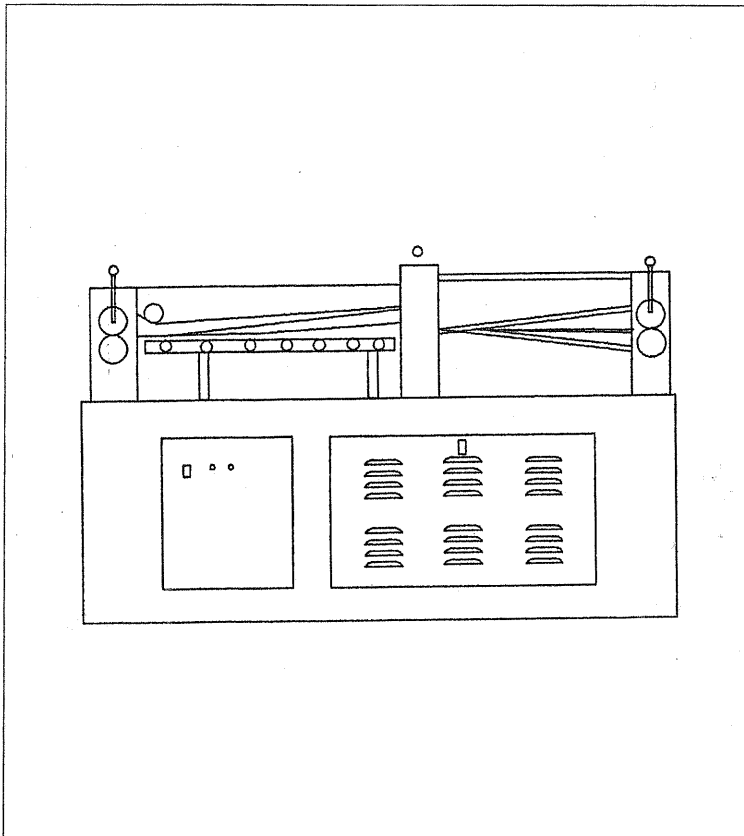


Kirk-Rudy, Inc.
Instruction and Parts
Manual
KR516 Quarter Folder



Manufactured by Kirk-Rudy, Inc.

Before using this machine, all operators must study this manual to understand and follow the safety warnings and instructions. Keep these instructions with the machine for future reference. If you have any questions, contact your local Kirk-Rudy, Inc. Distributor.

10000-516 REV. 2 08/30/01

Manual

TABLE OF CONTENTS

<u>SECTION</u>	<u>DESCRIPTION</u>	<u>PAGE</u>
	IMPORTANT SAFETY INSTRUCTIONS	3
1	SYSTEM DESCRIPTION	4
2	COMPONENT DESCRIPTION	4
3	QUARTER FOLDER SETUP	9
4	TROUBLE SHOOTING	23
5	MECHANICAL PARTS AND DIAGRAMS	24
	2.1 PARTS LIST	24
	2.2 DIAGRAMS	
6	NOTES	
7	WARRANTY AND SERVICE INFORMATION	BACK COVER

1 Important Safety Instructions

SAVE THESE INSTRUCTIONS. Read all instructions before using this product.



WARNING

- * NEVER OPERATE THE MACHINE WITHOUT ALL GUARDS OR SAFETY DEVICES IN PLACE.
- * ALWAYS TURN POWER OFF WHEN MAKING ADJUSTMENTS.
- * ALWAYS DISCONNECT THE POWER SUPPLY BEFORE ANY MAINTENANCE OR SERVICE WORK.
- * NEVER START THE MACHINE WITHOUT FIRST CHECKING ALL PERSONNEL ARE CLEAR OF MOVING PARTS.
- * KEEP FINGERS CLEAR OF ALL MOVING PARTS.
- * NEVER REMOVE THE PRODUCT FROM THE MACHINE WHILE MACHINE IS RUNNING.
- * SHOULD MISFED PRODUCT JAM THE MACHINE AND STOP IT FROM RUNNING, ALWAYS PRESS THE STOP BUTTON BEFORE CLEARING PRODUCT. IF THE STOP BUTTON IS NOT PRESSED AND THE JAM IS CLEARED, THE MACHINE WILL BEGIN RUNNING.
- * IT IS NOT RECOMMENDED THAT LOOSE CLOTHING, JEWELRY AND LONG HAIR BE WORN WHILE OPERATING THIS MACHINERY.
- * ALWAYS USE AN EXPERIENCED ELECTRICIAN WHEN TROUBLE-SHOOTING ELECTRICAL PROBLEMS.
- * CHANGES OR MODIFICATIONS TO THIS UNIT NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

I. KR516 SYSTEM DESCRIPTION

The KR516 Quarter Folder is designed to single fold newsprint type product. Product is fed into the machine spine first. A single, round belt carries the piece through the infeed section. Two top belts guide the piece into the pinch or vertical rollers. The vertical rollers crease the product as they pull the product from the round belt drive system. V-Belts then take control of the piece, rotating it 90° and delivering it to the outfeed rollers.

II. COMPONENT DESCRIPTION

A. **The Infeed System:** The major components of the infeed system are shown in Figure 1.0-1.5.

1. **Frame Plates:** Support the infeed assembly and attach to a horizontal plate and must be removed when replacing top belts or timing belt. See Figure 1.0.
2. **Idler Rollers:** These rollers guide the top belts. See Figure 1.0
3. **Top Infeed Roller:** This roller is driven by the vertical rollers using two double V-type belts. The roller is on an eccentric shaft. The eccentric shaft allows for the roller connected to it to swing away from the bottom roller, changing the distance between them. This is necessary in order to run different thickness product and protects the machine if a jam occurs. The top roller has a timing pulley pressed into one end for driving the bottom roller. See Figure 1.1
4. **Bottom Roller:** The bottom roller is driven by the top roller through a double-sided timing belt drive and is also mounted onto an eccentric shaft. A timing pulley is pressed into one end of this roller. The eccentric shaft permits the bottom roller to swing away from the top roller, changing the distance between them. This is necessary to run different thickness product and protects the machine if a jam occurs. The bottom roller drives a tubular round belt, which carries the product to the vertical or pinch rollers. See Figure 1.2.
5. **Gear:** The gear train connects the top and bottom roller-eccentric shafts. Rotating either shaft will cause the other to rotate in the opposite direction. See Figure 1.3.
6. **Handle:** The handle is connected to the top roller eccentric shaft. This handle is used when setting the distance between the rollers or when clearing jams. See Figure 1.3.
7. **Clamp Assembly:** The clamp locks the top eccentric shaft in place. The spring permits the rollers to separate if a jam occurs. See Figure 1.3.
8. **Round Belt:** ¼" O.D. urethane belting carries the product into the vertical or pinch rollers. A barbed connector is used to join each end of the round belt. Because the belt stretches, a take-up is not required. See Figure 1.4.
9. **Round Belt Press Down Roller Assembly:** The spring-loaded idler assembly presses the product onto the round belting preventing product slippage on the round belting. See Figure 1.4.
10. **Round Belt Idler Assembly:** The idler rollers support and guide the

FIGURE 1.0

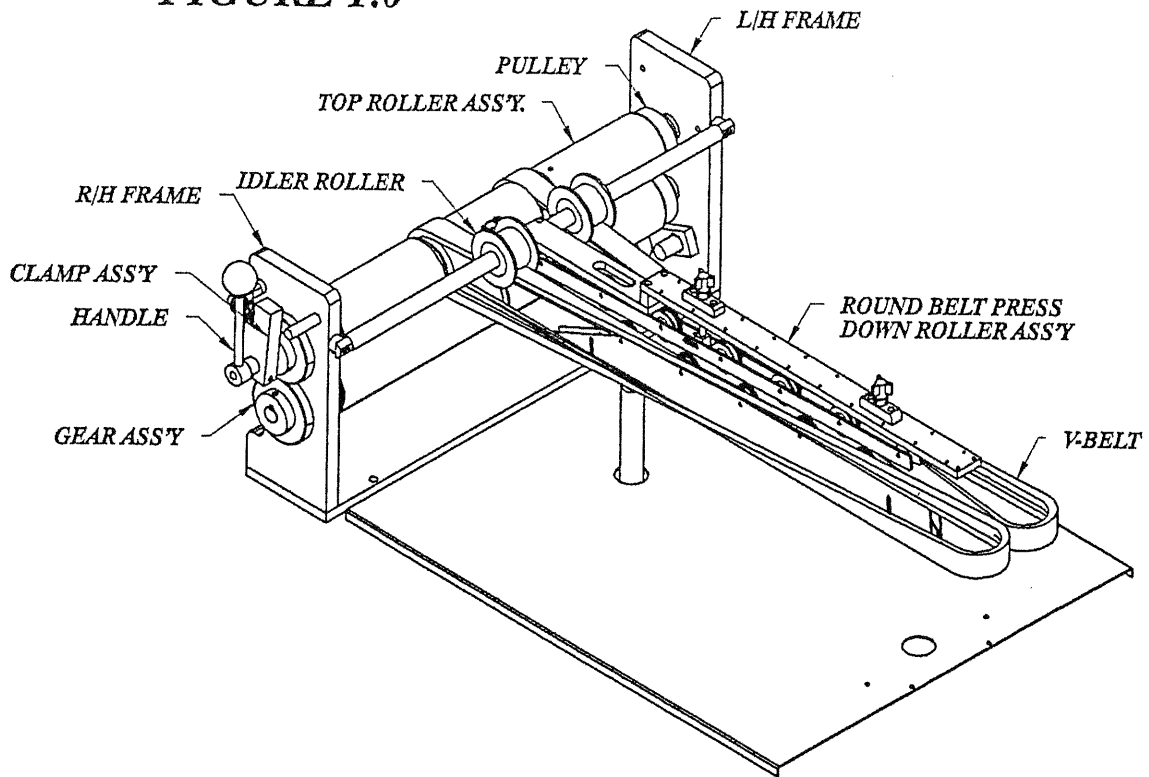


FIGURE 1.1

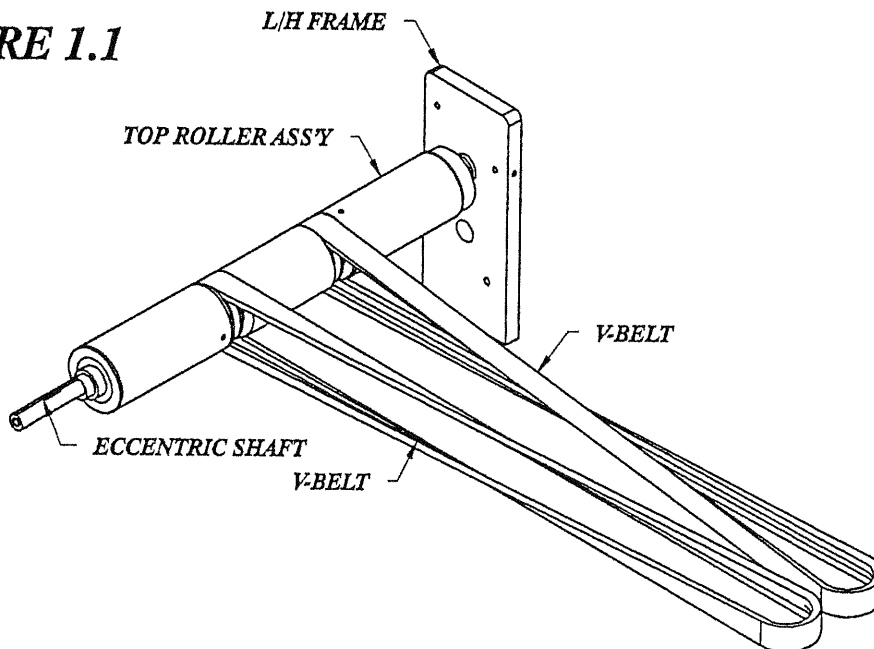


FIGURE 1.2

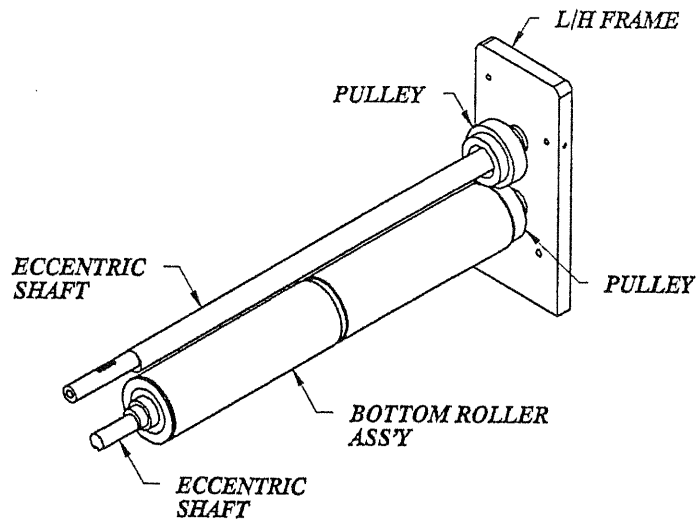


FIGURE 1.3

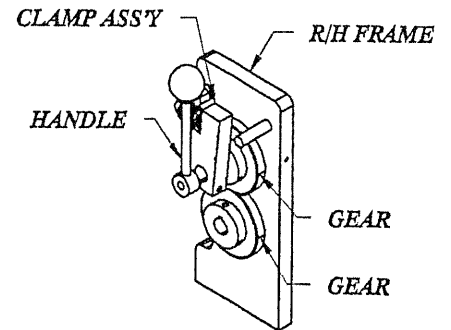


FIGURE 1.4

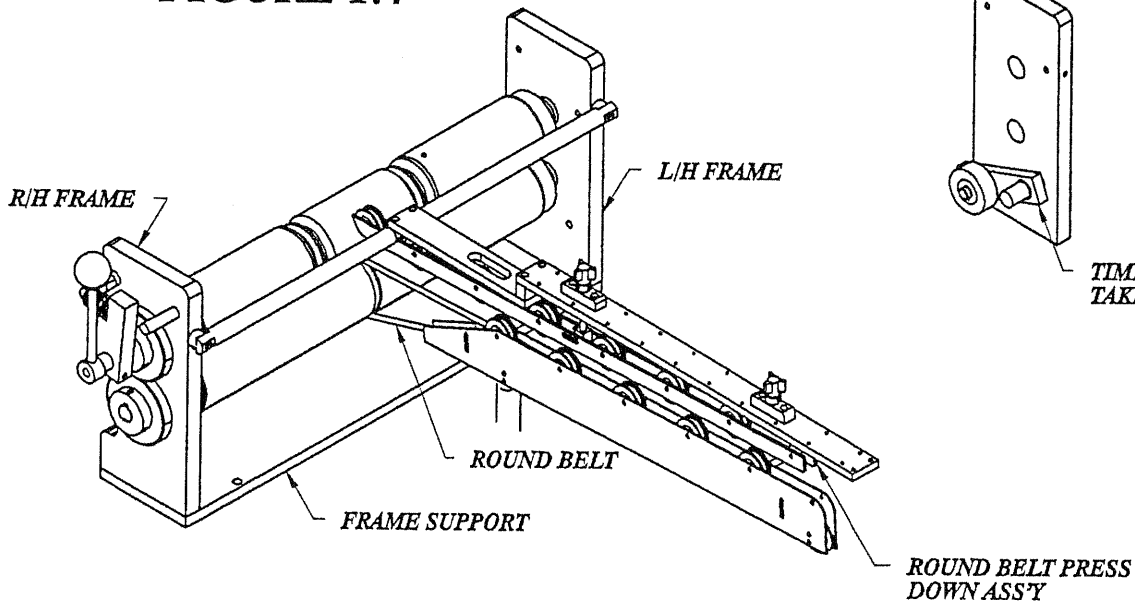
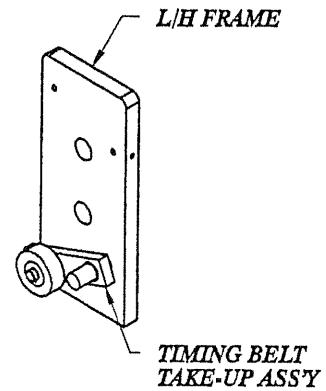


FIGURE 1.5



round belting. This assembly is supported at each end by a vertical bar. Separate clamps lock each bar in place. See Figure 1.4.

11. **Take-up Roller Assembly:** This spring-loaded take-up arm is designed to keep the proper amount of tension on the timing belt independent of either rollers' position. See Figure 1.5.

B. **Middle Roller Assembly:** The middle roller assembly components are shown in figure 2.0.

1. **Vertical Rollers:** The purpose of the vertical rollers is to crease the loose fold which was formed around the tubular belting. Each roller is connected to an eccentric shaft. The eccentric shaft allows for the roller connected to it to swing away from the other roller, changing the distance between them. This is necessary to run different thickness product and protects the machine if a jam occurs. Timing pulleys are pressed into the bottom end of each roller. The vertical rollers drive the infeed and outfeed assembly rollers. See Figure 2.1.
2. **Handle:** The handle is connected to one vertical shaft and is used when clearing jams or when setting the gap between rollers. See Figure 2.2.
3. **Clamp Assembly:** The clamp locks one eccentric shaft into place. The spring permits the rollers to separate if a jam occurs. See Figure 2.2.
4. **Gear:** The gear train connects the right and left eccentric shafts. Rotating either shaft will cause the other to rotate in the opposite direction. See Figure 2.2.
5. **Infeed Take-up Rollers:** These rollers take-up slack in the top infeed belts. Tension the infeed belts to .62" deflection with five pounds of force midway between rollers. See Figure 2.3.
6. **Outfeed Take-up Rollers:** These rollers take-up slack in the outfeed v-belts. Tension the outfeed belts to .5" deflection with ten pounds of force midway between rollers. See Figure 2.3.
7. **Timing Belt Drive Assembly:** A double sided timing belt drive transfers power from the gearbox to each vertical roller. A spring loaded take-up ensures proper belt tension independent of roller (pulley) position. See Figure 2.4.

FIGURE 2.0

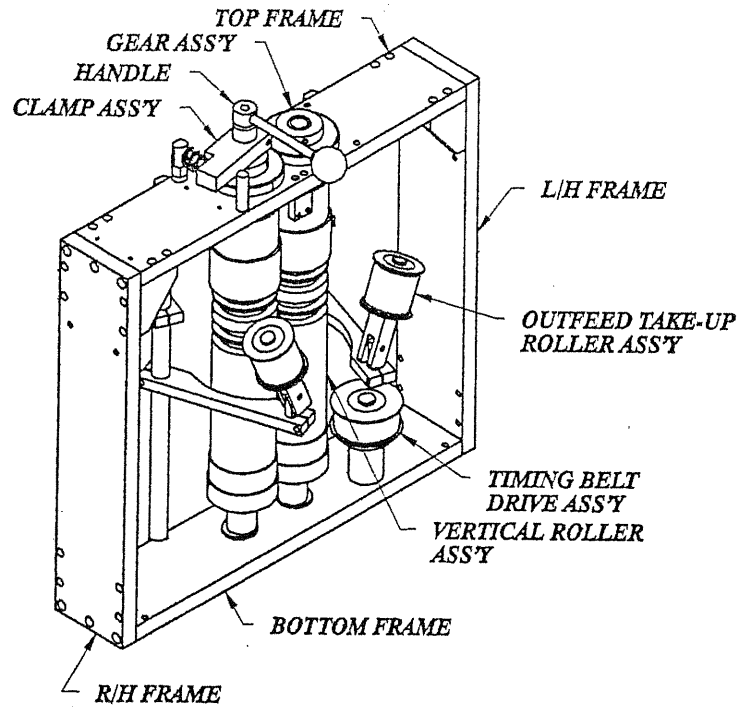


FIGURE 2.1

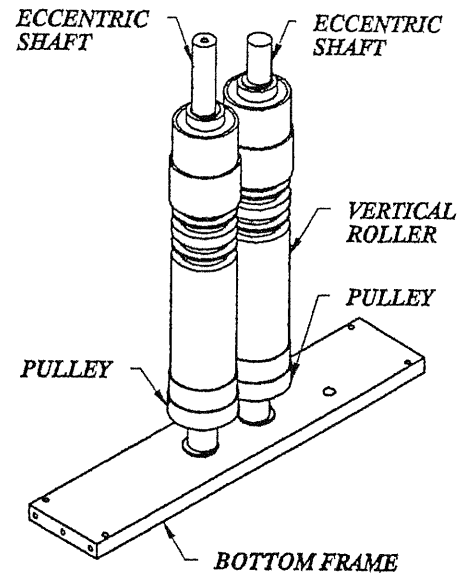


FIGURE 2.2

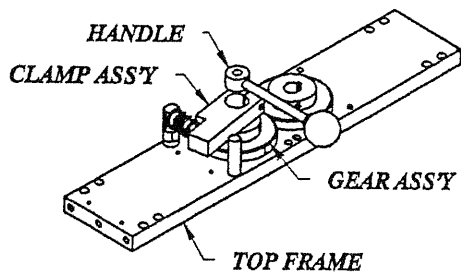


FIGURE 2.3

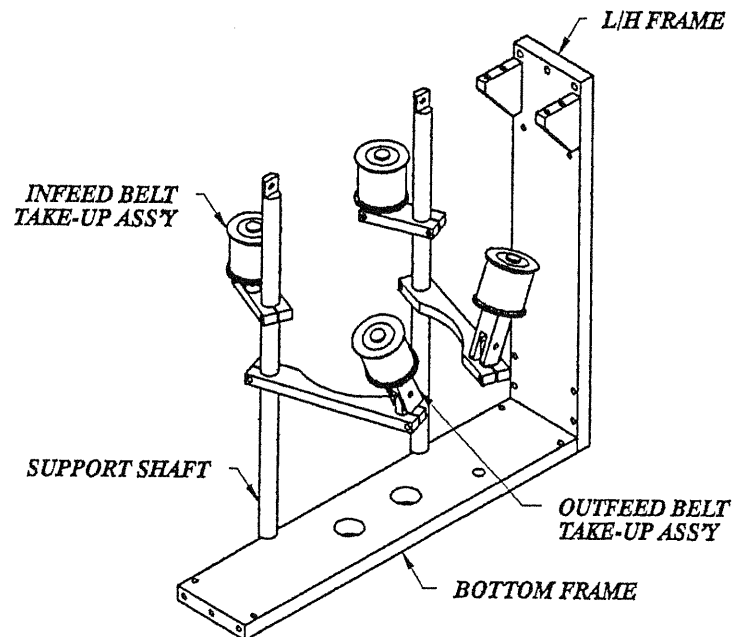
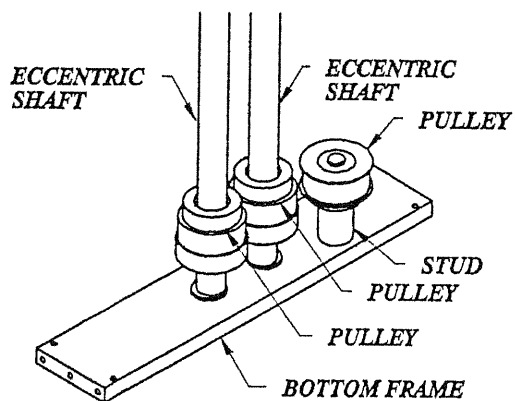


FIGURE 2.4



C. **Outfeed Assembly:** The major components of the outfeed assembly are shown in Figure 3.0.

1. **Top Outfeed Sheaves:** These sheaves are driven by the vertical rollers using v-belts. The sheaves are connected to an eccentric shaft. The eccentric shaft allows for the roller connected to it, to swing away from the other roller, changing the distance between them. This is necessary in order to run different thickness products and protects the machine if a jam occurs. See Figure 3.1.
2. **Bottom Outfeed Sheaves:** These sheaves are driven by the vertical rollers using v-belts. The sheaves are connected to a straight shaft which set the outfeed delivery height. A clamp on the end of this shaft prevents it from rotating. See Figure 3.1.
3. **Handle:** The handle is connected to the top eccentric shaft. The handle is used when setting the distance between the outfeed rollers or when clearing jams. See Figure 3.2.
4. **Clamp Assembly:** The clamp locks the top eccentric shaft in place. The spring permits the top roller to swing away from the bottom roller, if a jam occurs. See Figure 3.2.

D. **Installation:**

1. Roll Quarter Folder inline and center with feed base.
2. Use leveling legs to raise unit off casters and to outfeed height of feed base.
3. Connect Electrical Power to the folder.

III. QUARTER FOLDER SET-UP:

A. **Infeed Assembly**

1. Loosen spring-loaded clamp. See Figure 4.0
2. Rotate handle and check that eccentric shafts are set 180° opposite to each other. i.e.: When the top roller is in its lowest position, the bottom roller should be in its top position. See Figure 4.0
NOTE: This adjustment is set at the factory. The following procedure is necessary only after gear removal.
 - a.) Remove lower gear.
 - b.) Set top roller in its lowest position.
 - c.) Rotate bottom shaft until bottom roller reaches its top position.
 - d.) Slide gear onto shaft to mesh with top gear and secure.
3. Set gap distance between infeed rollers. See Figure 5.0
 - a.) Rotate knob counter-clockwise to obtain maximum gap distance.
 - b.) Place product to be folded between rollers and rotate knob clockwise until the rollers just come in contact with the product. The spring-loaded clamp will knock against its stop if the rollers are set too closely to each other once the product is fed through the machine. It is important the knob be turned clockwise, because the rollers will then swing away from each other should a jam occur.
 - c.) Tighten spring-loaded clamp.
4. Adjust round belt idler assembly height. The round belt idler assembly height is set at the factory. Should adjustment be

FIGURE 3.0

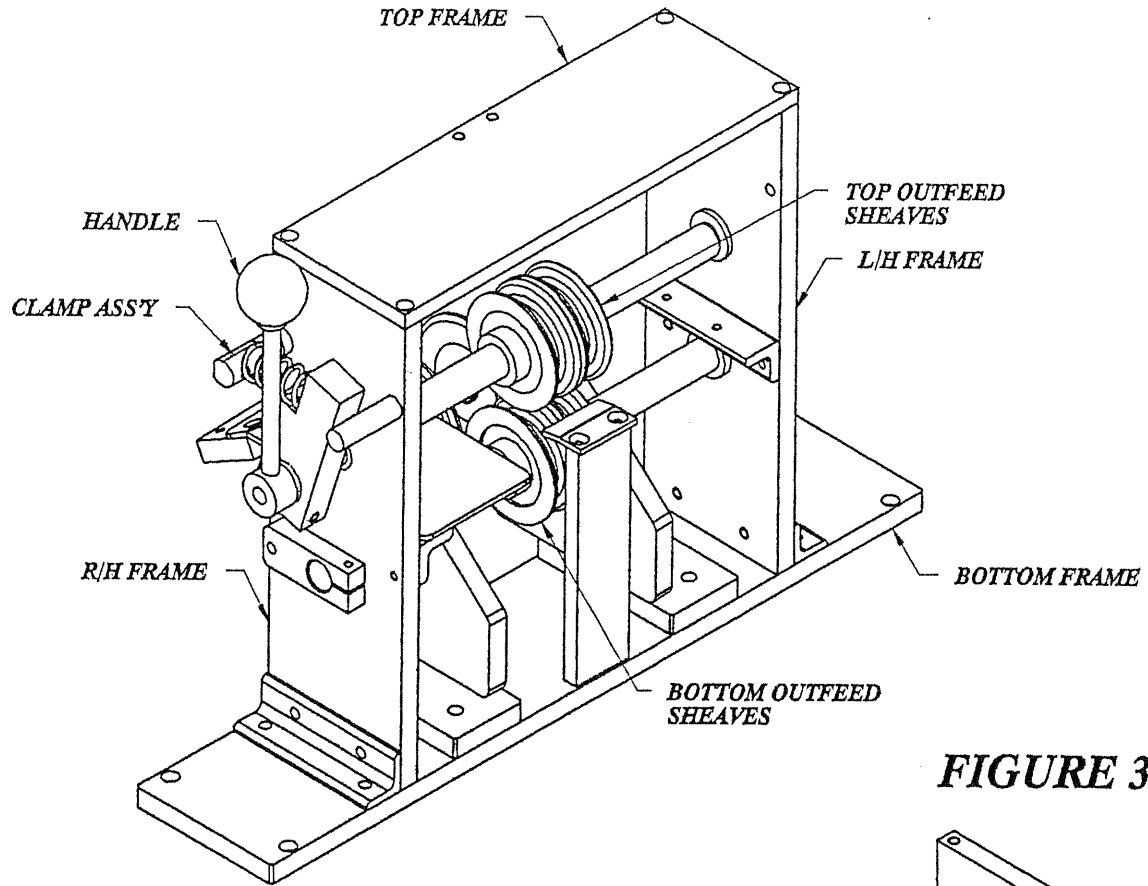


FIGURE 3.1

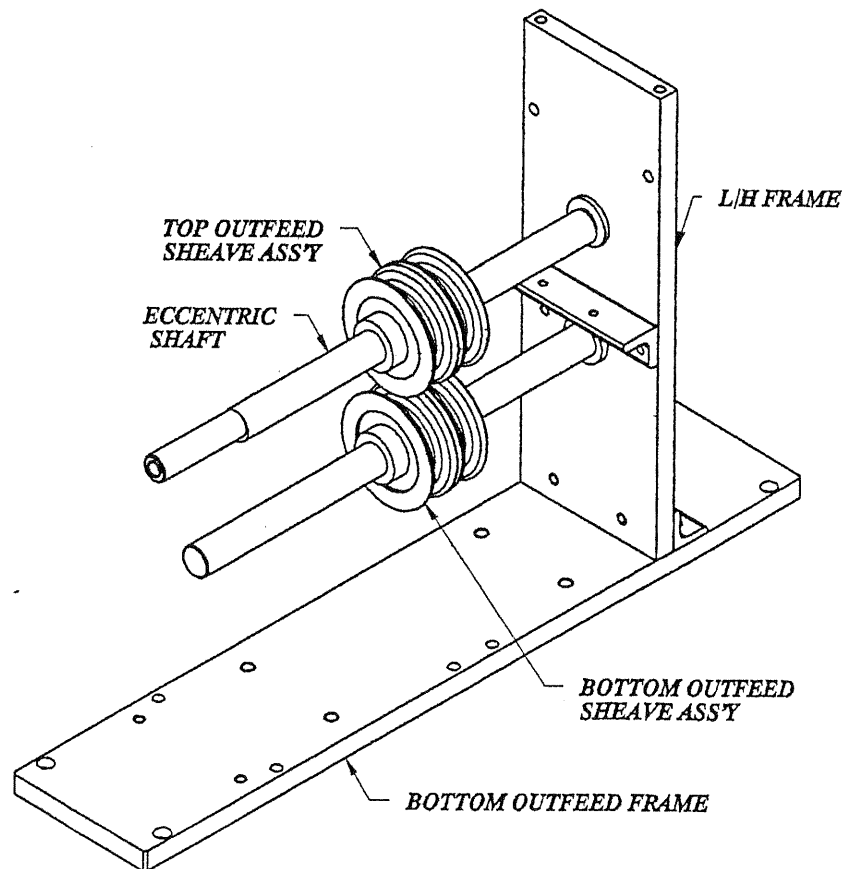
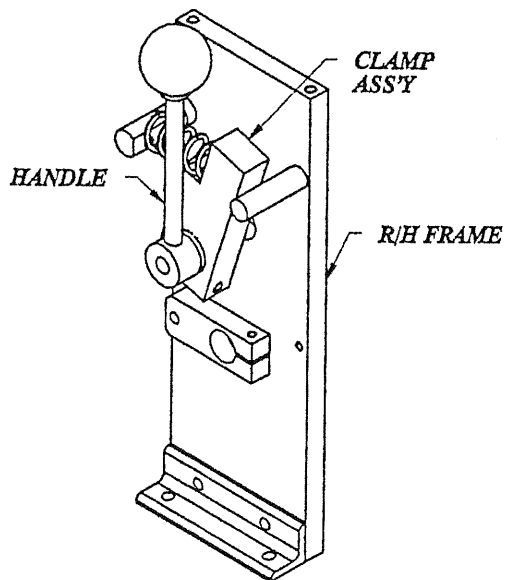


FIGURE 3.2



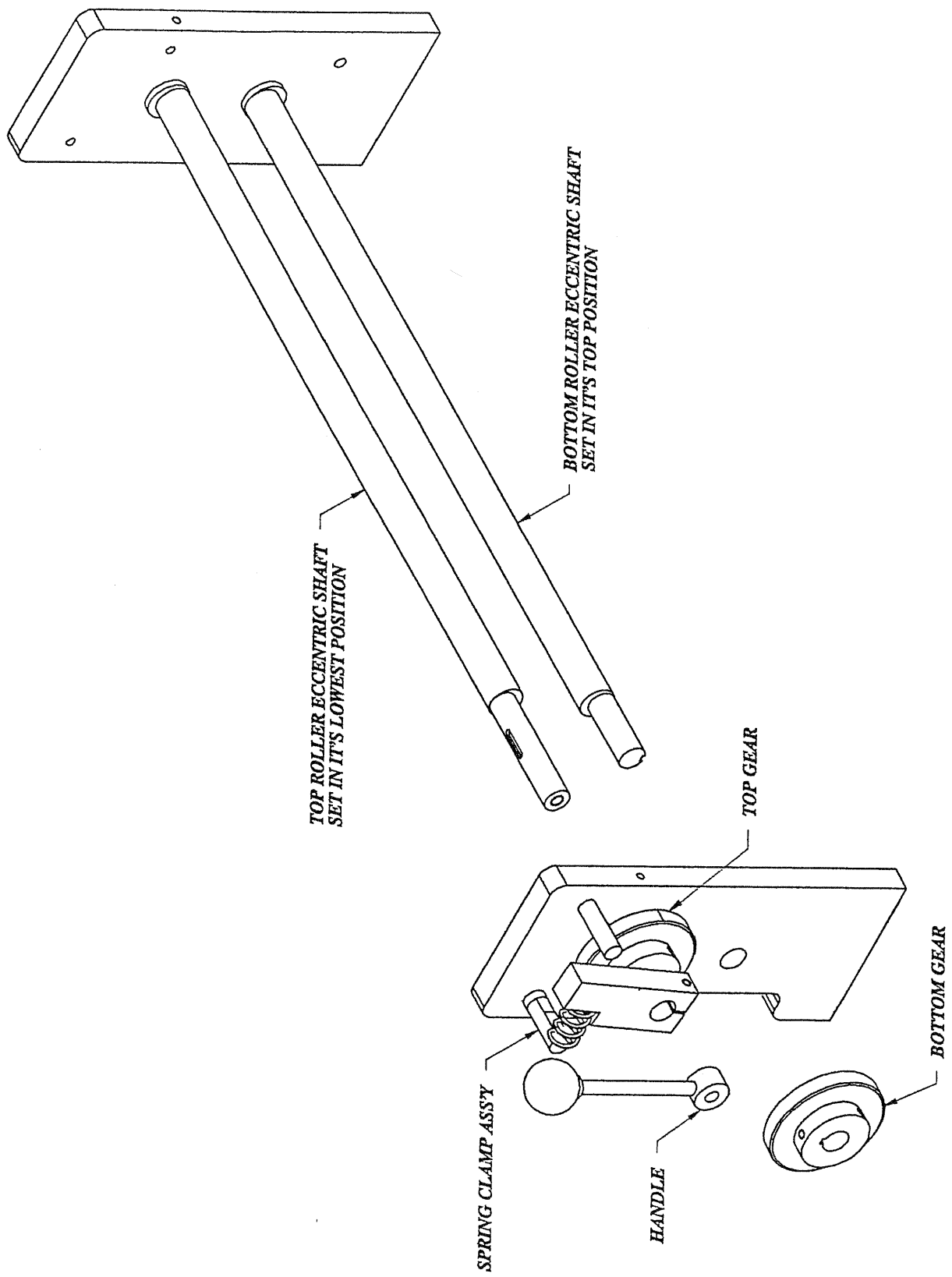


FIGURE 4.0

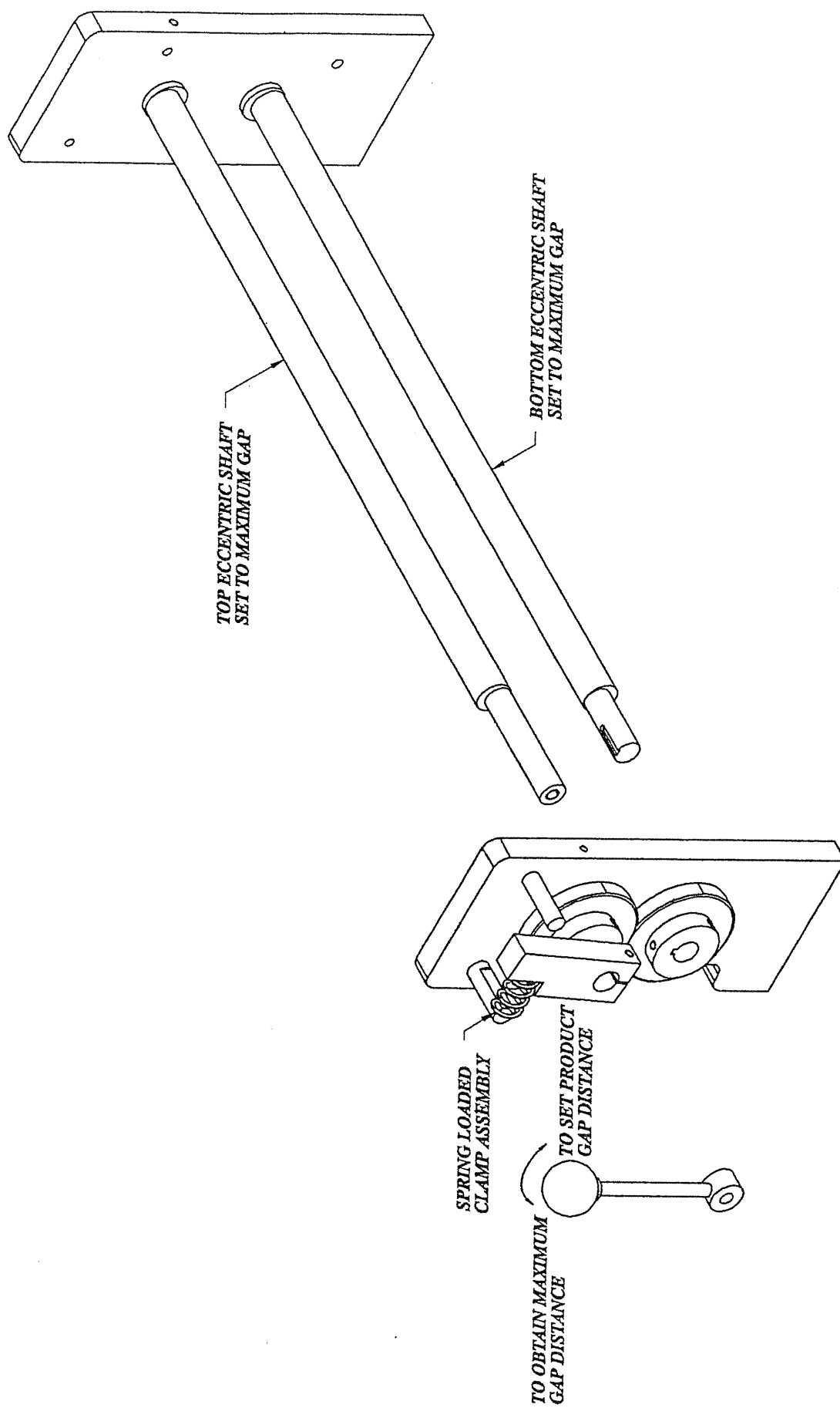


FIGURE 5.0

necessary, use the following procedure. See Figure 6.0

- a.) Loosen clamps 516074 securing vertical support shafts 516075-1 and 516075.
 - b.) Loosen screw connecting vertical adjustment shafts 516075, 516075-1, and frame 516059 on both infeed and outfeed ends.
 - c.) Raise outfeed end of round belt idler assembly in-between the two orange belts, until the idler assembly frame is even with the top of the orange belts and secure.
 - d.) Raise infeed end of round belt idler assembly, until the top of the first idler roller just makes contact with the bottom of the round belt and secure.
5. Adjust round belt top roller assembly. See Figure 6.0
- a.) Loosen infeed and outfeed collars 100310 that secure top roller assembly.
 - b.) Place product onto round belting and lower idler assembly onto product. Tighten collars.
- B. **Vertical Roller Assembly:** The procedure followed is identical to the procedure for setting the gap distance between the infeed rollers. Make sure to fold the product in half, doubling its thickness before placing it between the rollers.
- C. **Outfeed Assembly:** The procedure followed is identical to the procedure for setting the gap distance between the infeed rollers. Make sure to fold the product in half, doubling its thickness before placing it between the rollers.
- D. **Maintenance**
- Note: When replacing a pair of v-belts, it is best to replace both belts as opposed to replacing just one, since a single take-up is used to tension two belts.
1. **Infeed Belt Replacement:** Important note - Do not, under any circumstances, attempt to splice the urethane double v-belts. Toxic fumes are generated when this material is heated. Use Endless belts only.
- a. Double V-Belts (orange). See Figure 7.0
 - 1.) Disconnect machine power.
 - 2.) Remove infeed belt guide shaft, 516051.
 - 3.) Remove plexiglass cover assembly, including mounting plates, 516014 and 516160.
 - 4.) Remove vertical roller clamp assembly and gears.
 - 5.) Remove vertical roller top horizontal plate, 516012.
 - 6.) Slip double V-belts up and away from vertical rollers. Remove infeed plate 516006 from 516027 channels.
 - 7.) Remove timing belt drive around feed rollers.
 - 8.) Remove left infeed side frame 516023-1. Remove double v-belts from top infeed roller and replace with new belts. Install timing belt drive.
 - 9.) Replace infeed side plate 516023-1 to plate 516006. Do not install 516006 onto 516027 channels at this time.
 - 10.) Install double v-belts onto vertical rollers.

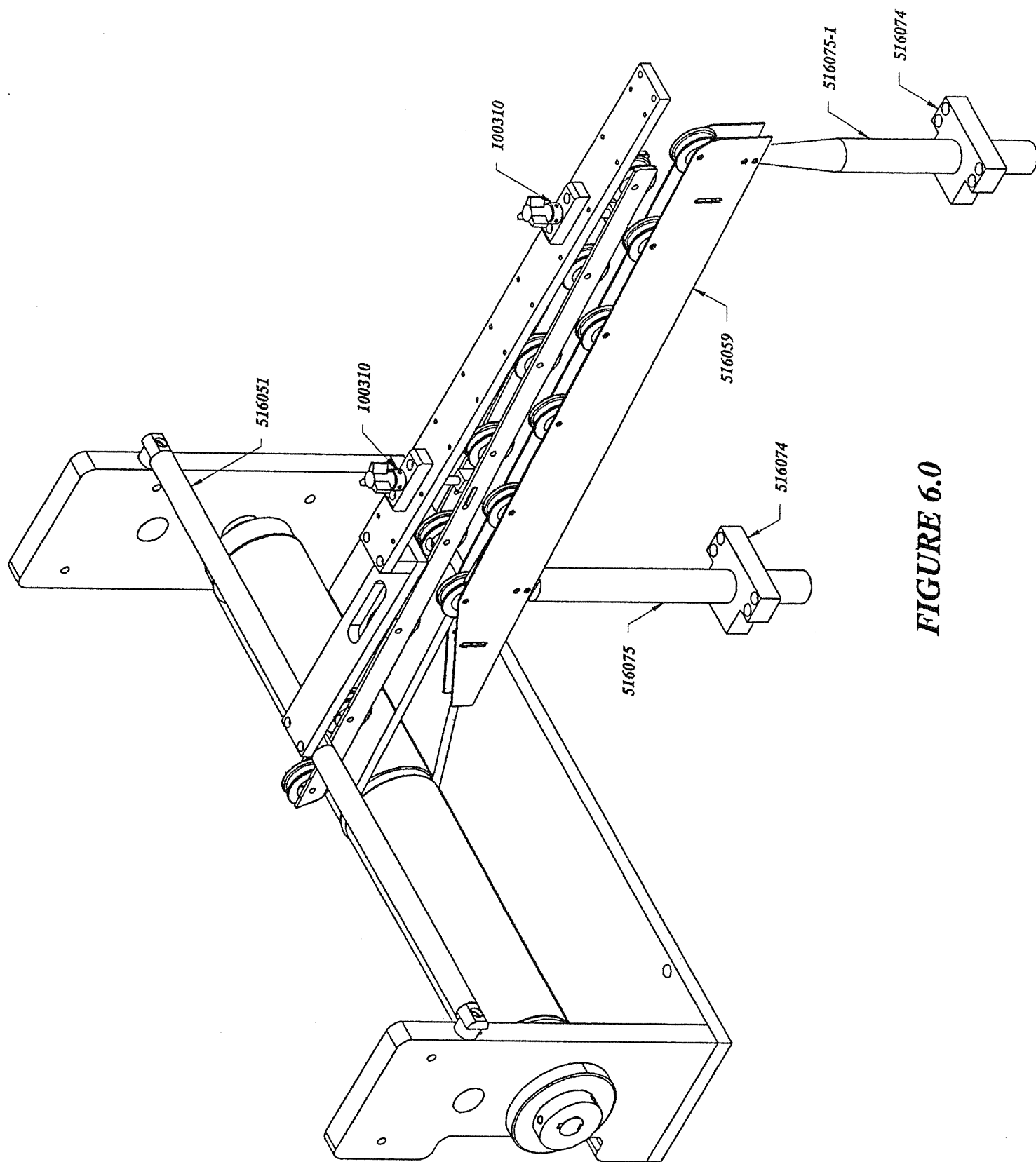


FIGURE 6.0

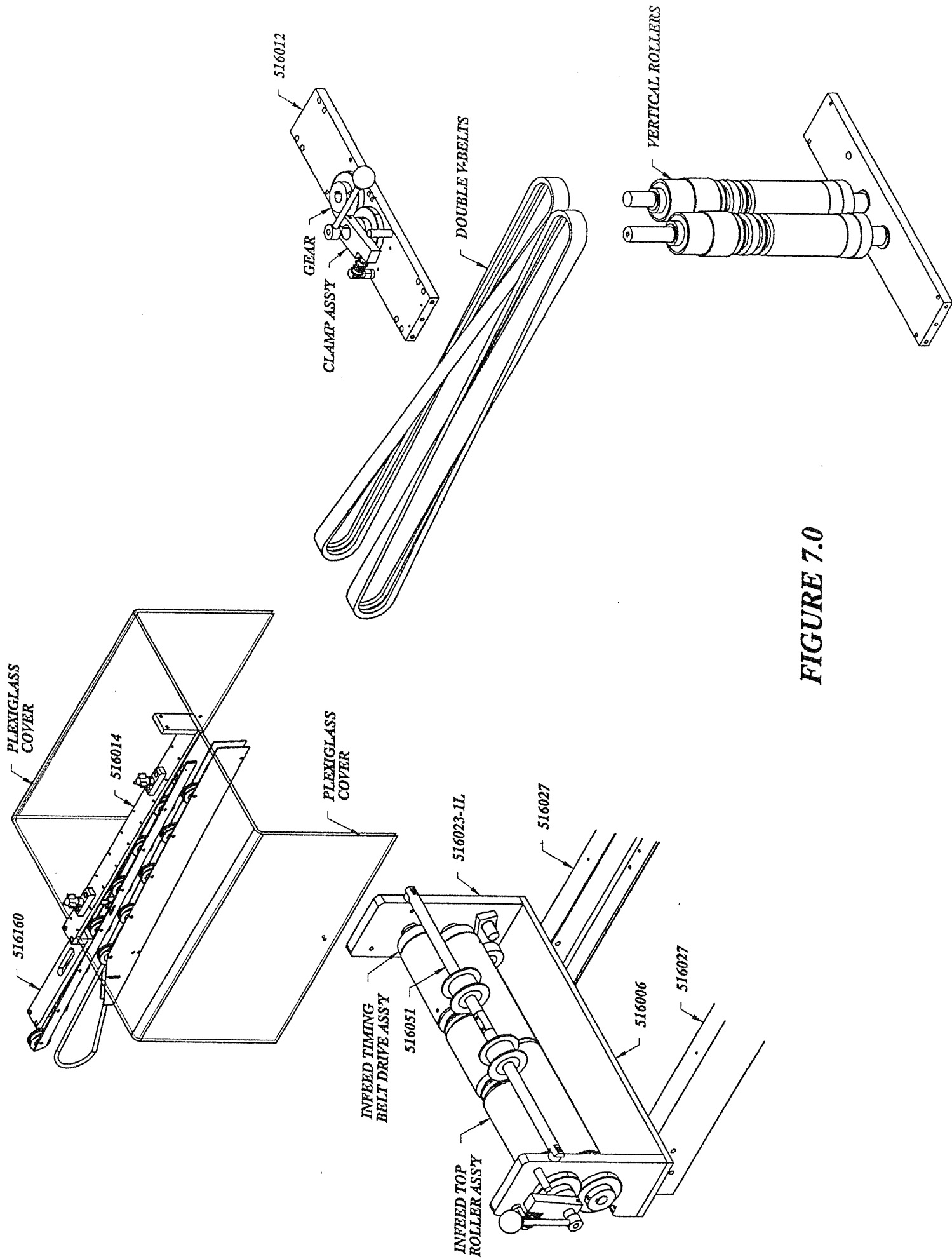


FIGURE 7.0

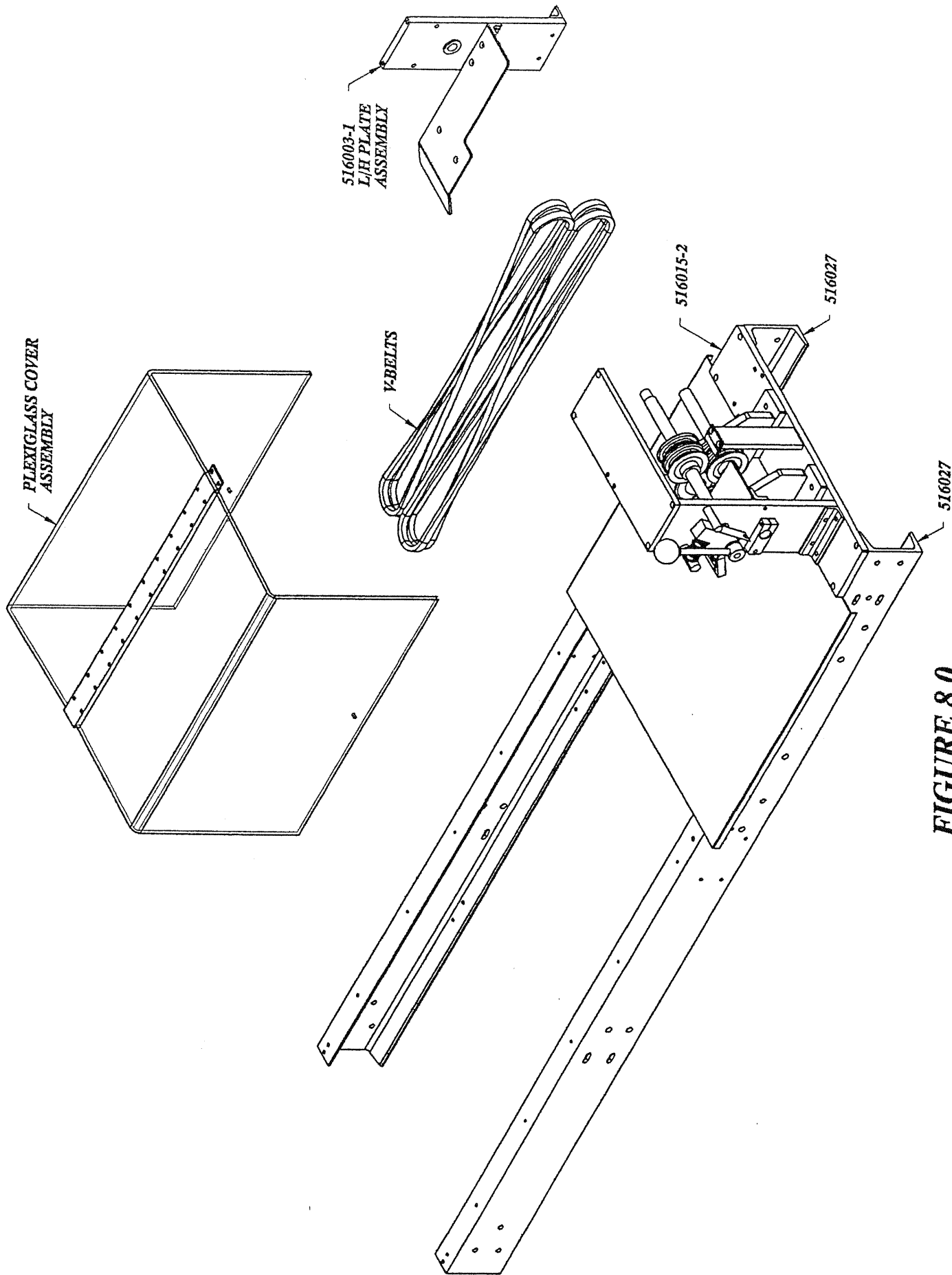


FIGURE 8.0

- 11.) Replace vertical roller top horizontal plate 516012.
- 12.) Install vertical roller gears. Prior to gear installation, ensure the eccentric shafts are set 180° out from each other. See section III, Item 2 for assistance.
- 13.) Do not tighten clamp. Install vertical roller clamp assembly and rotate handle to swing rollers towards infeed.
- 14.) Loosen infeed clamp assembly and rotate handle to swing rollers towards vertical rollers.
 NOTE: The above two steps are done to reduce the center distance between the infeed and outfeed rollers as much as possible. This will make installing the infeed frame assembly easier.
- 15.) Place infeed assembly on channels as shown. Place front edge of plate 516006 against cover part number 516037. Pull down on infeed assembly and install screws securing 516006 to channels 516027.
- 16.) Install guide roller assembly, 516014 and 51605. Tension belts to .62" deflection using 51bf midway between rollers.
- 17.) Install plexiglass cover assembly.
- b. Round Belting: The hollow round belting is made endless by pressing a barb into each end. Because the belt stretches, no take-up is required. To shorten the belt, locate the splicing barb. Cut the belt at each end and remove the barb. Shorten the belt so the belt rides snug in the idler rollers. Insert the barb into each end.

2. Outfeed Belt Replacement:

a. V-Belts

- 1.) Disconnect machine power.
- 2.) Remove plate 516005 to remove plexiglass cover. See Figure 7.0
- 3.) Loosen takeup roller clamps 516040.
- 4.) Remove dual v-belt idler shaft 516051. See Figure 7.0
- 5.) Remove vertical roller clamp assembly and gear. See Figure 7.0
- 6.) Remove vertical roller top horizontal plate 516012. See Figure 7.0
- 7.) Slip dual v-belts up and away from vertical rollers.
- 8.) Replace old v-belts with new v-belts on vertical rollers.
- 9.) Install dual v-belts onto vertical rollers.
- 10.) Replace vertical roller top horizontal plate 516012. See Figure 7.0
- 11.) Install vertical roller gears. Ensure the eccentric shafts are set 180° apart from each other. See Section III, Item 2 for assistance.
- 12.) Install vertical roller clamp assembly and rotate handle to swing rollers towards outfeed. Do not tighten clamp. See Figure 7.0
- 13.) Remove plate 516015-2 from channels 516027. See Figure 8.0
- 14.) Remove left hand side plate 516003-1 from plate 516015-2. See Figure 8.0
- 15.) Replace old v-belts with new belts around sheaves 516100-1.
- 16.) Re-install the side frame 516003-1 onto plate 516015-2. See Figure 8.0
- 17.) Loosen outfeed clamp assembly and rotate handle to swing rollers towards vertical roller. See Figure 8.0

NOTE: It is important to swing the vertical rollers towards the

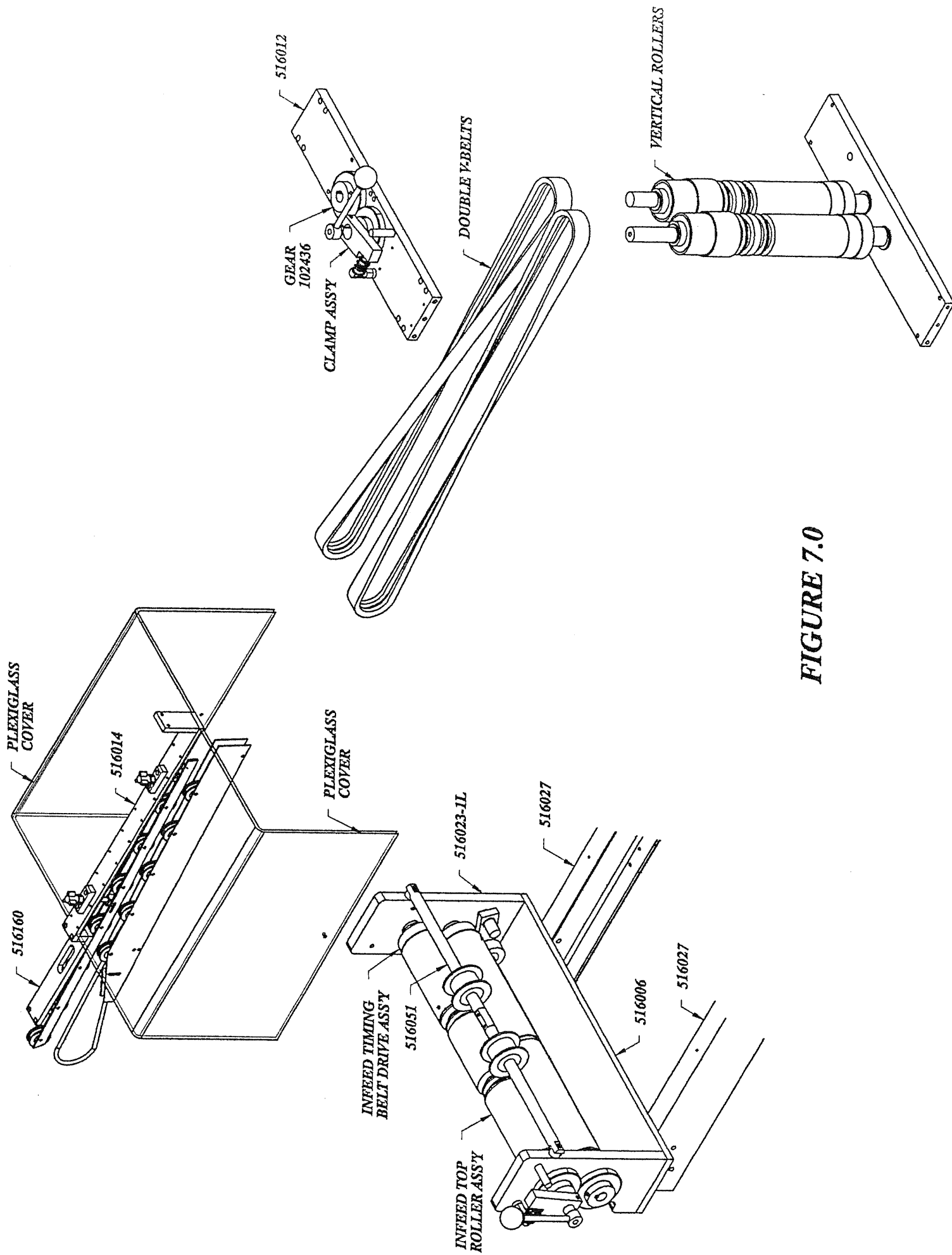


FIGURE 7.0

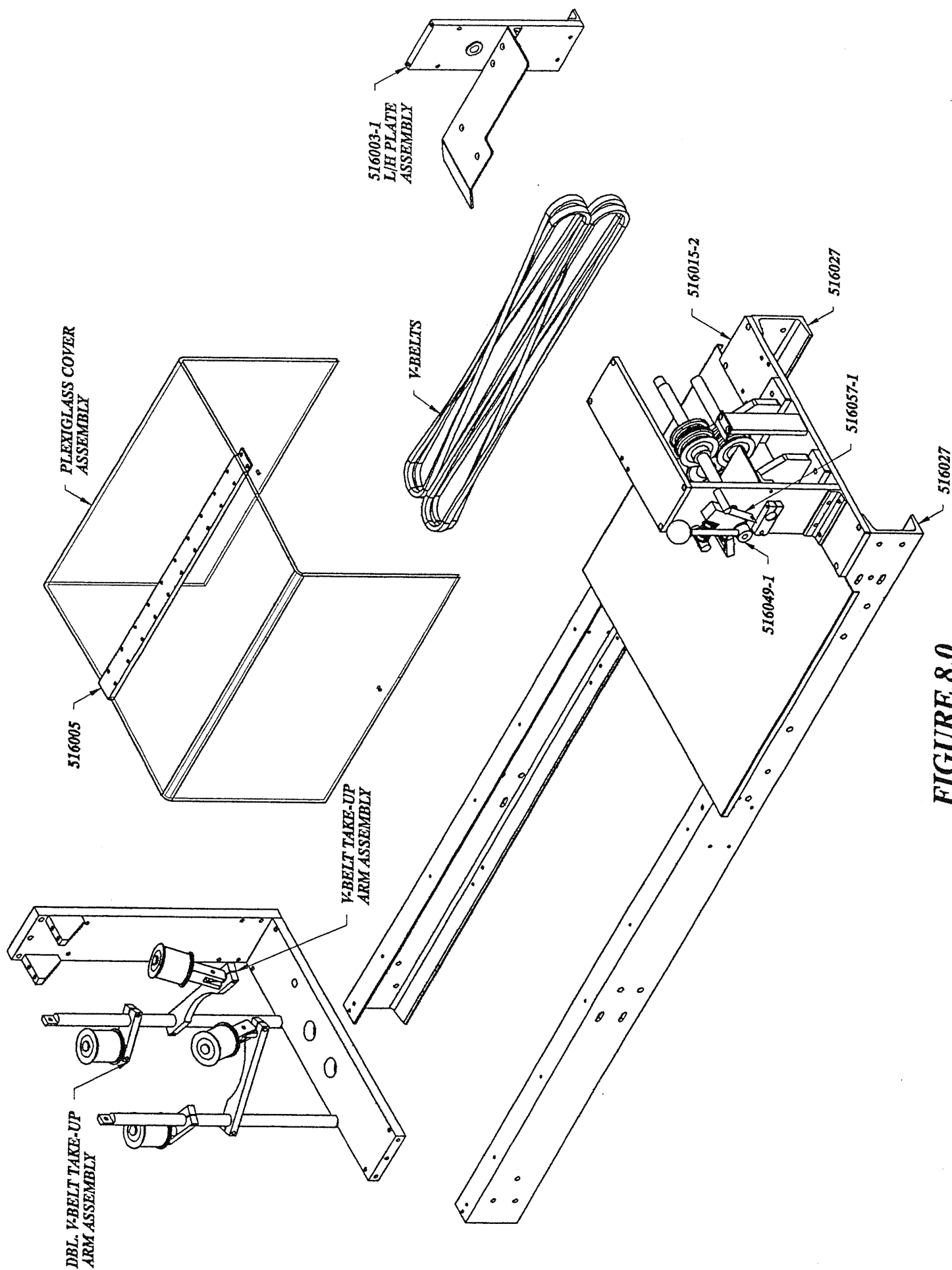


FIGURE 8.0

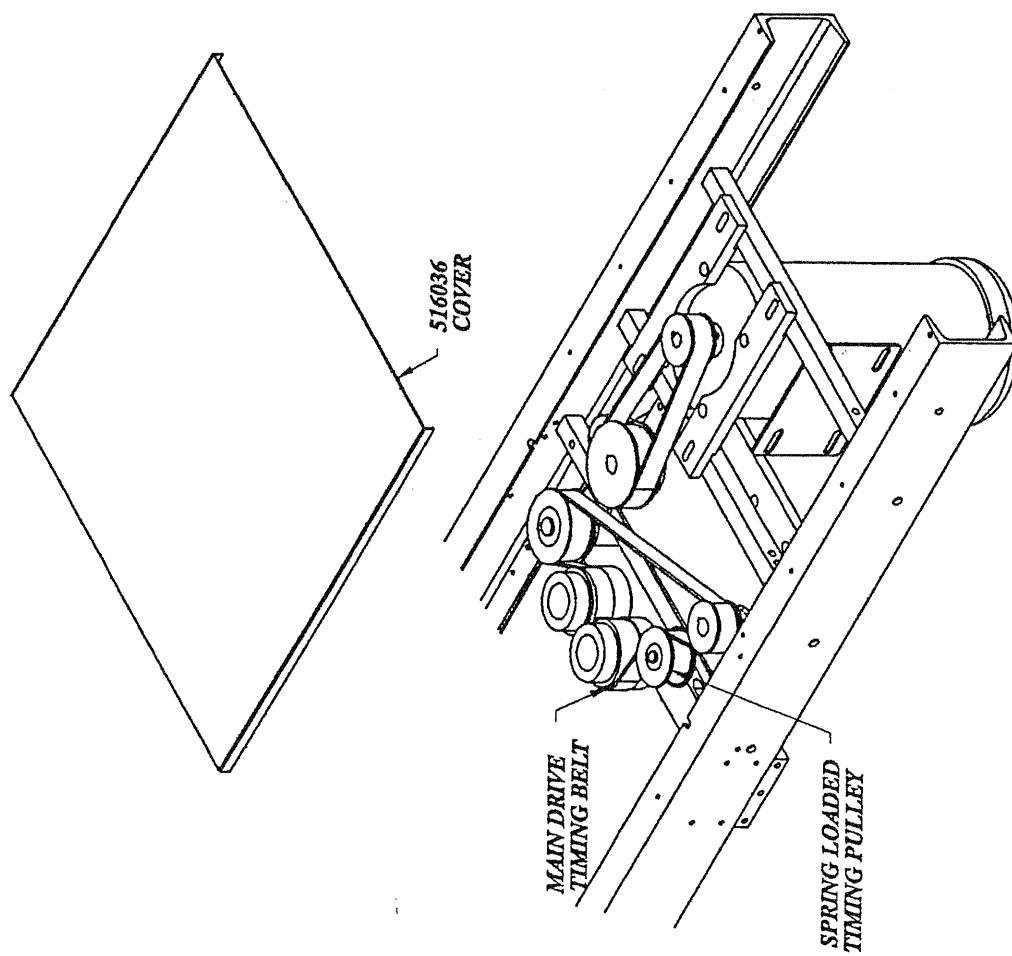


FIGURE 9.0

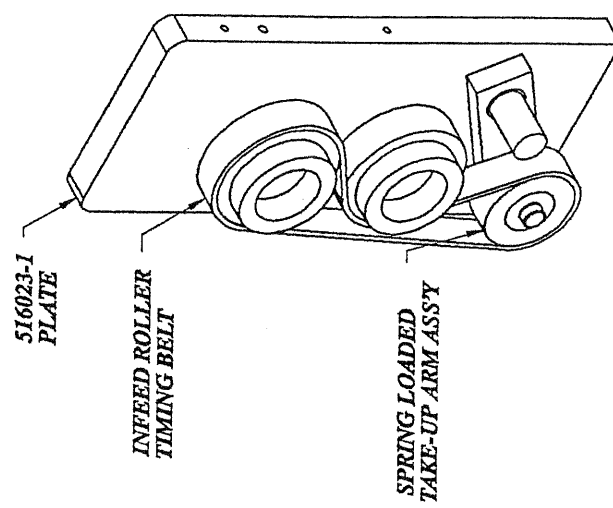


FIGURE 9.1

outfeed rollers and vice versa to reduce the center distance between them. This will make installing the outfeed frame assembly easier.

18.) Place outfeed frame assembly on channels as shown. Place rear edge of plate 516015-2 against cover part 516036. Pull down on outfeed assembly and install screws securing plate 516015-2 to channel 516027. See Figure 8.0

19.) Apply tension to the v-belt with idler roller 516053 and tighten clamp 516040. Correct tension permits .5" deflection using 10 pounds force midway between rollers.

20.) Install double v-belt take-up shaft 516051. See Figure 7.0

21.) Install cover mounting plate 516005. See Figure 8.0

3.) Timing Belt Replacement:

a. Main Drive

1.) Disconnect power

2.) Remove plexiglass mounting plate 516005. See Figure 8.0

3.) Remove cover 516036. See Figure 9.0

4.) Remove handle 516049-1. See Figure 8.0

5.) Loosen and remove clamp 516057-1. See Figure 8.0

6.) Remove idler support shaft 516051 to loosen orange belts. See Figure 7.0

7.) Loosen v-belt take-up arms. See Figure 8.0

8.) Remove gears 102436. See Figure 7.0

9.) Remove plate 516012. See Figure 7.0

10.) Slip timing belt over spring-loaded takeup pulley to remove and install new timing belt. See Figure 9.0

11.) Install plate 516012. See Figure 7.0

12.) Install gears 102436. See Figure 7.0

4.) Infeed Roller Drive:

a. Disconnect main power.

b. Remove plexiglass mounting plate 516014 and 516161. See Figure 7.0

c. Remove idler support shaft 516051 to loosen tension on orange double v-belts. See Figure 7.0

d. Remove left side plate 516023-1. See Figure 9.1

e. Slip timing belt over spring-loaded, takeup arm and replace with new belt. See Figure 9.1

f. Install left side plate 516023-1. See Figure 9.1

g. Mount idler support shaft 516051. See Figure 7.0

h. Mount plexiglass mounting plates 516014 and 516161. See Figure 7.0

TROUBLE

SHOOTING

Problem:

1. Leading edge of fold is torn.
2. Bumping sound as paper is run through machine.
3. Fold is not even.
4. Fold is crooked.

Check:

Vertical or pinch rollers are too tight.

One or more sets of rollers are not adjusted properly. Open gap between rollers.

Offset machine or incoming product to one side.

- a. Product is not entering machine square.
- b. Infeed rollers are too loose, allowing product to sift.
- c. Hold down over round belt is not pressing product down onto round belting.

5 PARTS LISTS AND DIAGRAMS

5.1 PARTS LIST

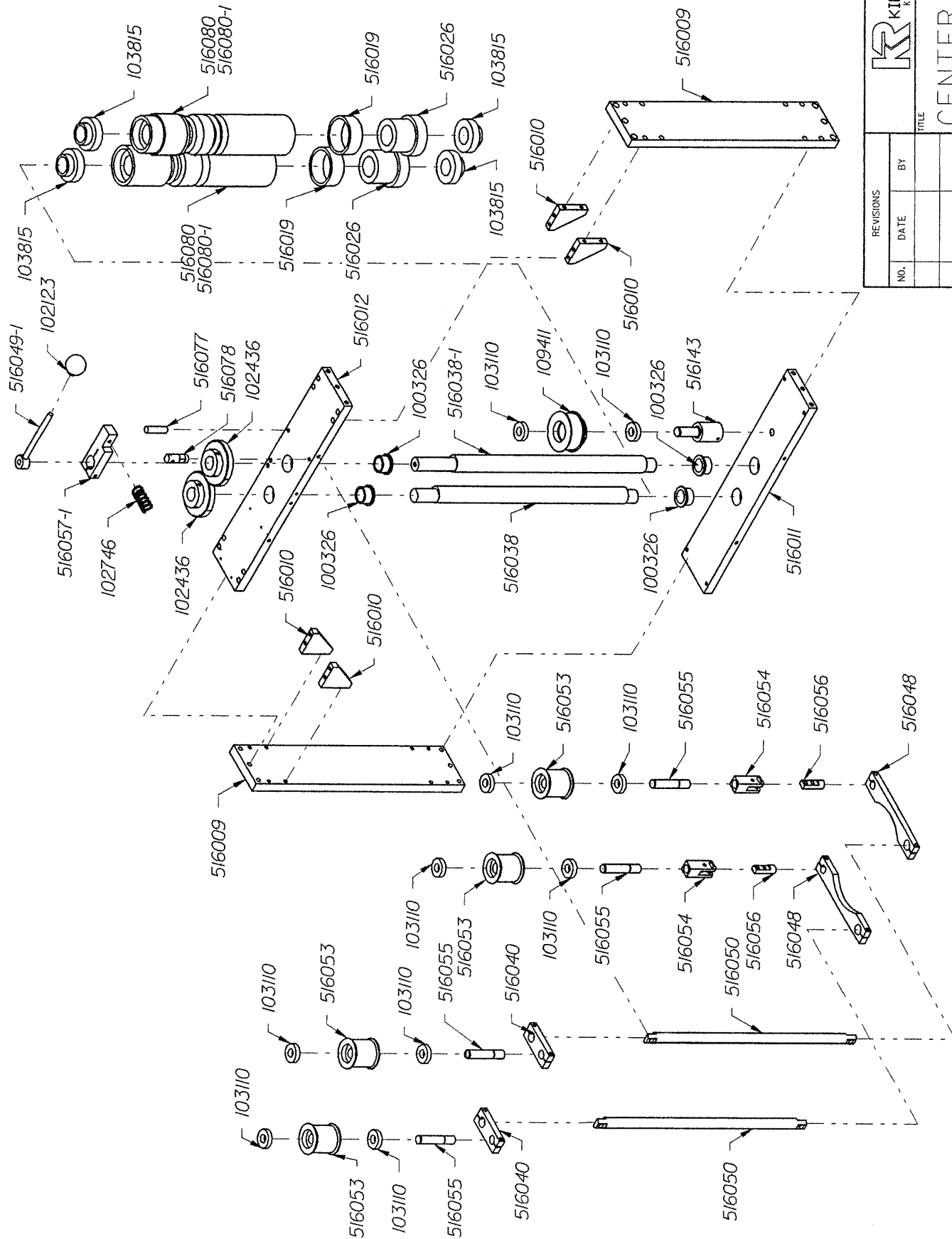
Item	Qty	Part #	Description
1		100149	BUSHING, SLEEVE .750
2		100310	BUSHING, FL26-3
3		100325	BUSHING, FLAT 77-5
4		100326	BUSHING, FL102-6
5		100329	BUSHING, FLAT 77-6
6		102114	KNOB
7		102123	KNOB, PLASTIC
8		102393	SPACER
9		102409	GEAR, 1652
10		102436	GEAR, 1652
11		102679	SPACER, CHANNEL
12		102718	SPRING, COIL
13		10746	SPRING
14		102748	SPRING
15		102749	SPRING
16		103108	BEARING, FLAT R8
17		103110	BEARING, FLAT R10
18		103112	BEARING, FLAT R12
19		103805	BEARING, HUB 0.750
20		103808	BEARING, HUB
21		103815	BEARING, HUB
22		104106	RING, RETAINING 0.500
23		106008	BELT, HIGH POWER 2 A56
24		106050	BELT, 0.250 DIA
25		106051	BELT, DOUBLE V
26		108803	PULLEY, TIMING 16L100
27		108812	PULLEY, TIMING 19L160
28		108813	PULLEY, TIMING 28L100
29		108824	PULLEY, TIMING 16L100
30		108924	BELT, TIMING 225L100
31		108953	BELT, TIMING D367L100
32		108954	BELT, TIMING 270L100
33		108955	BELT, TIMING D21L050
34		109386-L	PULLEY, IDLER 15L050 LH
35		109386-R	PULLEY, IDLER 15L050 RH

Item	Qty	Part #	Description
36		109411	PULLEY, IDLER 24L100
37		109413	PULLEY, TIMING 24L050
38		190209	COVER, BOX
39		190234	LAMP, 220V INDICATOR
40		190634	FOOT, MTG
41		190669	CASTER, 3.500 RIGID
42		190670	CASTER, 3.500 SWIVEL
43		190697	PIN, BELT
44		191001	STOP, DOOR
45		191002	LEG, SUPPORT
46		191004	LEG, BASE ASSEMBLY
47		200151	MOTOR, 1 HP
48		200253	BOX, JUNCTION
49		200310	CONNECTOR, 0.375
50		200311	CONNECTOR, 0.500
51		200312	CONNECTOR, 0.375 90
52		200313	CONNECTOR, 0.500
53		200314	CONNECTOR, 0.375
54		200315	BUSHING
55		200424	PLUG, 2 WIRE MALE
56		200429	CONNECTOR, 2 WIRE FEMALE
57		200430	PLUG, 6 WIRE MALE
58		200431	CONNECTOR, 6 WIRE FEMALE
59		201025	SWITCH, SINGLE ROCKER
60		201505	PLUG, 240V MALE
61		201506	PLUG, 125V MALE
62		204301	KNOB, POTS
63		500757	ROLLER, IDLER
64		501812-1	SHAFT, LEVELING ASSY
65		508684	ARM, IDLER
66		512012	PLATE, TOP
67		516003	SPACER, PLEXIGLAS
68		516003-1	PLATE, SIDE OUTFEED
69		516005	PLATE, REAR
70		516006	PLATE, BOTTOM INFEED

Item	Qty	Part #	Description
71		516007-L	COVER, LH REAR
72		516007-R	COVER, RH REAR
73		516008	SPACER, REAR PLEXIGLAS
74		516009	PLATE, SIDE OUTFEED
75		516010	GUSSET, SUPPORT
76		516011	PLATE, BOTTOM
77		516014	PLATE, PLEXIGLAS
78		516015-2	PLATE
79		516016-L	COVER, LH FRONT
80		516016-R	COVER, RH FRONT
81		516019	PULLEY, 24L100
82		516020	SHAFT, ECCENTRIC
83		516020-1	SHAFT, ECCENTRIC
84		516023-1L	PLATE, LH INFEED
85		516023-1R	PLATE, RH INFEED
86		516026	HUB, FOLDER ROLLER
87		516027	CHANNEL, LH & RH
88		516031-2	COVER, INFEED
89		516035	PLATE, SADDLE MOUNT
90		516036	COVER, BOTTOM
91		516037	COVER, BOTTOM
92		516038	SHAFT, FOLDER ECCENTRIC
93		516038-1	SHAFT, FOLDER ECCENTRIC
94		516039-3	ROLLER, LOWER INFEED
95		516039-3A	ROLLER, ASSEMBLY
96		516040	ARM, TAKE-UP
97		516042	HUB, ROLLER
98		516043	SHIM, BEARING
99		516047-1	SLIDE, BELT ADJ
100		516048	ARM, TAKE-UP
101		516049-1	SHAFT, LEVER
102		516050	SHAFT, PIVOT
103		516051	SHAFT, PIVOT
104		516052	SHAFT, SKID BAR
105		516052-1	SHAFT, SKID BAR ADJ

Item	Qty	Part #	Description
106		516053	ROLLER, BELT TAKE-UP
107		516054	SWIVEL, BELT ADJ
108		516055	SHAFT, BELT TAKE-UP
109		516056	STUD, BELT ADJ
110		516057	CLAMP, ROLLER ADJ
111		516057-1	CLAMP, ROLLER ADJ
112		516058	PULLEY, ROUND BELT
113		516059	FRAME, ROLLER
114		516060-3	COVER, PULLEY
115		516060-4	COVER, PULLEY
116		516061	BASE
117		516061-1	BOX, ELECTRICAL
118		516064	SPACER, FRAME
119		516070-1	BAR, FOLDING SKID
120		516074	CLAMP, SADDLE SUPPORT
121		516075	ROD, SADDLE SUPPORT
122		516075-1	SHAFT, SADDLE SUPPORT
123		516077	STUD, CLAMP STOP
124		516078	STUD, SPRING STOP
125		516080	ROLLER, VERTICAL
126		516080-1	ROLLER, VERTICAL W/RING
127		516083	ROLLER, INFEED
128		516084	SHAFT, DEFLECT ROD
129		516098-L	DEFLECTOR, PLATE LH
130		516098-R	DEFLECTOR, PLATE RH
131		516099	ROLLER, INFEED
132		516100-1	ROLLER, OUTFEED
133		516101	ROLLER, INFEED
134		516104	ROLLER, ORANGE BELT
135		516106	PIVOT, SKID BAR ADJ
136		516107	BLOCK, SKID BAR ADJ
137		516112-L	HANGER, MOTOR TAKE-UP
138		516112-R	HANGER, MOTOR TAKE-UP
139		516120	HINGE
140		516140	HUB, PULLEY

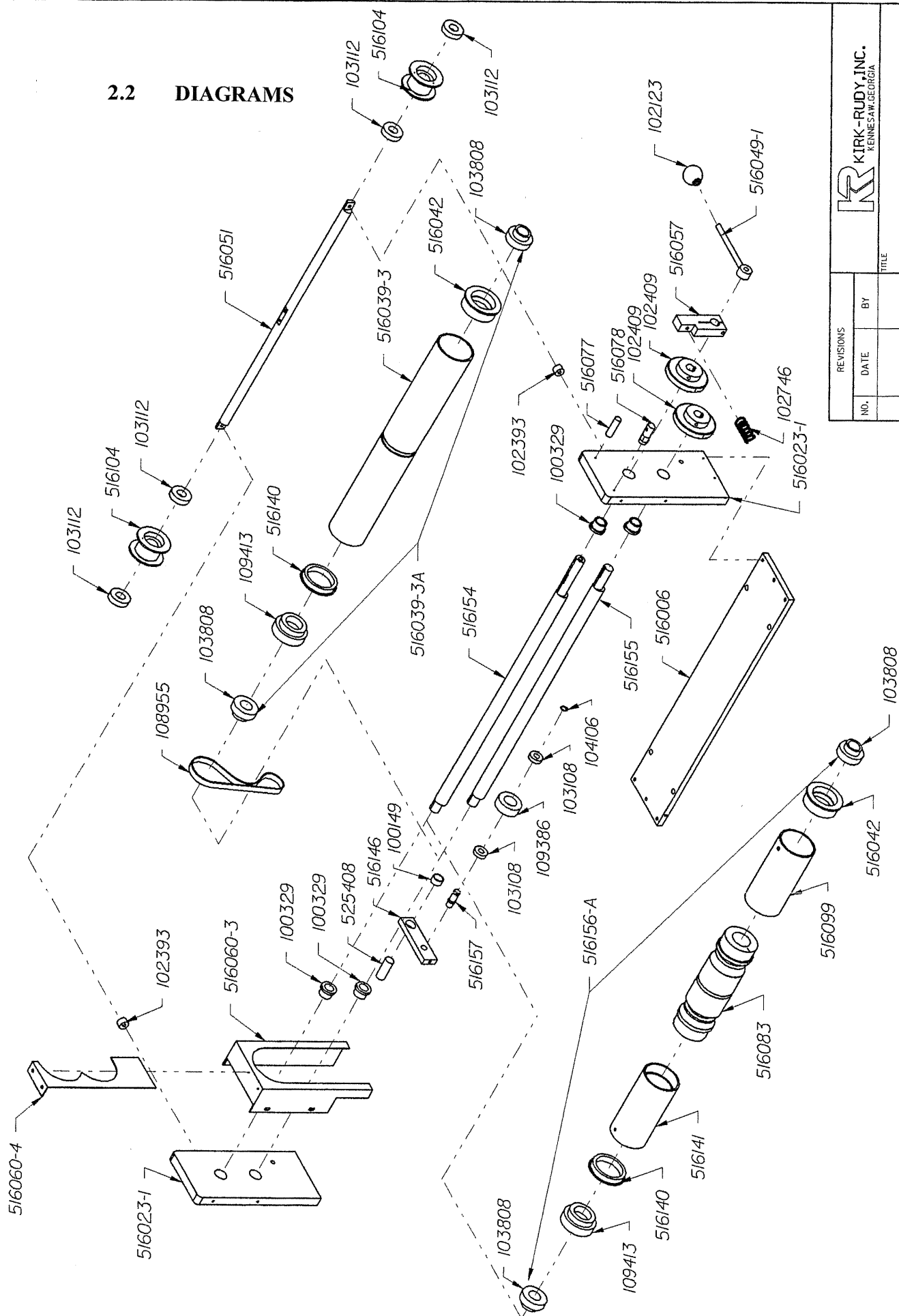
Item	Qty	Part #	Description
141		516141	ROLLER, INFEED
142		516142	STUD, IDLER
143		516143	STUD, WRAP
144		516144	PLATE, LOWER GEARBOX
145		516145	PLATE, UPPER GEARBOX
146		516146	ARM, TAKE-UP
147		516147	SHAFT, GEARBOX
148		516148	SPACER, GEARBOX
149		516151	BAR, MOTOR SUPPORT
150		516152	BAR, GEARBOX SUPPORT
151		516153	BAR, GEARBOX SUPPORT
152		516154	SHAFT, ECCENTRIC
153		516155	SHAFT, ECCENTRIC
154		516156-A	ROLLER, ASSY
155		516157	STUD, TAKE-UP
156		516160	BAR, SUPPORT
157		516161	BLOCK, SPACER
158		522316	STUD, IDLER
159		525408	STUD, TAKE-UP ARM



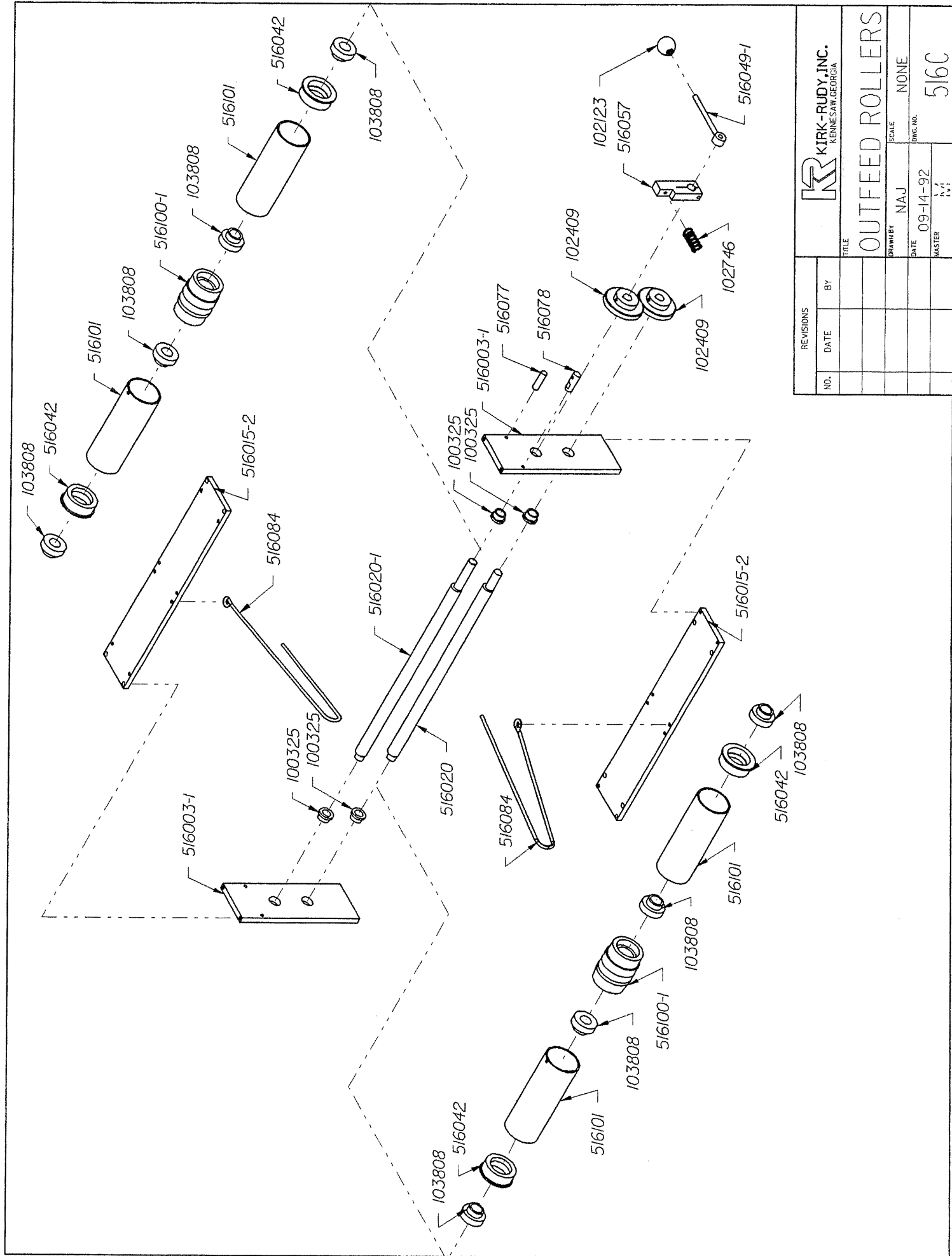
REVIEWS			KIRK-RUDY, INC. KENNESAW, GEORGIA		
NO.	DATE	BY	TITLE	SCALE	DWG. NO.
			CENTER ROLLERS	NONE	516B
			DESIGNED BY	NAJ	
			DATE	09-14-92	
			MASTER	1/1	

FILE NAME: 516b.2ems

2.2 DIAGRAMS

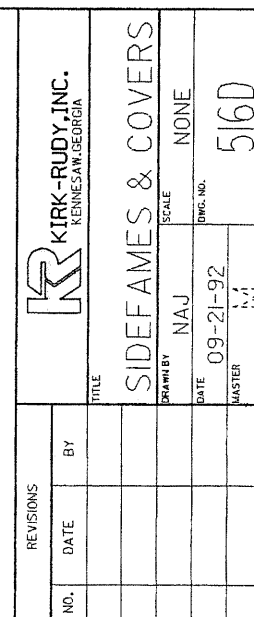
[illegible]

FILE NAME: 516a.2ems

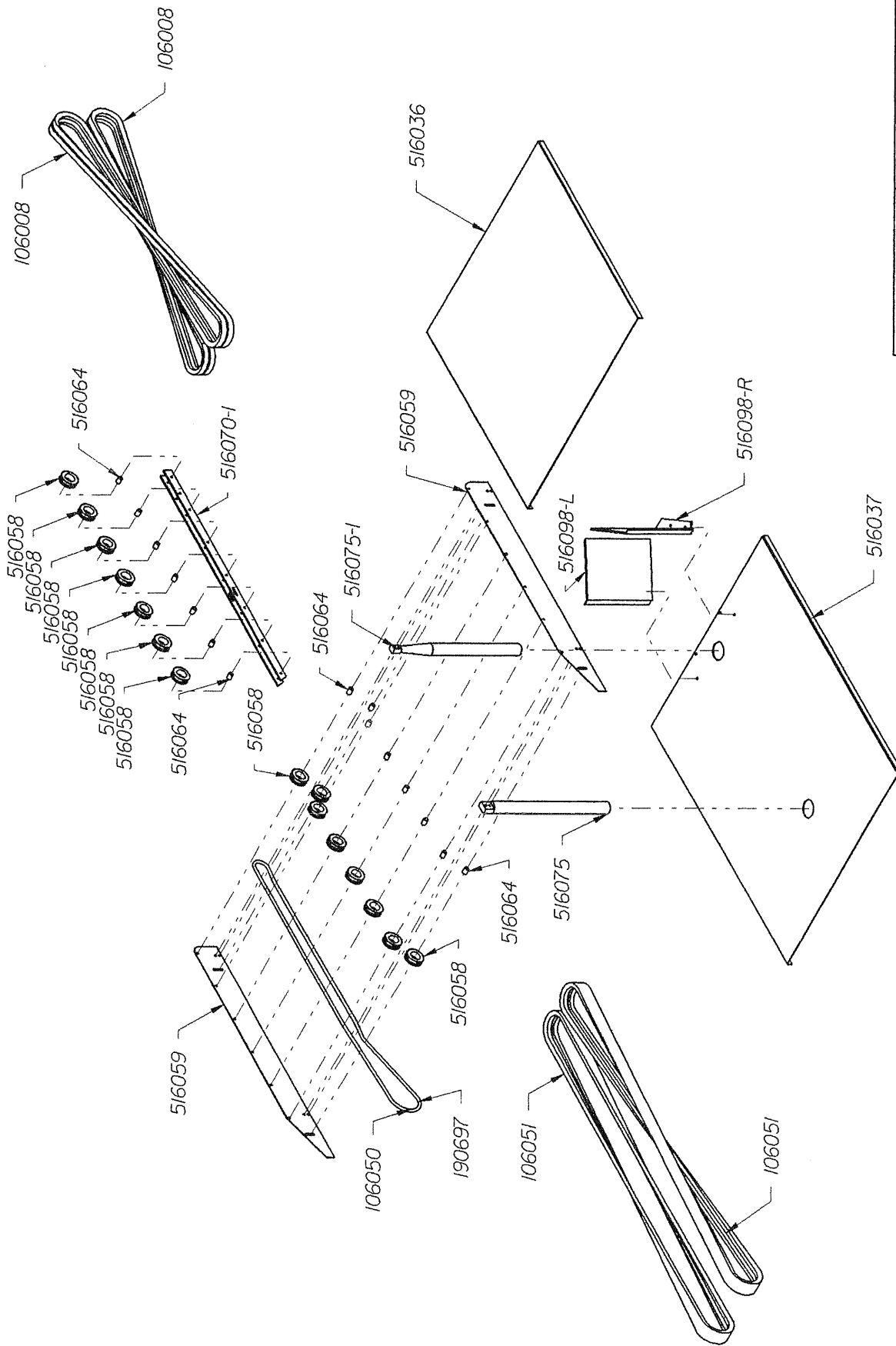


REVISES		KIRK-RUDY, INC. KENNESAW, GEORGIA	
NO.	DATE	BY	TITLE
			OUTFEED ROLLERS
		NAJ	SCALE NONE
		DATE	09-14-92
		MASTER	516C

FILE NAME: 516c.2ems

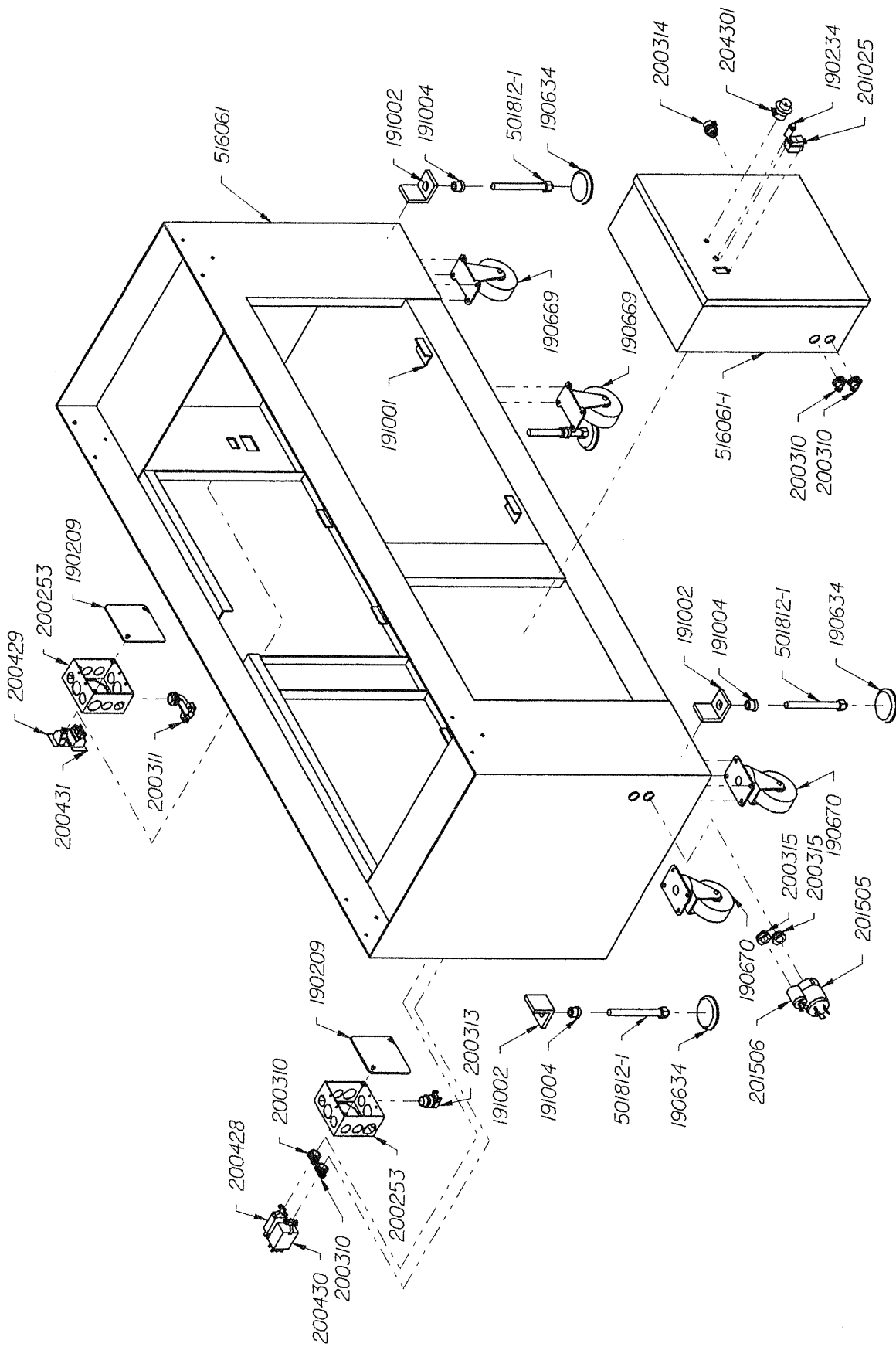


FILE NAME: 516d.2ems



REVISES		KIRK-RUDY, INC. KENNESAW, GEORGIA	
NO.	DATE	BY	TITLE
			MATERIAL GUIDE BELTS
		NAJ	SCALE NONE
		DATE 09-23-92	DWG. NO.
		MASTER	516E

FILE NAME: 516e.2ems



REVIEWS		KIRK-RUDY, INC. KENNESAW, GEORGIA		TITLE	
NO.	DATE	BY	DATE	SCALE	FIG. NO.
				NAJ	NONE
			09-24-92		
			MASTER		
					516G

FILE NAME: 516g.2ems

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

7 WARRANTY AND SERVICE

WARRANTY

Warranty: Kirk-Rudy, Inc., warrants to the original retail purchaser that this product is free from defects in the material and workmanship, and agrees to repair or replace, at Kirk-Rudy's option, any defective product within (90) days from the date of purchase. This warranty is not transferable. It covers damage resulting from defects in material or workmanship, and it does not cover conditions or malfunctions resulting from normal wear, neglect, abuse or accident.

THIS WARRANTY IS IN LIEU OF ALL OTHER EXPRESSED WARRANTIES ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY ARISING OUT OF A COURSE OF DEALING, CUSTOM, OR USAGE OF TRADE.

Limitation of Remedies: If product is proven to be defective within the warranty period stated above, THE EXCLUSIVE REMEDY, AT KIRK-RUDY'S OPTION, SHALL BE TO REFUND THE PURCHASE PRICE OF OR TO REPAIR OR REPLACE THE DEFECTIVE PRODUCT, provided that the defective product is, at Kirk-Rudy's choice, returned immediately to Kirk-Rudy or authorized service representative designated by Kirk-Rudy, or made available at user's premises in a location suitable for servicing.

Limitation of Liability: Kirk-Rudy shall not otherwise be liable for any losses or damages, whether direct, indirect, special, incidental, or consequential, regardless of the legal or equitable theory asserted, including contract, negligence, warranty, or strict liability.

To obtain replacement parts and service, contact an Authorized Kirk-Rudy Dealer. Use Kirk-Rudy part numbers when ordering.

USE ONLY GENUINE KIRK-RUDY REPLACEMENT PARTS

KIRK-RUDY, INC.
2700 KENNESAW DUE WEST ROAD
KENNESAW, GA 30144
770-427-4203
FAX 770-427-4036