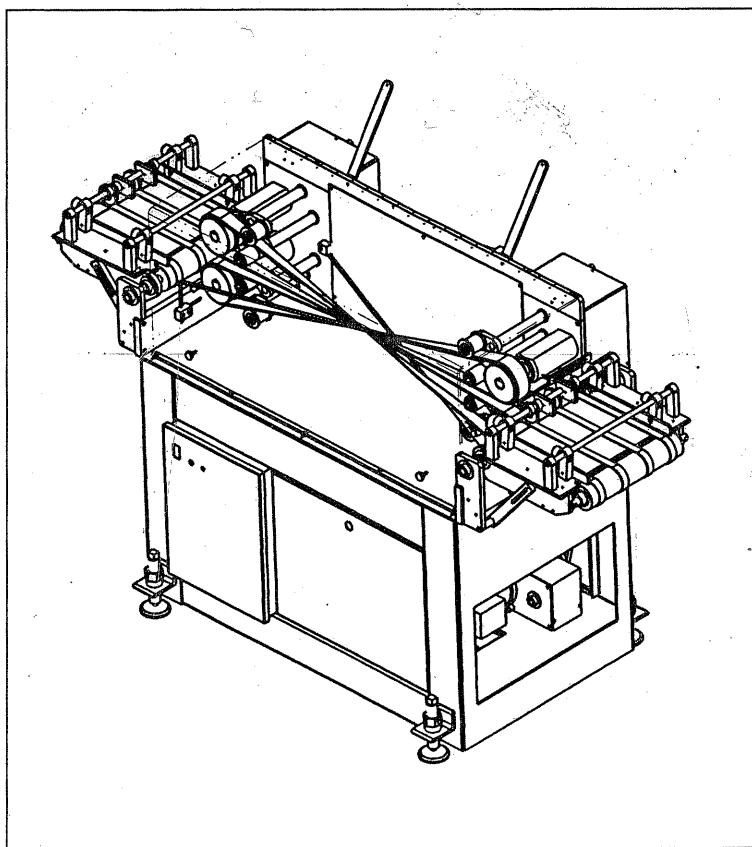


Kirk-Rudy, Inc.

Instructions and Parts Manual

445 Turn-Over Unit



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.

TABLE OF CONTENTS

<u>SECTION</u>	<u>DESCRIPTION</u>	<u>PAGE</u>
1	IMPORTANT SAFETY INSTRUCTIONS	3
2	SPECIFICATIONS	4
3	INSTALLATION	5
4	OPERATING INSTRUCTIONS	6
5	OPERATIONAL PICTURES	9
6	MECHANICAL PARTS AND DIAGRAMS	12
7	NOTES	17
8	WARRANTY AND SERVICE INFORMATION	18

NOTE: FIGURES AND DIAGRAMS ARE NOT INCLUDED IN PAGE NUMBERS.

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.

NOTE: THIS EQUIPMENT HAS BEEN TESTED AND FOUND TO COMPLY WITH THE LIMITS FOR A CLASS A DIGITAL DEVICE, PURSUANT TO PART 15 OF THE FCC RULES. THESE LIMITS ARE DESIGNED TO PROVIDE REASONABLE PROTECTION AGAINST HARMFUL INTERFERENCE WHEN RADIO FREQUENCY ENERGY AND, IF NOT INSTALLED AND USED IN ACCORDANCE WITH THE INSTRUCTION MANUAL, MAY CAUSE HARMFUL INTERFERENCE TO RADIO COMMUNICATIONS. OPERATION OF THIS EQUIPMENT IN A RESIDENTIAL AREA IS LIKELY TO CAUSE HARMFUL INTERFERENCE IN WHICH CASE THE USER WILL BE REQUIRED TO CORRECT THE INTERFERENCE AT HIS OWN EXPENSE. SHIELDED CABLES MUST BE USED WITH THIS UNIT TO ENSURE COMPLIANCE WITH THE FCC CLASS A LIMITS.

2 SPECIFICATIONS

MECHANICAL POWER REQUIREMENTS:

½ HP Drive

ELECTRICAL SPECIFICATIONS

Power Requirements:

120 VAC

60 Hz.

10 Amp

MAXIMUM CYCLE SPEED

600 feet per minute

<u>PRODUCT SIZE RANGE</u>	<u>English</u>	<u>Metric</u>
Media Size (paper):		
Minimum Size:	3.0" W x 5.0" L	7.6cm W x 12.7cm L
Maximum Size:	13.0" W x 17.0" L	43.2cm W x 43.2cm L
Minimum Thickness:	Card Stock (.007")	Card Stock (.10mm)

PHYISICAL DIMENSIONS

Length	68.0"	172.72 cm
Width	26.0"	66.04 cm
Height	37.0"	93.98 cm

3 INSTALLATION



WARNING

Read and follow all Safety Instructions in Section 1, Page 3 before proceeding.

3.1 UNCRATING

1. Position crate near installation site.
2. Remove crate top and sides.
3. Locate accessories box and verify all items are present.
4. Remove metal strapping and securing blocks.
5. Use forklift to lift machine off skid. Be sure to position the forks in a centrally located position.
6. Machine is on casters and can be rolled to desired location.
7. Adjust the height of the base with the four leveling legs.

Note: A forklift should be used to lift machine from pallet. The base is mounted on casters.

3.2 ACCESSORIES AND SPARE PARTS

The accessories and spare parts are packaged and located inside the base cabinet. The box should be opened and checked against the enclosed packing list.

4 Operating Instructions

Electrical Connections

1. Main Power Cord: The power cord is provided with a 20-amp/125 volt male connector and provides power to turnover unit.
2. Conveyor Power Cables and Plugs: The conveyor power circuit acts only as an extension cord for a conveyor down stream of the turnover unit to be controlled by a unit upstream of the turnover unit. A yellow cord with a three-pin connector extends out of the infeed and outfeed sides of the unit. The cords convey the power to the conveyor from the conveyor controls to the motor of the conveyor. (See Picture-Conveyor Stop Circuit Cables)
3. Stop Cables and Plugs: A yellow cord with a two-pin connector extends out of the infeed and outfeed sides of the turnover unit. The purpose of the stop circuit cords is to allow the turnover unit to be electrically connected in line with other machines. When one machine stops in the line, the electrical connection stops all machines upstream in line to prevent jams. The outfeed end is the stop-in cable. In order for the turnover unit to run, the stop-in cable must be connected to a closed stop circuit or jumpered. The infeed end is the stop-out cable. When the turnover unit is running, the stop-out cable provides a close contact for the stop circuit of the up stream machine. (See Picture-Conveyor Stop Circuit Cables)

Controls

1. Power Switch: An on/off toggle switch is located on the front left of the turnover unit. When the toggle switch is turned on, a red light to the right of the switch lights up indicating that there is power to the turnover unit. (See Picture-Electrical Box Door)
2. Speed Control: A knob to the right of the power switch is used to control the speed of the turnover unit. (See Picture-Electrical Box Door)
3. Start/Stop Switch: A remote start/stop control box is located on the top left rear of the turnover unit. When the power switch is turned on, pressing the green start button will start the turnover unit. Pressing the red stop button will stop the turnover unit. (See Picture-Start/Stop Control Box)

NOTE: The cover must be shut to close a safety switch and allow the unit to run.

NOTE: The two pin yellow cord on the outfeed end must be connected to a closed stop circuit or jumpered for the turnover unit to run.

4. Safety Switch: A lever type micro switch is located under the cover. The cover must be closed to depress the lever on the safety switch to allow starting of the turnover unit. Anytime the cover is opened the safety switch will open the stop circuit and stop the turnover unit. (See Picture-Cabinet Safety Switch)

Mechanical Components

1. Infeed/Outfeed Conveyor Tables: Identical conveyor tables are located on the infeed and outfeed ends of the turnover unit. (See Drawings 537611-01, Infeed Conveyor Assembly and 536861-01, Outfeed Conveyor Assembly) The conveyor tables are equipped with four belts, belt tension arms, side guides, and roller arm assemblies. The belt tension assemblies located underneath the conveyor tabletop can adjust the placement and tension of the belts. The side guides have a knurled knob located on each arm of the side guide assembly. (See Drawing 537612-01, Side Guide Assembly) The side guides can be move inward or outward and then locked in place by rotating the knurled knob in either direction until it side guide arm clamps on the support shaft. Unlock the side guides by turning the knob in the opposite direction. The roller assemblies are springloaded downward. The arm on the roller assembly is held upward by a pin on an adjacent split clamp. The height of the roller and can be adjusted for the thickness of the product by loosening the cap screw on the split clamp and rotating the clamp to raise or lower the roller. Conveyor support arms allow for tilting down the outside ends of the conveyor tables, if necessary.

NOTE: If necessary, it is possible to remove one or both of the conveyor table units and operate the turnover unit in line.

2. Turnover Assembly: The turnover assembly is composed of two flat belts, two sets of infeed/outfeed rollers, four take-up shaft assemblies, and four belt idler assemblies. (See Drawing 536856-01, Turnover Assembly) The two flat belts mounted on alternate upper/lower and infeed/outfeed rollers with a twist in the middle. The combination of the two belts and the twist enables a product to be turned over as it travels from the infeed to the outfeed ends of the turnover unit. The four belt take-up assemblies have rimmed rollers that ride the outer upper and lower parts of the belts. The rimmed rollers are spring loaded so that they not only help guide the belts; but also automatically provide for the proper belt tension. The four belt idler assemblies are mounted inside the flat belts and allow for adjusting the distance between the belts to accommodate for the thickness of the product. (See Picture-Lever/Spring Assembly) The idler assemblies are spring loaded to allow for variation in the thickness of the product and are held in adjustment by a combination of long setscrews and locking nuts.

3. Infeed/Outfeed Guides: A set of right and left infeed/outfeed guides is provided to help guide larger products through the turnover process. Clamp blocks mounted in slots provide for up and down and in and out adjustment of the guides. (See Item 19 in Drawing 536861-01, Outfeed Conveyor Assembly)

4. Oiler: An oiler unit is mounted on the upper rear of the turnover unit. Pull the knob on the oiler and it will stay out. A spring will pull the knob back in to pump oil out through the oil line. It should take approximately 5 to 10 minutes for the knob to go back in. The oil in the oil line is pumped to a location above the gears on the turnover unit. A restrictor allows the oil to slowly drip out and lubricate the gears in the turnover unit. The oiler should be pulled each time the unit is put in operation. A spring-loaded cap on top of the oiler unit provides a port for refilling the unit (20-weight oil). (See Picture-Oiler)

NOTE: If the knob on the oiler unit does not stay out when pulled, the unit needs refilling. If the unit needs primed, pull the knob out several times until it stays fully out. If the knob does not stay fully out then there is a leak in the system. In case of a leak in the system, it will be necessary to find and repair the leak to prevent damage to the gears in the turnover unit.

5. Leveling Bolts, Locking Nuts and Mounting Footh: The turnover unit has a set of casters welded underneath the cabinet to ease movement of the turnover unit in and out of a production line. When in place in the production line, leveling bolts, locking nuts and mounting foots on each corner of the cabinet are used to stabilize the turnover unit and raise the turnover unit to a height that will allow a smooth flow of product during production. (See Items 2,3 & 4 in Drawing 536864-01, Turnover Cabinet)

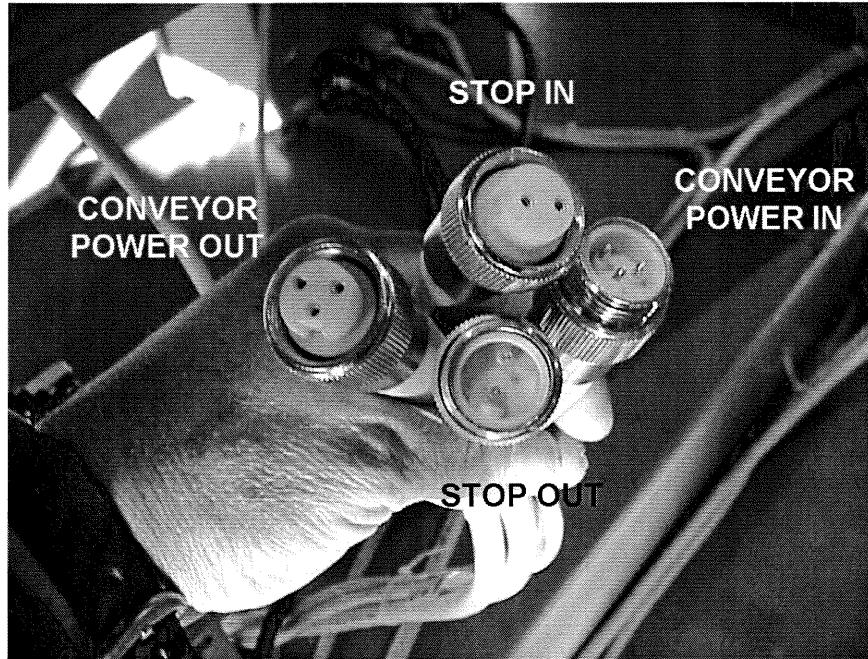
Setup and Operation

1. Push the turnover unit in place in the production line and set the pads under the leg screws. Using the leg screws, adjust the height of the turnover unit so that the infeed conveyor tabletop on the turnover unit is level or slightly lower than the flow of the product from the upstream unit. If necessary, the outward ends of the infeed/outfeed conveyor tabletops can be slanted downwards by adjusting support bars on the conveyor tabletops.
2. Using the belt tension assemblies below the tabletop, adjust the belts on the infeed and outfeed conveyors as necessary to convey the product.
3. Set the infeed and outfeed conveyor sideguides to the width of the product.
4. Set the height of the roller assemblies on the infeed and outfeed conveyors for the thickness of the product.
5. Loosen the locking nuts using the long setscrews on the back of the turnover unit, set the distance between flat turnover belts for the thickness of the product. When the distance is set, retighten the locking nuts to hold the adjustment. (See Picture-Lever/Spring Assembly)
6. Set the speed of the product to maintain a small gap between the products during the production run.

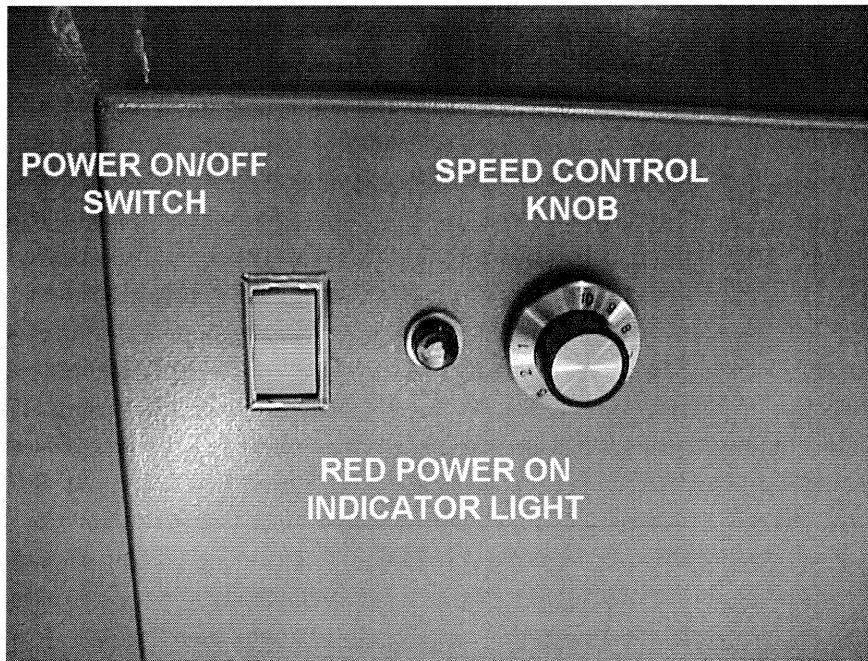
CAUTION: Running the turnover unit for an extended period of time without product between the flat turnover belts will cause excessive wear in the belts.

5 OPERATIONAL PICTURES

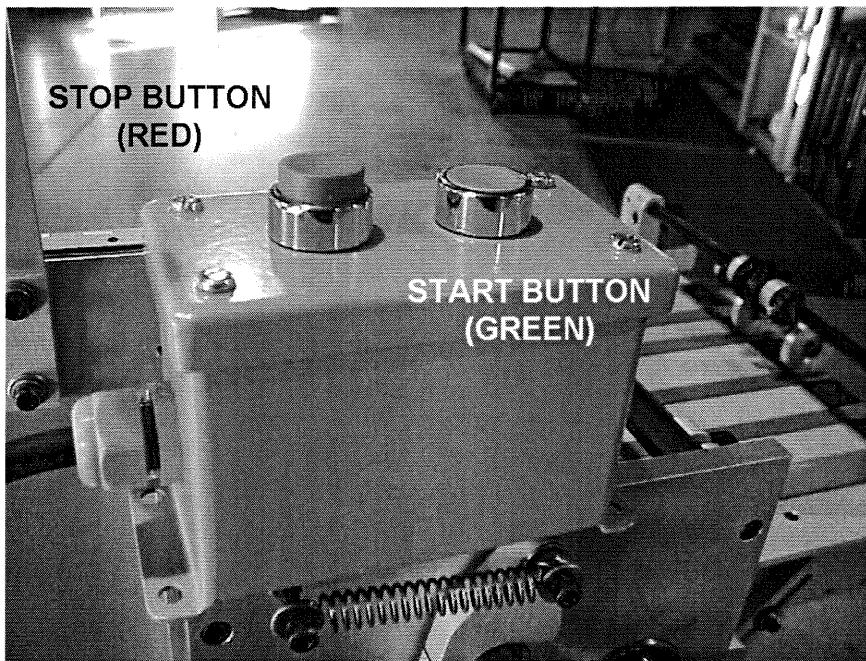
CONVEYOR POWER & STOP CIRCUIT CABLES



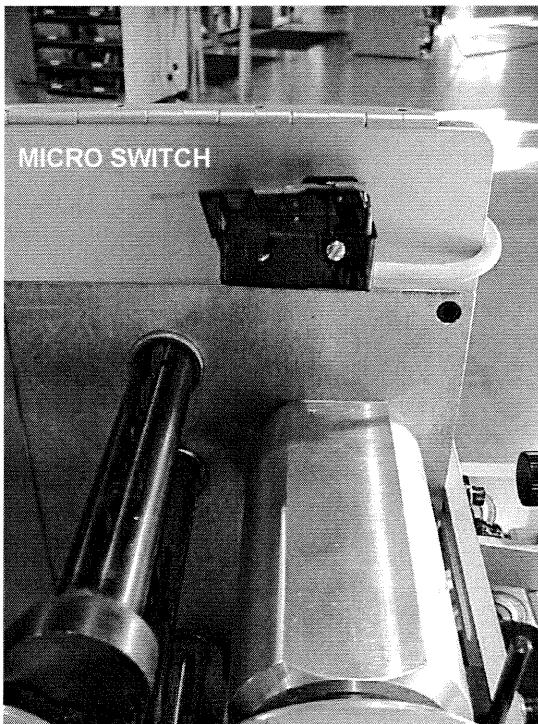
ELECTRICAL BOX DOOR



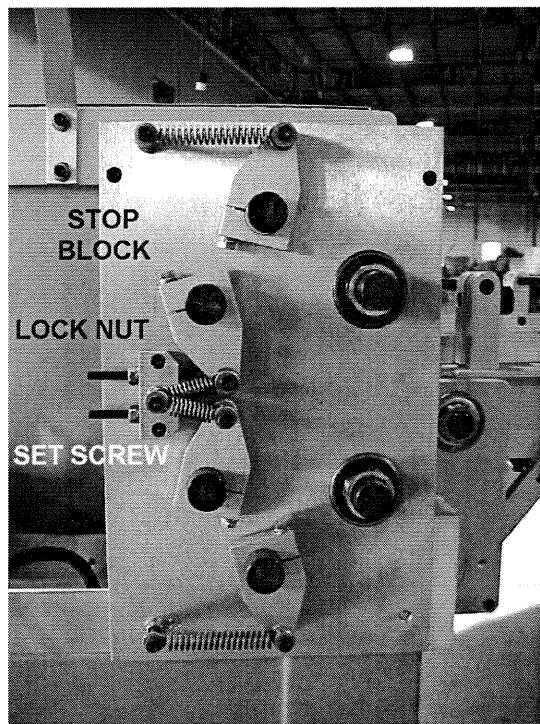
START/STOP CONTROL BOX



CABINET SAFETY SWITCH



LEVER/ SPRING ASSEMBLY (REAR VIEW)



OILER



6 PARTS LIST AND DIAGRAMS

ITEM#	QTY	PART#	DESCRIPTION
1	4	100162	BUSHING, SL.500ID.625OD.625LG
2	16	100326	BUSHING, FL1.000ID1.250OD.750LG
3	2	101995	GEAR, 1632 1.374B NK
4	2	102114	KNOB
5	4	102205	COLLAR .500
6	1	102207	COLLAR .750
7	4	102215	COLLAR .750
8	1	102380	SPACER, GUIDE BOTTOM
9	2	102466	GEAR, 1632 1.000B .250K
10	16	103106	BEARING, FLAT .375
11	2	103802	BEARING, HUB 1.006
12	3	103803	BEARING, HUB 1.005
13	4	103804	BEARING, HUB 1.004
14	5	103805	BEARING, HUB 1.003
15	6	103806	BEARING, HUB 1.002
16	7	103807	BEARING, HUB 1.001
17	8	103808	BEARING, HUB 1.000
18	8	104100	SNAPRING, .375
19	3	104104	SNAPRING, .376
20	11	104106	SNAPRING, .377
21	1	105021	SNAPRING, .378
22	1	105032	SNAPRING, .379
23	2	105201	SNAPRING, .380
24	1	106019	BELT, V AX53
25	4	107101	BOLT, SHOULDER 5/16X3/8
26	1	108809	PULLEY, TIMING 12L075 .625B .188K
27	1	108821	PULLEY, TIMING 12L050 .500B NK
28	1	109320	PULLEY, TIMING 32L075 .625B .188K
29	2	110219	SPRKT, 35B15 1.125B NK
30	2	110259	SPRKT, 35B24 1.000B .250K
31	4	190634	FOOT, MOUNTING
32	1	190637	OIL PUMP
33	2	190669	CASTER, 3.500 RIGID
34	2	190670	CASTER, 3.500 SWIVEL

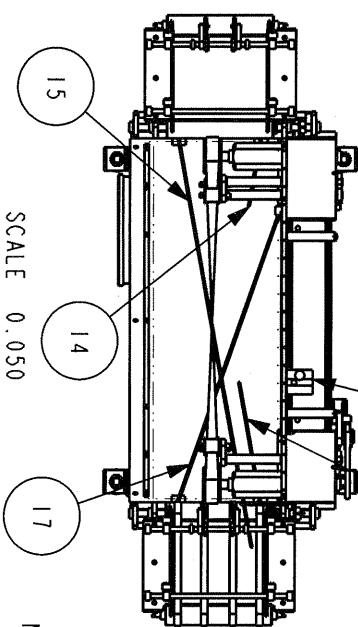
ITEM#	QTY	PART#	DESCRIPTION
35	4	191001	LATCH
36	4	191008	ANGLE, LEVELING LEG
37	4	191009	INSERT, LEVELING LEG
38	4	191010	LEVELING BOLT, CABINET
39	4	191011	NUT, CABINET LEVELING
40	4	500339	ROLLER, ARM
41	8	500791	POST, SIDEGUIDE
42	8	500792	POST, SIDE GUIDE
43	8	500793	LOCK, SIDE GUIDE CAM
44	4	500801	LINK-SKID-REAR
45	4	500802	HOLDER-SKID SWITCH
46	4	500835	ROLLER
47	8	504988	SHAFT, BELT GUIDE ROLLER
48	2	508540	STUD
49	1	508684	ARM, TAKE UP
50	1	508857	BLOCK, TAKE UP
51	1	509005	PLATE-FRONT SIDE
52	1	509006	PLATE-REAR SIDE
53	1	509015	HUB-BEARING
54	1	509032	SHAFT, OUTPUT
55	1	509035	SHAFT-IDLER
56	1	509037	COVER, REDUCER
57	8	510612	ARM, BELT TIGHTENER
58	1	522316	STUD-TAKE UP IDLER
59	4	522503	HUB, BEARING
60	4	522509	ROLLER, BELT IDLER
61	8	522510	STUD, IDLER
62	8	522511	LEVER
63	2	522516	SHAFT, BELT DRIVE
64	4	522519	SHAFT, SIDE GUIDE
65	4	522522	SUPPORT, CONVEYOR
66	2	522534	HUB, ROLLER
67	2	522541	ARM, STOP
68	4	522547	ROLLER, BELT IDLER
69	1	522556	MOUNT, .25 ROD GUIDE
70	2	522558	SPACER, CONVEYOR PLATE
71	2	522559	SPACER, CONVERYOR PLATE
72	1	525408	STUD, TAKEUP ARM

ITEM#	QTY	PART#	DESCRIPTION
73	2	101995A	ASSY, 1632 GEAR
74	2	102114A	ROUND KNOB ASY
75	4	105908-8	BELT, FLAT .75 x 30.75
76	4	105908-9	BELT, FLAT .75 x 30.75
77	2	105923-1	BELT, FLAT 1.5 x 87 x .219 THK
78	1	108911-1	BELT, TIMING 150L075
79	1	108912-1	BELT, TIMING 187L050
80	1	109319-1	PULLEY, TIMING 32L050 .625B .188K
81	2	110242-1	SPRKT, 35B15 .750B .188K
82	4	191008-A	ASSY, 1IN LEVELING LEG
83	1	200152-2	MOTOR, LEESON DC 1/2HP
84	2	500331-2	HUB, ROLLER
85	4	500339A	ASSY, ROLLER
86	4	500836-2	HUB, ROLLER
87	1	508684-5	ARM, TAKE UP
88	1	509000-A	ASSY, MOTOR/REDUCER DR 1/2 HP
89	8	510611-1	ROLLER, IDLER
90	8	510611-1A	ASSY-ROLLER
91	2	511164-L	GUIDE, SIDE
92	2	511164-R	GUIDE, SIDE
93	4	522503A	ASSY, HUB
94	4	522509A	ASSY, IDLER FLGE ROLLER
95	4	522518-1	SHAFT, BELT TAKE UP
96	4	522520-1	FRAME, CONVEYOR
97	2	522521-1	TOP, CONVEYOR TABLE
98	2	522524-L	PLATE, CONVEYOR MOUNT
99	2	522524-R	PLATE, CONVEYOR MOUNT
100	4	522547A	ASSY, IDLER ROLLER
101	1	532146-01	ROLLER, FLANGE
102	2	534110-01	ASSY, INFEED ROLLER
103	2	534219-01	ASSY, OUTFEED GEAR
104	4	534221-01	ASSY, IDLER ROLLER STUD
105	4	534222-01	ASSY, IDLER SHAFT
106	4	534223-01	ASSY, IDLER FLGE ROLLER STUD
107	4	534224-01	ASSY, FLGE IDLER SHAFT
108	1	534235-01	BASE, CABINET
109	1	534236-01	PANEL, INFEED END
110	1	534237-01	PANEL, OUTFEED END

ITEM#	QTY	PART#	DESCRIPTION
111	2	534238-01	CHANNEL-RAIL
112	2	534242-01	ANGLE, SUPPORT
113	1	534806-01	WLDMNT, TURNOVER CABINET W/ MOTOR
114	1	535196-01	WLDMNT, TURNOVER ELEC. BOX
115	2	536452-01	ASSY, 2.5IN DRIVE ROLLER .75B
116	1	536856-01	ASSY, TURNOVER
117	1	536861-01	ASSY, OUTFEED CONVEYOR
118	1	536862-01	ASSY, INFEED CHAIN TAKE UP
119	8	536863-01	ASSY, BELT TAKE UP
120	1	536864-01	ASSY, TURNOVER CABINET
121	1	536865-01	ASSY, BELT TAKE UP
122	1	536866-01	ASSY, OUTFEED CHAIN TAKE UP
123	1	537611-01	ASSY, INFEED CONVEYOR
124	2	537612-01	ASSY, SIDE GUIDE
125	2	537613-01	ASSY, ROLLER IDLER 2.5 IN.
126	5	SP16208	SPACER, REDUCER
127	1	SP22379	BRACKET, MOTOR MOUNT (AUTOL'DER
128	1	SP23601	BAR, SUPPORT
129	1	SP23602	PLATE, OUTFEED FRONT
130	1	SP23603	PLATE, OUTFEED REAR
131	1	SP23604	PLATE, INFEED FRONT
132	1	SP23605	PLATE, INFEED REAR
133	1	SP23607	CHANNEL
134	4	SP23608	SPACER
135	4	SP23611	SHAFT, DRIVE
136	1	SP23612	COVER
137	1	SP23616	BAR, COVER
138	1	SP23618	PANEL, BACK
139	2	SP23619	STUD, IDLER
140	2	SP23622	BLOCK, STOP
141	4	SP23630	CLAMP, ROD
142	1	SP23631	DOOR, SMALL
143	1	SP23633	GUIDE, LH INFEED
144	1	SP23634	GUIDE, RH INFEED
145	1	SP23635	GUIDE, LH OUTFEED
146	1	SP23636	GUIDE, RH OUTFEED
147	1	SP23602A	ASSY, OUTFEED FRONT PLATE
148	1	SP23603A	ASSY, OUTFEED REAR PLATE

ITEM#	QTY	PART#	DESCRIPTION
149	1	SP23604A	ASSY, INFEED FRONT PLATE
150	1	SP23605A	ASSY, INFEED REAR PLATE
151	8	SP23609A	WLDMT, PIVOT SHAFT
152	2	SP23611A	ASSY, ROLLER OUTFEED
153	4	SP23613-1	ROLLER, CROWNED
154	1	SP23617-R	COVER, CABINET TOP
155	1	SP23620-1	COVER, OUTFEED
156	1	SP23621-1	COVER, INFEED
157	1	SP23624-L	BAR, BELT SUPPORT
158	1	SP23624-R	BAR, BELT SUPPORT
159	1	SP23630-1	CLAMP, GUIDE ROD (INFEED SECTION)
160	1	SP23631-1	DOOR, CABINET
161	2	SYA590	SET SCREW

ITEM	QTY	PART #	DESCRIPTION	REV NO	DATE	DESCRIPTION	ECN NO	BY
1	1	106019	BELT, V AX53					
2	1	190637	OIL PUMP					
3	2	522541	ARM, STOP					
4	2	102114A	ROUND KNOB ASY					
5	1	536856-01	ASSY, TURNOVER					
6	1	536861-01	ASSY, OUTFEED CONVEYOR					
7	1	536864-01	ASSY, TURNOVER CABINET - RH					
8	1	536865-01	ASSY, BELT TAKE UP					
9	1	537611-01	ASSY, INFEED CONVEYOR					
10	1	SP23601	BAR, SUPPORT					
11	1	SP23612	COVER					
12	1	SP23616	BAR, COVER					
13	1	SP23618	PANEL, BACK					
14	1	SP23633	GUIDE, LH INFEED					
15	1	SP23634	GUIDE, RH INFEED					
16	1	SP23635	GUIDE, LH OUTFEED					
17	1	SP23636	GUIDE, RH OUTFEED					



NOTE:
1. SHOWN WITH OPTIONAL HYDRAULIFT SYSTEM.

DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED

MATERIAL: N/A

THIRD ANGLE PROJECTION

PROPRIETARY AND CONFIDENTIAL

NO PORTION OF THIS DRAWING

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OF KIRK-RUDY, INC.

KENNESAW, GA 3044 USA

REMOVED

SHARP EDGES UNLESS

OTHERWISE NOTED

ALL DIMENSIONS ARE

FINISHED DIMENSIONS

DO NOT SCALE - WORK

TO DIMENSIONS ONLY

REMOVED

SHARP EDGES UNLESS

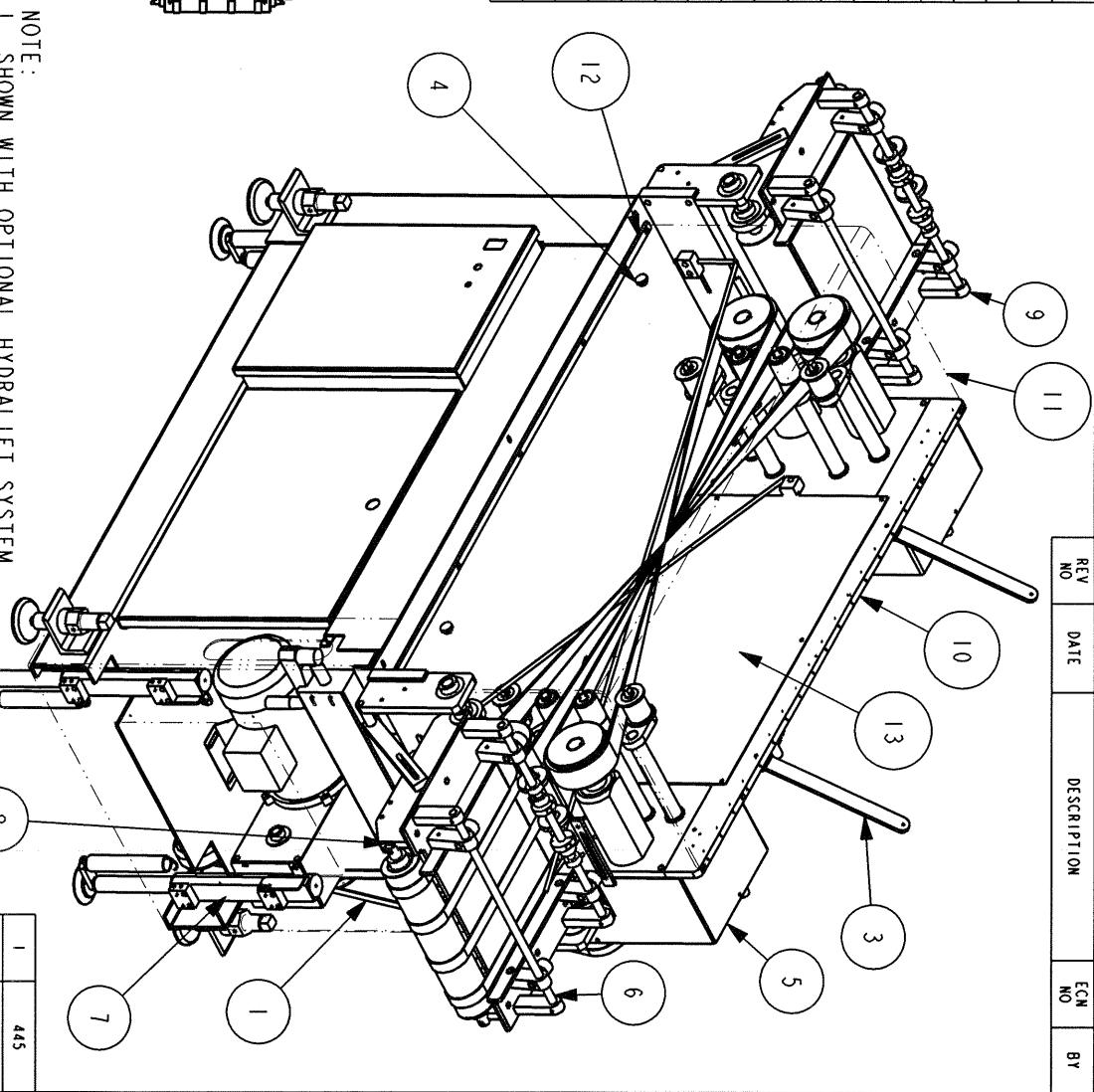
OTHERWISE NOTED

ALL DIMENSIONS ARE

FINISHED DIMENSIONS

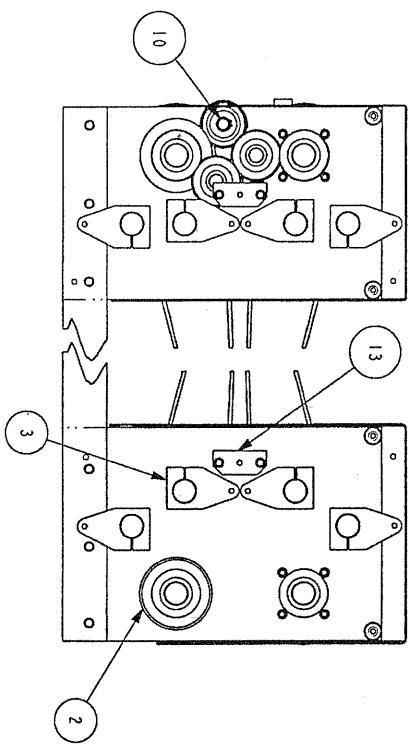
DO NOT SCALE - WORK

TO DIMENSIONS ONLY



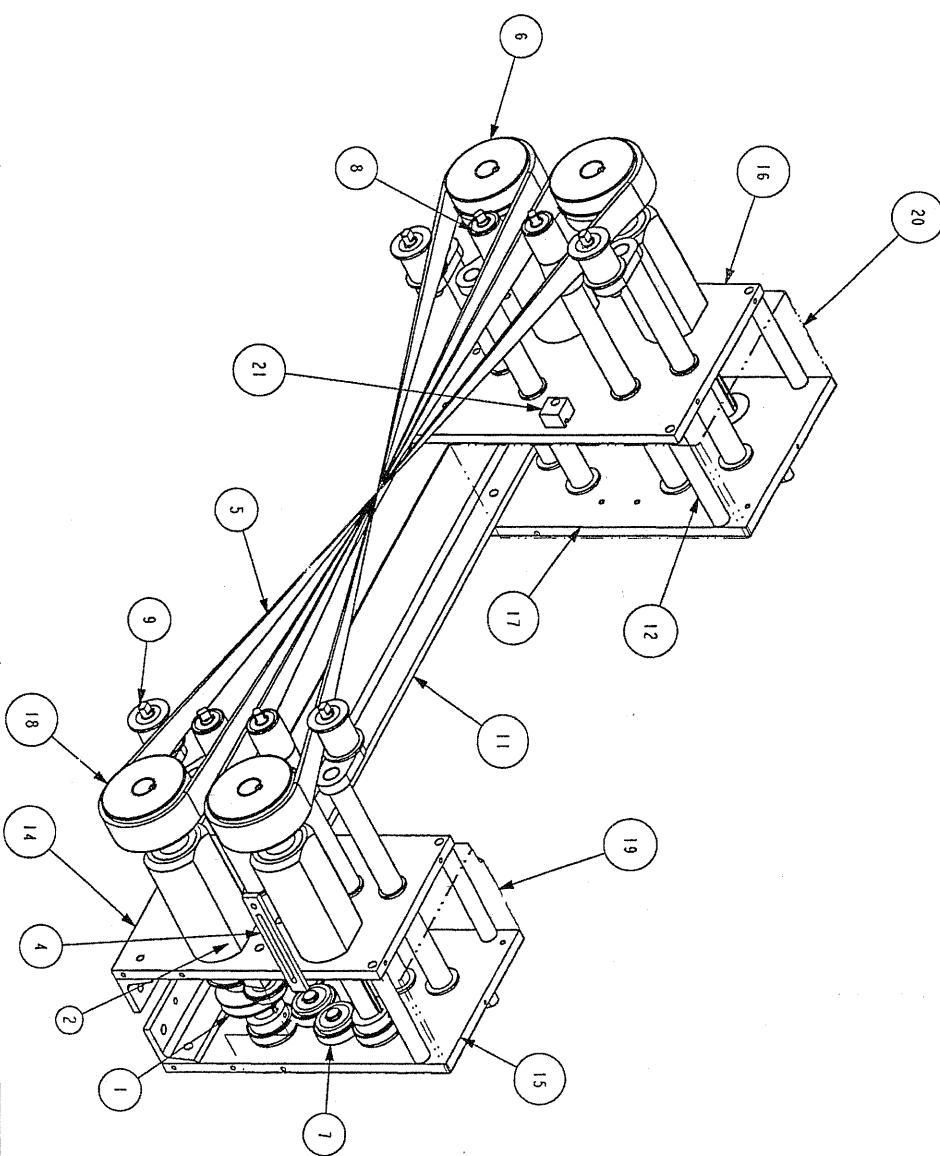
DRAWN BY:	SCALE	MATERIAL:	THIRD ANGLE PROJECTION	PROPRIETARY AND CONFIDENTIAL	REMOVED	REMOVED
AYB	0 . 093	N / A	⊕	NO PORTION OF THIS DRAWING MAY BE QUOTED OR REPRODUCED IN ANY FORM WITHOUT THE EXPRESS WRITTEN PERMISSION OF KIRK-RUDY, INC. KENNESAW, GA 3044 USA	KIRK - RUDY, INC. KENNESAW, GEORGIA	445
CHECKED BY:	DATE	.01 .005 .5	HEAT TREAT:	N / A	MODEL: 445	TITLE: ASSY, 445 TURNOVER
TRACED BY:	MASTER				SHEET NO: 10F1	DRAWING #: KR 445

ITEM QTY	PART #	DESCRIPTION	REV NO	DATE	DESCRIPTION	ECN NO	BT
1	1	105032			1-PULLEY, AK30		
2	2	110259			SPRKIT, 35B24 1.000B .250K		
3	8	522511			LEVER		
4	1	522556			MOUNT, .25 ROD GUIDE		
5	2	105923-1			BELT, FLAT 1.5 x 87 x .219 THK		
6	2	53410-01			ASSY, INFED ROLLER		
7	2	53421-01			ASSY, OUTFEED GEAR		
8	4	53422-01			ASSY, IDLER SHAFT		
9	4	53424-01			ASSY, FLGE IDLER SHAFT		
10	1	536865-01			ASSY, OUTFEED CHAIN TAKE UP		
11	1	SP23607			CHANNEL		
12	4	SP23608			SPACER		
13	2	SP23622			BLOCK, STOP		
14	1	SP23622A			ASSY, OUTFEED FRONT PLATE		
15	1	SP23603A			ASSY, OUTFEED REAR PLATE		
16	1	SP23604A			ASSY, INFED FRONT PLATE		
17	1	SP23605A			ASSY, INFED REAR PLATE		
18	2	SP23611A			ASSY, ROLLER OUTFEED		
19	1	SP23620-1			COVER, OUTFEED		
20	1	SP23621-1			COVER, INFED		
21	1	SP23630-1			CLAMP, GUIDE ROD (INFED SECTION)		

BACK VIEW
SP23603A & SP23605A PHANTOMED FOR CLARITY

DESIGN BY:	SCALE:	DIMENSIONS OR TOLERANCES			MATERIAL:	PROPSPEC PROJECTION	PROPRIETARY AND CONFIDENTIAL
AYB	0.200	IN	MM	S	N/A	NO PROPSPEC	NO PROPRIETARY OR CONFIDENTIAL INFORMATION CONTAINED HEREIN IS UNPUBLISHED PROPRIETARY INFORMATION OF KENNEDY GROUP, INC. AND IS PROTECTED BY TRADE SECRET AND OTHER LAW. REPRODUCTION, MODIFICATION, DISCLOSURE, OR USE WITHOUT THE WRITTEN PERMISSION OF KENNEDY GROUP, INC., IS PROHIBITED.
CREATED BY:	DATE:			INCHES:	MM:	WEIGHT:	
	21 - Sep - 99			N/A	N/A		

REMOVED ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED	ALL DIMENSIONS ARE IN INCHES UNLESS NOTED	UNIT:	MODEL:	NAME:
			445	KRK - RUDY, INC. KENNESAW, GEORGIA



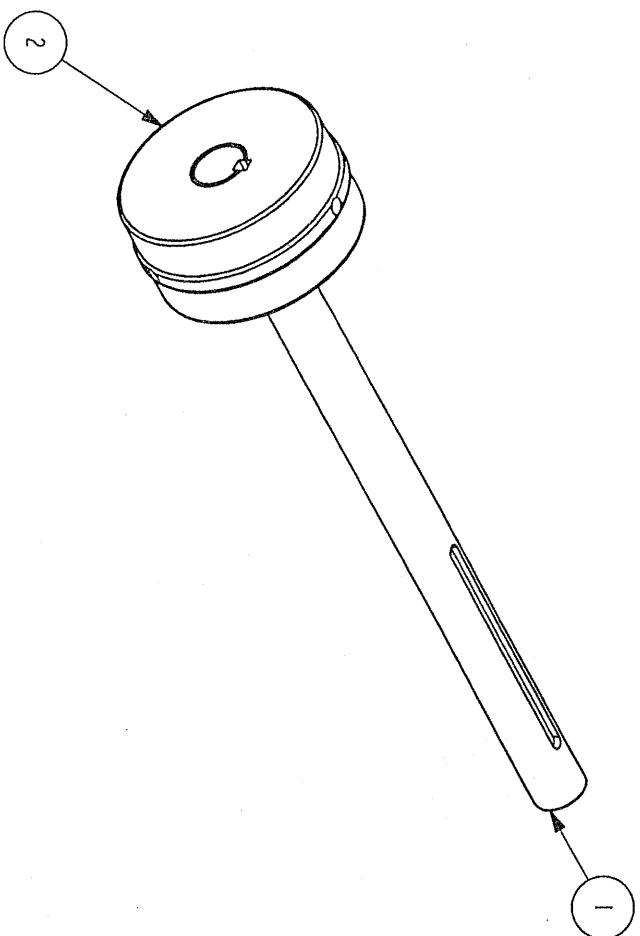
REV NO	DATE	DESCRIPTION	ECN NO	BT
		ASSY, TURNOVER		536856-01

1
445
REV NO WHERE USED
10F1
DRAWING 1
536856-01

DRAWING # 534110-01

REV	DATE	DESCRIPTION	ECN NO	BY
2	536856-01			

ITEM QTY	PART #	DESCRIPTION
1	SP23611	SHAFT, DRIVE
2	SP23613-1	ROLLER, CROWNED

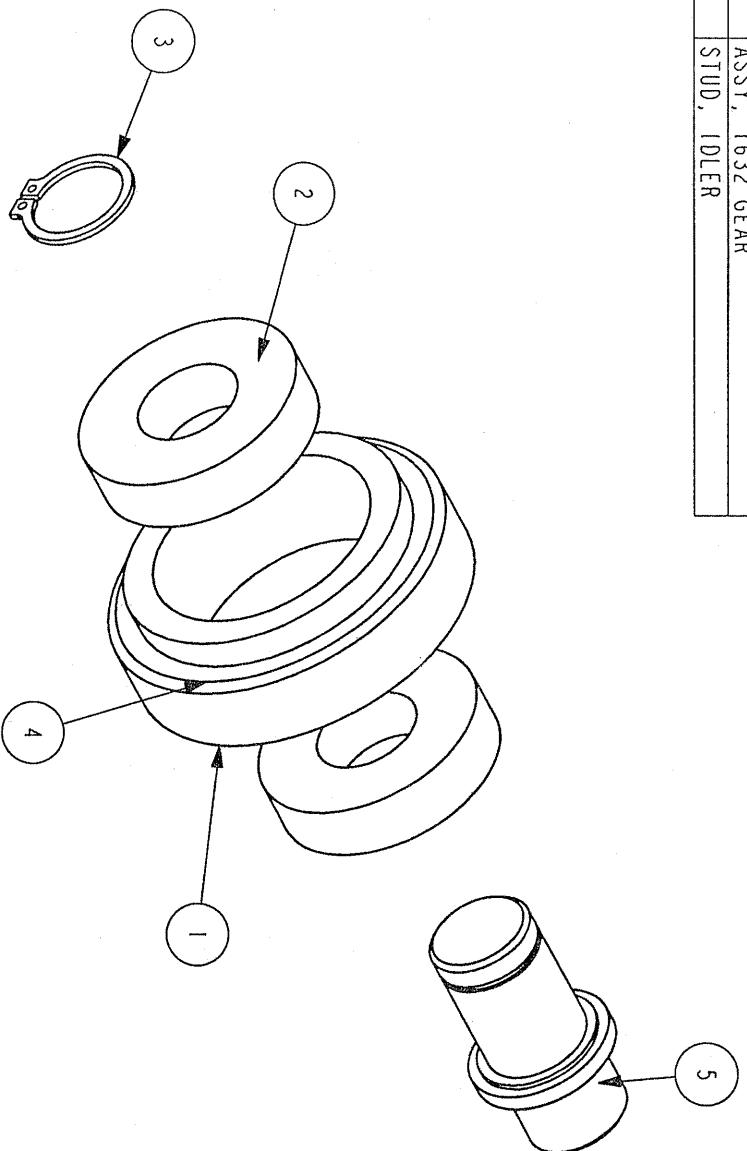


DRAWN BY: A Y B	SCALE 0 . 333	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED			MATERIAL: N / A	THIRD ANGLE PROJECTION	PROPRIETARY AND CONFIDENTIAL NO PORTION OF THIS DRAWING MAY BE QUOTED OR REPRODUCED IN ANY FORM WITHOUT THE EXPRESS WRITTEN PERMISSION OF KIRK-RUDY, INC. KENNESAW, GA 30144 USA	
CHECKED BY:	DATE 22 - Sep - 99	.01	.005	.5	HEAT TREAT: N / A	MODEL: 445	KR KIRK - RUDY, INC. KENNESAW, GEORGIA	
TRACED BY:	MASTER M	REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY			FINISH: N / A	TITLE: ASSY, INFEED ROLLER	SHEET NO.: 1 OF 1	DRAWING # 534110-01

DRAWING 1 534219-01

REV NO	DATE	DESCRIPTION	ECN NO	BY
2	53085E-01			

ITEM QTY	PART #	DESCRIPTION
1	101995	GEAR, 1632 1.374B NK
2	103110	BEARING, FLAT .625
3	104104	S N A P R I N G, .625
4	101995A	A S S Y, 1632 G E A R
5	SP23619	S T U D, I D L E R

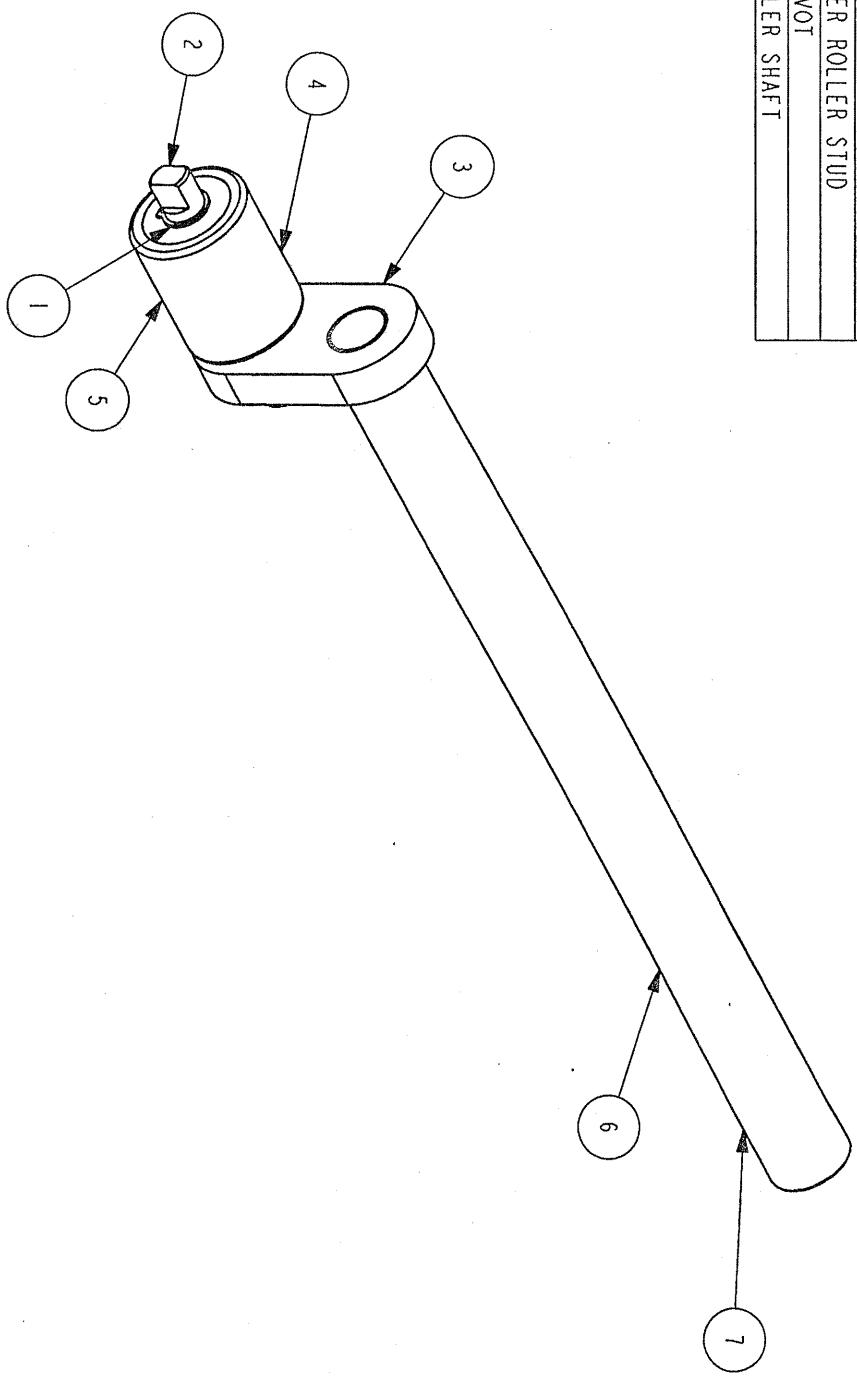


DRAWN BY:	A Y B			SCALE	1 . 0 0 0	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED			MATERIAL:	N / A	THIRD ANGLED PROJECTION	PROPRIETARY AND CONFIDENTIAL NO PORTION OF THIS DRAWING MAY BE QUOTED OR REPRODUCED IN ANY FORM WITHOUT THE EXPRESS WRITTEN PERMISSION OF KIRK-RUDY, INC. KENNESAW, GA 30144 USA			KIRK - RUDY INC. KENNESAW, GEORGIA
CHECKED BY:				DATE	22 - Sep - 99	.01	.005	.5	HEAT TREAT:	N / A	MODEL:	445	TITLE:	ASSY, OUTFEED GEAR	
TRACED BY:				REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED			ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY			FINISH:	N / A	SHEET NO:	10F	DRAWING #	534219-01

DRAWING # 534222-01

REV NO	DATE	DESCRIPTION	ECN NO	BY

ITEM QTY	PART #	DESCRIPTION
1	104106	SNAPRING, .500
2	522510	STUD, IDLER
3	522508-1	PLATE, ROLLER
4	522547A	ASSY, IDLER ROLLER
5	534221-01	ASSY, IDLER ROLLER STUD
6	SP23609	SHAFT, PIVOT
7	SP23609A	WLDMT, IDLER SHAFT

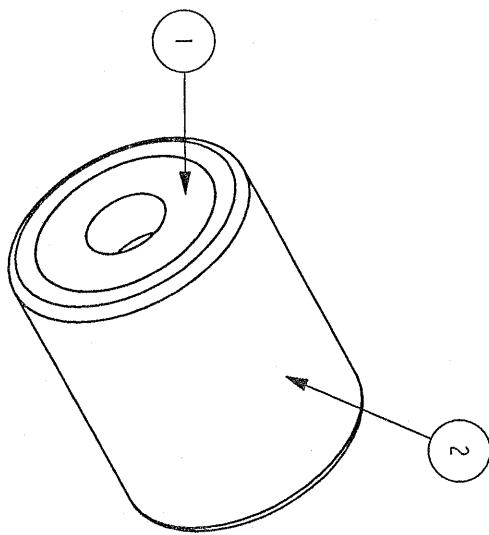


DRAWN BY:	SCALE	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED			MATERIAL:	THIRD ANGLE PROJECTION		PROPRIETARY AND CONFIDENTIAL NO PORTION OF THIS DRAWING MAY BE QUOTED OR REPRODUCED IN ANY FORM, WITHOUT THE EXPRESS WRITTEN PERMISSION OF KIRK-RUDY, INC. KENNESAW, GA 30444 USA	
A Y B	0 . 500	.001	.005	.5	N / A				KIRK - RUDY INC. KENNESAW, GEORGIA
CHECKED BY:	DATE	HEAT TREAT:			N / A	MODEL:		TITLE:	
	22 - Sep - 99	REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED				445		ASSY, IDLER SHAFT	
TRACED BY:	MASTER	ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY			N / A	SHEET NO.	10F	DRAWING #	534222-01
					4	RECD WHERE USED		53685C-01	

DRAWING # 522547A

ITEM QTY	PART #	DESCRIPTION	REV NO	DATE	DESCRIPTION	ECH NO	BY
1	2	BEARING, FLAT .500	1	103108			
2	1	ROLLER, BELT IDLER	2	522547			

ITEM QTY	PART #	DESCRIPTION
1	2	BEARING, FLAT .500
2	1	ROLLER, BELT IDLER

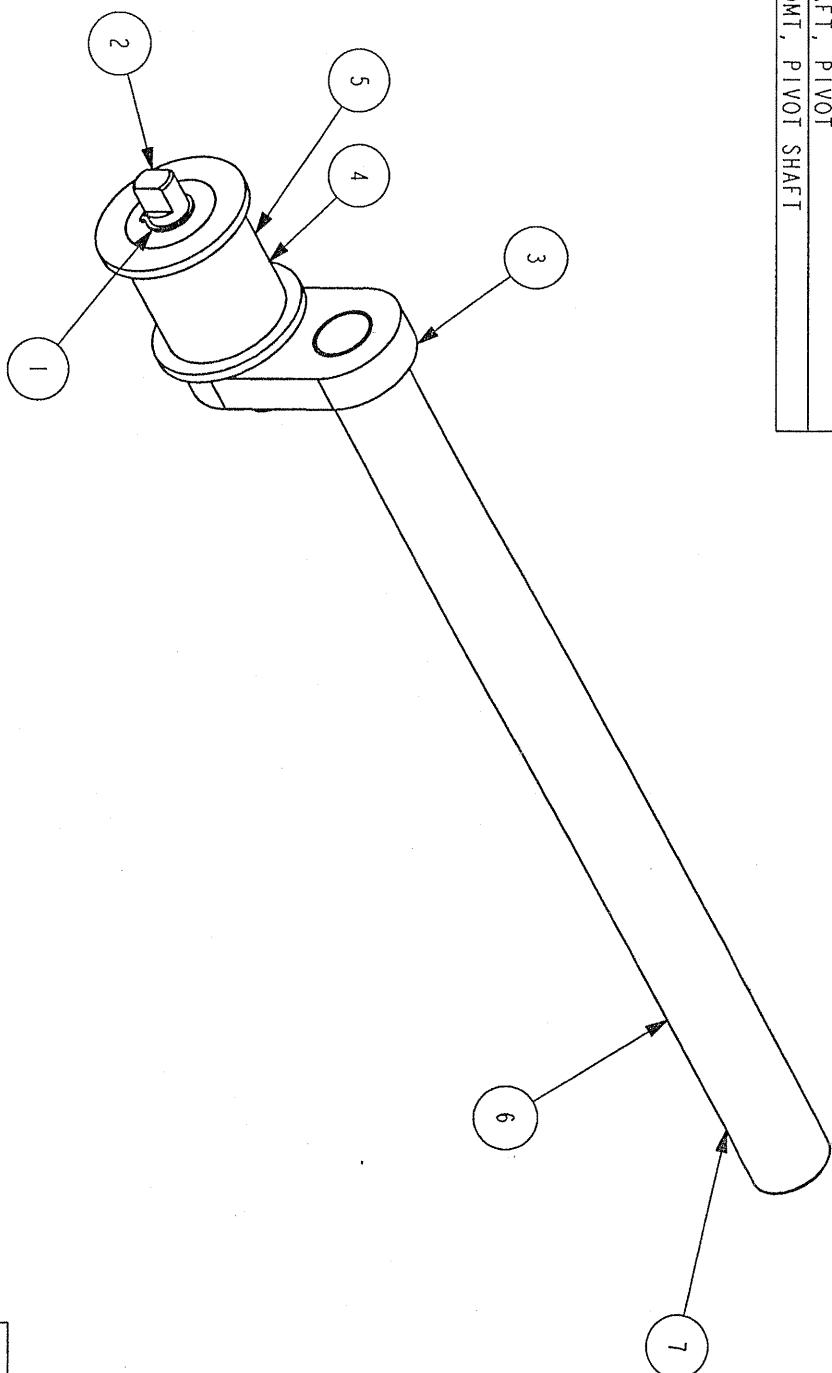


DRAWN BY: A Y B	SCALE 1 . 000	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED	MATERIAL: N / A	THIRD ANGLE PROJECTION	PROPRIETARY AND CONFIDENTIAL NO PORTION OF THIS DRAWING MAY BE QUOTED OR REPRODUCED IN WHOLE OR IN PART, WITHOUT THE EXPRESS WRITTEN PERMISSION OF KIRK-RUDY INC., KENNESAW, GA 30144 USA	1 534221-01	REO'D WHERE USED
CHECKED BY:	DATE 22 - Sep - 99	.01 .005 .5 xx xxx AMG.	HEAT TREAT: N / A		KIRK - RUDY, INC. KENNESAW, GEORGIA		
TRACED BY:	MASTER M	REMOVE ALL BURRS AND SMART EDGES UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY	MODEL: 445	TITLE: ASSY, IDLER ROLLER	SHEET NO. 10F1	DRAWING # 522547A	

DRAWING # 534224-01

REV NO	DATE	DESCRIPTION	ECN NO	BY

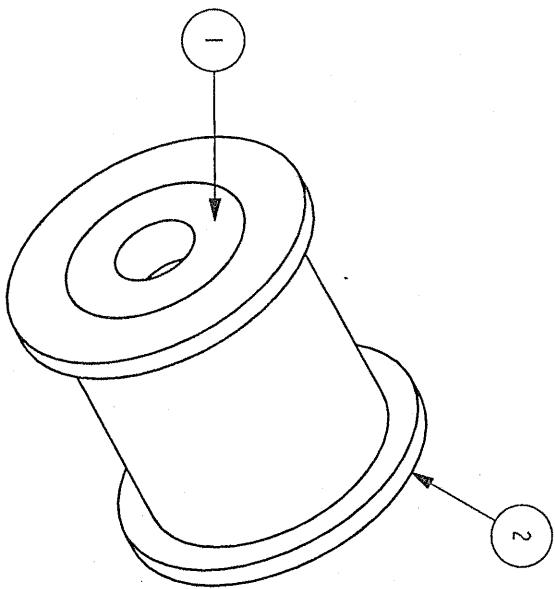
ITEM QTY	PART #	DESCRIPTION
1	104106	S N A P R I N G , .500
2	522510	S T U D , I D L E R
3	522508-1	P L A T E , R O L L E R
4	522509A	A S S Y , I D L E R F L G E R O L L E R
5	534223-01	A S S Y , I D L E R F L G E R O L L E R S T U D
6	SP23609	S H A F T , P I V O T
7	SP23609A	W L D M T , P I V O T S H A F T



DRAFTER BY: A Y B	SCALE 0 . 500	DIMENSIONAL TOLERANCES .01 .005 .5 DIMENSIONS OTHERWISE NOTED	MATERIAL: N / A	THRU ANGLE PROJECTION	PROPRIETARY AND CONFIDENTIAL MAY NOT BE QUOTED OR REPRODUCED EXCEPT WITH WRITTEN PERMISSION OF KIRK RUDY INC. KENNESAW, GA 30444 USA	KIRK - RUDY, INC. KENNESAW, GEORGIA
CHECKED BY: 22 - Sep - 99	DATE 22 - Sep - 99	REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED	HEAT TREAT: N / A	MODEL: 445	TITLE: ASSY , FLGE IDLER SHAFT	4 536855-01 RECD WHERE USED
TRADED BY: MASTER	INITIALS M	ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY	INITIALS N / A	SHEET NO.: 10F1	DRAWING #: 534224-01	

REV NO	DATE	DESCRIPTION	ECN NO	BY

ITEM QTY	PART #	DESCRIPTION
1	2	103108 BEARING, FLAT .500
2	1	522509 ROLLER, BELT IDLER

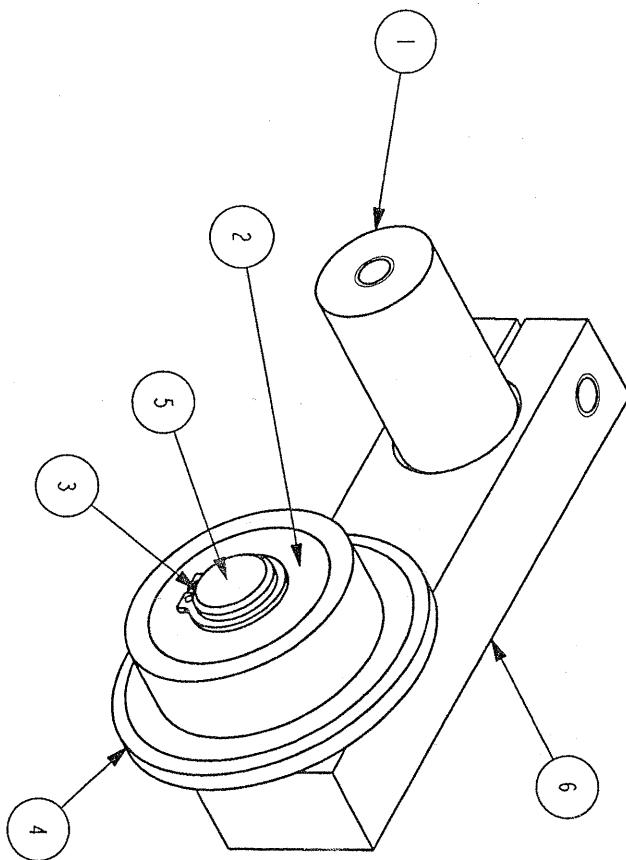


DRAWN BY: A Y B	SCALE 1 . 000	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED			MATERIAL: N / A	THIRD ANGLE PROJECTION	PROPRIETARY AND CONFIDENTIAL NO PORTION OF THIS DRAWING MAY BE QUOTED OR REPRODUCED IN ANY FORM WITHOUT THE EXPRESS WRITTEN PERMISSION OF KIRK-RUDY, INC. KENNESAW, GA 30144 USA		1 534223-01
CHECKED BY:	DATE 22 - Sep - 99	.01	.005	.5	HEAT TREAT: N / A	MODEL: 445	KIRK - RUDY, INC. KENNESAW, GEORGIA	REO-D WHERE USED	
TRACED BY: MASTER	MASTER	REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY			FINISH: N / A	SHEET NO.: 10F1	TITLE: ASSY, IDLER FLGE ROLLER	DRAWING #: 522509A	

DRAWING # 536866-01

ITEM QTY	PART #	DESCRIPTION	REV NO	DATE	DESCRIPTION	ECN NO	BY
1	102380	SPACER, GUIDE BOTTOM					
2	103108	BEARING, FLAT .500					
3	1104106	SNAPRING, .500					
4	1102119	SPRKT, 35B15 1.125B NK					
5	1508540	STUD					
6	1508684-5	ARM, TAKE UP					

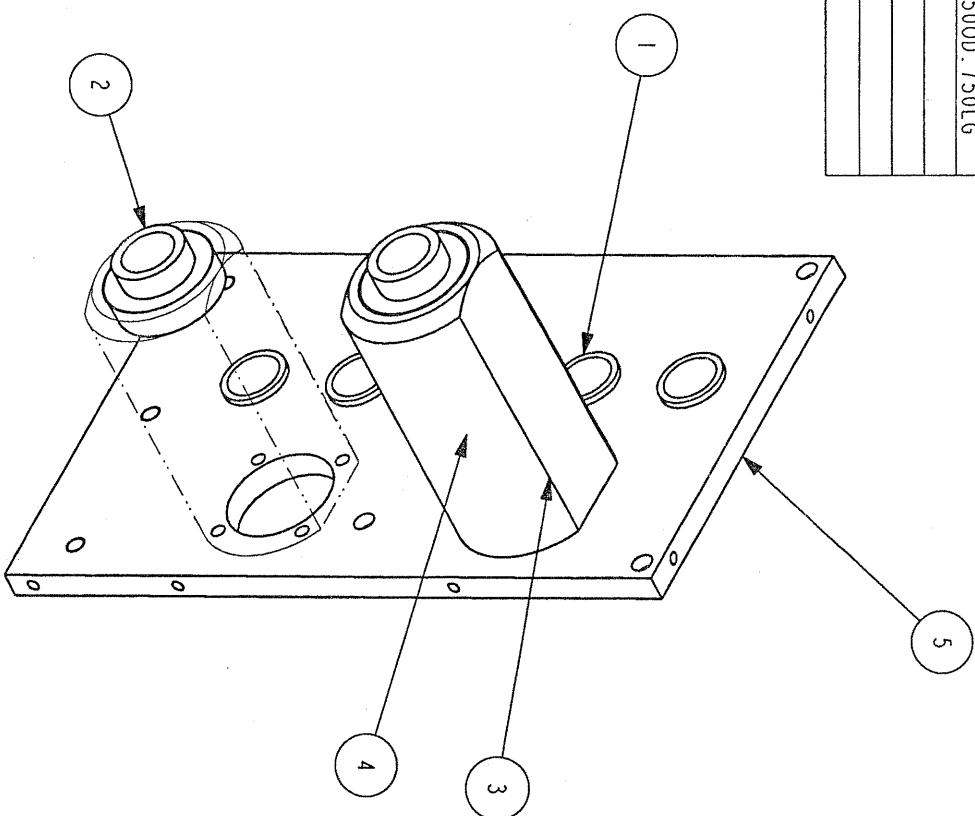
1	536856-01
REQ'D	WHERE USED



DRAWN BY: A Y B	SCALE 1 . 0 0 0	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED		MATERIAL: N / A	THIRD ANGLE PROJECTION	PROPRIETARY AND CONFIDENTIAL ANY PORTION OF THIS DRAWING MAY BE QUOTED OR REPRODUCED IN ANY FORM WITHOUT THE EXPRESS WRITTEN PERMISSION OF KIRK RUDY, INC. KENNESAW, GA 30144 USA	KIRK - RUDY, INC. KENNESAW, GEORGIA
CHECKED BY: O I - O C + - 9 9	DATE .01 .005 .5	.01 .005 .5	AMG.	HEAT TREAT: N / A	MODEL: 445	TITLE: ASSY, OUTFEED CHAIN TAKE UP	
TRADED BY: MASTER	MASTER	TIME:	N / A	SHEET NO. 10F1	DRAWING #	536866-01	
		ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY					

REV NO	DATE	DESCRIPTION	ECN NO	BY

ITEM	QTY	PART #	DESCRIPTION
1	4	100326	BUSHING, FLI. 0001D1.2500D.750LG
2	2	103808	BEARING, HUB 1.000
3	2	522503	HUB, BEARING
4	2	522503A	ASSY-HUB
5	1	SP23602	PLATE, OUTFEED FRONT



DRAWN BY:	A Y B	SCALE	0 . 333	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED	MATERIAL:	N / A	THIRD ANGLE PROJECTION	PROPRIETARY AND CONFIDENTIAL. MAY BE QUOTED OR REPRODUCED IN ANY FORM WITHOUT THE EXPRESS WRITTEN PERMISSION OF KIRK-RUDY, INC. KENNESAW, GA 30144 USA	REV NO	DATE	DESCRIPTION	ECN NO	BY
CHECKED BY:	2 - S e p - 99	DATE	.01 .005 .5	AMT.	HEAT TREAT:	N / A	MODEL:	KIRK - RUDY, INC. KENNESAW, GEORGIA					
TRACED BY:	MASTER	FINISH:	N / A	SHEET NO:	10F1	DRAWING #	SP23602A						
ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY													

DRAWING I SP23603A

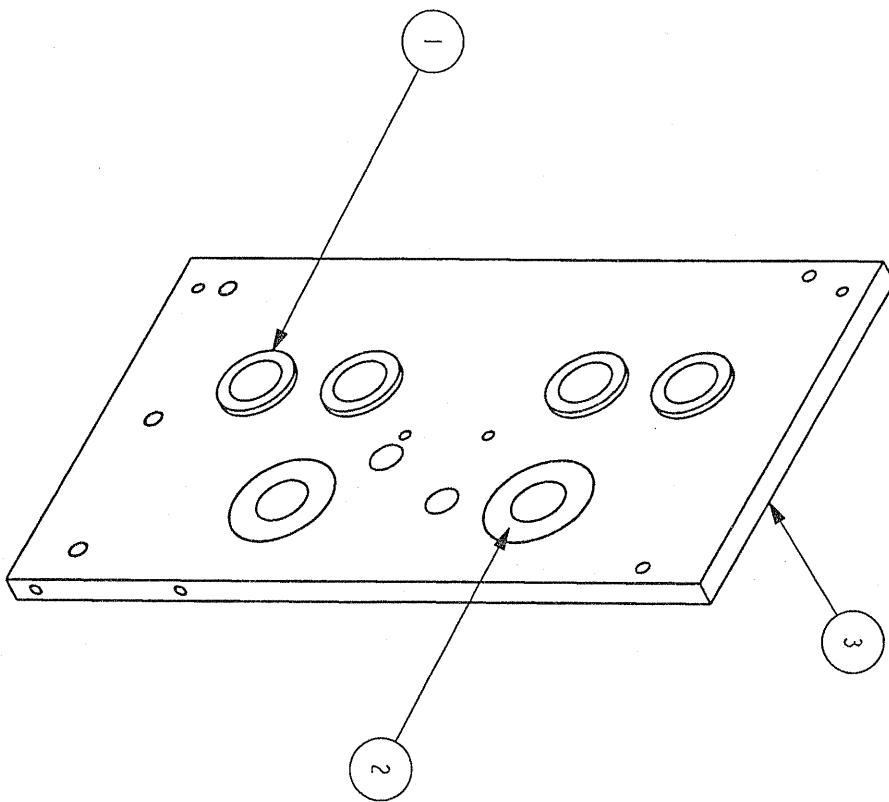
REV	DATE	DESCRIPTION	ECN	BY

ITEM	QTY	PART #	DESCRIPTION
1	4	I00326	BUSHING, FLI. 0001D1.2500D.750LG
2	2	I03808	BEARING, HUB 1.000
3	1	SP23603	PLATE, OUTFEED REAR

2

3

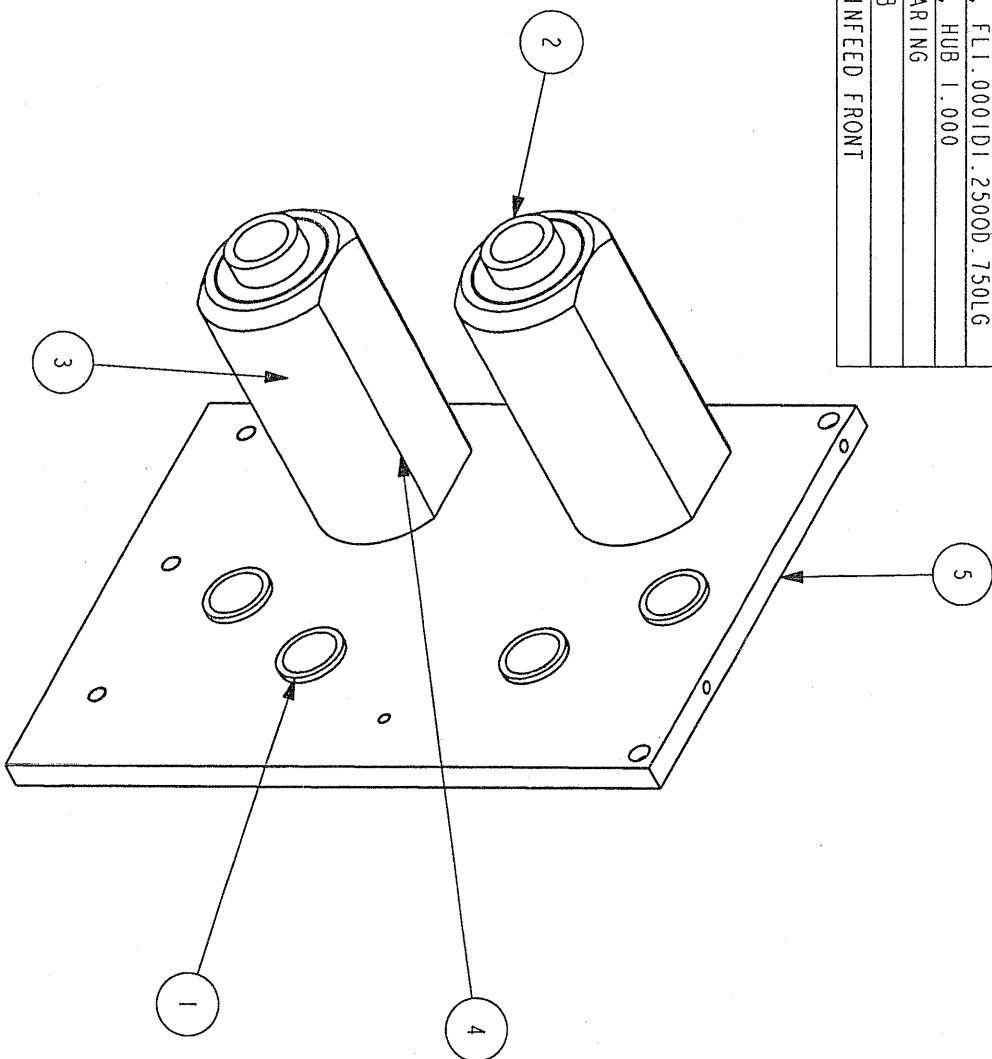
1



DRAWN BY: A YB	SCALE 0 . 333	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED		MATERIAL: N / A	THIRD ANGLE PROJECTION	PROPRIETARY AND CONFIDENTIAL NO PORTION OF THIS DRAWING MAY BE QUOTED OR REPRODUCED IN ANY FORM WITHOUT THE EXPRESS WRITTEN PERMISSION OF KIRK-RUDY, INC. KENNESAW, GA 30144 USA		KIRK - RUDY INC. KENNESAW, GEORGIA
CHECKED BY: 21 - Sep - 99	DATE 21 - Sep - 99	.01	.005	AMG.	HEAT TREAT:	N / A	MODEL: 445	NAME: ASSY, OUTFEED REAR PLATE
TRACED BY: MASTER	MASTER	REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED		FINISH:	N / A	SHEET NO: 10F1	DRAWING NO: SP23603A	
ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY								

REV NO	DATE	DESCRIPTION	ECN NO	BY

ITEM	QTY	PART #	DESCRIPTION
1	4	100326	BUSHING, FLI. 0001D1.2500D.750LG
2	2	103808	BEARING, HUB 1.000
3	2	522503	HUB, BEARING
4	2	522503A	ASSY-HUB
5	1	SP23604	PLATE, INFEED FRONT

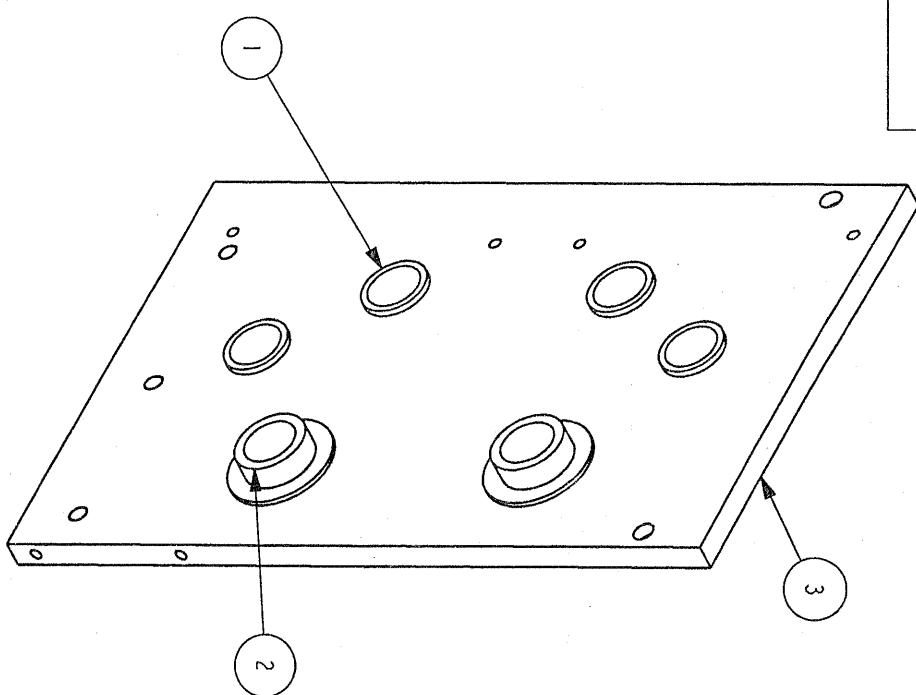


DRAWN BY:	SCALE	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED		MATERIAL:	THIRD ANGLE PROJECTION	PROPRIETARY AND CONFIDENTIAL NO PORTION OF THIS DRAWING MAY BE QUOTED OR REPRODUCED IN ANY FORM WITHOUT THE EXPRESS WRITTEN PERMISSION OF KIRK RUDY, INC.	KIRK - RUDY INC. KENNESAW, GEORGIA
A Y B	0 . 333	.01	.005	N/A			
CHECKED BY:	DATE	HEAT TREAT:		N/A			
	22 - Sep - 99	REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED					
TRACED BY:	MASTER	ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY		FINISH:	N/A	SHEET NO. 10 OF 1	DRAWING # SP23604A

DRAWING # SP23605A

REV NO	DATE	DESCRIPTION	ECN NO	BY

ITEM	QTY	PART #	DESCRIPTION
1	4	100326	BUSHING, FLI.0001D1.2500D.750LG
2	2	103808	BEARING, HUB 1.000
3	1	SP23605	PLATE, INFEED REAR

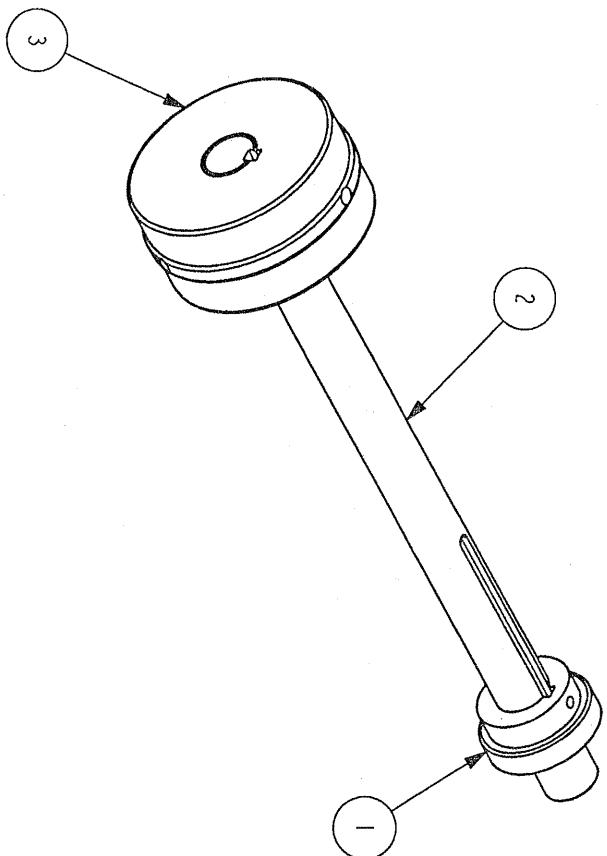


DRAWN BY:	SCALE	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED	MATERIAL:	THIRD ANGLE PROJECTION	PROPRIETARY AND CONFIDENTIAL
A Y B	0 . 333	.000 .005 .005	N / A		NO PORTION OF THIS DRAWING MAY BE QUOTED OR REPRODUCED IN ANY FORM WITHOUT THE EXPRESS WRITTEN PERMISSION OF KIRK-RUDY, INC., KENNESAW, GA, 30144 USA.
CHECKED BY:	DATE	ANG.			KIRK - RUDY, INC. KENNESAW, GEORGIA
22 - Sep - 99					
REMOVE ALL BURRS, AND SHARP EDGES, UNLESS OTHERWISE NOTED					
ALL DIMENSIONS ARE FINISHED DIMENSIONS					
DO NOT SCALE - WORK TO DIMENSIONS ONLY					
TRACED BY:	MASTER	FINISH:	N / A	SHEET NO. 1 OF 1	DRAWING # SP23605A

DRAWING # SP23611A

REV NO	DATE	DESCRIPTION	EON NO	BY
2	536855-01			

ITEM	QTY	PART #	DESCRIPTION
1	1	102466	GEAR, 1632 1.000B -.250K
2	1	SP23611	SHAFT, DRIVE
3	1	SP23613-1	ROLLER, CROWNED



DRAWN BY: A Y B		SCALE 0 . 333	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED	MATERIAL: N / A	THIRD ANGLE PROJECTION	PROPRIETARY AND CONFIDENTIAL NO PORTION OF THIS DRAWING MAY BE QUOTED OR REPRODUCED IN ANY FORM WITHOUT THE EXPRESS WRITTEN PERMISSION OF KIRK-RUDY, INC. KENNESAW, GA 30444 USA	KIRK - RUDY, INC. KENNESAW, GEORGIA
CHECKED BY: DATE 22 - Sep - 99		.01	.005	.5	HEAT TREAT:	N / A	
TRACED BY: MASTER		REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY				MODEL: 445	TITLE: ASSY, ROLLER OUTFEED
						SHEET NO: 10F	DRAWING # SP23611A

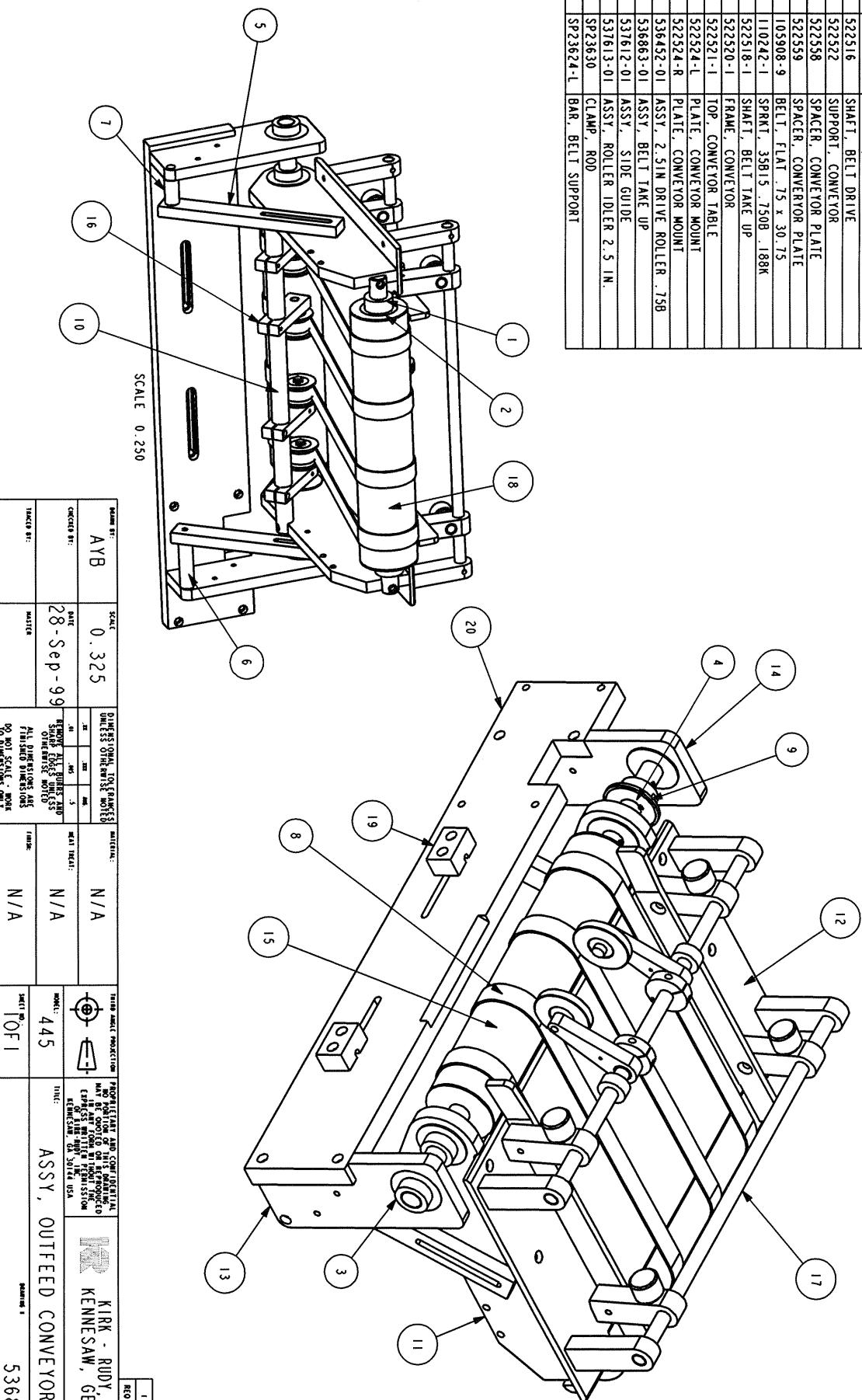
ITEM	QTY	PART #	DESCRIPTION
1	2	102215	COLLAR .750
2	2	103112	BEARING, FLAT .750
3	4	103805	BEARING, HUB .750
4	1	522516	SHAFT, BELT DRIVE
5	2	522522	SUPPORT, CONVEYOR
6	1	522558	SPACER, CONVEYOR PLATE
7	1	522559	SPACER, CONVEYOR PLATE
8	4	105908-9	BELT, FLAT .75 x 30 .75
9	1	110242-1	SPRK T. 35815 .750B .88K
10	2	522518-1	SHAFT, BELT TAKE UP
11	2	522520-1	FRAME, CONVEYOR
12	1	522521-1	TOP, CONVEYOR TABLE
13	1	522524-1	PLATE, CONVEYOR MOUNT
14	1	522524-R	PLATE, CONVEYOR MOUNT
15	1	536452-01	ASSY, 2.5 IN DRIVE ROLLER .75B
16	4	536883-01	ASSY, BELT TAKE UP
17	1	537612-01	ASSY, SIDE GUIDE
18	1	537613-01	ASSY, ROLLER IDLER 2.5 IN.
19	2	SP23630	CLAMP, ROD
20	1	SP23624-L	BAR, BELT SUPPORT

REV	DATE	DESCRIPTION	ECN	BY

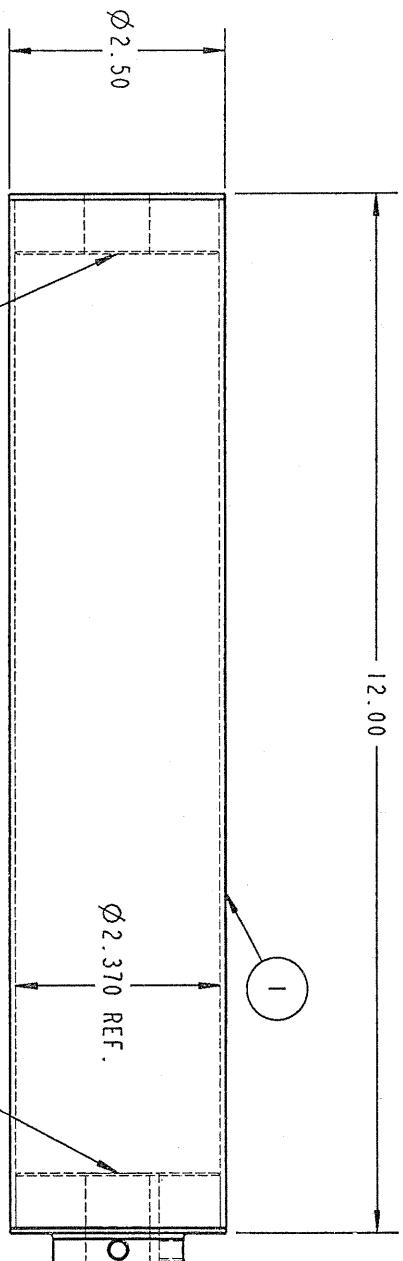
536861-01

SCALE 0.250

PRINTED BY:	A Y B	SCALE	0. 325	UNLESS OTHERWISE NOTED	MATERIAL	N/A	THIS SHEET PROTECTS PROPERTY AND CONFIDENTIAL INFORMATION OF THIS MANUFACTURER. NO COPIES OR REPRODUCTION ON THIS SHEET ARE PERMITTED EXCEPT WITH WRITTEN PERMISSION	KIRK - RUDY, INC KENNESAW, GEORGIA
CHECKED BY:		IN	IN	IN	MANUFACTURE	N / A	EXCLUSIVELY HELD TRADE SECRET OF KIRK - RUDY, INC., SANTA CLARA, CALIFORNIA, U.S.A.	
DATE:	28-Sep-99	IN	IN	IN	MODEL:	445	INC.	
REMOVED ALL SHARP EDGES AND SPACERS	SHARP EDGES AND SPACERS	ALL DIMENSIONS ARE	INCHES	INCHES	TYPE:	ASSY, OUTFEED CONVEYOR	PRINTED	
NOT DRAWN TO SCALE - NOT	NOT DRAWN TO SCALE - NOT	NOT DRAWN TO SCALE - NOT	INCH	INCH	SIZE:	N / A	SIZE	
TO SCALE - ONLY	TO SCALE - ONLY	TO SCALE - ONLY	INCHES	INCHES	NUMBER:	10F	NUMBER	



ITEM	QTY	PART #	DESCRIPTION	REV NO	DATE	DESCRIPTION	ECN NO	BY
1	1	500835	ROLLER, BELT IDLER					
2	1	522534	HUB, ROLLER					
3	1	500331-2	HUB, ROLLER					

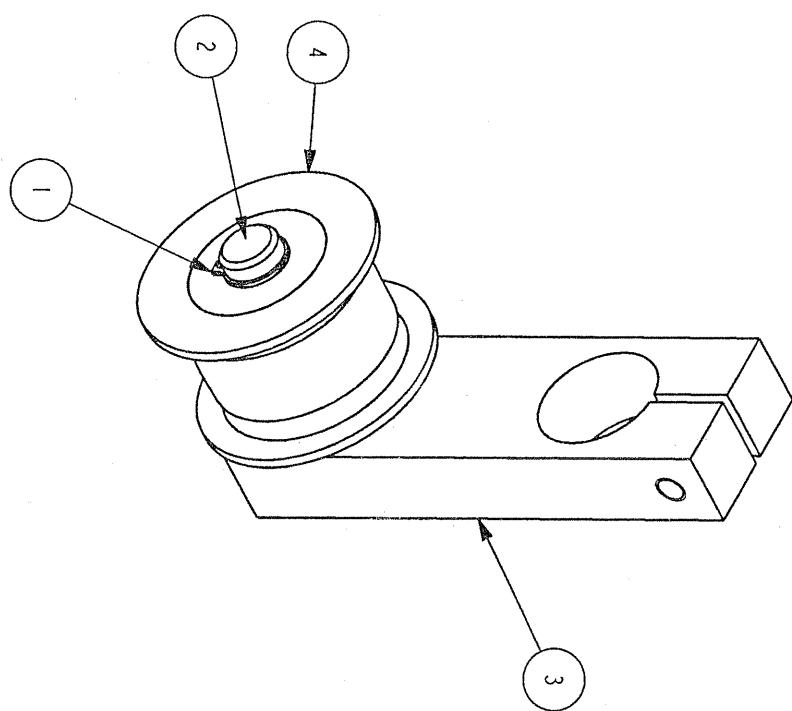


NOTES:
1. PRESS FIT HUBS INTO ROLLER TUBING

DRAWN BY:	SCALE	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED			MATERIAL:	THIRD ANGLE PROJECTION	PROPRIETARY AND CONFIDENTIAL NO COPIES OF THIS DRAWING MAY BE MADE OR REPRODUCED IN ANY FORM OR BY ANY MEANS EXPRESS, IMPLIED, OR BY INFRINGEMENT OF KIRK-RUDY, INC., U.S.A.	KIRK - RUDY, INC. KENNESAW, GEORGIA
T JG	0 . 500	.01	.005	.5	X X X			
CHECKED BY:	DATE	REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED			MEAT TREAT:	X X X		
TRACED BY:	MASTER	ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY			FINISH:	X X X		
	m				SHEET NO.:	10F 1	DRAWING #:	536452-01

REV NO	DATE	DESCRIPTION	ECN NO	BY
4	536861-01			

ITEM QTY	PART #	DESCRIPTION
1	104100	SNAPRING, .375
2	504988	SHAFT, BELT GUIDE ROLLER
3	510612	ARM, BELT TIGHTENER
4	510611-1A	ASSY-ROLLER



DRAWN BY:	SCALE			DIMENSIONAL TOLERANCES			MATERIAL:	THIRD ANGLE PROJECTION			PROPRIETARY AND CONFIDENTIAL			
A Y B	1 . 0 0 0			UNLESS OTHERWISE NOTED			N / A				NO PORTION OF THIS DRAWING			
CHECKED BY:	.1X	.005	.01	.005	.005	.005	AMG.				MAY BE QUOTED OR REPRODUCED			
DATE	28 - Sep - 99			REMOVE ALL BURRS AND			HEAT TREAT:				IN ANY FORM WITHOUT THE			
				SHARP EDGES UNLESS			N / A				EXPRESSION OF WRITTEN PERMISSION			
TRACED BY:				OTHERWISE NOTED			MODEL:				OF KIRK-RUDY, INC.			
MASTER							TITLE:				KENNESAW, GEORGIA			
<i>m</i>							445				Kennesaw, GA 30144 USA			
ALL DIMENSIONS ARE			FINISHED DIMENSIONS											
DO NOT SCALE - WORK			TO DIMENSIONS ONLY											

KIRK - RUDY, INC.
KENNESAW, GEORGIA

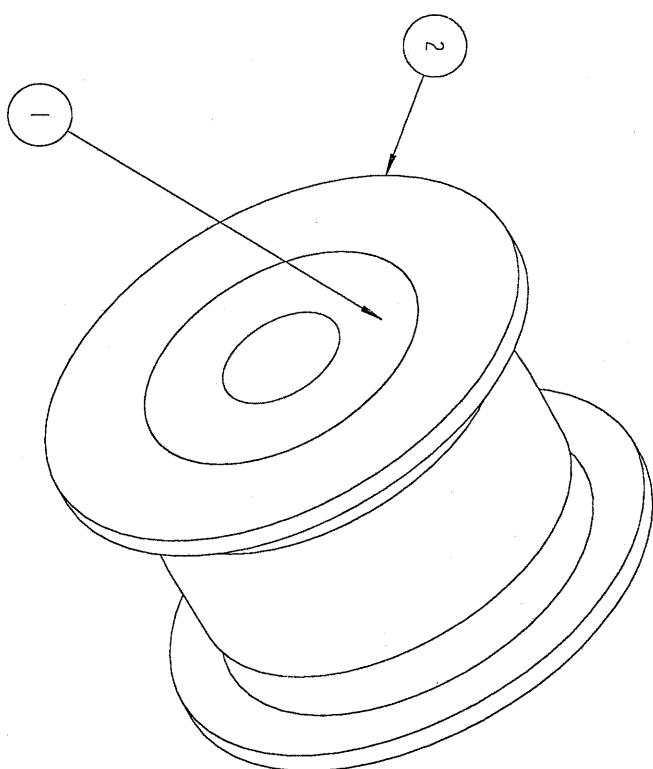
4	536861-01	4	536861-01
REQ'D	WHERE USED	REQ'D	WHERE USED

SHEET NO. | 0F | DRAWING I

536863-01

REV NO	DATE	DESCRIPTION	ECN NO	BY

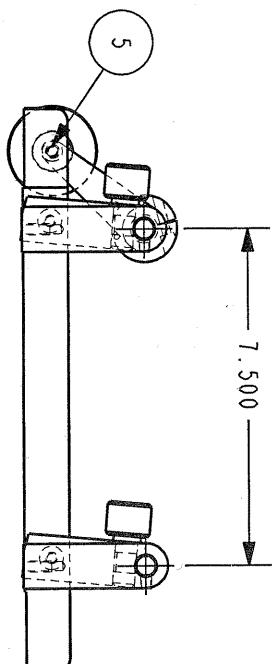
ITEM	QTY	PART #	DESCRIPTION
1	2	103106	BEARING, FLAT .375
2	1	510611-1	ROLLER, IDLER



DRAWN BY: T JG	SCALE: 2 . 000	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED						
CHECKED BY:	DATE: 10 - Sep - 98	.01	.005	.5 ANG.				
TRACED BY: MASTER	REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED			KIRK - RUDY INC. KENNESAW, GEORGIA				
ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY								
MATERIAL: XXX HEAT TREAT: XXX MODEL: XXX TITLE: ASSY - ROLLER FINISH: XXX SHEET 1 OF 1 DRAWING # 510611-1A								
<table border="1"> <tr> <td>X</td> <td>XXX</td> </tr> <tr> <td>REQ'D</td> <td>WHERE USED</td> </tr> </table>					X	XXX	REQ'D	WHERE USED
X	XXX							
REQ'D	WHERE USED							

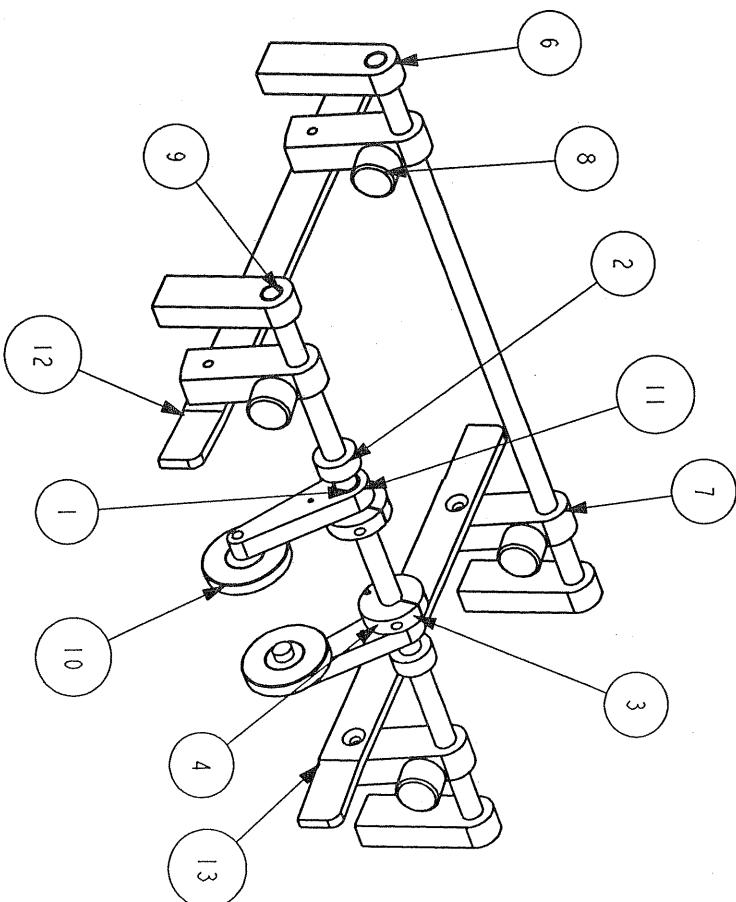
REV NO	DATE	DESCRIPTION	ECN NO	BY

ITEM	QTY	PART #	DESCRIPTION
1	2	100162	BUSHING, SL. 5001D 6250D 6251LG
2	2	102205	COLLAR .500
3	2	102233	CLAMP COLLAR, .5
4	2	105201	PIN, ROLL .125X 1.000
5	2	107101	BOLT, SHOULDER 5/16X3/8
6	4	500791	POST, SIDE GUIDE
7	4	500792	POST, SIDE GUIDE
8	4	500793	LOCK, SIDE GUIDE CAM
9	2	522519	SHAFT, SIDE GUIDE
10	2	500339A	ASSY, ROLLER
11	2	500801-19	LINK, PINCH ROLLER
12	1	511164-L	GUIDE, SIDE
13	1	511164-R	GUIDE, SIDE



SCALE 0.250

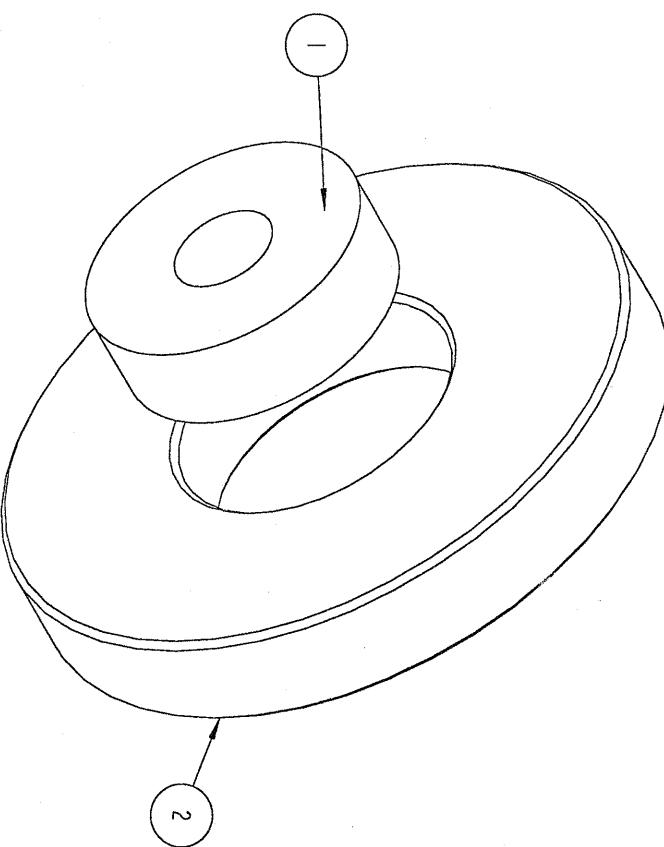
DRAWN BY:	SCALE	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED			MATERIAL:	THIRD ANGLE PROJECTION	PROPRIETARY AND CONFIDENTIAL	KIRK - RUDY, INC.
T JG	0.250	.01	.005	.5	N/A		NO PORTION OF THIS DRAWING MAY BE QUOTED OR REPRODUCED IN ANY FORM WITHOUT THE EXPRESS WRITTEN PERMISSION OF KIRK-RUDY, INC. KENNESAW, GA 30144 USA	
CHECKED BY:	DATE	HEAT TREAT:			N/A			KENNESAW, GEORGIA
	14 - Sep - 99	REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED						
TRACED BY:	MASTER	ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY			N/A			
		FINISH:						
		SHEET NO. 10 OF 1						
		DRAWING # 537612-01						

1
REG'D WHERE USED

1	537611-01
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REV	DATE	DESCRIPTION	ECON NO	BY

ITEM	QTY	PART #	DESCRIPTION
1	1	103107	BEARING, FLAT .312
2	1	500339	ROLLER, ARM

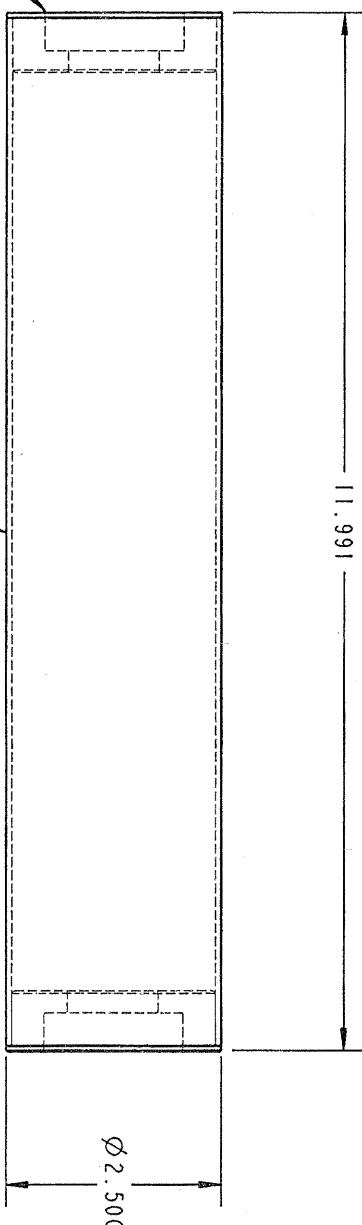


DRAWN BY:	SCALE			MATERIAL:	THIRD ANGLE PROJECTION			PROPRIETARY AND CONFIDENTIAL		
T JG	2.000			NOTED				NO PORTION OF THIS DRAWING		
DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED			.XX	.XXX	ANG.	MAY BE QUOTED OR REPRODUCED			REPRODUCED	
			.01	.005	.5	IN ANY FORM WITHOUT THE			IN ANY FORM WITHOUT THE	
CHECKED BY:	DATE			HEAT TREAT:			EXPRESSION OF WRITTEN PERMISSION			KIRK-RUDY INC.
	6-Apr-98			NONE			OF KIRK-RUDY INC.			KENNESAW, GA 30144 USA
TRACED BY:	ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY			MODEL: 527			TITLE:			ASSY, ROLLER
FINISH:	NOTED			SHEET NO. 10F1			DRAWING #			500339-A

DRAWING # 537613-01

ITEM	QTY	PART #	DESCRIPTION	REV NO	DATE	DESCRIPTION	ECN NO	BY
1	1	500835	ROLLER					
2	2	500836-2	HUB, ROLLER					

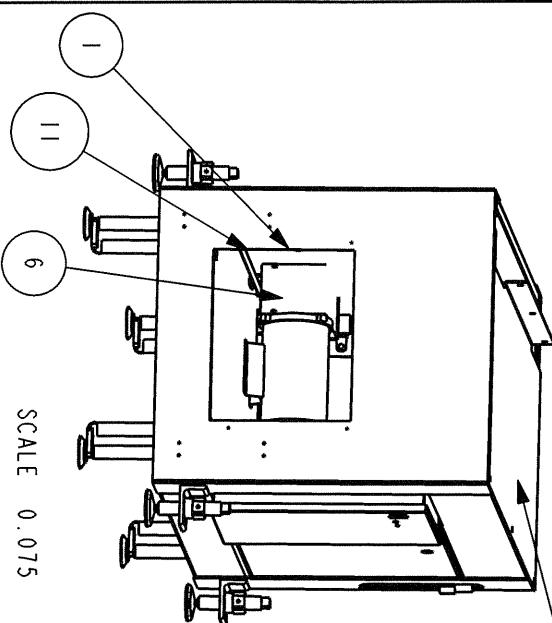
1	537611-01
REV'D	WHERE USED



DRAWN BY:	T JG	SCALE	0 . 500	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED	MATERIAL:	XXX	THRO ANGLE PROJECTION	PROPRIETARY AND CONFIDENTIAL NO PORTION OF THIS DRAWING MAY BE QUOTED OR REPRODUCED IN ANY FORM WITHOUT THE EXPRESS WRITTEN PERMISSION OF KIRK-RUDY, INC. KENNESAW, GA 30144 USA	1	537611-01
CHECKED BY:	4 - Sep - 99	DATE	.01 .005 .5	X X X	HEAT TREAT:	X X X	MODEL:	KIRK - RUDY, INC. KENNESAW, GEORGIA	RECD	WHERE USED
TRACED BY:	MASTER			REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED			445			
	M			ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY	FINISH:	XXX	SHEET NO. 0F	DRAWING #	537613-01	

REV NO	DATE	DESCRIPTION	ECN NO	BY

ITEM QTY	PART #	DESCRIPTION
1	105021	V-PULLEY, AK30
2	190634	FOOT, MOUNTING
3	4	LEVELING BOLT, CABINET
4	4	NUT, CABINET LEVELING
5	191029-1	PUMP, MOVOTEC PB4612FC
6	509000-A	ASSY, MOTOR/REDUCER DR 1/2 HP
7	534806-01	WLDMNT, RH TURNOVER CABINET W/ MOT
8	539424-01	ASSY, RH HYDRAULIFT LEG
9	539425-01	ASSY, LH HYDRAULIFT LEG
10	544310-01	PLATE, END TURNOVER
11	SP22379	BRACKET, MOTOR MOUNT (AUTOL'DER)
12	SP23631	DOOR, SMALL
13	SP23617-R	COVER, CABINET TOP
14	SP23631-1	DOOR, CABINET



SCALE 0.075

NOTE:
1. SHOWN WITH OPTIONAL HYDRAULIFT SYSTEM.

DRAWN BY:

AYB

SCALE
0.100DIMENSIONAL TOLERANCES
UNLESS OTHERWISE NOTED

.01 .005 .5

MATERIAL:

N/A

CHECKED BY:

DATE
30-Sep-99REMOVE ALL BURRS AND
SHARP EDGES UNLESS
OTHERWISE NOTED

HEAT TREAT:

N/A

REMARKS:

ALL DIMENSIONS ARE
FINISHED DIMENSIONS
DO NOT SCALE - WORK
TO DIMENSIONS ONLY

MODEL:

445

TITLE:

ASSY, TURNOVER CABINET - RH

FINISH:

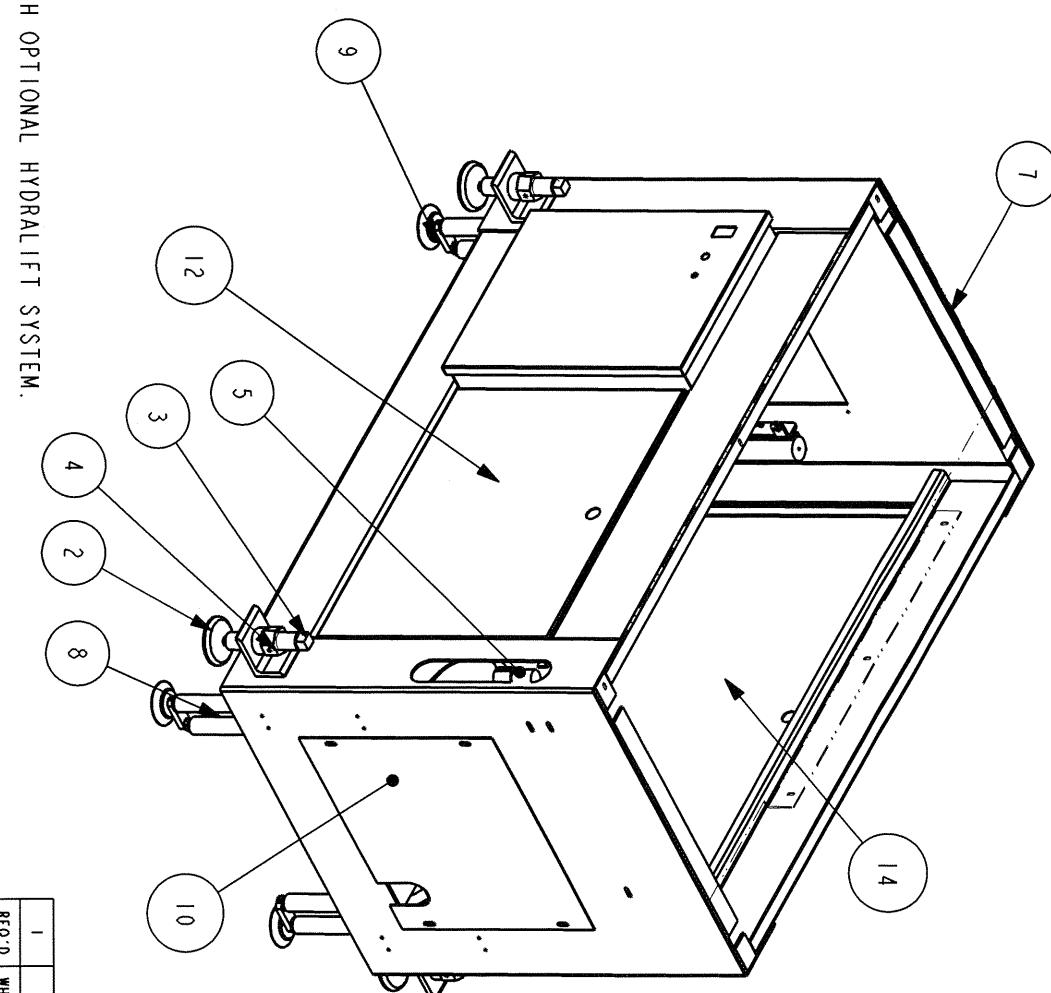
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SHEET NO.:

10F

DRAWING #:

536864-01

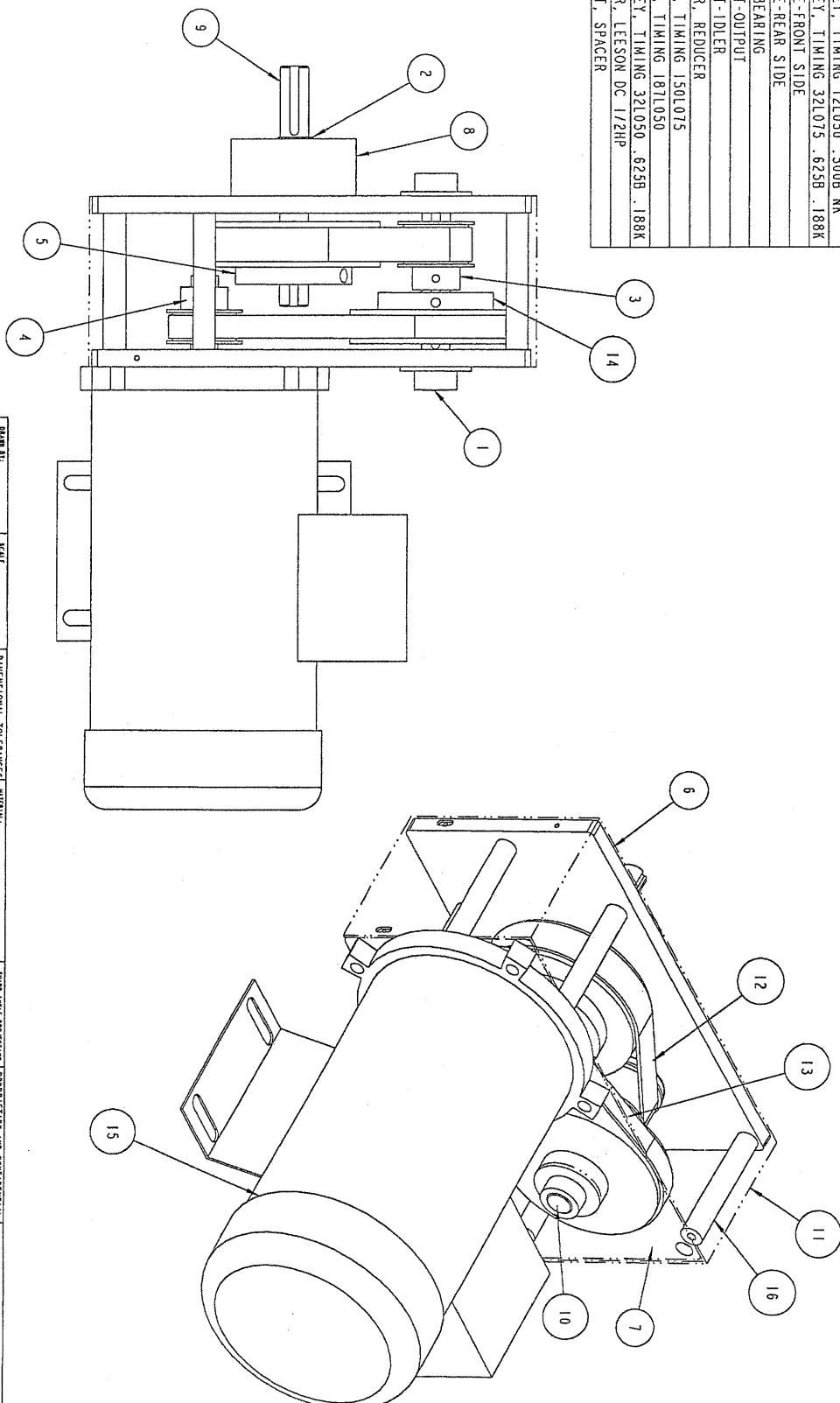
KIRK RUDY INC.
KENNESAW, GEORGIAKR445
WHERE USED

DRAWING

50900-A

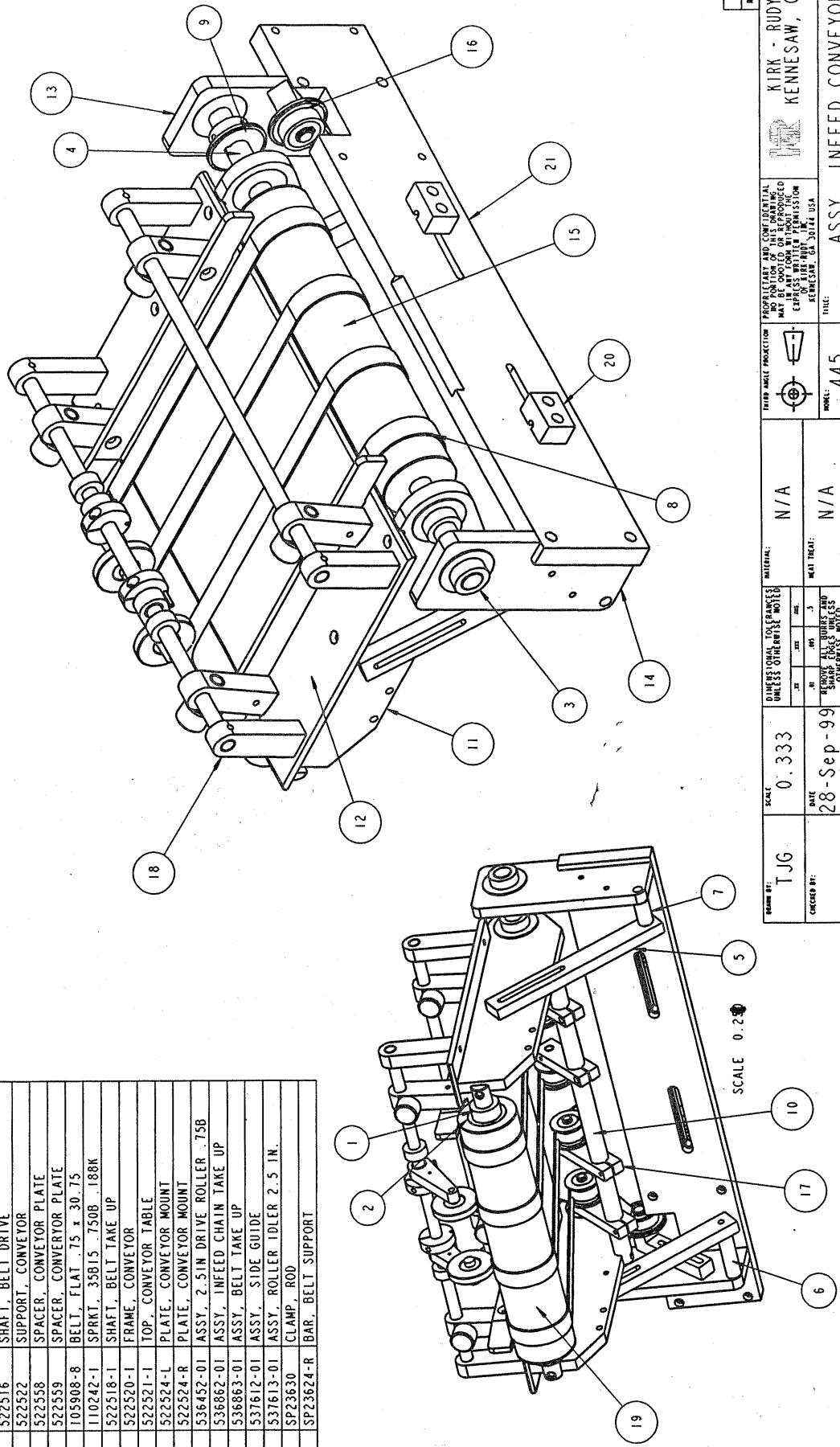
ITEM QTY	PART #	DESCRIPTION	ECN NO
1	4	BEARING - HUB	
2	104104	SNARING, .625	
3	108809	PULLEY, TIMING 12L075 .625B .188K	
4	108821	PULLEY, TIMING 12L050 .500B NK	
5	109320	PULLEY, TIMING 32L075 .625B .188K	
6	509005	PLATE-FRONT SIDE	
7	509006	PLATE-REAR SIDE	
8	509015	HUB-BEARING	
9	509032	SHAFT-OUTPUT	
10	509035	SHAFT-IDLER	
11	509037	COVER, REDUCER	
12	108911-1	BELT, TIMING 150L075	
13	108912-1	BELT, TIMING 187L050	
14	103319-1	PULLEY, TIMING 12L050 .625B .188K	
15	200152-2	MOTOR, LESSON DC 1/2HP	
16	5P16208	SHAFT, SPACER	

REV NO	DATE	DESCRIPTION	ECN NO
1	02-Nov-98	REPLACED SPACER AND PULLEYS CHANGED DRAWING SIZE	6401



REV'D	1	31-4-11
REMOVED WHERE USE	1	31-4-11

ITEM #	PART #	DESCRIPTION
1	2	102215 COLLAR .750
2	2	103112 BEARING, FLAT .750
3	4	103805 BEARING, HUB .750
4	1	522516 SHAFT, BELT DRIVE
5	2	522522 SUPPORT, CONVEYOR
6	1	522538 SPACER, CONVEYOR PLATE
7	1	522539 SPACER, CONVEYOR PLATE
8	4	105908-8 BELT, FLAT .75 x 30.75
9	1	110242-1 SPARKI
10	2	522518-1 SHAFT, BELT TAKE UP
11	2	522520-1 FRAME, CONVEYOR
12	1	522521-1 TOP, CONVEYOR TABLE
13	1	522524-L PLATE, CONVEYOR MOUNT
14	1	522524-R PLATE, CONVEYOR MOUNT
15	1	536432-01 ASSY, 2.5 IN DRIVE ROLLER .758
16	1	536832-01 ASSY, INFED CHAIN TAKE UP
17	4	536833-01 ASSY, BELT TAKE UP
18	1	537612-01 ASSY, SIDE GUIDE
19	1	537613-01 ASSY, ROLLER IDLER 2.5 IN.
20	2	SP23630 CLAMP, ROD
21	1	SP2324-R BAR, BELT SUPPORT



ITEM #:	T JG	SCALE:	0 .333	DIMENSIONAL TOLERANCES: UNLESS OTHERWISE NOTED	N/A	PROPRIETARY AND CONFIDENTIAL PRINTING OR COPIING OF THIS DRAWING IS PROHIBITED EXCEPT AS AUTHORIZED IN THE LICENSE AGREEMENT KENNESAW, GA 30040 USA
CHECKED BY:		DATE:	28-Sep-99	MANUFACTURE:	N/A	PRINT: 445
TRACED BY:	MASTER	SCALE:		INCHES:	N/A	RELEASER: KIRK - RUDY, INC. KENNESAW, GEORGIA

1 445
RELEASER: KIRK - RUDY, INC.
KENNESAW, GEORGIA

537611-01

ITEM QTY	PART #	DESCRIPTION	REV NO	DATE	DESCRIPTION	ECN NO	BY
1	102207	COLLAR .750					
2	103108	BEARING, FLAT .500					
3	104106	SNAP RING .500					
4	508684	ARM, TAKE UP					
5	1	522316 STUD-TAKE UP IDLER					
6	1	525408 STUD, TAKEUP ARM					
7	1	532146-01 ROLLER, FLANGE					

I	KR445
RECD	WHERE USED

PROPRIETARY AND CONFIDENTIAL
NO PORTION OF THIS DRAWING
MAY BE QUOTED OR REPRODUCED
IN ANY FORM WITHOUT THE
EXPRESS WRITTEN PERMISSION
OF KIRK-RUDY, INC.
KENNESAW, GA. 30144 USA

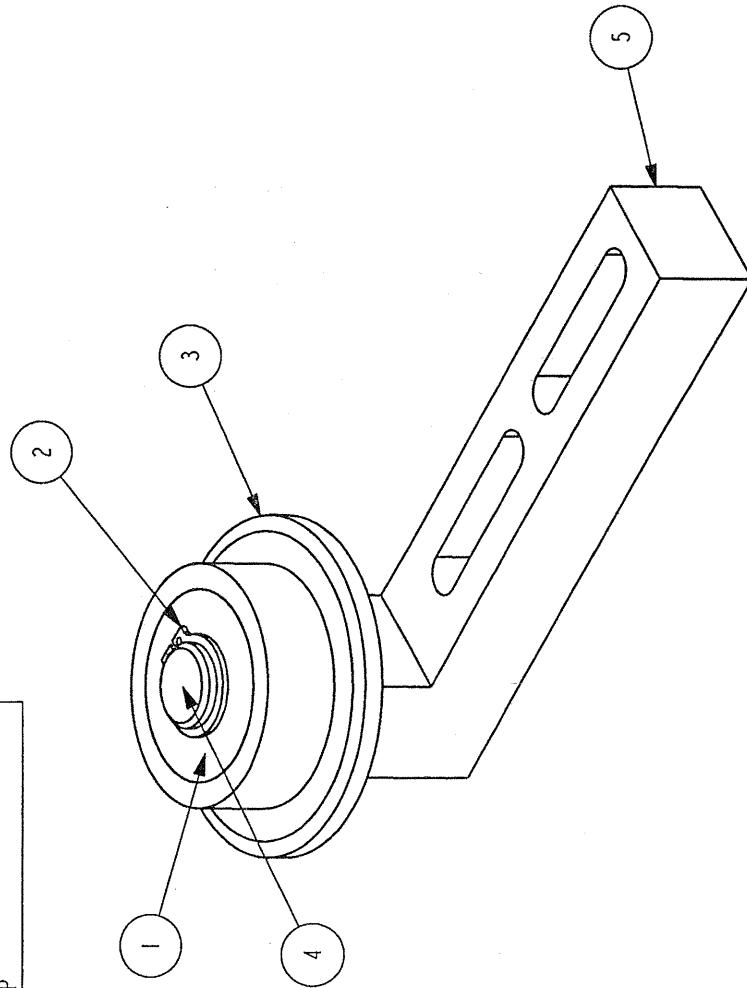
KR KIRK - RUDY, INC
KENNESAW, GEORGIA

TITLE: ASSY, BELT TAKE UP

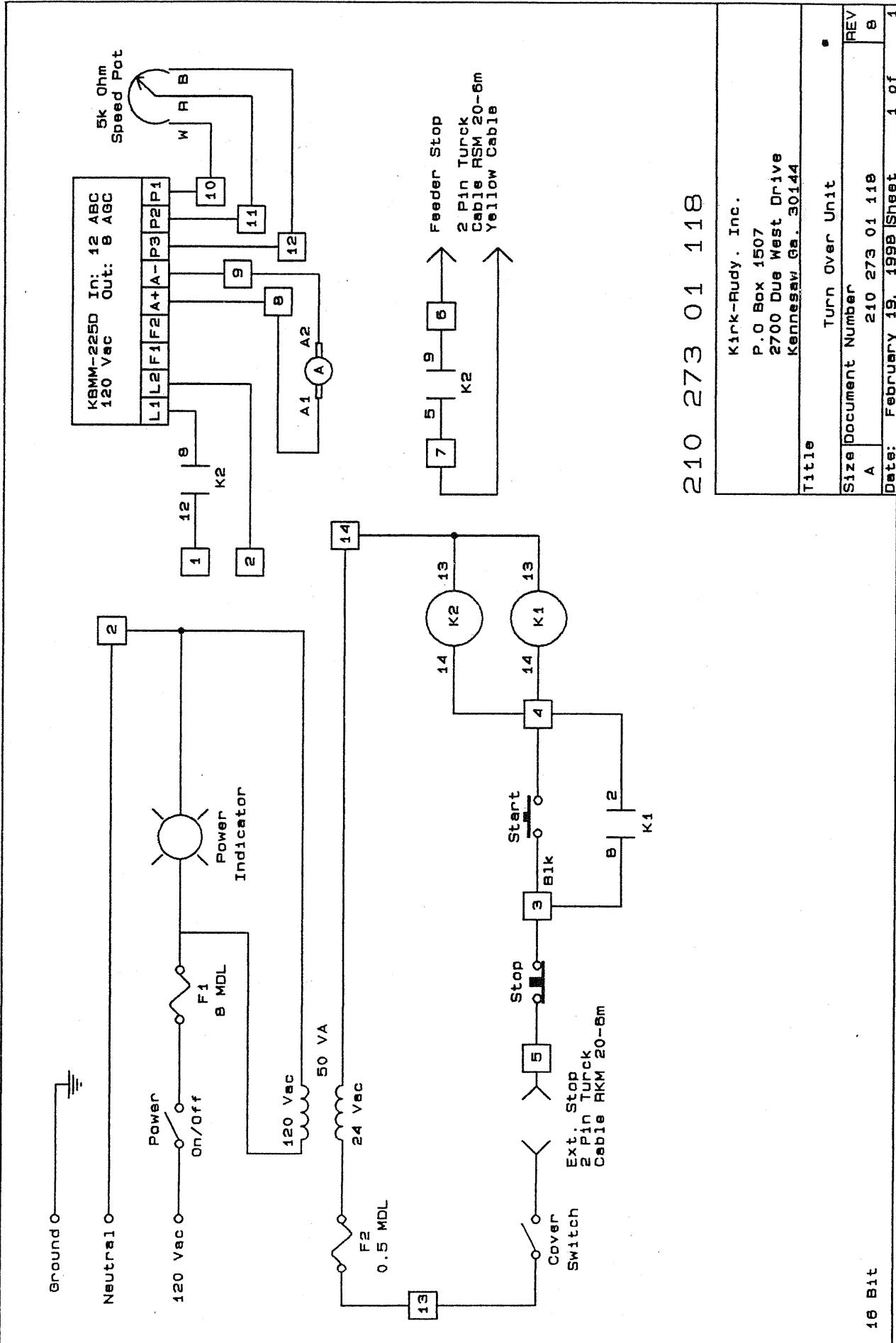
DRAWING #: 536865-01

DRAWN BY:	SCALE:	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED			MATERIAL:	N/A	THIRD ANGLE PROJECTION
A YB	0 . 750	.01	.005	.5	HEAT TREAT:	N/A	
CHECKED BY:	DATE:	.xx	AMG.				
	30 - Sep - 99						
TRACED BY:	MASTER	REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED			MODEL:	445	
		ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY			FINISH:	N/A	SHEET NO. 0F1

ITEM QTY	PART #	DESCRIPTION	REV NO	DATE	DESCRIPTION	ECN NO	BY
1	2	103108 BEARING, FLAT .500					
2	1	104106 SNAPRING, .500					
3	1	110219 SPRKT, 35B15 1.125B NK					
4	1	508540 STUD					
5	1	508857 BLOCK, TAKE UP					



1	537611-01
REQ'D	WHERE USED
KIRK - RUDY, INC.	
KENNESAW, GEORGIA	
PROPRIETARY AND CONFIDENTIAL NO PORTION OF THIS DRAWING MAY BE QUOTED OR REPRODUCED IN ANY FORM WITHOUT THE EXPRESS WRITTEN PERMISSION OF KIRK-RUDY, INC. KENNESAW, GA 30144 USA	
SCALE: A Y B	1 . 000
DATE: 28 - Sep - 99	MATERIAL: N / A
CHECKED BY: MASTER	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED .xx .xxx .005 .5 .01 .005 .5 HEAT TREAT: N / A
TRACED BY: W	REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY
	MODEL: 445
	SHEET NO: 0F 1
	TITLE: ASSY, INFED CHAIN TAKE UP
	DRAWING #: 536862-01



7 NOTES

8 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