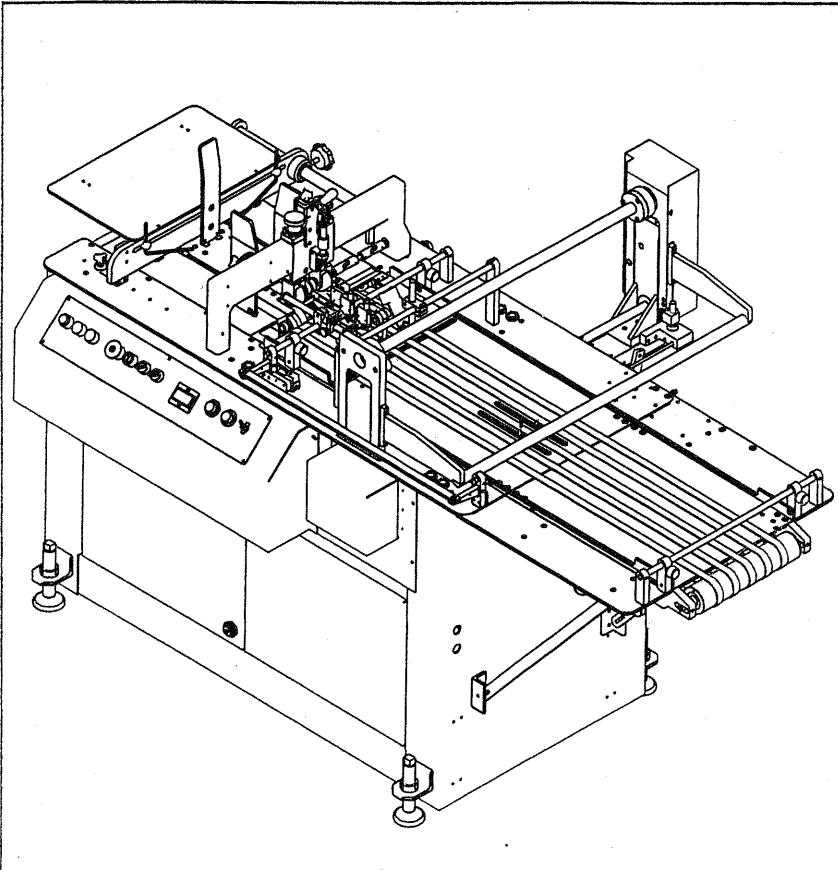


Kirk-Rudy, Inc.

Instruction and Parts Manual

KR215SP20 Stop Pin



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	6
	3.1 UNCRATING	6
	3.2 ACCESSORIES AND SPARE PARTS	6
	3.3 COMPONENT DESCRIPTION	6
4	OPERATING INSTRUCTIONS	7-21
	4.1 CONTROL PANEL	7
	4.2 STOP CIRCUIT	7-8
	4.3 JAM RELEASE	8
	4.4 SEQUENCE OF SET-UP	9
	4.5 VACUUM PLATES	9-10
	4.6 SHUTTLE/FEEDER SET UP	10-11
	4.7 VACUUM TIMING AND TOP FEED ROLLER SETUP	12-14
	4.8 GATE SETUP	14-15
	4.9 PRODUCT SPACING CHANGE	15-16
	4.10 SIDE GUIDES	17
	4.11 TABLETOP BELTS	18-19
	4.12 SKID BAR	19-20
	4.13 STOP PIN SETUP	20
5	MAINTENANCE	21
	5.1 LUBRICATION	21
	5.2 DAILY MAINTENANCE	21
6	DIAGRAMS AND PARTS LIST	22-23
	6.1 DIAGRAMS	22-23
	6.2 PARTS LIST	23
7	ELECTRICAL SCHEMATICS AND PARTS	24
	7.1 WIRING DIAGRAMS LIST	24
	7.2 PARTS LIST	24
8	APPENDIX	25
	8.1 POSSIBLE OPTIONS	25
9	NOTES	26
10	WARRANTY AND SERVICE INFORMATION	27

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

1 Important Safety Instructions

Intended Use Statement: The KR215SP20 is a top load, bottom feed, vacuum shuttle, single sheet transport system designed to separate and feed product one at a time in a consistent manner. Product feeds out onto conveyor belts and passes under a hot glue head for glue to be applied. The product is then transported under a KR203P Pick-n-Place head. Stop pins move up from underneath the tabletop and stops the product long enough to place a piece onto the glued section. The stop pins drop after the application and product is carried off the end of the machine. Usage for other purposes may lead to an unsafe condition

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



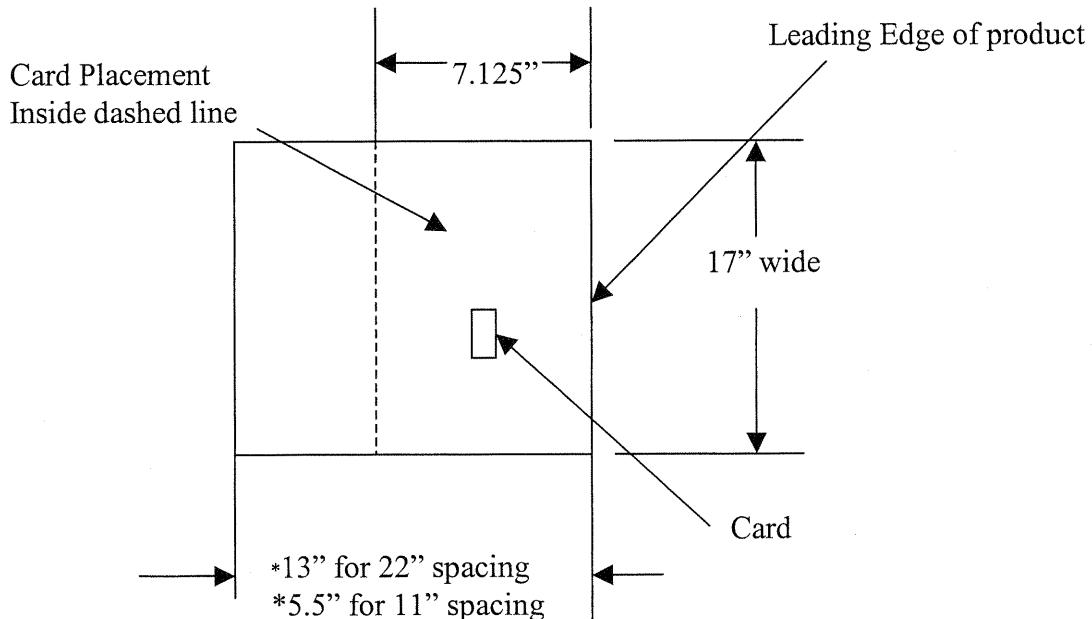
WARNING

- * 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.

2 SPECIFICATIONS

PRODUCT SIZE RANGE	English	Metric
Minimum Size:	3" W x 5" L	7.6cm W x 12.7cm L
Maximum Size:	17" W x 13" L*	43.2cm W x 33cm L
Minimum Thickness:	Card Stock (.007")	Card Stock (.10mm)
Maximum Thickness:	.625"	15.9 mm

KR203P PRODUCT PLACEMENT



*Longer product can be run on machine but stop pins will lift up trailing edge of product; 22"spacing product up to 15" long. 11"spacing product up to 7.5" long.

PHYSICAL SIZE

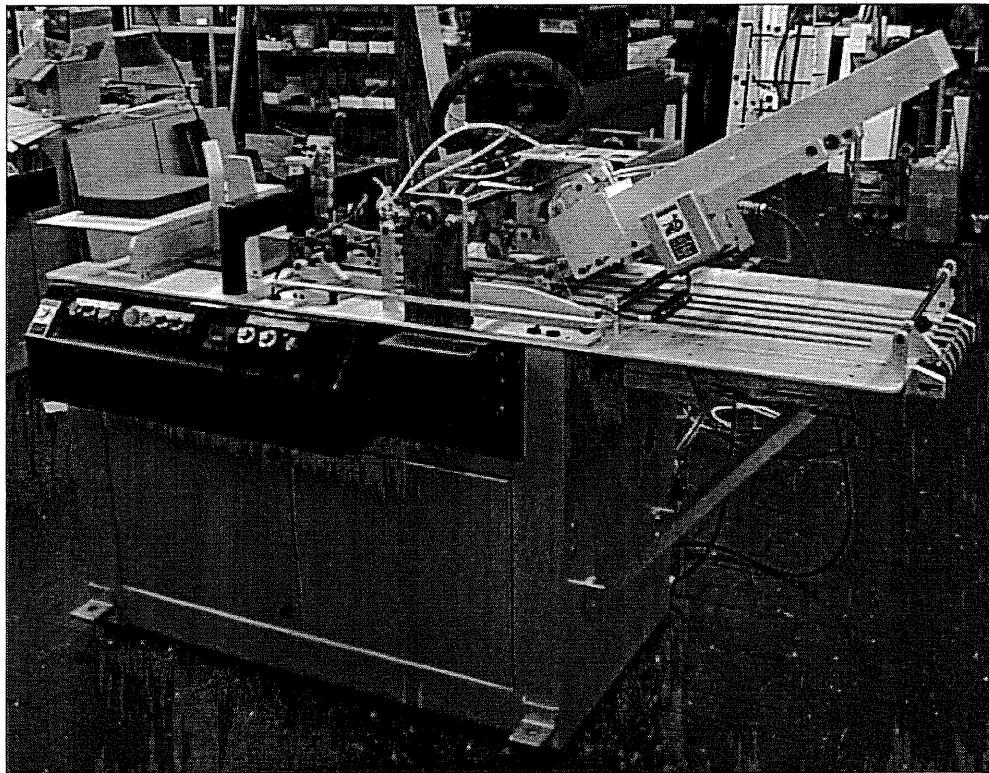
Length	77"	196 cm
Width	44"	112 cm
Height	33.25"	84.5 cm
Weight	1200 lbs	545 kg
Shipping	1425 lbs	647 kg

CYCLE SPEEDS

11" Spacing - up to 6,000/hour
22" Spacing - up to 3,000/hour

ELECTRICAL REQUIREMENTS

Main Power	220V, single phase, 60 hz, AC 20 amps
Vacuum Pump	1/2 hp
Drive Motor	1 hp



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.

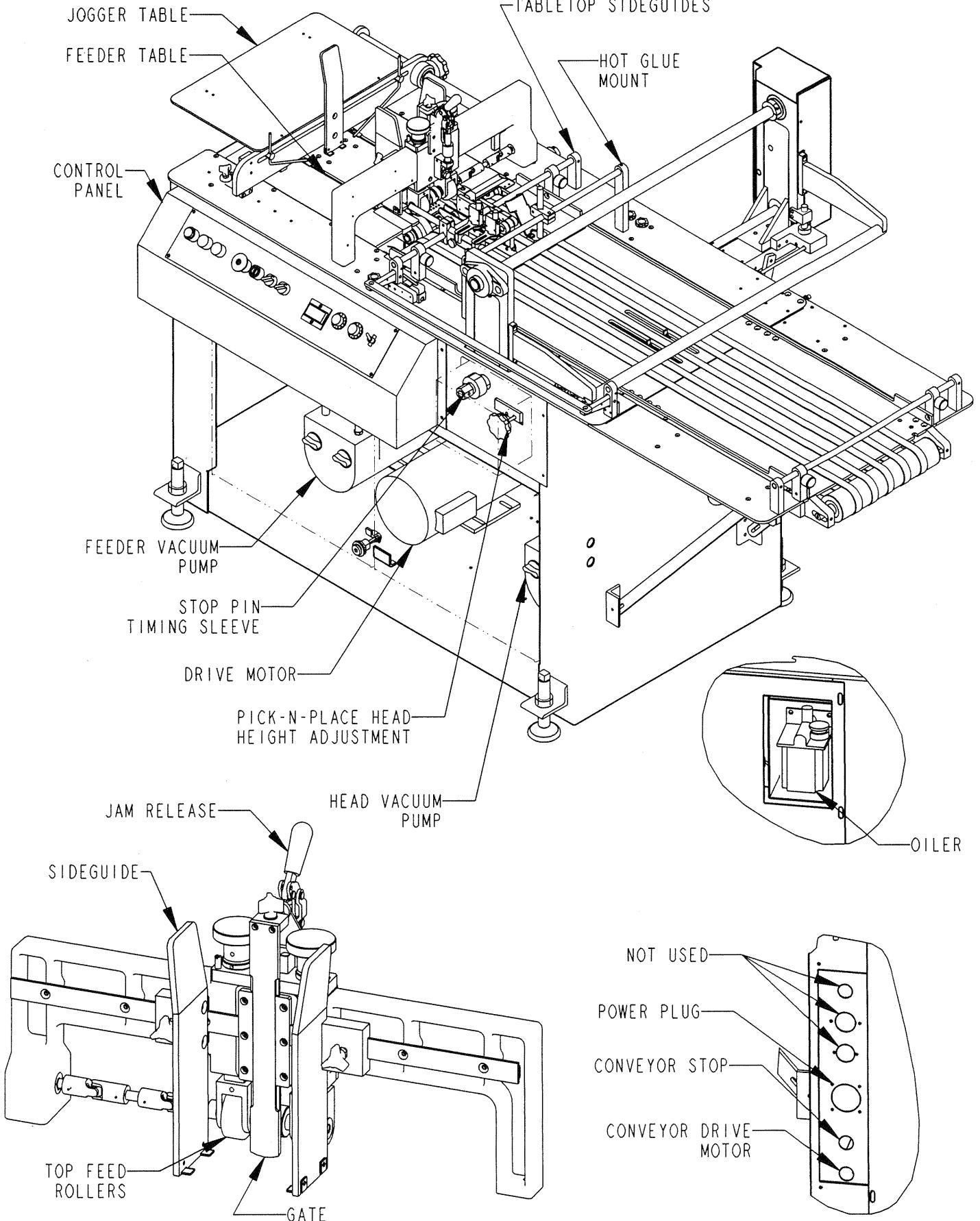
Note: A forklift should be used to lift machine from pallet. The base is mounted on casters.

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.

3.3 COMPONENT DESCRIPTION (see Figure 1.0)

1. JOGGER TABLE: Used to set the backstop for the product being fed. Can also be used to hold extra product.
2. FEEDER: Pushes product under gate and into feed rollers.
3. GATE: Prevents more than one piece of product from being fed at one time.
4. TOP FEED ROLLERS: Along with the lower feed rollers, feeds product through the bridge.
5. JAM RELEASE: Raises top feed rollers, so a jam can be cleared.
6. FEEDER SIDEGUIDES: Holds product straight while being fed.
7. TABLETOP SIDE GUIDES: Keeps product from skewing while traveling on the tabletop.
8. HOT GLUE MOUNT: Mounts the hot glue head.
9. OILER: Used to lubricate machine.
10. FEEDER VACUUM PUMP: Supplies vacuum to the feeder.
11. DRIVE MOTOR: Drives the shuttle, tabletop belts and head.
12. HEAD VACUUM PUMP: Supplies vacuum to the head.
13. STOP PIN TIMING SLEEVE: Sets the timing for the stop pins.
14. HEAD HEIGHT ADJUSTMENT: Sets the height of the head.
15. CONTROL PANEL (for more detail, see Section 4.1 and Figure 2.0): Contains operator controls.



KR215SP20 MAJOR COMPONENTS
FIGURE 1.0

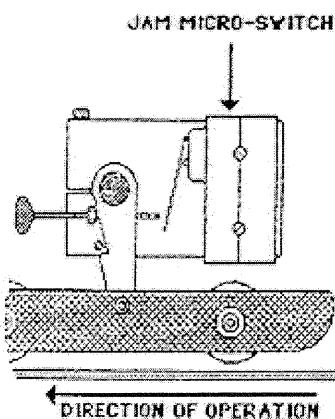
4 OPERATING INSTRUCTIONS

4.1 CONTROL PANEL (see Fig. 2.0)

1. STOP BUTTON: Stops the feeder.
2. JOG BUTTON: The machine will run as long as this switch is depressed. This switch is designed as an aid for set-up and will also stop the machine when pressed and released.
3. START BUTTON: Starts the machine.
4. POWER OFF / EMERGENCY STOP BUTTON: This is a latching switch. To turn power on, unlatch emergency stop. Press button to turn machine power off. The green light in the power button will turn off when power is off.
5. POWER BUTTON: Press button to turn machine power on. Emergency stop button must be unlatched. Button will glow green when machine is on.
6. FEEDER VACUUM SWITCH: Turns on/off feeder vacuum.
7. HEAD VACUUM SWITCH: Turns on/off head vacuum.
8. COUNTER: Counts the product.
9. MACHINE SPEED CONTROL: Controls the speed of the base. “0” is minimum speed, “10” is maximum speed.
10. CONVEYOR SPEED CONTROL: Controls the speed of the conveyor. “0” is minimum speed, “10” is maximum speed.
11. GLUE BEAM SWITCH ON/OFF TOGGLE: Turns on/off the glue beam switch for setting up the machine.

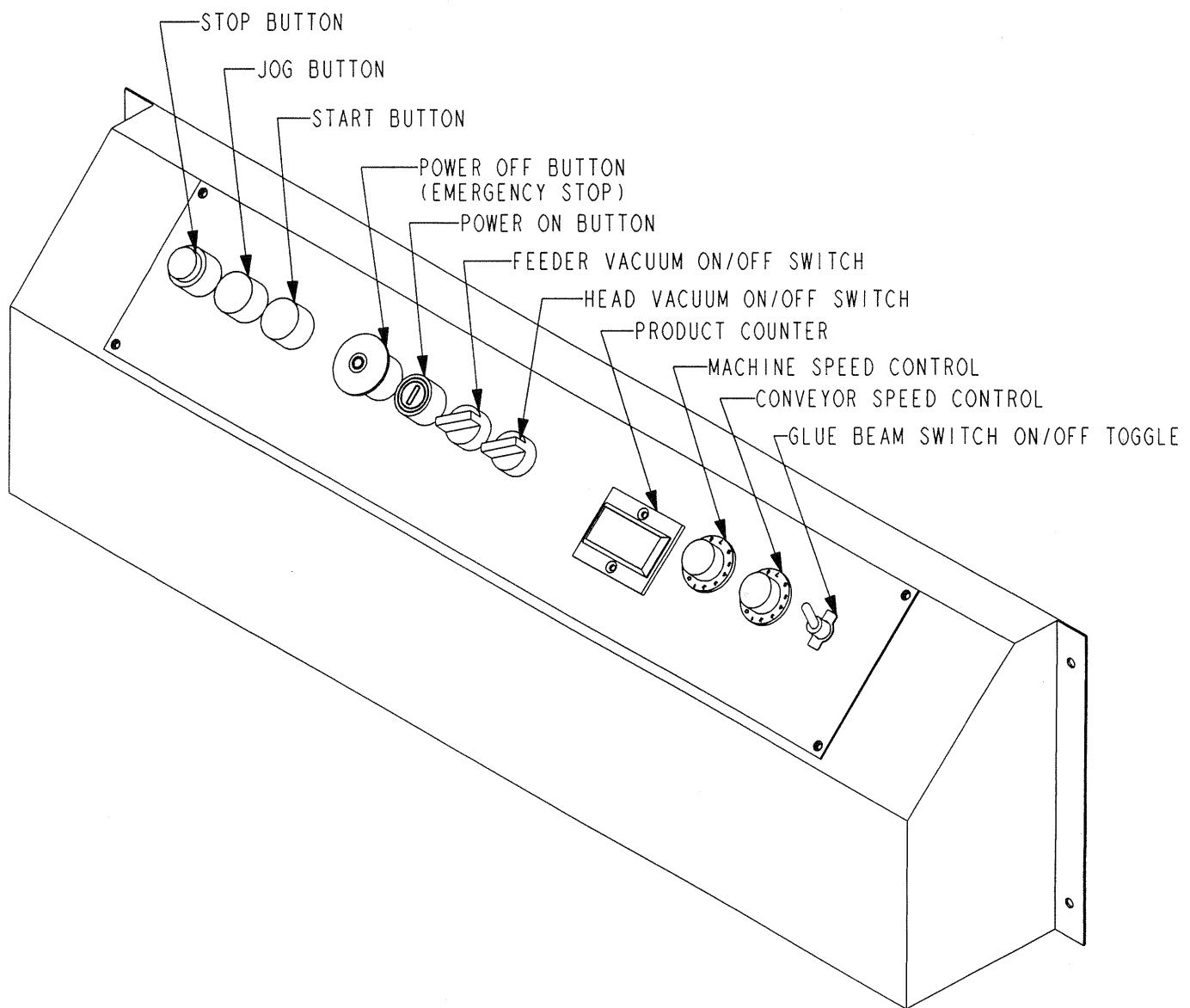
4.2 STOP CIRCUIT

The stop circuit is wired in series, this means that if one of the stop switches or buttons is open, the machine will not run. There are four stop switches on the KR215SP20. They are the jam microswitch on the skid bar assembly (538021-01), the panic stop bar (535275-01), the conveyor stop button, and the control panel emergency stop button (Figure 2.0).

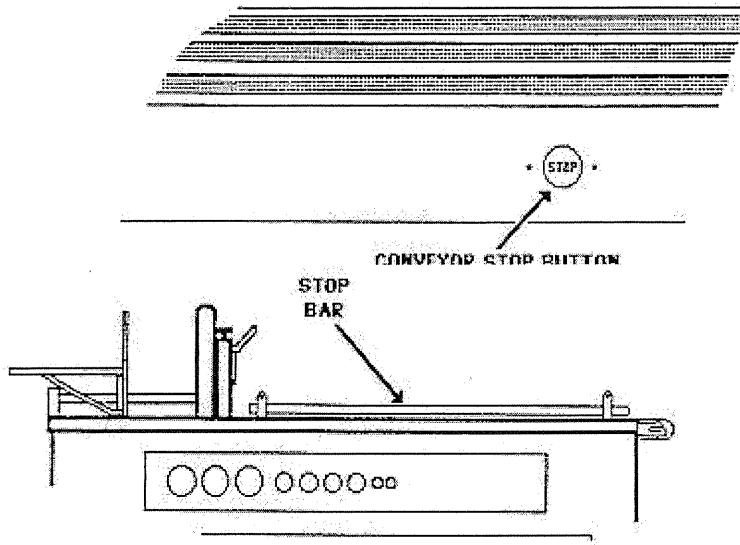


The switch that is open most often is the “jam microswitch” located on the skid bar.

The second switch that is most often open is the conveyor stop button. This button is usually open because of improper seating of the plug that goes into the back of the machine. If neither the machine nor the conveyor will run when the start button is depressed, check all the stop switches. If the machine will still not run, the problem must be isolated with a volt/ohm meter using the schematics.

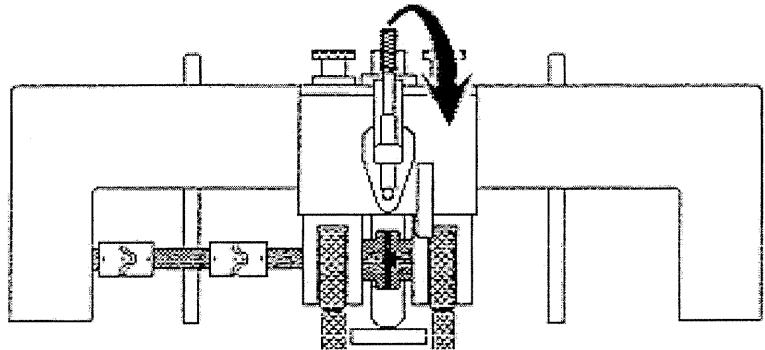


KR215SP20 CONTROL PANEL
FIGURE 2.0

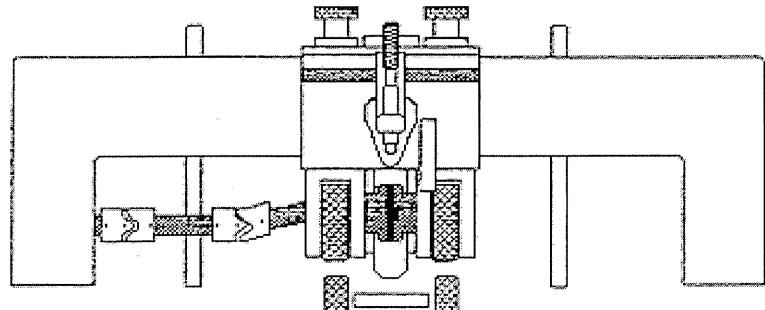


4.3 JAM RELEASE

The feeder bridge contains a "jam release" that allows the gate and top feed rollers to be raised in case of a double feed or jam. To engage the jam release, simply pull down on the handle. Be sure and push up the handle and lower the gate and feed rollers after the jam has been cleared and before continuing operation.



Jam release in up position with gate and feed rollers down.



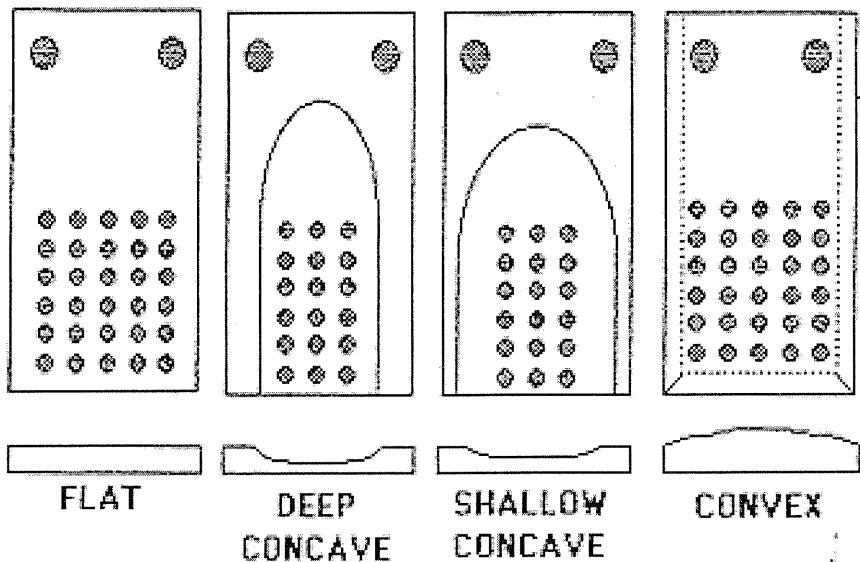
Jam release pulled down, raising gate and feed rollers.

4.4 SEQUENCE OF SET-UP

1. Perform daily maintenance.
2. Select and install proper vacuum plate.
3. Set upper feed rollers.
4. Adjust gate.
5. Engage needle blocks, lifters and/or pusher blocks.
6. Adjust feed hopper product guides and backstop.
7. Adjust tabletop belts.
8. Position tabletop side guides.
9. Position skid bar.
10. Adjust vacuum.
11. Set shuttle feeder and tabletop speeds.
12. Adjust timing and placement of product to stop pins.
13. Adjust timing and placement of KR203P Pick-n-Place head.
14. Adjust timing and placement of the hot glue on the product.

4.5 VACUUM PLATES

Before setting up the feeder, the correct vacuum plate should be selected and installed. There are four vacuum plates available for the KR215SP20.



FLAT PLATE: For thick product such as magazines and newspapers, any product that does not give or have bend to it.

DEEP CONCAVE PLATE: For thin product such as single sheets or flimsy product.

SHALLOW CONCAVE PLATE: For thicker product that has some flexibility.

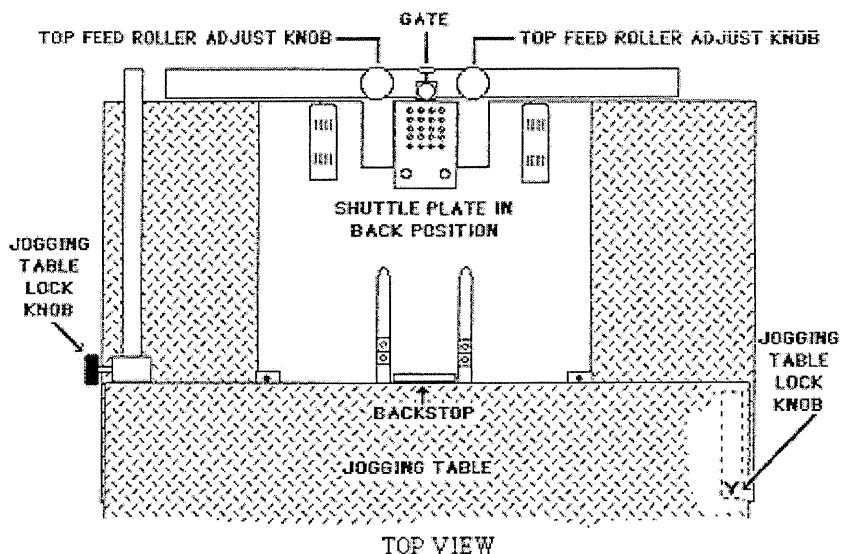
CONVEX PLATE: For tri-folded or self-mailers and can also be used for product that has a warp or bend. This plate is optional and not sent with machine.

To change vacuum plates, remove the two 5/32" hex head screws in the rear of the plate and lift the plate out from the shuttle on the feeder. Insert the desired plate and re-install the two screws.

4.6 SHUTTLE/FEEDER SET-UP

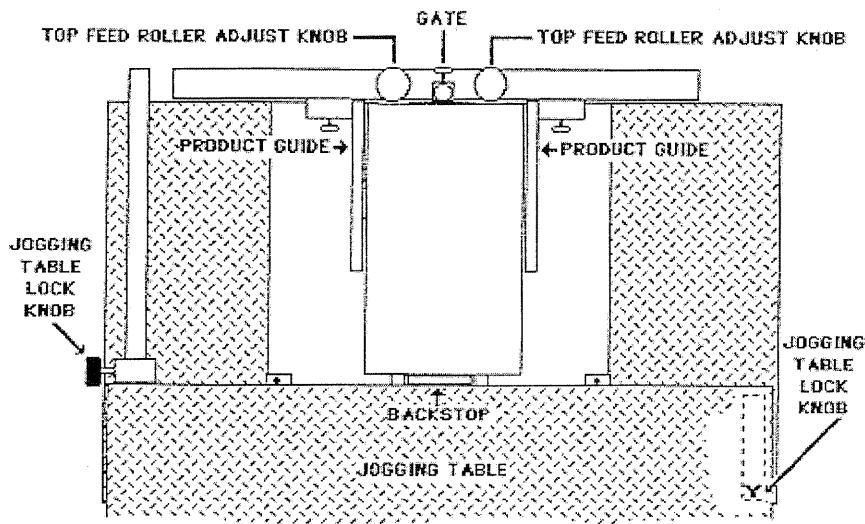
To set up the feeder, loosen the back stop/jogging table and slide back. Loosen the two product guides and slide out from the center of the feeder.

Rotate the machine by hand until the shuttle plate is in the extreme back position.



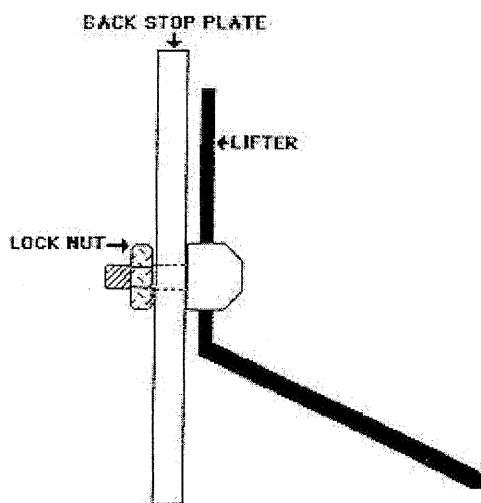
TOP VIEW

Place the product on the shuttle plate up against the gate. Bring the backstop up against the product and lock in place. Bring both product side guides in to the product. Allow approximately 1/8" play between guides and the product. Lock into place.

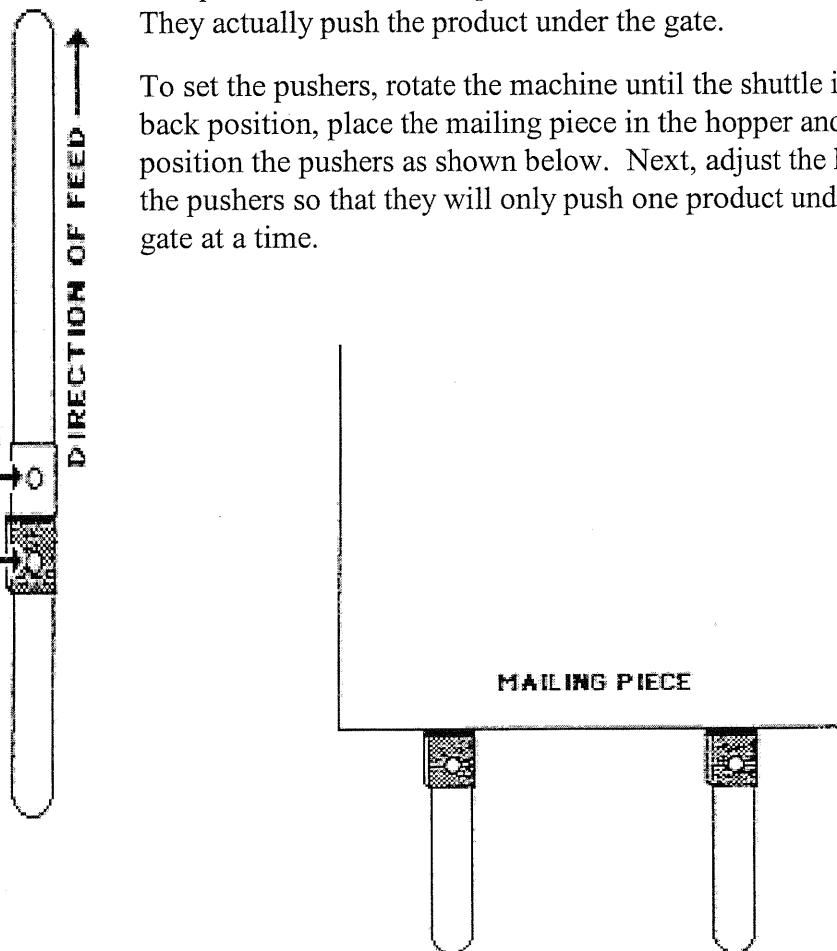


TOP VIEW

The feeder is equipped with lifters, and pushers to aid in the feeding of various products.



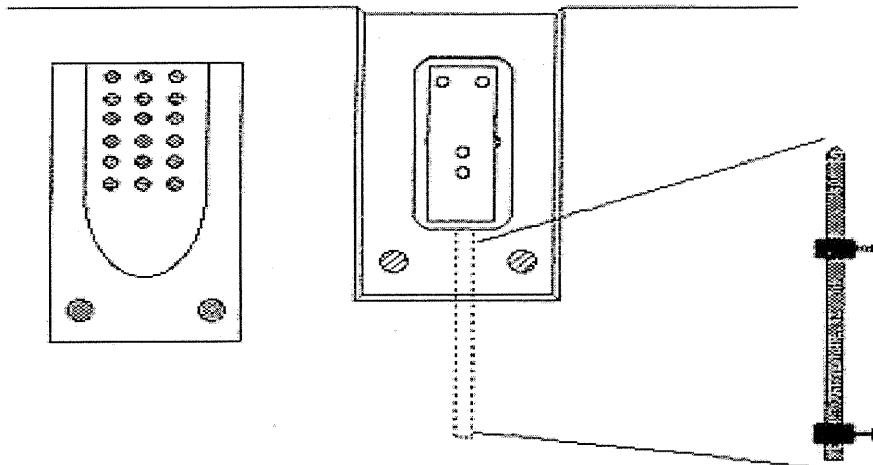
The lifters are designed to lift up the back of the product and angle the front edge toward the gate to aid in feeding. These are most commonly used for large products such as newspapers, magazines, and etc.



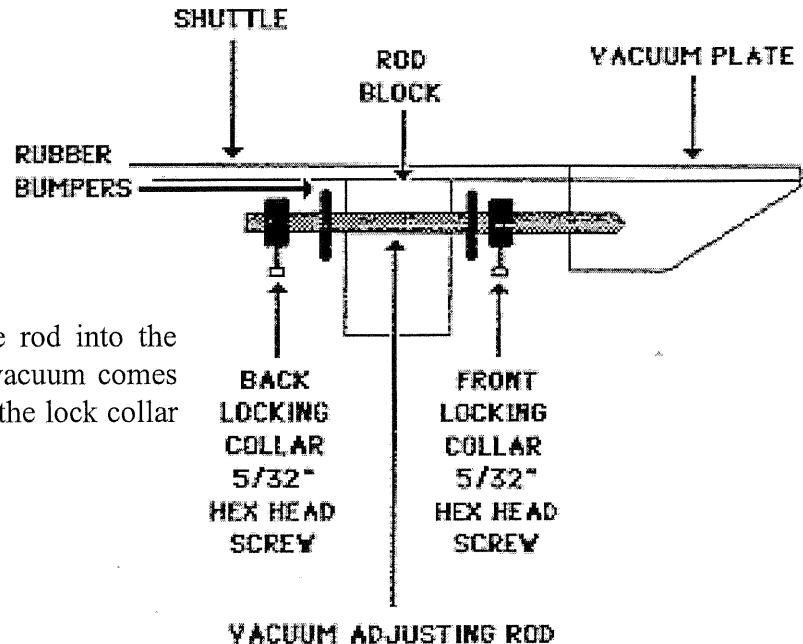
4.7 VACUUM TIMING AND TOP FEED ROLLER SET-UP

The vacuum connected to the vacuum plate is designed to come on 1/8" before the shuttle plate reaches the maximum backstroke. The vacuum connected to the vacuum plate should go off after the vacuum plate has transported the product underneath the gate and between the feed rollers. The lower feed rollers will come up.

The vacuum is turned on and off by two lock collars set-screwed to a rod that rides underneath the vacuum plate. When this rod is pushed in it turns the vacuum on and when it is pulled out the vacuum is turned off.

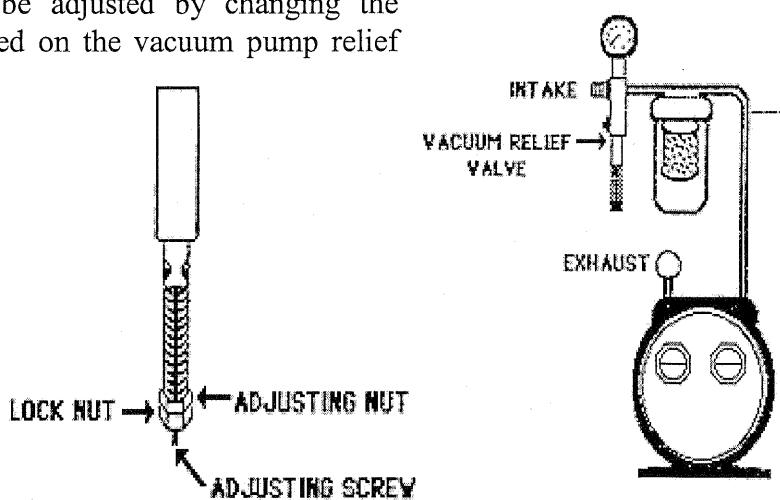


To adjust the vacuum on, turn the main power and feeder vacuum pump switches on and rotate the machine by hand until the shuttle plate is 1/8" from its maximum backstroke. Locate the front lock collar on the rod underneath the feeder and loosen. Hold the lock collar against the rod block. Push the rod into the vacuum plate housing until the vacuum comes on to the vacuum plate. Tighten the lock collar in this position.

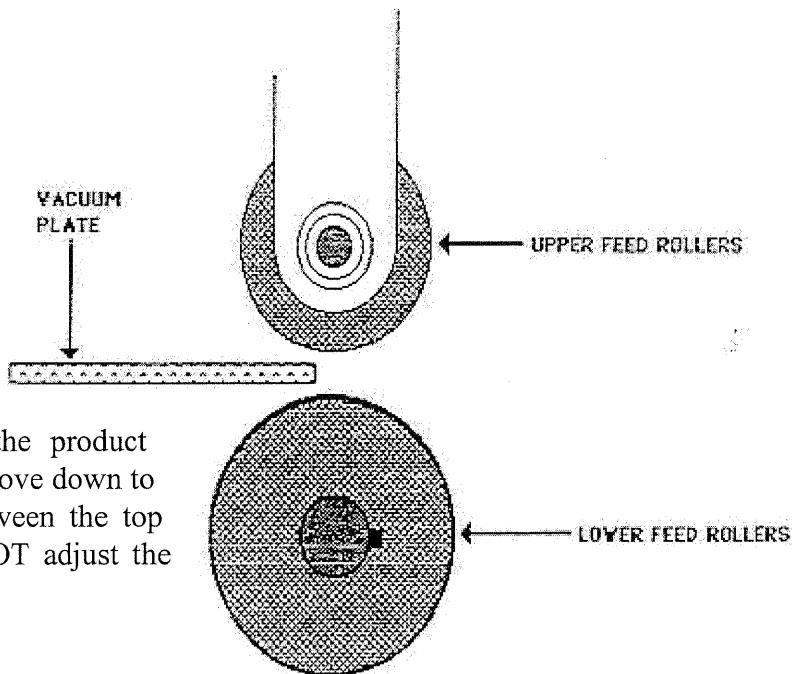


Vacuum to the plate can be adjusted by changing the pressure on the spring located on the vacuum pump relief valve.

Locate the vacuum relief valve on the feeder vacuum pump (located on the left of the machine) and loosen the lock nut. Now the vacuum can be adjusted by holding the adjustment screw and turning the adjustment nut. As the spring is compressed, the vacuum increases. Loosening the compression spring decreases vacuum.



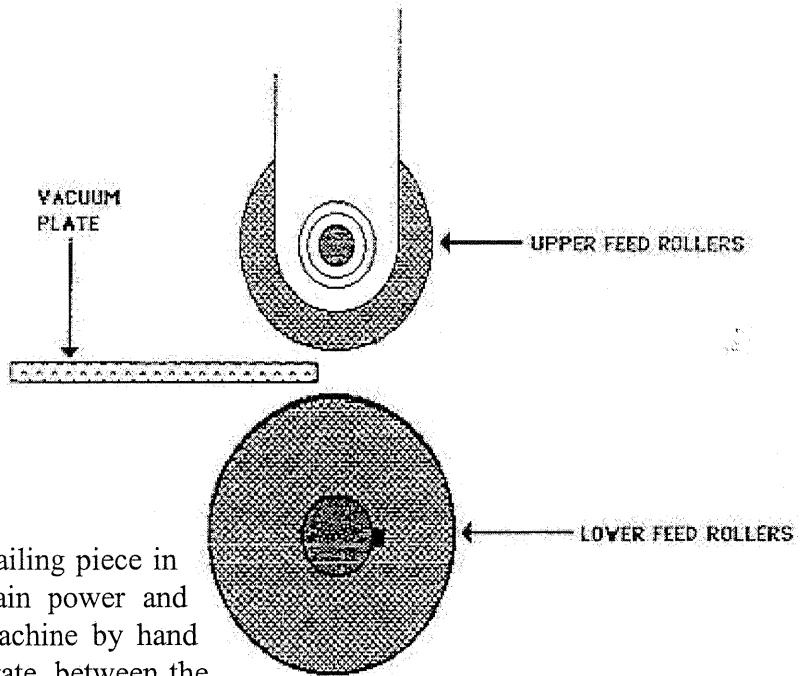
Jog the machine forward and move the shuttle until the lower feed rollers come up. At this point the vacuum should go off. To adjust the vacuum off, loosen the back lock collar and hold against the rod block, pull the rod out of the vacuum plate housing until the vacuum goes off. Tighten in this position.



As the vacuum plate moves the product forward, the lower feed rollers move down to allow the product to move between the top and lower feed rollers. DO NOT adjust the top feed rollers at this point.

If all three conditions are met
the upper feed rollers can be set.

1. The vacuum plate is full forward.
2. The vacuum plate is shut off.
3. The lower feed rollers are up.



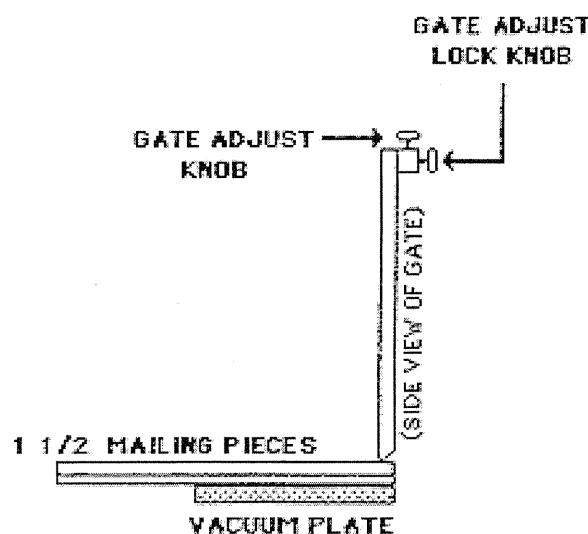
To set the top feed rollers, place a mailing piece in the shuttle feeder. Turn on the main power and feeder vacuum pump. Rotate the machine by hand until the piece is fed underneath the gate, between the top and lower feed rollers, and the lower feed rollers have come up. Adjust the top feed rollers up and down until there is enough pressure on the mailing piece to be able to pull the piece back out without tearing it.

After setting the top feed rollers, lock them in place with the locking nuts.

Place several pieces in the feeder and run the machine using the run or jog button. If the piece pulls to one side as it leaves the feed rollers, the top feed rollers are not set properly. Adjust until the mailing piece is fed smoothly by raising or lowering one of the top feed rollers. Always start by trying to loosen the tighter roller as opposed to increasing the pressure on the looser roller. This prevents unnecessary wear and tear on the machine.

4.8 GATE SET-UP

To set the gate, loosen the gate lock knob and turn gate adjust knob counter clockwise to raise the gate. Turn the main power and the feeder vacuum pump switches on. To rotate the gate, adjust the knob clockwise until the gate is snug against the mailing piece.



(When setting up on a mailing piece that is two or more pages, the gate should be set snug to $1 \frac{1}{2}$ times the thickness of the mailing piece. Simply take $1 \frac{1}{2}$ pieces and place underneath the gate). After the gate is set, lock in place with the gate lock knob.

This should allow one piece to feed smoothly but keep two pieces from going under the gate at the same time. If two pieces are fed and the gate is set properly, the piece on top will jam or tear. If this happens, the problem is either the mailing pieces are stuck together or too much

vacuum is being applied to the vacuum plate. To adjust the amount of vacuum being applied to the plate, see Section 4.7.

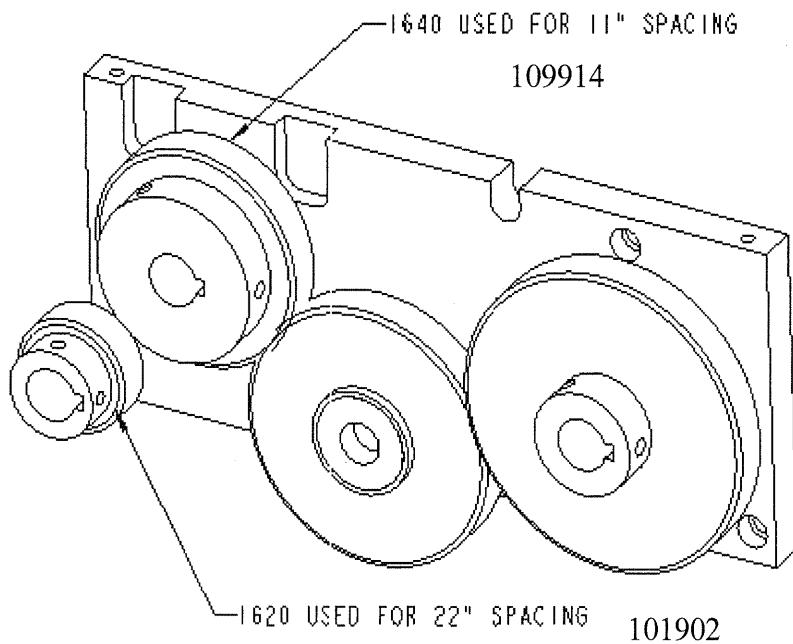
4.9 PRODUCT SPACING CHANGE



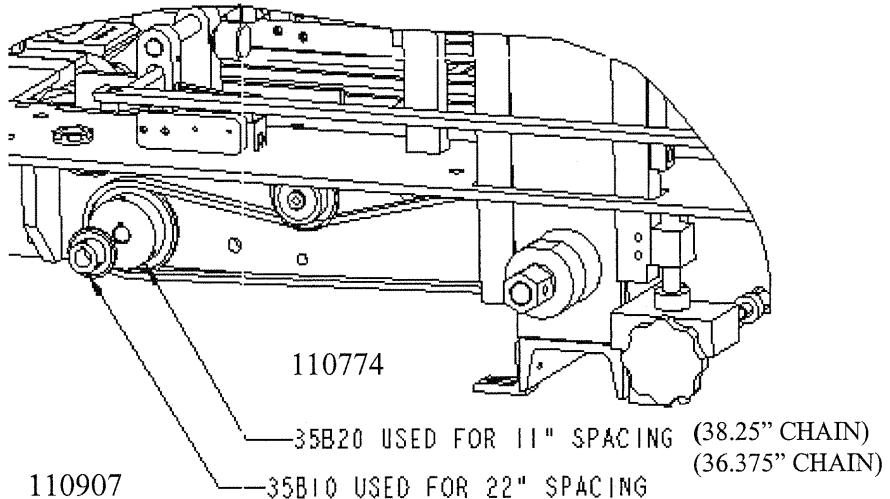
WARNING

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

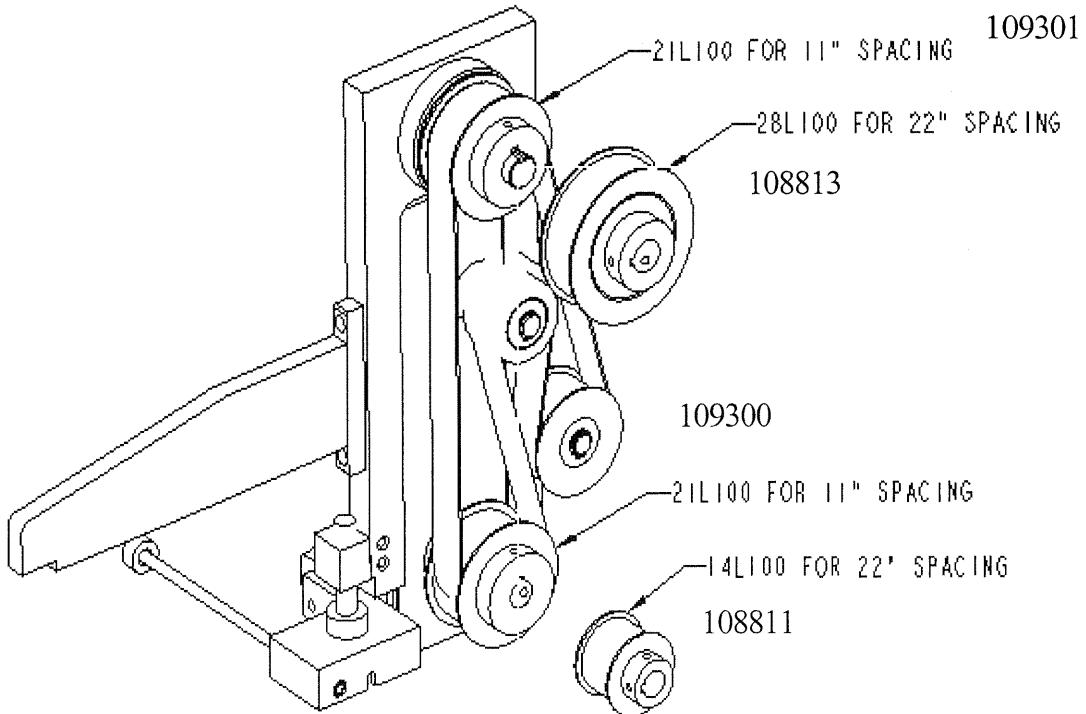
Gear Change, Base: Remove the access panel at the rear, back of the machine base. The center 48-tooth idler gear is common to 11" and 22" spacing. The allen shoulder screw retaining this gear is secured into the top hole when using 22" spacing and bottom hole on 11" spacing. When repositioning this gear, be sure the spacer washer is used. The smaller 20-tooth gear is mounted on the keypad shaft to the left of the idler gear when using 22" spacing the larger 40-tooth gear is mounted to this same shaft when using 11" spacing. Tighten two allen set screws securely.



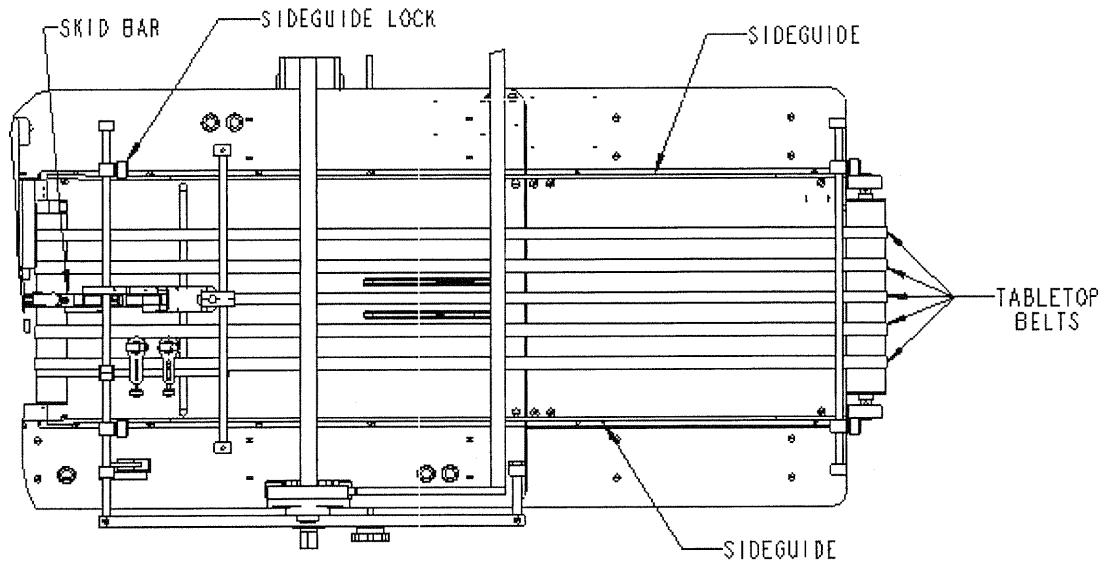
Sprocket Change, Base: Remove the control panel and electrical insert and cover. Replace the sprocket to obtain the desired machine spacing. The 35B20 is used for 11" spacing and the 35B20 is used for 22" spacing. Different chain lengths are required for both configurations. Reinstall components in reverse order.



Timing Pulley Change, Base: Remove the head support drive cover. Loosen eccentric take-up and remove timing belt. For 11" spacing install the 21L100 on the drive and driven shaft. For 22" spacing install the 14L100 on the drive shaft and the 28L100 on the driven shaft. The timing belt can be used with either drive configuration.

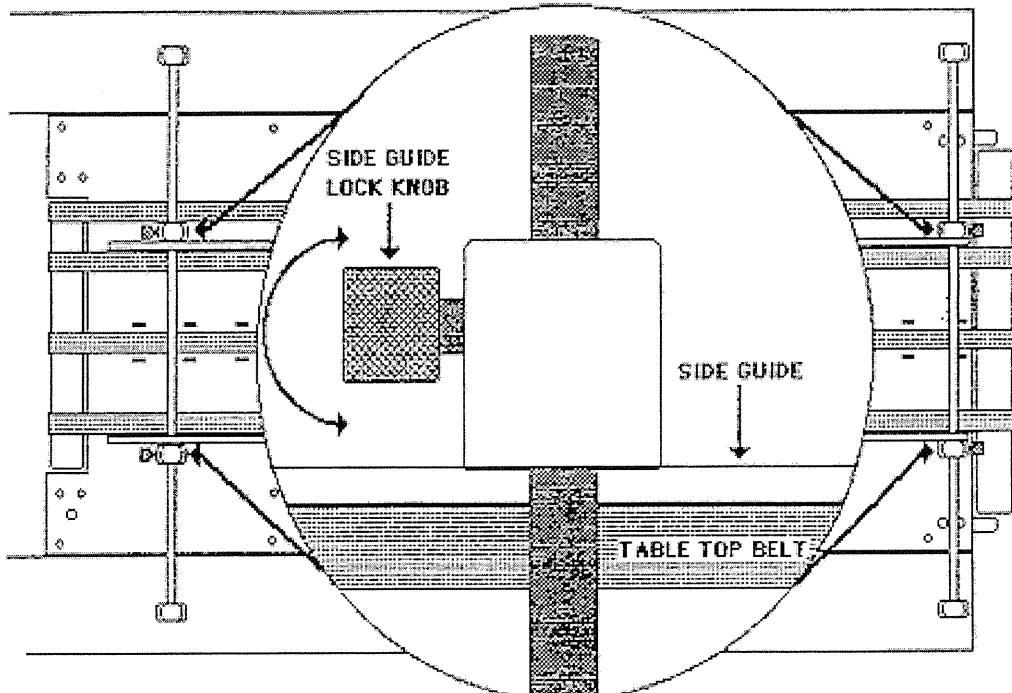


4.10 SIDE GUIDES



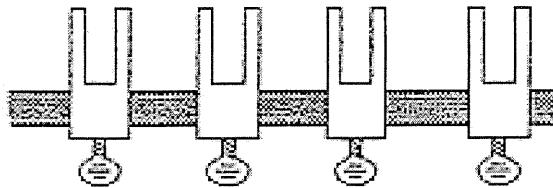
Once the product has been fed out through the feed rollers, the tabletop adjustments can be set. The first item to set up is the side guides. With the main power and feeder vacuum pump on, load the hopper and feed a piece out past the feed rollers. At this point, the two side guides can be brought in to either side of the piece with approximately 1/8" play on either side. The side guides are held in place with lock knobs that can be turned either way to lock the guides in place.

If the side guides are too tight, the mailing piece will not move across the tabletop. If they are too loose, the mailing piece may skew and product maybe placed on crooked.



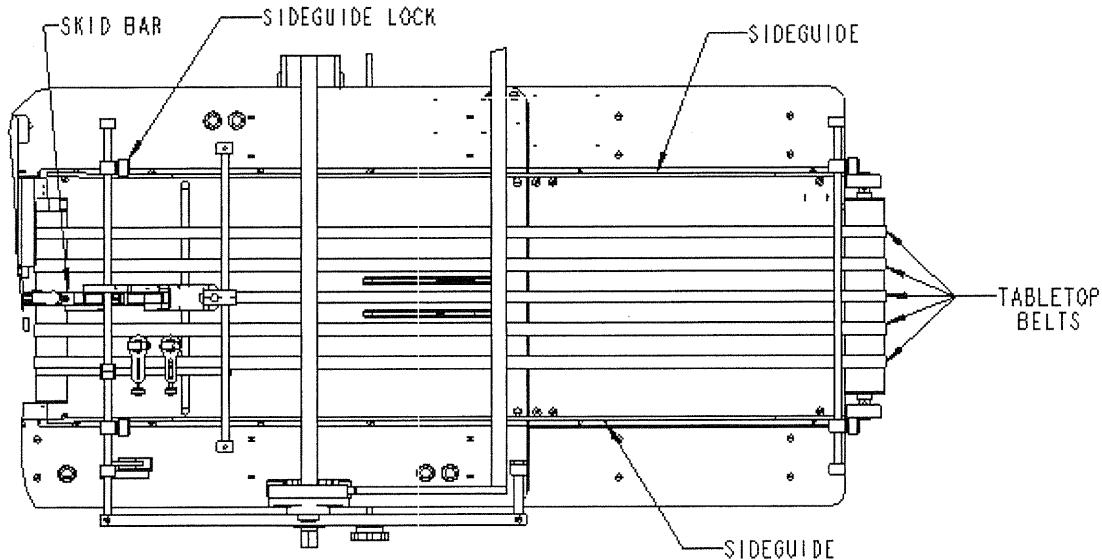
4.11 TABLETOP BELTS

The tabletop belts are designed to transport the product from the feed rollers, under the KR203P Pick-n-Place head and onto the conveyor. There are five tabletop belts on the KR215SP20. However, not all of them are needed for every product. You may run the belts that are not needed outside of the side guides.

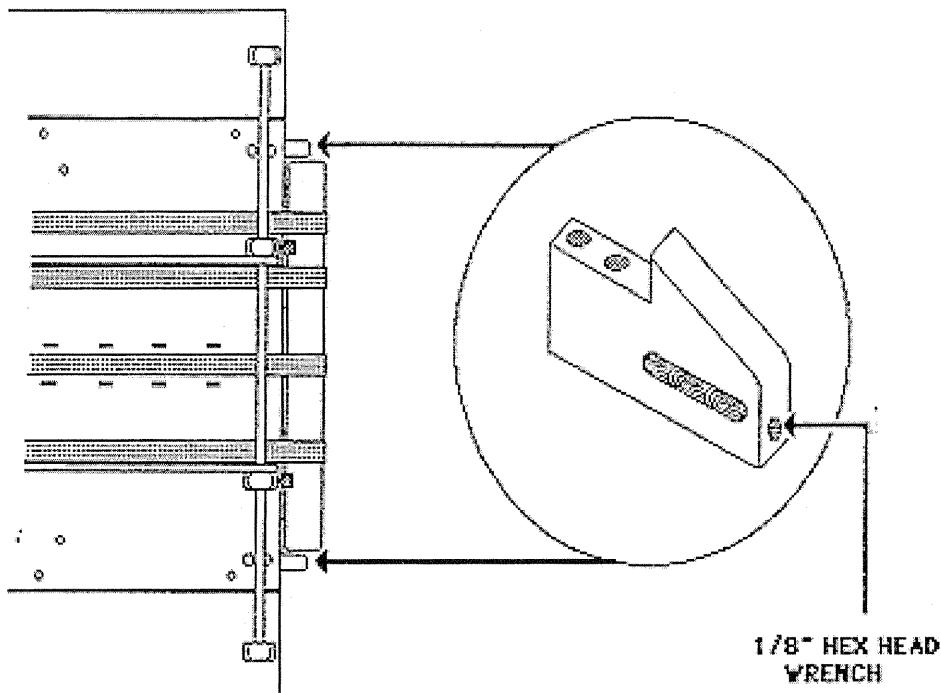


Underneath the tabletop are locating guides for the tabletop belts. Each belt has its own guide. To move the belts, simply loosen the thumbscrew on the bottom of the guide and slide the guide on the shaft to the desired position and then tighten the thumbscrew.

The belts should be positioned so that there is a belt riding next to each side guide, one belt between the stop pins and, if used, one underneath the skid bar.



The fourth and fifth belts are normally used when running large product such as newspapers or heavy product such as magazines.

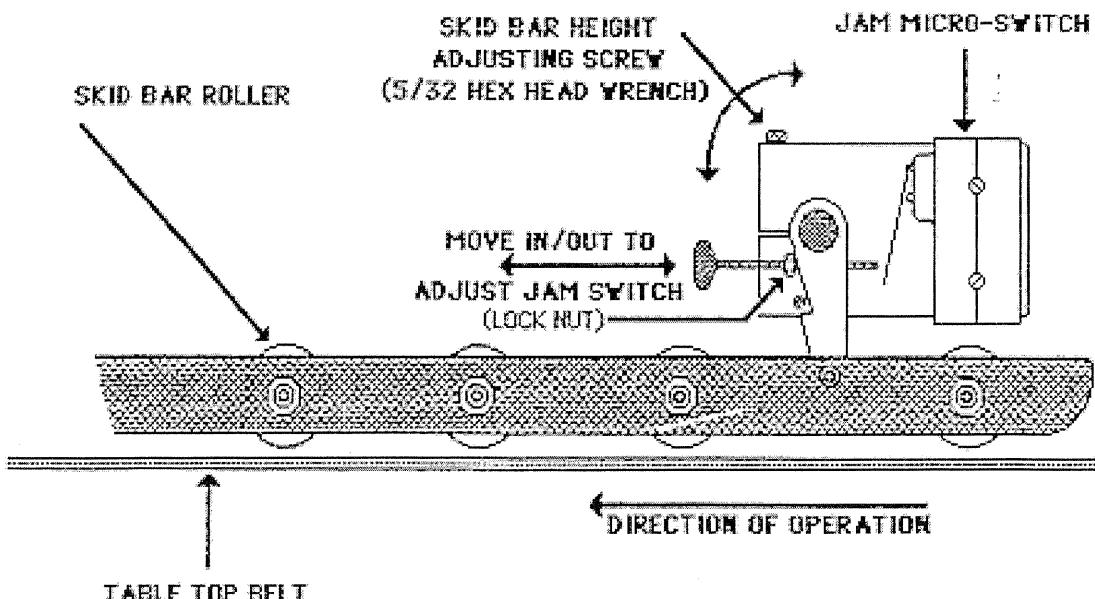


The tabletop belt tension can be adjusted. Caution should be taken not to over tighten. There should be just enough tension to prevent belt slippage.

4.12 SKID BAR

The skid bar rides on top of the product to help transport the mailing piece across the tabletop. The skid bar should be placed over one of the tabletop belts for best results. To move the skid bar locate and loosen the 1/8" hex head set screws in the lock collars on the right-hand side of the machine. The left-hand side of the machine has a lock collar and a skid bar block that is held in place with a 5/32" hex head screw.

Attached to one end of the skid bars is a "jam detector switch" on certain machines. This switch, when properly set, will stop the machine when a jam or double feed occurs.



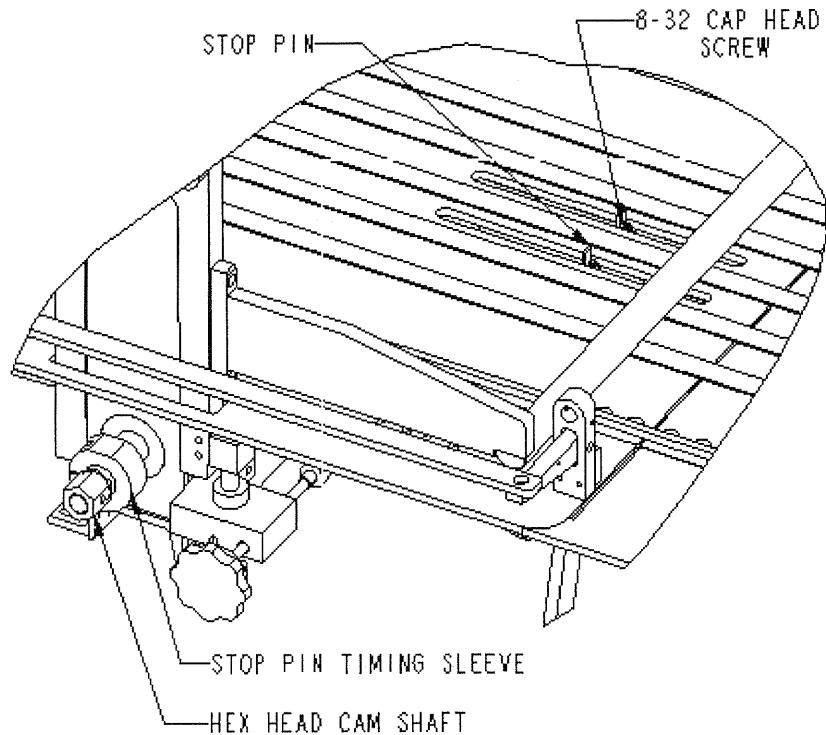
To set the skid bar, rotate the machine until a mailing piece is under the skid bar. Loosen the 5/32" hex head screw on the skid bar block. Adjust until the skid bar is resting on the mailing piece and the skid bar rollers rotate as the product is transported. Lock in place with the 5/32" hex head screw.

The jam switch is adjusted by loosening the lock nut, moving the adjustment knob in or out and tightening the lock nut. The microswitch should disengage and stop the machine when a jam or double feed occurs.

NOTE: The machine will not run if the jam switch is not set properly (see Section 4.2).

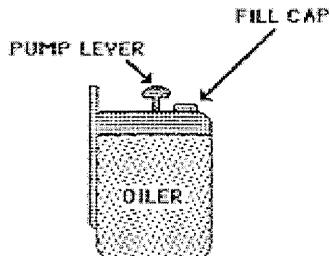
4.13 STOP PIN SETUP

To set the stop pins jog the product on the tabletop belts until it reaches the desired stop position for product placement. Turn the power off with the emergency stop button (see Figure 2.0). Open the cover to the head height adjustment and loosen the clamp screws on the stop pin timing sleeve. Next adjust the position of the stop pins by loosening the 8-32 cap screws.. The pins are held in place by a nut captured in a "T" slot on the underside of the stop pin bars. Once the pins are free to slide back and forth move them into the desired location and tighten into place. Rotate the hex head cam shaft until the stop pins are in its highest position and tighten the clamp on the stop pin timing sleeve.



5 MAINTENANCE

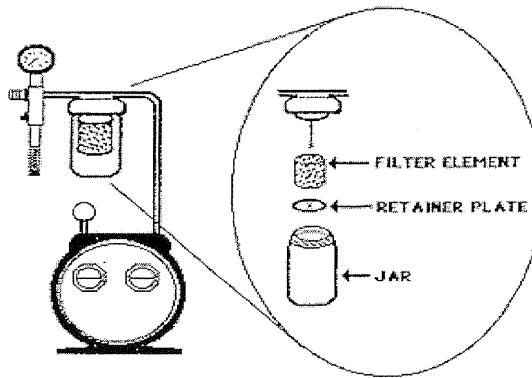
5.1 LUBRICATION



The operator should keep the KR215SP20 clean and lubricated on a regular basis. The base has a central oiling system that only requires the operator to pull the pump lever on the oilier. This should be done every two hours of operation. The oil recommended is a 20 weight SAE machine oil.

5.2 DAILY MAINTENANCE

Item	Function	Remarks
Upper & Lower Feed Rollers	Remove glazing and all other foreign materials from feed surfaces.	Use alcohol.
Base (General)	Remove excessive paper dust, ink, glue, and all other foreign materials from the tabletop and inside of	Use clean soft rag. (Dampen with water if necessary.)
Vacuum Pump Filters	Remove paper dust.	Wrap edge of filter against a hard surface or vacuum. If unable to clean replace with new filter.
Vacuum Pump Filters Jars	Clean jars thoroughly.	Use warm water and dry thoroughly. CAUTION: Improper replacement of cracked rims of jars can result in a loss of vacuum. Insure jar is installed correctly and has a proper seal.
Vacuum Body and Vacuum Valve	Clean feeder vacuum body & valve thoroughly.	Blow out with air hose.
Internal Filters	Clean or replace	Clean by blowing out



6 DIAGRAMS AND PARTS LISTS

6.1 DIAGRAMS

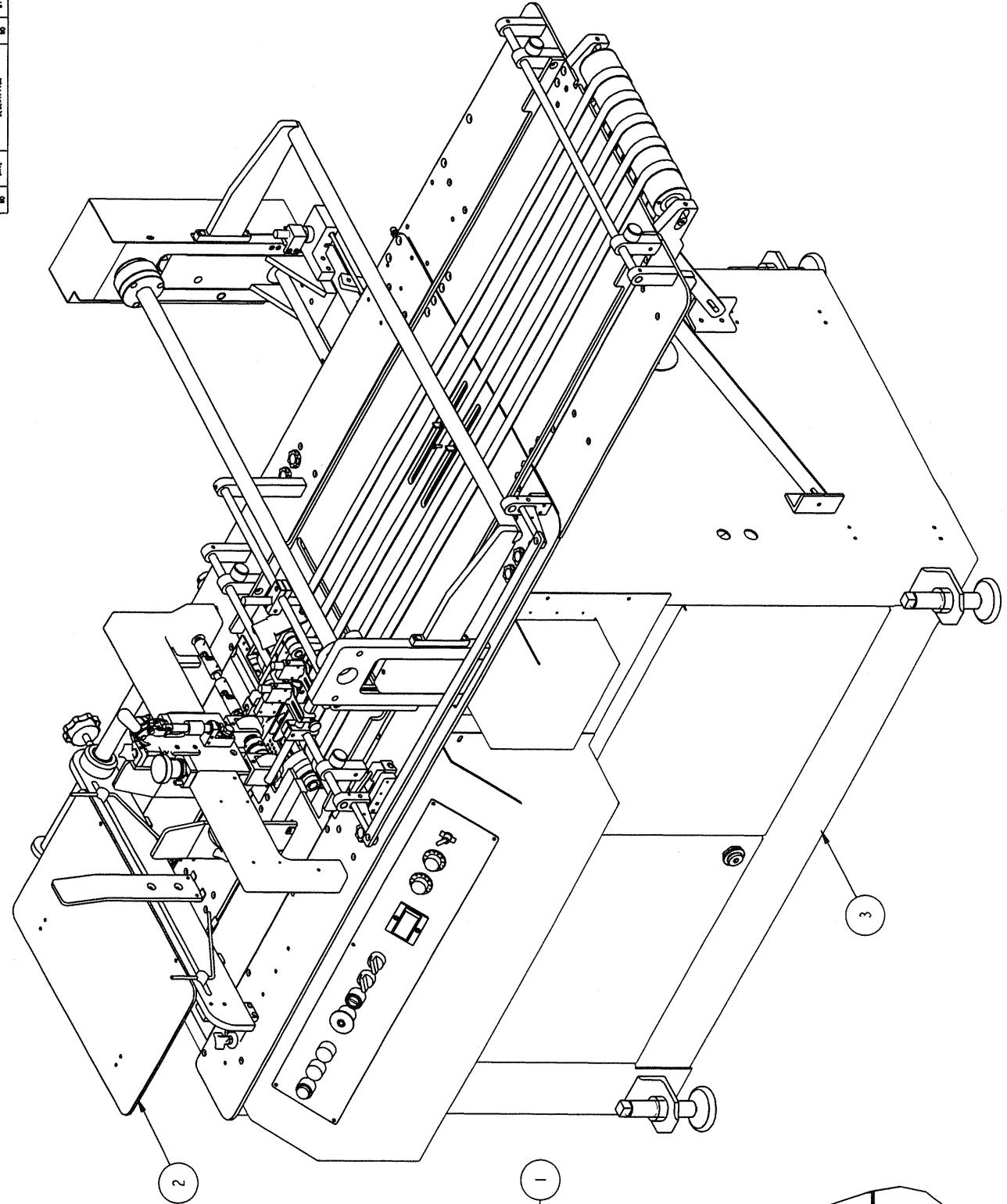
Drawing #	Description
KR215SP20	Assy, KR215SP20 Stop Pin
539923-01	Assy, Tabletop And Frame
539931-01	Assy, Jogger Table
500714-A	Assy, Rear Bridge
500764AL	Assy, Lifter
500764AR	Assy, Lifter
500880A	Assy, Bracket
500790	Assy, Knob
541202-01	Assy, Bridge Timing Belt
531582-01	EG Assy, Bridge Drive & Gate
531584-01	EG Assy, Fork
500811A	Assy, Fork With Bearings
500754A	Assy, Upper Feed Roller
535412-01	Assy, Side Guide
539929-01	Assy, Side Guide 20 In
535275-01	Assy, Panic Bar
538021-01	Assy, Skid Bar
539944-01	Assy, Dual Beam Switch Mount
539930-01	Assy, Hot Melt Cross Shaft Mount
539934-01	Assy, Pick-N-Place Head Support
539936-01	EG Assy, RH Head Casting 203P RH
539937-01	Assy, LH Pick-N-Place Casting
532332-01	EG Assy, Clamp Sleeve
500754A	Assy, Coupling
500757A	Assy, Timing Pulley
500719-RA	Assy, R/H Worm Gearbox
500719-LA	Assy, L/H Worm Gearbox
532350-01	EG Assy, Bar Channel Brace

539933-01	Assy, Outside Tabletop
539943-01	Assy, Air Quick Disconnect Block
500863-2A	Assy, Shuttle Table
539924-01	Assy, Center Tabletop
539923-01	Assy, Tabletop and Frame
539923-01	Assy, Tabletop and Frame
539925-01	Assy, 20 In Extension
539926-01	Assy, Takeup Roller
500835-A	Assy, Tube Roller
539928-01	Assy, RH Frame
539935-01	Assy, LH Frame
531021-01	Assy, Shuttle Table
500708A	Assy, Vacuum Body
500728A	Assy, Bushing Block
531022-01	Assy, Lower Feed Roller
531102-01	Assy, Hub Gear
531107-01	Assy, Change Gear Plate
531105-01	Assy, Gear
531106-01	Assy, Hub
531111-01	Assy, Takeup
539927-01	Assy, Stop Pin W/O Sleeve
532825-01	Assy, Clamp
532826-01	Assy, Pivot
532824-01	Assy, Bearing Plate
532823-01	Assy, Bearing Plate
539932-01	Assy, 215SP20 Cabinet
539946-01	Assy, Electrical Panel
509000-6A	Assy, Mtr/Reducer SR 1 Hp Vertical
531168-01	Assy, 1/2 Hp Vacuum Pump
539942-01	Assy, Air Pressure Regulator

6.2 PARTS LIST

See following pages for parts list.

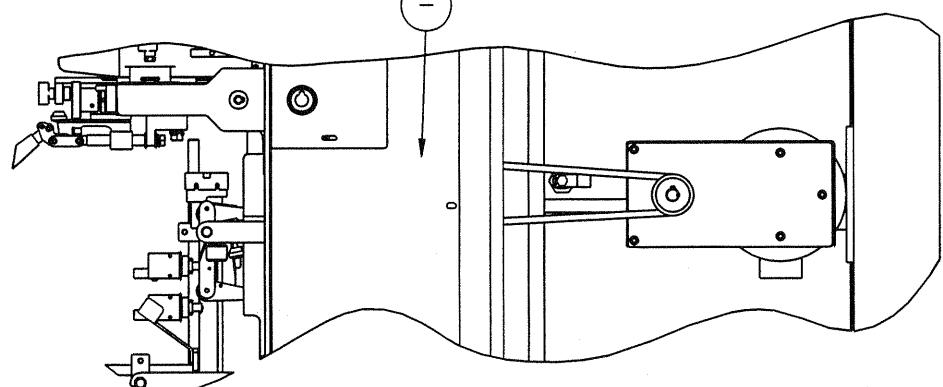
ITEM #	PART #	DESCRIPTION	QTY	REV
1	2	106122-1 BELL, V AXLE	1	N/A
2	1	539322-01 ASSY, TABLETOP AND FRAME	1	N/A
3	1	539332-01 ASSY, 215SP CABINET	1	N/A



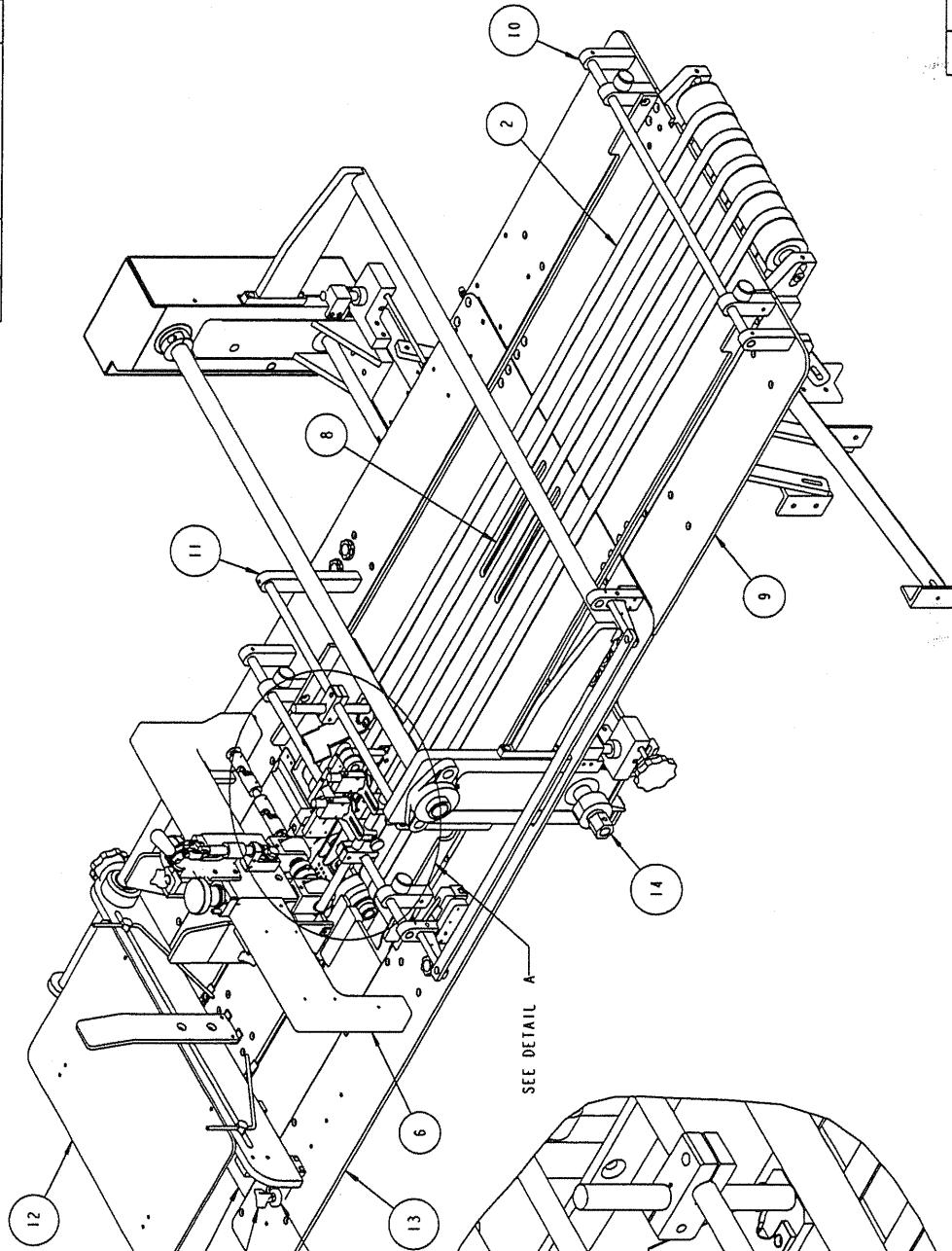
ITEM #		DESCRIPTION		QUANTITY		REVISION	
A	KEY	0.230	KEY	1	PC	1	0
2	25 - Jan - 01	STOP PIN	PC	1	PC	1	0
3		STOP PIN	PC	1	PC	1	0

NOTES:
 1. THIS PART IS FOR THE 215SP STOP PIN ASSEMBLY.
 2. THIS PART IS FOR THE 215SP STOP PIN ASSEMBLY.
 3. THIS PART IS FOR THE 215SP STOP PIN ASSEMBLY.

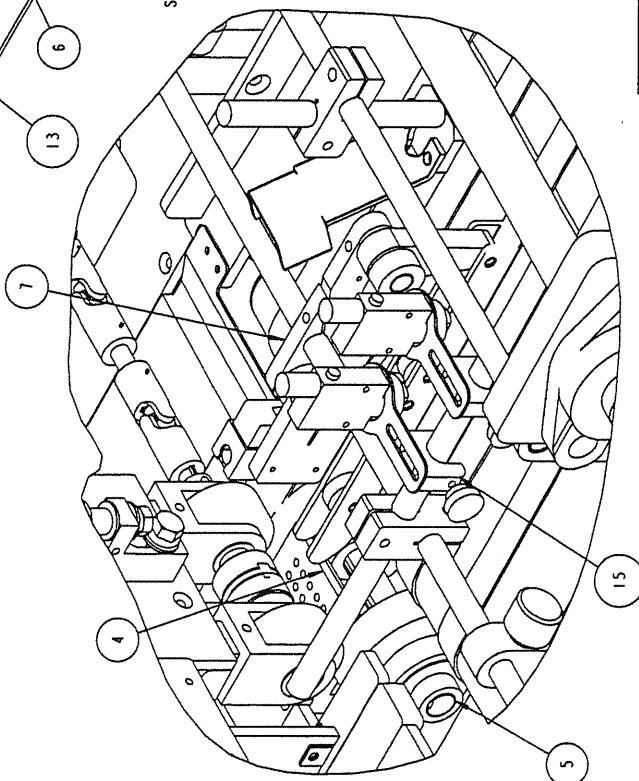
ITEM #		DESCRIPTION		QUANTITY		REVISION	
KR215SP	1	KIRK-RUDY INC.	1	1	PC	1	0
KR215SP	2	WOODSTOCK, GEORGIA	1	1	PC	1	0



ITEM QTY	PART #	DESCRIPTION
1	1	ASSY, KNOB
2	5	105981-15 BELT, FLAT 108.75 X .75
3	1	500863-2A ASSY-SHUTTLE TABLE
4	1	531021-01 ASSY, SHUTTLE TABLE
5	1	531022-01 ASSY, LOWER FEED ROLLER
6	1	535411-02 ASSY, 215 S10 BRIDGE
7	1	538021-01 ASSY, SKID BAR
8	1	539924-01 ASSY, CENTER TABLETOP
9	1	539925-01 ASSY, 20 IN EXTENSION
10	1	539929-01 ASSY, SIDE GUIDE 20 IN
11	1	539930-01 ASSY, HOT MELT CROSS SHAFT MOUNT
12	1	539931-01 ASSY, JOGGER TABLE
13	1	539933-01 ASSY, OUTSIDE TABLETOP
14	1	539934-01 ASSY, PICK-N-PLACE HEAD SUPPORT
15	1	539944-01 ASSY, DUAL BEAM SWITCH MOUNT
16	1	SE6363-1 SPACER, GEAR COVER



SEE DETAIL A



ITEM NO:		KEY NO:	DATE:	DESCRIPTION:	ECON NO:	BY:
1					1	215SP20
					REQ'D	WHERE USED

ITEM NO:		SCALE:	SCALE:	MATERIAL:	DIMENSION TOLERANCES:	MATERIAL:
A	KEY	0	0.158	N/A		
checked by:					IN	MM
date:	26 - Jan - 01				IN	MM
					IN	MM
traced by:					IN	MM
					IN	MM

PROPRIETARY AND CONFIDENTIAL
NO PORTIONS OF THIS DRAWING
MAY BE COPIED OR REPRODUCED
EXCEPT AS AUTHORIZED
IN WRITING BY
KIRK-RUDY INC.
KIRK-KENNEBUNK, GEORGIA
PRINTED ON
10/20/01
215SP20

ITEM NO: 10F 3

DETAIL A
SCALE 0.438

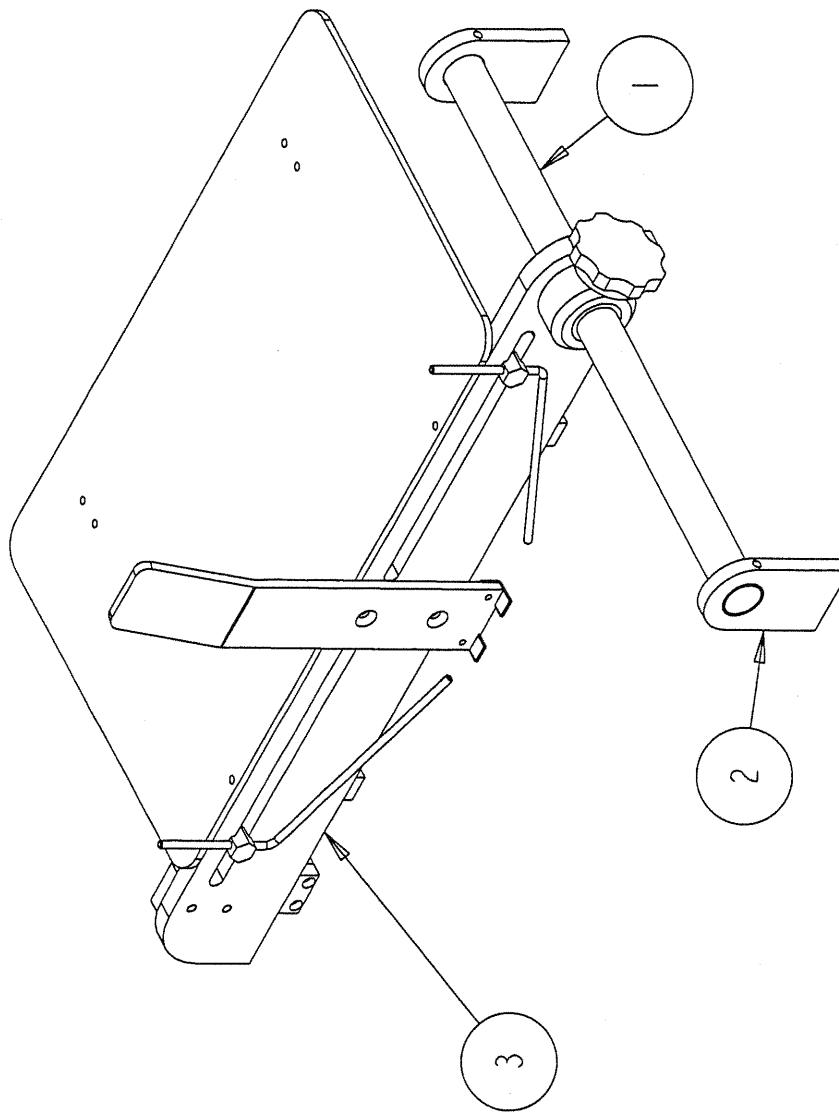
ITEM NO:		KEY NO:	DATE:	DESCRIPTION:	ECON NO:	BY:
1					1	215SP20
					REQ'D	WHERE USED

ITEM NO:		SCALE:	SCALE:	MATERIAL:	DIMENSION TOLERANCES:	MATERIAL:
A	KEY	0	0.158	N/A		
checked by:					IN	MM
date:	26 - Jan - 01				IN	MM
					IN	MM
traced by:					IN	MM
					IN	MM

PROPRIETARY AND CONFIDENTIAL
NO PORTIONS OF THIS DRAWING
MAY BE COPIED OR REPRODUCED
EXCEPT AS AUTHORIZED
IN WRITING BY
KIRK-RUDY INC.
KIRK-KENNEBUNK, GEORGIA
PRINTED ON
10/20/01
215SP20

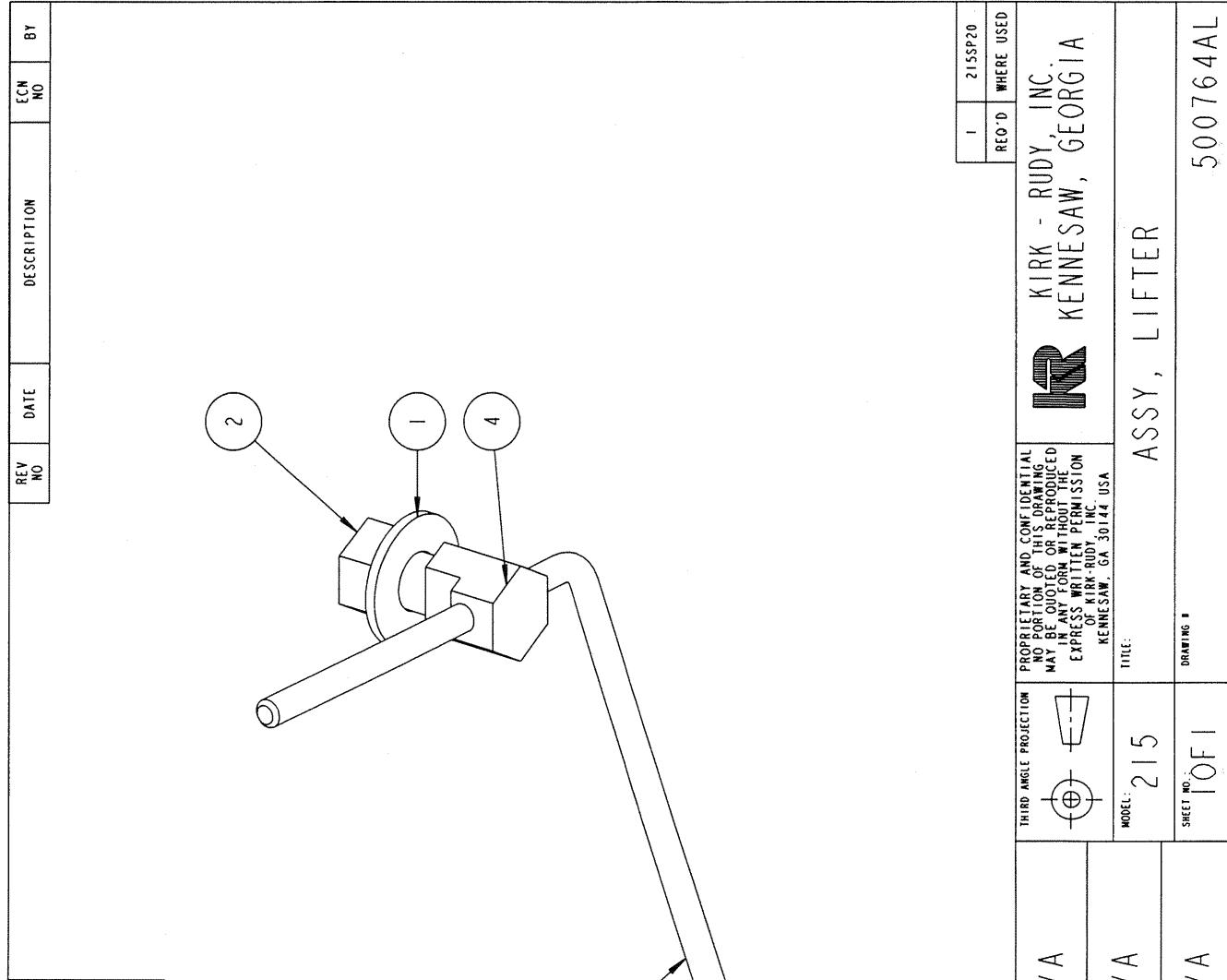
ITEM NO: 10F 3

ITEM	QTY	PART #	DESCRIPTION
1	1	500769	SHAFT - REAR GUIDE
2	2	500832	BRACKET - REAR GUIDE
3	1	500714-A	ASSY, REAR BRIDGE



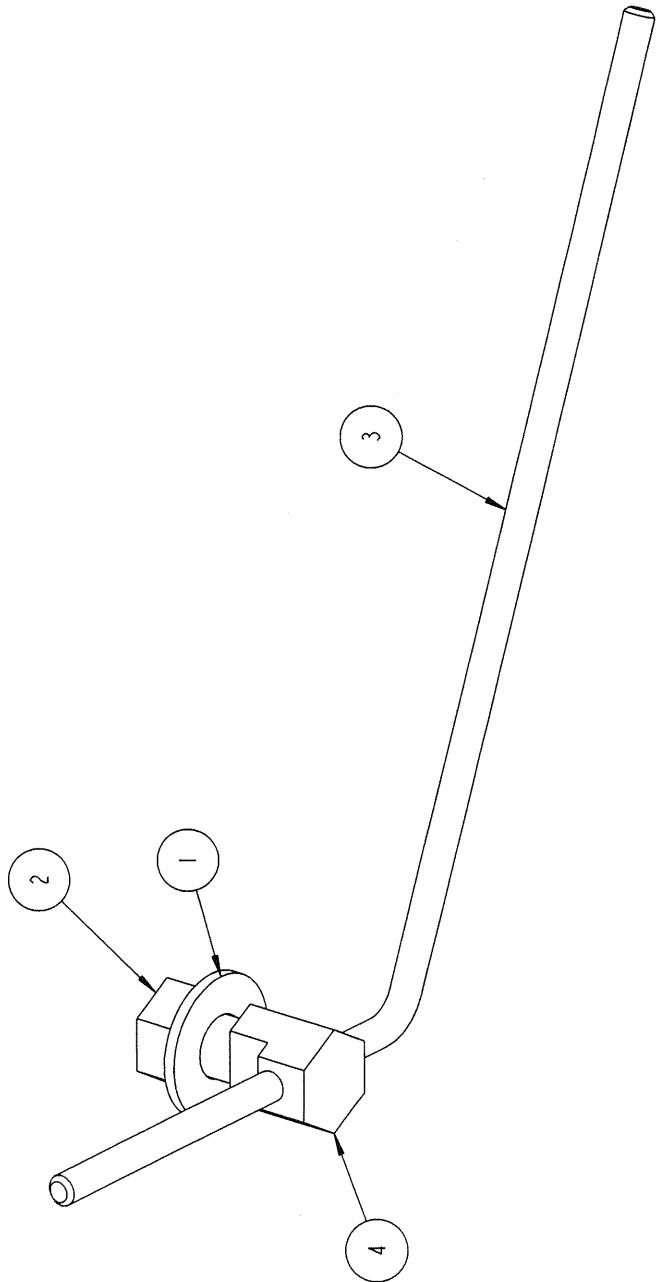
DRAWN BY:	A KEY	SCALE	0 . 250	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED	MATERIAL:	N / A	THIRD ANGLE PROJECTION 	PROPRIETARY AND CONFIDENTIAL NO FORM OF THIS DRAWING MAY BE QUOTED OR REPRODUCED IN ANY FORM WITHOUT THE EXPRESS WRITTEN PERMISSION OF KIRK-RUDY INC. KENNESAW, GA 30144 USA	KIRK - RUDY, INC. KENNESAW, GEORGIA	RECD	WHERE USED
CHECKED BY:				.01 .005 .5	HEAT TREAT:	N / A		NOTE:	ASSY , JOGGER TABLE		
DATE	26 - Jan - 0	REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED				FINISHES.	215SP20	DATE:		DRAWING #:	
TRACED BY:	MASTER	ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY				N / A		SHEET NO.:	10F		

ITEM	QTY	PART #	DESCRIPTION
1	1	100601	WASHER, FLAT .500
2	1	106702	NUT, 3/8-16
3	1	500764	LIFTER - REAR BRIDGE
4	1	500766	SCREW - MACHINE REAR GUIDE



DRAWN BY:	KEY	SCALE	.000	MATERIAL:	N / A	THIRD ANGLE PROJECTION	PROPRIETARY AND CONFIDENTIAL NO PORTION OF THIS DRAWING MAINTAINED OR REPRODUCED IN ANY FORM WITHOUT THE EXPRESS WRITTEN PERMISSION OF KIRK-RUDY, INC. KENNESAW, GA 30144 USA
CHECKED BY:		DATE	26 - Jan - 01	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED	.01 .005 .5	HEAT TREAT:	N / A
TRACED BY:	MASTER	FINISH:	REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY	MODEL:	215	SHEET NO.	1 OF 1
				TITLE:	ASSY, LIFTER		
				DRAWING #	500764AL		
				REV NO	DATE	DESCRIPTION	ECN NO BY
				1	215SP20	REO'D	WHERE USED

ITEM	QTY	PART #	DESCRIPTION	REV NO	DATE	DESCRIPTION	ECN NO	BY
1	1	100601	WASHER, FLAT .500					
2	1	106702	NUT, 3/8-16					
3	1	500764	LIFTER - REAR BRIDGE					
4	1	500766	SCREW - MACHINE REAR GUIDE					

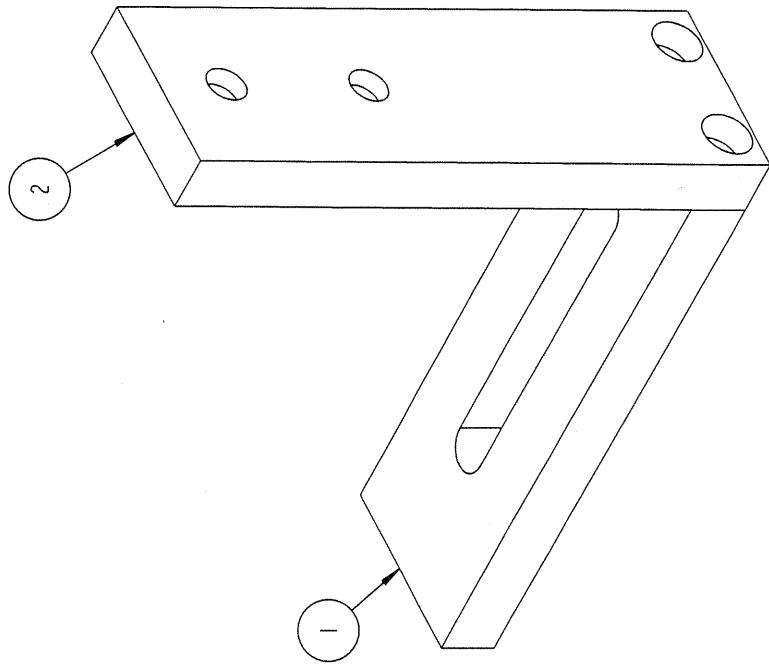


1	215SP20	REO-D WHERE USED
KIRK-RUDY INC.	KENNE SAW, GEORGIA	
		
PROPRIETARY AND CONFIDENTIAL NO DUPLICATION OR DISSEMINATION MAY BE OBTAINED ON THIS DRAWING BY ANY FORM OF MEANS EXCEPT EXPRESS WRITTEN PERMISSION OF KIRK-RUDY INC., KENNE SAW, GA 30144 USA		
DRAWN BY: A KEY	SCALE: 1.000	THRU ANGLE PROJECTION
DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED	N/A	
.01 .005 .005	.01 .005 .005	
CHECKED BY: 26-Jan-01	HEAT TREAT: N/A	MODEL: 215
REMOVED ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED	FINISH: N/A	TITLE:
ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE. WORK TO DIMENSIONS ONLY	SHEET NO. 10F1	DRAWING #: ASSY, LIFTER
TRACED BY: MASTER		500764AR

DRAWING

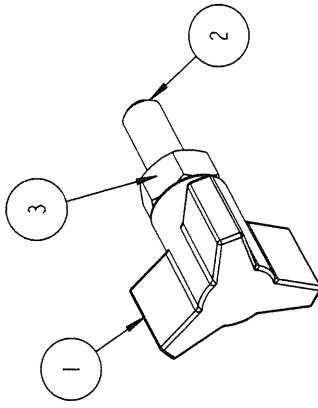
500880A

ITEM	QTY	PART #	DESCRIPTION
1	1	5000878	SUPPORT - JOGGER TABLE
2	1	5000880	BRACKET - JOG TABLE SUPP



DRAWN BY: N JG		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	
CHECKED BY: 26-Jan-01		DATE	.01	.005 .5	HEAT TREAT: N/A				
TRACED BY:		MASTER	REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED		MODEL: 215	TITLE: ASSY, BRACKET		DRAWING #	
			ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE. WORK TO DIMENSIONS ONLY		FINISH: N/A	SHEET NO. 10F		500880A	

ITEM QTY	PART #	DESCRIPTION
1	102119	KNOB
2	105600	SHAFT, THREADED .250-20 X 1.250
3	RHN010	HEX NUT



REV NO	DATE	DESCRIPTION	ECN NO	BY
3	1-27-98	RE-DRWN IN PRO-E	6224	NJG

RECD	WHERE USED
2	215

DRAWN BY: TH		SCALE: .000	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED		MATERIAL: N/A	THIRD ANGLE PROJECTION	PROPRIETARY AND CONFIDENTIAL NO PORTION OF THIS DRAWING MAY BE COPIED OR REPRODUCED IN ANY FORM WITHOUT THE EXPRESS WRITTEN PERMISSION OF KIRK-RUDY, INC. KENNESAW, GA 30144 USA	
CHECKED BY:		DATE: - JUL - 69	.XX	.005	ANG.: 5	HEAT TREAT:	 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		MODEL: 215	TITLE: ASSY, KNOB	
			SHEET NO:	10F 1		DRAWING #	500790	

ITEM QTY	PART #	DESCRIPTION	REV NO	DATE	DESCRIPTION	ECN NO	BY
1	1 00800	ASSY, UNIVERSAL JOINT					
2	1 00800-1	ASSY, UNIVERSAL JOINT					
3	1 011707-1	GEAR, 2048 .500B NK					
4	1 500803-1	SHAFT, UNIVERSAL					
5	2 500814-1A	ASSY, SIDE GUIDE RAIL					
6	1 531582-01	EG ASSY, BRIDGE DRIVE AND GATE					
7	1 535412-01	ASSY, SIDE GUIDE					
8	1 541166-01	SHAFT, BRIDGE DRIVE					
9	1 541203-01	ASSY, BRIDGE					
10	1 541204-01	COVER, HUB BEARING					

DRAWN BY:	SCALE	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED	MATERIAL:	THIRD ANGULAR PROJECTION	PROPRIETARY AND CONFIDENTIAL
A KEY	0 .375	.005 .005 .5	N/A		NO PART OF THIS DRAWING MAY BE COPIED OR REPRODUCED IN ANY FORM WITHOUT THE EXPRESS WRITTEN PERMISSION OF KIRK-RUDY INC. KENNESAW, GA 30044 USA
CHECKED BY:	DATE	.01 .005 .5	HEAT TREAT:		TITLE:
TRACED BY:	23-May-01	REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED	N/A		ASSY, BRIDGE TIMING BELT
MASTER		ALL DIMENSIONS ARE IN INCHES. DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY	N/A	SHEET NO. 0F1	DRAWING # 541202-01

KRK KIRK - RUDY, INC.
KENNESAW, GEORGIA



541202-01

ITEM QTY	PART #	DESCRIPTION	REV NO	DATE	ECN NO
1	2	100400 WASHER, THRUST TW31			
2	1	100402 WASHER, THRUST 1B612			
3	2	100409 WASHER, THRUST			
4	2	101100 BEARING, ONEWAY .375			
5	1	102114 KNOB			
6	1	102117 KNOB			
7	1	102225 COLLAR .250			
8	1	102345 SHIM, .375X.625X.125			
9	2	102701 SPRING			
10	4	103106 BEARING, FLAT .375			
11	2	104400 BOLT - HEX HEAD			
12	1	106000 SPIDER - ROLLER DRIVE			
13	1	109685 LEVER - QUICK RELEASE			
14	1	500730 PLATE, GATE FEEDER			
15	1	500743 SHAFT - TOP ROLLER DRIVE			
16	1	500744 SHAFT - TOP ROLLER ASSY			
17	2	500745 ROLLER, UPPER			
18	2	500805 PLATE - HOLD DOWN			
19	1	500806 PLATE - GATE END			
20	2	500807 NUT - LOCK			
21	2	500809 SLEEVE - THREADED			
22	1	500810 SHAFT - SCREW ADJ			
23	2	500811 FORK ASSY			
24	2	500812 KNOB, ROLLER ADJUSTMENT			
25	2	500859 SPACER			
26	1	102114A ROUND KNOB ASSY			
27	1	102200-2 COLLAR			
28	1	500743-2 SHAFT - TOP ROLLER			
29	2	500744-.5 COLLAR - TOP ROLLER SHAFT			
30	1	500744-.6 SHAFT - TOP ROLLER			
31	2	500745 ASSY, UPPER FEED ROLLER			
32	1	500745-1 PLATE - BACK			
33	1	500799-3 CLAMP - MOUNTING PLATE			
34	1	500799-5 BLOCK, CLAMP SUPPORT			
35	2	500799-6 STUD, BRIDGE (LONG)			
36	2	500799-7 STUD, BRIDGE (SHORT)			
37	1	500799-.2 BLOCK - CONNECTOR			
38	1	500808-1 PLATE, TOP BRIDGE			
39	2	500811A ASSY, FORK WITH BEARINGS			
40	1	531582-01 EG ASSY, BRIDGE DRIVE AND GATE			
41	2	531584-01 EG ASSY, FORK			
42	2	531612-01 BAR, FORK			
43	2	531613-01 YOKE			
44	1	RHB051 HEX HEAD BOLT			
45	1	RHB081 HEX HEAD BOLT			
46	1	SYS490 SET SCREW			
47	1	WHS010 LOCK WASHER			
48	1	WHS011 LOCK WASHER			

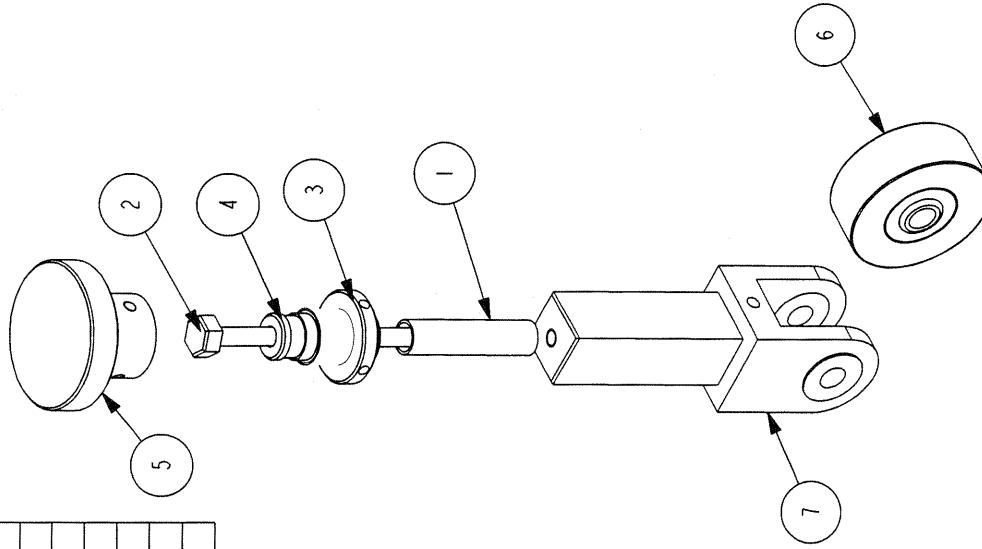
ITEM NO.	NAME	SCALE	THROUGH PRODUCTION MATERIAL:
TVK	0 .281	N/A	UNLESS OTHERWISE NOTED
CREATED BY:	DATE:	WEAT. TREAT.:	PROPRIETARY AND CONFIDENTIAL
	23 - Sep - 97	N/A	DO NOT REMOVE SHARP EDGES UNLESS OTHERWISE NOTED
TRACED BY:	MASTER	ALL DIMENSIONS ARE IN INCHES. USE .001" SCALE. WORK TO 0.001" TOLERANCES ONLY	PRINTED ON ONE SIDE OF SHEET
		N/A	EXCEPT WHERE USED
			RECD D
			REC'D WHERE USED
			1 531582-01

KIRK - RUDY, INC.
KENNESAW, GEORGIA

DRAWING #

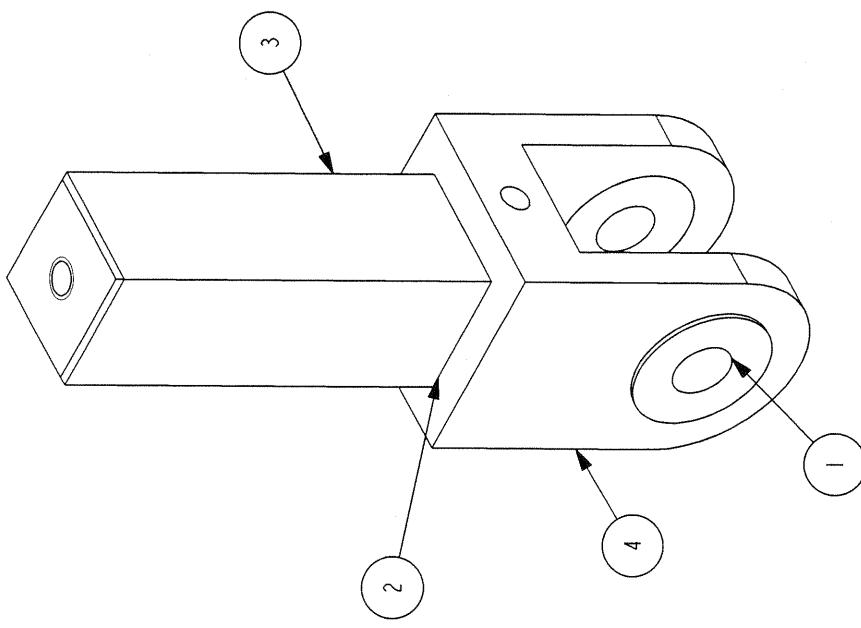
531582-01

ITEM	QTY	PART #	DESCRIPTION	REV NO	DATE	DESCRIPTION	ECN NO	BY
1	1	102701	SPRING					
2	1	104400	BOLT - HEX HEAD					
3	1	500807	NUT - LOCK					
4	1	500809	SLEEVE - THREADED					
5	1	500812	KNOB, ROLLER ADJUSTMENT					
6	1	500745A	ASSY, UPPER FEED ROLLER					
7	1	500811A	ASSY, FORK WITH BEARINGS					



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 30144 USA	RECD WHERE USED
CHECKED BY:		DATE	12-Apr-99	.01	.005	ANG.	HEAT TREAT:		
TRACED BY:	MASTER			REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED		N/A	MODEL:	215	TITLE:
				ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY		N/A	SHEET NO.	10F1	DRAWING #
				EG ASSY, FORK					531584-01

ITEM	QTY	PART #	DESCRIPTION	REV NO	DATE	DESCRIPTION	ECN NO	BY
1	2	103106	BEARING, FLAT .375					
2	1	500811	FORK ASY					
3	1	531672-01	BAR, FORK					
4	1	531673-01	YODE					



		RECD	WHERE USED
DRAWN BY:	MY	SCALE	.000
DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED		MATERIAL:	N/A
.11	.005	THIRD ANGLE PROJECTION	PROPRIETARY AND CONFIDENTIAL
XIX	ANG.		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, KENNESAW, GA 30144 USA
CHECKED BY:	DATE	HEAT TREAT:	MODEL:
	12-Apr-99	N/A	215
TRACED BY:	MASTER	FINISH:	SHEET NO. 1 OF 1
REMOVE ALL BURRS, AND SHARP EDGES, AND OTHERWISE NOTED			
ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY			

KRK KIRK - RUDY, INC.
KENNESAW, GEORGIA

TITLE: ASSY, FORK WITH BEARINGS

DRAWING # 500811A

ITEM QTY	PART #	DESCRIPTION	REV NO	DATE	DESCRIPTION	ECH NO	BY
1	2	102119			KNOB		
2	2	500755			CLAMP - SIDE GUIDE		
3	4	500771			CLIP - SIDE GUIDE		
4	2	102119-A			ASSY, KNOB		
5	1	500755AL			ASSY, SIDE GUIDE LH		
6	1	500755AR			ASSY, SIDE GUIDE RH		
7	1	500788L			PLATE - RH SIDE GUIDE		
8	1	500788LA			ASSY - SIDE GUIDE PLATE		
9	1	500788R			PLATE, SIDE GUIDE RH		
10	1	535412-01			ASSY, SIDE GUIDE		
11	2	RHN010			HEX NUT		
12	2	SYA601			SET SCREW		

1 535411-01
REO'D WHERE USED

DRAWN BY: TVK	SCALE 0 . 500	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED		MATERIAL: N / A	THIRD ANGLE PROJECTION	PROPRIETARY AND CONFIDENTIAL NO PORTION OF THIS DRAWING MAY BE COPIED OR REPRODUCED IN ANY FORM WITHOUT THE EXPRESS WRITTEN PERMISSION OF KIRK-RUDY INC., KENNESAW, GA 3044 USA	
CHECKED BY:	DATE 06-06-00	.01	.005	HEAT TREAT: N / A	MODEL 215	TITLE: ASSY, SIDE GUIDE	
TRACED BY:	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	DRAWING # 535412-01	

ITEM QTY	PART #	DESCRIPTION	REV NO	DATE	DESCRIPTION	ECN NO	BY
1 2	500787	SHAFT - SIDE GUIDE ADJ.					
2 3	500791	POST, SIDEGUIDE					
3 4	500792	POST, SIDE GUIDE					
4 4	500793	LOCK, SIDE GUIDE CAM					
5 1	500722-6L	SIDE GUIDE, R/H					
6 1	500722-6R	RAIL, GUIDE RH					
7 1	535275-01	ASSY, PANIC BAR					

DRAWN BY: A KEY SCALE 0 . 156 MATERIAL: N / A DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED .01 .005 .005 HEAT TREAT: REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED

CHECKED BY: DATE 26 - Jan - 01 FINISH: N / A

TRACED BY: MASTER M FINISH: N / A

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

KRK KIRK - RUDY, INC.
KENNESAW, GEORGIA

215SP20

ASSY, SIDE GUIDE 20 IN

RECD WHERE USED

I 215SP20

DRAWING # 539929-01

	REV NO	DATE	DESCRIPTION	ECN NO	BY

ITEM	QTY	PART #	DESCRIPTION
1	1	190101	MICROSWITCH, LEVER
2	1	190203	COVER, MICROSWITCH
3	2	504604	STOP BAR ARM
4	1	504605	BRACKET, SWITCH
5	1	504607	STOP BAR
6	1	190101A	ASSY - SWITCH WITH COVER
7	2	504602-1	POST - STOP BAR
8	1	504606-1	BLOCK - ARM STOP
9	1	533273-01	ASSY, PANIC POST & SWITCH
10	1	533274-01	ASSY-PANIC BAR POST

DRAWN BY:		SCALE	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED			MATERIAL:		THIRD ANGLE PROJECTION		PROPRIETARY AND CONFIDENTIAL NO REPRODUCTION OR DISSEMINATION MADE QUOTED ON THIS DRAWING IN ANY FORM WITHOUT THE EXPRESS WRITTEN PERMISSION OF KIRK-RUDY, INC. KENNESAW, GA 30144 USA.	
			.01	.005	.005	HEAT TREAT:	N/A			TITLE:	KIRK - RUDY, INC. KENNESAW, GEORGIA
CHECKED BY:		DATE	.01 .005 .005			HEAT TREAT:	N/A			MODEL:	SP70500 ASSY, PANIC BAR
TRACED BY:		MASTER	.01 .005 .005			FINISH:	N/A			SHEET NO.	OF 1 DRAWING # 535275-01
			REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED			ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY					

ITEM QTY	PART #	DESCRIPTION	REV NO	DATE	DESCRIPTION	ECN NO	BY
1	2 100162	BUSHING, SL. 5001D. 6250D. 625LG					
2	1 102114	KNOB					
3	1 102205	COLLAR .500					
4	2 103107	BEARING, FLAT .312					
5	1 105201	PIN, ROLL .125X 1.000					
6	1 105602	SHAFT, THREADED 5/16-18					
7	1 190101	MICROSWITCH, LEVER					
8	1 190203	COVER, MICROSWITCH					
9	1 500800	LINK - SKID-FRONT					
10	1 500801	LINK - SKID-REAR					
11	1 500802	HOLDER-SKID SWITCH					
12	2 500834	SHAFT, SKID ROLLER CLAMP					
13	1 503794	ASSY - SWITCH WITH COVER					
14	1 190101A	CHANNEL, SKID					
15	1 500723-8	ASSY, LINK					
16	1 500800-A	ASSY, CLAMP					
17	1 500801A	ASSY, STUD WITH BEARING					
18	1 500802A	ASSY, STUD BAR SPACER					
19	2 500834A	SP37359					
20	2 SP37359	SHAFT, SKID BAR					

SCALE 0 .500

DRAWN BY: A.Y.B SCALE: 0 .750 DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED

.01	.005	.005	ANG.
XX	XXX		

HEAT TREAT:

DATE: 15 - NOV - 99

REMOVED ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED

FINISH: N/A

ALL DIMENSIONS ARE IN INCHES

DO NOT SCALE - WORK TO DIMENSIONS ONLY

MADE: 2191J

SHEET NO. 1 OF 1

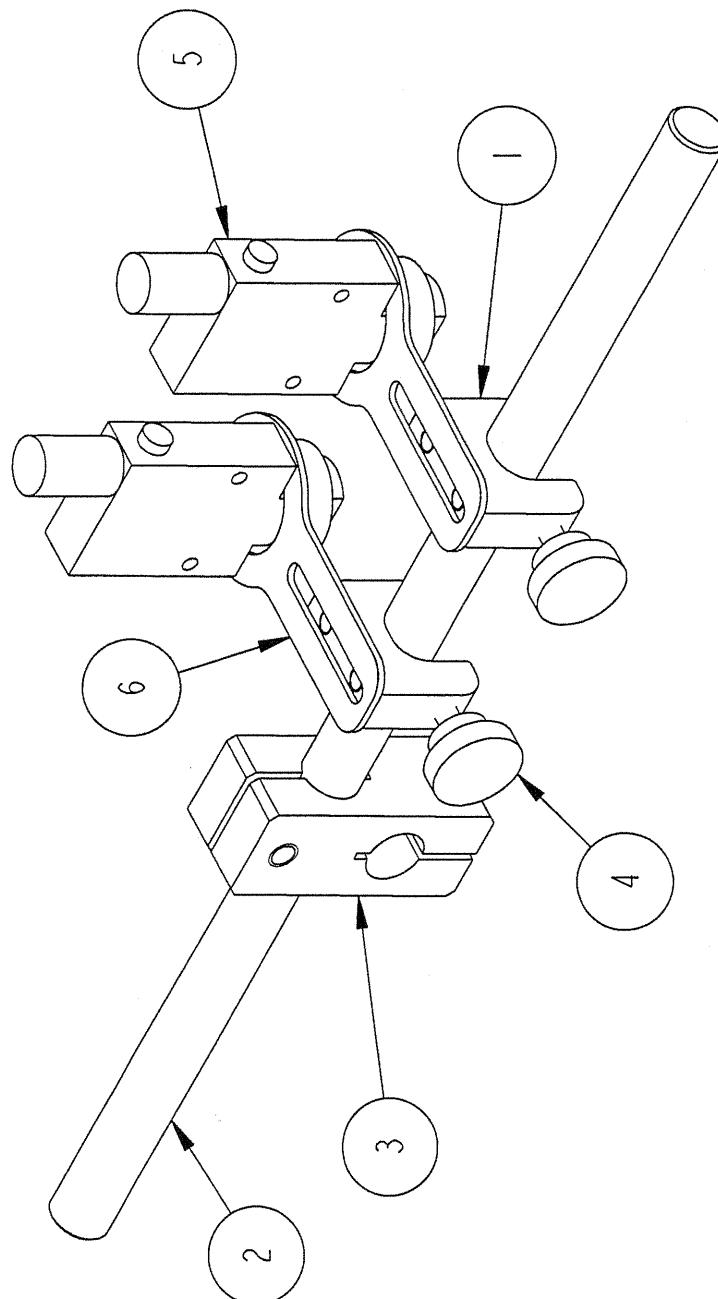
DRAWING #: 538021-01

PROPRIETARY AND CONFIDENTIAL
MAY NOT BE QUOTED OR REPRODUCED
IN WHOLE OR IN PART
WITHOUT THE
EXPRESS WRITTEN PERMISSION
OF KIRK-RUDY, INC.
KENNESAW, GA 30144 USA

RECD WHERE USED

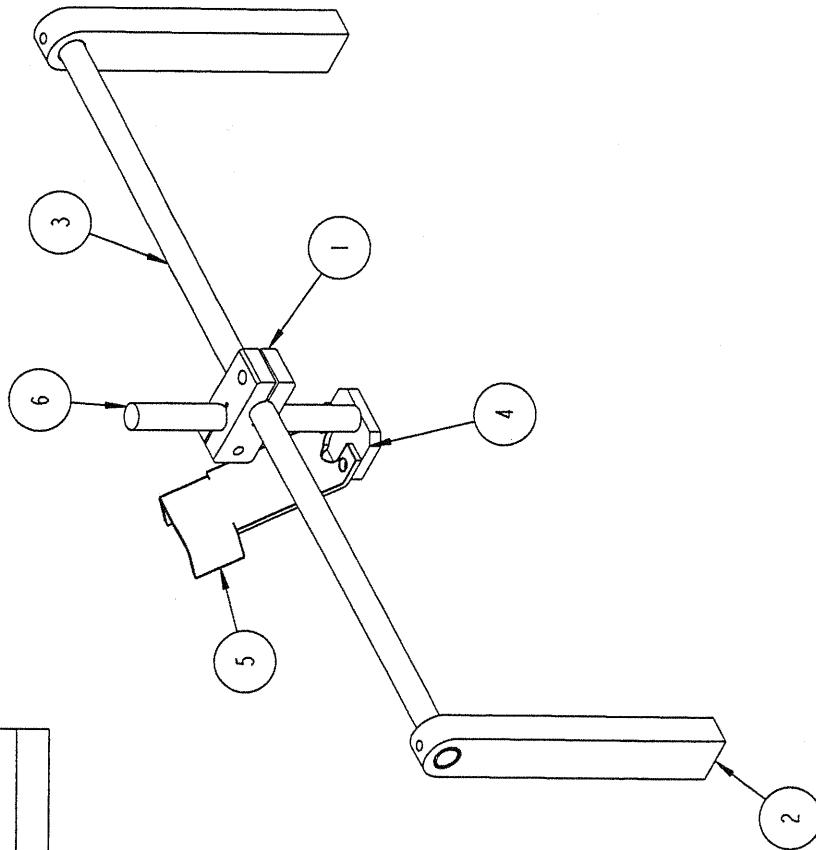
- KR2191J20
- KR2191J

ITEM	QTY	PART #	DESCRIPTION
1	2	501629	CLAMP, GUIDE STRIP
2	1	502622	ROD, TIE
3	1	508593	CLAMP
4	2	102114A	ROUND KNOB ASY
5	2	202261-5	BEAMSWITCH, RETROREFLECTIVE
6	2	SP38237	BRACKET, PHOTOCELL



DRAWN BY:	A KEY	SCALE	0 . 750	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED	MATERIAL: N / A	THIRD ANGLE PROJECTION	PROPRIETARY AND CONFIDENTIAL MAY NOT BE COPIED OR REPRODUCED EXCEPT WITH PERMISSION OF KIRK RUDY INC. KENNESAW, GA 30144 USA	KIRK - RUDY, INC. KENNESAW, GEORGIA	RECD WHERE USED
CHECKED BY:		DATE	26 - Jan - 01	.01 .005 .5	HEAT TREAT: N / A		MODEL: 215SP20	ASSY , DUAL BEAM SWITCH MOUNT	1
TRACED BY:		MASTER			FINISH: N / A	SHEET NO. 10F1	DRAWING:	539944-01	
ALL DIMENSIONS ARE IN INCHES. UNLESS OTHERWISE NOTED SHARP EDGES UNLESS OTHERWISE NOTED									

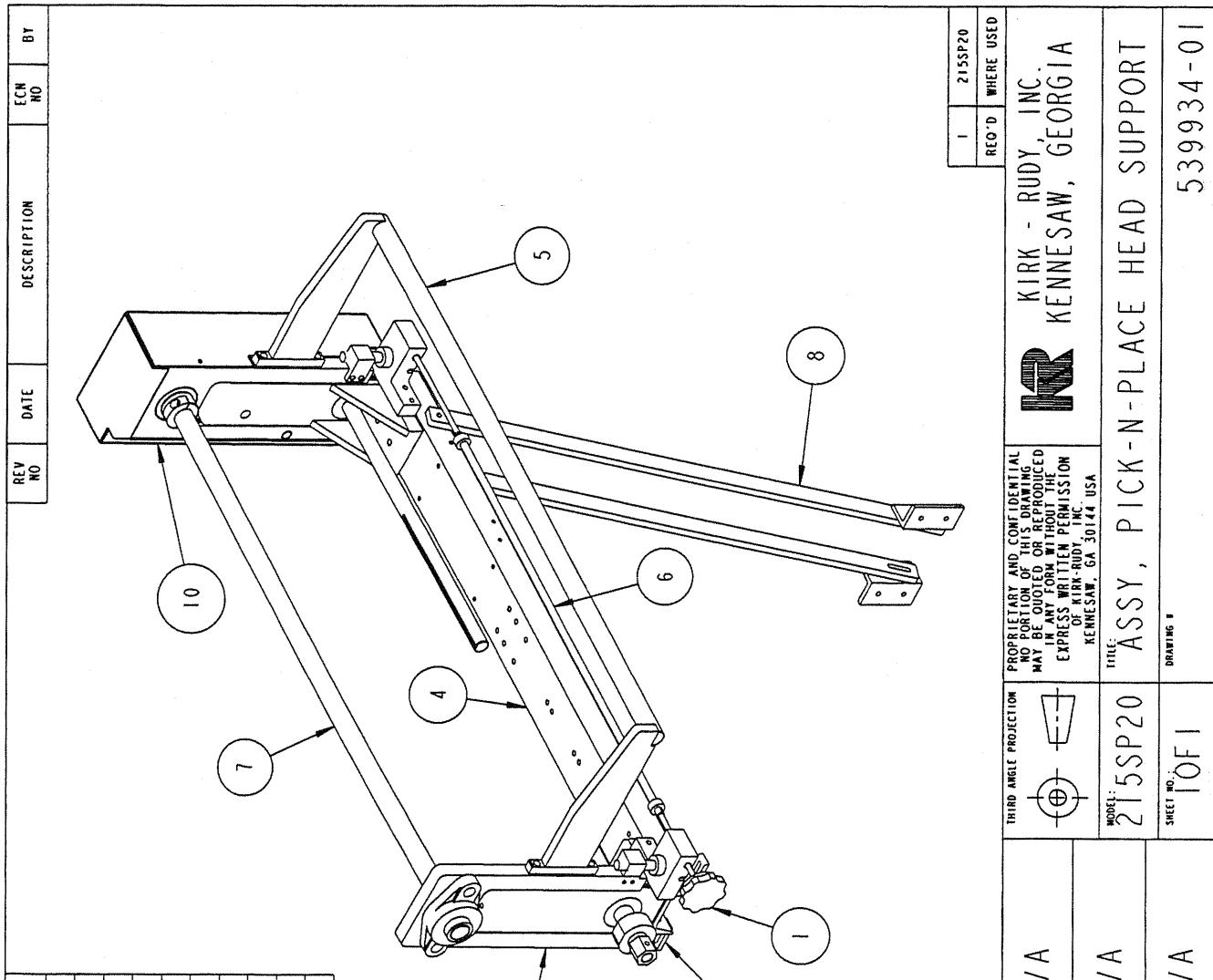
ITEM QTY	PART #	DESCRIPTION	REV NO	DATE	DESCRIPTION	ECN NO	BY
1	1	508593 CLAMP					
2	2	500791-4 BRACKET					
3	1	527687-1 SHAFT, SKID BAR					
4	1	530456-02 BLOCK, STS HEAD MNT					
5	1	530885-01 BRACKET, VALVE MOUNT					
6	1	530886-01 SHAFT, VALVE MOUNT					



1	215SP20	REO'D WHERE USED
KIRK - RUDY, INC.		
KENNESEEW, GEORGIA		
KIRK-RUDY, INC.		
KENNESEEW, GA 30144 USA		
215SP20	ASSY, HOT MELT CROSS SHAFT MOUNT	DRAWING #
1 OF 1		
	539930-01	

DRAWN BY:	SCALE	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED	MATERIAL:	THIRD ANGLE PROJECTION	PROPRIETARY AND CONFIDENTIAL NO PORTION OF THIS DRAWING MAY BE COPIED OR REPRODUCED IN ANY FORM WITHOUT THE EXPRESS WRITTEN PERMISSION OF KIRK-RUDY, INC. KENNESEEW, GA 30144 USA
A KEY	0 .313	.01 .005 .5	N/A	-	
CHECKED BY:	DATE	REMOVED ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED	HEAT TREAT:		
TRACED BY:	MASTER	ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY	FINISH:		

ITEM QTY	PART #	DESCRIPTION
1	102112	KNOB, PURCHASED
2	102115	ADAPTOR, KNOB TO SHAFT
3	2 500856	BRACE, HEAD SUPPORT PLATE
4	1 500731-7	CHANNEL, HEAD SUPPORT
5	1 500752-10	SHAFT - HEAD SUPPORT
6	1 500778-5	SHAFT, WORM GEAR ADJ.
7	1 500813-9	SHAFT, HEAD
8	1 532350-01	EG ASSY, BAR CHANNEL BRACE
9	1 539936-01	EG ASSY, RH HEAD CASTING 203P RH
10	1 539937-01	ASSY, LH PICK-N-PLACE CASTING

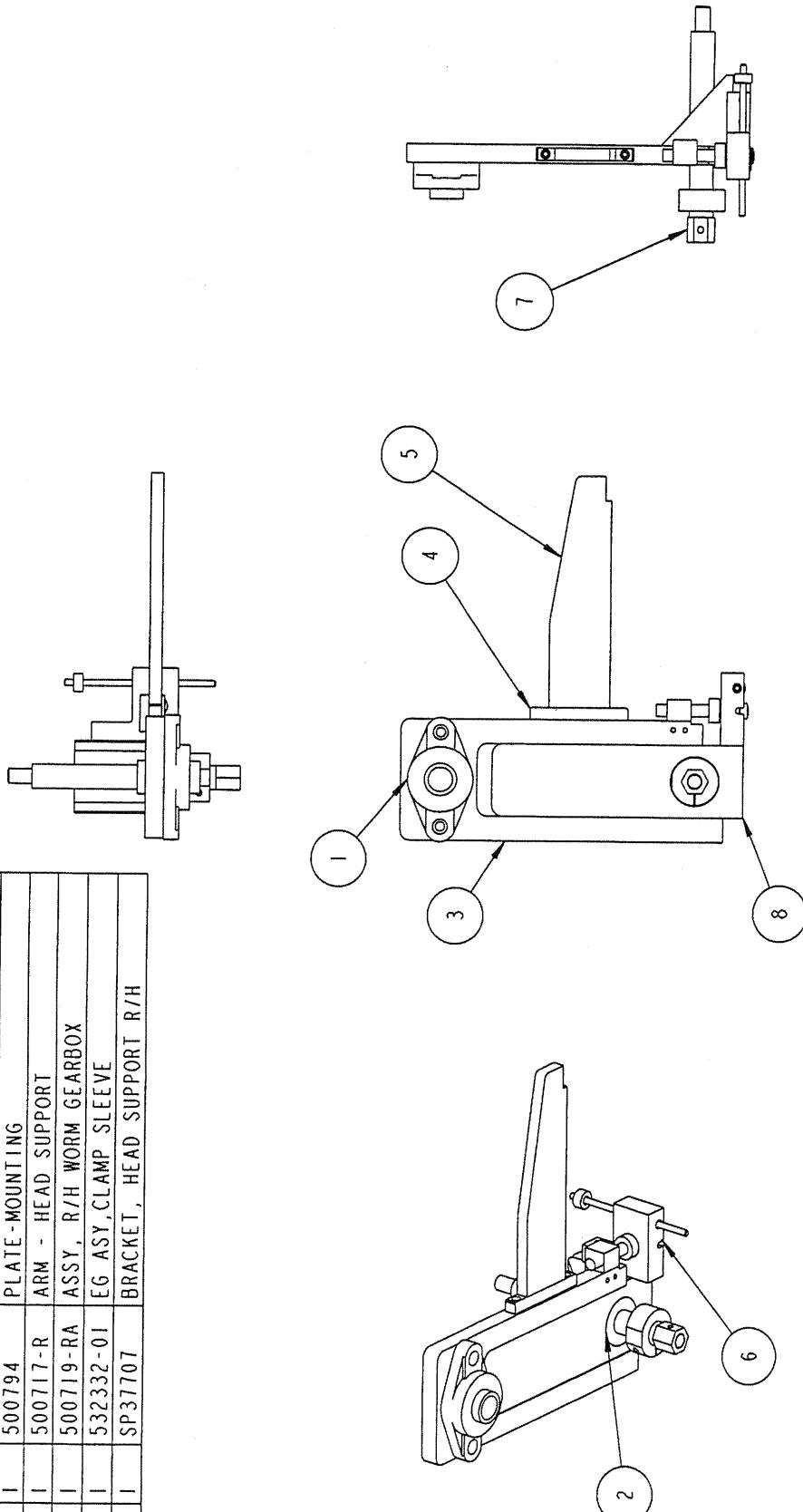


ITEM	QTY	PART #	DESCRIPTION	REV N0	DATE	DESCRIPTION	ECN NO	BY
1	1	102112	KNOB, PURCHASED					
2	1	102115	ADAPTOR, KNOB TO SHAFT					
3	2	500856	BRACE, HEAD SUPPORT PLATE					
4	1	500731-7	CHANNEL, HEAD SUPPORT					
5	1	500752-10	SHAFT - HEAD SUPPORT					
6	1	500778-5	SHAFT, WORM GEAR ADJ.					
7	1	500813-9	SHAFT, HEAD					
8	1	532350-01	EG ASSY, BAR CHANNEL BRACE					
9	1	539936-01	EG ASSY, RH HEAD CASTING 203P RH					
10	1	539937-01	ASSY, LH PICK-N-PLACE CASTING					

1	2 5SP20	REO'D WHERE USED
---	---------	------------------

DRAWN BY: A KEY	SCALE 0 . 1 30	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED .005 .005 .5	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 26 - Jan - 01	ANG. .01	FINISH: N/A	MODEL: 2 5SP20	TITLE: ASSY, PICK-N-PLACE HEAD SUPPORT
TRACED BY:	MASTER <i>M</i>	SHARP EDGES UNLESS NOTED ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY	FINISH: N/A	SHEET NO.: 0F1	DRAWING #: 539934-01

ITEM QTY	PART #	DESCRIPTION
1	103610	FLANGE BEARING, 1.000 2-BOLT
2	103808	BEARING, HUB 1.000
3	500711	BRACKET - HEAD ADJ. R/H
4	500794	PLATE-MOUNTING
5	500717-R	ARM - HEAD SUPPORT
6	500719-RA	ASSY, R/H WORM GEARBOX
7	532332-01	EG ASY, CLAMP SLEEVE
8	SP37707	BRACKET, HEAD SUPPORT R/H



REV NO	DATE	DESCRIPTION	ECN NO	BY
I	215SF20			
REO'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 30044 USA				
DATE: 26-Jan-01	SCALE: 0 . 156	MATERIAL: N/A	THIRD ANGLE PROJECTION	TITLE: EG ASY, RH HEAD CASTING 203P RH
CHECKED BY: M	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED .01 .005 .005	FINISH: N/A		DRAWING # 539936-01
MASTER	DATE: 26-Jan-01	FINISH: N/A	SHEET NO. 1 OF 1	

ITEM	QTY	PART #	DESCRIPTION	REV NO	DATE	DESCRIPTION	ECN NO	BR
1	1	103805	BEARING, HUB .750					
2	2	104106	SNAPRING, .500					
3	1	108811	PULLEY, TIMING 14L100 .625B .188K					
4	1	108813	PULLEY, TIMING 28L100					
5	1	108901	BELT, TIMING 420L100					
6	1	109300	PULLEY, TIMING 21L100 .625B .188K					
7	1	109301	PULLEY, TIMING 21L100 .750B .188K					
8	1	500368	STUD, BELT TAKE-UP					
9	1	500707	COVER, BELT GUARD					
10	1	500794	PLATE-MOUNTING					
11	1	108812A	ASSY, PULLEY					
12	1	500712A	ASSY, HEAD ADJUSTMENT BRACKET					
13	1	500713-L	BRACKET, HEAD SUPPORT L/H					
14	1	500717-L	ARM - HEAD SUPPORT					
15	1	500719-LA	ASSY, L/H WORM GEARBOX					
16	1	500753-5	SHAFT - TIMING PULLEY					
17	1	500754A	ASSY, COUPLING					
18	1	500757A	ASSY, TIMING PULLEY					

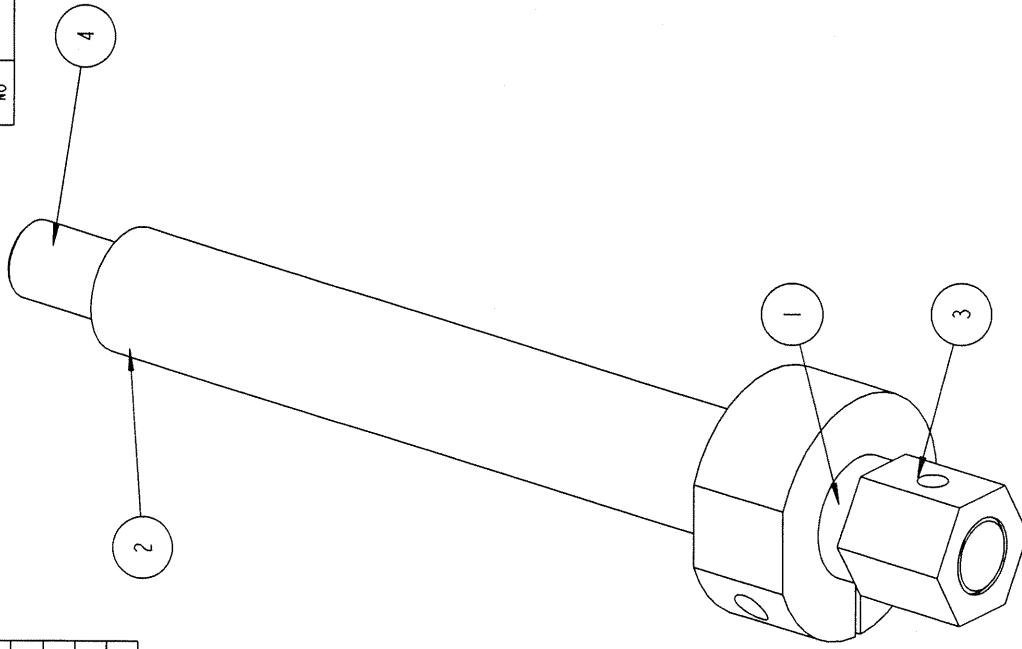
*

USE 14L100 TO 28L100 WITH 22" SPACING
USE 21L100 TO 21L100 WITH 1" SPACING

1	215SP20
REQ'D	WHERE USED

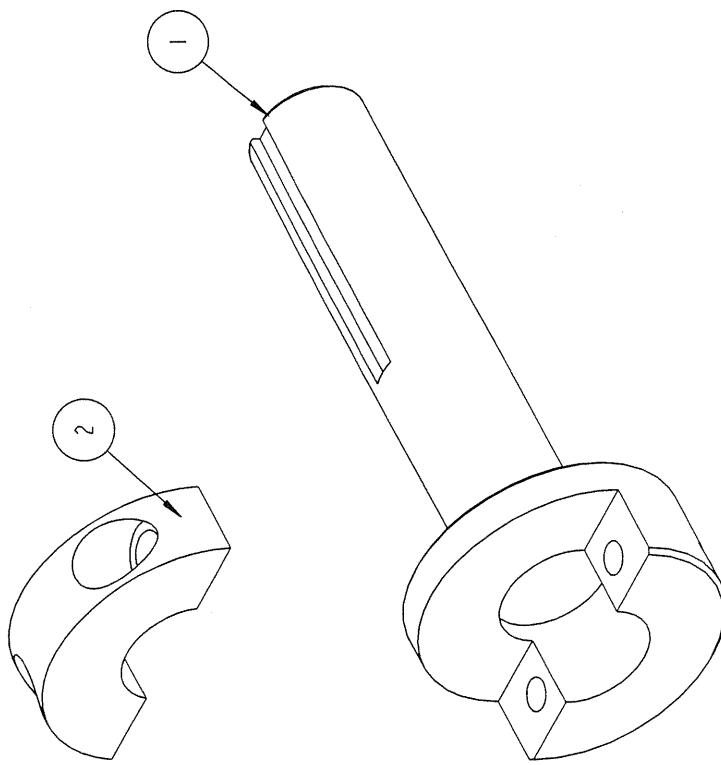
DRAWN BY: A KEY	SCALE 0 .313	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED	MATERIAL: N/A	THIRD ANGLE PROJECTION	PROPRIETARY AND CONFIDENTIAL NO PORTION OF THIS DRAWING MAY BE OPIATED OR REPRODUCED IN ANY FORM WITHOUT THE EXPRESS WRITTEN PERMISSION OF KIRK-RUDY, INC. KENNESAW, GA 3044 USA
CHECKED BY:	DATE 26 - Jan - 01	.XX .XXX ANG. .01 .005 .5	REAR TREAT: N/A	MODEL: 215SP20	NAME: KIRK - RUDY, INC. KENNESAW, GEORGIA
TRACED BY:	MASTER	FINISH: M	MATERIAL: N/A	SHEET NO. 1 OF 1	DRAWING # ASSY, LH PICK-N-PLACE CASTING 539937-01

ITEM QTY	PART #	DESCRIPTION	REV NO	DATE	DESCRIPTION	ECN NO	BY
1	1	102216 COLLAR .625					
2	1	520735A SLEEVE ASY					
3	1	530751-01 HEX SLEEVE					
4	1	SF37722-1 SHAFT, HAND WHEEL					



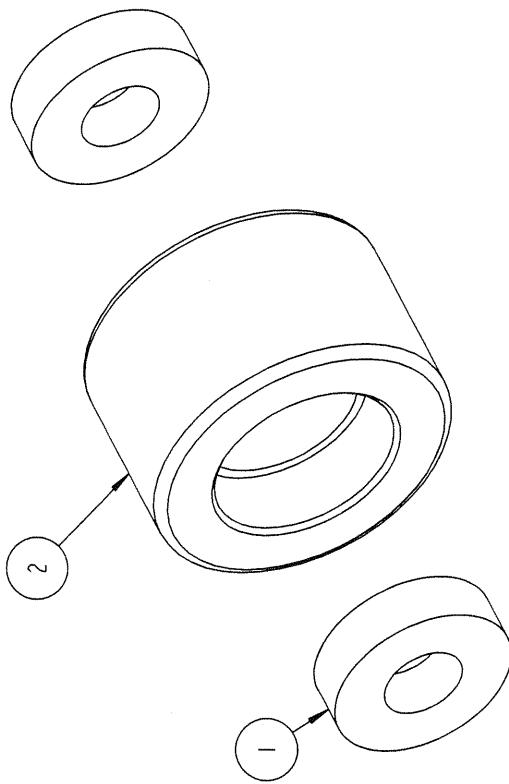
DRAWN BY:	TVK	SCALE:	0 . 750	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED	MATERIAL: N / A	THIRD ANGLE PROJECTION	PROPRIETARY AND CONFIDENTIAL MAY BE QUOTED OR REPRODUCED IN ANY FORM WITHOUT THE EXPRESS WRITTEN PERMISSION OF KIRK-RUDY, INC. KENNESAW, GA 30144 USA
CHECKED BY:		DATE:	12 - Dec - 97	.01 .005 .005 .005	HEAT TREAT: N / A	MODEL: 215	KIRK - RUDY, INC. KENNESAW, GEORGIA
TRACED BY:	MASTER			REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED		SHEET NO. 1 OF 1	TITLE: EG ASY, CLAMP SLEEVE
				ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY			DRAWING #: 532332-01

ITEM QTY	PART #	DESCRIPTION	REV NO	DATE	DESCRIPTION	ECN NO	BY
1	1	500754 COUPLING - HEAD DRIVE					
2	1	500821 CLAMP-DRIVE HEAD					



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 30144 USA	REO'D WHERE USED
CHECKED BY:	DATE	.0000	N / A			
	18 - JU 1 - 97	.01 .005 .5	N / A		KIRK - RUDY, INC. KENNESAW, GEORGIA	
TRACED BY:	MASTER	REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED FINISH: ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY	N / A	SHEET NO. 1 OF 1	DRAWING # ASSY , COUPLING	DRAWING # 500754A

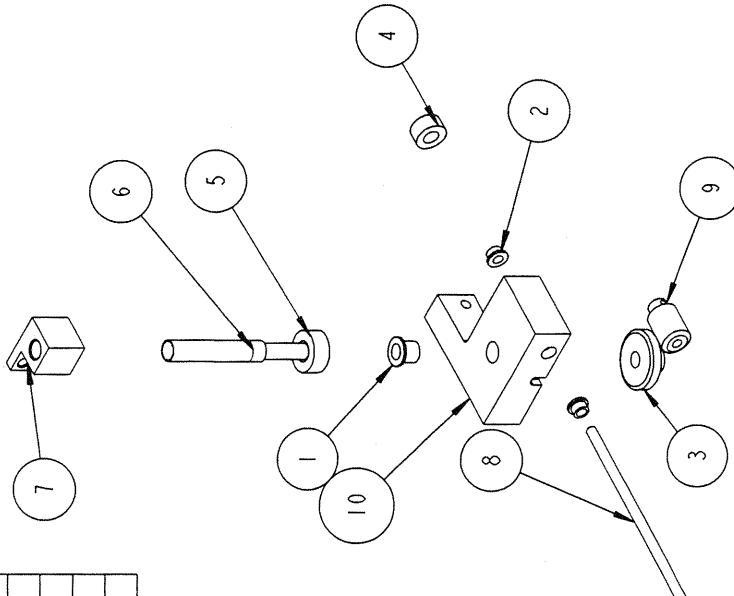
ITEM QTY	PART #	DESCRIPTION
1	2	BEARING, FLAT .500
2	1	PULLEY, REVERSING (TIMING)



REV NO	DATE	DESCRIPTION	ECN NO	BY

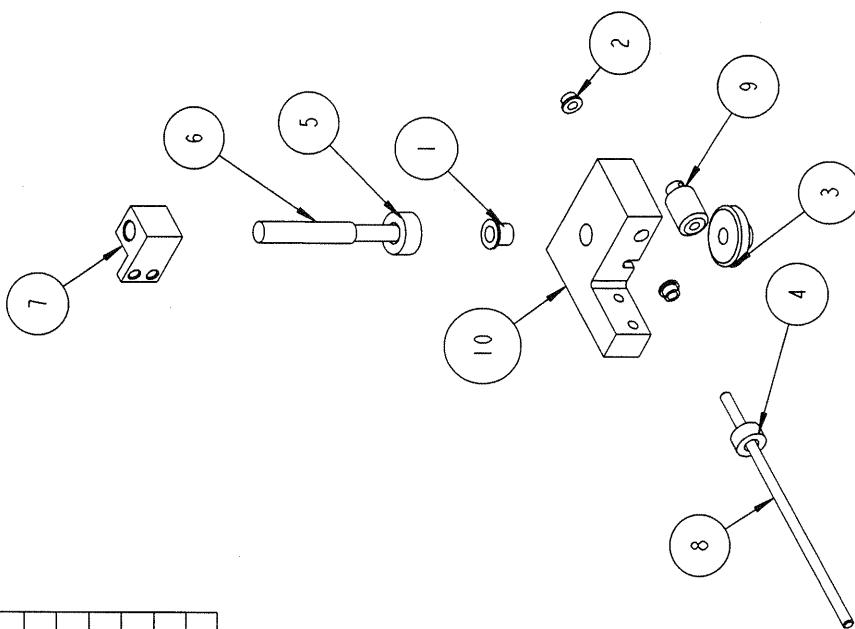
DRAWN BY:		SCALE	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED	MATERIAL:	THIRD ANGLE PROJECTION	PROPRIETARY AND CONFIDENTIAL NO PORTION OF THIS DRAWING MAY BE DUPLICATED OR REPRODUCED IN ANY FORM WITHOUT THE EXPRESS WRITTEN PERMISSION OF KIRK-RUDY, INC. KENNESAW, GA 30044 USA	REV'D WHERE USED
checked by:		DATE	.01 .005 .005 .5	MATERIAL:	N / A		
traced by:	MASTER	22-JUL-97	REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY	HEAT TREAT:	N / A	MODEL: 215	TITLE: ASSY, TIMING PULLEY
				FINISH:	N / A	SHEET NO. 1 OF 1	DRAWING # 500757A

ITEM	QTY	PART #	DESCRIPTION	REV NO	DATE	DESCRIPTION	ECN NO	BY
1	1	100306	BUSHING , FL. 37510 .5000D .500LG					
2	2	100309	BUSHING , FL. 2501D .3750D .250LG					
3	1	100900	GEAR , WORM 1620 0 .375					
4	1	102200	COLLAR .375					
5	1	102205	COLLAR .500					
6	1	500774	SHAFT - WORM GEAR					
7	1	500776	BRACKET , HEAD ADJUSTMENT					
8	1	500779	SHAFT - WORM GEAR ADJ.					
9	1	100900-1	WORM - 16-4 0 .250					
10	1	500719-R	HOUSING , WORM GEAR					



DRAWN BY:	SCALE	0 . 250	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED		MATERIAL: N / A	THIRD ANGLE PROJECTION		PROPRIETARY AND CONFIDENTIAL NO PORTION OF THIS DRAWING MAY BE COPIED OR REPRODUCED IN ANY FORM WITHOUT THE EXPRESS WRITTEN PERMISSION OF KIRK RUDY, INC. KENNESAW, GEORGIA
CHECKED BY:	DATE	.11	.XXX	ANG.	HEAT TREAT:	N / A		KIRK RUDY, INC. KENNESAW, GEORGIA
TRACED BY:	MASTER	22 - Jul 1 - 97		REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED		FINISH:	215	TITLE: ASSY , R/H WORM GEARBOX
				ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE WORK TO DIMENSIONS ONLY		SHEET NO.: OF 1		DRAWING #: 500719-RA

ITEM QTY	PART #	DESCRIPTION
1	100306	BUSHING, FL. 375ID. 500OD. 500LG
2	100309	BUSHING, FL. 250ID. 375OD. 250LG
3	100900	GEAR, WORM 1620 0.375
4	102200	COLLAR .375
5	102205	COLLAR .500
6	500774	SHAFT - WORM GEAR
7	500776	BRACKET, HEAD ADJUSTMENT
8	500777	SHAFT-WORM GEAR ADJ.
9	100900-1	WORM - 16-4 0.250
10	500719-L	HOUSING, WORM GEAR

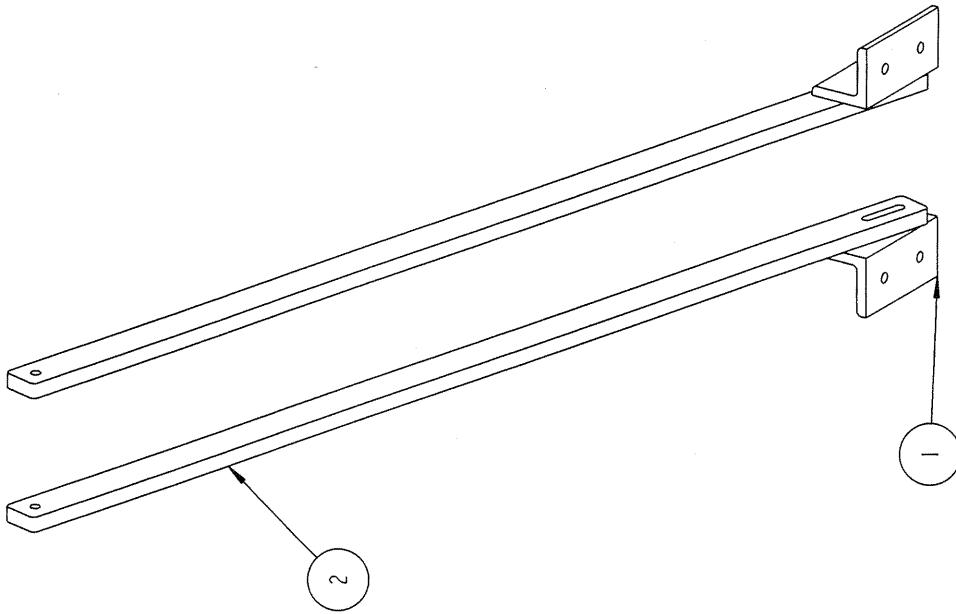


REV NO	DATE	DESCRIPTION	ECN NO	BY

REQ'D	WHERE USED

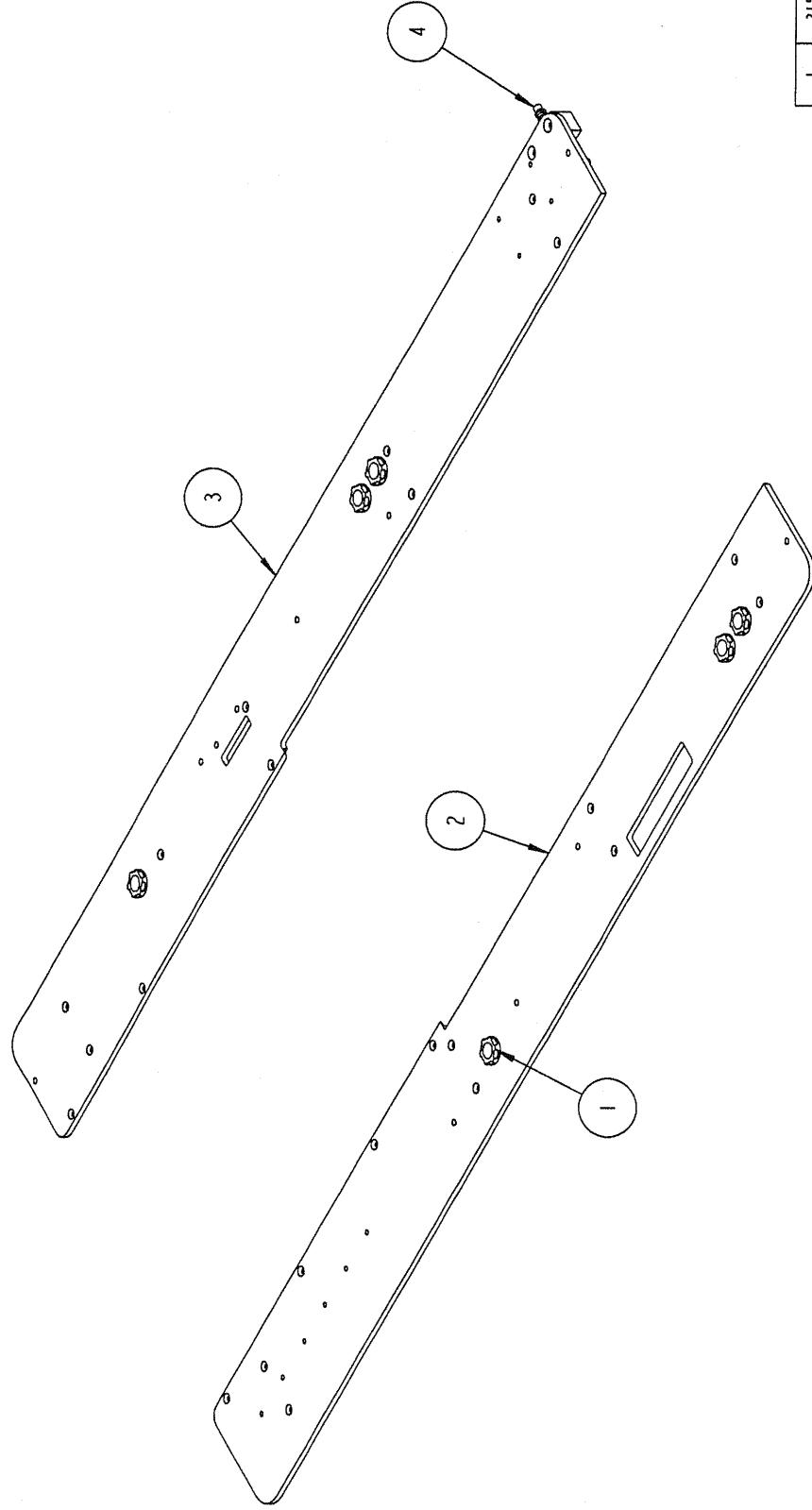
DRAWN BY:	N JG	SCALE	0 . 250	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED	MATERIAL: N / A	THIRD ANGLE PROJECTION	PROPRIETARY AND CONFIDENTIAL NO PORTION OF THIS DRAWING MAY BE COPIED OR REPRODUCED IN ANY FORM WITHOUT THE EXPRESS WRITTEN PERMISSION OF KIRK-RUDY INC. KENNESAW, GA 3044 USA
CHECDED BY:		DATE	21 - JUL - 97	.XX .XXX .01 .005 .5	HEAT TREAT: REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED	MODEL: 215	KIRK - RUDY, INC. KENNESAW, GEORGIA
TRACED BY:		MASTER		FINISH: ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE. WORK TO DIMENSIONS ONLY	SHEET NO. 10F1	TITLE: ASSY, L / H WORM GEARBOX	
						DRAWING #	500719-LA

ITEM	QTY	PART #	DESCRIPTION
1	2	500876	ANGLE SUPP., ATTACHED TO CABINET
2	2	SP46001-3	BAR, FRONT



DRAWN BY:	SCALE:	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED	MATERIAL:	THIRD ANGLE PROJECTION	PROPRIETARY AND CONFIDENTIAL NO PORTION OF THIS DRAWING MAY BE COPIED OR REPRODUCED IN ANY FORM WITHOUT EXPRESS WRITTEN PERMISSION OF KIRK-RUDY INC., KENNESAW, GA 30144 USA	REQ'D WHERE USED
TVK	0 . 250	.01 .005 .5	N/A	-	KIRK - RUDY, INC. KENNESAW, GEORGIA	2
CHECKED BY:	DATE:	AMT.	HOT TREAT:	215	EG ASY, BAR CHANNEL BRACE	SP63800
04-Apr-00	.01		N/A		DRAWING #	
TRACED BY:	MASTER		REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY	N/A	SHEET NO. OF 1	532350-01

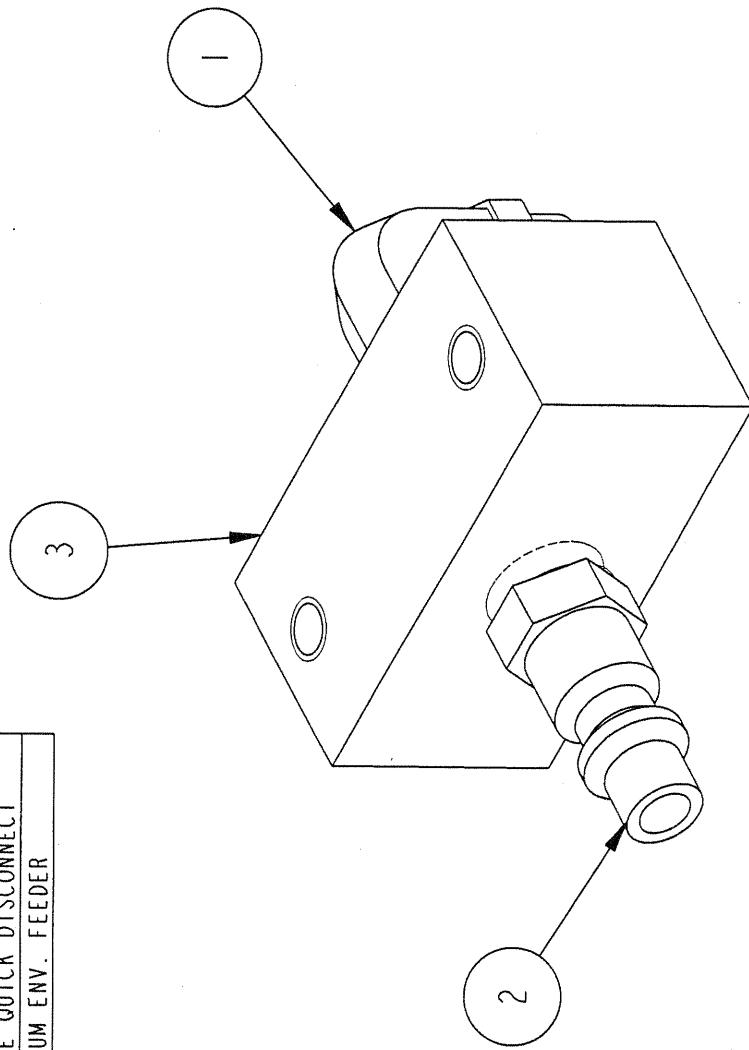
ITEM	QTY	PART #	DESCRIPTION	REV NO	DATE	DESCRIPTION	ECN NO	B/F
1	6	190202	BUSHING, PLASTIC					
2	1	539938-01	TABLETOP, R/H SIDE					
3	1	539940-01	TABLETOP, RH SIDE					
4	1	539943-01	ASSY, AIR QUICK DISCONNECT BLOCK					



DRAWN BY:	A KEY	SCALE:	0 . 156	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED			MATERIAL:	N/A	THIRD ANGLE PROJECTION	PROPRIETARY AND CONFIDENTIAL NO PORTION OF THIS DRAWING MAY BE COPIED OR REPRODUCED IN ANY FORM WITHOUT THE EXPRESS WRITTEN PERMISSION OF KIRK-RUDY INC. KENNESAW, GA 30442 USA		
CHECKED BY:		DATE:	26 - Jan - 01	.000 .005 .005			ANG.			TITLE:		
TRACED BY:		MASTER		.01 .005 .005			HEAT TREAT:	N/A		215SP20		
				REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED			FINISH:	N/A	SHEET NO:	1 OF 1		
				ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY					DRAWING #:	539933-01		

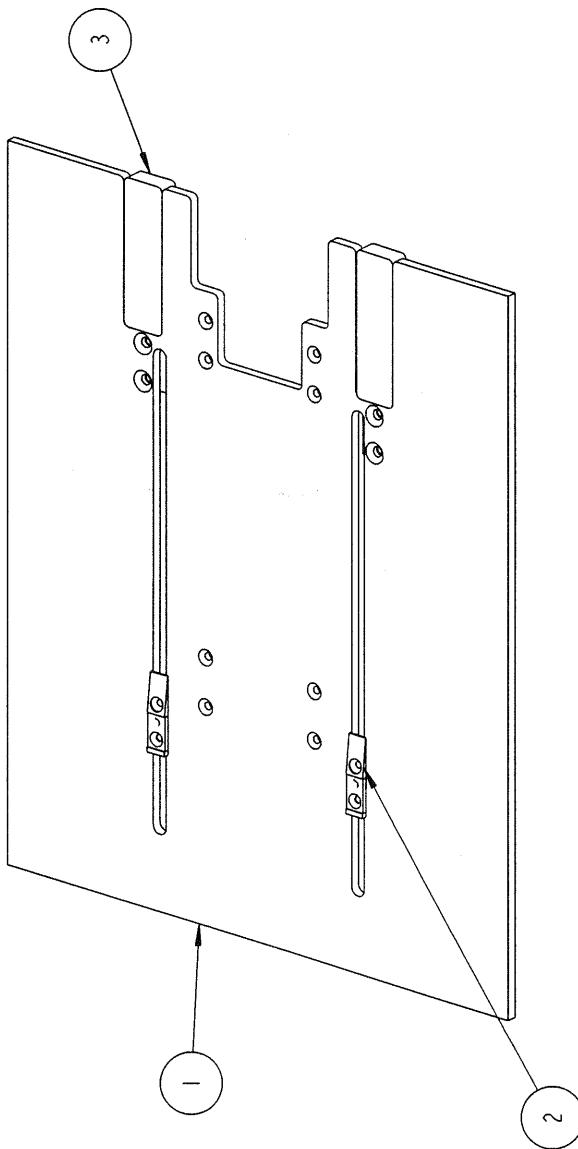
ITEM QTY	PART #	DESCRIPTION
1	109530	ELBOW, MALE 1/4 NPT
2	109534	NIPPLE, MALE QUICK DISCONNECT
3	527946	BLOCK, VACUUM ENV. FEEDER

REV NO	DATE	DESCRIPTION	ECN NO	BY
1	215SP20			



DRAWN BY:	SCALE	MATERIAL:	THIRD ANGLE PROJECTION	PROPRIETARY AND CONFIDENTIAL
A KEY	.500	N / A	+ -	KIRK - RUDY, INC. KENNESAW, GEORGIA
CHECKED BY:	DIM. UNLESS OTHERWISE NOTED .11 .015 .005 .5	MACH. TREAT: 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
TRACED BY:	DATE 26-Jan-01	REMOVED ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY	215SP20 ASSY, AIR QUICK DISCONNECT BLOCK	TITLE: SHEET NO. 1 OF 1 DRAWING #

ITEM	QTY	PART #	DESCRIPTION
1	1	500863-2	TABLETOP, WIDE SHUTTLE
2	2	531117-01	ASSY, PUSHER
3	2	SP12182	BLOCK - NEEDLE BLOCK PLUG



DRAWN BY:	SCALE	0 . 250	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED	MATERIAL: XXX	THIRD ANGLE PROJECTION	PROPRIETARY AND CONFIDENTIAL NO COPIES CAN BE MADE OR REPRODUCED WITHOUT EXPRESS WRITTEN PERMISSION OF KIRK-RUDY, INC., Kennesaw, GA
CHECKED BY:	DATE	27 - May - 98	.01	.005	HEAT TREAT:	MODEL: 215
TRACED BY:	MASTER		REMOVE ALL BURRS AND SHARP EDGES, LESS OTHERWISE NOTED ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY			TITLE: ASSY - SHUTTLE TABLE
			SHEET NO. 1 OF 1			DRAWING # 500863-2A
						I SP55900 RECD WHERE USED

ITEM QTY	PART #	DESCRIPTION	REV NO	DATE	DESCRIPTION	ECN NO	BY
1	101917	GEAR, 1621 . 625B . 188K					
2	103803	BEARING, HUB . 500					
3	2	500839 HUB-BELT DRIVE					
4	1	500891 GUIDE, RH MATERIAL					
5	1	500742-4 ROLLER - TUBE BELT DRIVE					
6	2	500819-1 BLOCK, BEARING					
7	1	500828-1 SHAFT - FRONT ROLLER					
8	1	500892-1 COVER - GEAR					
9	1	530676-01 ROLLER ASY					
10	1	531274-01 ASSY, FRONT ROLLER DRIVE					
11	1	537663-01 TRAY, GLUE CATCH					
12	1	539924-01 ASSY, CENTER TABLETOP					
13	2	HMSN12 HEX NUT					
14	1	SP37720-2 TABLETOP-INKJET					

I SP68900
REC'D WHERE USED

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

KIRK - RUDY, INC.
KENNESAW, GEORGIA

ASSY, CENTER TABLETOP

TITLE: ASSY, CENTER TABLETOP

215SP20

SHEET NO. 1 OF 1

DRAWING #

DRAWN BY: A KEY SCALE 0 . 188 DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED

.01	.005	.5
MM	XXX	ANG.

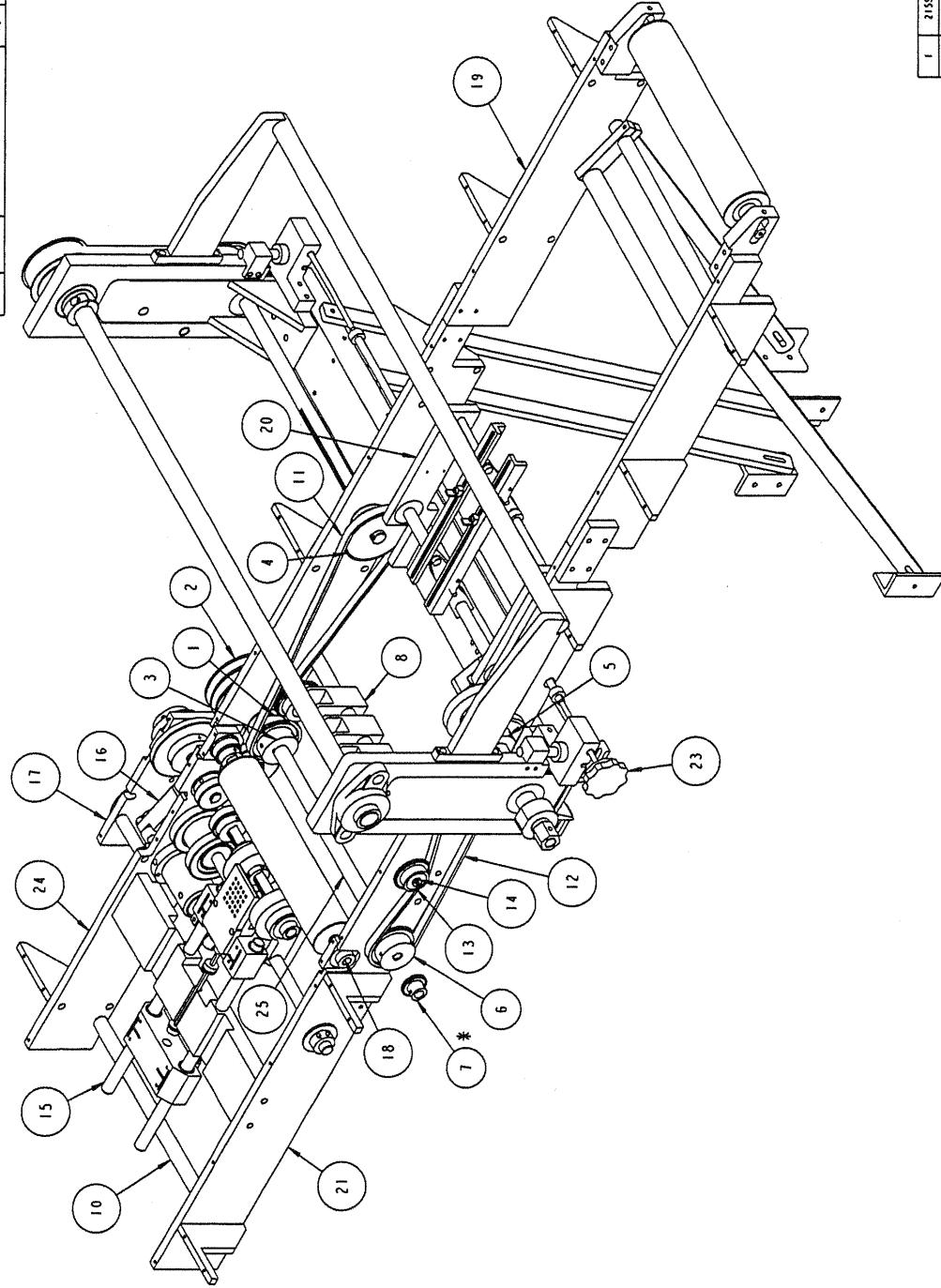
CHECKED BY: DATE 26 - Jan - 0 | REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED

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

MASTER

539924-01

ITEM QTY	PART #	DESCRIPTION
1	101915	GEAR, 1628 .750B .188K
2	105000	V-PULLEY, DBL D2400
3	110201	SPROCKET
4	110204	SPRKLT, 35B28 .750B .188K
5	110261	SPRKLT, 35B28 1.000B .250K
6	110774	SPRKLT, 35B20 .500B .125K
7	110907	SPRKLT, 35B10 .500B .125K
8	500125	GUIDE - BELT
9	500147	CAM - FEED ROLLERS
10	2	SHAFT-BELT GUIDE
11	1	110020-28 CHAIN, #35
12	1	110020-29 CHAIN, 35
13	1	110219A ASSY, IDLER SPROCKET 5
14	1	500983-1 STUD, IDLER SPROCKET
15	1	531021-01 ASSY, SHUTTLE TABLE
16	1	531022-01 ASSY, LOWER FEED ROLLER
17	1	531107-01 CHANGE GEAR PLATE ASSY
18	1	533924-01 ASSY, CENTER TABLETOP
19	1	533925-01 ASSY, 20 IN EXTENSION
20	1	533927-01 ASSY, STOP PIN W/O SLEEVE
21	1	533928-01 ASSY, RH FRAME
22	1	533933-01 ASSY, OUTSIDE TABLETOP
23	1	533934-01 ASSY, PICK-N-PLACE HEAD SUPPORT
24	1	533935-01 ASSY, LH FRAME
25	1	SP31706 SHAFT-SPROCKET DRIVE



ITEM NO.	KEY	SIZE	INCHES (WHEN APPLICABLE)	INCHES (WHEN APPLICABLE)	WEIGHT:	WEIGHT:	ITEM NO.	KEY	SIZE	INCHES (WHEN APPLICABLE)	INCHES (WHEN APPLICABLE)	WEIGHT:	WEIGHT:	ITEM NO.	KEY	SIZE	INCHES (WHEN APPLICABLE)	INCHES (WHEN APPLICABLE)	WEIGHT:
26	- Jan - 01	0.158	"	"	N/A	N/A	26	- Jan - 01	0.158	"	"	N/A	N/A	26	- Jan - 01	0.158	"	"	N/A
Master							Master							Master					

* 35B20 USED FOR 11" SPACING
* 35B10 USED FOR 22" SPACING

1	215SP29	WHERE USED
26	KIRK-RUDY, INC. KENNESAW, GEORGIA	

ASSY, TABLETOP AND FRAME
Drawing # 539923-01

ITEM QTY	PART #	DESCRIPTION	REV NO	DATE	DESCRIPTION	ENR NO	BY
1	101915	GEAR, 1628 .750B .188K					
2	105000	V PULLEY, DEB D2400					
3	110201	SPROCKET					
4	110204	SPRKIT, 35828 .750B .188K					
5	110261	SPRKIT, 35828 1.000B .250K					
6	110774	SPRKIT, 35820 .500B .125K					
7	110907	SPRKIT, 35810 .500B .125K					
8	500125	GUIDE - BELT					
9	500147	CAM - FEED ROLLERS					
10	2	SHAFT-BELT GUIDE					
11	1	110020-28	CHAIN, #35				
12	1	110020-29	CHAIN, .35				
13	1	110219A	ASSY, IDLER SPROCKET .5				
14	1	500883-1	SLUD. IDLER SPROCKET				
15	1	531021-01	ASSY. SHUTTLE TABLE				
16	1	531022-01	ASSY. LOWER FEED ROLLER				
17	1	531107-01	CHANGE GEAR PLATE ASSY				
18	1	539924-01	ASSY. CENTER TABLETOP				
19	1	539925-01	ASSY. 20 IN EXTENSION				
20	1	539927-01	ASSY. STOP PIN W/O SLEEVE				
21	1	539928-01	ASSY. RH FRAME				
22	1	539933-01	ASSY. OUTSIDE TABLETOP				
23	1	539934-01	ASSY. PICK-N-PLACE HEAD SUPPORT				
24	1	539935-01	ASSY. LH FRAME				
25	1	SP31706	SHAFT-SPROCKET DRIVE				

* 35820 USED FOR 11" SPACING
* 35810 USED FOR 22" SPACING

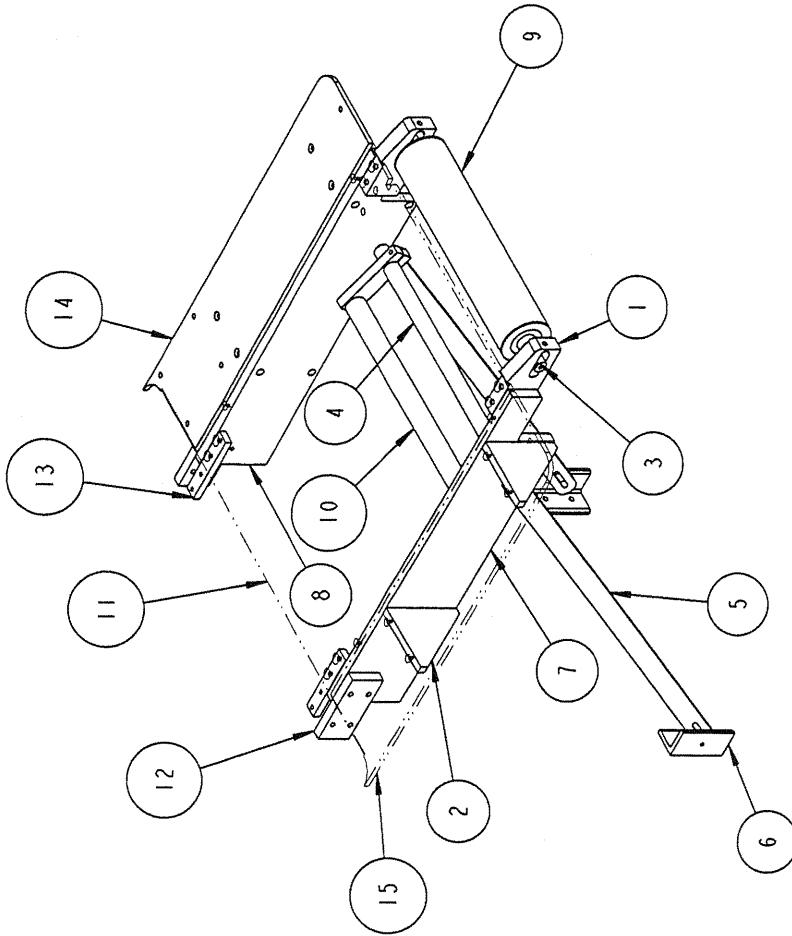
I - 215SP20
REC'D WHERE USED

KIRK-RUDY, INC.
KENNESAW, GEORGIA

ASSY, TABLETOP AND FRAME
Drawing # 539923-01

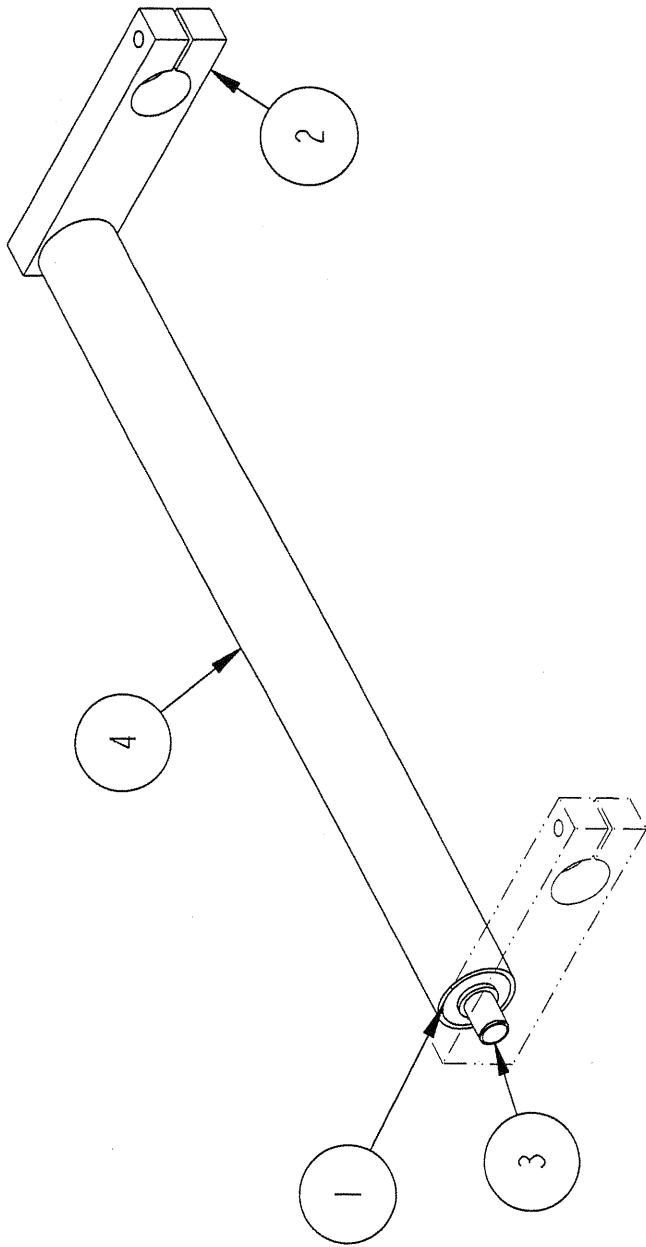
ITEM NO:		DIMENSIONAL TOLERANCES		DRAWING AND CONFIDENTIAL INFORMATION	
ITEM	KEY	SCALE	0.150	UNLESS OTHERWISE NOTED	MADE TO DRAWING
26	A KEY	scale:	.0150	.005 .005 .005 .005 .005 .005	PRINTED BY: DATE: 26 - Jan - 01
		checked by:		TECHNICAL DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF KIRK-RUDY, INC. THEY ARE TO BE KEPT IN A SECURE PLACE AND NOT COPIED OR REPRODUCED WITHOUT THE WRITTEN PERMISSION OF KIRK-RUDY, INC. © 1998 KIRK-RUDY, INC. ALL RIGHTS RESERVED.	MASTER
		tried and projection:			
		part no:			
		material:			
		heat treat:			
		frame:			
		spec:			
		mark:			

ITEM QTY	PART #	DESCRIPTION	REV NO	DATE	DESCRIPTION	ECN NO	BT
1	2	500716			BRACKET - BELT TAKE-UP		
2	4	500721			GUSSET - TABLETOP SUPPORT		
3	1	500823			SHAFT, IDLER ROLLER		
4	1	500824			SHAFT-BELT GUIDE		
5	2	500875			BAR - SUPPORT EXT.		
6	2	500876			ANGLE SUPP., ATTACHED TO CABINET		
7	1	500701-1L			PLATE BASE SUPPORT 20 IN EXT LH&RH		
8	1	500701-1R			PLATE BASE SUPPORT 20 IN EXT RH&RH		
9	1	500835-A			ASSY, TUBE ROLLER		
10	1	539926-01			ASSY, TAKEUP ROLLER		
11	1	SP18605			TABLETOP - CENTER 20 IN EXT		
12	2	SP18606			PLATE, SCAB		
13	2	SP18616			PLATE - TABLETOP SPLICER		
14	1	SP19402L			TABLETOP LH OUTSIDE 20 IN. EXT.		
15	1	SP19402R			TABLETOP LH OUTSIDE 20 IN. EXT.		



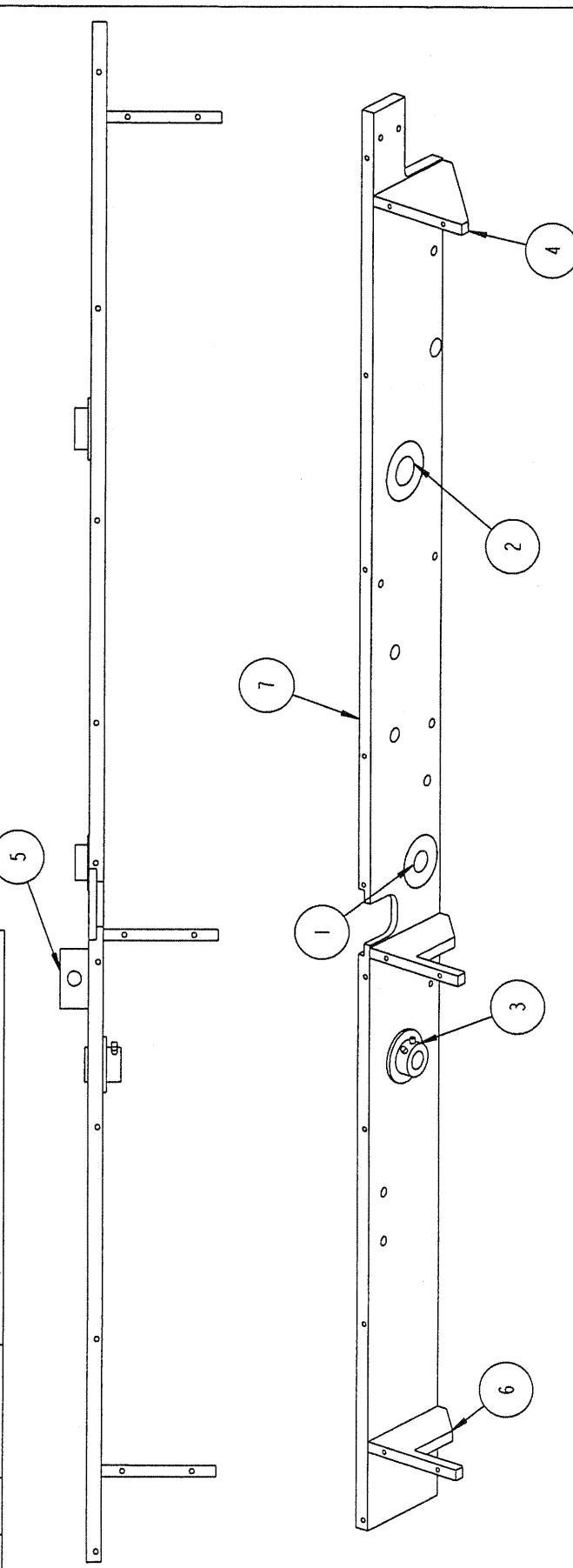
1	215SP20	RECD WHERE USED
KR	KIRK - RUDY, INC.	KENNESAW, GEORGIA
215SP20	SHEET NO. 1 OF 1	DRAWING # 539925-01
PROPRIETARY AND CONFIDENTIAL NO PORTION OF THIS DRAWING MAY BE COPIED OR REPRODUCED IN ANY FORM WITHOUT THE EXPRESS WRITTEN PERMISSION OF KIRK-RUDY, INC. KENNESAW, GA 3044 USA	THIRD ANGLE PROJECTION - - -	TRUE:

ITEM	QTY	PART #	DESCRIPTION	REV NO	DATE	DESCRIPTION	ECN NO	BY
1	2	103106	BEARING, FLAT .375					
2	2	504949	ARM BELT TIGHTENER					
3	2	503233-2	STUD					
4	1	507262-2	ROLLER, TRANSFER					



1	21SSP20
REO'D	WHERE USED
<p align="center">KRK KIRK - RUDY, INC. KENNESAW, GEORGIA</p>	
<p align="center">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</p>	
DRAWN BY:	SCALE: 0 . 500
DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED	
	.11 .010 .005 .005
CHECKED BY:	DATE: 26 - Jan - 01
HEAT TREAT: N/A	
TRACED BY:	MASTER M
FINISH: REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY	
NOTE: 21SSP20	ASSY, TAKEUP ROLLER
SHEET NO. 0F 1	DRAWING # 539926-01

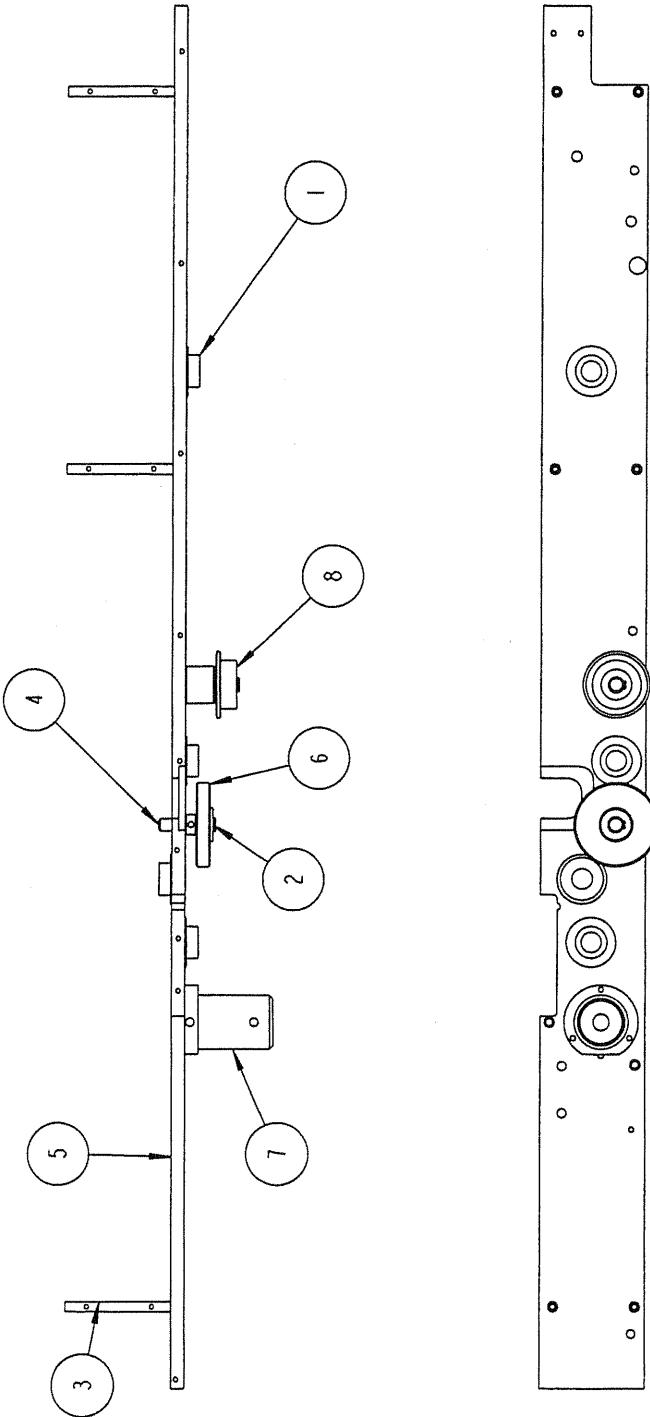
ITEM QTY	PART #	DESCRIPTION	REV NO	DATE	DESCRIPTION	ECN NO	BY
1	1 03805	BEARING, HUB .750					
2	1 03808	BEARING, HUB 1.000					
3	1 103817	HUBBEARING 5/8 ID					
4	1 500721	GUSSET - TABLETOP SUPPORT					
5	1 500785	BLOCK- SPRING					
6	2 500721-8	GUSSET, TABLETOP SUPPORT CUTOUT					
7	1 SP37708	PLATE, BASE SUPPORT RH					



DRAWN BY:	A KEY	SCALE	0 . 200	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 EXPRESS WRITTEN PERMISSION OF KIRK-RUDY, INC. KENNESAW, GA 30144 USA
CHECKED BY:		DATE	26 - Jan - 01	.01 .05 .5 .01 .05 .5 ANG.	HEAT TREAT: N / A	MODEL: 215SP20	TITLE: ASSY , RH FRAME
TRACED BY:	MASTER	FINISH:	N / A	SHEET NO. 10F 1	DRAWING # 539928-01		
	M						

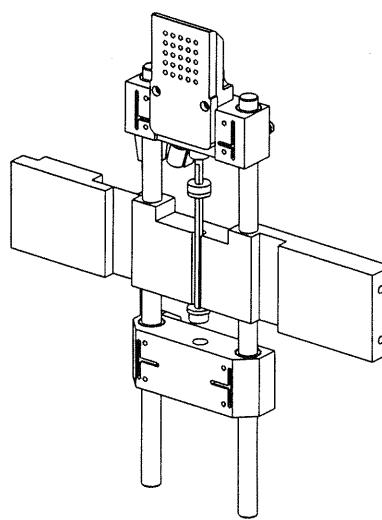
1	215SP20
REQ'D	WHERE USED

ITEM QTY	PART #	DESCRIPTION	REV NO	DATE	DESCRIPTION	ECN NO	BY
1	4	103805 BEARING, HUB .750					
2	1	104106 SNAPPING, .500					
3	3	500721 GUSSET - TABLETOP SUPPORT					
4	1	500817 SHAFT-GEAR SPUR					
5	1	500701-L frame plate					
6	1	531105-01 ASSY, GEAR					
7	1	531106-01 ASSY, HUB					
8	1	531111-01 TAKEUP ASY					



DRAWN BY:	A KEY	SCALE	0 . 157	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED	MATERIAL: N / A	THIRD ANGLE PROJECTION	PROPRIETARY AND CONFIDENTIAL NO COPIES OF THIS DRAWING MAY BE MADE OR COPIED IN WHOLE OR IN PART WITHOUT EXPRESS WRITTEN PERMISSION OF KIRK-RUDY INC. KENNESAW, GA 3044 USA
CHECKED BY:		DATE	26-Jan-01	.01 .005 .5	HEAT TREAT: N / A	MODEL: 215SP20	FILE:
TRACED BY:	MASTER	STL#	M	REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY	N / A	10F 1	DRAWING #: ASSY, LH FRAME 539935-01

ITEM QTY	PART #	DESCRIPTION	REV NO	DATE	DESCRIPTION	ECN NO	BY
1	2	102225 COLLAR .250					
2	1	103500 BEARING - ROD END					
3	1	109523 JUNCTION, 2-WAY					
4	1	109524 JUNCTION, 3-WAY					
5	1	500735 ROD - PUSH					
6	2	500737 WASHER - BUMPER					
7	2	500741 SHAFT - FEEDER					
8	1	500749 ROD - FEEDER SLIDE					
9	1	500708A ASSY, VACUUM BODY					
10	1	500710-1 BRACKET - FEEDER SUPPORT					
11	1	500728A ASSY, BUSHING BLOCK					
12	1	500751A ASSY, BEARING BLOCK					
13	1	530253-01 RING					
14	1	RHB082 HEX HEAD BOLT					
15	2	RHN012 HEX NUT					
16	1	WA013 WASHER					



SCALE 0.180

DRAWN BY:	TVK	SCALE	0 . 250	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	05-May-98	.xx	.xxx	ANG.			
TRACED BY:	MASTER	FINISH:	REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY	01	.005	.5	HEAT TREAT:	N / A	MODEL: 215
		SHEET NO.	10F1	DRAWING #	ASSY, SHUTTLE TABLE	1	RECD WHERE USED	215	KIRK - RUDY, INC. KENNESAW, GEORGIA

531021-01

ITEM	QTY	PART #	DESCRIPTION	REV NO	DATE	DESCRIPTION	ECN NO	BY
1	1	100131	BUSHING, SL. 250ID .375OD .250LG					
2	4	100145	BUSHING, SL. 625ID .813OD .000LG					
3	2	109521	OIL METER UNIT					
4	2	109528	NUT, COMPRESSION FEMALE					
5	2	109537	SLEEVE, COMPRESSION					
6	1	190606	FITTING - 90 DEG 1/4 NPT					
7	1	190769	MAGNET, BUNTING					
8	1	500708	BODY, VACUUM VALVE					
9	1	500709	PLATE - VACUUM FEEDER					
10	1	500738	SPRING - VALVE					
11	1	500739	BLOCK - PUSHER					
12	1	500740	PLATE - VACUUM					
13	1	531155-01	PLATE, MAGNETIC					

DRAWN BY: TVK SCALE: 0 .380 MATERIAL: N/A DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED

DATE: 05-May-98	.01	.005	.005	.005	.005	.005	.005	.005
	X	X	X	X	X	X	X	X

HEAT TREAT: N/A

FINISH: REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED
ALL DIMENSIONS ARE FINISHED DIMENSIONS
DO NOT SCALE - WORK TO DIMENSIONS ONLY

RECD-D WHERE USED

1	531021-01
---	-----------

KIRK - RUDY, INC.
KENNESSAW, GEORGIA

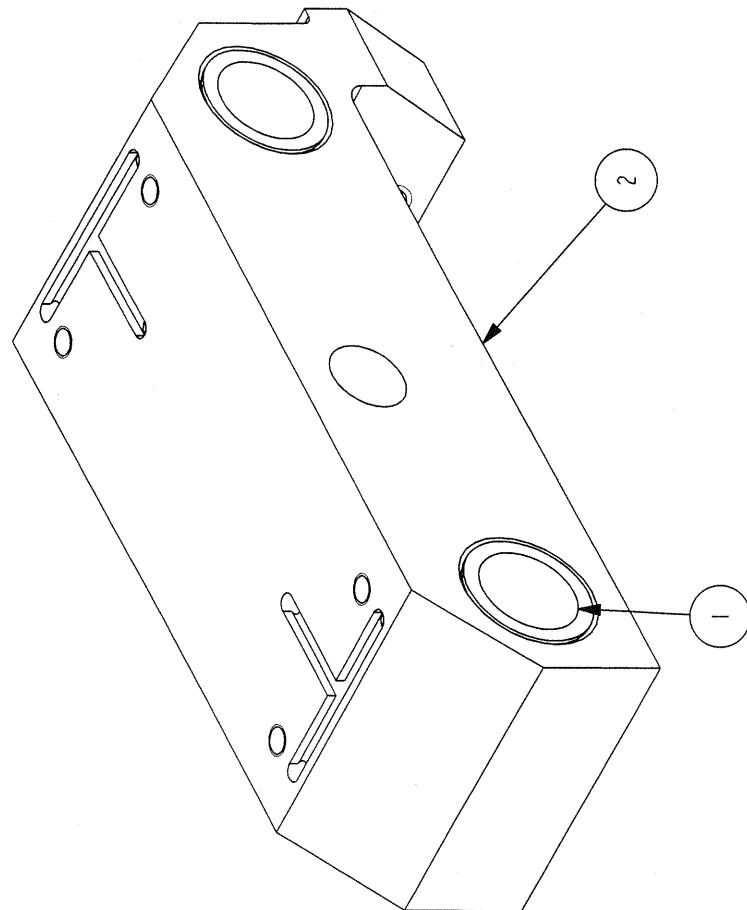
ASSY, VACUUM BODY

DRAWING # 500708A

Sheet No. 1 OF 1

ITEM QTY	PART #	DESCRIPTION
1 4	100145	BUSHING , SL. 62510.813001.000LG
2 1	500728	BRACKET - FEEDER

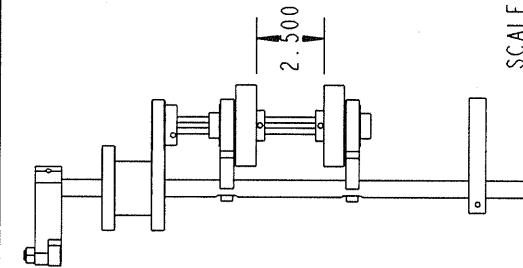
REV NO	DATE	DESCRIPTION	ECN NO	BY



1	531021-01	REO'D WHERE USED
KRK	KRK - RUDY, INC.	KENNEBUNK, GEORGIA
215	ASSY, BUSHING BLOCK	500728A
N/A	DRAWING #	
MASTER	OF 1	

DRAWN BY:	M.Y	SCALE:	.000	MATERIAL:	N/A	THIRD ANGLE PROJECTION	PROPRIETARY AND CONFIDENTIAL
UNLESS OTHERWISE NOTED							NO COPIES OR REPRODUCED
DIMENSIONAL TOLERANCES							IN ANY FORM WITHOUT THE
UNLESS OTHERWISE NOTED							EXPRESS WRITTEN PERMISSION
DATE:	09 - Apr - 99	xx	xx	HEAT TREAT:	N/A	MODEL:	KRK-RUDY, INC., KENNEBUNK, GA 3044 USA
		.01	.005			215	TITLE:
CHECKED BY:		ANG.	.5	REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED			ASSY, BUSHING BLOCK
TRACED BY:				ALL DIMENSIONS ARE FINISHED DIMENSIONS			
				DO NOT SCALE - WORK TO DIMENSIONS ONLY			

ITEM QTY	PART #	DESCRIPTION
1	101916	GEAR, 1628 .625B .188K
2	102701	SPRING
3	103405	CAM FOLLOWER
4	2	BEARING, HUB .625
5	2	BOLT, SHOULDER 5/16X3/4
6	1	500734 LEVER - CAM
7	2	500746 ROLLER - BOTTOM FEED
8	1	500786 LEVER, SPRING
9	1	500729-4L ARM, FEEDER CRADLE HUBBRG LH
10	1	500729-4R ARM, CRADLE FEEDER HUBBRG RH
11	1	500748-1 SHAFT - FEEDER ROLLER
12	1	500827-1 SHAFT, SPRING LEVER
13	1	531102-01 ASSY, HUB GEAR
14	1	RHN012 HEX NUT



SCALE 0.156

REV NO	DATE	DESCRIPTION	ECN NO	BY
1	11/24/2000	REPLACE 500729-2 WITH 500729-4 REPLACE FLAT BARS W/ HUB BRG	6624	TJG

1	536173-01
REQ'D	WHERE USED
1	KIRK - RUDY, INC. KENNESAW, GEORGIA
MODEL:	XXX
TITLE:	ASSY, LOWER FEED ROLLER
SHEET #:	1 OF 1
DRAWING #:	531022-01

DRAWN BY: TVK

CHECKED BY: 04-May-98

SCALE 0 .313

TRACED BY: MASTER

DATE

MATERIAL:

DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED

.01 .005 .005

ANG.

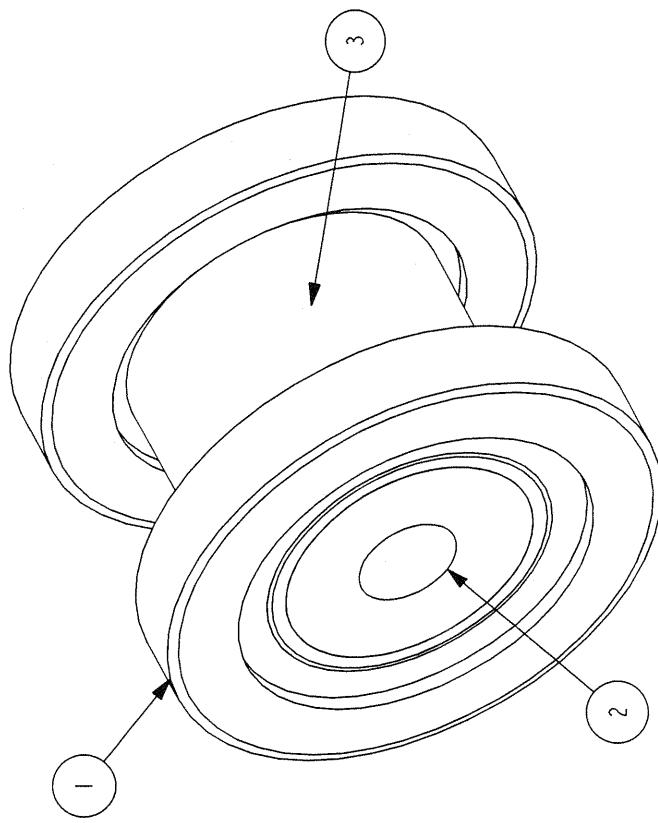
HEAT TREAT:

REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED

ALL DIMENSIONS ARE FINISHED DIMENSIONS

DO NOT SCALE - WORK TO DIMENSIONS ONLY

ITEM	QTY	PART #	DESCRIPTION
1	2	101918	GEAR, FEED ROLLER DRIVE
2	2	103804	BEARING, HUB .625
3	1	503622	HUB, GEAR



REV NO	DATE	DESCRIPTION	ECN NO	BY
1 531022-01 RE'D WHERE USED				
<p>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</p> <p>THIRD ANGLE PROJECTION</p> <p>KRK KIRK - RUDY, INC KENNESAW, GEORGIA</p> <p>MODEL: 215</p> <p>TITLE: ASSY, HUB GEAR</p> <p>SHEET # 1 OF 1</p> <p>DRAWING # 531102-01</p>				
DRAWN BY: MY	SCALE: 1 . 000	MATERIAL: N / A		
DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED		.01 .005 .005		
CHECKED BY:	DATE: 12 - Apr - 99	HEAT TREAT: N / A		
REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED		F18SR:		
ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY				
TRACED BY: MASTER		N / A		

ITEM	QTY	PART #	DESCRIPTION	REV NO	DATE	DESCRIPTION	ECN NO	BY
1	1	101760	GEAR, 2075 .625B .188K					
2	1	101902	GEAR, 1620 .625B .188K					
3	1	101914	GEAR, 1640 .625B .188K					
4	1	101916	GEAR, 1628 .625B .188K					
5	1	101920	GEAR, 1656 .625B .188K					
6	3	102672	SPACER, SIDE PLATE					
7	1	103110	BEARING, FLAT .625					
8	1	103804	BEARING, HUB .625					
9	1	500720	PLATE - SIDE GEAR SUPPORT					
10	1	500750	CRANK - FEEDER SLIDE					
11	1	500826	SHAFT-CRANK					
12	1	500829	SHAFT-GEAR					
13	1	101919-A	ASY. IDLER GEAR					

SCALE: 0 .500 MATERIAL: N/A

DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED:

.01	.005	.005	HEAT TREAT:	N/A
.01	.005	.005	DATE:	26-Jan-01

REMOVED ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED

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

RECD WHERE USED

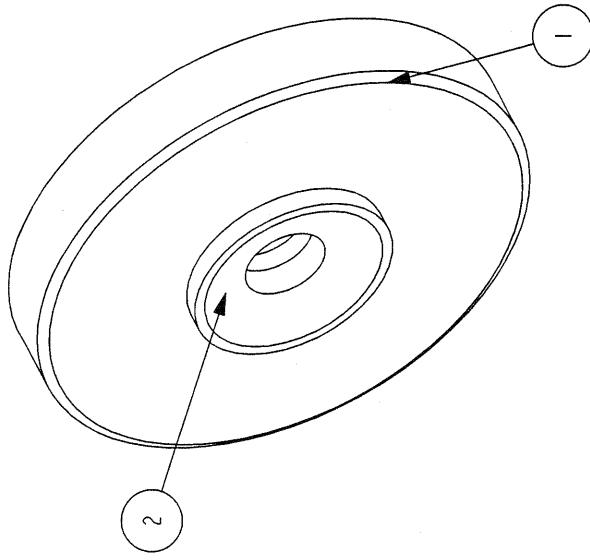
1 215SP20

KIRK-RUDY, INC.
KENNESAW, GEORGIA

ASSY, CHANGE GEAR PLATE

531107-01

ITEM	QTY	PART #	DESCRIPTION
1	1	101919	GEAR, 1648 1.124B NK
2	2	103108	BEARING, FLAT .500

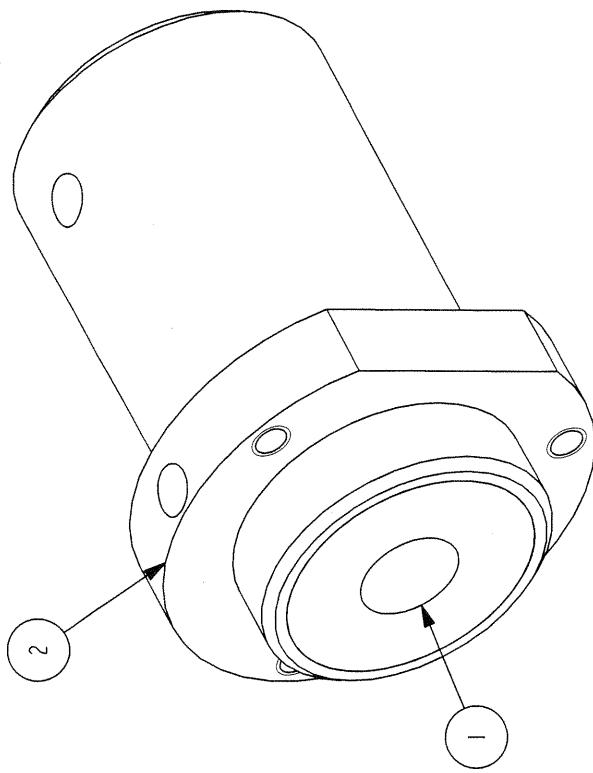


REV NO	DATE	DESCRIPTION	ECN NO	BY

1	536176-01
RECD	WHERE USED
KRK	KIRK - RUDY, INC.
	KENNESAW, GEORGIA
ASSY	GEAR
531105-01	

DRAWN BY:	SCALE	DATE	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 30144 USA
MY	.000	12-Apr-99	.XX .XXX .01 .005 .5 ANG.	N / A		
CHECKED BY:				HEAT TREAT:		
TRACED BY:	MASTER		REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY	N / A	215	TITLE:
					SHEET NO. 10F1	DRAWING #

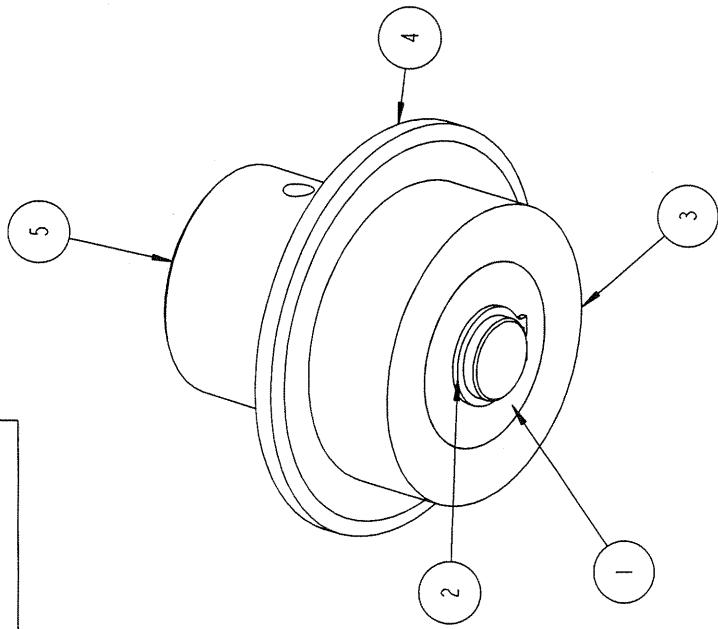
ITEM	QTY	PART #	DESCRIPTION	REV NO	DATE	DESCRIPTION	ECN NO	BY
1	2	103804	BEARING, HUB .625					
2	1	500718	HUB - SHAFT BEARING					

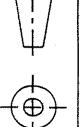


DRAWN BY:		SCALE	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED		MATERIAL:	THIRD ANGLE PROJECTION		PROPRIETARY AND CONFIDENTIAL NO PORTION OF THIS DRAWING MAY BE QUOTED OR REPRODUCED IN ANY FORM WITHOUT THE EXPRESS WRITTEN PERMISSION OF KIRK-RUDY INC. KENNESAW, GA 30444 USA	
MY		.000	.01	.005	N / A			TITLE: KRK KIRK-RUDY, INC. KENNESAW, GEORGIA	
CHECKED BY:		DATE	.01 .005 .5		HEAT TREAT:	MODEL: 215		ASSY, HUB	
TRACED BY:		MASTER	REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY		FINISH:	SHEET # 10F 1		DRAWING # 531106-01	

DRAWING # 53111-01

ITEM	QTY	PART #	DESCRIPTION
1	2	103108	BEARING, FLAT .500
2	1	104106	SNAPRING, .500
3	1	110200	SPRKT, 35B19 .1.125B NK
4	1	110200-A	SPROCKET ASY
5	1	500849-1	STUD, TAKEUP



DRAWN BY:	SCALE	DATE	REVISION NO.	REV NO	DATE	DESCRIPTION	ECN NO	BY
TVK	.000	10 - Dec - 97	X	X				
CHECKED BY:			HEAT TREAT:			THIRD ANGLE PROJECTION		
			X X X			 KIRK-RUDY, INC. KENNESAW, GEORGIA		
TRACED BY:			FINISH:			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		
MASTER			X X X			TITLE: TAKEUP ASY		
			215			SHEET NO. 1 OF 1		
						DRAWING # 53111-01		
						<input checked="" type="checkbox"/> XXX <input type="checkbox"/> REC'D WHERE USED		

ITEM QTY	PART #	DESCRIPTION	REV NO	DATE	DESCRIPTION	ECN NO	BY
1	4	COLLAR .375					
2	1	103408 CAM FOLLOWER					
3	4	107102 BOLT, SHOULDER 5/16X1/2					
4	1	531164-01 CAM, STOP PIN					
5	1	531166-01 ARM, STOPPIN					
6	1	531167-01 SHAFT, STOPPIN					
7	2	532007-01 BAR, ADJ STOP PIN					
8	1	532823-01 ASY-BEARING PLATE					
9	1	532824-01 ASY-BEARING PLATE					
10	2	532825-01 ASY, CLAMP					
11	2	532826-01 ASY-PIVOT					
12	2	CSDD238 8-32 X .500 SHCS					
13	2	HMSN09 HEX NUT, 8-32					
14	1	SP37714 SHAFT					
15	2	SP37712-3 ANGLE, STOP PIN SUPPORT					

DRAWN BY: A KEY SCALE 0 .375 DIMENSIONAL TOLERANCES MATERIAL: N/A UNLESS OTHERWISE NOTED .XX .XXX AM6.

CHECKED BY: DATE 26 - Jan - 01 REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE FINISHED IN INCHES. DO NOT SCALE - WORK TO DIMENSIONS ONLY

TRACED BY: MASTER SHEET NO 1 OF 1 DRAWING 1

RECD WHERE USED

1 215SP20

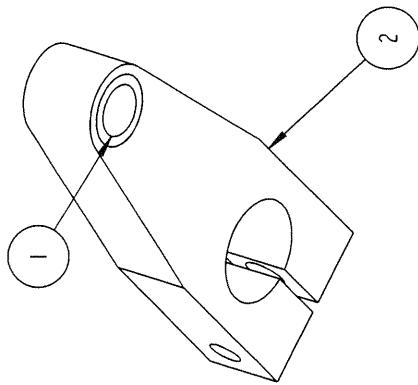
KIRK - RUDY INC KENNESAW, GEORGIA

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

THIRD ANGLE PROJECTION

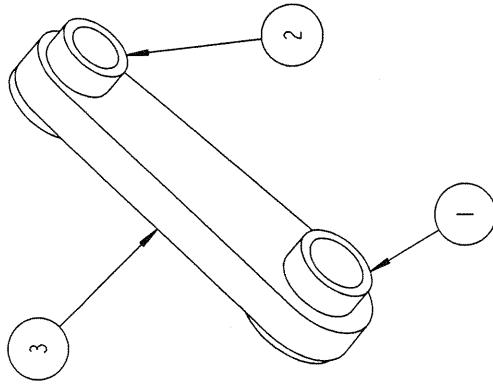
MODEL: 215SP20 TITLE: ASSY, STOP PIN W/O SLEEVE

ITEM	QTY	PART #	DESCRIPTION	REV NO	DATE	DESCRIPTION	ECN NO	BY
1	1	100112	BUSHING, SL. 31310.4380D.500LG					
2	1	SP37710-1	ARM, STOP PIN DRIVE					



DRAWN BY:	SCALE	0.000	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
CHECKED BY:	DATE	.01	.005	.005	ANG.	HEAT TREAT:	N/A	-	KIRK - RUDY, INC. KENNESAW, GEORGIA
TRACED BY:	MASTER	17-F eb - 98			REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED			MODEL: 215	TITLE: ASY, CLAMP
					ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE. WORK TO DIMENSIONS ONLY			SHEET NO. 0F 1	DRAWING # 532825-01

ITEM	QTY	PART #	DESCRIPTION
1	1	100302	BUSHING, FL. 375ID .500OD .500LG
2	1	100318	BUSHING, FL. 313ID .438OD .500LG
3	1	SP37737-1	ARM, STOP PIN PIVOT

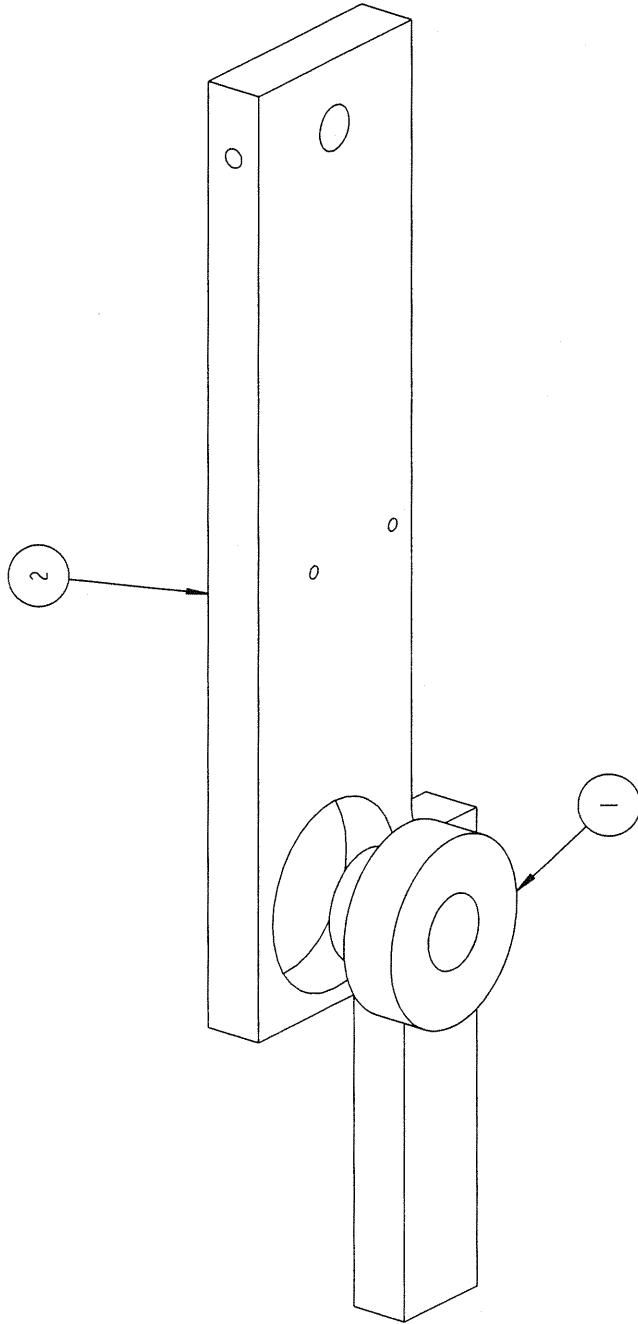


DRAWN BY:	KEY	SCALE	1 .000	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED	N/A	THIRD ANGLE PROJECTION	PROPRIETARY AND CONFIDENTIAL NO PORTION OF THIS DRAWING MAY BE QUOTED OR REPRODUCED IN ANY FORM WITHOUT THE EXPRESS WRITTEN PERMISSION OF KIRK-RUDY, INC. KENNESAW, GA 30144 USA
CHECKED BY:		DATE	16 - Feb - 98	.01	.005	HEAT TREAT:	KIRK - RUDY, INC. KENNESAW, GEORGIA
TRACED BY:		MASTER		REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED		MODEL:	ASY - PIVOT
				ALL DIMENSIONS ARE FINISHED DIMENSIONS		SHEET NO.	532826-01
				DO NOT SCALE - WORK TO DIMENSIONS ONLY		DRAWING #	

DRAWING B 532824-01

532824-01

ITEM	QTY	PART #	DESCRIPTION
1	1	103804	BEARING, HUB . 625
2	1	SP37704-1	BLOCK-SUPPORT, LOWER



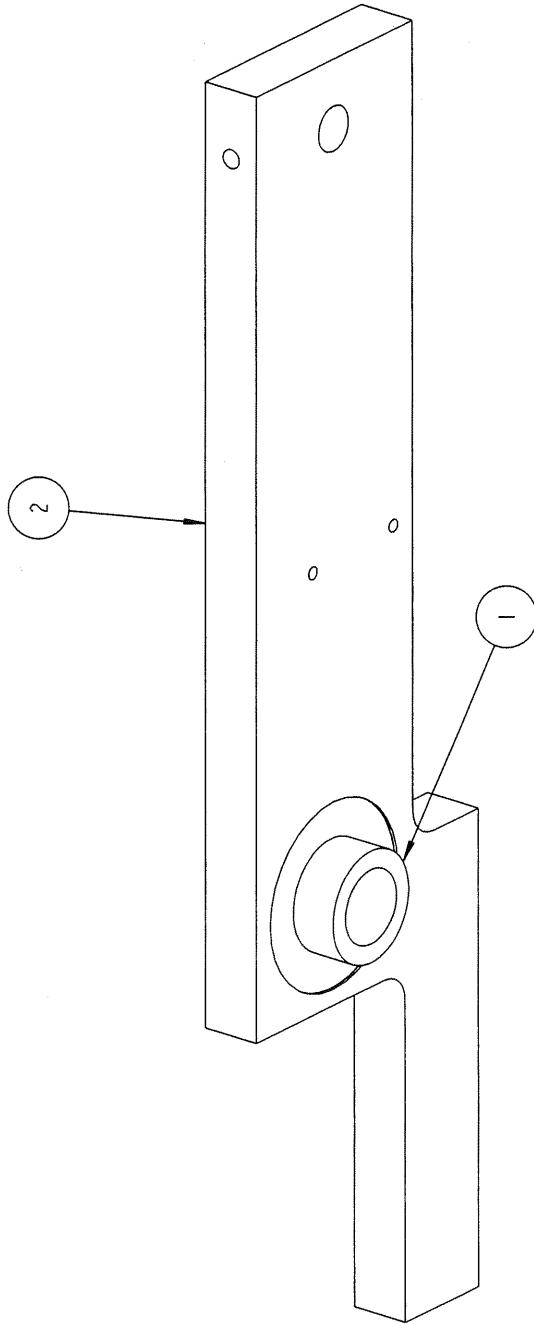
ITEM	QTY	PART #	DESCRIPTION	REV NO	DATE	DESCRIPTION	ECN NO	BY
1	1	103804	BEARING, HUB - 625					
2	1	SP37704-1	BLOCK-SUPPORT, LOWER					

DRAWN BY: A K E Y	SCALE: 0 . 750	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED			MATERIAL: N / A	THIRD ANGLE PROJECTION 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: 17-Feb-98	.01	.005	.5	HEAT TREAT: N / A	MODEL: 215	TITLE: ASY-BEARING PLATE	
TRACED BY:	MASTER	REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED			FINISH: N / A	SHEET NO.: 10F1	DRAWING #: 532824-01	
						KIRK - RUDY, INC. KENNESAW, GEORGIA		

DRAWING #

532823-01

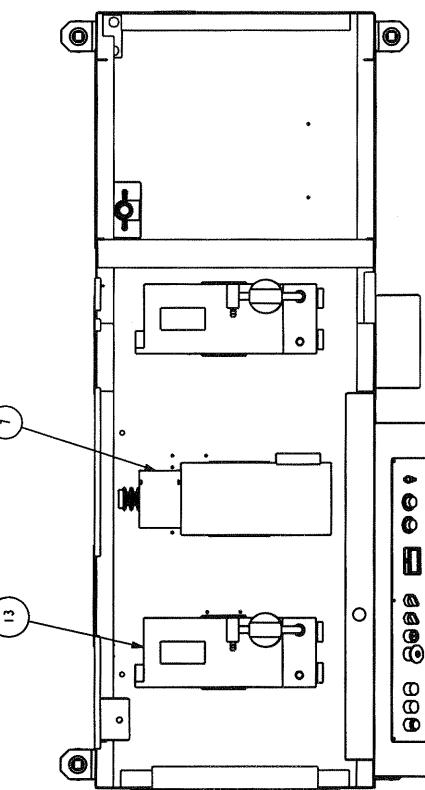
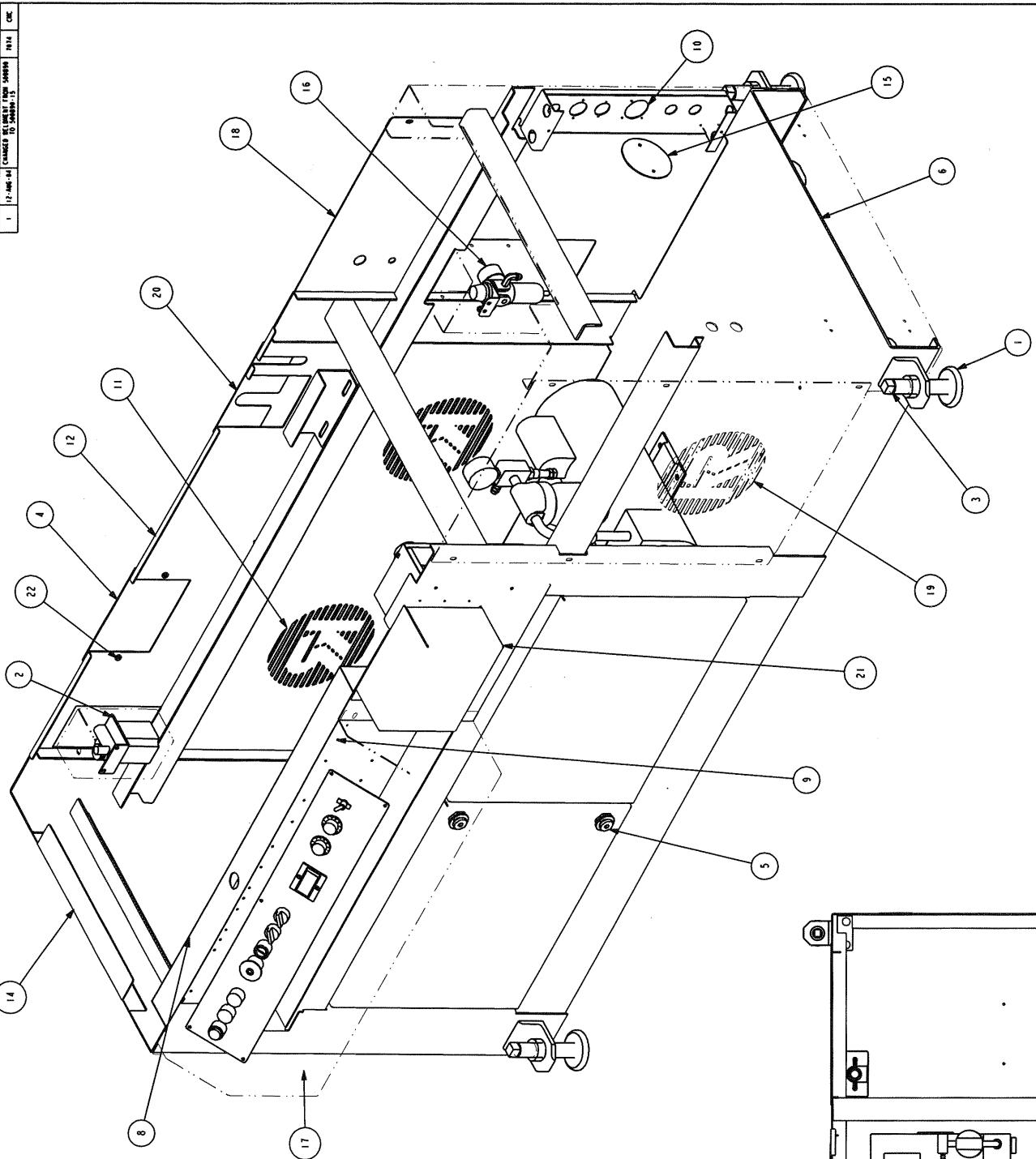
ITEM	QTY	PART #	DESCRIPTION	REV NO	DATE	DESCRIPTION	ECN NO	BY
1	1	103804	BEARING, HUB .625					
2	1	SP37704-1	BLOCK-SUPPORT, LOWER					



DRAWN BY:	SCALE	MATERIAL:	THIRD ANGLE PROJECTION	PROPRIETARY AND CONFIDENTIAL
A KEY	0 . 750	N / A	-	KIRK - RUDY, INC. KENNESAW, GEORGIA
DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED		.01 .005 .5	HEAT TREAT:	REMOVED
.000 .000 AMG.		N / A	FINISH:	SHARP EDGES UNLESS OTHERWISE NOTED
CHECKED BY:	DATE	MODEL: 215		TITLE: ASY-BEARING PLATE
	17 - Feb - 98	SHEET NO. 1 OF 1		DRAWING #
TRACED BY:	MASTER			532823-01

ITEM #	PART #	DESCRIPTION	REV.
1	4	190634	F
2	1	190637	OIL PUMP
3	4	191010	LEVELING BOLT, CABINET
4	4	500865	COVER - GEAR
5	2	190689-1	DOOR LATCH
6	1	500890-15	WLDNNT, 215*20 STOP-PIN BASE CAB
7	1	503000-6A	ASSY, MVR/REDUCER SR, 1 HP VR
8	1	528115-2	INSERT - ELECTRICAL PANEL
9	1	528116-1	PANEL, WIRING 215IJ
10	1	530441-01	BOX, ELECTRICAL INLET 20A
11	1	530689-01	PANEL, LABELING BASE BACK
12	1	530689-02	PANEL, LABELING BASE BACK
13	2	531168-01	ASSY, 1/2 HP VACUUM PUMP
14	1	532130-01	GUARD, SHUTTLE
15	1	533582-01	PLATE, VACUUM HOSE COVER
16	1	539942-01	ASSY, AIR PRESSURE REGULATOR
17	1	539946-02	ASSY, ELECTRICAL PANEL
18	1	544482-03	PANEL, CABINET REAR
19	1	544483-01	PANEL, CABINET FRONT
20	1	544485-01	COVER, SHAFT HEAD CASTING
21	1	546022-01	ASSY, HANDHEEL COVER
22	2	HNSW 0	MUT., HEX A10-32

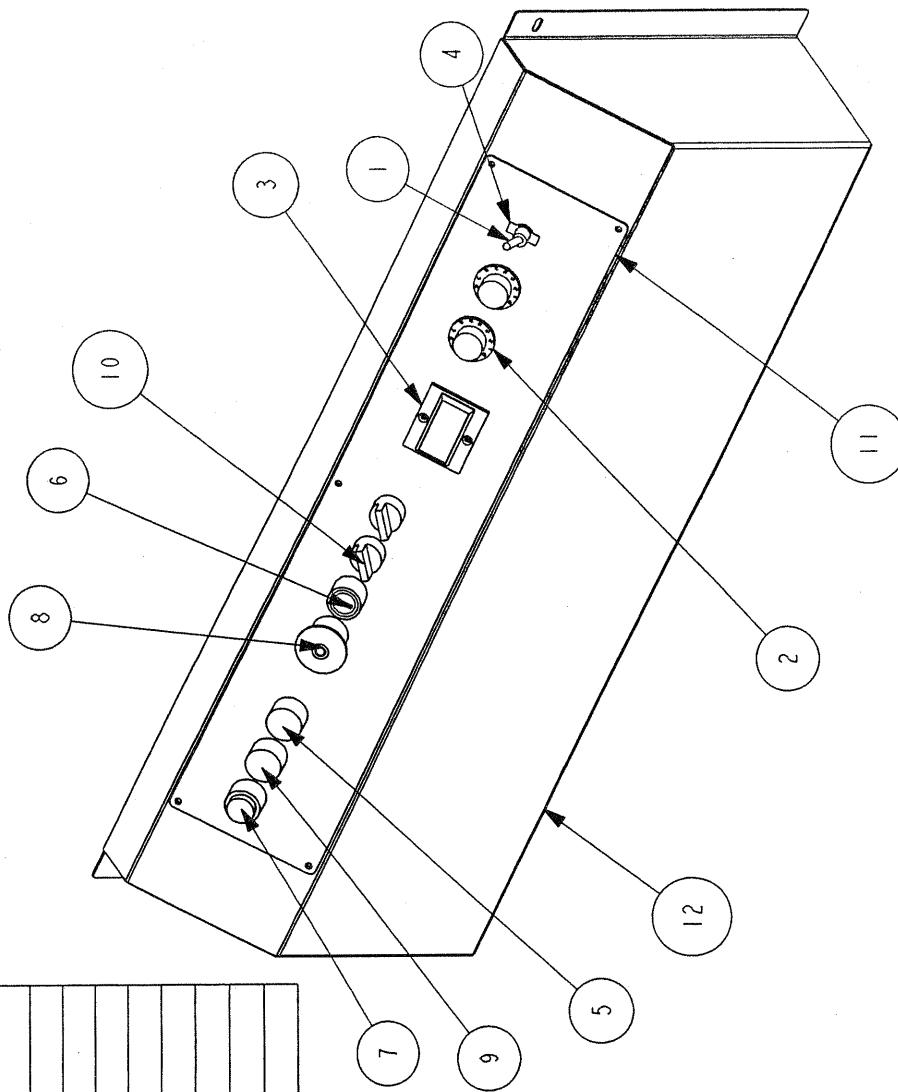
ITEM #	PART #	DESCRIPTION	SCALE
1	KEY	0 .200	INCHES
CHECK BY:	26	JAN - 01	MM
REVIEW BY:			MM
APPROVAL BY:			MM



ITEM #	PART #	DESCRIPTION	SCALE
1	215SP20	ASSY, 215SP20 CABINET	INCHES
2	539932-01	PRINTING #	INCHES
3	539932-01	PRINTING #	MM

SCALE 0.125

ITEM QTY	PART #	DESCRIPTION	REV NO	DATE	DESCRIPTION	ECN NO	BY
1	201118	SWITCH, TOGGLE 111-16-73 CARLIN					
2	209016	KNOB, POT					
3	200012A	COUNTER, LCD 310					
4	201118-1	PLATE, TOGGLE ON OFF					
5	201124-2	BUTTON, START					
6	201124-4	BUTTON, POWER ON					
7	201125-3	BUTTON, STOP					
8	201125-5	BUTTON, POWER OFF					
9	201126-1	BUTTON, JOG					
10	201145-1	SELECTOR, 2 POSITIONS					
11	530067-01	PANEL - CONTROL					
12	530068-03	BOX, CONTROL					

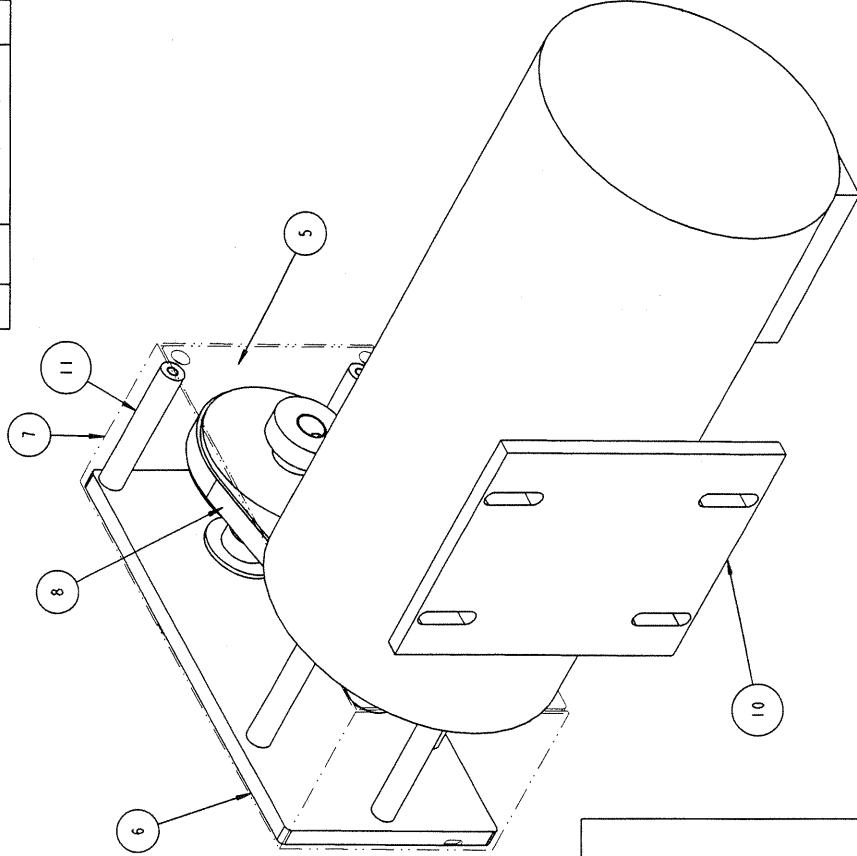


NOTES:
1. FOR USE ON 215 STOP PIN BASE WITH SINGLE MOTOR

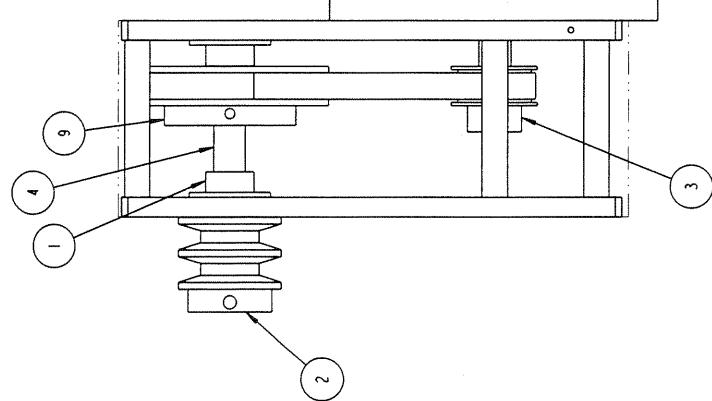
DRAWN BY: CMC		SCALE: 0 .188	MATERIAL: N / A	THIRD ANGLE PROJECTION	PROPRIETARY AND CONFIDENTIAL NO PORTION OF THIS DRAWING MAY BE QUOTED OR REPRODUCED IN ANY FORM WITHOUT THE EXPRESS WRITTEN PERMISSION OF KIRK-RUDY, INC. WOODSTOCK, GA 3088 USA
CHECKED BY:		DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED .005 .005 .01 .005 .005 .005 .005 .005	ANG.	HEAT TREAT:	N / A
TRACED BY:		DATE: 04-AUG-04	REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED	FINISH:	N / A
		MASTER M	ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY	SHEET NO.: 10F2	DRAWING #: 215SP20
					ASSY, ELECTRICAL PANEL
					539946-02
					I KR215SP20 RECD WHERE USED

NAME: # 509000-6A

ITEM QTY	PART #	DESCRIPTION	REV NO	DATE	ECN ID	BR
1	2	103804 BEARING, HUB .625				
2	1	105001 V-PULLEY, DBL D2200				
3	1	106821 PULLEY, TIMING 12L050 .5008 MK				
4	1	503619 SHAFT				
5	1	509006 PLATE - REAR SIDE				
6	1	509007 PLATE - GEARBOX 1/2 HP SINGLE RED.				
7	1	509037 COVER, REDUCER				
8	1	108912-1 BELT, TIMING 187L050				
9	1	109319-1 PULLEY, TIMING 32L050 .6258 .188K				
10	1	200151-1 MOTOR, DC - IHP				
11	5	SP162308 SPACER, REDUCER				



ITEM #	DESCRIPTION	SCALE	DIMENSIONS IN INCHES	NOTES:
1	BEARING, HUB .625	0 .438	.H. .W. .L.	N/A
2	V-PULLEY, DBL D2200	INCH		
3	PULLEY, TIMING 12L050 .5008 MK	INCH		
4	PLATE - REAR SIDE	INCH		
5	PLATE - GEARBOX 1/2 HP SINGLE RED.	INCH		
6	Cover, Reducer	INCH		
7	BELT, TIMING 187L050	INCH		
8	PULLEY, TIMING 32L050 .6258 .188K	INCH		
9	MOTOR, DC - IHP	INCH		
10	SPACER, REDUCER	INCH		



ITEM #	DESCRIPTION	SCALE	DIMENSIONS IN INCHES	NOTES:	REV NO	DATE	ECN ID	BR
1	BEARING, HUB .625	0 .438	.H. .W. .L.	N/A				
2	V-PULLEY, DBL D2200	INCH						
3	PULLEY, TIMING 12L050 .5008 MK	INCH						
4	PLATE - REAR SIDE	INCH						
5	PLATE - GEARBOX 1/2 HP SINGLE RED.	INCH						
6	Cover, Reducer	INCH						
7	BELT, TIMING 187L050	INCH						
8	PULLEY, TIMING 32L050 .6258 .188K	INCH						
9	MOTOR, DC - IHP	INCH						
10	SPACER, REDUCER	INCH						

KIRK - RUDY INC.
KENNESAW, GEORGIA
KR

PRINTED ON THIS DRAWING

MAY NOT BE COPIED OR REPRODUCED

EXCEPT AS AUTHORIZED BY THE OWNER

OF THE DRAWING

KIRK - RUDY INC., KENNESAW, GA 30044 USA

PRINT: ASSY , MTR/REDUCER SR I HP VERT

DRAWN: 60700

SHEET NO: 1 OF 1

509000-6A

ITEM QTY	PART #	DESCRIPTION	REV NO	DATE	DESCRIPTION	ECN NO	BY
1 2	109530	ELBOW, MALE 1/4 NPT					
2 1	190850	NUT, REGULATOR					
3 1	190851	AIR REGULATOR W/BOWL					
.4 1	190852	GUAGE, AIR PRESSURE					
5 1	531485-01	BRACKET, AIR REGULATOR					

1 215SP20
REQ'D WHERE USED

DRAWN BY: A KEY	SCALE 1 .000	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED			MATERIAL: N/A	THIRD ANGLE PROJECTION	
		.xx	.xxx	ANG.			
CHECKED BY:	DATE 26 - Jan - 01	.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			N/A	MODEL: 215SP20 TIME: ASSY, AIR PRESSURE REGULATOR SHEET NO. 0F1 DRAWING # 539942-01	

ITEM	QTY	PART #	DESCRIPTION	REV NO	DATE	DESCRIPTION	ECN NO	BY
1	1	190660	NIPPLE, 1/2 IN TUBING					
2	1	200102	VALVE, RELIEF GAST 822/823					
3	1	200108	STEM GAST 822/823					
4	1	200109	PLATE GAST 822/823					
5	1	200124	PUMP, VACUUM GAST					
6	1	501645	BLOCK, CONNECTOR (VACUUM PUMP)					
7	1	200100-1	GAUGE, VACUUM GAST 822/823					
8	1	200100-2	FILTER, VACUUM GAST 822/823					
9	1	200100-3	JAR, GLASS GAST 822/823					
10	1	200100-13	NIPPLE, STEEL					
11	1	200100-14	ELBOW, PIPE GAST 822/823					
12	1	200100-16	COUPLING GAST 822/823					
13	1	200100-21	NIPPLE, STEEL					
14	1	200100-22	COUPLING, STEEL					
15	1	200100-23	PLUG, SQUARE HEAD GAST 822/823					
16	1	200100-26	COVER FOR AB992 GAST 822/823					
17	2	200124-2	FILTER, FELT GAST 823					
18	2	200124-4	END CAP, AK510 GAST 823					
19	1	200124-5	MUFFLER, SINTERED GAST 823					
20	2	200124-6	O-RING, GASKET GAST 823					

1	215
REQ'D	WHERE USED

1	ASSY, 1/2 HP VACUUM PUMP
RECD	DRAWING #

531168-01	531168-01
RECD	WHERE USED

KIRK - RUDY, INC.	KIRK - RUDY, INC.
KENNESAW, GEORGIA	KENNESAW, GEORGIA

PROPRIETARY AND CONFIDENTIAL	PROPRIETARY AND CONFIDENTIAL
NO PORTION OF THIS DRAWING	NO PORTION OF THIS DRAWING
MAY BE COPIED OR REPRODUCED	MAY BE COPIED OR REPRODUCED
IN ANY FORM WITHOUT THE	IN ANY FORM WITHOUT THE
EXPRESS WRITTEN PERMISSION	EXPRESS WRITTEN PERMISSION
OF KIRK-RUDY, INC.	OF KIRK-RUDY, INC.
KENNESAW, GA 3044 USA	KENNESAW, GA 3044 USA

TITLE:	ASSY, 1/2 HP VACUUM PUMP
SHEET NO.	10F1
RECD	DRAWING #

MODEL:	X
FINISH:	NONE

THIRD ANGLE PROJECTION		
MATERIAL:	NOTED	
DIMENSIONAL TOLERANCES	UNLESS OTHERWISE NOTED	
.01	.005	.005
DATE:	20 - JUN - 97	ANG.

CHECKED BY:	MASTER
TRACED BY:	

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

7 ELECTRICAL SCHEMATICS AND PARTS

7.1 SCHEMATIC LIST

The following wiring diagrams are included in the manual packet for your reference.

7.2 PARTS LIST

8 APPENDIX

8.1 POSSIBLE OPTIONS

The KR215SP20 base can be modified to handle a variety of applications, contact your Kirk-Rudy dealer or call Kirk-Rudy direct to discuss your specific application.

Below is a list of some of the options offered for the KR215SP20 base:

- Rubber Tip Feeder Gate
- Inline Label Base for second application head
- Modifications to increase thickness limits
- Auto Load Conveyor. Designed for ease of loading of thick product, automatically maintains pre-determined level in feeder.
- Shuttle “Low Product” Detector (stops machine).

9 NOTES

10 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
125 LORRAINE PARKWAY
WOODSTOCK, GA 30188
770-427-4203
FX770-427-4036