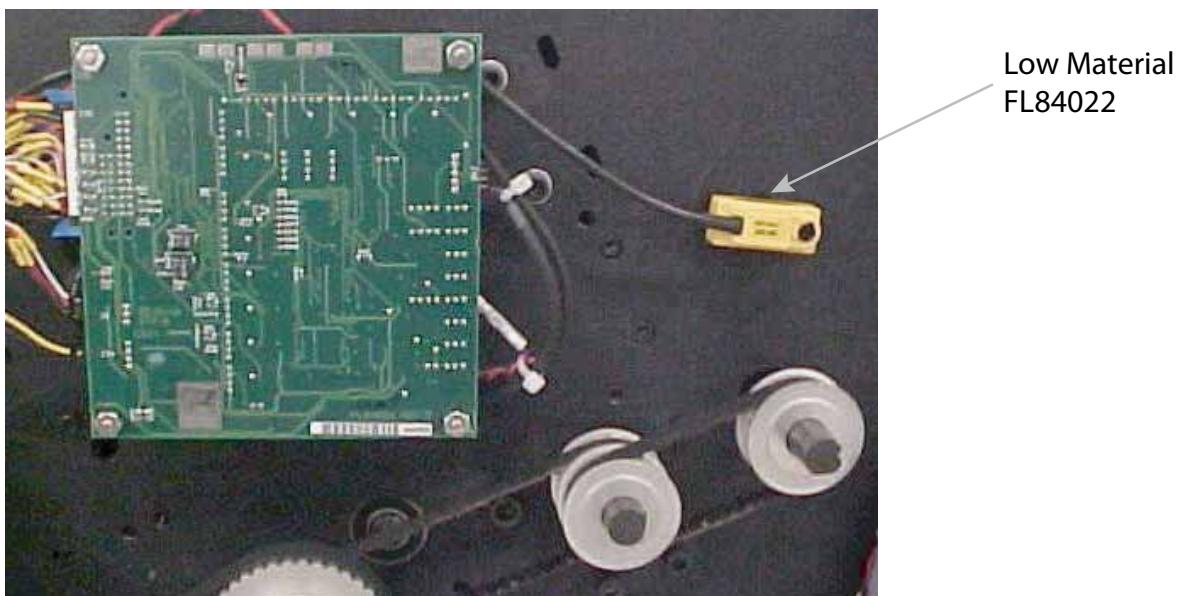
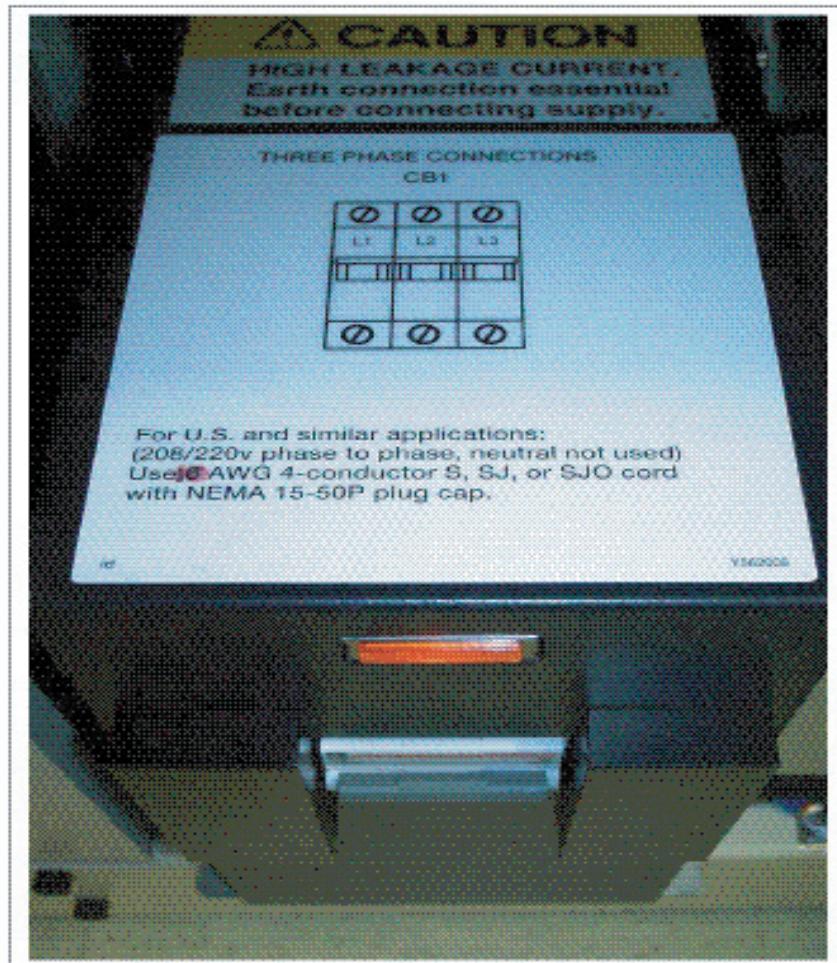


Figure 7-7: Power Entry Module TSB

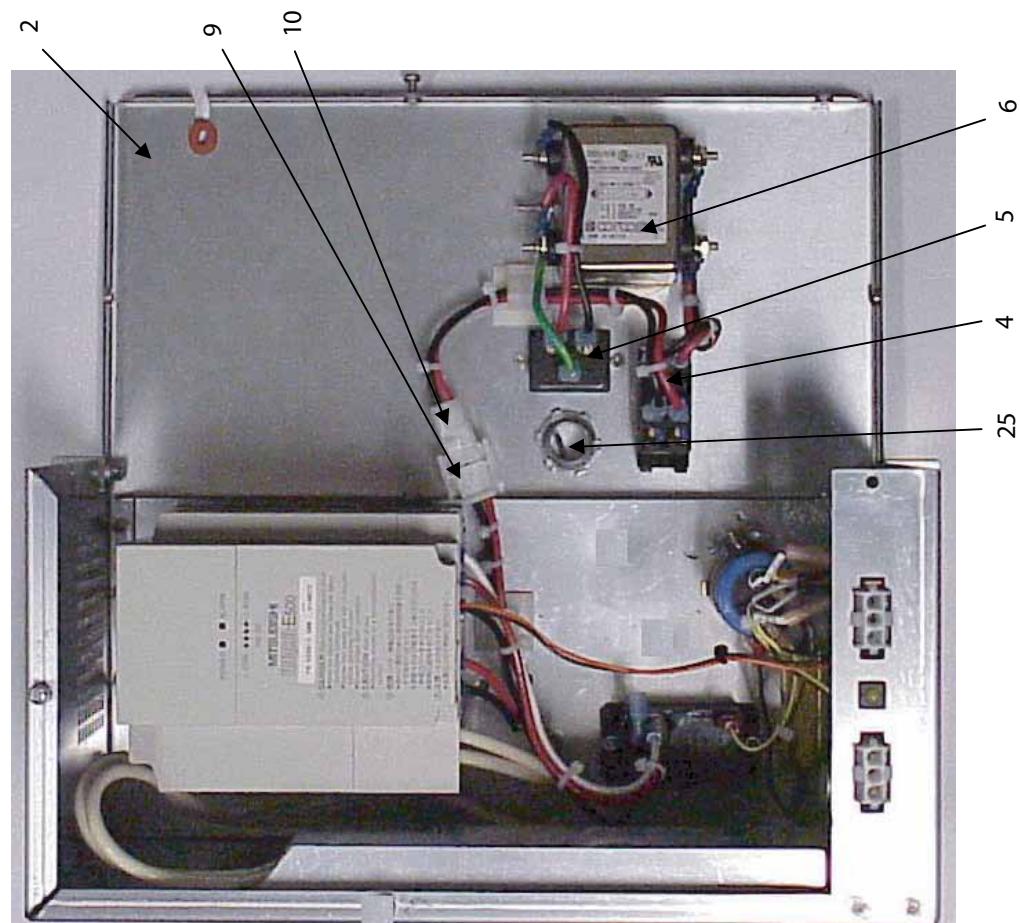
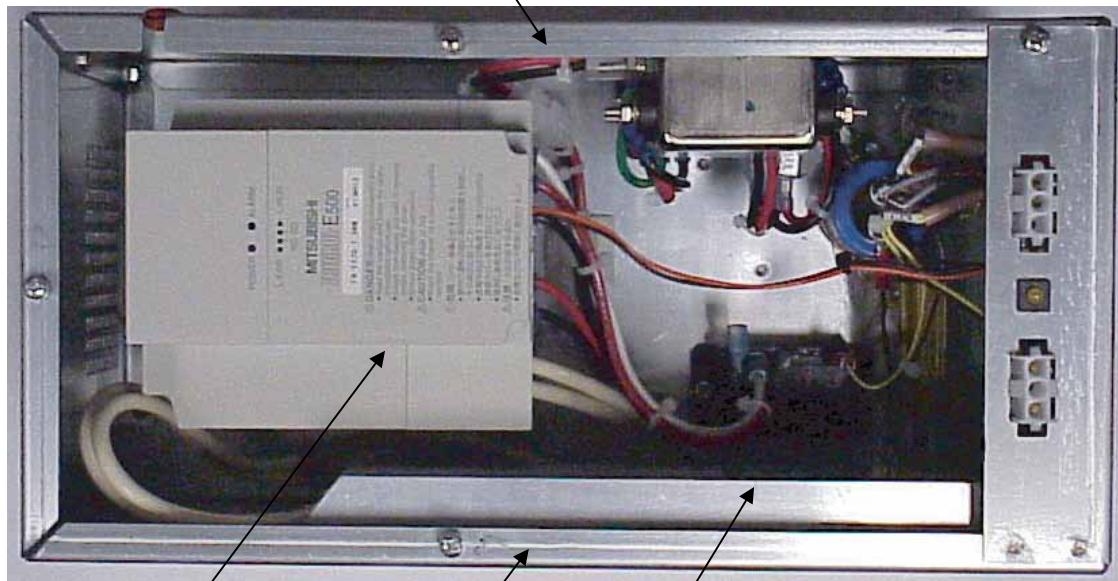
This TSB has been created to inform the field about the various types of power entry modules used for FlowMaster units. Early units were manufactured without a power entry module and used an externally mounted switch. Pitney Bowes added the Power entry modules currently used. Please refer to figures attached for additional information regarding these components.



Chassis Type	Amp	Phase	Power Entry module	Circuit Breaker part number
DC	50	Single	FL81012BB	224-0240
DC Domestic	50	Three	Y583056	224-0218
DC Export	50	Three	Y483120	224-0218

Your Power entry module may be labeled FL81012, FL81012AA or FL81012BB. The only difference between these modules should be the power cord length. FL81012BB has the longest power cord and may be substituted for the FL81012 and FL81012BB.

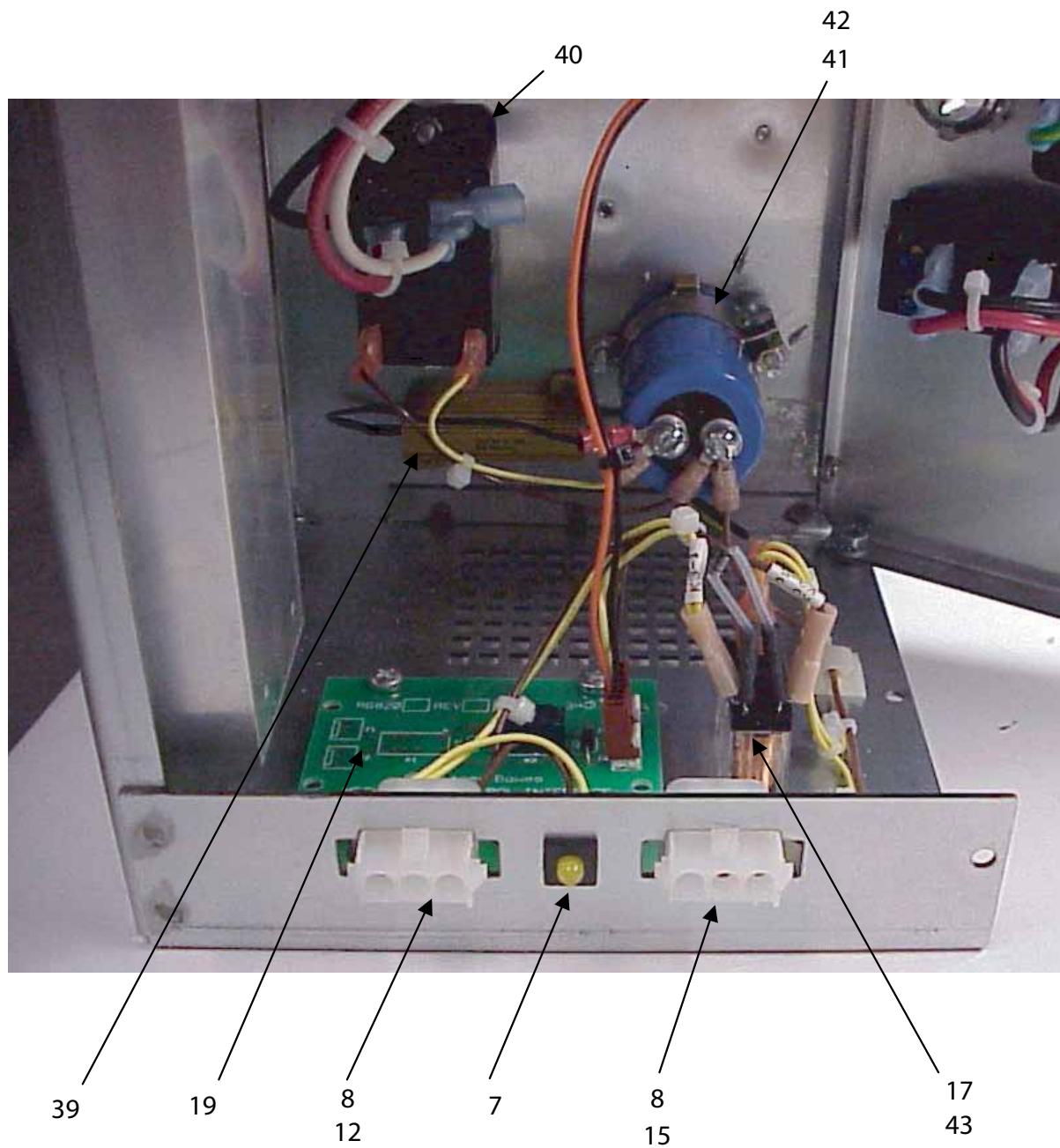
Figure 7-8: Main Inverter Enclosure, Chassis &amp; Fron Table Drive/ FL81007



## Parts List 7-8: Main inverter Enclosure, Chassis &amp; Front Table Drive/ FL81007

Item	Part Number	Qty	Description
1	FL51119	1.0	ENCLOSURE - INVERTER ASSY
2	FL51127	1.0	COVER - INVERTER ASSY
3	FL84028	1.0	AC INVERTER - 1.5 KW (SHOULD SHIP PREPROGRAMMED, IF NOT REFER TO TSB N912 & TSB N984)
4	224-0235	1.0	CKT-BRKR PNL MNT 10.0A 2P
5	241-0142	1.0	RCPT POWER INLET
6	220-0008	1.0	FILTER 115/250V 20A
7	202-0792	1.0	LED YELLOW 30VMAX
8	223-0379	2.0	CONN HSG CAP 3POS .250
9	223-0376	1.0	HSG 2POS STR .250 SPG
10	223-0377	1.0	CONN HSG 2 PINS
11	261-2619	2.0	CONN HSG 3 POS LOCKING
12	85-0223	4.0	WIRE TERMINAL PIN & SKT
13	85-0222	2.0	WIRE TERMINAL PIN & SKT
14	85-0257	4.0	TERMINAL 22-30 AWG BRASS
15	85-0233	2.0	WIRE TERMINAL PIN & SKT
16	85-0754	2.0	CONN ELECTRICAL & INSUL
17	214-0745	1.0	RLY SPST-NO 10A 24VDC
18	FL51129	1.0	COVER - INVERTER ASSY
19	R682076	1.0	ASSEMBLY MECHANICAL CONTROL INTERFACE
20	236-0071	4.0	TERM RING #10 22-16 AWG
21	236-0072	5.0	TERMINAL
22	236-0416	5.0	TERM SPADE #6 16-14 AWG
23	85-0716	10.0	TERM #16-14 .250TAB INSUL
24	85-0753	4.0	CONN ELECTRICAL & INSUL
25	242-0053	1.0	WIRE 3/8 STRAIN RLF
26	237-0652	35.0	WIRE INS 14 AWG BLACK
27	237-0653	33.0	WIRE INS 14 AWG RED
28	237-0651	7.0	WIRE INS 14 AWG WHITE
29	237-0902	3.5	WIRE INS 14 AWG GRN/YEL
30	230-3042	10.0	WIRE TW/PR 22 AWG BK/RED
31	13-1040	2.0	SHOULDER SCREW, SCKT HD
32	230-0535	35.5	WIRE INS 22 AWG YELLOW
35	FL84014	1.0	BRAKE RESISTOR - 1.5KW
37	230-0537	25.0	WIRE INS 22 AWG BROWN
39	210-1024	1.0	RES 16 1 50W WIRE-WOUND
40	214-0758	1.0	RLY BASIC DPST-NO 30A 24V
41	206-0662	1.0	CAP 2200 UF 100V ALUMIN
42	206-0509	1.0	CAP BRACKET STEEL
43	Y483095	1.0	DIODE ASSY-APS ESTP

Figure 7-9: Main Inverter Enclosure/ FL81007

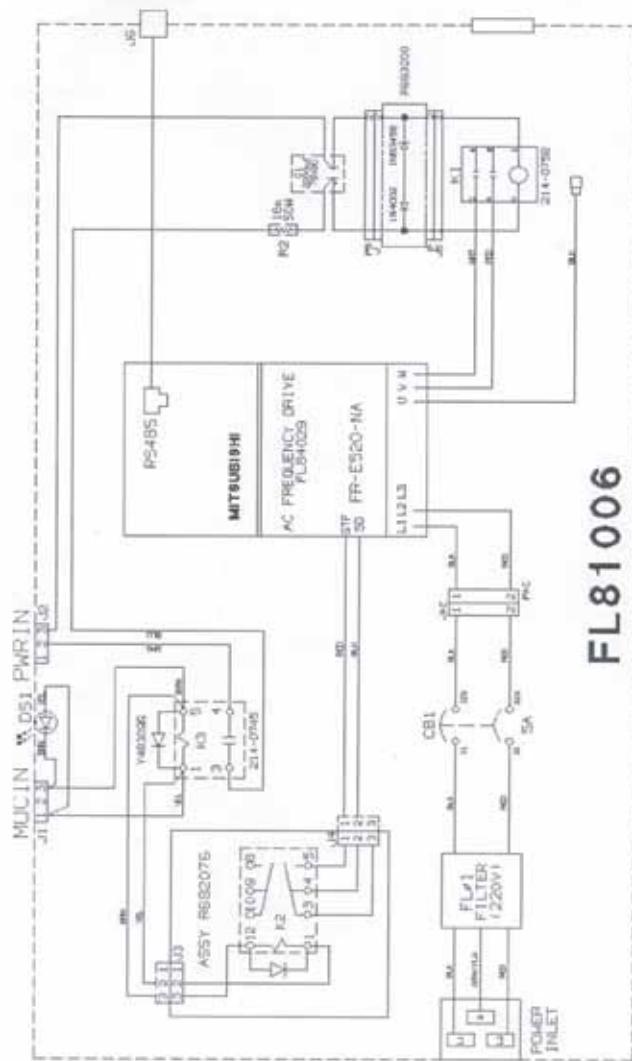


## Parts List 7-9: Main inverter Enclosure/ FL81007

Item	Part Number	Qty	Description
1	FL51119	1.0	ENCLOSURE - INVERTER ASSY
2	FL51127	1.0	COVER - INVERTER ASSY
3	FL84028	1.0	AC INVERTER - 1.5 KW
4	224-0235	1.0	CKT-BRKR PNL MNT 10.0A 2P
5	241-0142	1.0	RCPT POWER INLET
6	220-0008	1.0	FILTER 115/250V 20A
7	202-0792	1.0	LED YELLOW 30VMAX
8	223-0379	2.0	CONN HSG CAP 3POS .250
9	223-0376	1.0	HSG 2POS STR .250 SPG
10	223-0377	1.0	CONN HSG 2 PINS
11	261-2619	2.0	CONN HSG 3 POS LOCKING
12	85-0223	4.0	WIRE TERMINAL PIN & SKT
13	85-0222	2.0	WIRE TERMINAL PIN & SKT
14	85-0257	4.0	TERMINAL 22-30 AWG BRASS
15	85-0233	2.0	WIRE TERMINAL PIN & SKT
16	85-0754	2.0	CONN ELECTRICAL & INSUL
17	214-0745	1.0	RLY SPST-NO 10A 24VDC
18	FL51129	1.0	COVER - INVERTER ASSY
19	R682076	1.0	ASSEMBLY MECHANICAL CONTROL INTERFACE
20	236-0071	4.0	TERM RING #10 22-16 AWG
21	236-0072	5.0	TERMINAL
22	236-0416	5.0	TERM SPADE #6 16-14 AWG
23	85-0716	10.0	TERM #16-14 .250TAB INSUL
24	85-0753	4.0	CONN ELECTRICAL & INSUL
25	242-0053	1.0	WIRE 3/8 STRAIN RLF
26	237-0652	35.0	WIRE INS 14 AWG BLACK
27	237-0653	33.0	WIRE INS 14 AWG RED
28	237-0651	7.0	WIRE INS 14 AWG WHITE
29	237-0902	3.5	WIRE INS 14 AWG GRN/YEL
30	230-3042	10.0	WIRE TW/PR 22 AWG BK/RED
31	13-1040	2.0	SHOULDER SCREW, SCKT HD
32	230-0535	35.5	WIRE INS 22 AWG YELLOW
35	FL84014	1.0	BRAKE RESISTOR - 1.5KW
37	230-0537	25.0	WIRE INS 22 AWG BROWN
39	210-1024	1.0	RES 16 1 50W WIRE-WOUND
40	214-0758	1.0	RLY BASIC DPST-NO 30A 24V
41	206-0662	1.0	CAP 2200 UF 100V ALUMIN
42	206-0509	1.0	CAP BRACKET STEEL
43	Y483095	1.0	DIODE ASSY-APS ESTP

Figure 7-10: Enclosure Feeder Drive/ FL81006

## REFERENCE SCHEMATIC



**AC Inverter - Enclosure Feeder Drive  
Located in Chassis Lower Cabinet**

Figure 7-11: Enclosure Feeder Drive

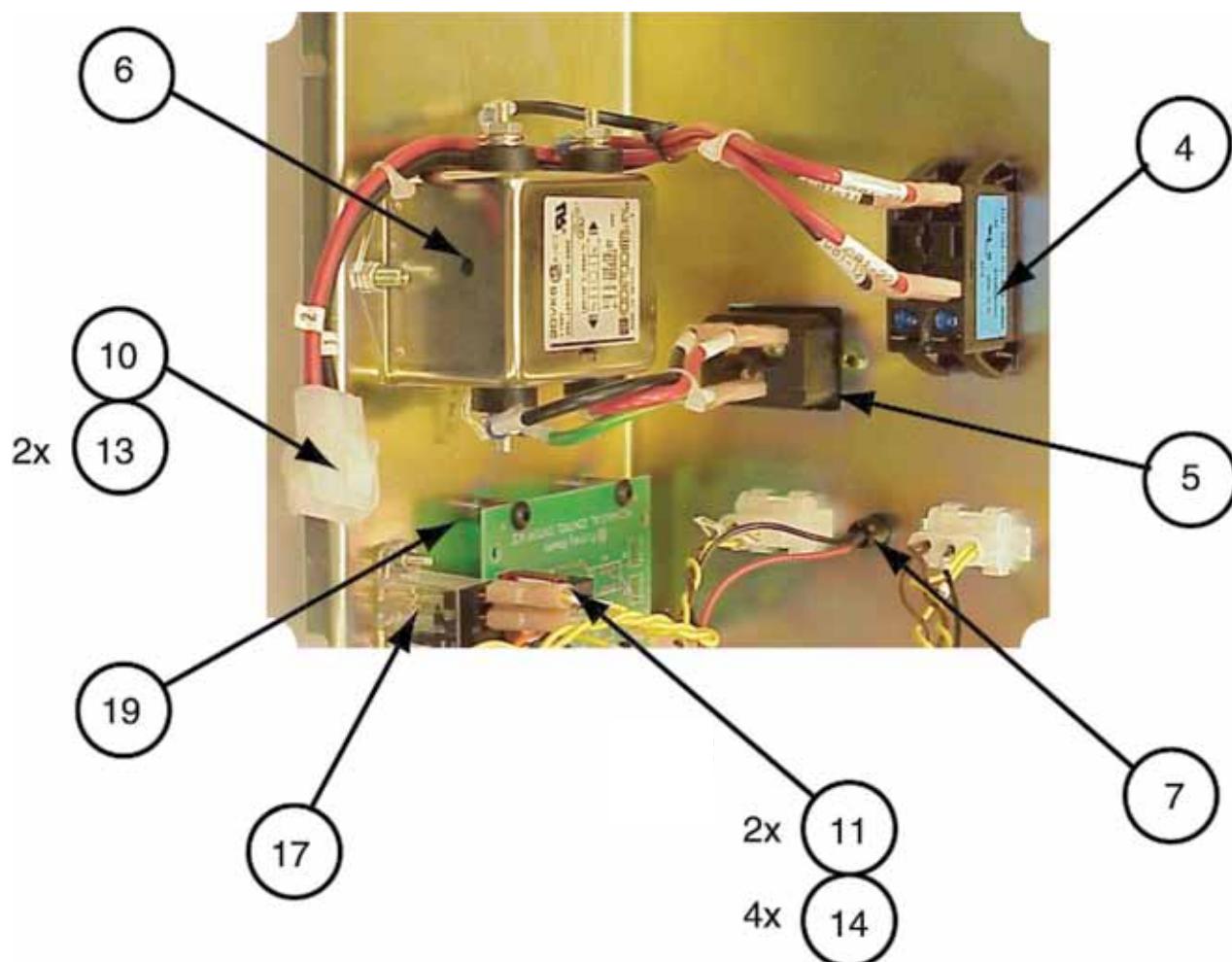


Figure 7-12: Enclosure Feeder Drive

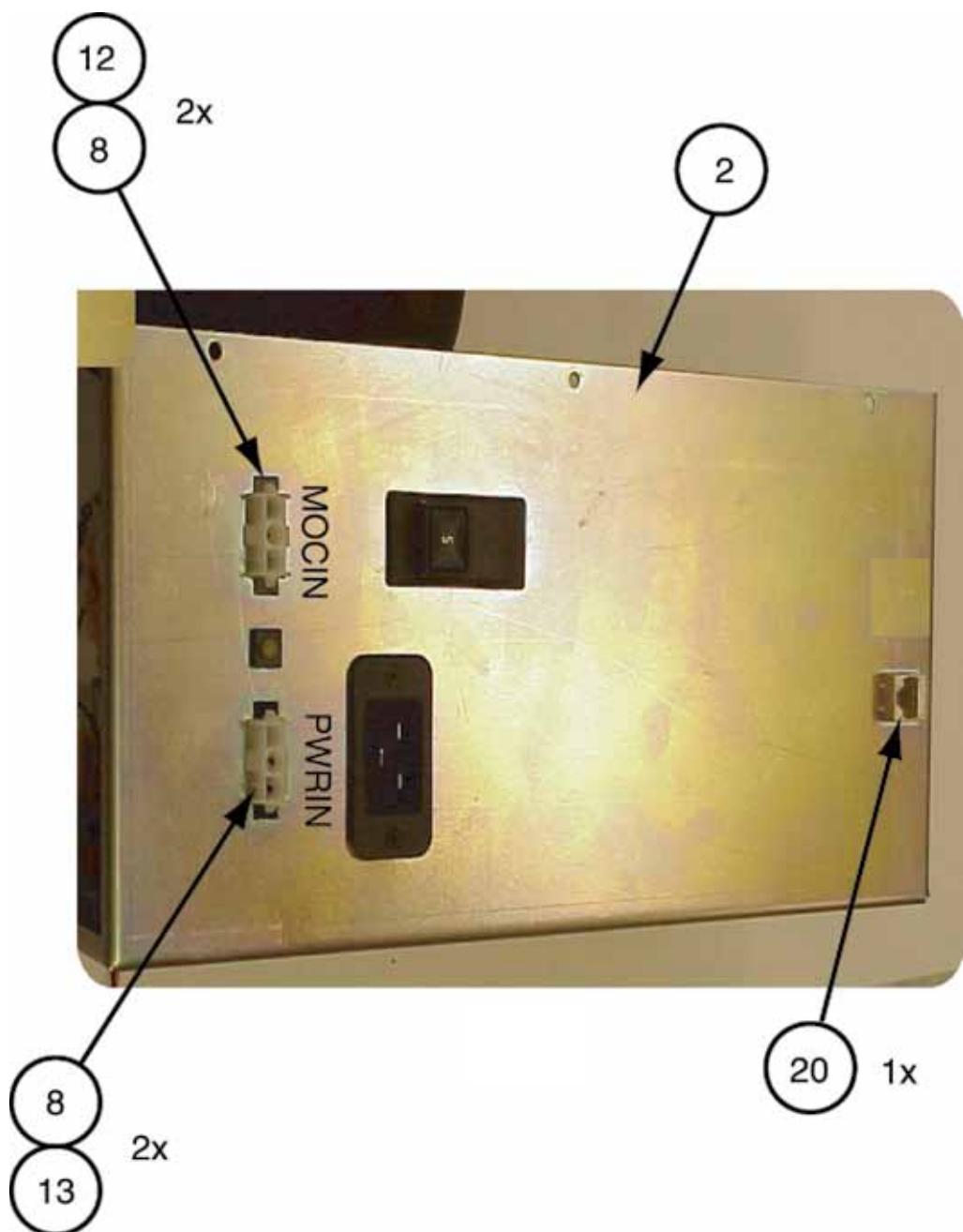


Figure 7-13: Enclosure Feeder Drive

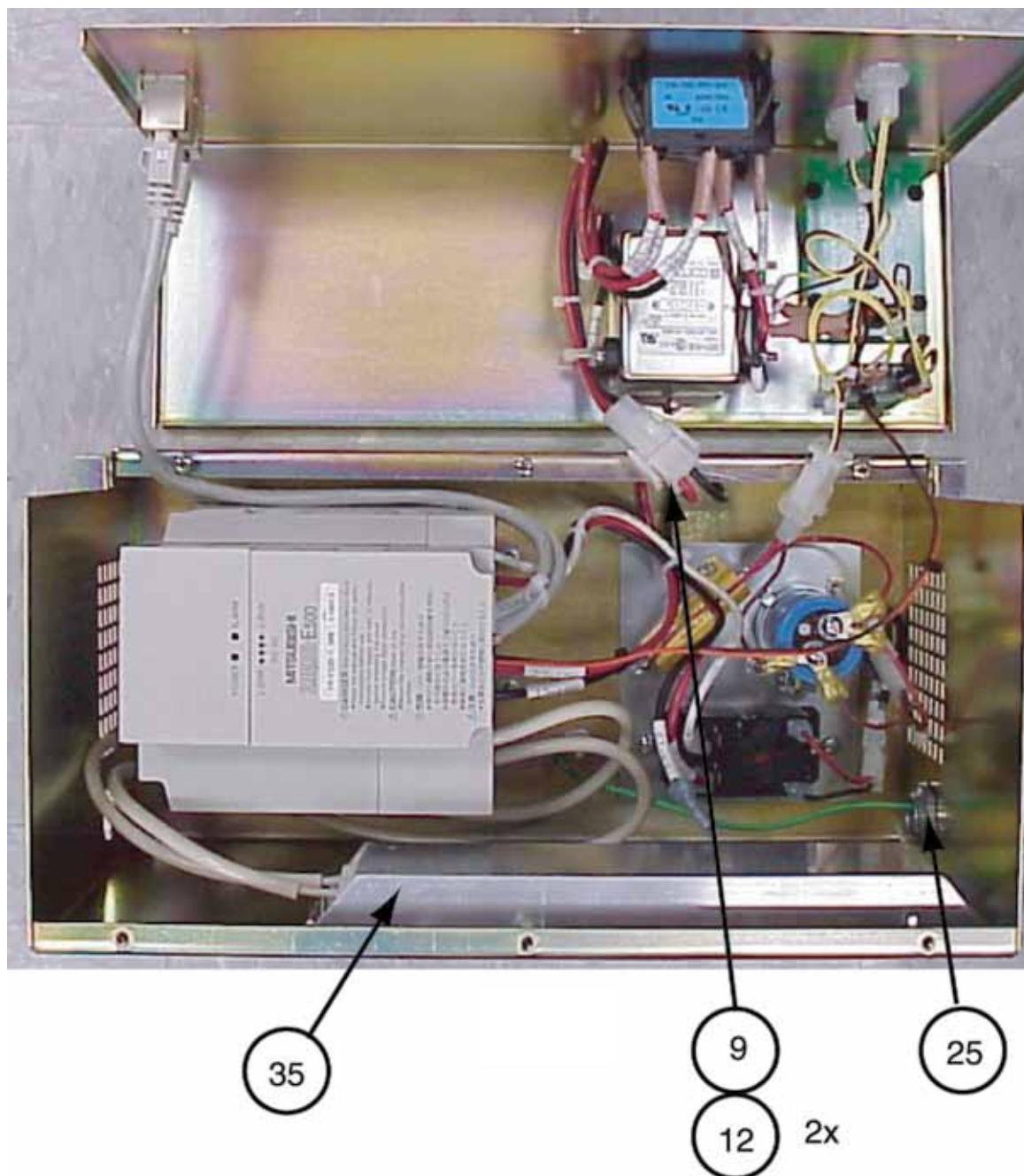


Figure 7-14: Enclosure Feeder Drive

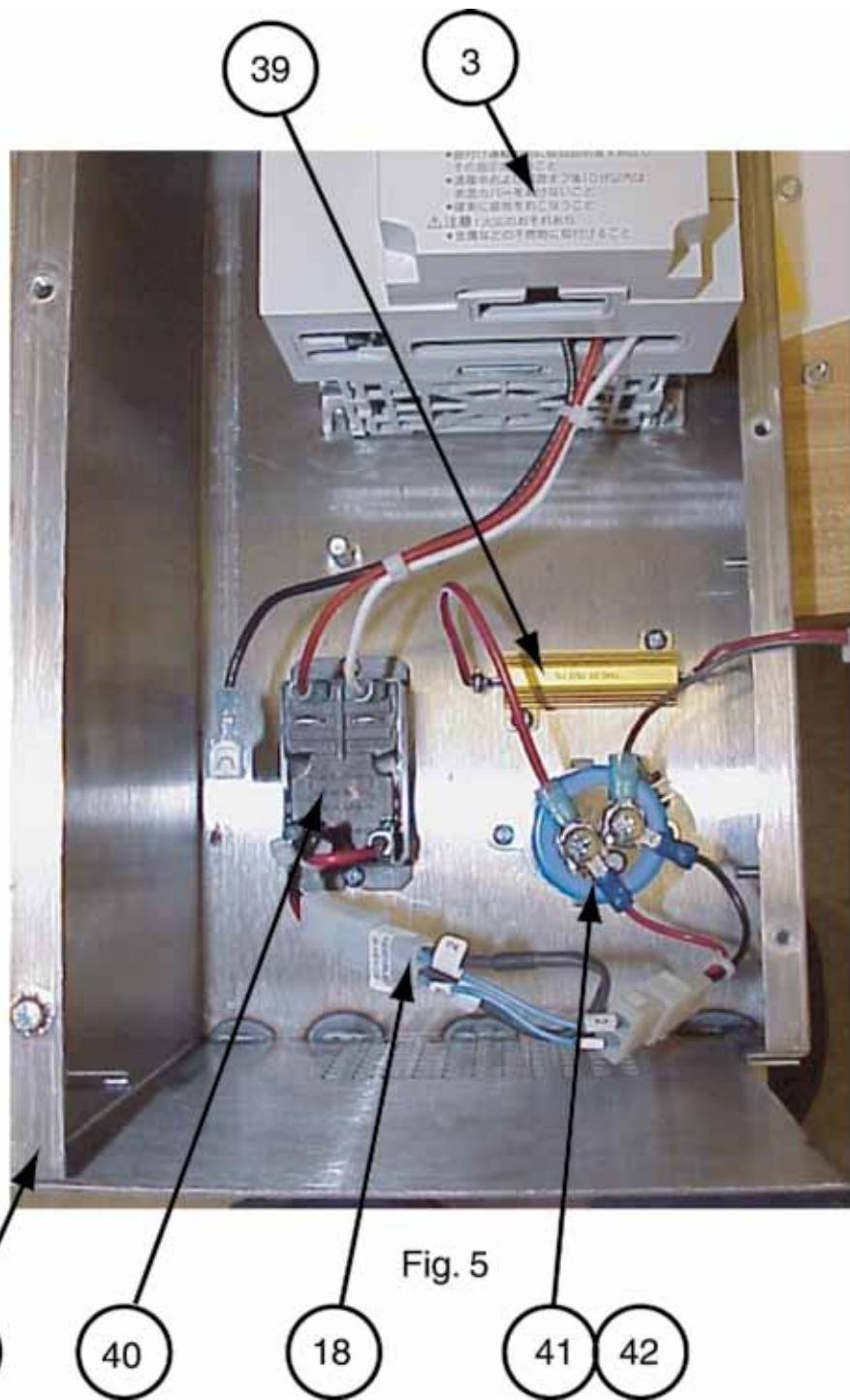


Figure 7-15: Enclosure Feeder Drive

ITEM NO.	P.B. PART NUMBER	QTY	DESCRIPTION
1	FL51042	1	Metal Enclosure
2	FL51043	1	Metal Cover
3	FL84028	1	Variable Frequency Drive
4	224-0235	1	Circuit Breaker – 2 pole, 10A
5	241-0113	1	IEC 320 C-20 Inlet
6	220-0008	1	AC Line Filter
7	202-0792	1	LED – Status Light
8	223-0379	2	3 Pos. Conn. Female
9	223-0376	1	2 Pos. Conn. Male
10	223-0377	1	2 Pos. Conn. Female
11	261-2619	2	3 Pos. Conn.
12	85-0223	4	Terminal Crimp – Pin
13	85-0222	4	Terminal Crimp – Socket
14	85-0257	4	Terminal Crimp
15	223-0217	1	2 Pos. Conn. Male
16	223-0218	1	2 Pos. Conn. Female
17	214-0745	1	Pilot Relay
18	R683200	1	Diode Assembly
19	R682076	1	Relay PCB Assembly
20	223-0824	1	RJ45 F/F Adapter
21	236-0072	9	Ring Terminal - #8-10, 16-14 AWG
22	236-0416	5	Spade Terminal - #6, 16-14 AWG
23	85-0716	12	Quick Connect Terminal (.250), 16-14 AWG
24	85-0753	4	Quick Connect Terminal (.187)
25	242-0053	1	Strain Relief – 3/8"
26	237-0652	56.5	Wire – 14AWG, 600V, Black
27	237-0653	43.5	Wire – 14AWG, 600V, Red
28	237-0651	11.0	Wire – 14AWG, 600V, White
29	237-0902	3.5	Wire – 14AWG, 600V, Green/Yellow
30	230-0532	96.0	Wire – 22AWG, 300V, Blk
31	230-0533	24.0	Wire – 22AWG, 300V, Red
32	230-0535	72.0	Wire – 22AWG, 300V, Yel
33	261-2485	2	RJ45 Connector
34	234-0616	12"	Cable, 26AWG, 4 Tw. Pair, Shielded
35	FL84014	1	Brake Resistor
36	230-0536	96.0	Wire-22AWG, 300V, L.Blu
37	230-0537	48.0	Wire-22AWG, 300V, Brn
38	230-0538	24.0	Wire-22AWG, 300V, Orn
39	210-1024	1	Power Resistor-16 OHM, 50W
40	214-0758	1	Relay-Two Pole 30A
41	206-0662	1	Capacitor-2200uf, 75V
42	206-0509	1	Capacitor Mounting Bracket
43	Y483095	1	Diode Assy, Pilot Relay
44	85-0115	2	Terminal Crimp
45	85-0116	2	Terminal Crimp

Figure 7-16: Enclosure Feeder Drive

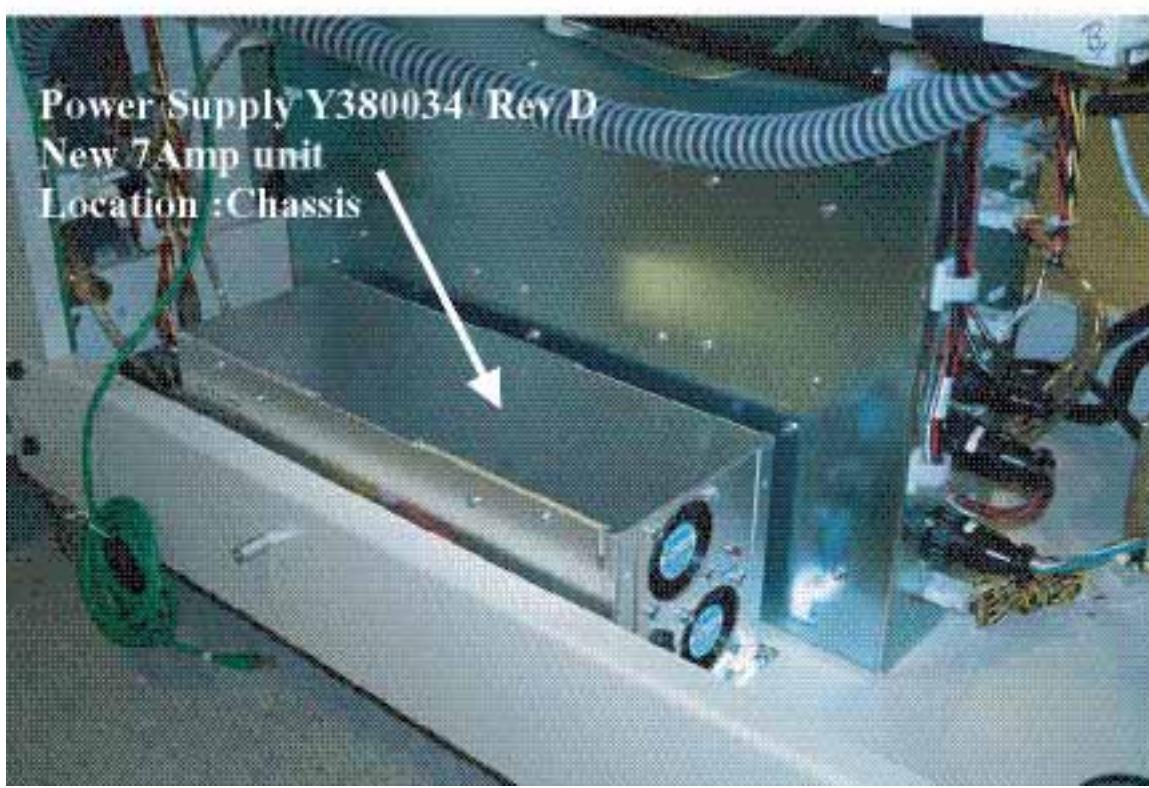
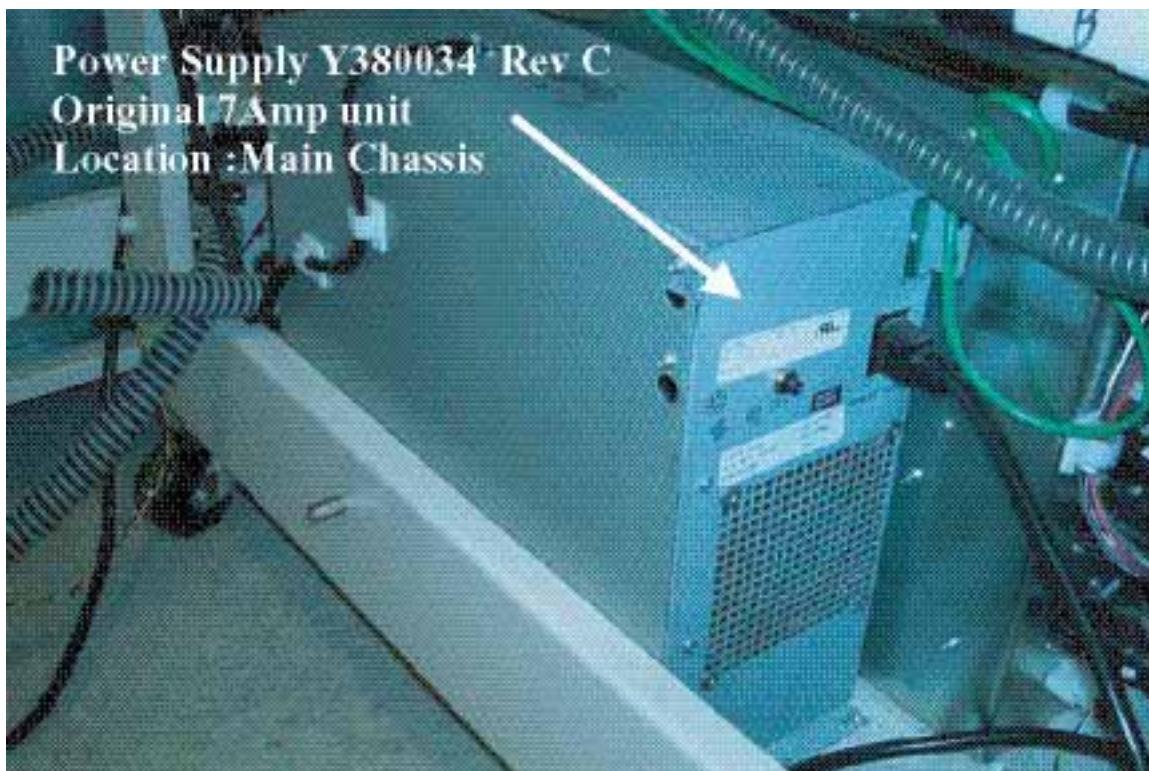


Figure 7-17: Enclosure Feeder Drive

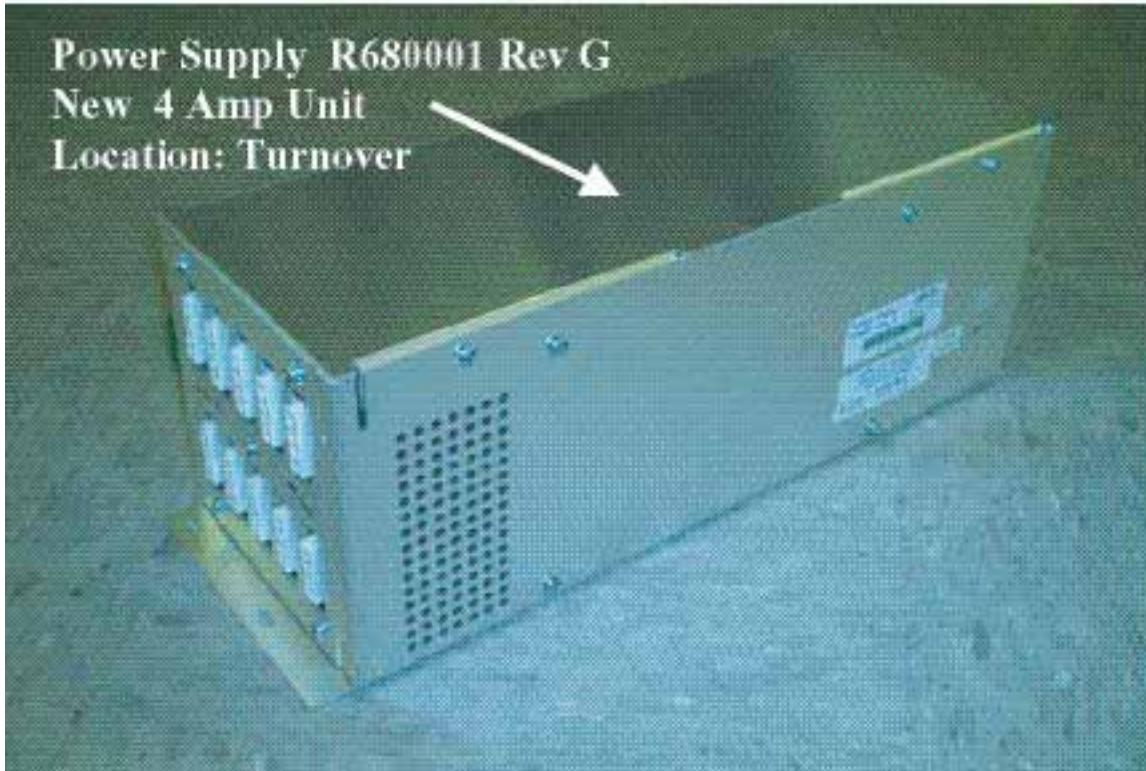
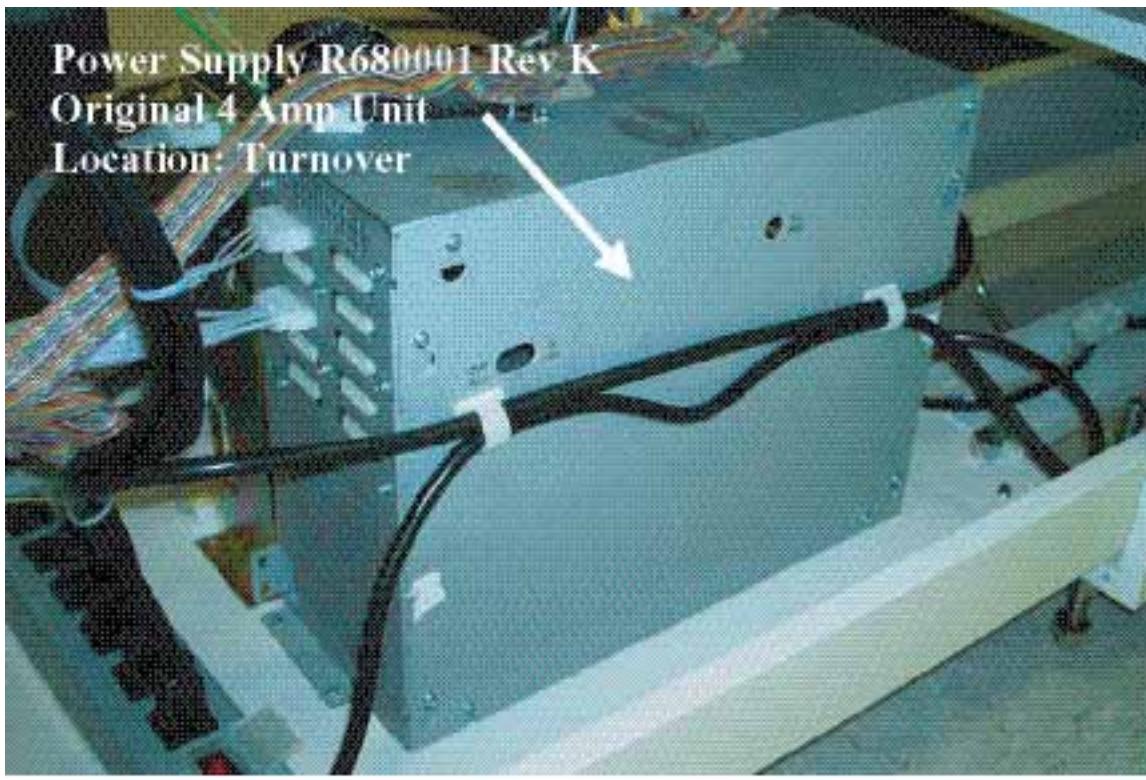


Figure 7-18: TSB\_F\_ELEC\_091504 - R680001 Rev G and R380034 Rev D Power Supply Replacement Fans

**TSB\_F\_ELEC\_091504****Product: Flowmaster****TSB Name: R680001 Rev G and R380034 Rev D Power Supply Replacement Fans****Date: September 15, 2004****Purpose:**

This TSB was created to provide the field with a replacement procedure and the parts numbers for the fans used for the most recent version of the R680001 Rev G and R380034 Rev D.

Figure 7-18: TSB\_F\_ELEC\_091504 - R680001 Rev G and R380034 Rev D Power Supply Replacement Fans

The R680001 Rev. G and R380034 Rev. D power supplies, which are currently used by manufacturing, use two cooling fans. The fan located on the lower right is normally on. If this fan fails, the red led should illuminate and the auxiliary fan on the upper left will be energized. Both of the fans are field replaceable. Fan part number R600001 can be found on the harness. Please order kit part number R000009. This kit includes extra hardware for mounting the fan, if needed. Please refer to the Figures 1 and 2.

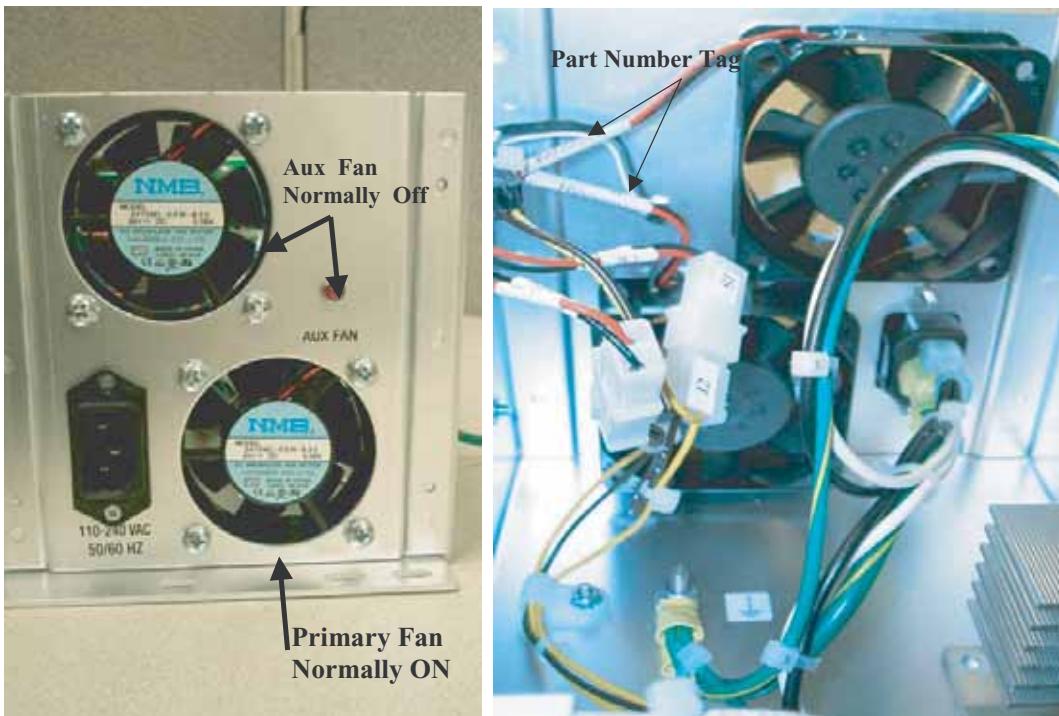


Figure 7-18A:

Figure 7-18: TSB\_F\_ELEC\_091504 - R680001 Rev G and R380034 Rev D Power Supply Replacement Fans



Note the correct orientation for the fan. The fan must be correctly installed to provide the desired airflow.

Figure 7-18B

**Time Required:**

- Allow 15 minutes

**Tools Required:**

- N/A

**Procedure:**

This procedure pertains only to the fans used on the power supply that are currently produced. Additional TSBs may be published in the future that will pertain to the earlier versions of the power supply.

1. Follow all applicable safety procedures, ensure that the power supply is not powered up when you remove the cover and access the components.

---

**Note:** You can remove the power supply if necessary. However, the fans are easily accessible by removing the top cover.

---

2. Remove the four outermost Phillips head screws that secure the top cover.
3. The fans wiring harnesses are both secured by a clamp and nut. Remove the fan mounting screws, and harness clamp.
4. Locate and unplug the harness for the fan. Note the correct orientation of the arrows on the fan shown in Figure 2.
5. Reinstall the fan and reconnect the harness. Don't over tighten the screws and strip out the fans mounting holes.
6. Carefully reapply power to the unit and observe that fan for correct operation.
7. If the fan works properly, de-energize the power supply again and replace the top cover.
8. After recovering the power supply, reinstall and plugs and restore the chassis to its original condition.

Figure 7-19: Operator Control Assembly

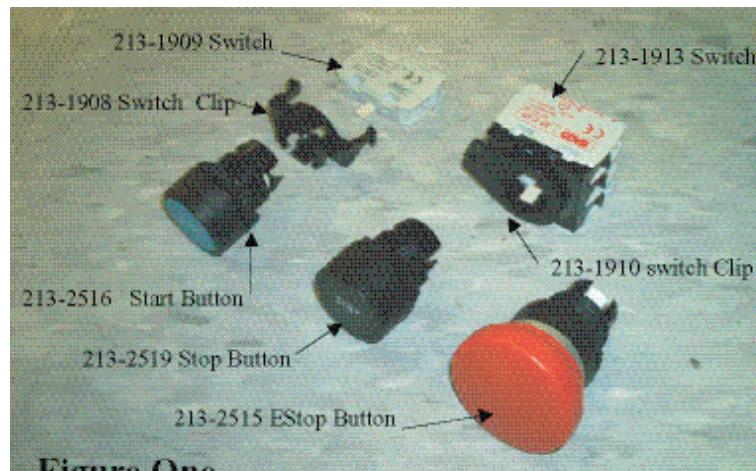
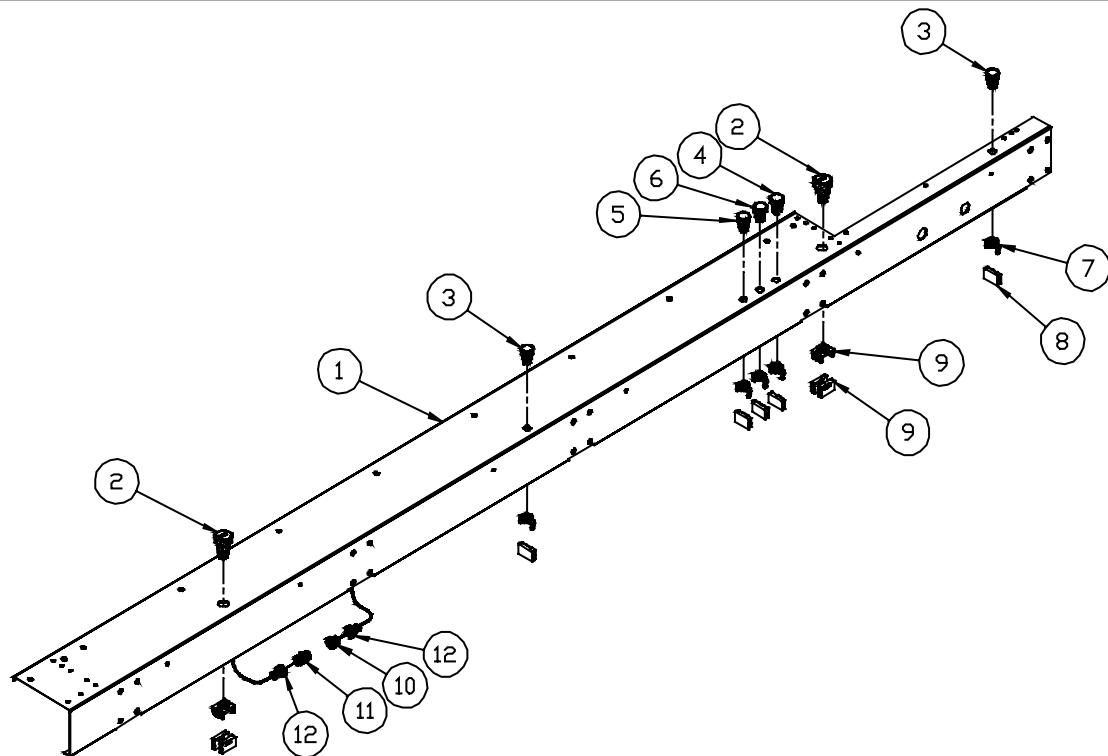


Figure One

Figure 1 shows some of the switches used on recent FlowMaster Chassis. Please refer to chart below for your specific requirements.

Function	Button P/N	Button Color	Switch Clip Assy	Switch
Estop	213-2515	Red	213-1910	213-1913
Run	213-2516	Green	213-1908	213-1909
Jog	213-2517	Yellow	213-1908	213-1909
Start	213-2518	Blue	213-1908	213-1909
Stop	213-2519	Black	213-1910	213-1913

Harness assembly FL83010 includes all of the switches listed (not buttons or switch clips.) The harness assembly is only available from the manufacturer plant. To obtain this harness assembly please contact a parts analyst.

## Parts List 7-19: Operator Control Assembly

Item	Part Number	Qty	Description
1	18001-001	1	COVER, TOP, RH (REF. ONLY)
2	98000-016	2	STOP BUTTON, PUSH / PULL, MUSHROOM HEAD
3	98000-032	2	SWITCH, PUSH BUTTON, ROUND, BLUE
4	98000-030	1	SWITCH, PUSH BUTTON, ROUND, GREEN
5	98000-031	1	SWITCH, PUSH BUTTON, ROUND, YELLOW
6	98000-029	1	SWITCH, PUSH BUTTON, ROUND, RED
7	98000-027	5	SWITCH ASSEMBLY CLIP
8	98000-028	5	CONTACT BLOCK, 1 X NO
9	98000-017	2	CONTACT BLOCK, 1 X NO + 1 X NC + CLIP
10	98016-007	1	PLUG, AMP, SERIES 1, 13-9 STD
11	98016-016	1	RECEPTACLE, FR. HANGING, AMP, SERIES 1, 13-9 STD.
12	98016-008	2	BACKSHELL, PLASTIC, SIZE 13

Figure 7-20: Front Table Sensors

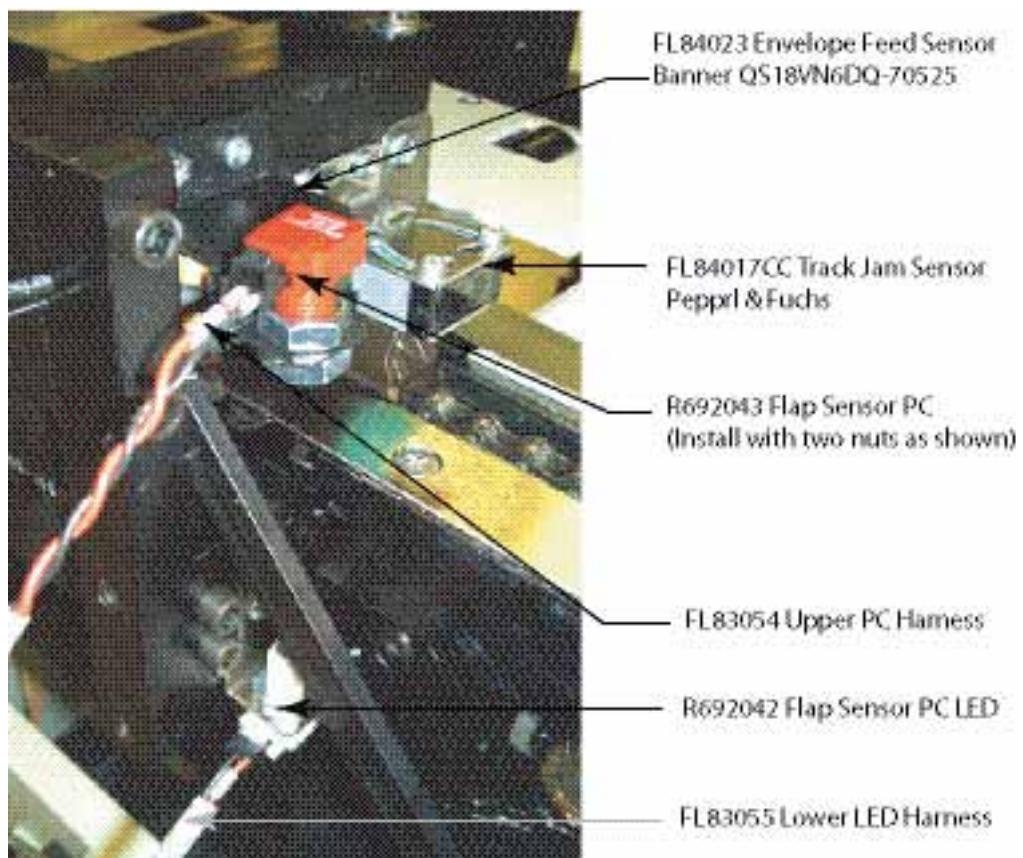
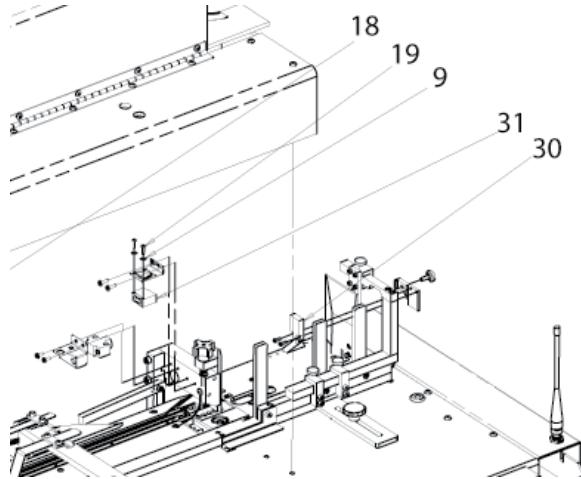


Figure 7-21: Front Table Sensors



FL84021 Envelope  
Height Sensor  
Banner Q08-AN7-02697

Figure 7-22: Front Table Sensors



FL80062-Sheet 2

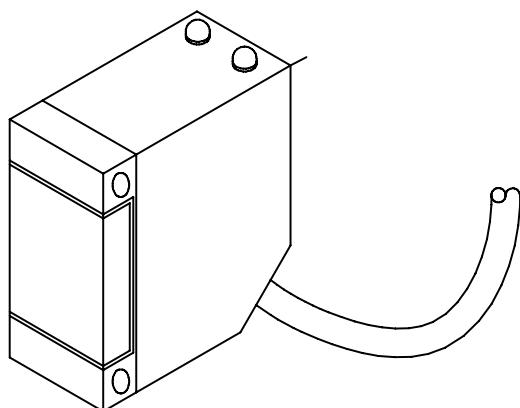
PB DC Sensor Part Number	Sure Feed PLC Sensor Part Number	Sensor Function
FL 84023	98009-017	ENVELOPE FEED SENSOR
FL84017CC	98009-002	TRACK JAM SENSOR ITEM 30
R692043	N/A	FLAP SENSOR PC
R692042	N/A	FLAP SENSOR LED
FL84021	98009-001	ENVELOPE HEIGHT SENSOR ITEM 31

The sensors currently used by PB DC based chassis differ from the legacy sensors that were used for Sure-Feed PLC based chassis. The sensors are terminated differently. Please refer to the table below for the PLC sensor part numbers. Sensors are called out by item number

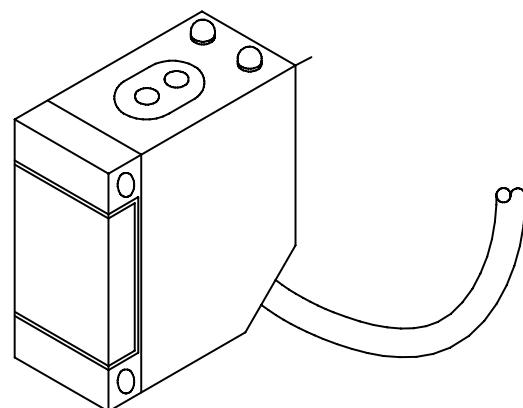
**Figure 7-23: Front Table Sensors**

Thru-Beam Sensors

FL84017

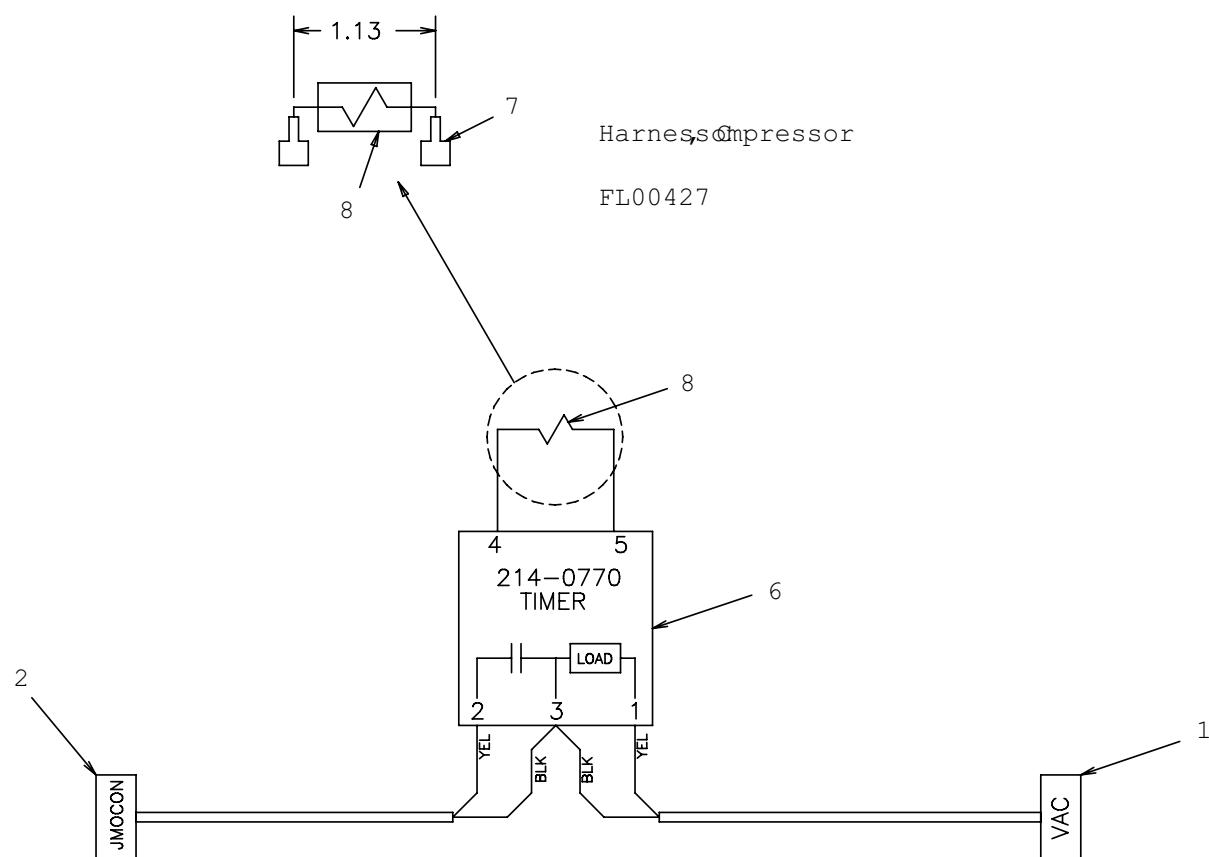


EMITTER



DETECTOR

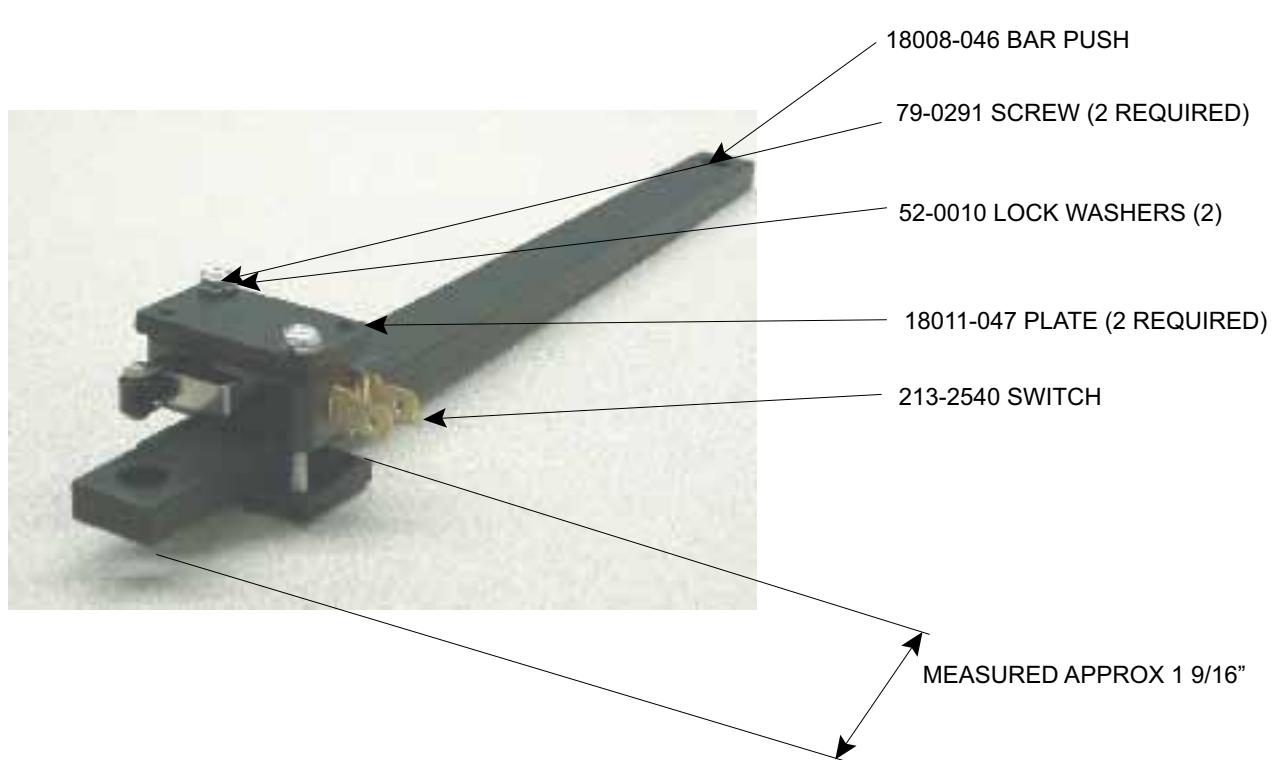
Figure 7-24: Harness Compressor Bypass/ FL00427



## Parts List 7-24: Harness Compressor Bypass/ FL00427

Item	Part Number	Qty	Description
1	223-0218	1.0	CONN HSG 2POS PLUG
2	223-0378	1.0	CONN PLUG 3 PINS
3	85-0234	2.0	WIRE TERMINAL PIN & SKT
4	85-0116	2.0	WIRE TERMINAL PIN & SKT
5	230-3044	12.0	WIRE TW/PR 22 AWG BK/YEL
6	214-0770	1.0	TMR SOLID STATE INTERVAL
7	85-0754	5.0	CONN ELECTRICAL & INSUL
8	209-0364	1.0	RES,CC 75K 5% 1/2W

Figure 7-25 213-2540 Switch



Note: This subassembly is part of the Gearshift Lever assembly. The picture above shows the switch and associated mounting hardware.

Figure 7-26: Installing New Style Pioneer 4U PC



TSB#: N980

Product: Flowmaster FX10 and FX14 Inserters

TSB Name: Installing the New Style Pioneer 4U PC

Date: March 24, 2003

**Purpose:**

The purpose of this TSB is to provide the field with instructions on how to install the new style Pioneer 4U PC in a FlowMaster System.

**Description:**

Figure 1 shows both the old and new style computers used for PCN RD3C. The older style unit was a Y184565 Dell Pentium 667 mhz GX110. The newer style unit is a Y184127 Pioneer 4U PC and is described as a DC computer assembly. The Dell unit is the White PC in Figure 1.

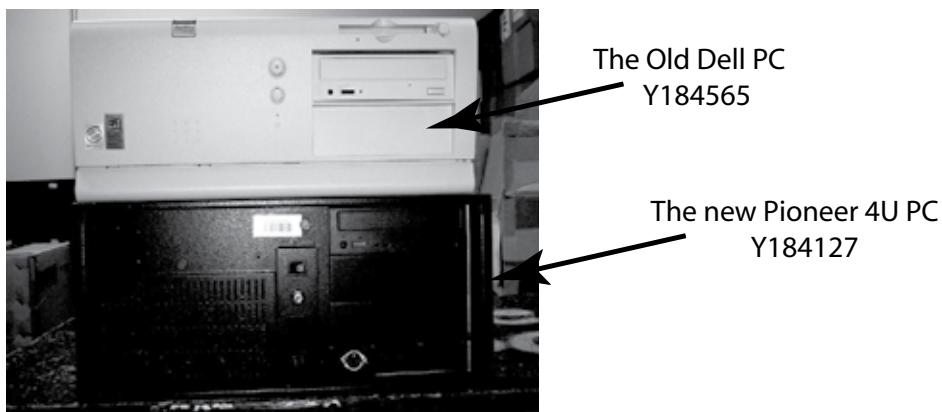


Figure 7-26A

**Time Required:**

- 20-30

**Figure 7-26B: New Pioneer 4U with Covers Removed****Tools:**

- Special tools are not required. The only tool needed is a Phillips head screw driver.

**Procedure:**

The old style Dell units will be used as long as supplies last, and then the new style Pioneer 4U black industrial units will supercede them. When you begin receiving the newer style PC, use the following procedure to install them.

1. Remove all power from the system and implement the standard Lockout/Tagout (LOTO) procedures.
2. Remove all of the covers.
3. Label and remove all of the connections to the existing computer.

---

Note: Skip step 3 if the Pioneer 4U PC is part of a new site/system installation.

---

4. Locate the three-feeder extension cabinet (FL81015 Rev A) and remove the cover plate and the four deck mounting screws. The unit should be easy to move and you should be able to do it without unhooking any of the attached wiring.
5. Move the new style Pioneer 4U computer into place and install it (see Figure 2).

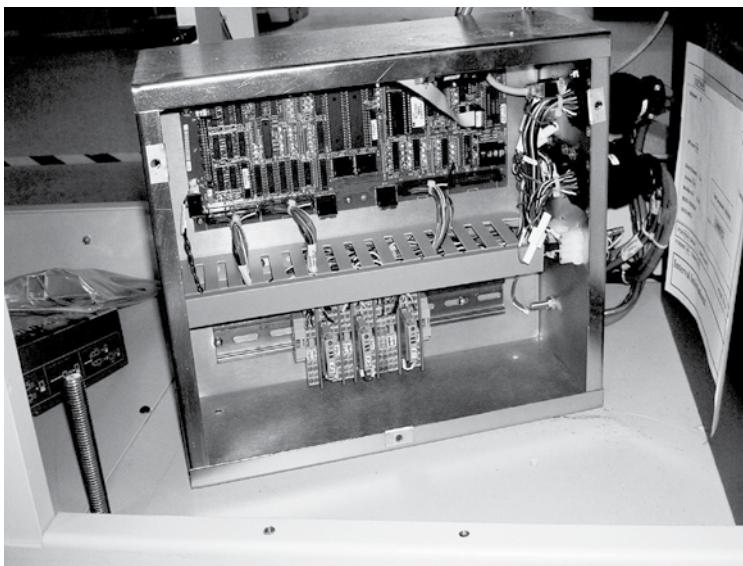


Figure: 7-26B

**Figure 7-26C: New Style Pioneer 4U PC inside Chassis**

6. After installing the computer and connecting/reconnecting all of the associated plugs, reposition the three-feeder cabinet and mount it in its original position (see Figure 3).

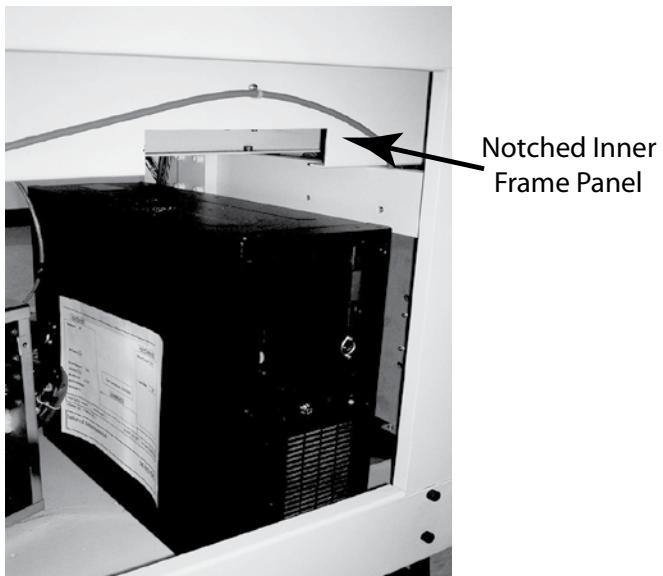


Figure: 7-26C

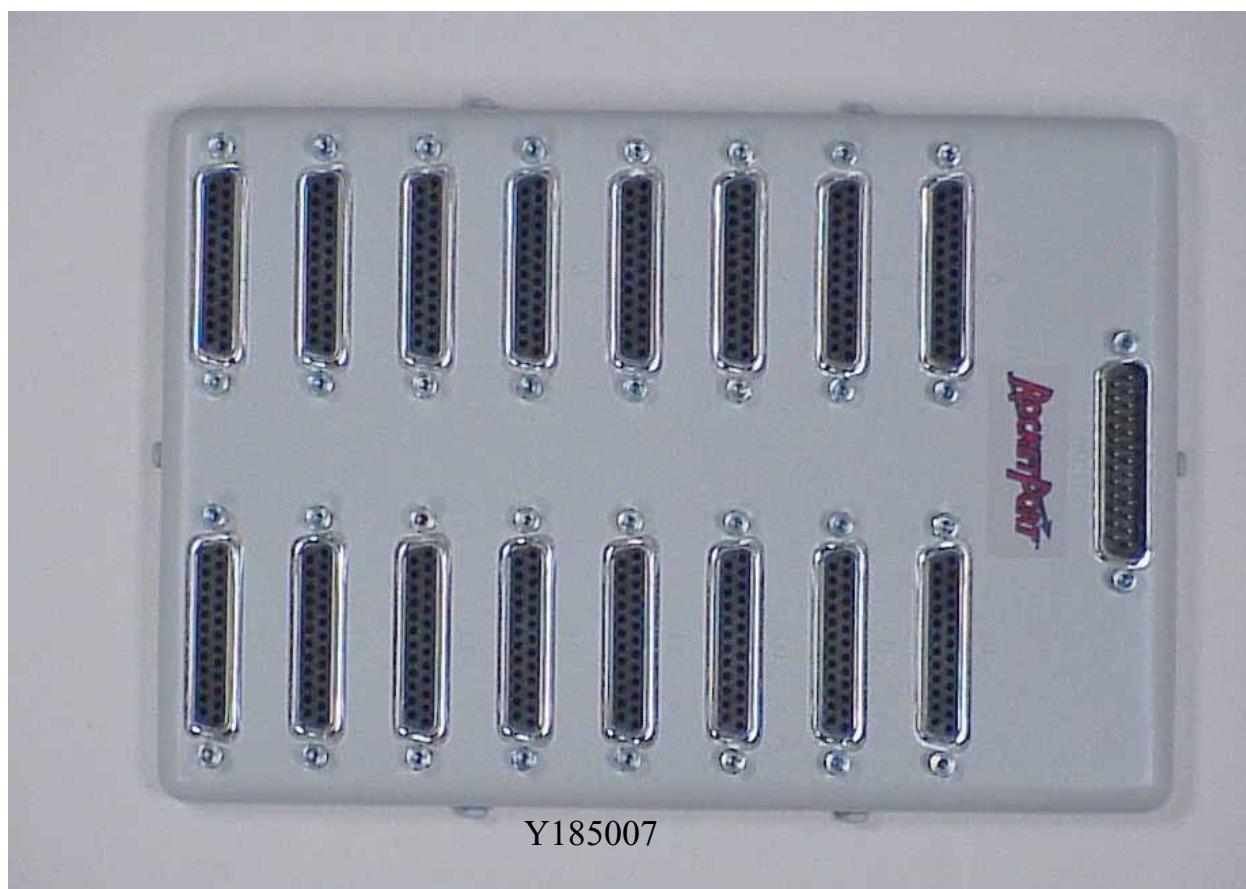
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Note: The notched inner frame panel shown in figure 3 will not be required fo the new Pioneer 4U PCs.

---

7. Replace all of the covers and power up the chassis.
8. Perform all appropriate tests before turning control over to the customer/operator.

Figure 7-27: Rocket Port Assembly/Y185007



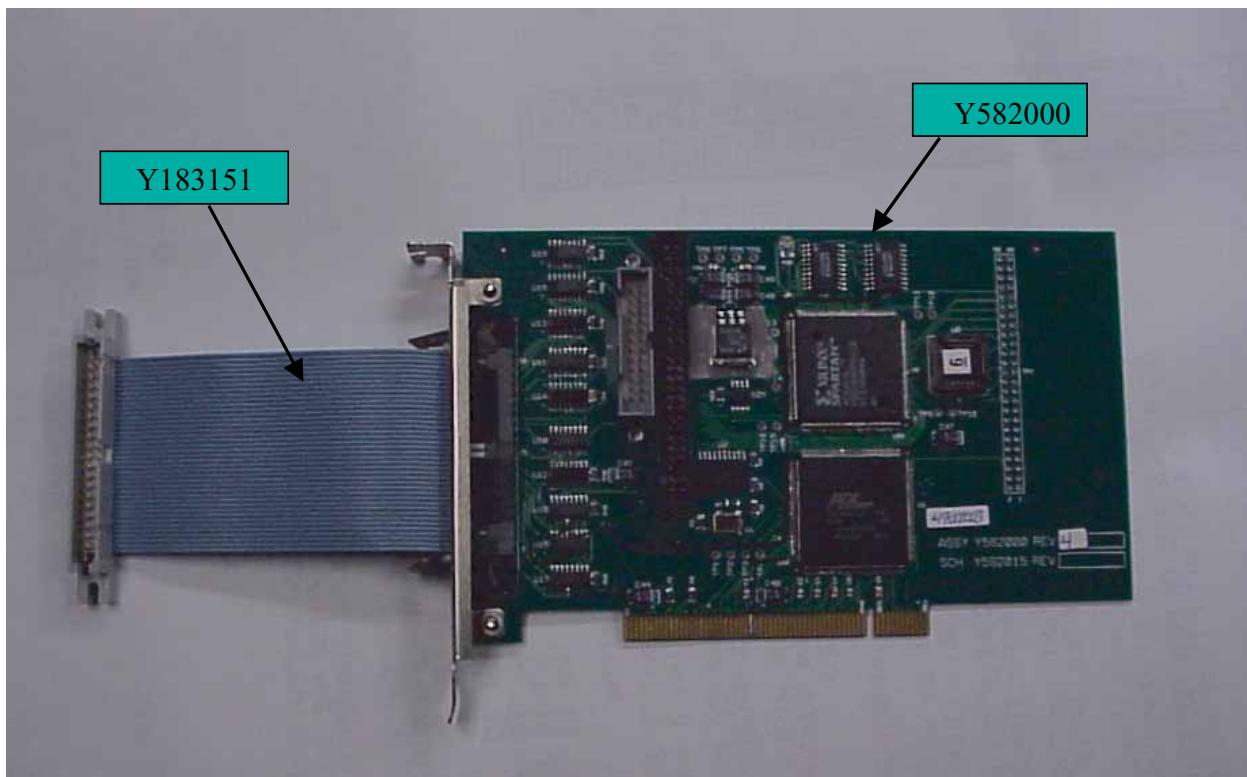
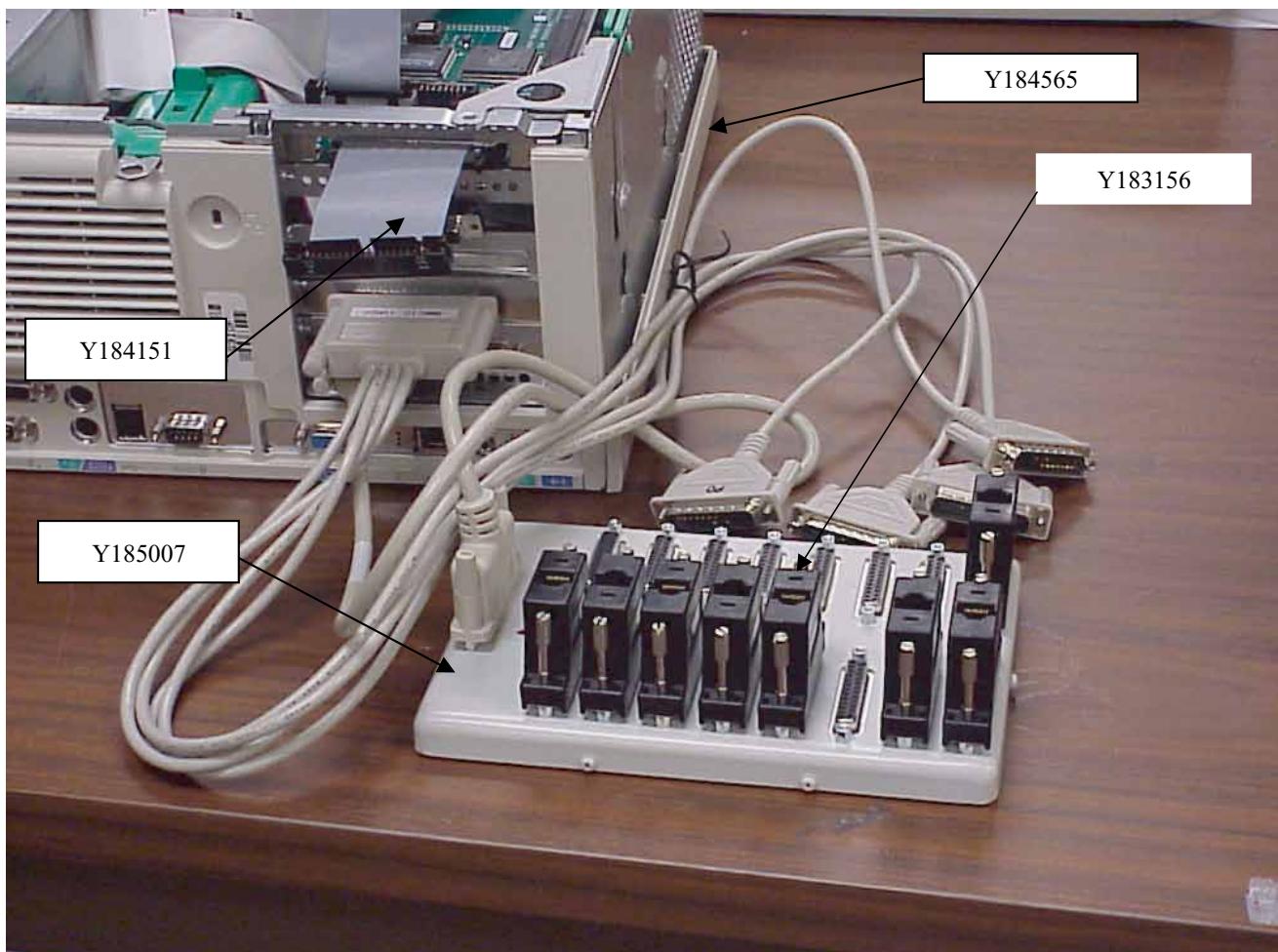
**Figure 7-2: Quadra Encoder Differential Board**

Figure 7-30: PC Components



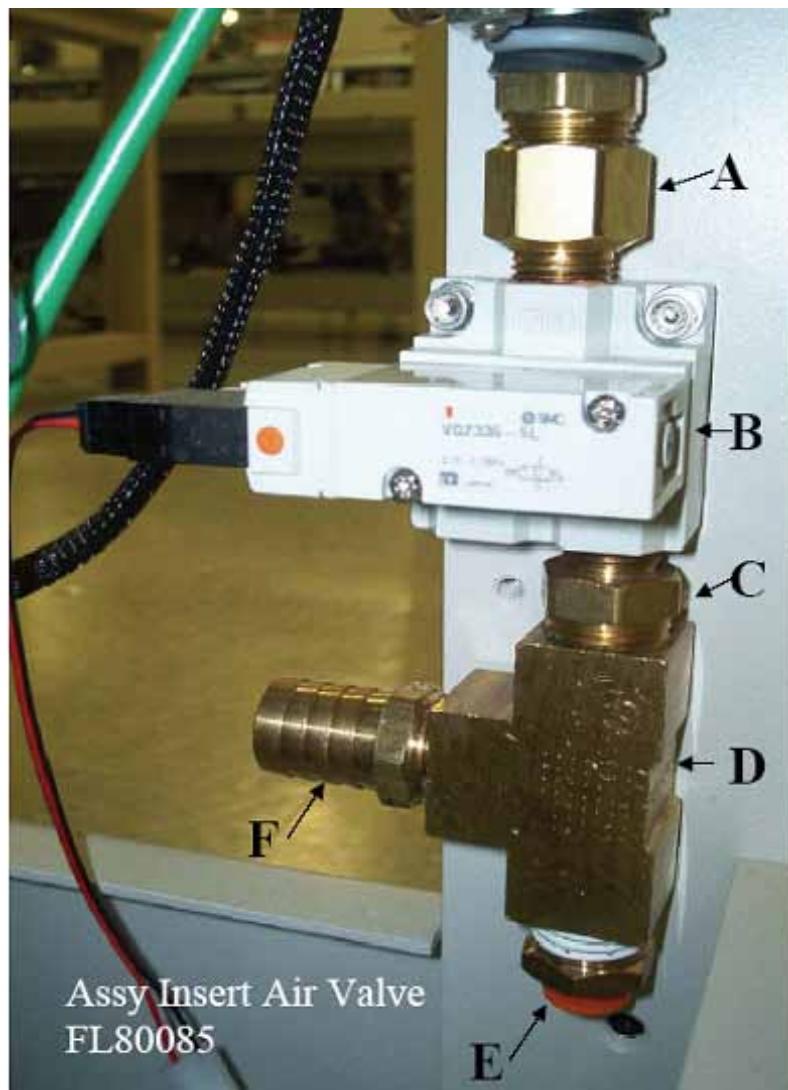
## **8      *FlowMaster Pneumatic* *FX10/ FX14***



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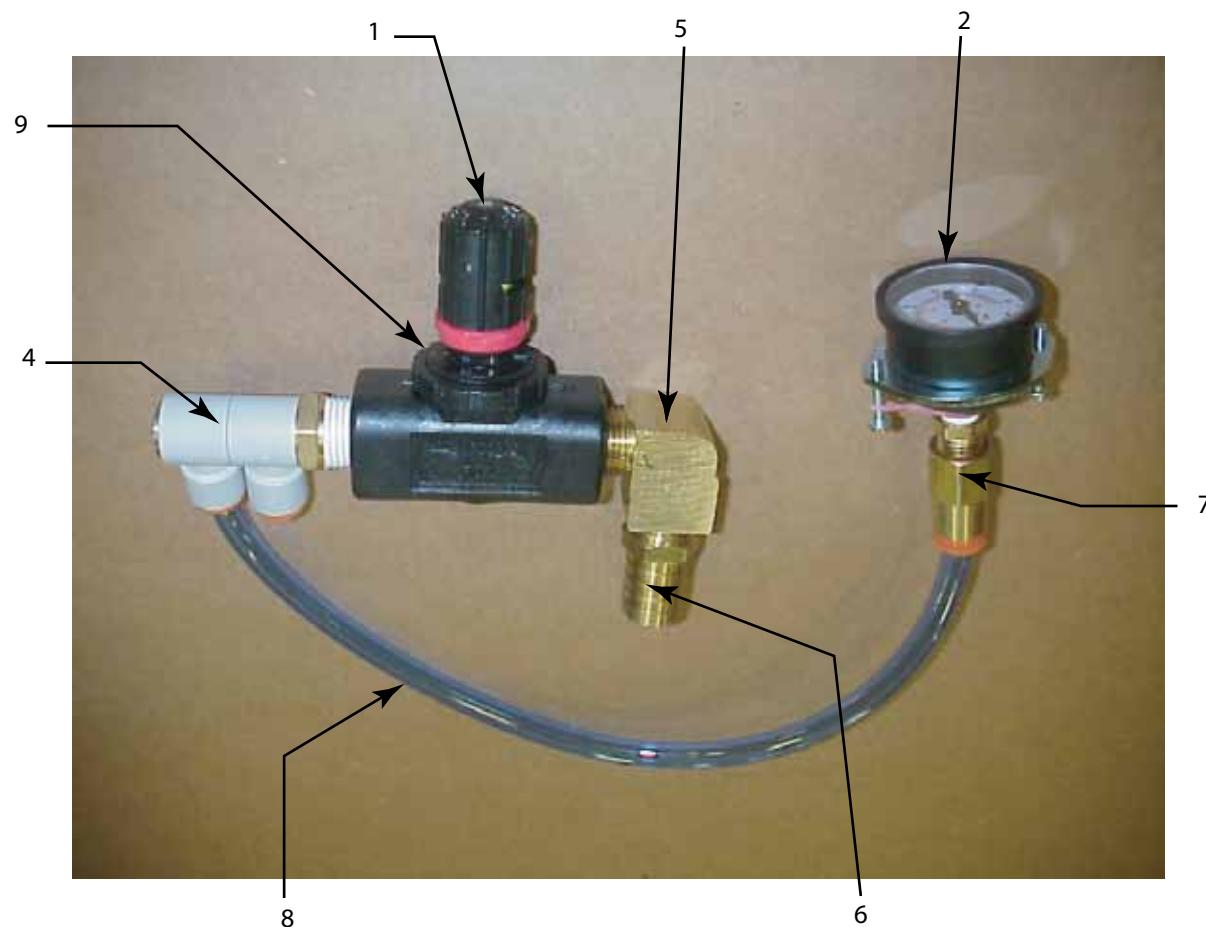
Figure 8-1: Assembly Insert Air Valve/ FL80085



## Parts List 8-1: Assembly Air Insert Valve/ FL80085

Item	Part Number	Qty	Description
A	509-1059	1.0	FTG REDUCER, HEX NIPPLE
B	219-0198	1.0	SOLENOID VALVE-AIR 24VDC
C	509-1061	1.0	FTG PIPE&HOSE ADAPTER
D	509-1060	1.0	FTG T 1/2 NPT FEMALE
E	509-3013	1.0	FTG PIPE&HOSE ADAPTER
F	509-2012	2.0	FTG HOSE NIPPLE - HEX

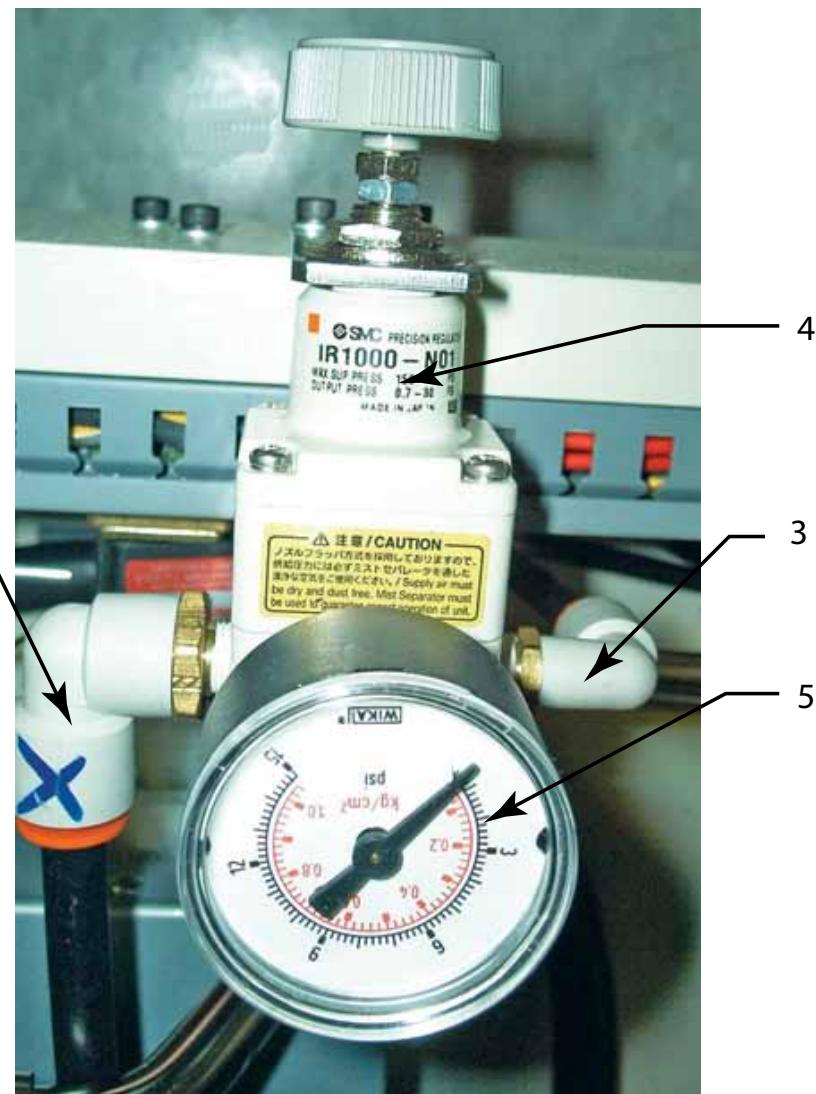
Figure 8-2: Assembly Insert Air Flow Control/ FL80086



## Parts List 8-2: Assembly\Insert Air Flow Control/ FL80086

Item	Part Number	Qty	Description
1	508-0030	1.0	VALVE, FLOW CONTROL
2	862-0007	1.0	GAUGE, AIR PRESSURE
3	509-1076	1.0	FTG FEMALE SWIVEL EL-ADPT
4	509-3022	1.0	FITTING DBL UNIVERSAL 1/2NPTX 3/8 TUBE
5	509-1075	1.0	FTG PIPE 90 DEG ELBOW
6	509-2012	1.0	FTG HOSE NIPPLE - HEX
7	509-3023	1.0	FTG PIPE&HOSE ADAPTER
8	99031-010	1.0	HOSE, BLUE, 3/8 IN.
9	508-0031	1.0	VALVE, MOUNTING NUT

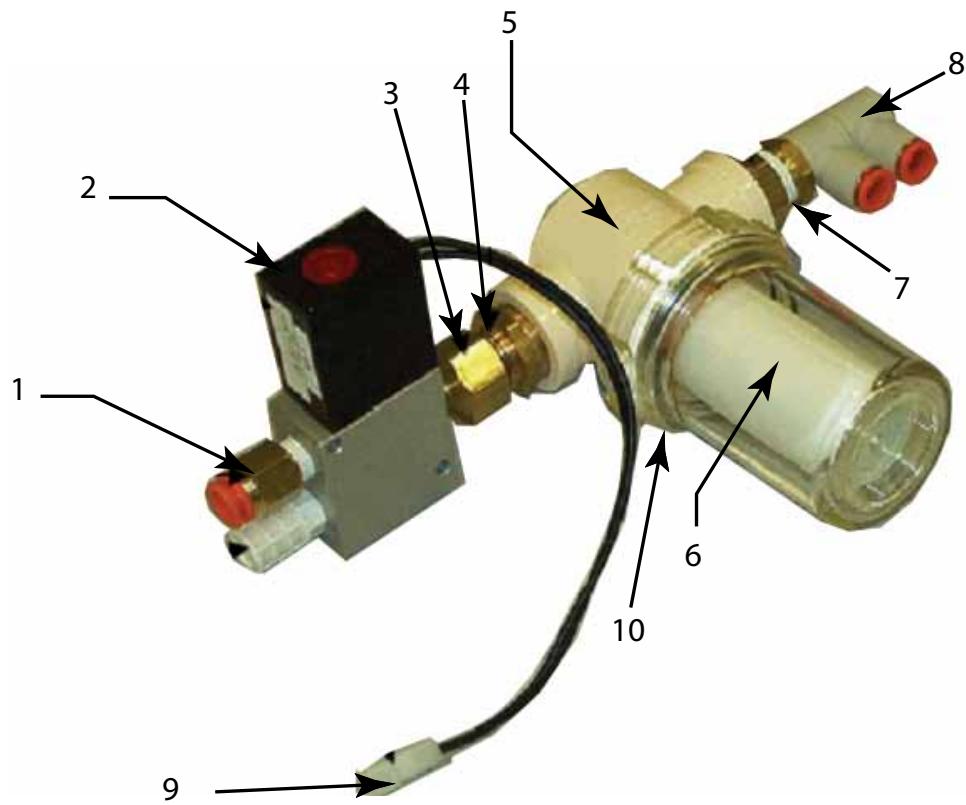
Figure 8-3: Assembly Water Pressure Regulator/ FL80087



## Parts List 8-3: Assembly Water Pressure Regulator/ FL80087

Item	Part Number	Qty	Description
1	Y150512	1.0	PLATE, SENSOR 2ND NIP (NS)
2	509-1026	1.0	FTG ELBOW-ADAPTER
3	509-1053	1.0	FTG ELBOW-ADAPTER
4	862-0014	1.0	REGULATOR 1/8 NPT
5	862-0013	1.0	GAUGE, AIR PRESSURE
6	18008-040	1.0	BAR FRONT TABLE BRACE FRONT (NS)

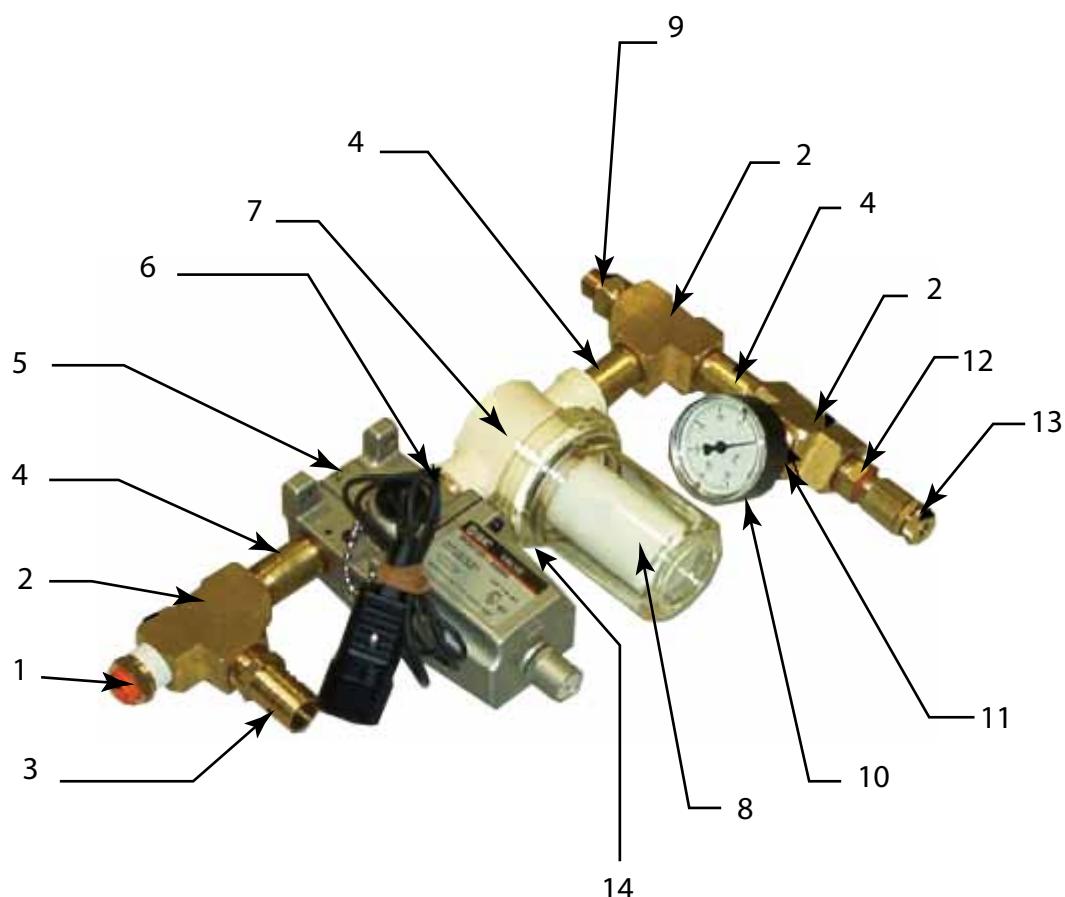
Figure 8-4: Assembly Insert Vacuum Valve/ FL80088



## Parts List 8-4: Assembly Insert Vacuum Valve/ FL80088

Item	Part Number	Qty	Description
1	509-2020	1.0	FTG PIPE&HOSE ADAPTER
2	99025-006	1.0	VALVE, SOLENOID (VACUUM) 24VDC, 1/4 NPT
3	509-1062	1.0	FTG ADAPTOR 1/2F-1/4M NPT
4	509-7000	1.0	FTG HEX BUSHING- BSPT THD
5	Y684483	1.0	FILTER-VACUUM PUMP,PLASTIC INLINE 3/4 NPT FEMALE
6	99027-006	1.0	FILTER ELEMENT
7	509-1066	1.0	FITTING REDUCER HEX NIPPLE
8	509-3022	1.0	FITTING DBL UNIVERSAL 1/2NPTX 3/8 TUBE
9	223-0217	1.0	CONNECTOR, USES PINS 85-0113
10	TO1272	1.0	"O" RING GASKET

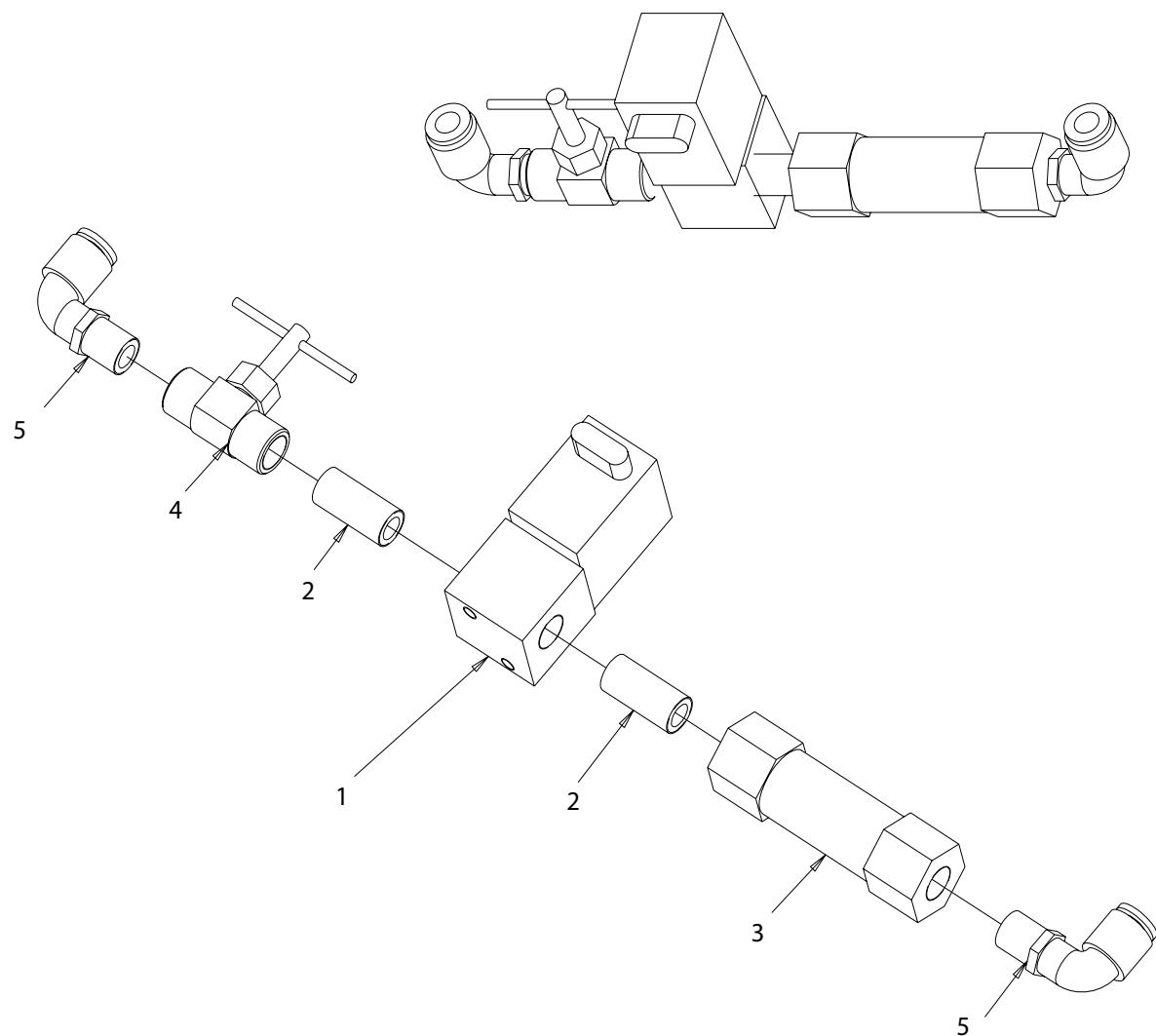
Figure 8-5: Assembly Envelope Vacuum Valve/ FL80089



## Parts List 8-5: Assembly Envelope Vacuum Valve/ FL80089

Item	Part Number	Qty	Description
1	509-2013	1.0	FTG LONG NIPPLE 1/2 NPT
2	509-1060	3.0	FTG T 1/2 NPT FEMALE
3	509-2012	1.0	FTG HOSE NIPPLE - HEX
4	509-2013	3.0	FITTING LONG NIPPLE 1/2" NPT
5	219-0197	1.0	SOL AIR VALVE 115VAC
6	509-2002	1.0	FTG HEX BUSHING - NPT
7	Y684483	1.0	FILTER-VACUUM PUMP,PLASTIC INLINE 3/4 NPT FEMALE
8	99027-006	1.0	FILTER ELEMENT
9	509-1066	1.0	FTG REDUCER, HEX NIPPLE
10	FL84055	1.0	GAUGE- VACUUM
11	509-1061	1.0	FTG PIPE&HOSE ADAPTER
12	509-2021	1.0	FTG HEX BUSHING - NPT
13	FL84056	1.0	VALVE- VACUUM RELIEF
14	TO1272	1.0	"O" RING GASKET

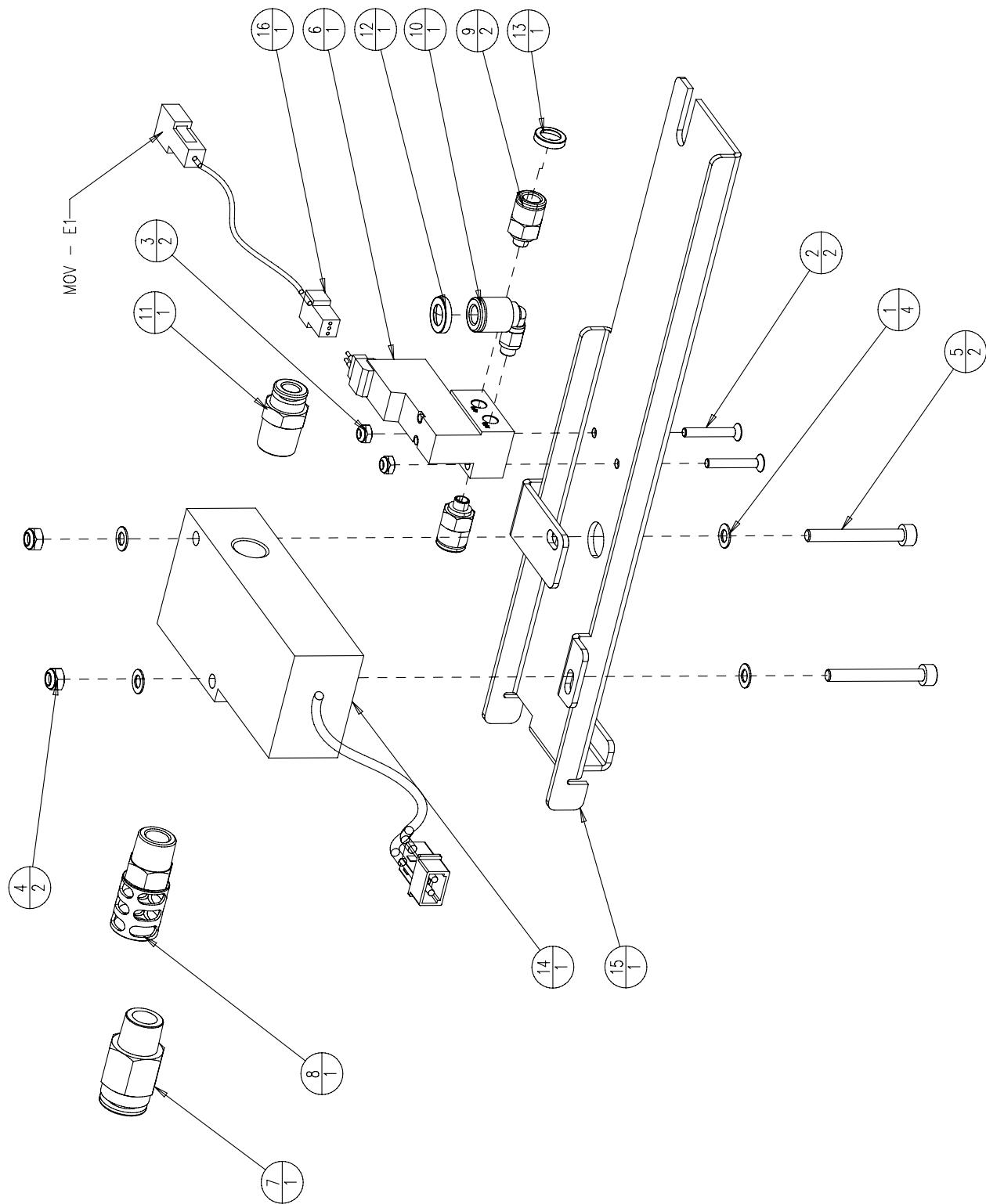
Figure 8-6: Assembly Water Solenoid/ 18020-083



## Parts List 8-6: Assembly Water Solenoid/ 18020-083

Item	Part Number	Qty	Description
1	FL84061	1.0	WATER VALVE, 24VDC, 1/8 NPT
2	509-1041	2.0	FTG SHORT NIPPLE
3	509-1057	1.0	FTG IN-LINE FILTER
4	509-1042	1.0	FTG VALVE - PETCOCK
5	509-1053	2.0	FTG ELBOW-ADAPTER

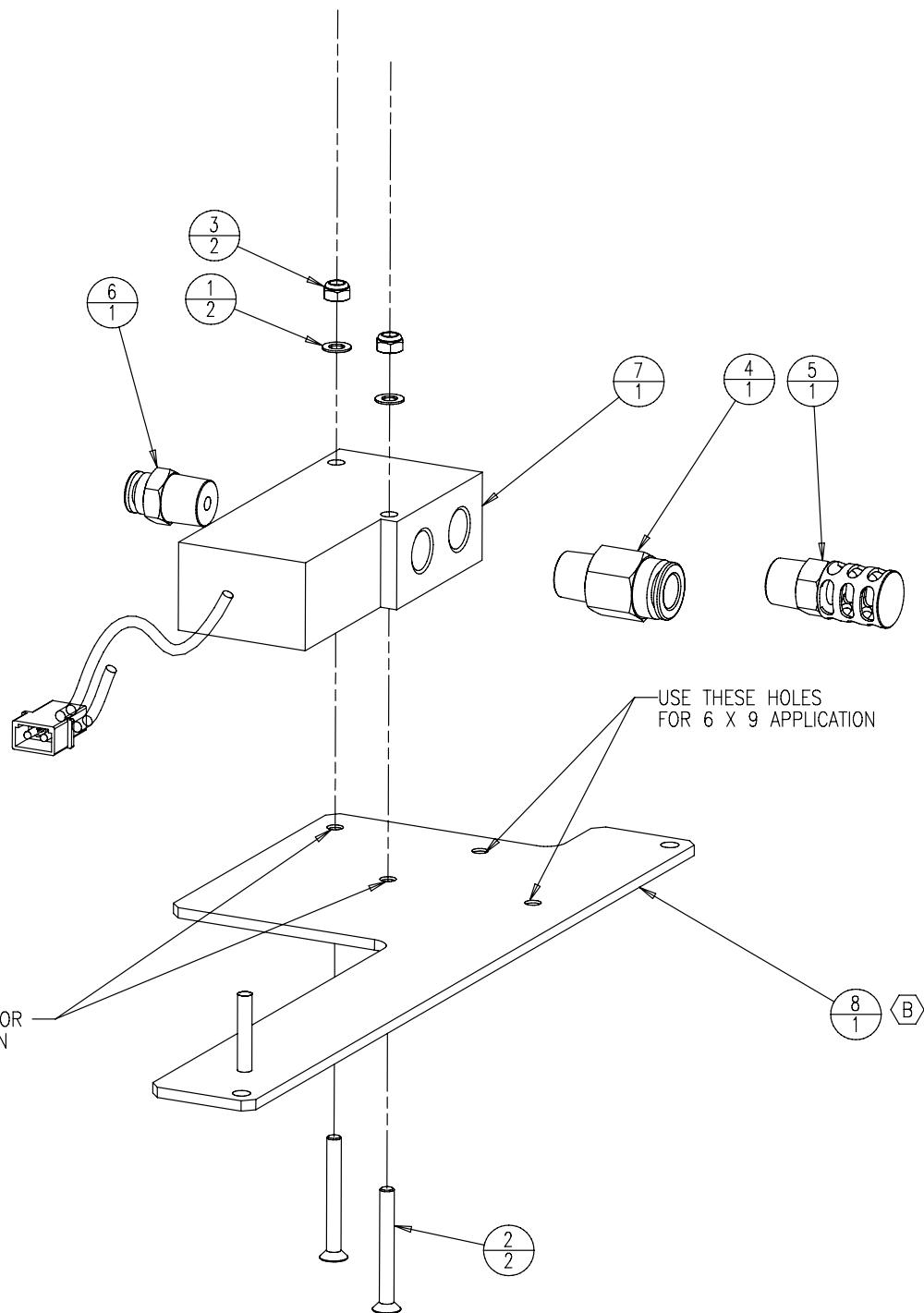
Figure 8-7: Assembly Pneumatic MTG./ FL00335



## Parts List 8-7: Assembly Pneumatic MTG./ FL00335

Item	Part Number	Qty	Description
1	50-0586	4	WASHER PLAIN 4.3MM ID
2	69-7156	2	SCREW FLAT CSK HEAD HEX M3X 20MM
3	80-0625	2	NUT NYLON INSERT M3
4	80-0626	2	NUT NYLON INSERT LOCK
5	81-5209	2	SCREW, SCKT HEAD CAP
6	219-0206	1	SOLENOID 4 PORT POPPET
7	509-1024	1	FITTING MALE ADAPTER 1/4NPT-3/8 TUBE
8	509-1083	1	FITTING MUFFLER 1/4PT
9	509-3004	2	FITTING CONNECTOR PUSH ON M5-6MM TUBE
10	509-3025	1	FITTING ELBOW PUSH ON M5-6MM TUBE
11	509-3047	1	FITTING CONNECTOR PUSH-ON 1/4PT-6MM TUBE
12	509-3048	1	FITTING COLOR CAP BROWN 12MM OD
13	509-3049	1	FITTING COLOR CAP BLUE 10.5MM OD
14	99025-006	1	VALVE, SOLENOID (VACUUM) 24VDC, 1/4 NPT
15	FL00367	1	BRACKET, PNEUMATICS MOUNTING
16	Y600133	1	CABLE ASSEMBLY-PNEUMATIC ASSEMBLY Y684405

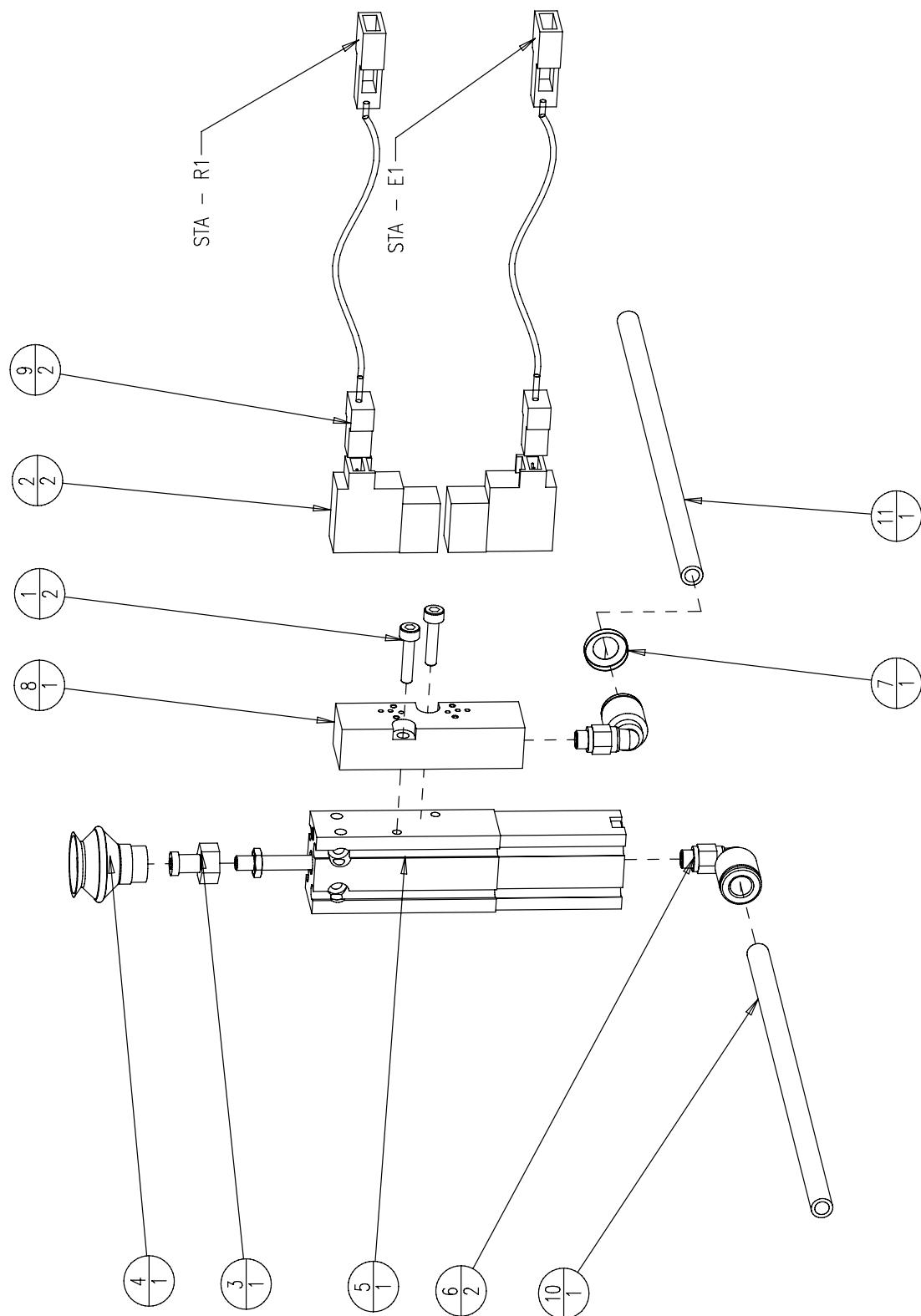
Figure 8-8: Assembly Valve Vacuum/ FL00337



## Parts List 8-8: Assembly Valve Vacuum/ FL00337

Item	Part Number	Qty	Description
1	50-0586	2	WASHER PLAIN 4.3MM ID
2	69-7209	2	SCREW FLAT CSK HEAD HEX M4X 35MM
3	80-0626	2	NUT NYLON INSERT LOCK
4	509-1024	1	FITTING MALE ADAPTER 1/4NPT-3/8 TUBE
5	509-1083	1	FITTING MUFFLER 1/4PT
6	509-3047	1	FITTING CONNECTOR PUSH-ON 1/4PT-6MM TUBE
7	99025-006	1	VALVE, SOLENOID (VACUUM) 24VDC, 1/4 NPT
8	FL00357	1	BRACKET, PNEUMATICS MOUNTING

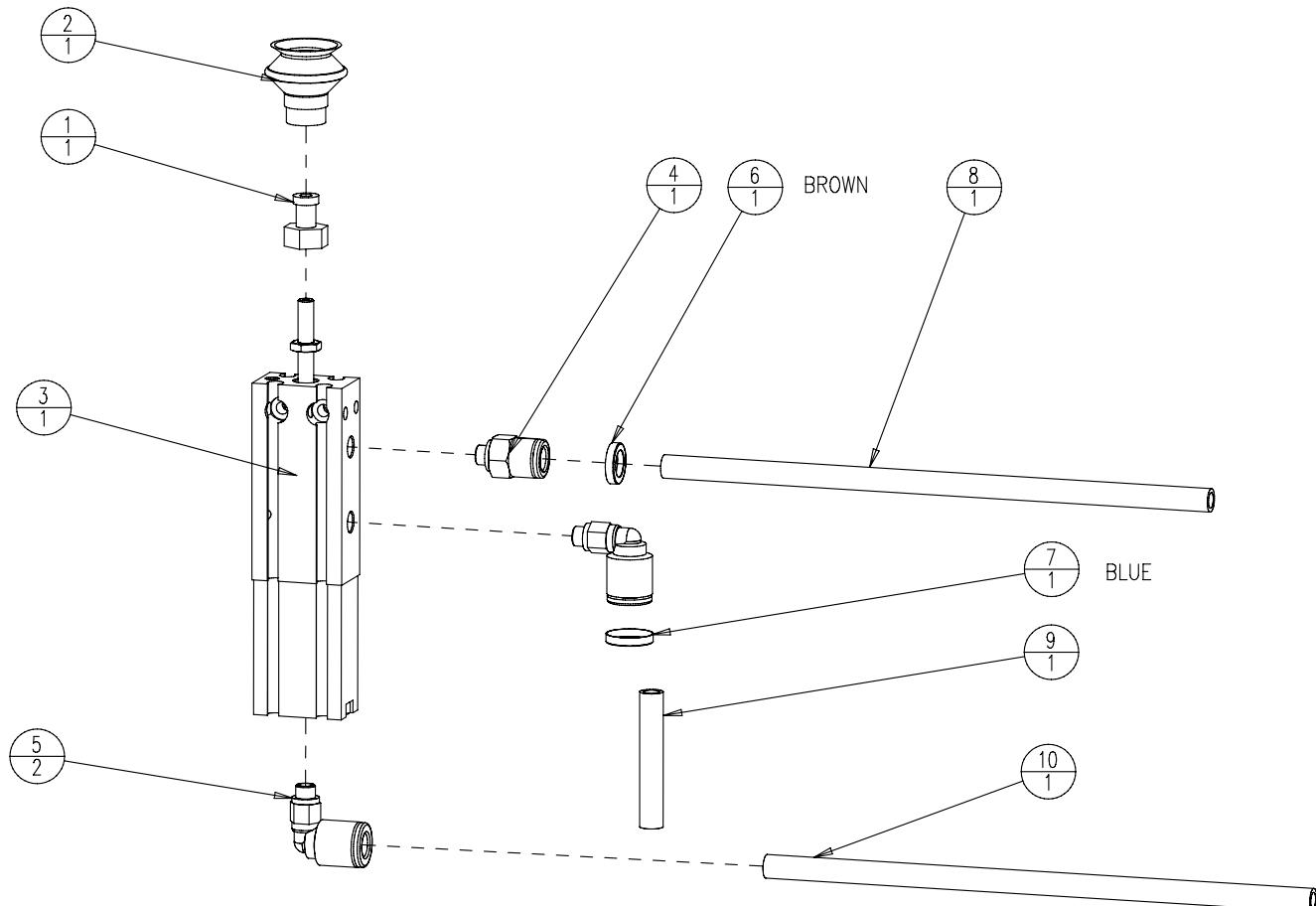
Figure 8-9: Assembly Sub Actuator Stationary/ FL00338



## Parts List 8-9: Assembly Sub Actuator Stationary/ FL00338

Item	Part Number	Qty	Description
1	81-5153	2	SCREW SOCKET HEAD CAP M3X 14MM
2	219-0199	2	SOLENOID VALVE-AIR 24VDC
3	508-0043	1	ADAPTER FOR 508-0041
4	509-3025	1	FITTING ELBOW PUSH ON M5-6MM TUBE
5	508-1002	1	CYLINDER W/VACUUM PAD
6	509-3025	2	FITTING ELBO PUSH ON M5-6MM TUBE
7	509-3051	1	FITTING COLOR CAP BLUE 12MM OD
8	862-0015	1	STRAIGHT MANIFOLD - O RING
9	Y600133	2	CABLE ASSEMBLY-PNEUMATIC ASSEMBLY Y684405
10	Y662039EE	1	TUBING, AIR (200 MM LONG)
11	Y662039FF	1	TUBING, AIR (356 MM LONG)

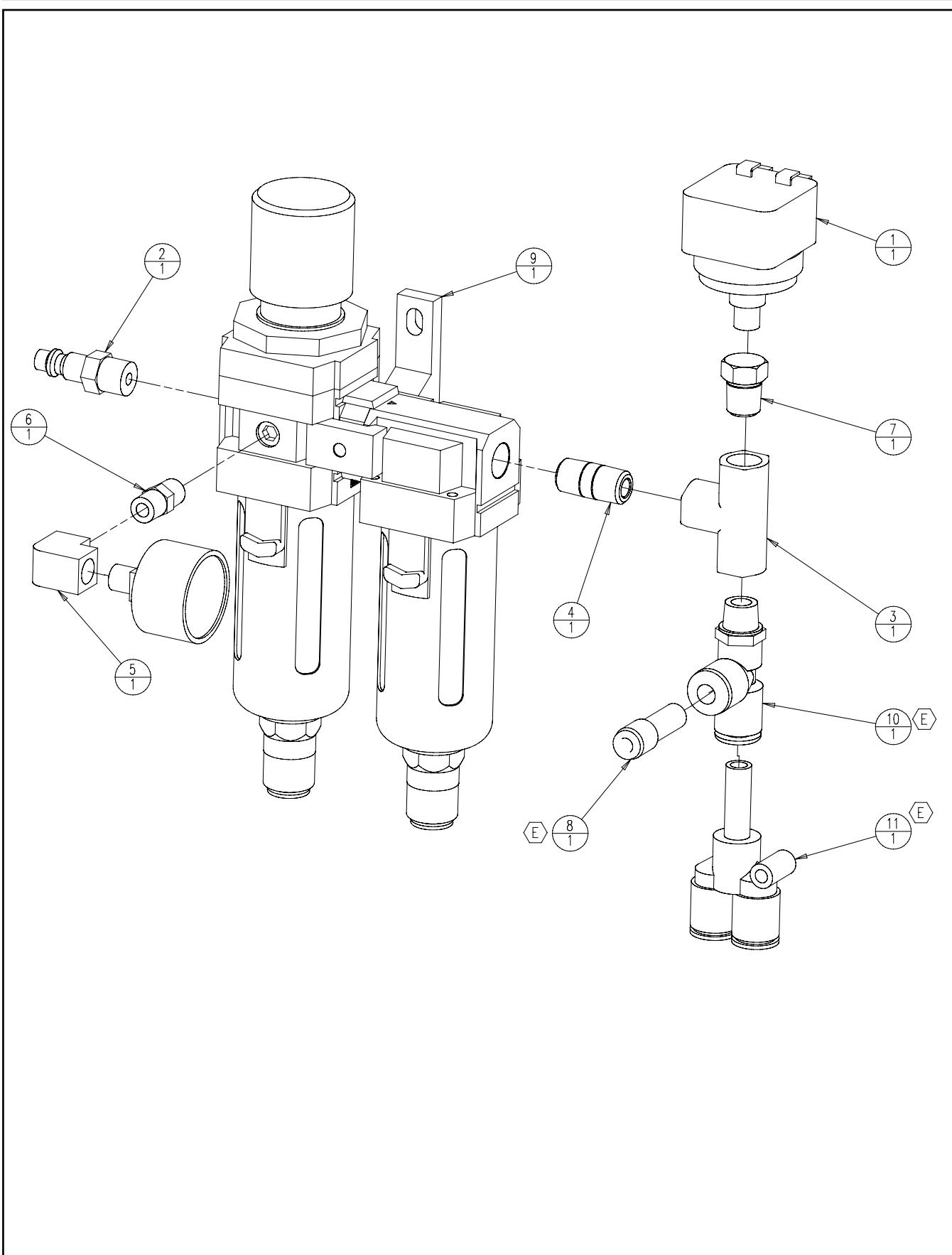
Figure 8-10: Assembly Actuator / FL00334



## Parts List 8-10: Assembly Actuator/ FL00334

Item	Part Number	Qty	Description
1	508-0043	1	ADAPTER FOR 508-0041
2	508-0049	1	VACUUM CUP W/LOCKING RING 16MM OD
3	508-1002	1	CYLINDER W/VACUUM PAD
4	509-3004	1	FITTING CONNECTOR PUSH ON M5-6MM TUBE
5	509-3025	2	FITTING ELBOW PUSH ON M5-6MM TUBE
6	509-3050	1	FITTING COLOR CAP BROWN 10.5MM OD
7	509-3051	1	FITTING COLOR CAP BLUE 12MM OD
8	Y662039GG	1	TUBING, AIR (162 MM LONG)
9	Y662039HH	1	TUBING, AIR (127 MM LONG)
10	Y662039JJ	1	TUBING, AIR (152 MM LONG)

Figure 8-11: Assembly Regulator / FL00336



## Parts List 8-11: Assembly Regulator/ FL00336

Item	Part Number	Qty	Description
1	213-2512	1	SW PRESSURE DPDT 250VAC
2	509-1050	1	FTG QUICK DISCONNECT
3	509-1069	1	FITTING, TEE 1/4 NPT
4	509-1070	1	FITTING, NIPPLE 1/4 NPT
5	509-1079	1	FTG PIPE 90 DEG ELBOW
6	509-2007	1	FTG NIPPLE - HEX 1/8 NPT
7	509-2019	1	FTG HEX BUSHING - NPT
8	509-3000	1	FTG REDUCER, PUSH-ON
9	862-0003	1	FILTER/REGULATOR 1/4 NPT
10	509-3016	1	FITTING, RUN TEE PUSH-ON
11	509-3017	1	FITTING, Y PUSH-ON



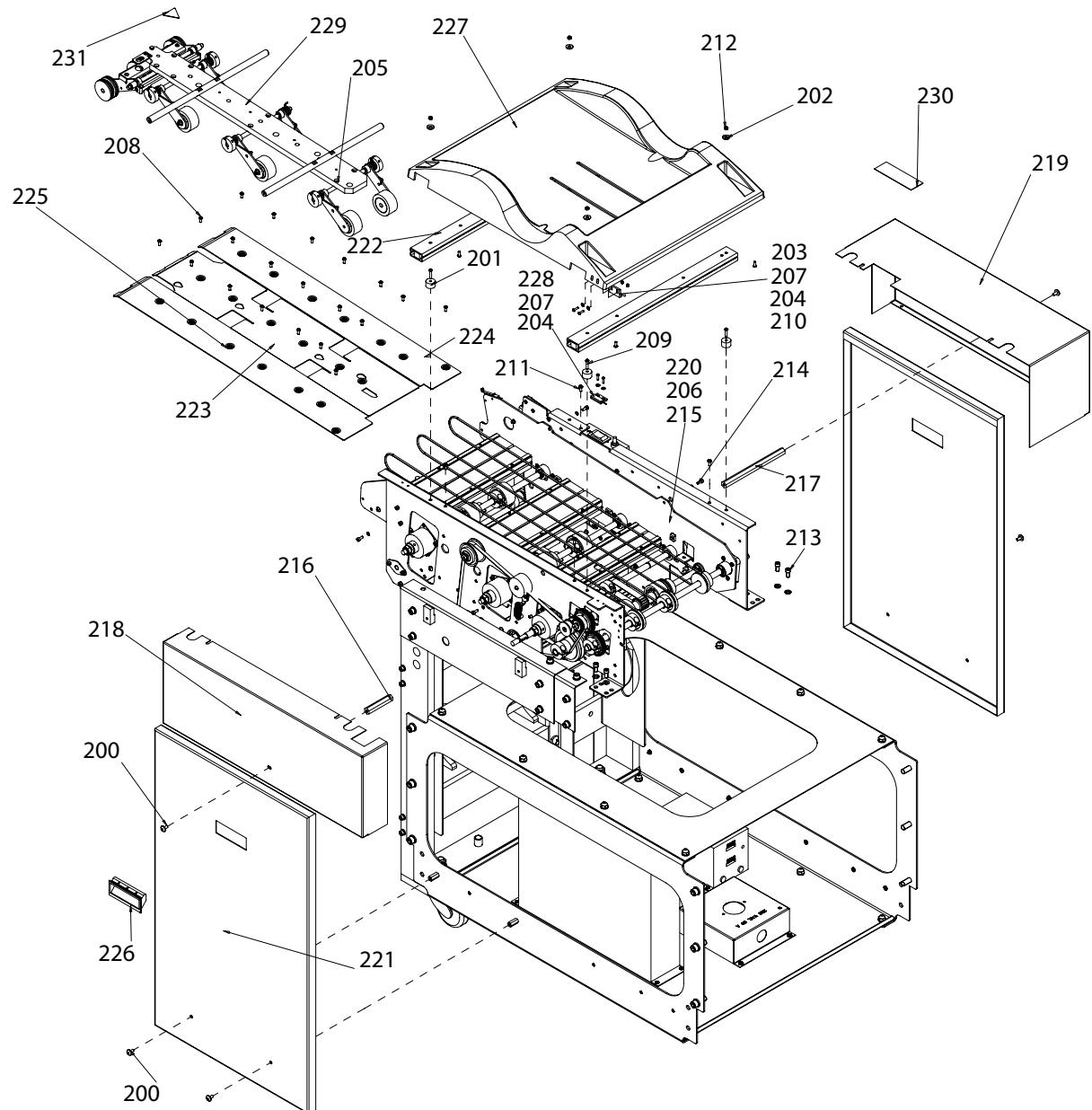
## **9    *FlowMaster Buffer Y179* *FX10/FX14***



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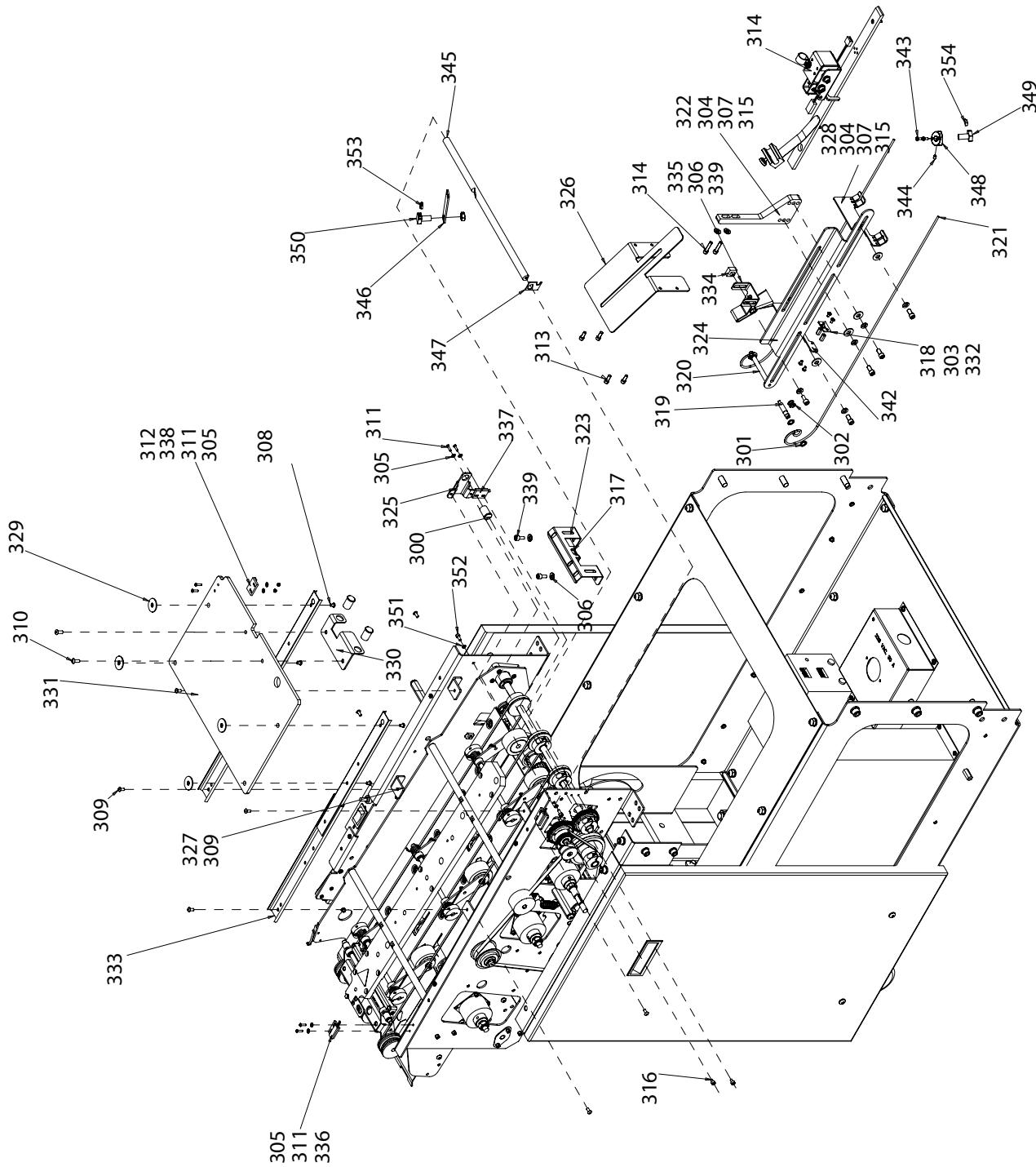
Figure 9-1: Buffer Assembly/ FL80079



## Parts List 9-1: Buffer Assembly/ FL80079

Item	Part Number	Qty	Description
200	8484227	6	PAN-L-SCREW
201	50-0584	4	WASHER PLAIN
202	20-0051	4	SPACER PLAIN
203	200-0701	1	MAGNET ACTUATOR
204	50-0554	4	WASHER PLAIN 3.2MM ID
205	52-0552	4	LK WASH HELICAL SPRING
206	52-0658	4	LOCKWASHER HELICAL SPRING 6.1 MM ID
207	68-5152	4	SCREW BTNHD CAP HEX SKT
208	68-5199	24	SCREW BTNHD CAP HEX SKT
209	68-5204	4	SCREW BTNHD CAP HEX SKT
210	71-0116	2	NUT HEX W/LK WASH
211	73-5199	4	SCREW PAN HEAD PHILLIPS M 4X 10MM
212	80-0626	4	NUT NYLON INSERT LOCK
213	81-1218	4	SCREW CAP HEX SOCKET
214	81-5199	4	SCREW, SCKT HEAD CAP
215	81-6611	4	SCREW, SCKT HEAD CAP
216	FL46003	1	STANDOFF - COVER SUPPORT
217	FL46004	1	STANDOFF - COVER SUPPORT
218	FL51006	1	COVER - BUFFER RH
219	FL51007	1	COVER - BUFFER LH
220	FL80001	1	ASSEMBLY - THREE STAGE FLOWMASTER BUFFER
221	FL51080	2	COVER - BUFFER SIDE
222	R284003	2	18 SLIDE W/DETENT
223	Y151607	1	DECK CENTER TRANSPORT
224	Y151036	1	DECK-TRANSPORT EXIT LH
225	Y151037	1	BUFFER DECK RH
226	Y162000	2	HANDLE - COVER
227	Y162171	1	TOP COVER BUFFER2000
228	R683065	1	HARN ASSY-ENC/ENV COVER
229	Y180601CC	1	ASSEMBLY, UPPER CARRIAGE 3 STAGE BUFFER
230	Y162001	1	SAFETY LABEL PINCH POINT HAZARD LARGE
231	Y162007	1	SAFETY LABEL PINCH POINT HAZARD TRIANGLE

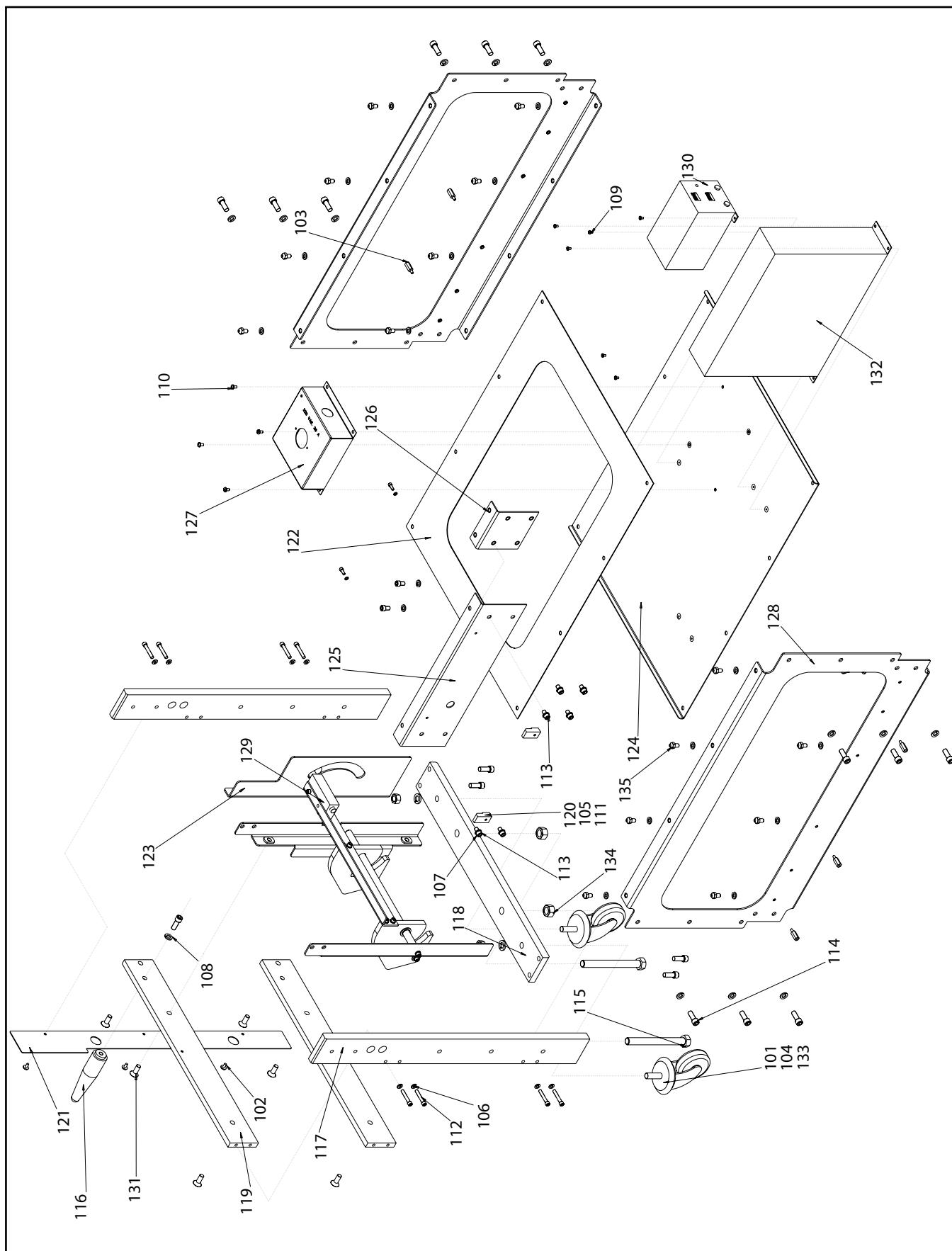
Figure 9-2: Buffer Assembly/ FL80079



## Parts List 9-2: Buffer Assembly/ FL80079

Item	Part Number	Qty	Description
300	10-0113	3.0	MAGNETIC CATCH SNAP-IN
301	20-0284	4.0	SPACER PLAIN
302	23-0021	4.0	E-RING.185 ID X.437 OD X .025
303	258-0389	4.0	STANDOFF, THREADED NYLON
304	50-0020	4.0	WASHER LOC-16
305	50-0554	6.0	WASHER PLAIN 3.2MM ID
306	50-0576	5.0	WASHER PLAIN .214 ID
307	52-0023	4.0	LK WASH HELICAL SPRING
308	68-0609	4.0	SCREW BTNHD CAP HEX SKT
309	68-0611	8.0	SCREW CAP HEX HEAD
310	68-0833	2.0	SCREW BTNHD CAP HEX SKT
311	68-5152	6.0	SCREW BTNHD CAP HEX SKT
312	71-0116	2.0	NUT HEX W/LK WASH
313	81-0833	6.0	SCREW CAP HEX SOCKET
314	81-0839	2.0	SCREW CAP HEX SOCKET
315	81-1218	4.0	SCREW CAP HEX SOCKET
316	81-5197	2.0	SCREW
317	FL84017FF	1.0	THRU-BEAM SENSOR - BUFFERJAM
318	99-0817	8.0	SCREW NYLON PAN HEAD
319	FL10001	1.0	SUPPORT - GUIDE WIRE
320	FL10017	1.0	SUPPORT - GUIDE WIRE
321	FL24000	2.0	WIRE GUIDE
322	FL45078	1.0	SUPPORT - GUIDE WIRE
323	FL51079	1.0	PAPER GUIDE - BUFFER EXIT
324	FL51095	1.0	HANGER - GUIDE WIRE
325	FL51101	1.0	BRACKET - MAGNET
326	FL51111	1.0	SUPPORT, PAPER SLIDE 10X13
327	FL51112	4.0	BRACKET - SLIDE SUPPORT
328	FL58051	1.0	WIRE GUIDE/SUPPORT
329	FL58061	4.0	SECURING PLATE
330	FL58062	1.0	BRACKET - MAGNET
331	FL62049	1.0	GREENHOUSE COVER
332	FL80108	2.0	ASSY - JAM DETECTOR STRIP
333	FL84049	2.0	SLIDE - 9 INCH
334	R550025	1.0	GUIDE BLOCK - RETARD
335	R580346	1.0	ASSY-OVHD RETARDER
336	R683055EE	1.0	CABLE ASSY-SENSOR
337	Y583035	1.0	HARNESS ASSY-SWITCH 2 POLE REED
338	200-0701	1.0	MAGNET ACTUATOR
339	3170098	3.0	SCREW 3/16HX BLUE POU
340	FL90001	1.0	KIT - FLOWMASTER BUFFER INTEGRATION
341	FL80129	1.0	ASSY - FLOWMASTER OVERHEAD STOP
342	FL00103	1.0	BRACKET - STRIKER SUPPORT
343	69-0501	2.0	SCREW HEX SKT FLT CTSK HD
344	75-0555	1.0	SET SCREW HEX SOCKET
345	FL00109	1.0	SHAFT - SENSOR BRACKET
346	FL00110	1.0	BRACKET - BUFFER HANDOFF SENSOR
347	FL00111	1.0	BRACKET - SHAFT ALIGNMENT
348	FL00112	1.0	CYLINDER SENSOR MOUNT
349	R692042	1.0	INFRARED LED
350	R692043	1.0	OPTICAL DETECTOR
351	52-0552	2.0	LK WASH HELICAL SPRING
352	81-5199	2.0	SCREW, SCKT HEAD CAP
353	R683206EE	1.0	ASSY-PHOTO DETECTOR
354	R683207BB	1.0	CABLE ASSY-LED-PARALLEL BD

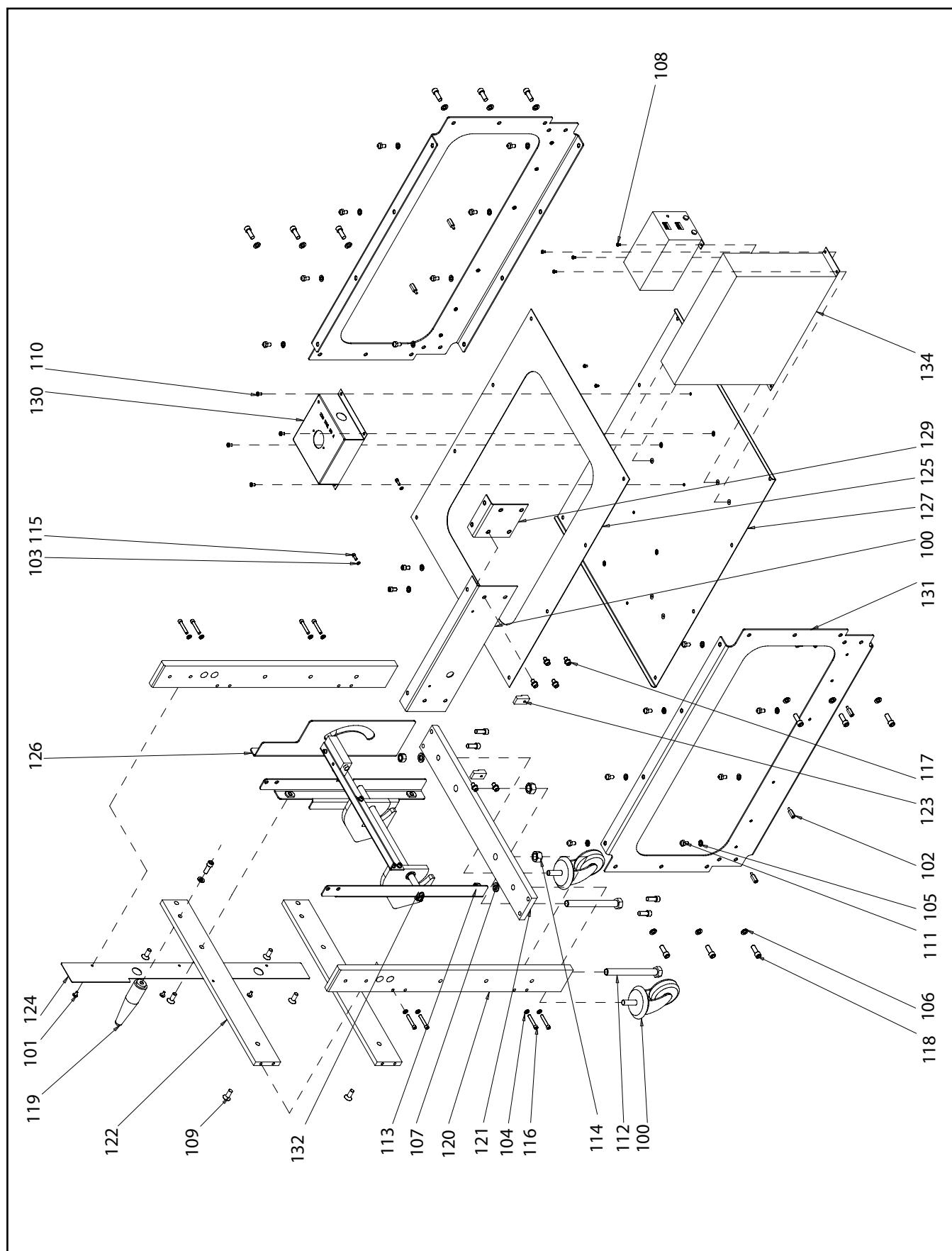
Figure 9-3: Buffer Assembly/ FL80079



## Parts List 9-3: Buffer Assembly/ FL80079

Item	Part Number	Qty	Description
101	3184086	2.0	CASTER
102	8484227	3.0	PAN-L-SCREW
103	258-0521	6.0	STANDOFF #10-32 HEX M/F
104	52-0031	2.0	LK WASH HELICAL SPRING
105	52-0016	2.0	LK WASH HELICAL SPRING
106	52-0023	8.0	LK WASH HELICAL SPRING
107	52-0025	24.0	LK WASH HELICAL SPRING
108	52-0027	13.0	LK WASH HELICAL SPRING
109	60-0609	6.0	SCREW TPG PAN HD PH
110	72-0831	4.0	SCREW & LK WASH
111	81-0833	2.0	SCREW CAP HEX SOCKET
112	81-1230	8.0	SCREW CAP HEX SOCKET
113	81-1328	8.0	SCREW CAP HEX SOCKET
114	81-1446	17.0	SCREW CAP HEX SOCKET
115	79-1781	2.0	SCREW CAP HEX HEAD
116	FL16000	1.0	PIN - GUIDE
117	FL45001	2.0	FRAME - SIDE
118	FL45002	1.0	FRAME - BOTTOM
119	FL45003	2.0	FRAME - LOCK & DOCK
120	FL45021	2.0	BLOCK - SIDE COVER MOUNT
121	FL50009	1.0	COVER - FILLER
122	FL50015	1.0	BUFFER SUBFRAME - TOP
123	FL51021	1.0	PLATE - ROLLUP
124	FL51081	1.0	BUFFER SUBFRAME - BOTTOM
125	FL51083	1.0	FRAME EXTENSION
126	FL58007	1.0	FRAME EXTENSION BRACKET
127	R683015EE	1.0	220V RECEPTACLE WITH CORD
128	FL58036	2.0	BUFFER SUBFRAME - SIDE
129	FL80000	1.0	ASSY - LOCK AND DOCK
130	R680005DD	0.0	MOTOR CONTROLLER BOX
131	69-1446	6.0	SCREW HEX SKT FLT CTSK HD
132	Y183107	0.0	ASSY-SINGLE 8051 MODULE
133	80-0031	2.0	NUT HEX
134	80-0034	2.0	NUT HEX
135	79-1328	16.0	SCREW CAP HEX HEAD

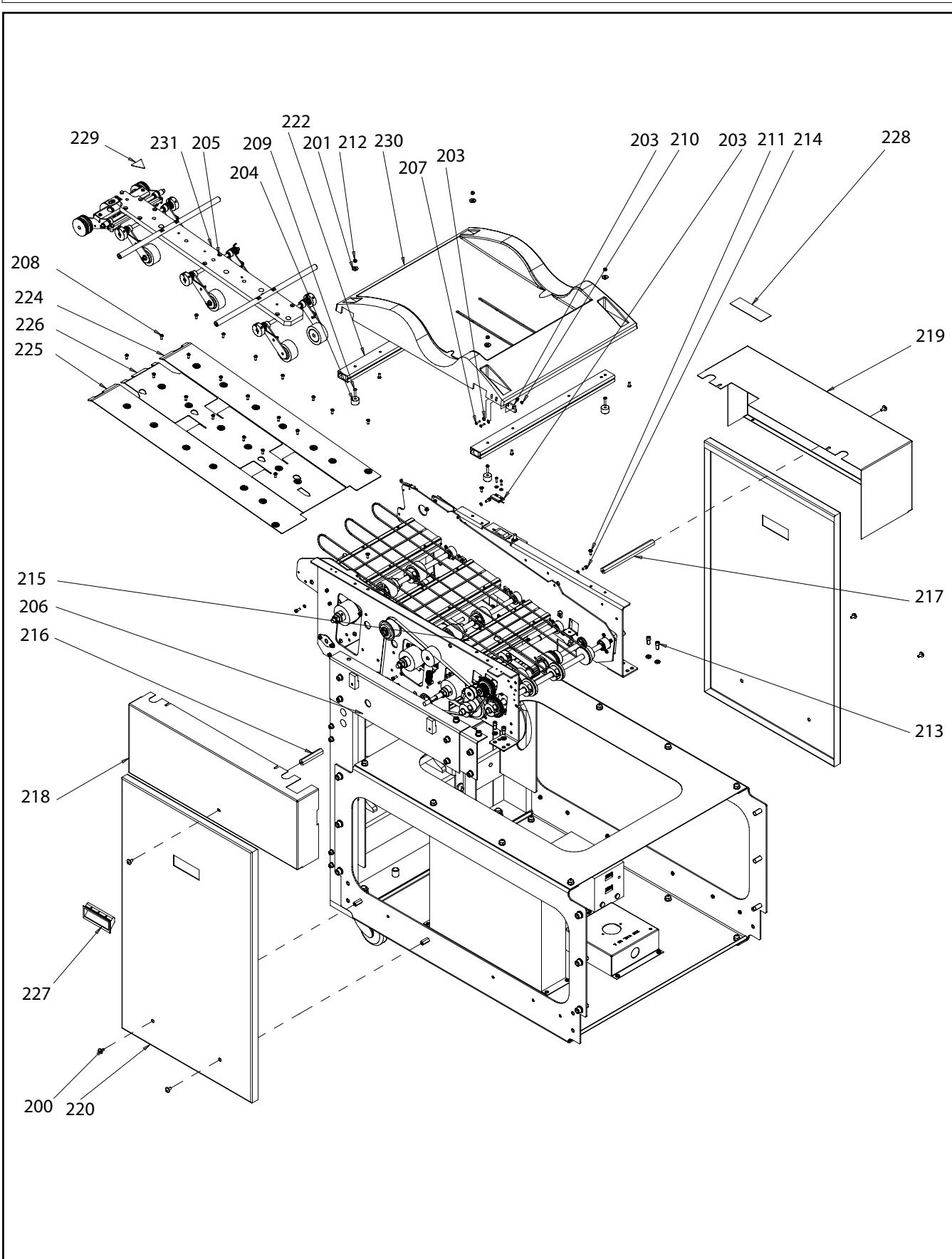
Figure 9-4: Buffer Morpheus Assembly/ ZX80801



## Parts List 9-4: Buffer Morpheus Assembly/ FL80079

Item	Part Number	Qty	Description
100	3184086	2.0	CASTER
101	8484227	3.0	PAN-L-SCREW
102	258-0521	6.0	STANDOFF #10-32 HEX M/F
103	52-0016	2.0	LK WASH HELICAL SPRING
104	52-0023	8.0	LK WASH HELICAL SPRING
105	52-0025	24.0	LK WASH HELICAL SPRING
106	52-0027	13.0	LK WASH HELICAL SPRING
107	52-0031	2.0	LK WASH HELICAL SPRING
108	60-0609	6.0	SCREW TPG PAN HD PH
109	69-1446	6.0	SCREW HEX SKT FLT CTSK HD
110	72-0831	4.0	SCREW & LK WASH
111	79-1328	16.0	SCREW CAP HEX HEAD
112	79-1781	2.0	SCREW CAP HEX HEAD
113	80-0031	2.0	NUT HEX
114	80-0034	2.0	NUT HEX
115	81-0833	2.0	SCREW CAP HEX SOCKET
116	81-1230	8.0	SCREW CAP HEX SOCKET
117	81-1328	8.0	SCREW CAP HEX SOCKET
118	81-1446	17.0	SCREW CAP HEX SOCKET
119	FL16000	1.0	PIN - GUIDE
120	FL45001	2.0	FRAME - SIDE
121	FL45002	1.0	FRAME - BOTTOM
122	FL45003	2.0	FRAME - LOCK & DOCK
123	FL45021	2.0	BLOCK - SIDE COVER MOUNT
124	FL50009	1.0	COVER - FILLER
125	FL50015	1.0	BUFFER SUBFRAME - TOP
126	FL51021	1.0	PLATE - ROLLUP
127	FL51081	1.0	BUFFER SUBFRAME - BOTTOM
128	FL51083	1.0	FRAME EXTENSION
129	FL58007	1.0	FRAME EXTENSION BRACKET
130	FL58023	1.0	BOX, DC, 220 VAC INTERCONNECT
131	FL58036	2.0	BUFFER SUBFRAME - SIDE
132	FL80000	1.0	ASSY - LOCK AND DOCK
133	R680005DD	0.0	MOTOR CONTROLLER BOX
134	Y183107	0.0	ASSY-SINGLE 8051 MODULE

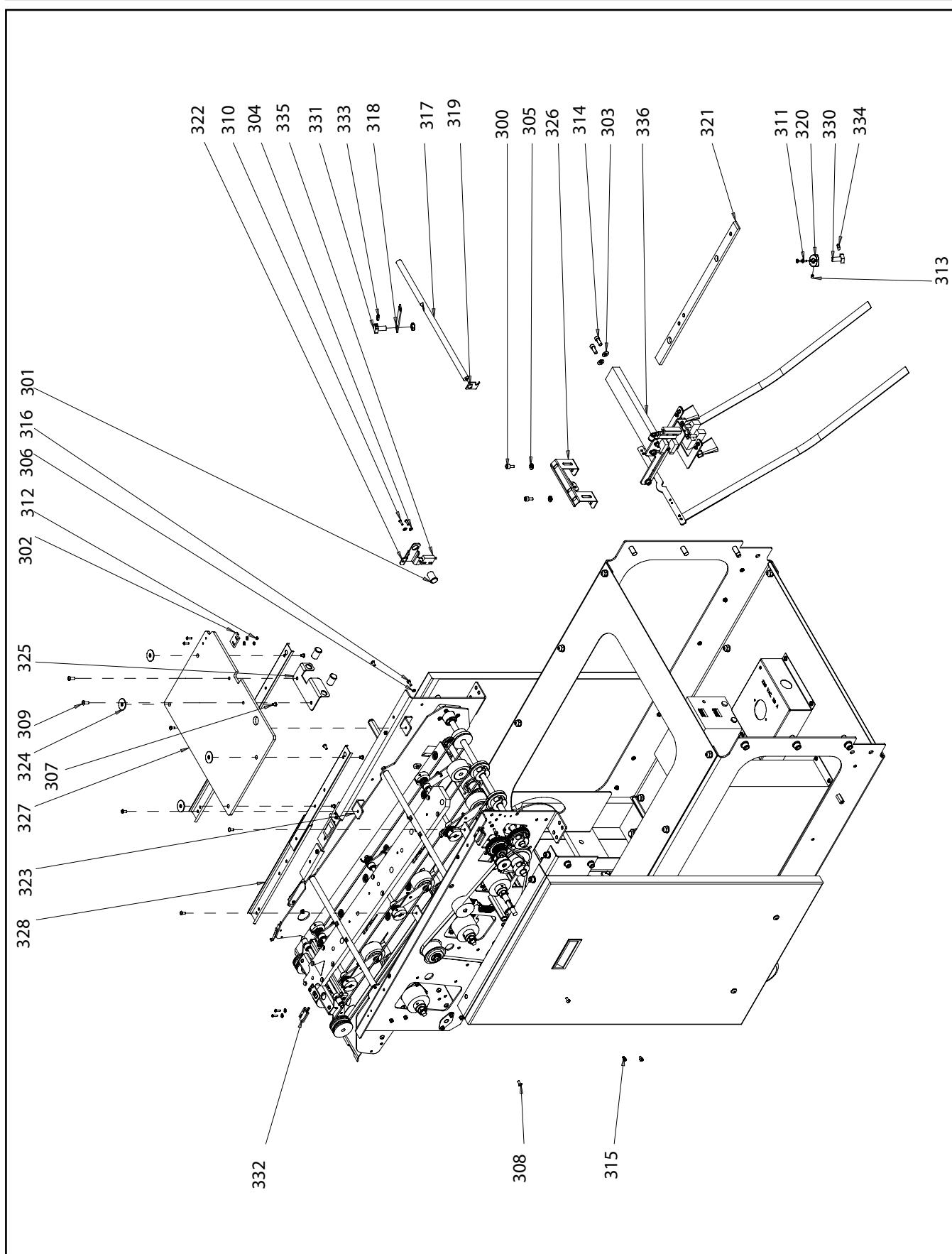
Figure 9-5: Buffer Morpheus Assembly/ ZX80801



## Parts List 9-5: Buffer Morpheus Assembly/ FL80801

Item	Part Number	Qty	Description
200	8484227	6.0	PAN-L-SCREW
201	20-0051	4.0	SPACER PLAIN
202	200-0701	1.0	MAGNET ACTUATOR
203	50-0554	4.0	WASHER PLAIN 3.2MM ID
204	50-0584	4.0	WASHER PLAIN
205	52-0552	4.0	LK WASH HELICAL SPRING
206	52-0658	4.0	LOCKWASHER HELICAL SPRING6.1 MM ID
207	68-5152	4.0	SCREW BTNHD CAP HEX SKT
208	68-5199	24.0	SCREW BTNHD CAP HEX SKT
209	68-5204	4.0	SCREW BTNHD CAP HEX SKT
210	71-0116	2.0	NUT HEX W/LK WASH
211	73-5199	4.0	SCREW PAN HEAD PHILLIPS M4X 10MM
212	80-0626	4.0	NUT NYLON INSERT LOCK
213	81-1218	4.0	SCREW CAP HEX SOCKET
214	81-5199	4.0	SCREW, SCKT HEAD CAP
215	81-6611	4.0	SCREW, SCKT HEAD CAP
216	FL46003	1.0	STANDOFF - COVER SUPPORT
217	FL46004	1.0	STANDOFF - COVER SUPPORT
218	FL51006	1.0	COVER - BUFFER RH
219	FL51007	1.0	COVER - BUFFER LH
220	FL51080	2.0	COVER - BUFFER SIDE
221	ZX80810	1.0	ASSEMBLY - 3 STAGE FLOWMASTER BUFFER
222	R284003	2.0	18 SLIDE W/DETENT
223	R683065	1.0	HARN ASSY-ENC/ENV COVER
224	Y151036	1.0	DECK-TRANSPORT EXIT LH
225	Y151037	1.0	BUFFER DECK RH
226	Y151607	1.0	DECK CENTER TRANSPORT
227	Y162000	2.0	HANDLE - COVER
228	Y162001	1.0	SAFETY LABEL PINCH POINT HAZARD LARGE
229	Y162007	1.0	SAFETY LABEL PINCH POINT HAZARD TRIANGLE
230	Y162171	1.0	TOP COVER BUFFER2000
231	Y180601CC	1.0	ASSEMBLY, UPPER CARRIAGE 3 STAGE BUFFER

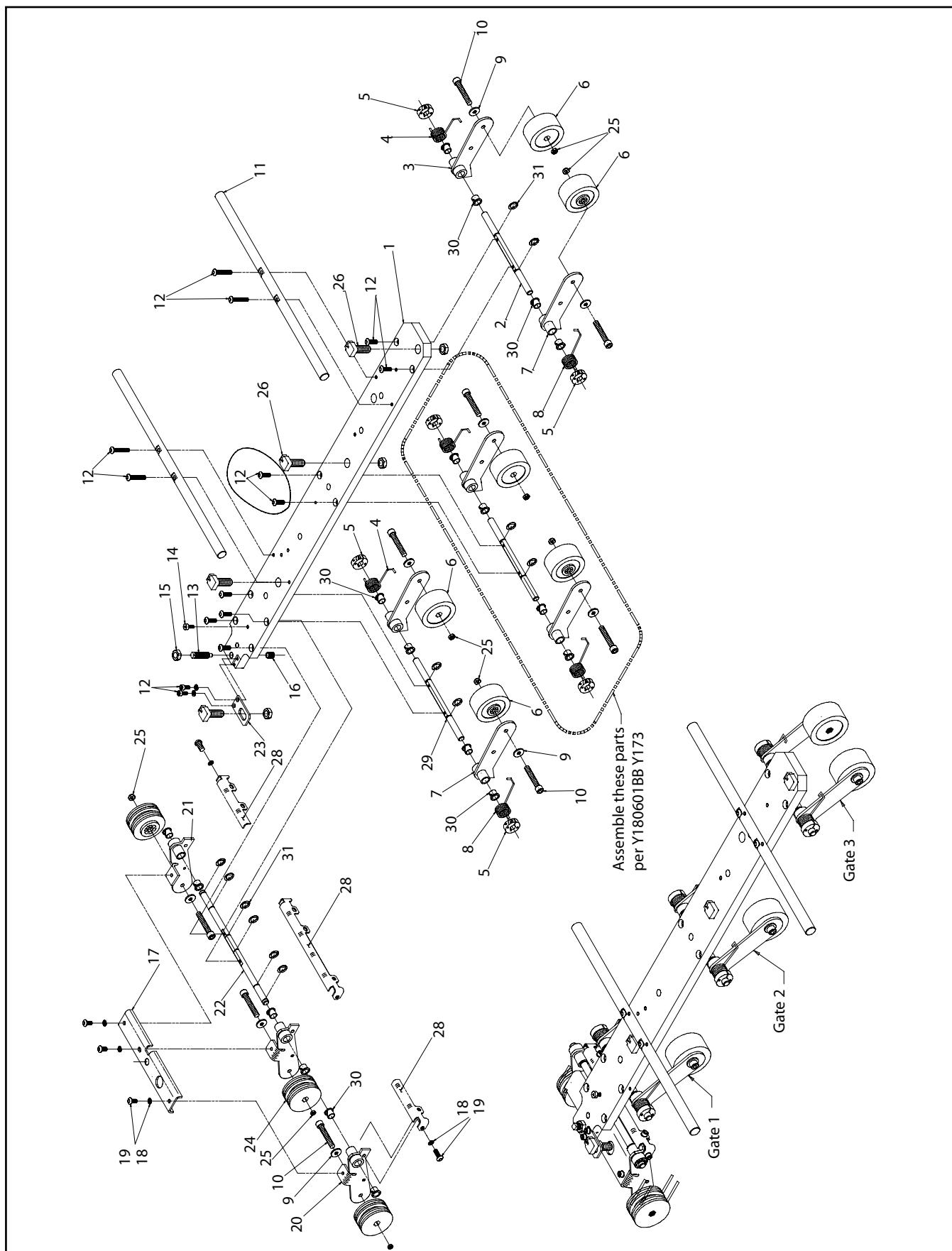
Figure 9-6: Buffer Morpheus Assembly/ ZX80801



## Parts List 9-6: Buffer Morpheus Assembly/ FL800801

Item	Part Number	Qty	Description
300	3170098	2.0	SCREW 3/16HX BLUE POU
301	10-0113	3.0	MAGNETIC CATCH SNAP-IN
302	200-0701	1.0	MAGNET ACTUATOR
303	50-0017	2.0	WASHER PLAIN .245 ID
304	50-0554	6.0	WASHER PLAIN 3.2MM ID
305	50-0576	2.0	WASHER PLAIN .214 ID
306	52-0552	2.0	LK WASH HELICAL SPRING
307	68-0609	4.0	SCREW BTNHD CAP HEX SKT
308	68-0611	8.0	SCREW CAP HEX HEAD
309	68-0833	2.0	SCREW BTNHD CAP HEX SKT
310	68-5152	6.0	SCREW BTNHD CAP HEX SKT
311	69-0501	2.0	SCREW HEX SKT FLT CTSK HD
312	71-0116	2.0	NUT HEX W/LK WASH
313	75-0555	1.0	SET SCREW HEX SOCKET
314	81-1220	2.0	SCREW SOCKET HEAD CAP 1/4-20X 5/8
315	81-5197	2.0	SCREW
316	81-5199	2.0	SCREW, SCKT HEAD CAP
317	FL00109	1.0	SHAFT - SENSOR BRACKET
318	FL00110	1.0	BRACKET - BUFFER HANDOFF SENSOR
319	FL00111	1.0	BRACKET - SHAFT ALIGNMENT
320	FL00112	1.0	CYLINDER SENSOR MOUNT
321	FL45830	1.0	DECK - RAISED
322	FL51101	1.0	BRACKET - MAGNET
323	FL51112	4.0	BRACKET - SLIDE SUPPORT
324	FL58061	4.0	SECURING PLATE
325	FL58062	1.0	BRACKET - MAGNET
326	FL58809	1.0	BACKSTOP - BUFFER EXIT
327	FL62049	1.0	GREENHOUSE COVER
328	FL84049	2.0	SLIDE - 9 INCH
329	FL90001	1.0	KIT - FLOWMASTER BUFFER INTEGRATION
330	R692042	1.0	INFRARED LED
331	R692043	1.0	OPTICAL DETECTOR
332	R683055EE	1.0	CABLE ASSY-SENSOR
333	R683206EE	1.0	ASSY-PHOTO DETECTOR
334	R683207BB	1.0	CABLE ASSY-LED-PARALLEL BD
335	Y583035	1.0	HARNESS ASSY-SWITCH 2 POLE REED
336	ZX80800	1.0	BUFFER HAND-OFF ASSY

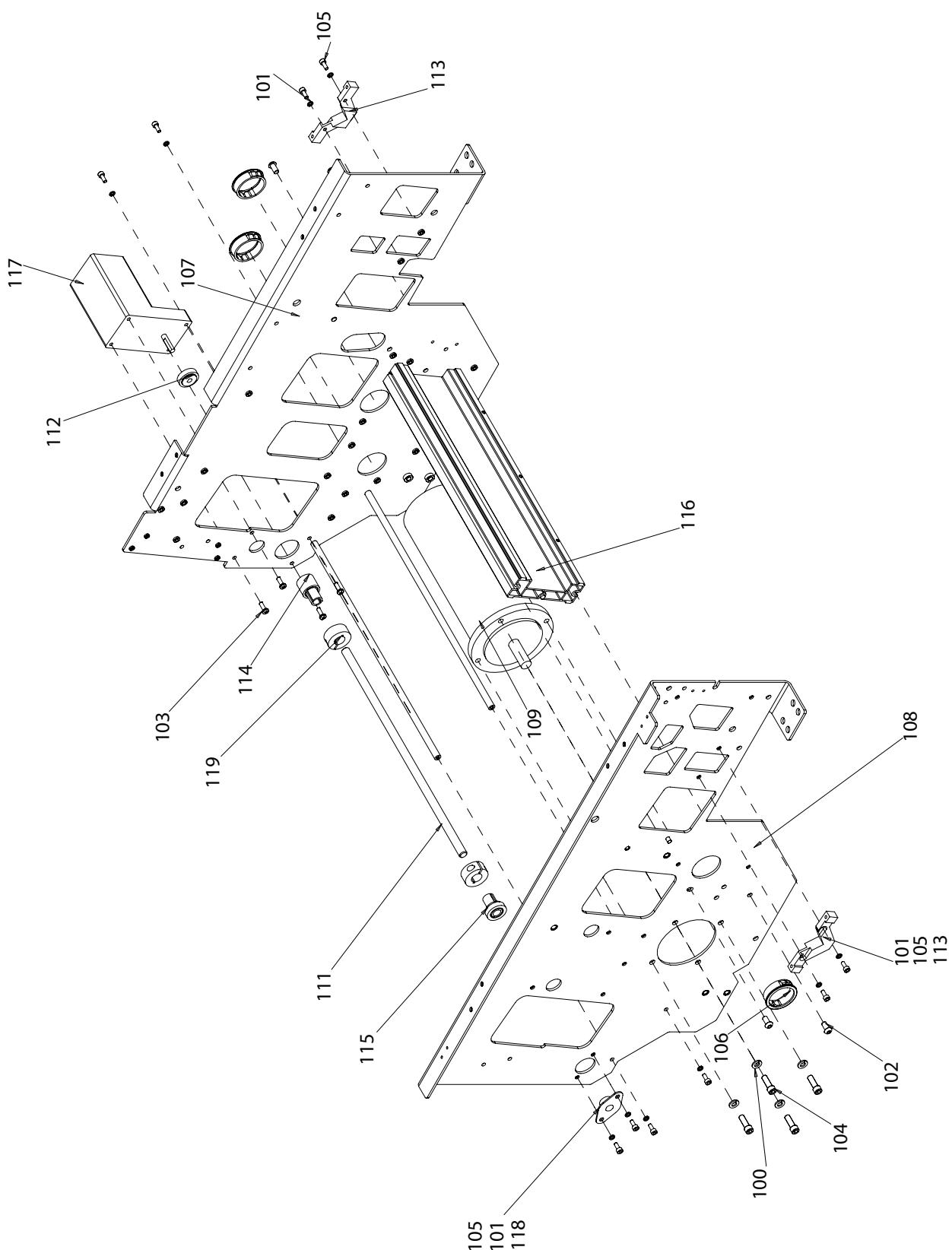
Figure 9-7: 3 Stage Buffer Upper Carriage Assembly/ Y180301



## Parts List 9-7: 3 Stage Buffer Upper Carriage Assembly/Y180301

Item	Part Number	Qty	Description
1	Y145588	1.0	BAR, TOP ROLLER MOUNT
2	Y110286	0.0	SHAFT UPPER EXIT NIP ROLLER
3	Y158022	3.0	PRESSURE ARM RH
4	Y121006	3.0	BUFFER TORSION SPRING LH
5	Y115000	6.0	CLAMP COLLAR TOP CARRIAGE
6	Y186020	6.0	ROLLER TIRE HUB IDLER
7	Y158023	3.0	PRESSURE ARM LH
8	Y121005	3.0	BUFFER TORSION SPRING RH
9	225028A	9.0	WASHER
10	81-0841	9.0	SCREW CAP HEX SOCKET
11	Y110274	2.0	SHAFT UPPER IDLER ASSY MOUNT
12	68-5204	4.0	SCREW BTNHD CAP HEX SKT
13	8470018	1.0	SCREW PRESSURE ADJ
14	3170530	1.0	SCREW HEX SOCKET BLUE
15	80-0026	1.0	NUT HEX
16	Y184555	1.0	SPRING, COMPRESSION UPPERCARRAIGE ENTRANCE
17	Y151620	1.0	CROSS PLATE ENTRANCE ARMS
18	52-0552	7.0	LK WASH HELICAL SPRING
19	68-5199	5.0	SCREW BTNHD CAP HEX SKT
20	Y158034	2.0	ENTRANCE ARM RH
21	Y158032	1.0	ENTRANCE ARM LH
22	Y110006	1.0	SHAFT- UPPER IDLER ENTRANCE
23	Y150513	1.0	BRACKET, SENSOR MOUNT UPPER ENTRANCE
24	Y186019	3.0	PULLEY IDLER DUAL O-RING
25	80-0627	9.0	NUT SELF-LOCKING M5 STEEL
26	R692043	4.0	OPTICAL DETECTOR
27	68-5199	8.0	SCREW BTNHD CAP HEX SKT
28	Y151623	1.0	PLATE TIE ENTRANCE ROLLERUPPER
29	Y110276	3.0	SHAFT, UPPER IDLER
30	Y184557	18.0	BUSHING, NYLINER 8MM BORE
31	23-0508	12.0	RING E RETAINING 9MM SHAFT

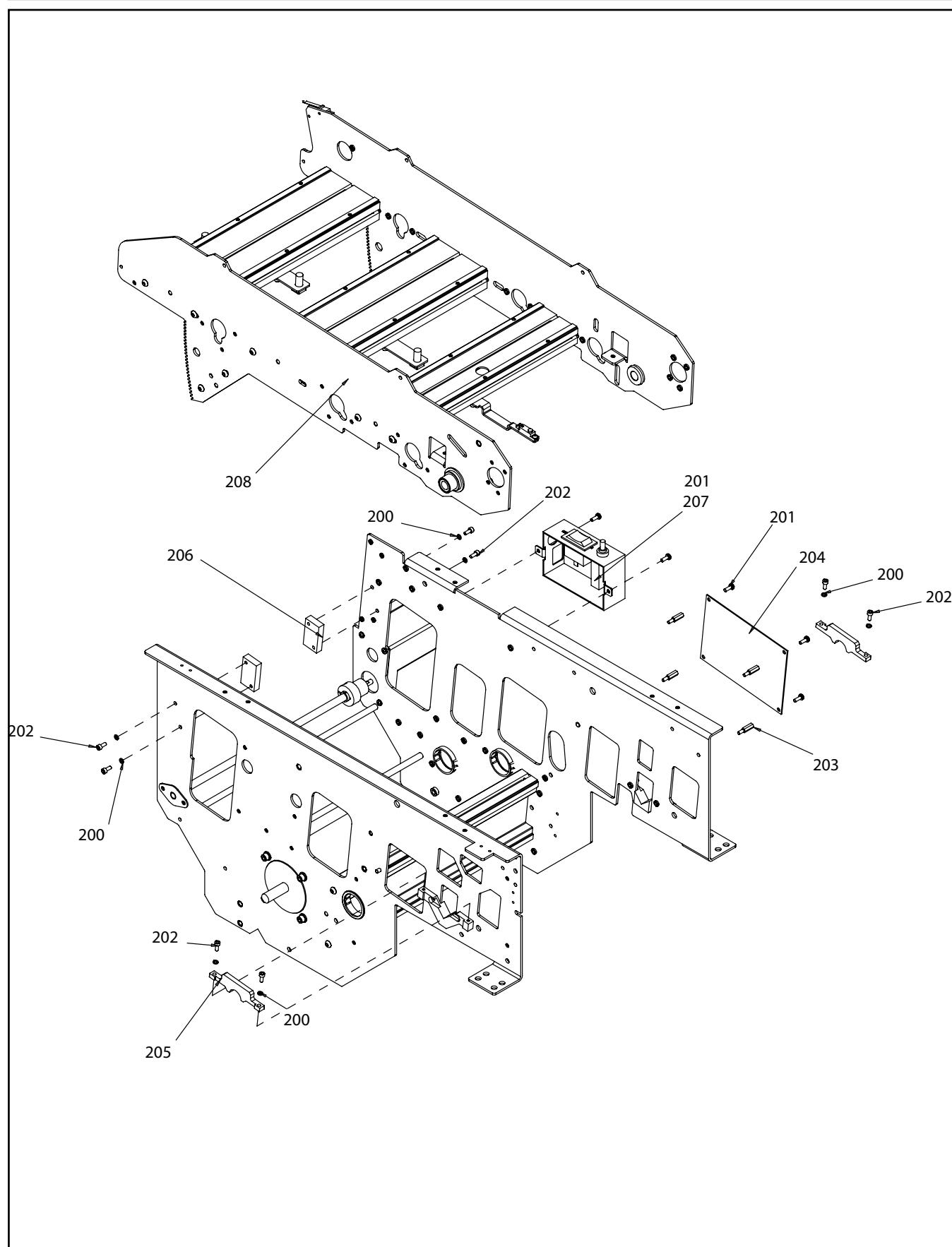
**Figure 9-8: FlowMaster Buffer/ FL80001**



## Parts List 9-8: FlowMaster Buffer/ FL80001

Item	Part Number	Qty	Description
100	52-0023	4.0	LK WASH HELICAL SPRING
101	52-0552	10.0	LK WASH HELICAL SPRING
102	68-5248	4.0	SCREW BTNHD CAP HEX SKT
103	72-0613	4.0	SCREW & LK WASH
104	81-1222	4.0	SCREW CAP HEX SOCKET
105	81-5199	10.0	SCREW, SCKT HEAD CAP
106	88-0126	3.0	BUSHING ELECTRICAL
107	FL58010	1.0	SIDE FRAME - LH
108	FL58011	1.0	SIDE FRAME - RH
109	R284039	0.0	DC MOTOR, 1/4 HP
110	Y110220	2.0	TIE BAR
111	Y110288	1.0	SHAFT-POSITION CHANGING
112	Y131006	1.0	SPUR GEAR 16 TEETH-MOTOR SIDE
113	Y145593	2.0	PIVOT SUPPORT,BOTTOM
114	Y180519	1.0	ASSY,COUPLING-BUFFER
115	Y180520	1.0	ASSY,INSERT/GEAR-BUFFER
116	Y180638	1.0	ASSY MAIN CROSS BAR STUCTURE
117	Y184541	0.0	MOTOR,POSITION CHANGING-BUFFER
118	Y184542	1.0	BEARING,FLANGED-POS CHG
119	Y484035	2.0	COLLAR-CLAMPING-14MM ID
120	FL80147	1.0	3 STAGE BUFFER ELECTRICAL

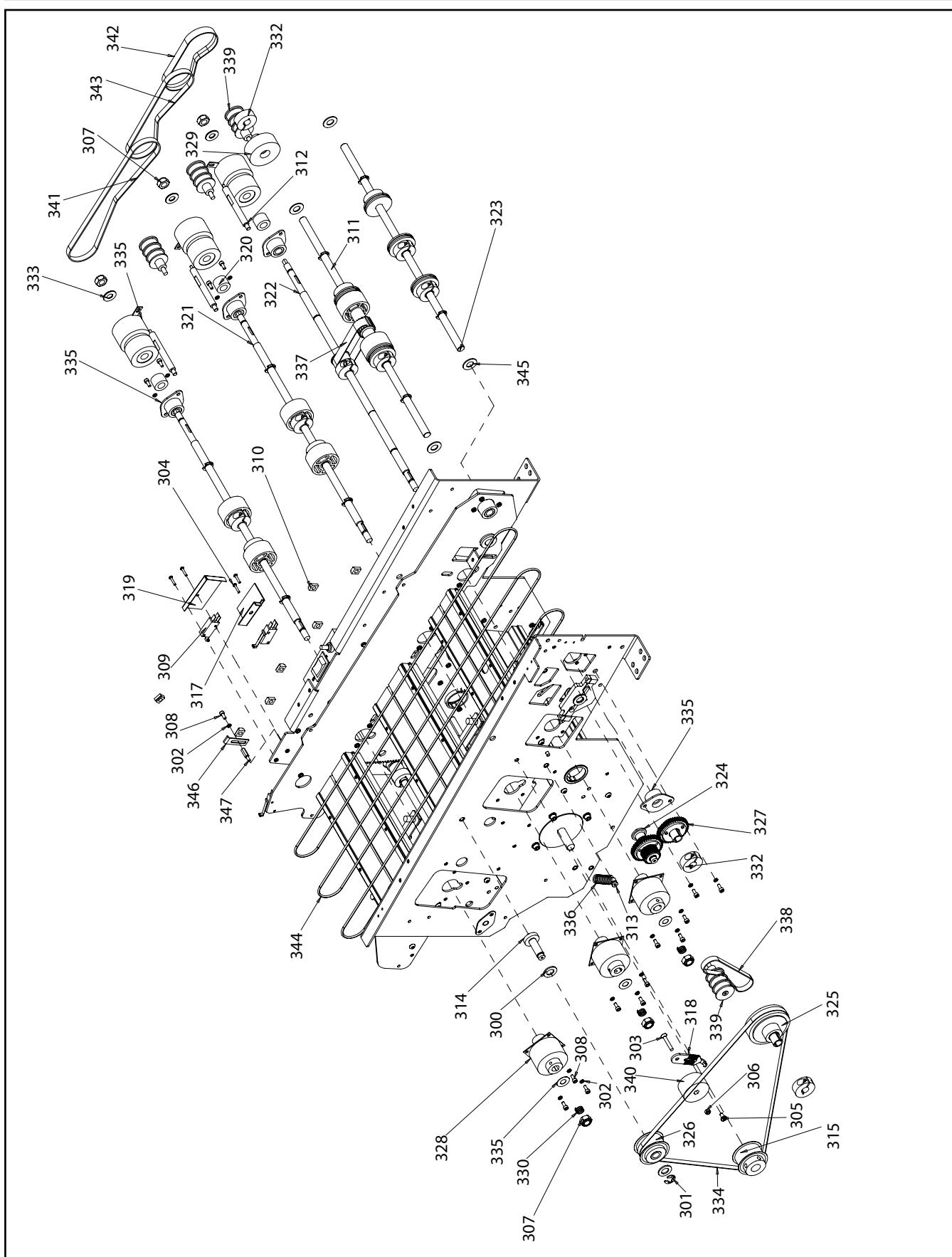
Figure 9-9: FlowMaster Buffer/ FL80001



## Parts List 9-9: FlowMaster Buffer/ FL80001

Item	Part Number	Qty	Description
200	52-0552	8.0	LK WASH HELICAL SPRING
201	72-5200	6.0	SCREW PAN HEAD SEM PHILLIPS M4X 12MM
202	81-5199	8.0	SCREW, SCKT HEAD CAP
203	258-5000	4.0	STANDOFF, 6MM HEX M/F
204	R682006	0.0	ASSY-PARALLEL I/F PWB
205	Y145600	2.0	PIVOT BLOCK TOP
206	Y162154	2.0	SPACER BLOCK PIVOT
207	Y180009	1.0	ASSY ELEVATOR(3 & 6 STAGE)
208	Y180620	1.0	PIVOT SECTION ASSEMBLY - (THIS ITEM USES PIVOT HUB ASSEMBLY Y180646 WITH BEARING Y184025)
209	214-0745	1.0	24 VOLT RELAY 10 AMP

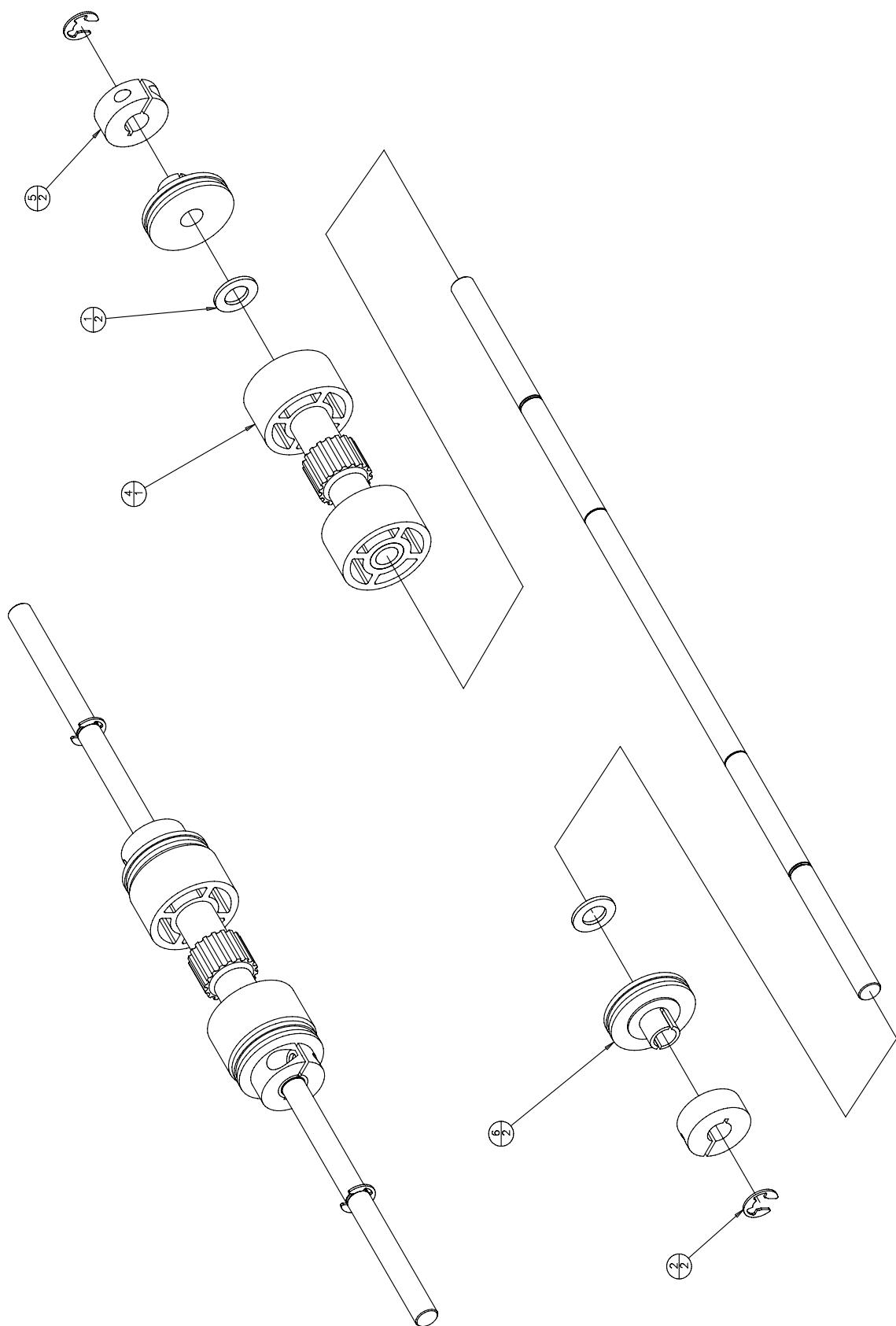
Figure 9-10: FlowMaster Buffer/ FL80001



## Parts List 9-10: FlowMaster Buffer/ FL80001

Item	Part Number	Qty	Description
300	20-0308	3.0	SPCR PLAIN NYLON .500 .9
301	23-0511	1.0	E RING RETAINING
302	52-0552	20.0	LK WASH HELICAL SPRING
303	69-0843	1.0	SCREW HEX SKT FLT CTSK HD
304	72-0285	4.0	SCREW & LK WASH
305	72-0831	1.0	SCREW & LK WASH
306	80-0627	1.0	NUT SELF-LOCKING M5 STEEL
307	80-0630	6.0	SCREW
308	81-5199	20.0	SCREW, SCKT HEAD CAP
309	213-2410	2.0	SW INTLK ROLLER 3A SPDT
310	F407318	7.0	'T' NUT, TAKE UP
311	FL80005	1.0	SHAFT ASSY-EXIT DRIVE-LOWER-SEE FIG. 9-11 FOR BREAKDOWN
312	Y110287	3.0	SHAFT, SUPPORT CLUTCH
313	Y111056	1.0	STUD SPRING RETAINER
314	Y111058	1.0	STUD, IDLER PULLYE MAIN DRIVE
315	Y137064	1.0	PULLEY MOTOR 28T GT DR
317	Y151007	1.0	EXTENSION SWITCH COVER-BUFFER
318	Y151627	1.0	BRACKET BELT TENSIONER
319	Y151676	1.0	COVER- SWITCH (S2)
320	Y162168	3.0	SPACER CLUTCH BUFFER2000
321	Y180611	2.0	SHAFT ASSY, NIP ROLLER LOWER
322	Y180612	1.0	SHAFT ASSY, EXIT CLUTCH DRIVE
323	Y180614	1.0	SHAFT ASSY, O-RING DRIVE UPPER
324	Y180621	1.0	ASSEMBLY IDLER GEAR HUB
325	Y180623	1.0	ASSEMBLY DRIVE PULLEY MAIN
326	Y180635	1.0	ASSY, IDLER PULLEY MAIN DRIVE
327	Y180637	1.0	ASSEMBLY, DRIVE GEAR O-RING
328	Y180662	3.0	ASSY,BRAKE
329	Y180663	1.0	ASSY MAIN DRIVE PULLEY
330	Y184013	3.0	BUFFER BRAKE SPRING
331	Y184465	3.0	CLUTCH ASSY-ENHANCED BUFFER, OGURA
331	TO1167	1.0	CLUTCH PLATE ONLY
332	Y184485	3.0	CLAMP, COLLAR 16MM BORE
333	Y184493	12.0	SPACER-10 MM BORE, BUFFER
334	Y184514	1.0	BELT 5MM GT 1000T DRIVE
335	Y184531	5.0	BEARING CARRIER 12MM SELFALIGNING
336	Y184535	1.0	SPRING, MAIN DRIVE TENSIONER
337	Y184538	1.0	BELT 5MM HTD 15MM W X 49TEXIT
338	Y184553	1.0	BELT 3MM X 9MM X 92T HTD 276MMP
339	Y186030	4.0	IDLER, TENSIONER 3 POSITION
340	Y186034	1.0	ASSY, IDLER ROLLER TENSIONER
341	Y184472	1.0	BELT, DRIVE-FIRST NIP,597 MM PITCH LENGTH, 3 MM PITCH
342	Y184539	1.0	BELT 3MM HTD X 9MM W X 108T CLUTCH DRIVE
343	Y184540	1.0	BELT, 3 X 9MM X 149T 1ST-2ND NIP DRIVE
344	Y184559	3.0	BELT, O-RING DRIVE UPPER
345	Y184578	4.0	WASHER, THRUST STEEL
346	3156583	1.0	CLAMP BKT
347	258-5000	1.0	STANDOFF, 6MM HEX M/F
348	FL51138	1.0	BRACKET, LED
349	Y572001	1.0	LED, APS STYLE

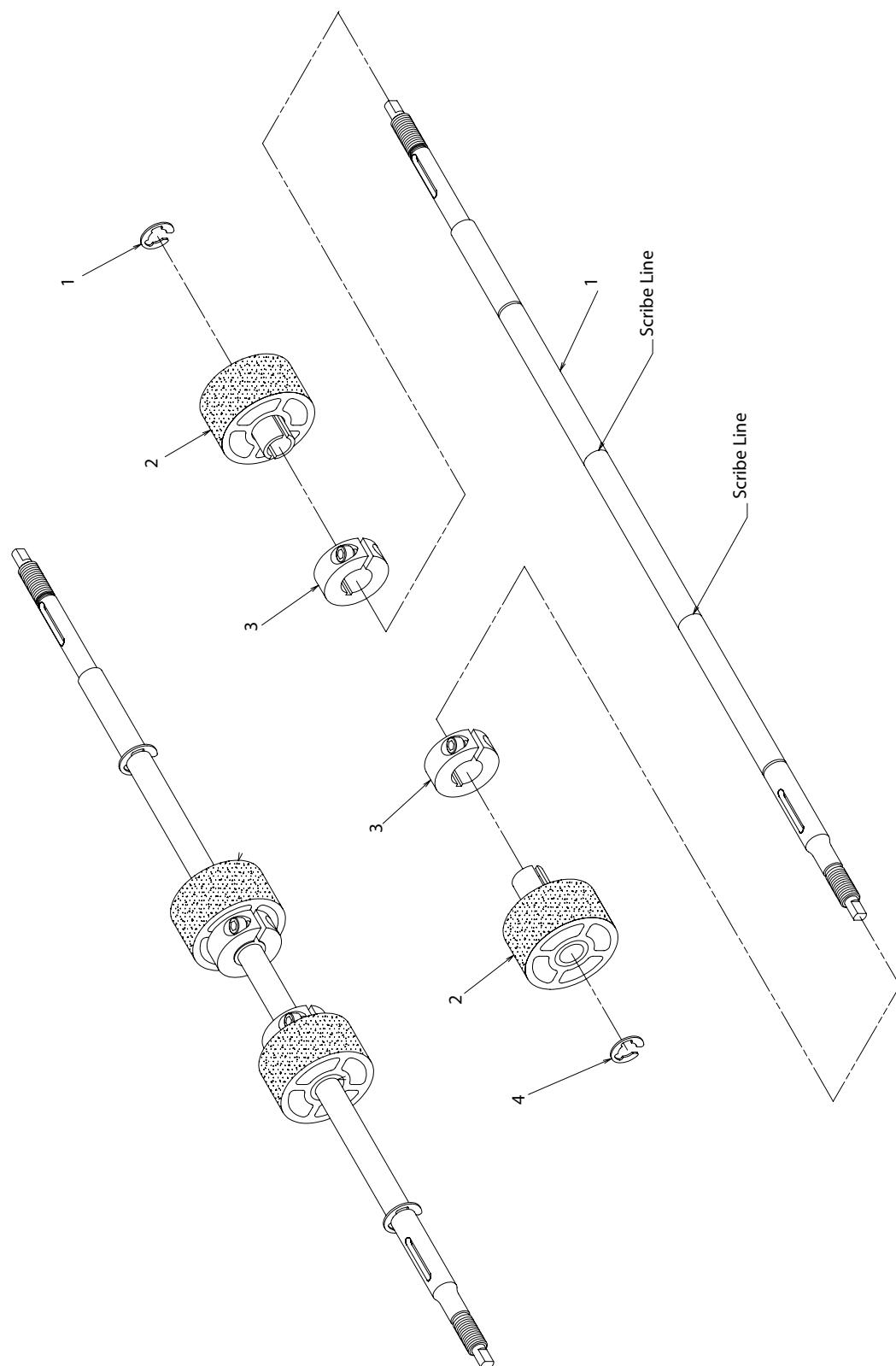
Figure 9-11: Shaft Assembly Drive/ FL80005



## Parts List 9-11: Shaft Assembly Drive/ FL80005

Item	Part Number	Qty	Description
1	20-0308	2	SPCR PLAIN NYLON .500 .9
2	23-0511	2	E RING RETAINING
3	FL10010	1	SHAFT-DRIVE GEAR LOWER
4	FL80002	1	ASSY - PULLEY
5	Y184485	2	CLAMP, COLLAR 16MM BORE
6	Y186017	2	PULLEY DRIVE SINGLE O-RING

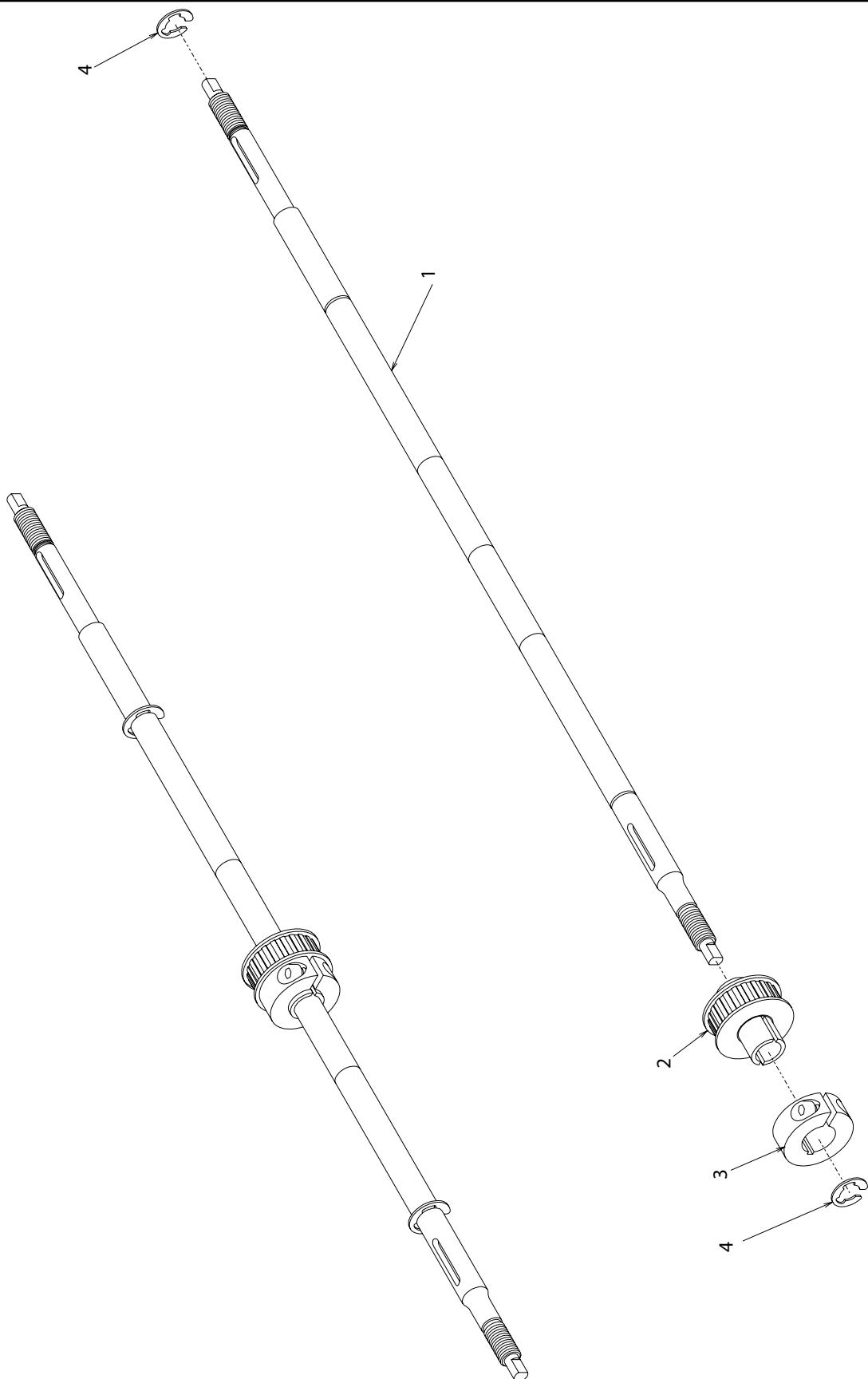
Figure 9-12: Nip Roller Lower Assembly/ Y180611



## Parts List 9-12: Nip Roller Lower Assembly/Y180611

Item	Part Number	Qty	Description
1	Y110267	1.0	SHAFT, CLUTCH/BRAKE PIVOTSECTION
2	Y180603	2.0	ASSY, CARBIDE ROLLER
3	Y184485	2.0	CLAMP, COLLAR 16MM BORE
4	23-0511	2.0	E RING RETAINING

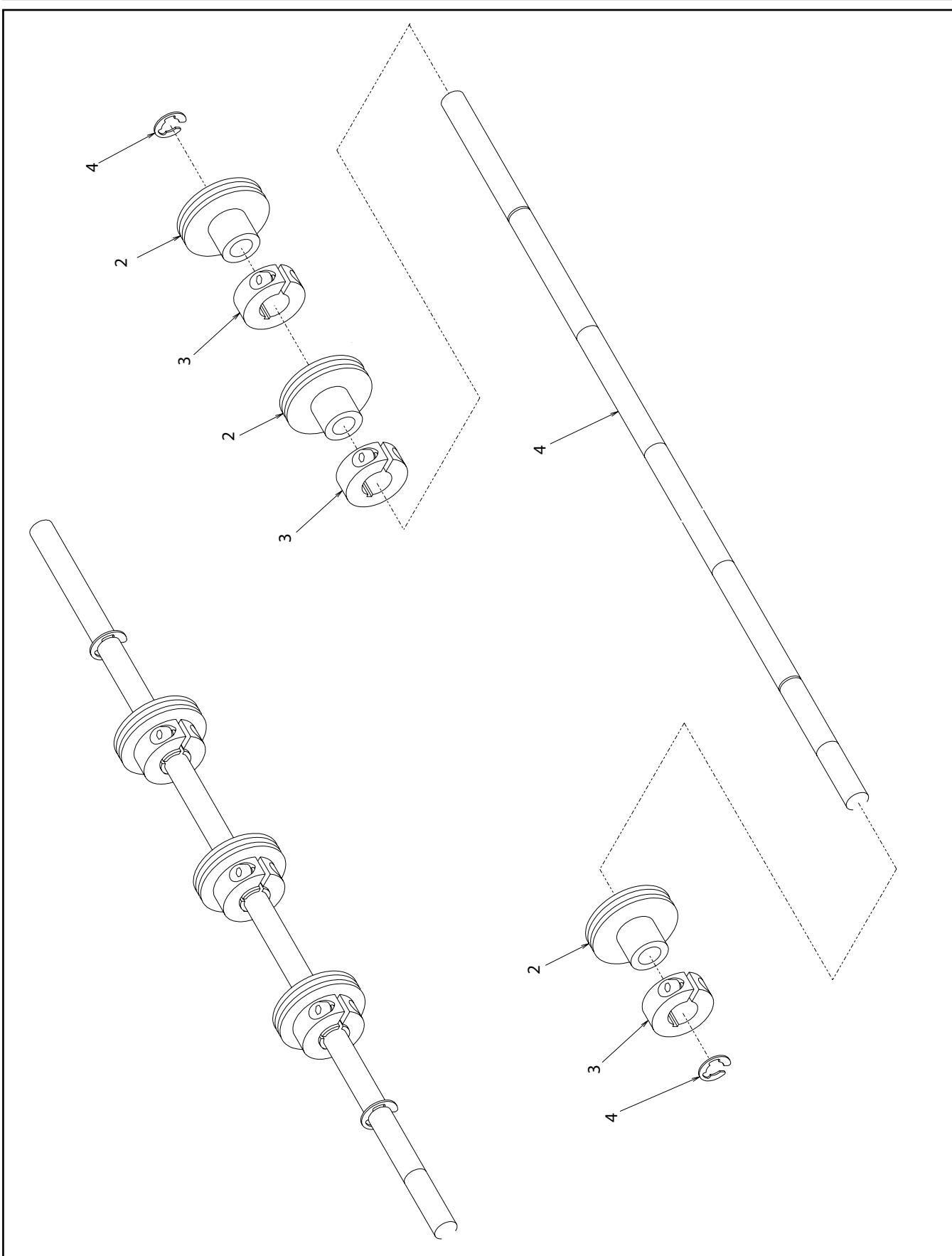
Figure 9-13: Exit Clutch Drive/Y180612



## Parts List 9-13: Exit Clutch Drive/ Y180612

Item	Part Number	Qty	Description
1	Y110267	1.0	SHAFT, CLUTCH/BRAKE PIVOTSECTION
2	Y180622	1.0	ASSEMBLY DRIVE GEAR
3	Y184485	1.0	CLAMP, COLLAR 16MM BORE
4	23-0511	2.0	E RING RETAINING

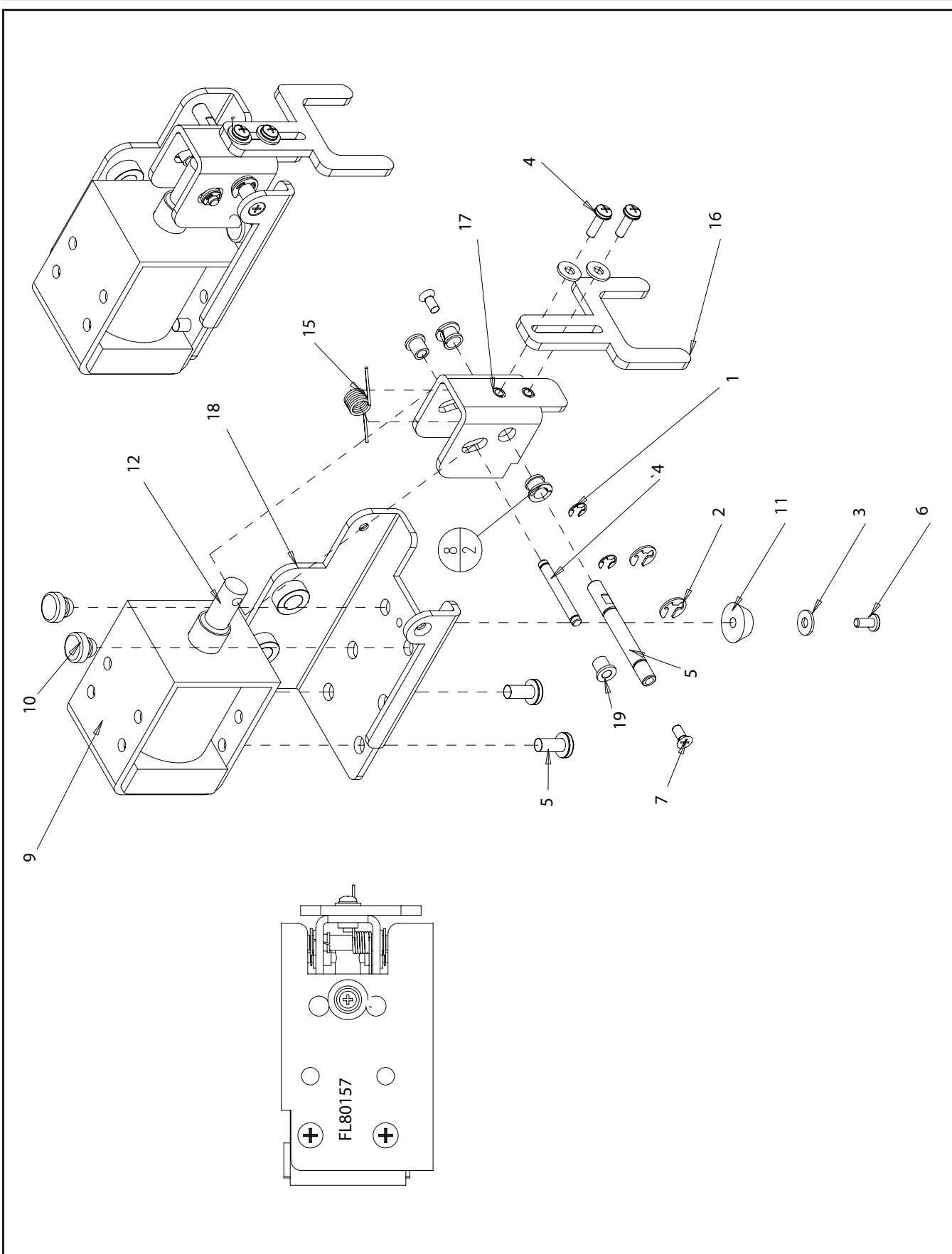
Figure 9-14: Shaft Assembly O Ring Drive/ Y180614



## Parts List 9-14: Shaft Assembly O Ring Drive/ Y180614

Item	Part Number	Qty	Description
1	Y110005	1.0	SHAFT - UPPER EXIT DRIVE
2	Y186017	3.0	PULLEY DRIVE SINGLE O-RING
3	Y184485	3.0	CLAMP, COLLAR 16MM BORE
4	23-0511	2.0	E RING RETAINING

Figure 9-15: Solenoid Assembly - Prior 7/2005/ FL80157



## Parts List 9-15: Solenoid Assembly - Prior 7/2/2005/ FL80157

Item	Part Number	Qty	Description
1	23-0012	2.0	E-RING.094 ID X .230 OD X.015
2	23-0018	2.0	E-RING.145 ID X .335 OD X.025
3	50-0005	3.0	WASHER PLAIN
4	72-0281	2.0	SCREW & LK WASH
5	72-0611	2.0	SCREW & LK WASH
6	73-0279	1.0	SCREW PAN HEAD PH
7	74-0279	2.0	SCREW FLAT HEAD PH
8	173-0004	2.0	BEARING FLANGED SNAP-IN
9	219-0516	1.0	SOLENOID 24VDC OPEN FRAME
10	244-0277	2.0	BUMPER GROMMET TYPE
11	244-0310	1.0	BUMPER MOLDED RUBBER
12	FL00001	1.0	PLUNGER
13	FL10032	1.0	SHAFT - OVERHEAD STOP
14	FL10033	1.0	SHAFT - SOLENOID
15	FL21001	1.0	SPRING - TORSION (OVERHEAD STOP)
16	FL50026	1.0	BRACKET - PRONG
17	FL51160	1.0	BRACKET - STOP
18	FL58108	1.0	BRACKET - SOLENOID MOUNT
19	FL62072	2.0	BUSHING - FLANGED (PLASTIC)



# **10 FlowMaster Site Spares**

## **FX10/ FX14**



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Site Spares.....	2
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## Recommended Site Spares

Part Number	Description	6x9 & 10x13	6x9	10x13
	<b>Envelope in-feed conveyor</b>			
99001-008 R680005MM 566-0027	CONVEYOR MOTOR MOCON BOX - CONVEYOR MOTOR BELT, CONVEYOR MOTOR TO FRONT TRANSPORT BELT SHAFT	1 1 1		
	<b>identify which of the 3 types of transport belts you have before ordering</b>			
FL00050	BELT, CONVEYOR TRANSPORT 1/2" WIDE, BLUE COGGED ON UNDERSIDE	2		
FL84039	BELT, CONVEYOR TRANSPORT 1" WIDE, BLUE COGGED ON UNDERSIDE	2		
99000-053	BELT, CONVEYOR TRANSPORT 1" WIDE, GREY SMOOTH BOTH SIDES	3		
	<b>Please identify the type(s) of pump(s) you have before ordering spare components</b>			
2676002047 2676002110 2675001048 2675001049 FL84043 FL84054 R680009EE	RIETSCHLE VACUUM PUMP RIETSCHLE AIR COMPRESSOR RIETSCHLE PUMP INLET FILTER ELEMENT RIETSCHLE PUMP VANE (6 REQUIRED) BECKER VACUUM PUMP BECKER AIR COMPRESSOR MOCON BOX - BECKER VACUUM PUMP/COMPRESSOR AND RIETSCHLE VACUUM PUMP			
R680009FF FL00020 TO1240 TO1241 TO1242 TO1243	MOCON BOX - RIETSCHLE AIR COMPRESSOR GAST COMBO PUMP COMPLETE VACUUM HEAD FOR GAST COMBO PUMP COMPRESSOR HEAD FOR GAST COMBO PUMP 2HP BALDOR MOTOR W/COUPLINGS FOR GAST COMBO PUMP SERVICE KIT FOR COMBO VACUUM HEAD (VANES, BEARINGS & SEALS)			
TO1244	SERVICE KIT FOR COMBO PUMP COMPRESSOR HEAD (VANES, BEARINGS & SEALS)			
TO1245 TO1247 TO1252 Y681011CC FL84050-13 FL00021	TOOL KIT W/MANUAL FOR SERVICING GAST COMBO PUMP REPLACEMENT FILTER ELEMENT FOR GAST COMBO PUMP MOTOR/PUMP COUPLING KIT FOR GAST COMBO PUMP MOCON BOX - COMBO PUMP 3/4" ID HOSE (13' HOSE LENGTH)	1		
	<b>BUFFER/TRANSPORT</b>			
FL10010 FL80002 Y184538 Y184553 Y184540 Y180662 TO1167 Y180621 Y186030 F407318 Y184560 Y184465 214-0745 R680005DD	LOWER EXIT SHAFT CARBIDE ROLLER ASSEMBLY BELT 49 TEETH CLUTCH BELT BELT CLUTCH CLUTCH PLATE ONLY ASSEMBLY IDLER GREEN HUB IDLER "T" NUT BELT BRAKE INTERLOCK RELAY 24 VOLT 10 AMP MOCON BOX, BUFFER MOTOR - LOCATED ON CHASSIS	1 1 1 1 1 1 1 1 1 1 1 1 1 1		

## Recommended Site Spares

Part Number	Description	6x9 & 10x13	6x9	10x13
R692042 Y572001	<b>Check to see which type of LED is used at the exit nip before ordering a spare</b>  LED AT EXIT NIP - EARLY STYLE (8 SERIES STYLE) LED AT EXIT NIP - LATE STYLE (APS STYLE)  <b>If you have an 8 series style LED and the LED or bracket have been damaged by pusher pins you can update to the late style LED and Bracket for additional pin clearance using the following components:</b>  FL51138 FL83076 Y572001  <b>FRONT TABLE</b>  18004-060 18004-061 18004-062 18014-008 18014-009 219-0197 509-1057 566-0314 566-0324 566-0323 566-0326 566-2151 566-2152 566-7076 566-7077 99005-005 FL90005 99013-001 99013-002 99015-002 99017-010 FL80086 FL80088 FL80089 FL81006 FL84017CC FL84021 FL84023 FL84028 FL84030 FL84066			
	SHFT W/MITER GEAR 90 DEGREE DRIVE TO SHUTTLE DRIVE 6 X 9			
	SHFT W/MITER GEAR 90 DEGREE DRIVE TO SHUTTLE DRIVE 10 X 13			
	SHFT W/MITER GEAR - SHUTTLE CAM DRIVE	1		
	GRIPPER CHAIN ASSEMBLY - 6 X 9		1	
	GRIPPER CHAIN ASSEMBLY - 10 X 13			1
	MAIN VACUUM SOLENOID VALVE (PART OF ASSEMBLY FL80089)	1		
	WATER FILTER	1		
	DRIVE BELT - CHASSIS TO FRONT TABLE 10 X 13 AND 6 X 9 W/UNIVERSAL CHASSIS	1		
	DRIVE BELT - CHASSIS TO FRONT TABLE 6 X 9 W/STANDARD CHASSIS	1		
	DRIVE BELT - SECONDARY SHAFT TO SHUTTLE CAM DRIVE	1		
	DRIVE BELT - MAIN MOTOR GEAR DRIVE TO 3 WAY GEARBOX PULLEY	1		
	DRIVE BELT - INDEXER BOX OUTPUT TO EXIT SPROCKET SHAFT 6 X 9		1	
	DRIVE BELT - INDEXER BOX OUTPUT TO MAIN MOTOR GEAR DRIVE 6 X 9		1	
	DRIVE BELT - INDEXER BOX OUTPUT TO EXIT SPROCKET SHAFT 10 X 13			1
	DRIVE BELT - INDEXER BOX OUTPUT TO MAIN MOTOR GEAR DRIVE 10 X 13			1
	SPRING SHUTTLE			
	GRIPPER CHAIN SPRING	10		
	LATCH W/O SWITCH (MALE HOOK MOUNTED ON DOOR)	1		
	LATCH W/O SWITCH (FEMALE MOUNTED ON CHASSIS)			
	RIGHT ANGLE GEAR BOX	1		
	5/8' TRANSTORQUE	1		
	INSERT AIR REGULATOR			
	INSERT VACUUM VALVE ASSEMBLY			
	ENVELOPE VACUUM VALVE/SOLENOID/MANIFOLD ASSEMBLY			
	AC INVERTER COMPLETE ENCLOSURE FOR MAIN DRIVE MOTOR			
	FRONT TABLE TRACK JAM PHOTOCELL	1		
	FLAP DETECT REFLECTIVE SENSOR	1		
	PHOTOCELL, REFLECTIVE - ENVELOPE PRESENT IN HOPPER	1		
	AC INVERTER ONLY - FOR MAIN DRIVE ENCLOSURE	1		
	ENCODER 360 COUNT MOUNTS EITHER ON CHASSIS OR FRONT TABLE	1		
	ENCODER DRIVE BELT 144MC (FOR FRONT TABLE MOUNTED ENCODER)			

## Recommended Site Spares

Part Number	Description	6x9 & 10x13	6x9	10x13
R680007CC	MOCON BOX - FOR MAIN VACUUM SOLENOID			
FL84053	5/8"ID HOSE 1FT. PIECE (FOR SHUTTLE PLATE VACUUM)	1		
FL84061	WATER VALVE SOLENOID	1		
<b>ENCLOSURE FEEDER SECTION</b>				
FL65800	RED GUM BELTS GROOVED - REPLACES 99000-004	12		
<b>Check your feeder type(s) before ordering spare separator components</b>				
99000-042	GREEN ACCELERATOR BELTS - 10 X 13 ONLY			4
FL17800	SEP. ROD - FOR CENTER NIP FEEDERS (URETHANE SLUG)	6		
54-0122	"O RINGS" FOR CENTER NIP TRANSPORT ASSY.	8		
FL20800	SPRING FOR CENTER NIP TRANSPORT ASSY.	2		
18014-007	"O" RING BELT, GREEN - 10X13 ACCELERATOR			4
10014-002	"O" RING BELT, FOR GOLD SEPARATOR WHEELS - OLD SURE-FEED STYLE SEPARATOR	32		
99000-005	ELEVATOR RED GUM BELT, 10X 13 ONLY - OLD SURE-FEED STYLE SEPARATOR			6
Y180032	SEPERATOR STONE FOR OPTIONAL STONE CENTER NIP ONLY	1		
566-0017	BELT TIMING - FEEDER DRIVE 10X13 ONLY			1
566-0025	BELT TIMING - FEEDER DRIVE	1		
566-0026	BELT TIMING - FEEDER DRIVE 6X9 ONLY		1	
566-0028	BELT TIMING - FEEDER DRIVE	1		
566-0212	BELT TIMING - FEEDER DRIVE 10X13 ONLY			1
591-0289	BEARING - 1/2" ID IN FRONT AND REAR PLATES FOR FEEDER SHAFTS	10		
FL45805	BEARING, COLLARED - 1/2" ID FOR CENTER NIP SEPARATOR SHAFT	4		
FL13800	SEPERATOR ROLLER LOCATED ON LOWER SHAFT	2		
10006-007	FEED ROLLER 1/2" ID, BLUE URETHANE	12		
FL80067	DOUBLE DETECT ASSEMBLY - COMPLETE			
FL83062	SWITCH ONLY W/HARNESS FOR DOUBLE DETECT	1		
Y583035	COVER INTERLOCK SWITCH - MAGNETIC	2		
FL84017AA	FEEDER ARMING PHOTOCELL - EMITTER/RECEIVER	1		
FL84017EE	FEEDER JAM PHOTOCELL - EMITTER/RECEIVER	1		
FL20006	SEPARATOR PRESSURE SPRING	1		
<b>CHASSIS INSERT AREA</b>				
99017-013	3/8"TRANSTORQUE - INSERTION PUSHER DRIVE	1		
18005-008	ENVELOPE ENTERING FINGER - STRAIGHT, INNER	6		
18005-090	ENVELOPE ENTERING FINGER - CURVED, OUTER	6		
FL00039	ENVELOPE ENTERING FINGER - DOUBLEWIDE	4		
68-0499	BUTTON HEAD SCREW - TO ATTACH ENTERING FINGERS	8		
19-0012	KNOB, CONTROL - LEVER/SCREW FOR CLAMP ON ENTERING FINGER ARM			
18008-049	CLAMP - ENTERING FINGER ARM	1		
18008-016	BAR - ENTERING FINGER ARM	1		
18014-002	6 X 9 INSERTION PUSHER CHAIN - CONTAINS BOTH SIDES W/OUT CAPS		1	
18014-006	10 X 13 INSERTION PUSHER CHAIN - CONTAINS BOTH SIDES W/OUT CAPS			1
FL46015	BRASS CAP - FOR INSERTION PUSHER CHAIN BLOCKS	6		
81-0501	SCREW FOR CAPS - INSERTION PUSHER CHAIN BLOCKS	12		
75-8015	1/4" X 28 X 3/8" STAINLESS STEEL, BRASS TIP SET SCREW FOR CAMS	6		

## Recommended Site Spares

Part Number	Description	6x9 & 10x13	6x9	10x13
	<b>CHASSIS</b>			
99017-014 213-2540	3/4" MAIN DRIVE TRANSTORQUE TRANSMISSION SELECTOR SWITCH  <b>IT IS A GOOD IDEA TO KEEP A SET OF TRANSMISSION BELTS ON HAND, PLEASE CONSULT THE TRANSMISSION DRAWINGS IN CHAPTER 1 TO DETERMINE WHICH BELTS YOU SHOULD STOCK.</b>			1
FL84030	ENCODER 360 COUNT MOUNTS EITHER ON CHASSIS OR FRONT TABLE		1	
566-0013	ENCODER DRIVE BELT (FOR CHASSIS MOUNTED ENCODER)			
FL80086	INSERT AIR CONTROL			
FL84021	FLAP DETECT PHOTOCELL			
18019-005	SEALER BRUSH			1
99008-002	THROW OUT CLUTCH - INSERTION PUSHER DRIVE			1
591-0289	BEARING - SELF ALIGNING			2
FL81007	AC INVERTER COMPLETE ENCLOSURE FOR FEEDER DRIVE MOTOR			
	COLLATION PUSHER BELTS - SEE TABLE IN CHAPTER 1 FOR CORRECT P/N'S	4		
219-0198	INSERT AIR SOLENOID VALVE (PART OF ASSEMBLY FL80085)	1		
	<b>5 x 20mm FUSES - Fuse are available commercially (i.e. Radio Shack)</b>			
228-0108	250V 3AG 0.75AMP SLOW BLOW	2		
228-2123	250V 0.5AMP FAST ACT 5X20MM	2		
228-2117	250V 2 AMP FAST ACTING 5X20MM	2		
	<b>TURNOVER MODULE</b>			
FL84018	LONG RED TWIST BELT	1		
FL84019	SHORT RED TWIST BELT	1		
R284039	MOTOR	1		
R680005DD	MOCON BOX			
20004-008	INTERMEDIATE DRIVE SHAFT - ONE THAT WEARS	1		
FL00486	BEARING TOLERANCE RING FOR INTERMEDIATE DRIVE SHAFT	2		
566-0330	BELT - MOTOR TO INTERMEDIATE SHAFT	1		
566-0314	BELT - INTERMEDIATE SHAFT UP TO DRIVE	1		
566-0332	BELT - DOUBLE SIDED	1		
591-0289	BEARING - INTERMEDIATE SHAFT	2		
591-0291	BEARING - BELT ROLLERS AND DRIVE ROLLER SHAFT	8		
	<b>MISCELLANEOUS PARTS</b>			
508-1002	PNEUMATIC CYLINDER - FOR ENVELOPE ASSIST ONLY	1		
219-0206	SOLENOID 4 PORT POPPET - FOR ENVELOPE ASSIST ONLY	1		
508-0049	SUCTION CUP 16MM OD, BELLows - FOR ENVELOPE ASSIST ONLY	2		
FL82002	FEEDER I/F CARD	1		
R682006	BINGO BOARD	1		
Y182002	10 K CONTROLLER BOARD (8051)	1		





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