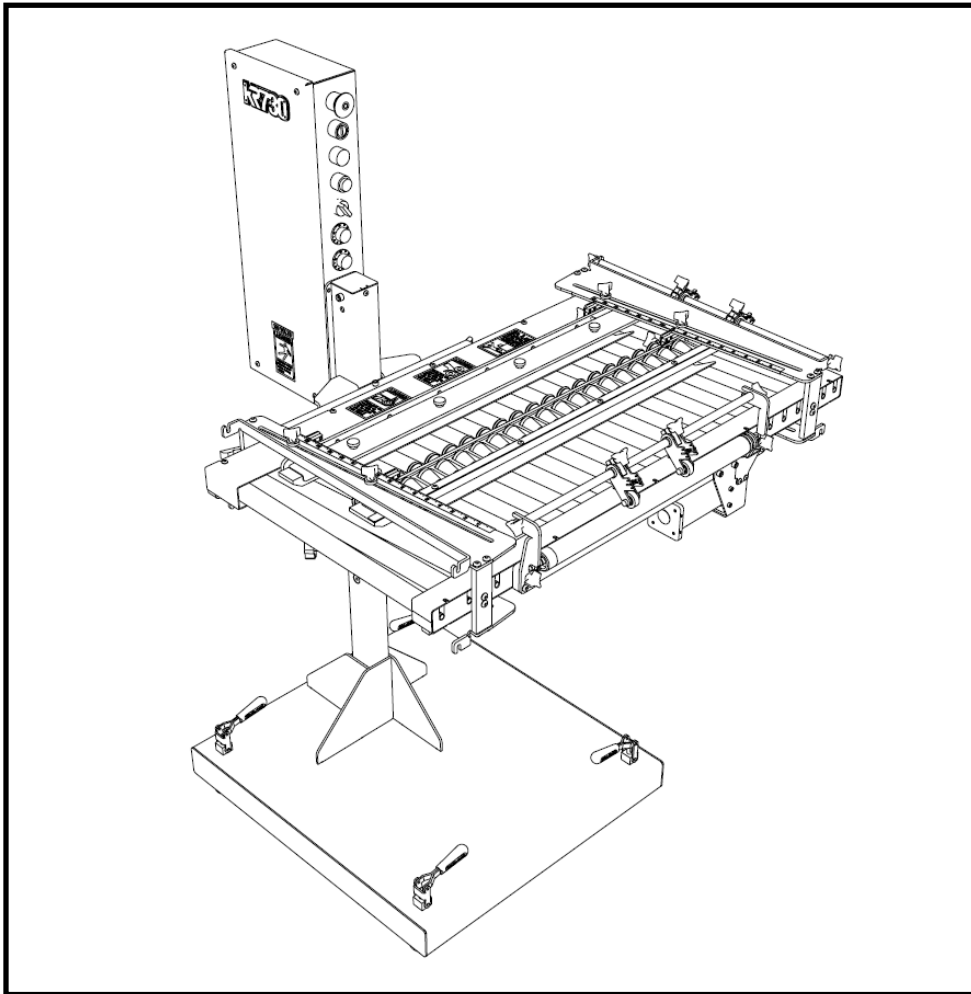


K Kirk-Rudy, Inc.

Instruction and Parts Manual KR730 Roller Registration Conveyor



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.

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

1 Important Safety Instructions

Intended Use Statement: The KR730 Roller Registration Conveyor is designed to run in line with other modular equipment to register product. Product flow can enter from the side and from either end of the KR730. When product enters the KR730 from the side a speed up roller is used to control the speed of the product as it cross feeds. The KR730 can tilt 16 degrees from level in both directions to allow for transfer of product to two different tabletop heights up to 10 inches in difference. 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 SIZES	Standard	Metric
<u>PRODUCT SIZE RANGE</u>	<u>English</u>	<u>Metric</u>
Minimum Size:	3" W x 3" L	76mm W x 76mm L
Maximum Size:	15" W x 15" L	381mm W x 381mm L
Minimum Thickness:	.004"	.1mm
Maximum Thickness:	.25"	6.5mm

SPEED

Maximum	Variable to 650 f/m	198m/min
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MACHINE DATA (see **Figure 1.0**)

Length:	38.25"	97.2cm
Width:	34.00"	86.4cm
Height:	58.50"	148.6cm
Conveyor Height Minimum	24.00"	60.9cm
Conveyor Height Maximum	37.50"	95.2cm
Maximum Height Difference	10.00"	25.4cm
Max Tilt Angle	16 Degrees	
Weight: Net	lbs.	kgs
Shipping Crate:	lbs.	kgs

ELECTRICAL

120 VAC, Single Phase 60/50 Cycle, 8A
 1/3 HP DC Motor 2500RPM Main Motor
 1/15 HP DC Motor 3500RPM Speed Up Motor
 Stop In and Stop Out Signal Connections

OPTIONS

Individually Driven Cone Roller Skid Bar 554055-01

KR730

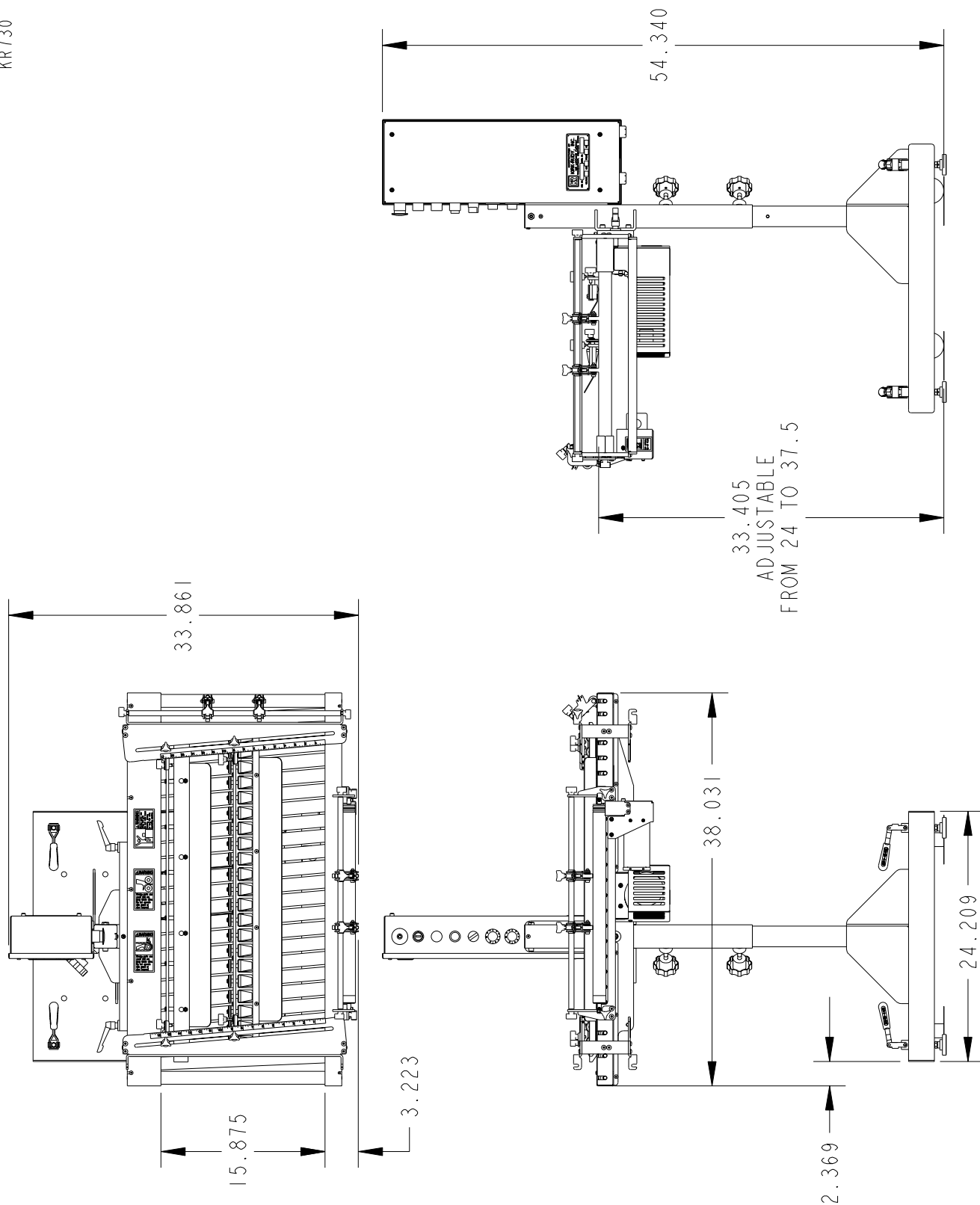


FIGURE 1.0

3 INSTALLATION



WARNING

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

3.1 UNCRATING

WARNING: To reduce the possibility of injury, all packing material should be properly disposed of or stored at the time of removal.

1. Position crate in a suitable open area.
2. Remove crate top and sides.
3. Remove metal strapping and securing blocks.
4. Locate accessories box and use checklist to verify all items were shipped.
5. Use a forklift to raise the base out of the crate.
6. Roll the base in the desired location.

4 MACHINE DESCRIPTION



WARNING

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

4.1 COMPONENT DESCRIPTION (see Figure 2.0 through 7.0)

4.1.1 Main Component Description (see Figure 2.0)

1. **Control Panel/Electrical Box:** This is where the all of the electrical controls and components are housed. (See Figure 3.0 for further illustration)
2. **Tilt Adjustment Knob:** This allows the conveyor to be tilted up to 8 degrees and allows the height difference between in-line equipment to be up to 5 inches. These knobs are both removed when the conveyor is being converted to run in the opposite feeding direction.
3. **Ball Skid Bar:** This skid bar will be used for most products. The skid bar is used to drive the product up against the product guide. Different balls can be used to cause more or less drive and registration. Steel balls are standard but aluminum and plastic balls are available as options.
4. **Optional Cone Skid Bar:** This skid bar will primarily be used for heavy product such as books. The design of the cone rollers is to prevent bounce back of heavy cross-fed product. Each cone roller is individually driven by the o-ring rollers to ensure the book entering the rollers doesn't skew.
5. **Skid Bar Scale:** A scale on each end of the conveyor is provided to help the operator position the skid bar. Adjust the skid bar so both indicators line up with the same tick mark on each scale. Record these settings to make future setups much quicker.

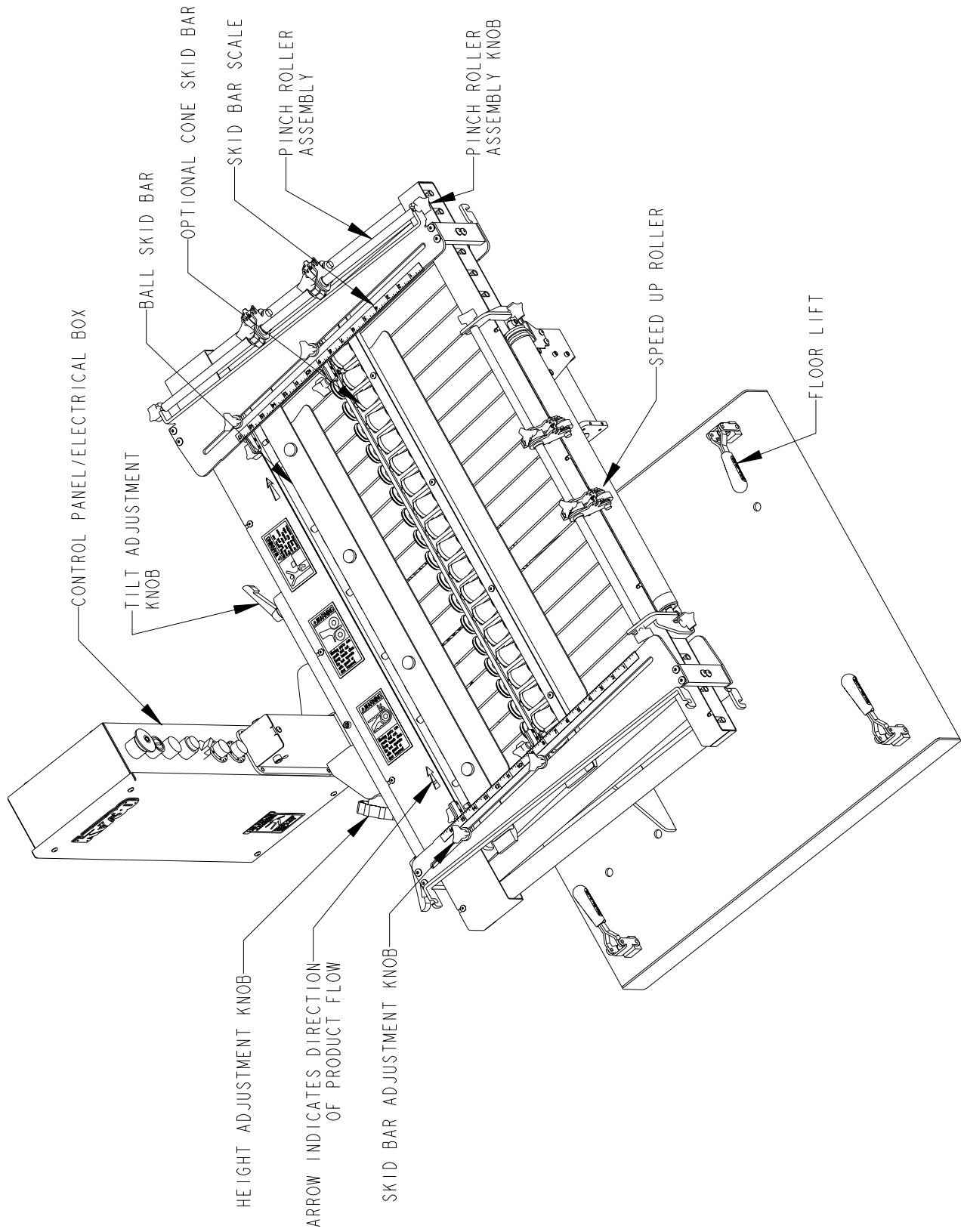


FIGURE 2.0

6. **Pinch Roller Assembly:** The pinch rollers are used to ensure the product is transferred straight. The pinch roller assembly can easily be moved to the desired location by using the pinch roller assembly knobs.
7. **Pinch Roller Assembly Knob:** This knob is used secure the pinch roller assembly in place. These knobs are also used to adjust the speed up roller tangent position to control the flight path of the cross-fed product.
8. **Speed Up Roller:** The speed up roller is only used in 90-degree cross-fed product flow configurations. The purpose of the speed up roller is to control the product flight path as it crosses over the angled rollers to the skid bar. If the product is skewing too much during a cross-fed then the speed up roller speed will need to be increased.
9. **Floor Lift:** The floor lift is a quick way to move the base in place and lift the base off of the floor. The floor lift toggles over and can be operated by foot.
10. **Skid Bar Adjustment Knob:** This knob is used to secure the skid bar in place and is also used to remove the skid bar.
11. **Height Adjustment Knob:** This knob is used to adjust the height of the conveyor. The height adjustment is made easy by the use of a very strong gas spring in the vertical up right tube. After loosening the height adjustment knob lift the conveyor by standing on the base and lifting the conveyor. The resistance is very little due to the nature of the gas spring. **Note: Make sure to tighten both knobs tightly to prevent vibration of the conveyor.**

4.1.2 Electrical Box Component Description (See Figure 3.0)

1. **Emergency Stop/Power Off:** This button is used in an emergency to kill the power to the base. This button is also used to cut the power off to the control panel during normal operating conditions.
2. **Power:** This button is used to power up the control panel.
3. **Start:** This button is used to start the main conveyor rollers and the speed up rollers (if used).
4. **Stop:** This button is used to stop the base under normal operating conditions.
5. **Main Motor Forward/Reverse:** This two-position switch is used to control the direction of the motor and angled rollers.
6. **Main Motor Speed Control:** This knob is used to control the speed of the angled conveyor rollers.
7. **Speed Up Motor Speed Control:** This knob is used to control the speed of the speed up roller.
8. **Stop Out:** This is where the stop out signal leaves the control panel. Typically a downstream base is connected to the stop out so the downstream base will stop when the conveyor stop button is pressed.
9. **Stop In:** This is where the stop in signal enters the control panel. Typically an upstream base is connected to the stop in so the conveyor will stop when a stop is pressed on the upstream base.
10. **Main Motor Power Out:** This is where the power cord exits the control panel and is connected to the main conveyor motor. **Note: This cord has a plug and should be disconnected when switching the conveyor to run the opposite direction.**

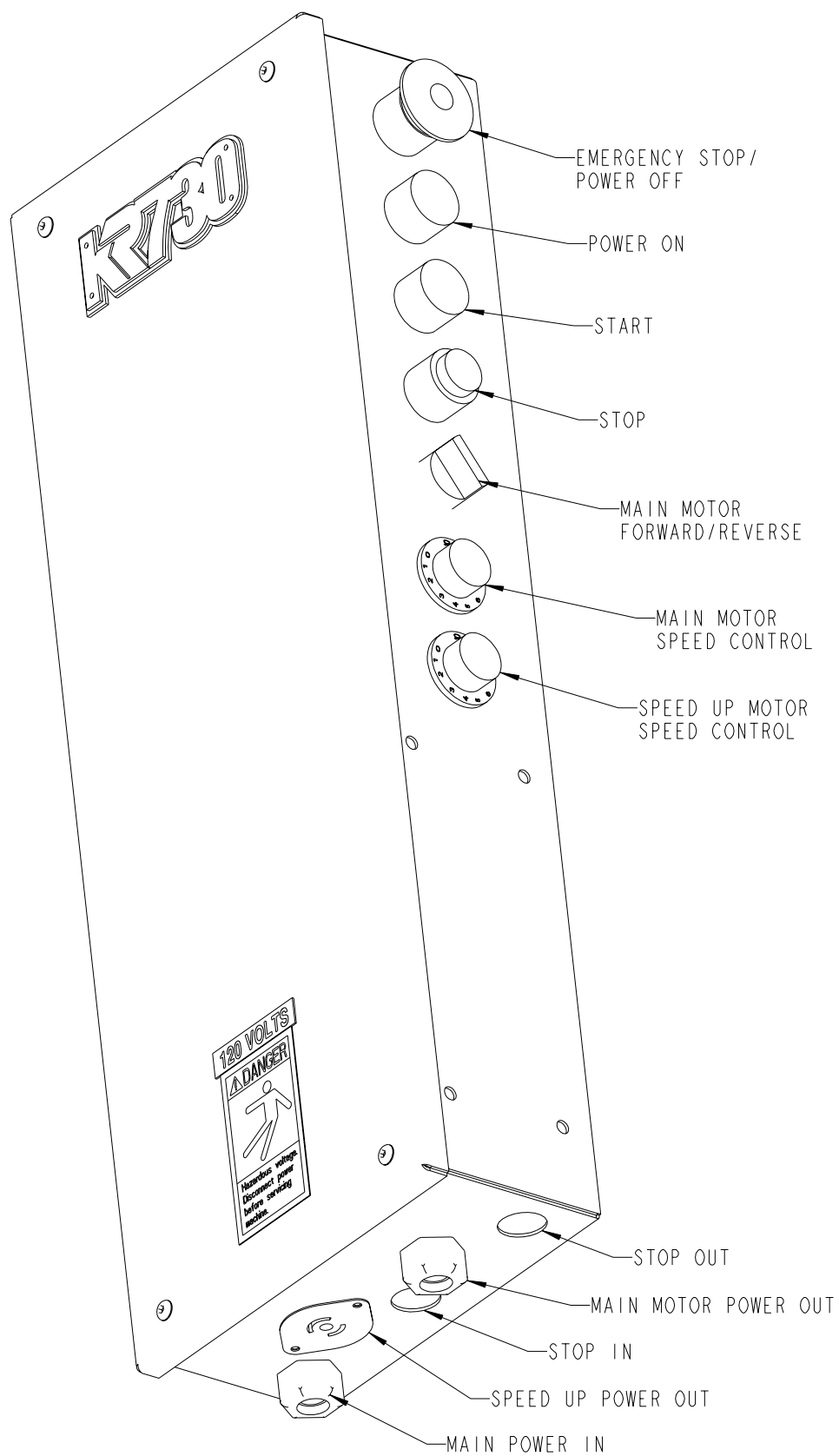


FIGURE 3.0

11. **Speed Up Power Out:** This is where the speed up motor plugs into the control panel. **Note: The speed up roller assembly must be removed and unplugged before rotating the conveyor to switch the conveyor running direction.**
12. **Main Power In:** This is where the power cord enters the control panel.

4.1.3 Ball Skid Bar Component Description (See Figure 4.0)

1. **Ball Keep Knob:** The ball keep is a bracket used to hold the floating balls into the skid bar. This ball keep can easily be removed by loosening the ball keep nuts. Different balls may need to be used to drive product into the side of the paper guide.
2. **$\frac{3}{4}$ " Diameter Ball:** These balls are used to drive the product into the side of the paper guide. Different balls may be used to provide different amounts of drive force into the product guide. Steel balls are standard but aluminum and plastic balls are also available.
3. **Skid Bar Mount Knob:** The skid bar mount knob is used to secure the skid bar in place and is used to remove the skid bar.
4. **Location Indicator:** This is used to indicate the location of the skid bar on the conveyor.
5. **Skid Bar Thickness Adjustment Screws:** These screws allow the skid bar to be adjusted slightly for thicker products if needed. The cone rollers are designed to float but may need to be adjusted for thicker products.
6. **Product Guide:** The product guide is used to register the product. The angled rollers drive the product into the side of the product guide.
7. **Paper Guide Spacer:** These spacers allow distance to be between the balls and the paper guide. Longer spacers can be use to help prevent bounce back on heavy product.
8. **Ball Keep:** The ball keep is easily removed to change the balls. Standard is alternating plastic and steel balls. Heavy product may require steel balls to be used in the entire skid bar.
9. **Height Adjustment Knob:** These knobs control the over all height of the skid bar in relation to the angled rollers. Typically this adjustment should always be used in the lowest position. This knob is also used to remove the skid bar from the conveyor.
10. **Product Guide:** The product guide is used to register the product. The angled rollers drive the product into the side of the product guide.

4.1.4 Optional Cone Skid Bar Component Description (See Figure 5.0)

1. **Skid Bar Mount Knob:** The skid bar mount knob is used to secure the skid bar in place and is used to remove the skid bar.
2. **Product Guide:** The product guide is used to guide the product underneath the skid bar rollers when the conveyor is used to in the 90-degree configuration.
3. **Cone Roller:** The cone roller is designed to prevent heavy product from bouncing back while the conveyor is being used in a 90-degree cross-fed configuration. The o-ring rollers individually drive the cone rollers.
4. **Height Adjustment Knob:** These knobs control the over all height of the skid bar in relation to the angled rollers. Typically this adjustment should always be used

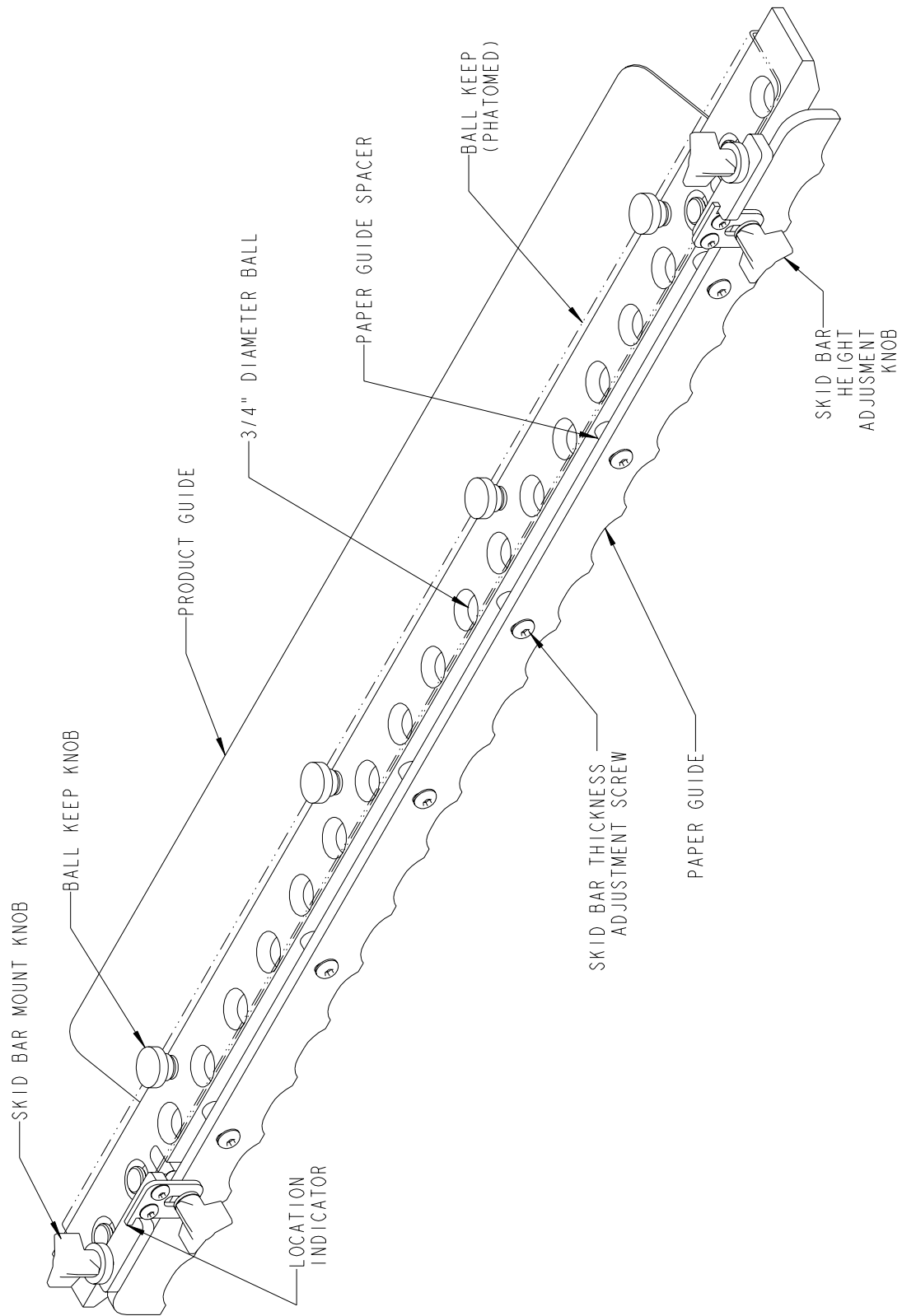


FIGURE 4.0

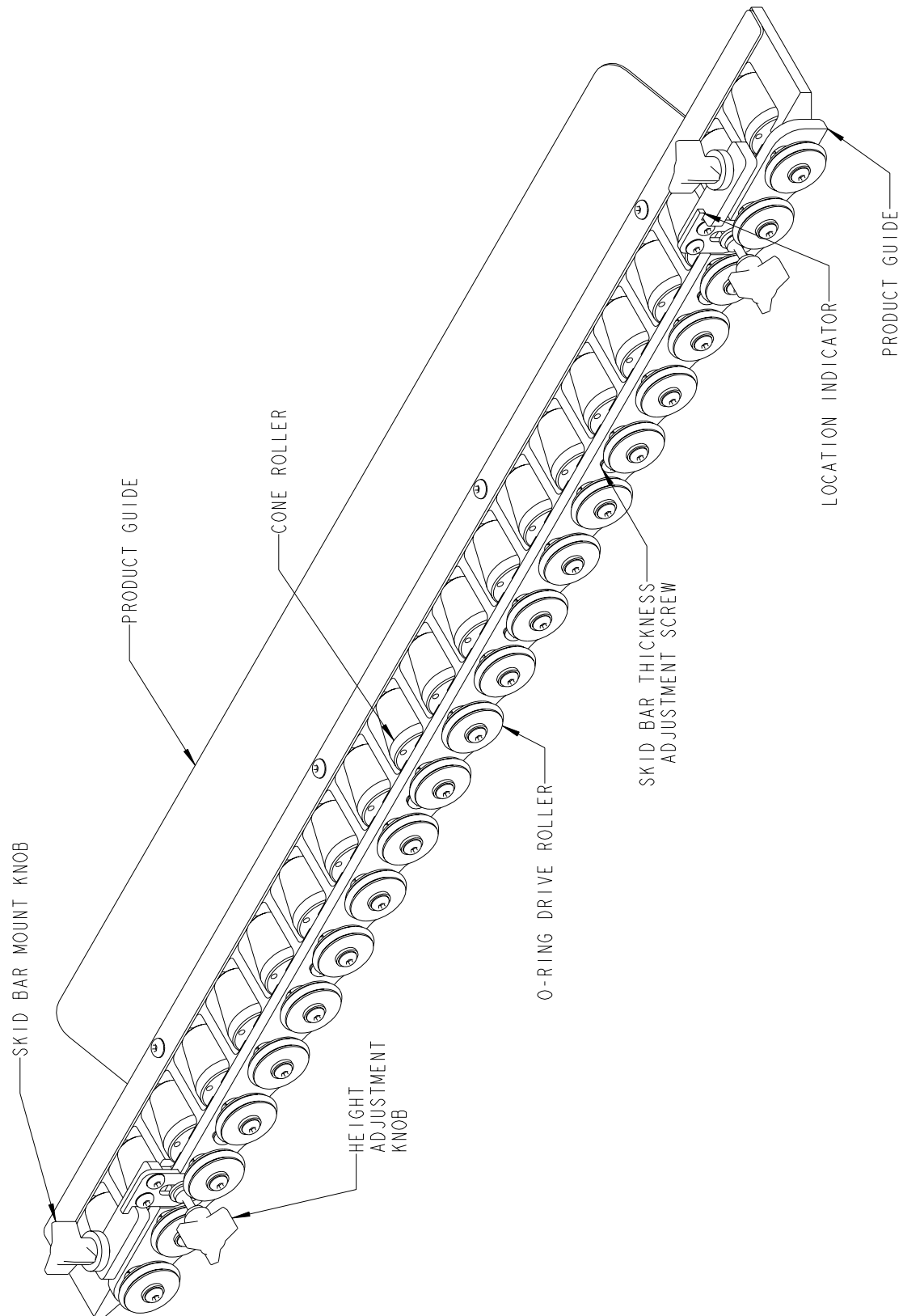


FIGURE 5.0

OPTIONAL INDIVIDUALLY DRIVEN CONE ROLLER SKID BAR

in the lowest position. This knob is also used to remove the skid bar from the conveyor.

5. **O-Ring Drive Roller:** These rollers drive the cone rollers by using the angled rollers for power.
6. **Skid Bar Thickness Adjustment Screws:** These screws allow the skid bar to be adjusted slightly for thicker products if needed. The cone rollers are designed to float but may need to be adjusted for thicker products.
7. **Location Indicator:** This is used to indicate the location of the skid bar on the conveyor.
8. **Product Guide:** The product guide is used to register the product. The angled rollers drive the product into the side of the product guide.

4.1.5 Speed Up Roller Component Description (See Figure 6.0)

1. **Spring Tension Adjustment:** The spring tension is adjusted by pulling the spring anchor bracket out of the slot and either moving it to a closer or further away slot.
2. **Pinch Roller Adjustment Knob:** This knob is used to adjust the pinch roller placement horizontally and vertically. The adjustment has a built-in stop. If more pressure is desired the knob can be adjusted to pull the stop away from the arm providing more spring tension.
3. **Pinch Roller Assembly Adjustment Knob:** This knob is used to easily remove the pinch roller assembly and for adjustment. The mounting slot allows adjustment to position the roller at different tangent points on the speed up roller. This feature allows the operator to aim the product to control the flight path of the product. The less the product touches the angled rollers while cross feeding the less the product will twist before reaching the product guide on the skid bar.
4. **Speed Up Roller Motor:** The speed up roller motor is used to drive the speed up roller. **Note: The motor must be disconnected at the control panel when switching the conveyor to run in a different direction.**
5. **Speed Up Roller Assembly Mount Knob:** These knobs fasten the speed up roller assembly to the conveyor. Line up the dowel pins on the conveyor with the holes in the speed up roller assembly to mount. **Note: Make sure the two mounting knobs are tight after installation.**

5 MAKE READY INSTRUCTIONS



WARNING

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

5.1 INTRODUCTION

The make ready instructions provided in this section describe the recommended procedures for preparing the roller registration conveyor for a production run. The following steps and adjustments should be made prior to the use of the roller registration conveyor in production.

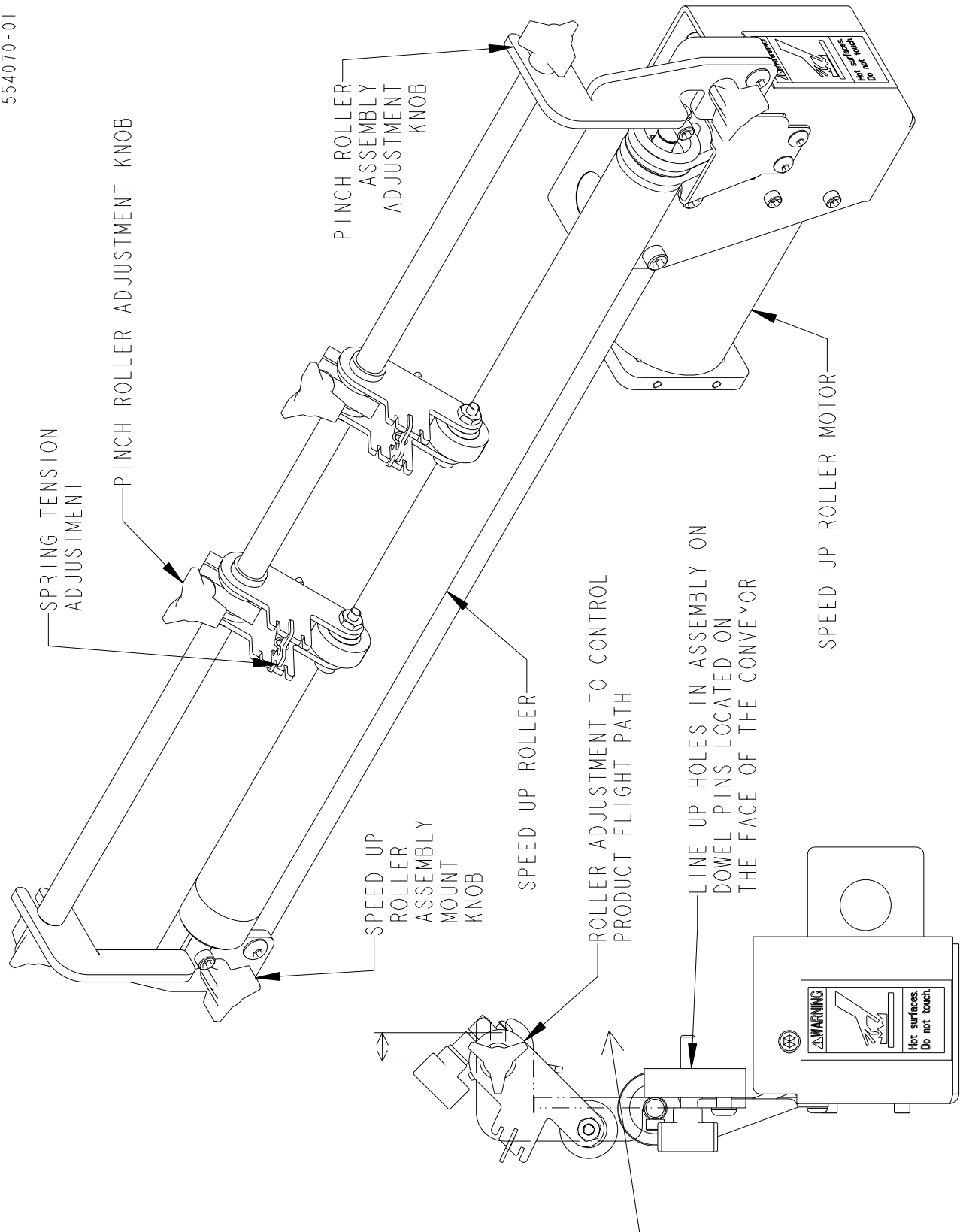


FIGURE 6.0

5.2 MAKE READY PROCEDURE

Before setting up the machine, it should be cleaned of any foreign material.

Paper debris is easily removed with low-pressure air. When the machine is clean, proceed with the following make ready procedure.



WARNING

The power must be off before proceeding with the make ready procedure.

1. Make sure the conveyor does **NOT** have the power cord plugged into the power source.
2. Roll the conveyor in place. Make sure the conveyor is centered with the center of product flow.
3. Raise the base off the floor with the floor lifts provided.
4. If the conveyor isn't exiting in the correct direction then unplug the main and speed up motor power cords from the control panel.
5. Remove the speed up roller assembly and set aside.
6. Remove both tilt adjustment knobs.
7. Carefully rotate the conveyor 180 degrees.
8. Re-install the tilt adjustment knobs and tighten.
9. Re-install the speed up roller assembly and make sure the knobs are tight.
10. Plug the main motor and speed up motor back into the control panel.
11. Loosen the height adjustment knobs.
12. Lift or push down on the conveyor to get the conveyor rollers to be at the same height as the incoming product.
13. Tighten the height adjustment knobs. Make sure both knobs are tight.
14. Loosen the tilt adjustment and adjust the conveyor angle if necessary.
15. Plug the main power into the power source.
16. Turn the main power on and then the start button.
17. Make sure the rollers are turning the right direction. If not then turn the two-position selector switch to the opposite setting.
18. Loosen the skid bar mounting knobs and position the skid bar according to product size. Make sure the skid bar is straight by using the skid bar scale tick marks.
19. Set the speed of the rollers to be slightly faster than the upstream equipment.
20. Set the speed of the speed up roller to sufficiently through the product across the angled rollers to the product guide.
21. Test run multiple products through the turn over to insure that all products are properly registered and conveyed.

6 TROUBLE SHOOTING

Problem	Solution
Product twists when the product is being cross-fed.	Increase the speed of the speed up roller. Make sure both pinch rollers have equal pressure on the product.
Product jams when the product is being cross-fed.	Increase the speed of the angled rollers. Slow the speed of the speed up roller. Increase the spacing between products entering the conveyor.
Product bounces back and cannot register.	Slow the speed of the speed up roller. Lower the skid bar. On heavy product use the optional cone skid bar. Adjust the skid bar to be further away from the product.
Product stalls and doesn't drive through.	Lower the skid bar. Make sure the product guide is as close as possible to the angled rollers.
Product fly's over the product guide on the skid bar.	Adjust the tangent position of the speed up roller pinch rollers. Speed up the angled rollers.
Load screeching noises are coming from the rollers.	Raise the product guide off of the angled rollers.
Some rollers aren't turning.	Check for a broken drive belt and replace. Make sure the main drive belt is tight enough to drive the rollers.
Product is skewing as it leaves the conveyor	Lower the product guide to be closer to the angled rollers.
The conveyor will not run.	Make sure the turn over is plugged in. Turn the power button on. If equipped with a stop in make sure that the cable is connected or a jumper is used. Check stop condition of upstream equipment. Check the fuses. Make sure the speed knob is set above zero. Check to make sure the drive belt is operative.

7 MAINTENANCE



WARNING

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

7.1 MONTHLY MAINTENANCE

Maintenance to be performed monthly		
Item	Function	Remarks
Base (General)	Remove excessive paper dust, ink, glue, and all other foreign materials from the base.	Use clean soft rag. (Dampen with water if necessary.)
Flat Drive Belt	Clean or replace.	Use clean soft rag soaked in water. Do not use solvents to clean belts.
Timing Belt Drive	Check condition of timing belts.	Replace if worn.

7.2 MAIN DRIVE BELT ADJUSTMENT (see Figure 7.0)

1. Make sure the conveyor is positioned so the main drive motor is above the conveyor.
2. Unplug the power from the conveyor.
3. Remove the rear belt cover by loosening the mount screws and sliding the cover off.
4. Find the take-up stud tool holes and use a 1/8" Allen wrench to hold the take-up roller stud in place. **Note: Both take-up rollers use a stud that is mounted on an eccentric to provide the take-up for the belt.**
5. Use a 3/16" Allen wrench on the opposite side to loosen the take-up mount screws.
6. Turn the 1/8" Allen wrench that is in the take up stud tool hole to adjust the tension of the drive belt. Be sure to tighten the belt by rotating the eccentric studs away from the tube rollers and toward the main drive pulley as shown in (Figure 8.0).
Note: Tightening the belt by rotating the eccentric toward the tube rollers will cause the drive belt to not track properly on the drive pulley. This could cause the belt to prematurely wear or break.
7. Check to make sure the drive belt has the correct drive tension.
Note: The tension should be set to provide just enough drive friction on the rollers.
8. Once the tension has been set tighten the take-up mount screws.
9. Replace the belt cover and test run the conveyor to test the belt tension and verify that the belt is tracking on the main drive roller properly. Readjust if necessary.

7.3 ROLLER DRIVE BELT REPLACEMENT (see Figure 9.0)

1. Make sure the conveyor is positioned so the main drive motor is below the conveyor.
2. Unplug the power from the conveyor.
3. Find the drive belt that needs replacing and remove the belt cover that covers the belt by loosening the mount screws and sliding the cover off.
4. Use a 5/32" Allen wrench to remove the two 10-32 cap head screws that mount the roller shafts in place.

KR730

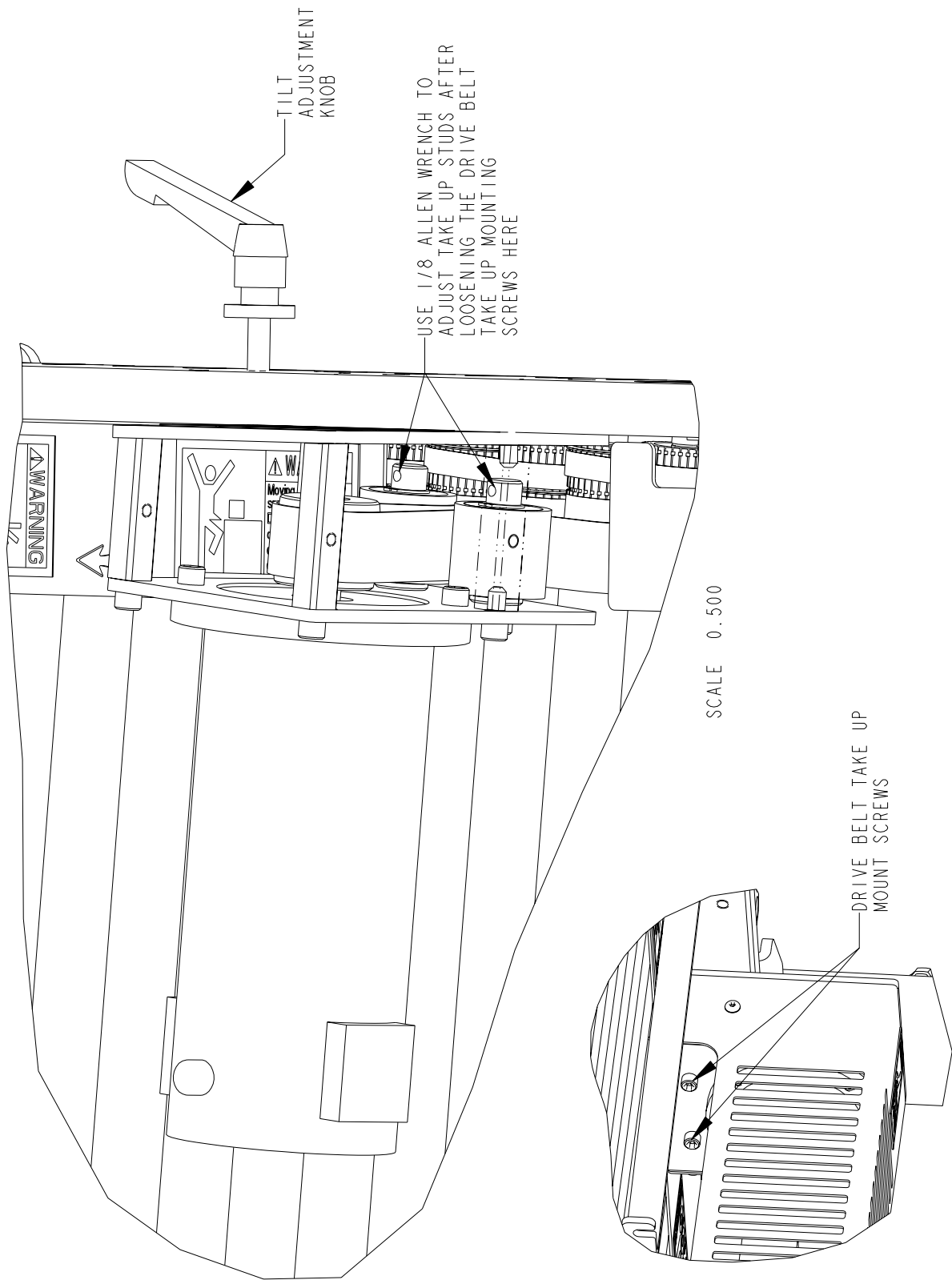


FIGURE 7.0

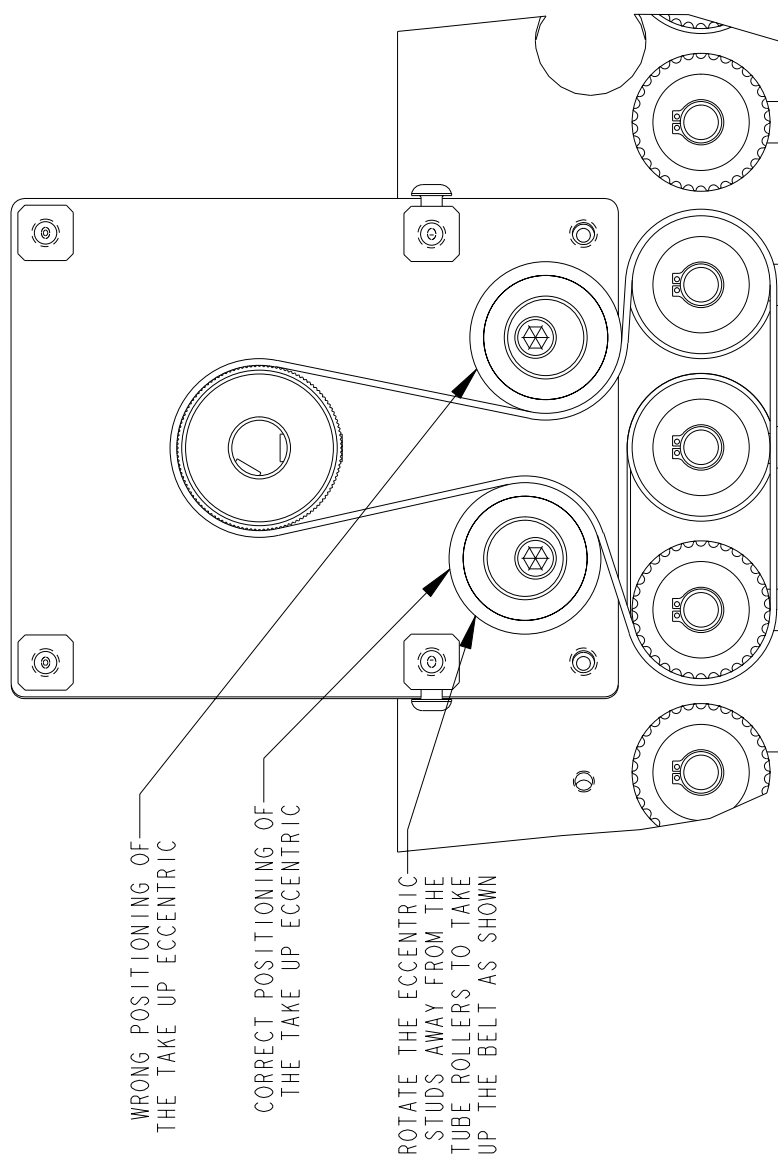


FIGURE 8.0

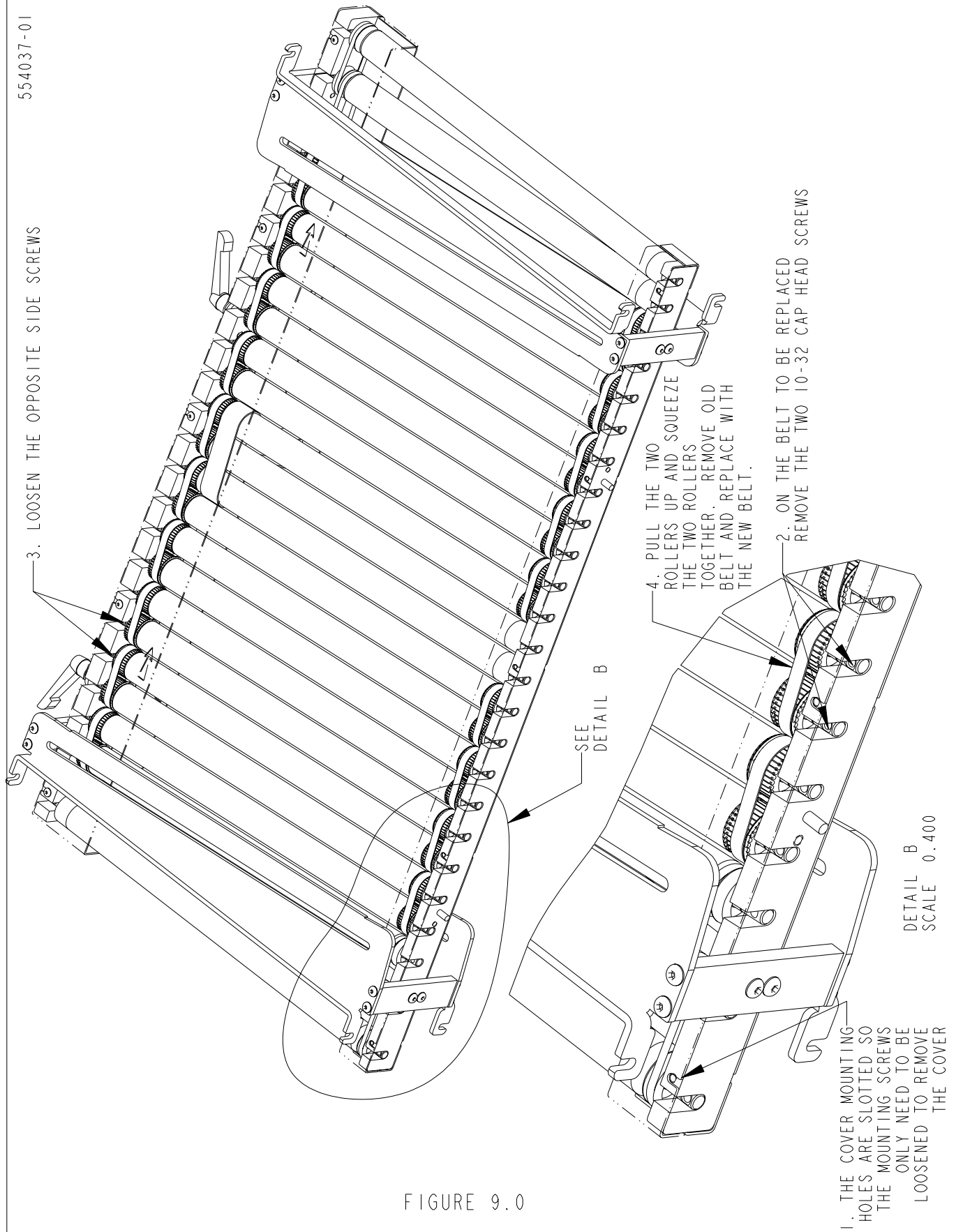


FIGURE 9.0

5. Loosen the two 10-32 cap head screws that mount the two rollers on the opposite side enough to pivot the rollers up.
6. Pull the two rollers up and squeeze the rollers together to remove the belt to be replaced.
7. Install the new belt and re-assemble the rollers and cover in reverse order.

7.4 MAIN DRIVE BELT REPLACEMENT (see **Figure 10.0**)

1. Unplug the power from the conveyor.
2. Make sure the conveyor is positioned so the main drive motor is above the conveyor.
3. Unplug the three-pin twist connector from motor.
4. Remove the motor cover by removing the mounting screws.
5. Remove the ¼-20 cap head screws from the plate that the motor mounts to.
6. Remove the motor and plate assembly.
7. Rotate the conveyor to position the main drive motor below the conveyor.
8. Remove the roller end covers by loosening the screws and sliding the covers off.
9. Loosen the 10-32 cap head screws that mount the tube rollers that have the main drive belt on them on the opposite side of the main drive belt.
10. Remove the 10-32 cap head screws that mount the tube rollers that have the main drive belt on them on the side of the main drive belt.
11. Remove the HTD drive belts and main drive belt.
12. Install the new main drive belt and replace the HTD drive belts.
13. Reassemble the tube rollers and covers.
14. Rotate the table and secure in place.
15. Loosen the take-up eccentrics on the motor plate assembly as shown below.
16. Slide the belt out beyond the motor mount spacers.
17. Slightly tilt the motor forward and thread the belt as shown below.
18. Roll the rollers with your free hand and push the motor forward to walk the belt on.
19. Reinstall the ¼-20 cap head screws that mount the motor plate assembly.
20. Find the take-up stud tool holes and use a 1/8" Allen wrench to hold the take-up roller stud in place as shown in (**Figure 7.0**)
21. Use a 3/16" Allen wrench on the opposite side to loosen the take-up mount screws.
22. Turn the 1/8" Allen wrench that is in the take up stud tool hole to adjust the tension of the drive belt.
23. Be sure to tighten the belt by rotating the eccentric studs away from the tube rollers and toward the main drive pulley as shown in (**Figure 8.0**).
Note: Tightening the belt by rotating the eccentric toward the tube rollers will cause the drive belt to not track properly on the drive pulley. This could cause the belt to prematurely wear or break.
24. Check to make sure the drive belt has the correct drive tension.
Note: The tension should be set to provide just enough drive friction on the rollers.
25. Once the tension has been set tighten the take-up mount screws.
26. Replace the belt cover and test run the conveyor to test the belt tension and verify that the belt is tracking on the main drive roller properly. Readjust if necessary.

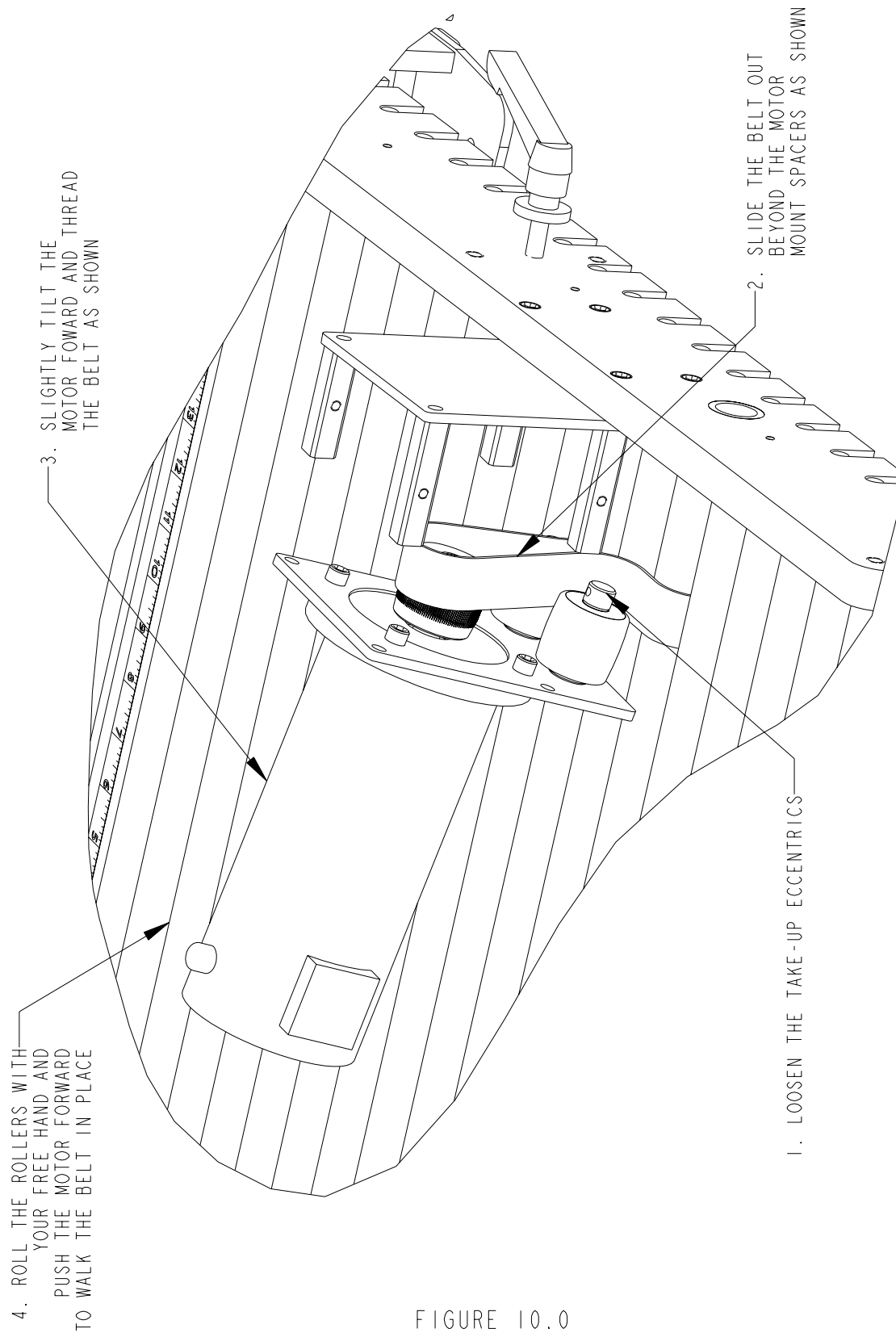


FIGURE 10.0

8 PARTS LISTS AND DIAGRAMS

8.1 PARTS LIST

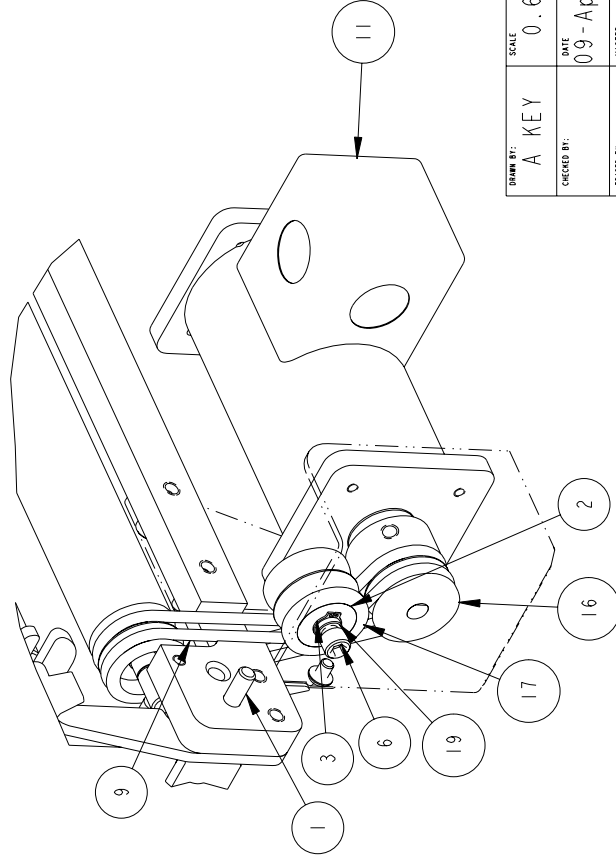
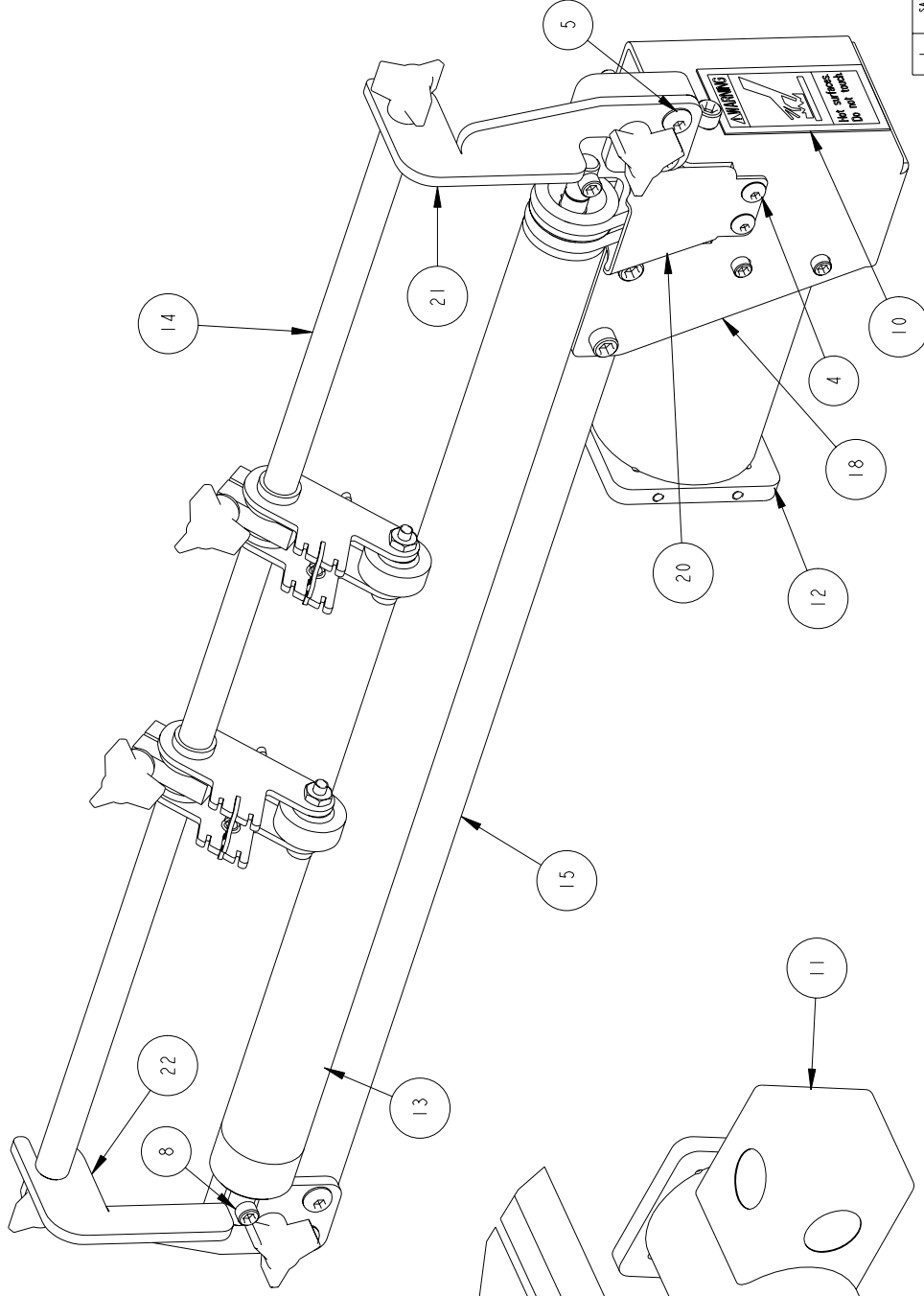
See following pages for parts list.

8.2 DIAGRAMS

NO.	DRAWING #	DESCRIPTION
1	KR730	ASSY, ROLLER REGISTER
2	547338-05	ASSY, BASE
3	554036-02	ASSY, FLOOR JACK
4	554062-01	ASSY, GAS SHOCK
5	548886-04	ASSY, CONTROL BOX
6	554037-01	ASSY, ROLLER REGISTER
7	554042-06	ASSY, TUBE ROLLER
8	554042-11	ASSY, TUBE ROLLER
9	554042-04	ASSY, TUBE ROLLER
10	554042-12	ASSY, TUBE ROLLER
11	554042-07	ASSY, TUBE ROLLER
12	554042-11	ASSY, TUBE ROLLER
13	554042-13	ASSY, TUBE ROLLER
14	554042-09	ASSY, TUBE ROLLER
15	554058-01	ASSY, PINCH ROLLER ARM
16	554100-04	ASSY, PINCH ROLLER ARM
17	501057-A	ASSY, ROLLER
18	539040-03	ASSY, SKID BAR
19	554148-01	ASSY, LH SKID BAR MOUNT
20	554149-01	ASSY, RH SKID BAR MOUNT
21	554055-01	ASSY, SKID BAR
22	554148-01	ASSY, LH SKID BAR MOUNT
23	554149-01	ASSY, RH SKID BAR MOUNT
24	554042-03	ASSY, TUBE ROLLER
25	554042-12	ASSY, TUBE ROLLER
26	554042-05	ASSY, TUBE ROLLER
27	554042-10	ASSY, TUBE ROLLER
28	554042-08	ASSY, TUBE ROLLER
29	554042-10	ASSY, TUBE ROLLER
30	554070-01	ASSY, SPEED UP ROLLER
31	554042-06	ASSY, TUBE ROLLER
32	554042-11	ASSY, TUBE ROLLER
33	554058-01	ASSY, PINCH ROLLER ARM
34	554100-04	ASSY, PINCH ROLLER ARM
35	501057-A	ASSY, ROLLER

REV	NO	DATE	DESCRIPTION	ECN	BY
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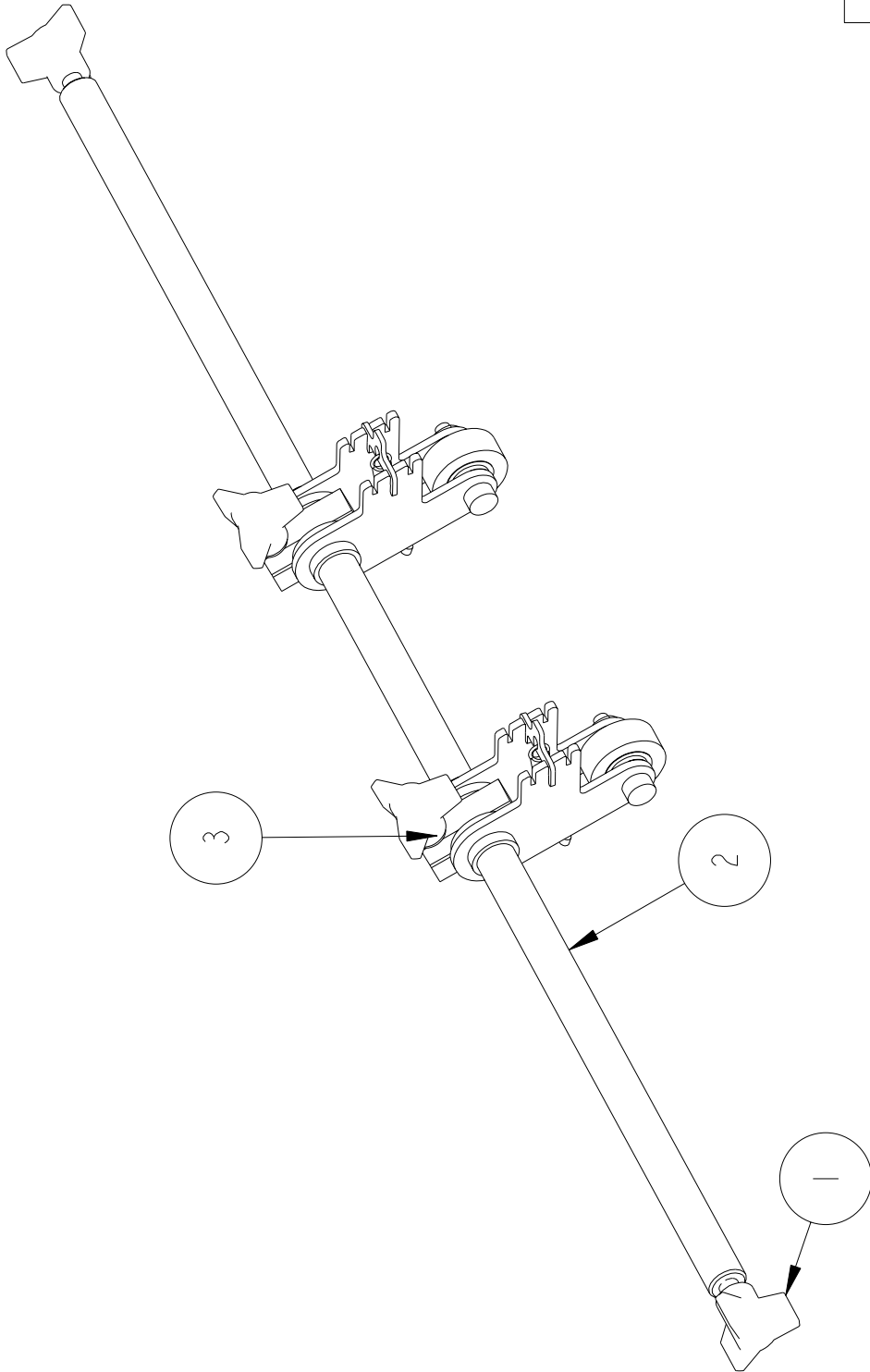
ITEM	QTY	PART #	DESCRIPTION
1	2	102152	KNOB, HAND 3 PRONG 1/4-20 X 1.25
2	2	103106	BEARING, FLAT .375
3	2	104100	SNAPRING, .375
4	2	106811	SCREW, BUTTON HEAD #10-32X.250
5	4	106818	SCREW, BUTTON HEAD 1/4X.500
6	3	107410	SCREW, SHCS 1/4-20X.500
7	2	107413	SCREW, SHCS 8-32X.500
8	2	107430	SCREW, SHCS 10-32X.750
9	2	112167	BELT, ROUND 4mm X 11.188
10	1	190790	LABEL, HOT SURFACE
11	1	191910	BOX, CONDUIT
12	1	200170-4	MOTOR, DC 1/15HP 3500 RPM
13	1	554042-06	ASSY, TUBE ROLLER
14	1	554058-01	ASSY, PINCH ROLLER ARM
15	1	554071-01	PLATE, SPEED UP ROLLER MNT
16	1	554072-01	PULLEY, TWO BELT IDLER
17	1	554073-01	PULLEY, TWO BELT IDLER
18	1	554074-01	BRACKET, MOTOR MOUNT
19	1	554075-01	STUD, PULLEY IDLER
20	1	554076-01	COVER, BELT
21	1	554077-01	BRACKET, PINCH ROLLER MNT
22	1	554077-02	BRACKET, PINCH ROLLER MNT



DRAWN BY: A KEY	SCALE 0.625	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED			MATERIAL: N/A	THIRD ANGLE PROJECTION	PROPRIETARY AND CONFIDENTIAL THIS DRAWING IS THE PROPERTY OF KIRK - RUDY, INC. IT IS TO BE USED FOR THE MANUFACTURE OF THE PARTS AND ASSEMBLIES SPECIFIED HEREIN. NO PART OF THIS DRAWING IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE EXPRESS WRITTEN PERMISSION OF KIRK - RUDY, INC. WOODSTOCK, GA 30188 USA	KIRK - RUDY, INC. WOODSTOCK, GEORGIA	REQ'D WHERE USED 1 SA380
		.11	.01	.005					
CHECKED BY:	DATE 09-Apr-09	REMOVE ALL DIMENSIONS AND TOLERANCES UNLESS OTHERWISE NOTED			HEAT TREAT: N/A	MODEL: SA380	TITLE: ASSY, SPEED UP ROLLER		DRAWING # 554070-01
TRACED BY:	MASTER	ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY			FINISH: N/A	SHEET NO. 1 OF 3			

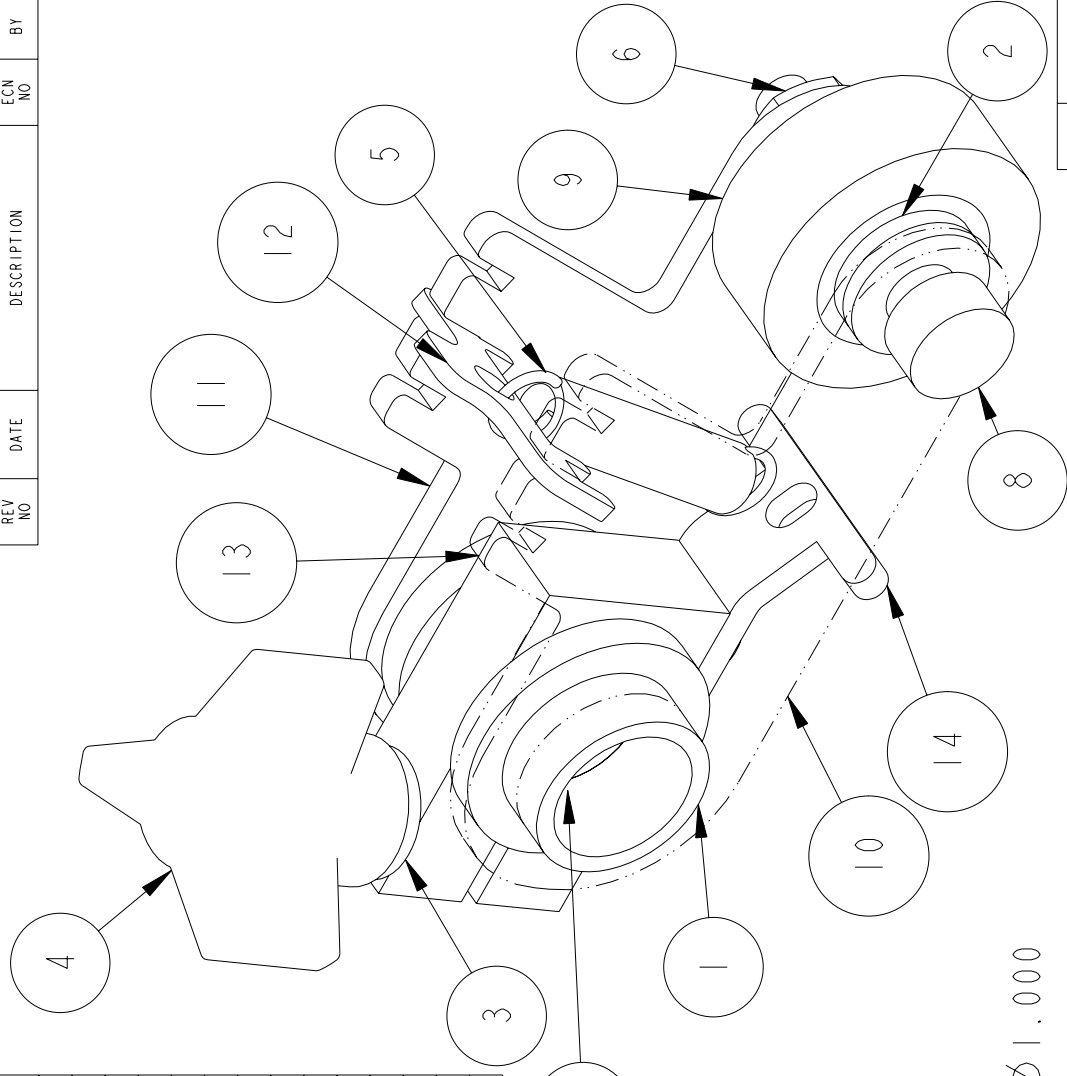
ITEM	QTY	PART #	DESCRIPTION
1	2	102145	KNOB, HAND 3 PRONG 1/4-20 STUD
2	1	554052-01	SHAFT, SIDE GUIDE MOUNT
3	2	554100-04	ASSY, 2.25 PINCH ROLLER ARM

REV NO	DATE	DESCRIPTION	ECN NO	BY
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DRAWN BY: A KEY	SCALE 0.500	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED XX .01 .XXX .005 ANG. .5	MATERIAL: N/A	THIRD ANGLE PROJECTION 	PROPRIETARY AND CONFIDENTIAL NO PORTION OF THIS DRAWING MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS WITHOUT THE WRITTEN EXPRESS PERMISSION OF KIRK-RUDY, INC. WOODSTOCK, GA 30188 USA	 KIRK - RUDY, INC. WOODSTOCK, GEORGIA	2	SA380
	CHECKED BY: DATE 09-Apr-09						REQ'D	WHERE USED
TRACED BY:	MASTER	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 FINISH: N/A	MODEL: SA380 10F1	TITLE: ASSY, PINCH ROLLER ARM			
							DRAWING # 554058-01	

ITEM	QTY	PART #	DESCRIPTION
1	2	100323	BUSHING, FL.500ID.625OD.375LG
2	4	100603	WASHER, FLAT 1/4ID
3	1	100619	WASHER, FLAT 10-32
4	1	102145	KNOB, HAND 3 PRONG 1/4-20 STUD
5	1	102762	SPRING, EXTENSION
6	1	106709	NUT, HEX #10-24
7	2	106819	SCREW, BUTTON HEAD #8-32X.250
8	1	107005	BOLT, SHOULDER 1/4X3/4
9	1	501057-A	ASSY, ROLLER
10	1	554096-05	ARM, PINCH ROLLER
11	1	554096-06	ARM, PINCH ROLLER
12	1	554099-03	BRACKET, SPRING ANCHOR
13	1	554101-02	BLOCK, 1" DIA CLAMP
14	1	554102-02	BRACKET, ARM STOP

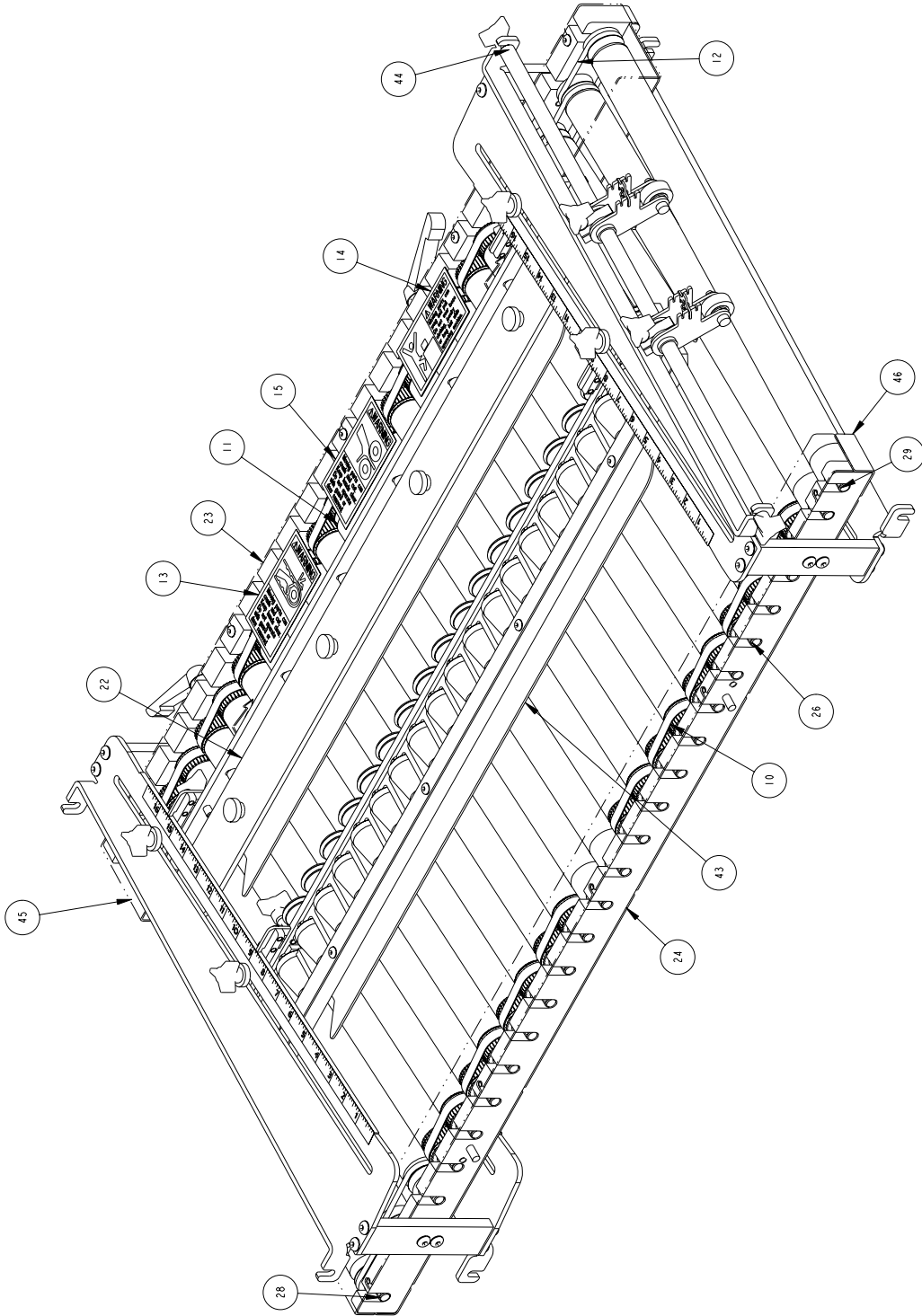



SCALE 1.000

DRAWN BY: A KEY	SCALE 1.750	<div>DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED</div> <table><tr><td>.XX</td><td>.XXX</td><td>ANG.</td></tr><tr><td>.01</td><td>.005</td><td>.5</td></tr></table>	.XX	.XXX	ANG.	.01	.005	.5	MATERIAL: N/A	<div>THIRD ANGLE PROJECTION</div> <div></div>	<div>PROPRIETARY AND CONFIDENTIAL</div> <div>NO PORTION OF THIS DRAWING</div> <div>MAY BE REPRODUCED OR</div> <div>TRANSMITTED IN ANY FORM OR</div> <div>BY ANY MEANS WITHOUT THE</div> <div>WRITTEN PERMISSION</div> <div>OF KIRK-RUDY, INC.</div> <div>WOODSTOCK, GA 30188 USA</div>	<div>KIRK - RUDY, INC.</div> <div>WOODSTOCK, GEORGIA</div>
			.XX	.XXX	ANG.							
	.01		.005	.5								
CHECKED BY:	DATE 11-May-09											
TRACED BY:	MASTER											
			FINISH: N/A	MODEL: SA380	TITLE: ASSY, 2.25 PINCH ROLLER ARM	<div>KIRK - RUDY, INC.</div> <div>WOODSTOCK, GEORGIA</div>						
			SHEET NO.: 1 OF 1	DRAWING #	554100-04							

REV	NO	DATE	DESCRIPTION	BY
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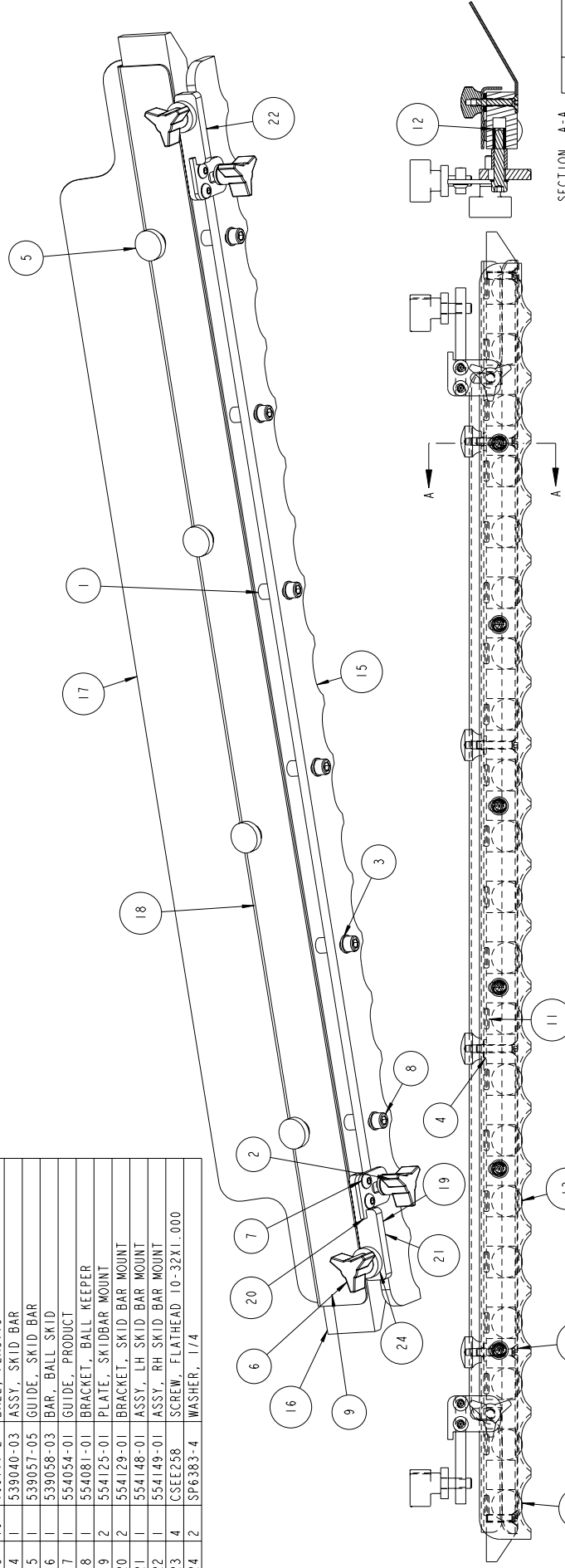
ITEM	QTY	PART #	DESCRIPTION
1	1	100.41	BUSHING, SL.750(DI.0000.750LG
2	4	103.08	BEARING, FLAT. .500
3	2	104.06	SNAPPING. .500
4	2	105.01	DOWEL, PIN .250X1.000
5	8	106.01	SCREW, BUTTON HEAD 1/4X.875
6	13	106.81.3	SCREW, BUTTON HEAD #10-32X.375
7	16	106.81.8	SCREW, BUTTON HEAD 1/4X.500
8	2	107.40.1	SCREW, SHCS 1/4-20X.750
9	16	107.41.0	SCREW, SHCS 1/4-20X.500
10	19	112.64	BELT, TIMING 177-3M-090
11	1	112.65	BELT, FLAT DRIVE
12	4	112.66	BELT, ROUND 4mm X 7.25
13	2	190.80	LABEL, TIMING BELT WARNING
14	2	190.82	LABEL, LOOSE CLOTHES
15	2	190.85	LABEL, ROLLER VERT WARNING
16	1	190.87	LABEL, PULLEY WARNING
17	1	190.90	LABEL, HOT SURFACE
18	2	191.896	SCALE, ROLLER REGISTER
19	2	102134-2	HANDLE - RELEASE 5/16 X 1.57
20	2	191.896-1	SCALE, ROLLER REGISTER
21	1	200165-9	MOTOR, .3 HP DC BRUSH 2500RPM
22	1	539040-03	ASSY, SKID BAR
23	1	554038-01	FRAME, BACK ROLLER REG
24	1	554039-01	FRAME, FRONT ROLLER REG
25	8	554042-03	ASSY, TUBE ROLLER
26	8	554042-04	ASSY, TUBE ROLLER
27	8	554042-05	ASSY, TUBE ROLLER
28	2	554042-06	ASSY, TUBE ROLLER
29	2	554042-07	ASSY, TUBE ROLLER
30	1	554042-08	ASSY, TUBE ROLLER
31	1	554042-13	ASSY, TUBE ROLLER
32	1	554042-17	ASSY, TUBE ROLLER
33	1	554042-19	ASSY, TUBE ROLLER
34	1	554045-01	BRACKET, MOTOR MOUNT
35	1	554046-01	BRACKET, MOTOR MOUNT
36	1	554047-01	ROLLER, BELT DRIVE
37	2	554048-01	STUD, BELT TAKE UP
38	2	554049-01	BAR, MOTOR MOUNT
39	2	554049-02	BAR, MOTOR MOUNT
40	1	554050-01	COVER, MOTOR BELT
41	2	554051-06	POST, SIDE GUIDE SUPPORT
42	2	554051-07	POST, SIDE GUIDE SUPPORT
43	1	554055-01	ASSY, SKID BAR
44	1	554058-01	ASSY, PINCH ROLLER ARM
45	1	554060-01	COVER, ROUND BELT TOP
46	2	554060-02	COVER, ROUND BELT TOP
47	1	554061-01	COVER, ROUND BELT TOP
48	1	554061-02	COVER, ROUND BELT TOP
49	2	554082-01	ROLLER, IDLER
50	4	554150-01	BAR, SKID BAR MOUNT
51	2	SP6383-5	WASHER, 5/16



1	554037-01	REV'D	WHERE USED
 KIRK - RUDY, INC. WOODSTOCK, GEORGIA			
PROJECT TITLE: ASSY, ROLLER REGISTER DATE: 09-Apr-09 DRAWN BY: [blank] CHECKED BY: [blank] TITLED BY: [blank]		PART NAME: ASSY, ROLLER REGISTER PART NO: 554037-01 REV: 1	PART NO: 554037-01 REV: 1
SCALE: 0.400 DATE: 09-Apr-09 MATERIAL: N/A FINISH: N/A TOLERANCE: N/A		PART NAME: ASSY, ROLLER REGISTER PART NO: 554037-01 REV: 1	PART NO: 554037-01 REV: 1

REV NO	DATE	DESCRIPTION	ECN NO	BY
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ITEM QTY	PART #	DESCRIPTION
1	6	BUSHING, SL-250ID, 3750D, 500LG
2	2	WASHER, FLAT 1/4ID
3	6	WASHER, FLAT 1/4ID BRASS
4	4	WASHER, FLAT 10-32
5	4	102114 KNOB
6	4	102145 KNOB, HAND 3 PRONG 1/4-20 STUD
7	4	106813 SCREW, BUTTON HEAD #10-32X.375
8	6	107402 SCREW, SHCS 1/4-20X1.250
9	2	107501 SCREW, FLATHEAD 10-32X.750
10	11	190777 BALL, STEEL
11	21	190869 DISC, 1/2 DIA FELT
12	6	191916 INSERT, 1/4-20 THREADED
13	10	190777-2 BALL, PLASTIC
14	1	539040-03 ASSY, SKID BAR
15	1	539057-05 GUIDE, SKID BAR
16	1	539058-03 BAR, BALL SKID
17	1	554054-01 GUIDE, PRODUCT
18	1	554081-01 BRACKET, BALL KEEPER
19	2	554125-01 PLATE, SKIDBAR MOUNT
20	2	554129-01 BRACKET, SKID BAR MOUNT
21	1	554148-01 ASSY, LH SKID BAR MOUNT
22	1	554149-01 ASSY, RH SKID BAR MOUNT
23	4	C3EE258 SCREW, FLATHEAD 10-32X1.000
24	2	SP6383-4 WASHER, 1/4



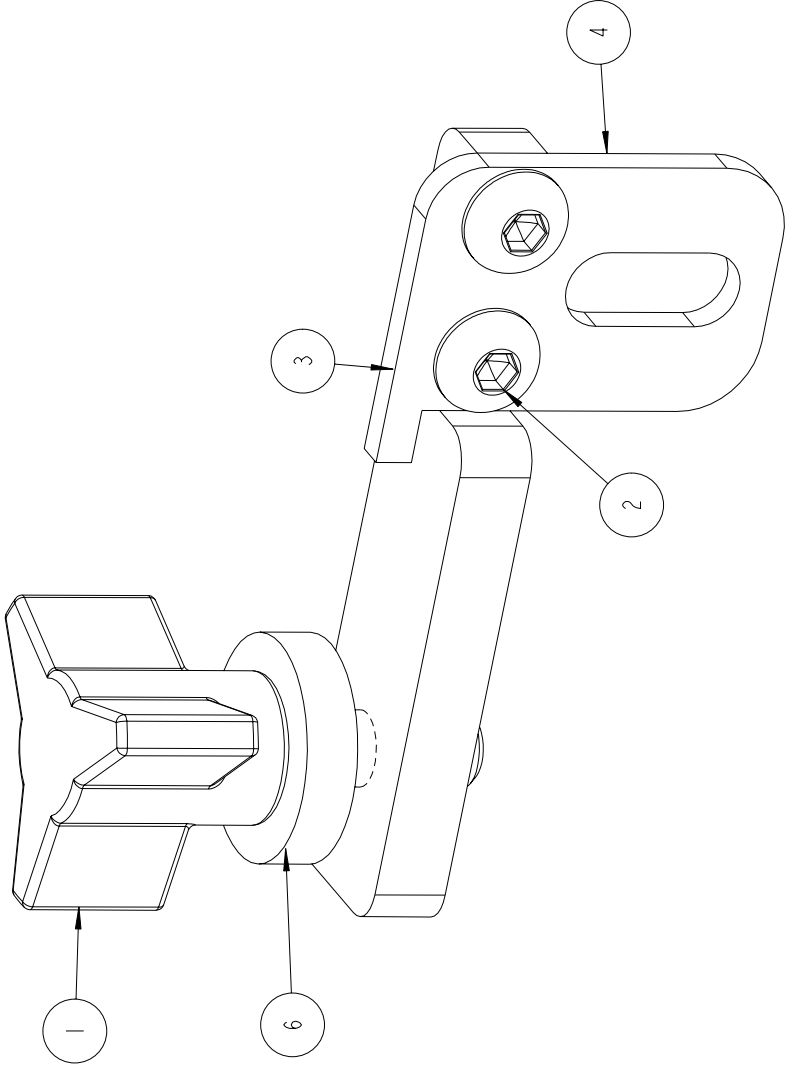
SECTION A-A

SECTION A - A										I 730				
DRAWN BY: A KEY		SCALE 0.430		DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED			MATERIAL: N/A		THIRD ANGLE PROJECTION		PROPRIETARY AND CONFIDENTIAL MAY BE QUOTED OR REPRODUCED WITHOUT THE WRITTEN PERMISSION OF KIRK - RUDY, INC. WOODSTOCK, GA 30098 USA		KIRK - RUDY, INC. WOODSTOCK, GEORGIA	
CHECKED BY:		DATE 12-May-09		REMOVE ALL BUREAU AND OFFICE NOTES			HEAT TREAT: N/A		MODEL: 730		TITLE: ASSY, SKID BAR			
TRACED BY:		MASTER		ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY			FINISH: N/A		SHEET NO. 10F3		DRAWING # 539040-03			

NOTES:
1- 3/4" STEEL BALL PART NUMBER 190777
3/4" PLASTIC BALL PART NUMBER 190777-2
BALLS ALTERNATE BETWEEN STEEL AND PLASTIC
START WITH STEEL BALL AND END WITH STEEL
STEEL, PLASTIC, STEEL ETC.

ITEM	QTY	PART #	DESCRIPTION
1	1	102145	KNOB, HAND 3 PRONG 1/4-20 STUD
2	2	106813	SCREW, BUTTON HEAD #10-32X.375
3	1	554125-01	PLATE, SKIDBAR MOUNT
4	1	554129-01	BRACKET, SKID BAR MOUNT
5	1	554148-01	ASSY, LH SKID BAR MOUNT
6	1	SP6383-4	WASHER, 1/4

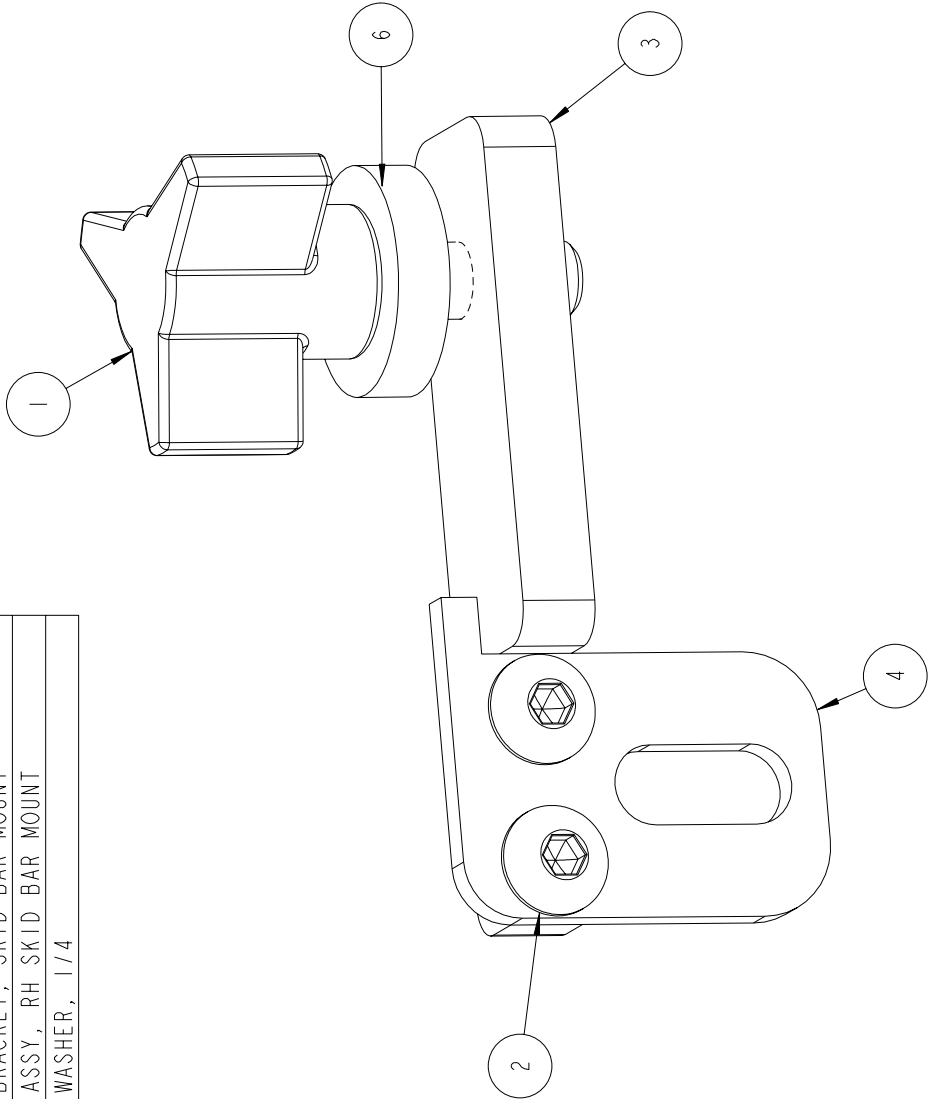
REV NO	DATE	DESCRIPTION	ECN NO	BY





DRAWN BY: A KEY	SCALE 1.750	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED XX .XXX ANG. .01 .005 .5	MATERIAL: N/A	THIRD ANGLE PROJECTION 	PROPRIETARY AND CONFIDENTIAL NO PORTION OF THIS DRAWING MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS WITHOUT THE EXPRESS WRITTEN PERMISSION OF KIRK-RUDY, INC. WOODSTOCK, GA 30188 USA	KIRK - RUDY, INC. WOODSTOCK, GEORGIA	2	730
	CHECKED BY: DATE 11-May-09						REQ'D	WHERE USED
TRACED BY:	MASTER	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 FINISH: N/A	MODEL: 730	TITLE: ASSY, LH SKID BAR MOUNT		554148-01	
							DRAWING #	

ITEM	QTY	PART #	DESCRIPTION
1	1	102145	KNOB, HAND 3 PRONG 1/4-20 STUD
2	2	106813	SCREW, BUTTON HEAD #10-32X.375
3	1	554125-01	PLATE, SKIDBAR MOUNT
4	1	554129-01	BRACKET, SKID BAR MOUNT
5	1	554149-01	ASSY, RH SKID BAR MOUNT
6	1	SP6383-4	WASHER, 1/4

REV NO	DATE	DESCRIPTION	ECN NO	BY
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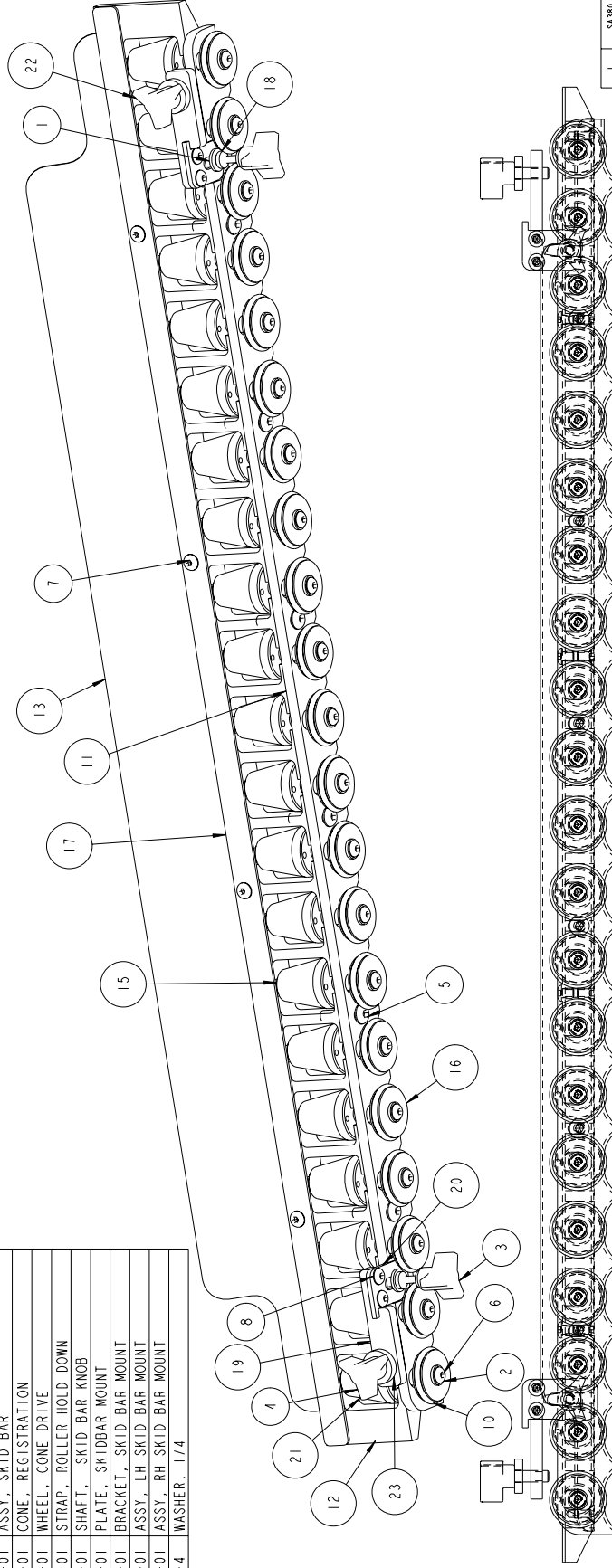


4

DRAWN BY: A KEY	SCALE 1.750	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED		MATERIAL: N/A	THIRD ANGLE PROJECTION 	PROPRIETARY AND CONFIDENTIAL NO PORTION OF THIS DRAWING MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS WITHOUT THE WRITTEN EXPRESS PERMISSION OF KIRK-RUDY, INC. WOODSTOCK, GA 30188 USA	 KIRK - RUDY, INC. WOODSTOCK, GEORGIA	2	730	REQ'D	WHERE USED
		.XX .XXX ANG. .01 .005 .5									
	CHECKED BY: DATE 11-May-09	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: 730	TITLE: ASSY, RH SKID BAR MOUNT	554149-01					

REV NO	DATE	DESCRIPTION	ECN NO	BY
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ITEM QTY	PART #	DESCRIPTION
1	2	100603 WASHER, FLAT 1/4X10
2	21	100619 WASHER, FLAT 10-32
3	2	102119 KNOB
4	2	102145 KNOB, HAND 3 PRONG 1/4-20 STUD
5	6	106802 SCREW, BUTTON HEAD 1/4X1.00
6	21	106810 SCREW, BUTTON HEAD #10-32X.500
7	4	106811 SCREW, BUTTON HEAD #10-32X.250
8	4	106813 SCREW, BUTTON HEAD #10-32X.375
9	6	107502 SCREW, FLATHEAD 10-32X.375
10	21	191895 O-RING, BUNA N
11	1	539057-06 GUIDE, SKID BAR
12	1	539058-04 BAR, CONE SKID
13	1	554054-01 GUIDE, PRODUCT
14	1	554055-01 ASSY, SKID BAR
15	21	554056-01 CONE, REGISTRATION
16	21	554057-01 WHEEL, CONE DRIVE
17	1	554079-01 STRAP, ROLLER HOLD DOWN
18	2	554083-01 SHAFT, SKID BAR KNOB
19	2	554125-01 PLATE, SKIDBAR MOUNT
20	2	554129-01 BRACKET, SKID BAR MOUNT
21	1	554148-01 ASSY, LH SKID BAR MOUNT
22	1	554149-01 ASSY, RH SKID BAR MOUNT
23	2	SP6383-4 WASHER, 1/4

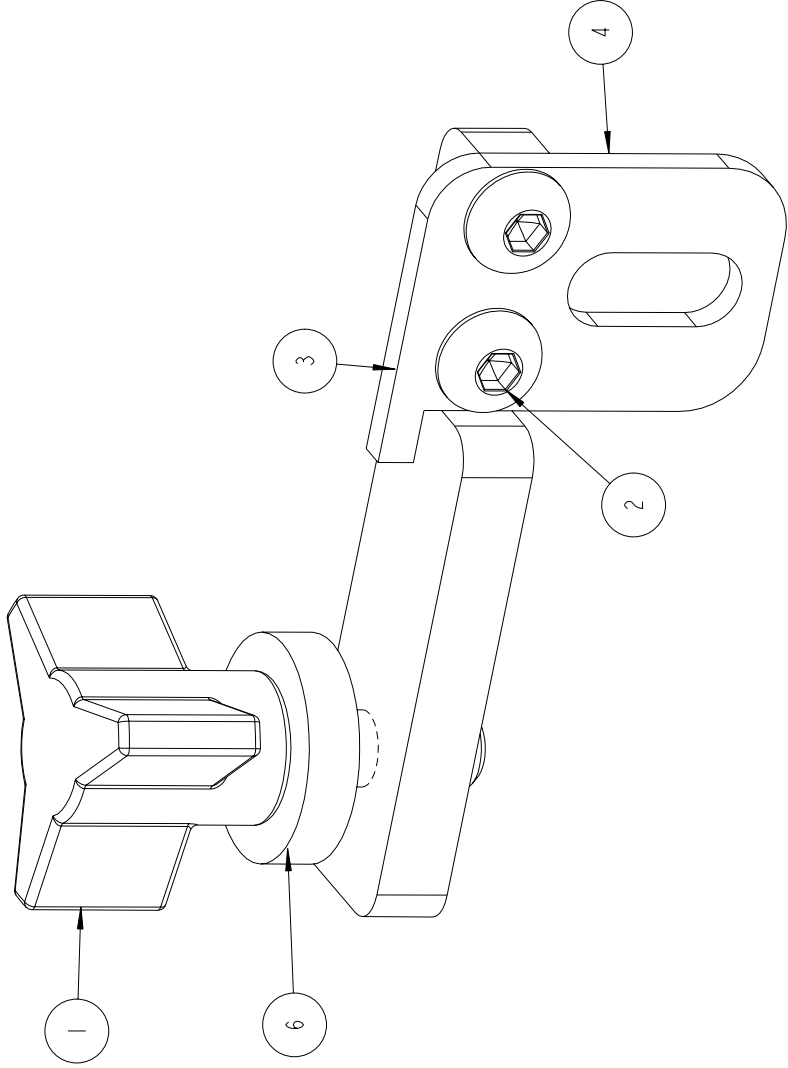


DRAWN BY: A KEY		SCALE 0.438	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED		MATERIAL:		THIRD ANGLE PROJECTION		PROPRIETARY AND CONFIDENTIAL MAY BE QUOTED OR REPRODUCED WITHOUT THE WRITTEN PERMISSION OF KIRK - RUDY, INC. WOODSTOCK, GA 30096 USA		KIRK - RUDY, INC. WOODSTOCK, GEORGIA		REV'D WHERE USED	
CHECKED BY:		DATE 11-May-09	REMOVE ALL BUBBLES AND SPALLS OTHERWISE NOTES		HEAT TREAT:		MODEL SA380		TITLE ASSY, SKID BAR		SHEET NO. 1 OF 3		1	
TRACED BY:		MASTER	ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY		FINISH:		N/A		N/A		N/A		554055-01	

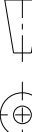

OPTIONAL CONE ROLLER SKID BAR

REV NO	DATE	DESCRIPTION	ECN NO	BY
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ITEM	QTY	PART #	DESCRIPTION
1	1	102145	KNOB, HAND 3 PRONG 1/4-20 STUD
2	2	106813	SCREW, BUTTON HEAD #10-32X.375
3	1	554125-01	PLATE, SKIDBAR MOUNT
4	1	554129-01	BRACKET, SKID BAR MOUNT
5	1	554148-01	ASSY, LH SKID BAR MOUNT
6	1	SP6383-4	WASHER, 1/4

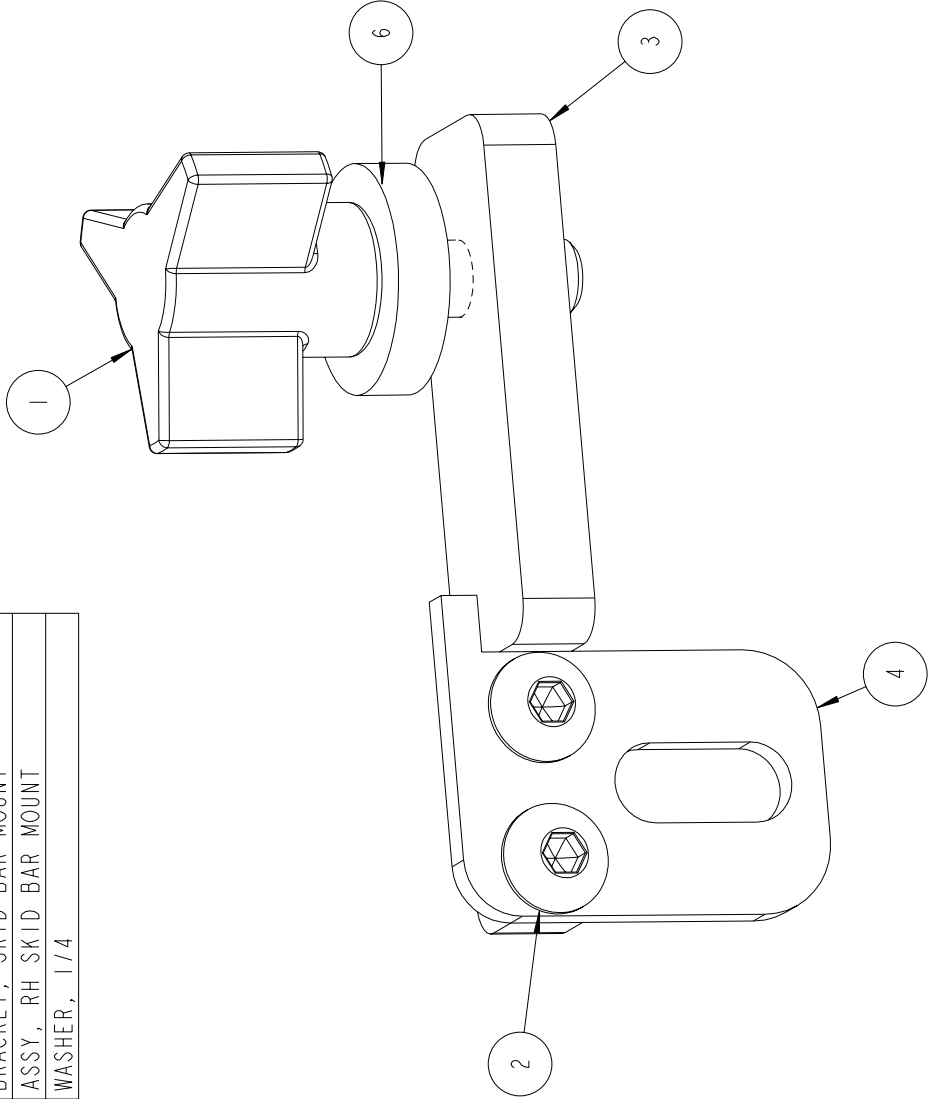


2	730
REQ'D	WHERE USED

DRAWN BY: A KEY	SCALE 1.750	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED			MATERIAL: 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. WOODSTOCK, GA 30188 USA	 KIRK - RUDY, INC. WOODSTOCK, GEORGIA
	CHECKED BY: 11-May-09	.XX	.XXX	ANG.				
		DATE 11-May-09	.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			FINISH: N/A	SHEET NO. 10F2	DRAWING #	554148-01

REV NO	DATE	DESCRIPTION	ECN NO	BY
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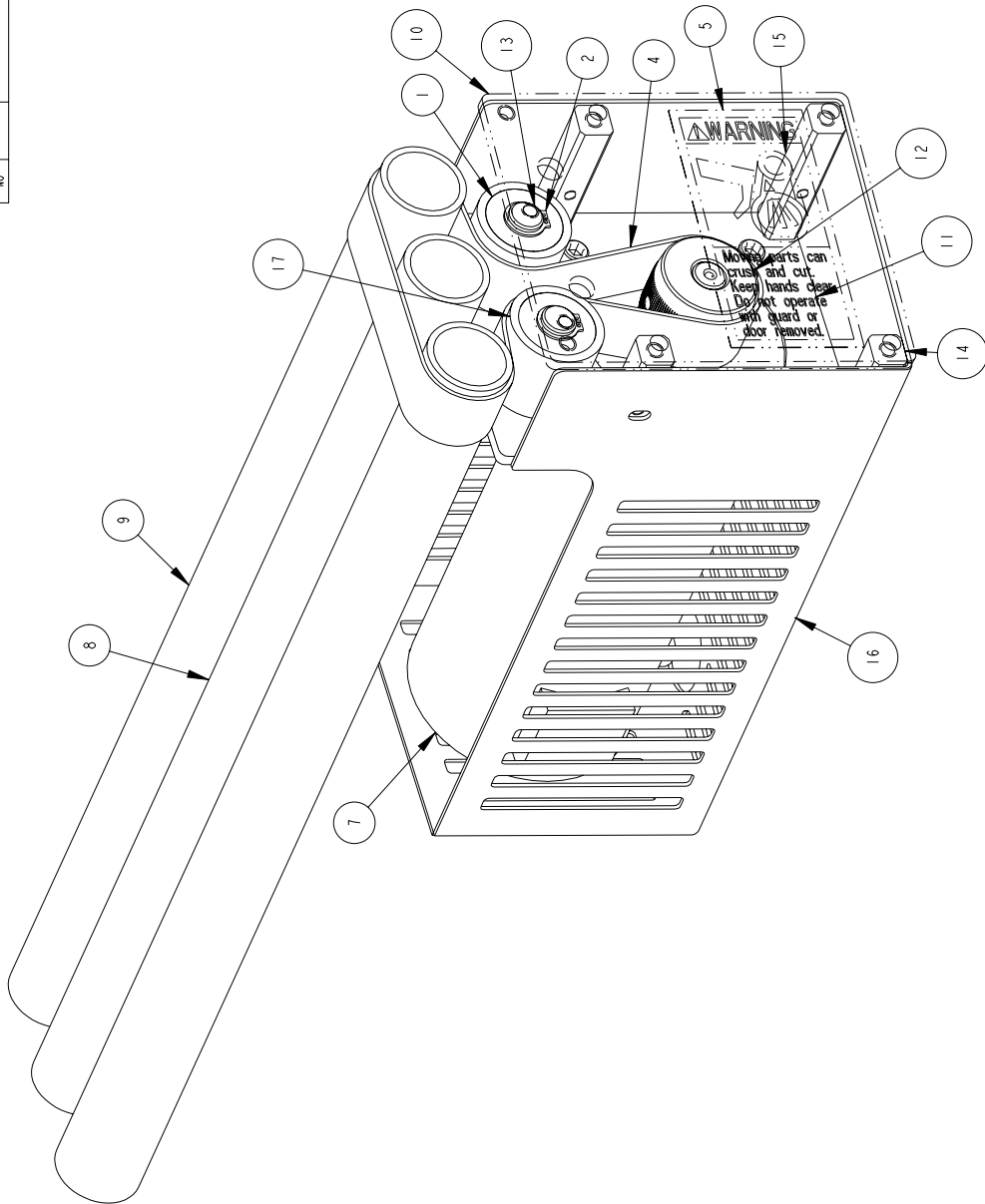
ITEM	QTY	PART #	DESCRIPTION
1	1	102145	KNOB, HAND 3 PRONG 1/4-20 STUD
2	2	106813	SCREW, BUTTON HEAD #10-32X.375
3	1	554125-01	PLATE, SKIDBAR MOUNT
4	1	554129-01	BRACKET, SKID BAR MOUNT
5	1	554149-01	ASSY, RH SKID BAR MOUNT
6	1	SP6383-4	WASHER, 1/4





DRAWN BY: A KEY	SCALE 1.750	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED		MATERIAL: N/A	THIRD ANGLE PROJECTION 	PROPRIETARY AND CONFIDENTIAL NO PORTION OF THIS DRAWING MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS WITHOUT THE EXPRESS WRITTEN PERMISSION OF KIRK-RUDY, INC. WOODSTOCK, GA 30188 USA	 KIRK - RUDY, INC. WOODSTOCK, GEORGIA	2	730
								REQ'D	WHERE USED
CHECKED BY:	DATE 11-May-09	.XX .01	.XXX .005	HEAT TREAT: N/A	MODEL: 730	TITLE: ASSY, RH SKID BAR MOUNT			
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.: 10F2			DRAWING # 554149-01	

REV	NO	DATE	DESCRIPTION	ECN	BY
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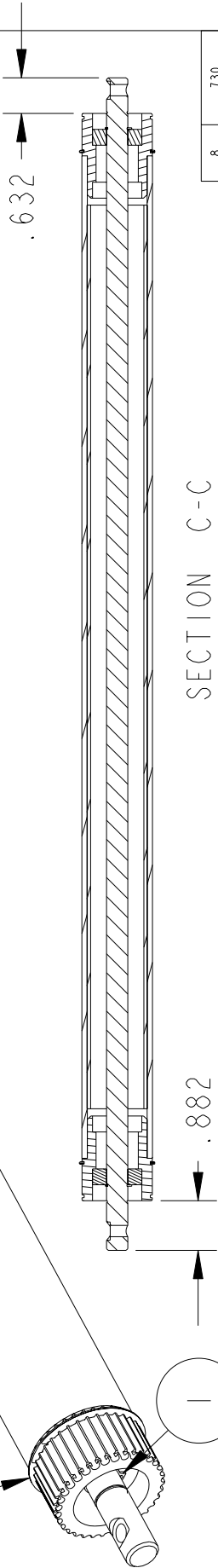
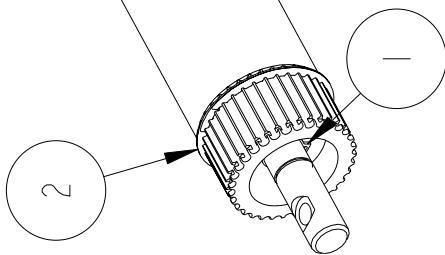
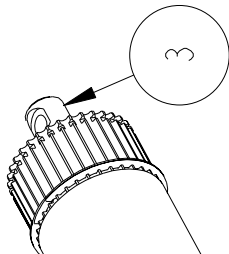
ITEM/QTY	PART #	DESCRIPTION
1	4	103108 BEARING, FLAT .500
2	4	104106 SNAPRING .500
3	6	107410 SCREW, SHCS 1/4-20X.500
4	1	112165 BELT, FLAT DRIVE
5	1	190787 LABEL, PULLEY WARNING
6	1	190790 LABEL, HOT SURFACE
7	1	200165-9 MOTOR, .3 HP DC BRUSH 2500RPM
8	1	554042-03 ASSY, TUBE ROLLER
9	2	554042-13 ASSY, TUBE ROLLER
10	1	554045-01 BRACKET, MOTOR MOUNT
11	1	554046-01 BRACKET, MOTOR MOUNT
12	1	554047-01 ROLLER, BELT DRIVE
13	2	554048-01 STUD, BELT TAKE UP
14	2	554049-01 BAR, MOTOR MOUNT
15	2	554049-02 BAR, MOTOR MOUNT
16	1	554050-01 COVER, MOTOR BELT
17	2	554082-01 ROLLER, IDLER



DRAWN BY: A KEY	SCALE 0.625	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED					MATERIAL: N/A	<div>THIRD ANGLE PROJECTION</div> 	PROPRIETARY AND CONFIDENTIAL NO PORTION OF THIS DRAWING IS TO BE LOANED, REPRODUCED OR COPIED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN PERMISSION OF KIRK & RUDY, INC. WOODSTOCK, GA 30188 USA	 KIRK & RUDY, INC. WOODSTOCK, GEORGIA	REQ'D WHERE USED 1 SA380	
		±.010	±.015	±.030	±.063							
	CHECKED BY:	DATE 22-Apr-09	FINISH AND TREATMENT UNLESS OTHERWISE NOTED			WEAT TREAT: N/A	MODEL: SA380					TITLE: ASSY, ROLLER REGISTER
	TRACED BY:	MASTER	ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED			FINISH: N/A	SHEET NO. 50F5					

ITEM	QTY	PART #	DESCRIPTION
1	2	104100	SNAPRING, .375
2	1	554042-23	ASSY, TUBE ROLLER
3	1	554044-01	SHAFT, TUBE ROLLER

REV NO	DATE	DESCRIPTION	ECN NO	BY
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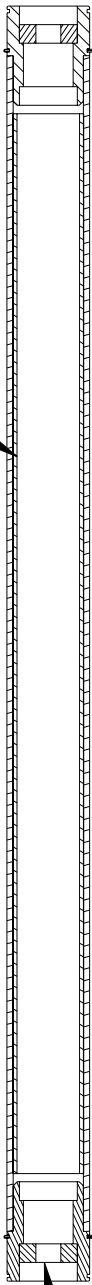
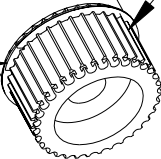
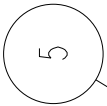
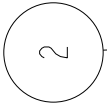
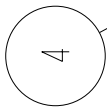
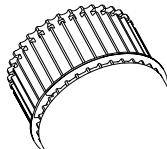
SECTION C-C
SCALE 0.375

SCALE	0.625	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED	MATERIAL:	N/A	THIRD ANGLE PROJECTION	PROPRIETARY AND CONFIDENTIAL NO PORTION OF THIS DRAWING MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM WITHOUT THE WRITTEN PERMISSION OF KIRK-RUDY, INC. WOODSTOCK, GA 30188 USA
CHECKED BY:	DATE	04-Jun-09	HEAT TREAT:	N/A	MODEL:	730
TRACED BY:	MASTER		FINISH:	N/A	SHEET NO.	1 OF 1

8	730	REQ'D	WHERE USED
KIRK - RUDY, INC. WOODSTOCK, GEORGIA			
TITLE: ASSY, TUBE ROLLER			
DRAWING # 554042-03			

ITEM	QTY	PART #	DESCRIPTION
1	2	103106	BEARING, FLAT .375
2	2	191898	RING, FLAT SPIRAL RETAINING
3	2	554040-03	PULLEY, 34-3M-090
4	1	554041-02	TUBE, ROLLER
5	1	554122-01	CORE, SOUND DEADENING

REV NO	DATE	DESCRIPTION	ECN NO	BY
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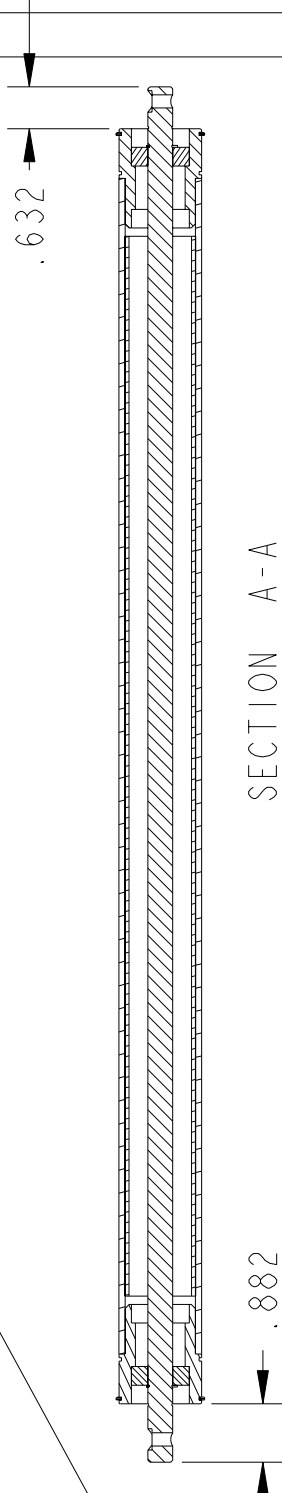
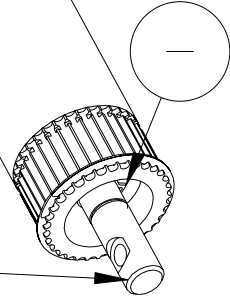
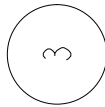
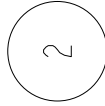
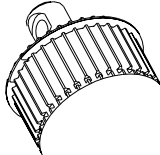
SECTION A-A
SCALE 0.375

8	730
REQ'D	WHERE USED

DRAWN BY: A KEY	SCALE 0.625	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED	MATERIAL: N/A	THIRD ANGLE PROJECTION 	PROPRIETARY AND CONFIDENTIAL NO PORTION OF THIS DRAWING MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS WITHOUT THE EXPRESS WRITTEN PERMISSION OF KIRK-RUDY, INC. WOODSTOCK, GA 30188 USA	KIRK - RUDY, INC. WOODSTOCK, GEORGIA
CHECKED BY:	DATE 14-Apr-09	.XX .01 .XXX .005 ANG. .5 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: 730	TITLE: ASSY, TUBE ROLLER	
TRACED BY:	MASTER		FINISH: N/A	SHEET NO.: 20F2	DRAWING # 554042-23	

ITEM	QTY	PART #	DESCRIPTION
1	2	104100	SNAPRING, .375
2	1	554042-12	ASSY, TUBE ROLLER
3	1	554044-01	SHAFT, TUBE ROLLER

REV NO	DATE	DESCRIPTION	ECN NO	BY
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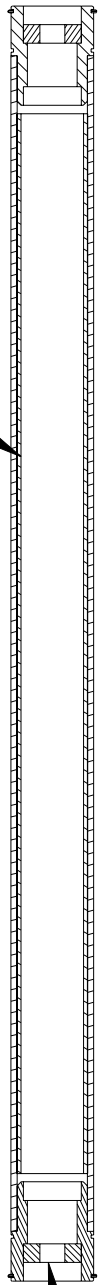
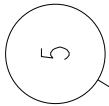
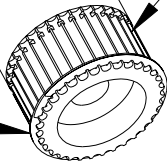
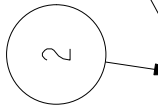
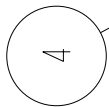
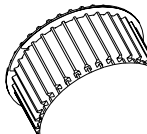
SECTION A-A
SCALE 0.375

8	730
REQ'D	WHERE USED

DRAWN BY: A KEY	SCALE 0.625	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED		MATERIAL: N/A	THIRD ANGLE PROJECTION 	PROPRIETARY AND CONFIDENTIAL NO PORTION OF THIS DRAWING MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS WITHOUT THE EXPRESS WRITTEN PERMISSION OF KIRK-RUDY, INC. WOODSTOCK, GA 30188 USA	 KIRK - RUDY, INC. WOODSTOCK, GEORGIA
	DATE 14-Apr-09	.XX	.XXX				
CHECKED BY:	MASTER	.01	.005	HEAT TREAT: N/A	MODEL: 730	TITLE: ASSY, TUBE ROLLER	
TRACED BY:		REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED		FINISH: N/A	SHEET NO.: 20F2	DRAWING # 554042-04	
		ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY					

ITEM	QTY	PART #	DESCRIPTION
1	2	103106	BEARING, FLAT .375
2	2	191898	RING, FLAT SPIRAL RETAINING
3	2	554040-03	PULLEY, 34-3M-090
4	1	554041-02	TUBE, ROLLER
5	1	554122-01	CORE, SOUND DEADENING

REV NO	DATE	DESCRIPTION	ECN NO	BY
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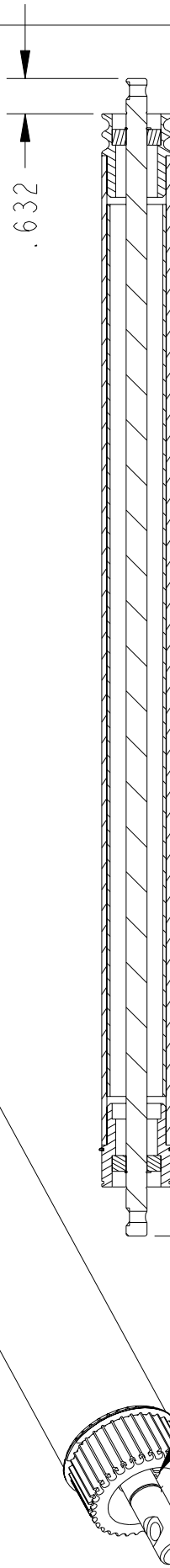
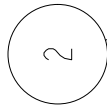
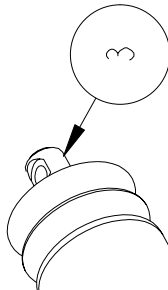
SECTION A-A
SCALE 0.375

8	730
REQ'D	WHERE USED

DRAWN BY: A KEY	SCALE 0.625	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED		MATERIAL: N/A	THIRD ANGLE PROJECTION 	PROPRIETARY AND CONFIDENTIAL NO PORTION OF THIS DRAWING MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS WITHOUT THE EXPRESS WRITTEN PERMISSION OF KIRK-RUDY, INC. WOODSTOCK, GA 30188 USA	 KIRK - RUDY, INC. WOODSTOCK, GEORGIA
	DATE 14-Apr-09	.XX	.XXX				
CHECKED BY:	MASTER	.01	.005	HEAT TREAT: N/A	MODEL: 730	TITLE: ASSY, TUBE ROLLER	
TRACED BY:		REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY		FINISH: N/A	SHEET NO.: 20F2	DRAWING # 554042-12	

ITEM	QTY	PART #	DESCRIPTION
1	2	104100	SNAPRING, .375
2	1	554042-10	ASSY, TUBE ROLLER
3	1	554044-01	SHAFT, TUBE ROLLER

REV NO	DATE	DESCRIPTION	ECN NO	BY
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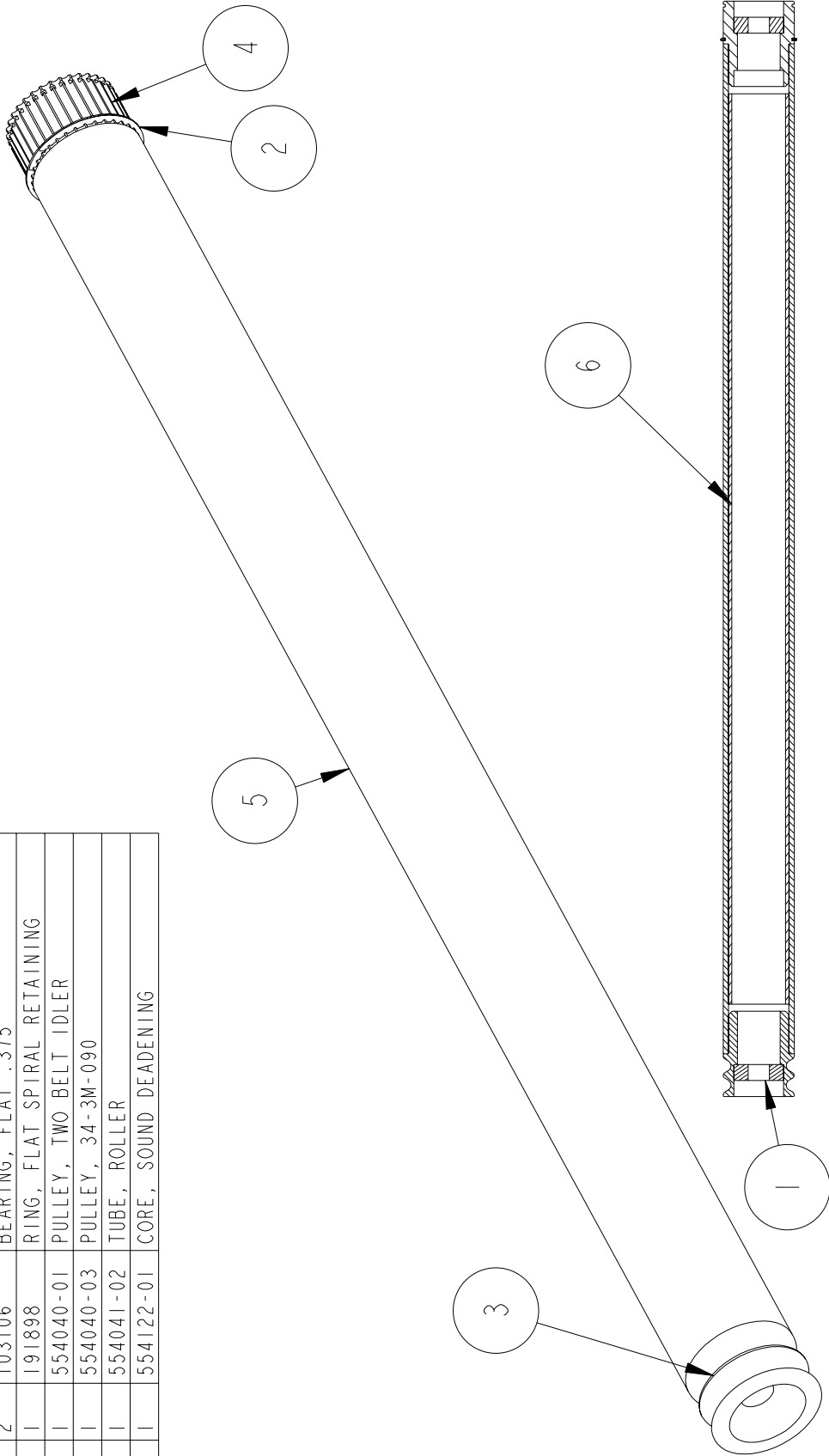
SECTION A-A
SCALE 0.375

I	730
REQ'D	WHERE USED

DRAWN BY: A KEY	SCALE 0.625	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED XX .01 .005 .5 XXX ANG. .5	MATERIAL: N/A	THIRD ANGLE PROJECTION 	PROPRIETARY AND CONFIDENTIAL NO PORTION OF THIS DRAWING MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS WITHOUT THE WRITTEN EXPRESS PERMISSION OF KIRK-RUDY, INC. WOODSTOCK, GA 30188 USA	 KIRK - RUDY, INC. WOODSTOCK, GEORGIA	I 730 REQ'D WHERE USED
	CHECKED BY: 04-Jun-09						
TRACED BY:	DATE 04-Jun-09	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: 730	TITLE: ASSY, TUBE ROLLER		
	MASTER		FINISH: N/A	SHEET NO.: 10F1			

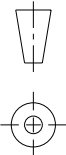

ITEM	QTY	PART #	DESCRIPTION
1	2	103106	BEARING, FLAT .375
2	1	191898	RING, FLAT SPIRAL RETAINING
3	1	554040-01	PULLEY, TWO BELT IDLER
4	1	554040-03	PULLEY, 34-3M-090
5	1	554041-02	TUBE, ROLLER
6	1	554122-01	CORE, SOUND DEADENING

REV NO	DATE	DESCRIPTION	ECN NO	BY
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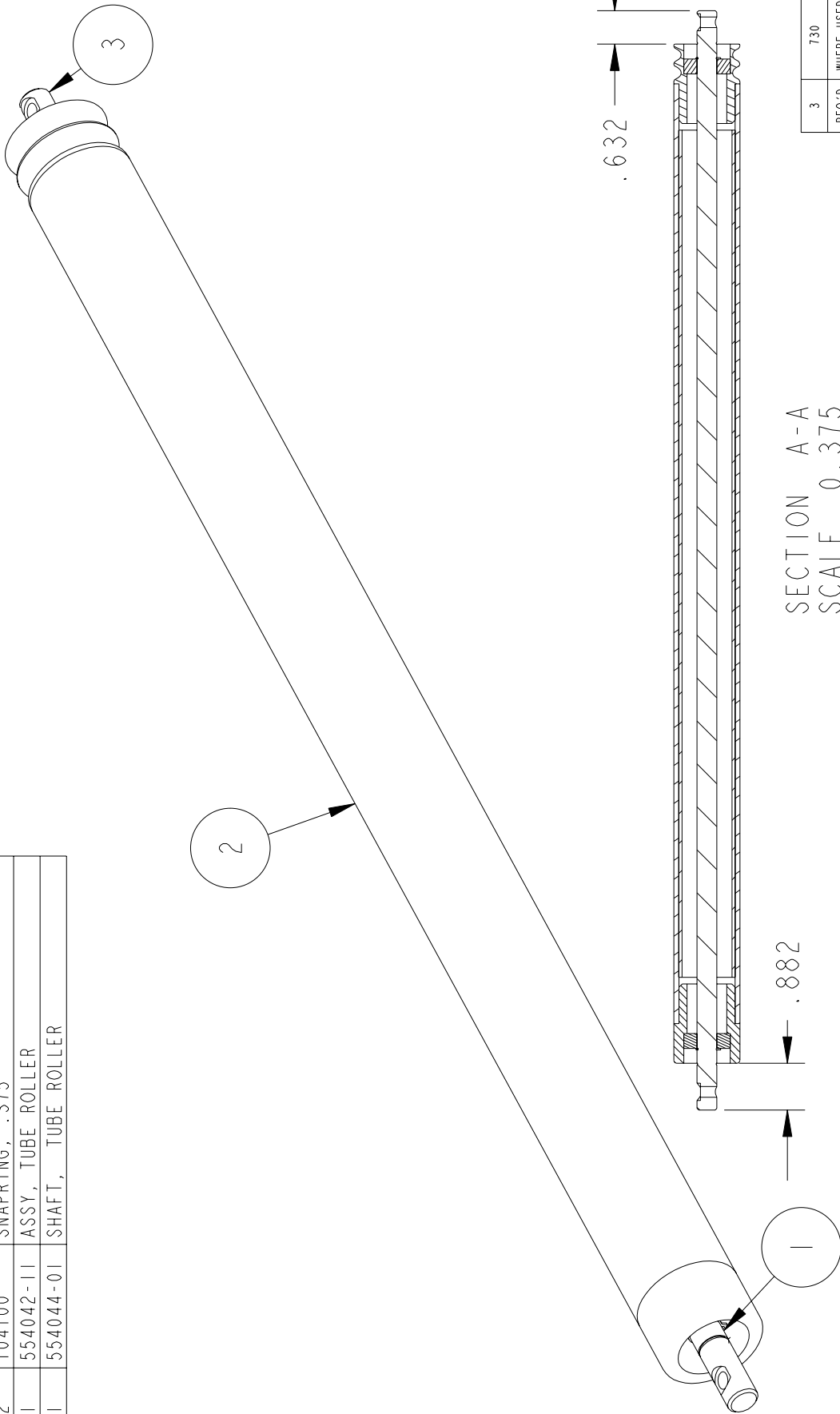
SECTION A-A
SCALE 0.375

2	730
REQ'D	WHERE USED

DRAWN BY: A KEY	SCALE 0.625	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED		MATERIAL: N/A	THIRD ANGLE PROJECTION 	PROPRIETARY AND CONFIDENTIAL NO PORTION OF THIS DRAWING MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS WITHOUT THE WRITTEN PERMISSION OF KIRK-RUDY, INC. WOODSTOCK, GA 30188 USA	 KIRK - RUDY, INC. WOODSTOCK, GEORGIA
	DATE 04-Jun-09	.XX	.XXX				
CHECKED BY:	MASTER	.01	.005	HEAT TREAT: N/A	MODEL: 730	TITLE: ASSY, TUBE ROLLER	
TRACED BY:		REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED		FINISH: N/A	SHEET NO.: 10F1	DRAWING # 554042-10	



ITEM	QTY	PART #	DESCRIPTION
1	2	104100	SNAPRING, .375
2	1	554042-11	ASSY, TUBE ROLLER
3	1	554044-01	SHAFT, TUBE ROLLER

REV NO	DATE	DESCRIPTION	ECN NO	BY
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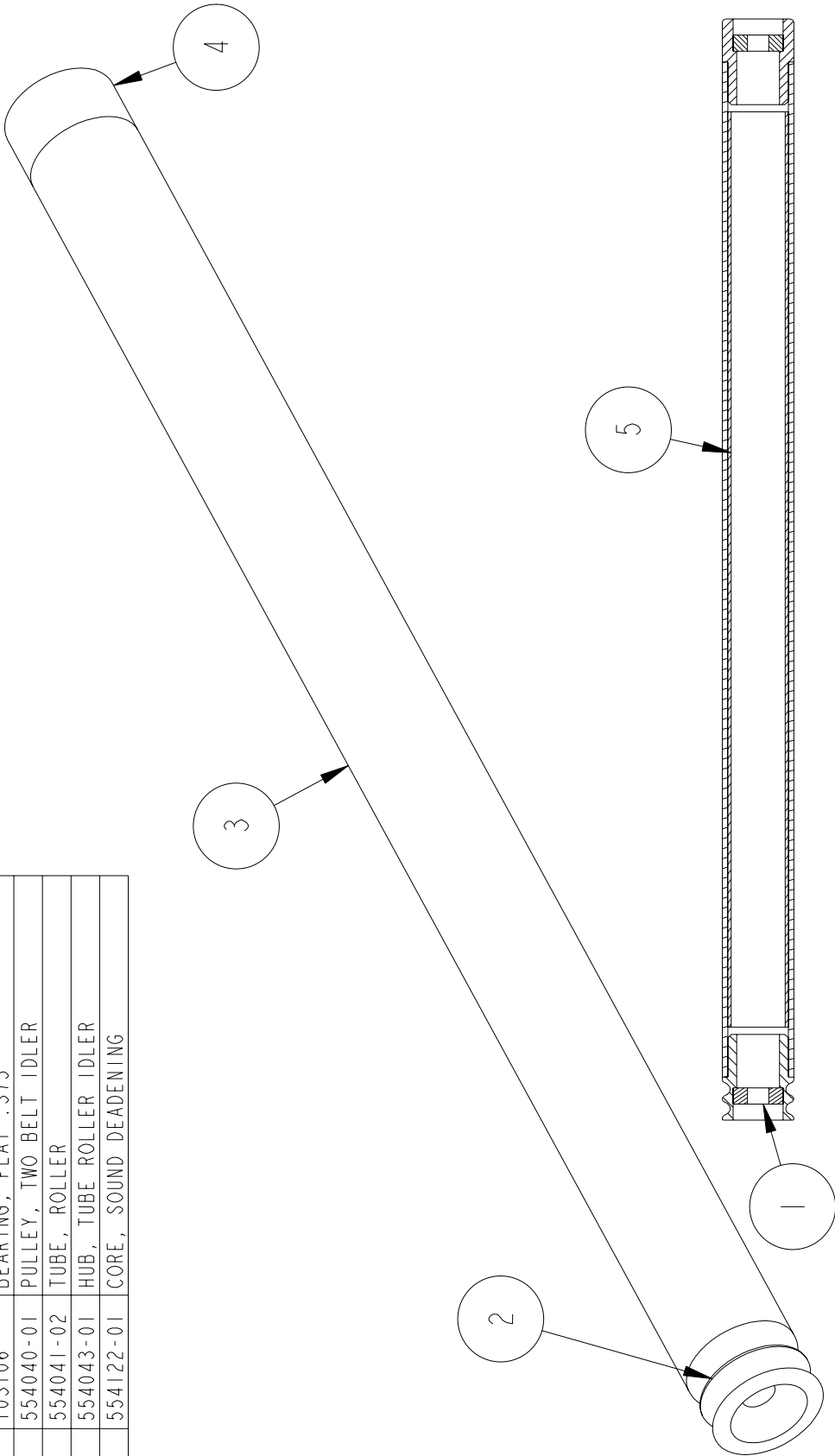
SECTION A-A
SCALE 0.375

3	730
REQ'D	WHERE USED

DRAWN BY: A KEY	SCALE 0.625	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. WOODSTOCK, GA 30188 USA	 KIRK - RUDY, INC. WOODSTOCK, GEORGIA
CHECKED BY:	DATE 04 - Jun - 09	.XX .01	.XXX .005	ANG. .5				
TRACED BY:	MASTER	REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED			HEAT TREAT: N/A	MODEL: 730	TITLE: ASSY, TUBE ROLLER	
		ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY			FINISH: N/A	SHEET NO.: 1 OF 1	DRAWING #	
								554042-06

ITEM	QTY	PART #	DESCRIPTION
1	2	103106	BEARING, FLAT .375
2	1	554040-01	PULLEY, TWO BELT IDLER
3	1	554041-02	TUBE, ROLLER
4	1	554043-01	HUB, TUBE ROLLER IDLER
5	1	554122-01	CORE, SOUND DEADENING

REV NO	DATE	DESCRIPTION	ECN NO	BY
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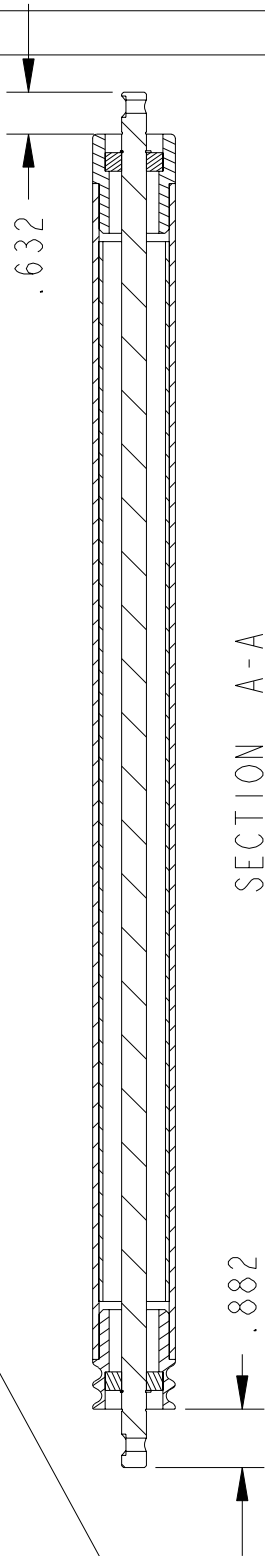
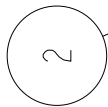
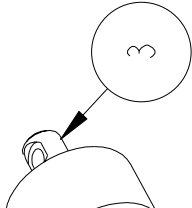
SECTION A-A
SCALE 0.375

5	730
REQ'D	WHERE USED

DRAWN BY: A KEY	SCALE 0.625	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED		MATERIAL: N/A	THIRD ANGLE PROJECTION 	PROPRIETARY AND CONFIDENTIAL NO PORTION OF THIS DRAWING MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS WITHOUT THE EXPRESS WRITTEN PERMISSION OF KIRK-RUDY, INC. WOODSTOCK, GA 30188 USA	 KIRK - RUDY, INC. WOODSTOCK, GEORGIA
	DATE 04-Jun-09	.XX	.XXX				
CHECKED BY:	DATE 04-Jun-09	.01	.005	HEAT TREAT: N/A	MODEL: 730	TITLE: ASSY, TUBE ROLLER	
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.: 1 OF 1	DRAWING # 554042-11	

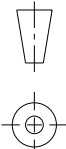

ITEM	QTY	PART #	DESCRIPTION
1	2	104100	SNAPRING, .375
2	1	554042-11	ASSY, TUBE ROLLER
3	1	554044-01	SHAFT, TUBE ROLLER

REV NO	DATE	DESCRIPTION	ECN NO	BY
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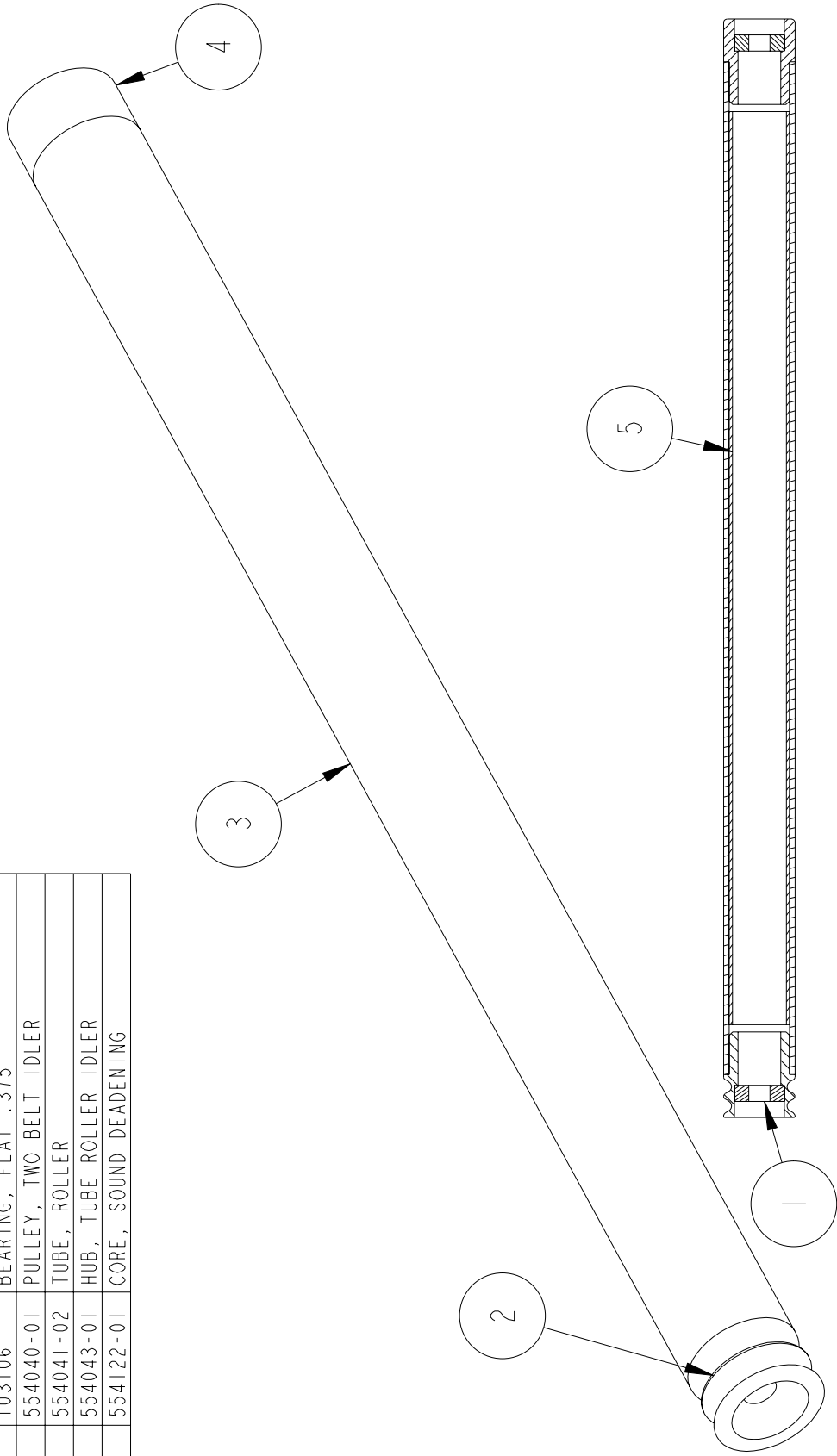
SECTION A-A
SCALE 0.375

2	730
REQ'D	WHERE USED

DRAWN BY: A KEY	SCALE 0.625	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED			MATERIAL: N/A	THIRD ANGLE PROJECTION 	 KIRK - RUDY, INC. WOODSTOCK, GEORGIA	
		.XX	.XXX	ANG.				
CHECKED BY:	DATE 15-Apr-09	REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED			HEAT TREAT: N/A	MODEL: 730		TITLE: ASSY, TUBE ROLLER
TRACED BY:	MASTER	ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY			FINISH: N/A	SHEET NO.: 1 OF 1		DRAWING # 554042-07



REV NO	DATE	DESCRIPTION	ECN NO	BY
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ITEM	QTY	PART #	DESCRIPTION
1	2	103106	BEARING, FLAT .375
2	1	554040-01	PULLEY, TWO BELT IDLER
3	1	554041-02	TUBE, ROLLER
4	1	554043-01	HUB, TUBE ROLLER IDLER
5	1	554122-01	CORE, SOUND DEADENING



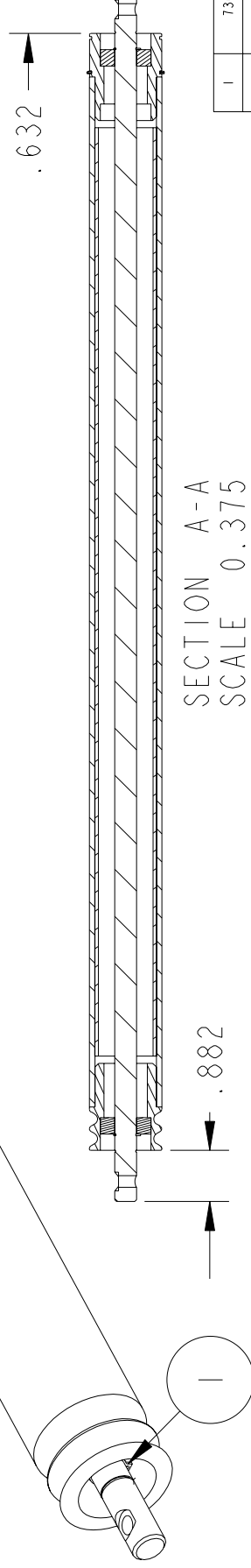
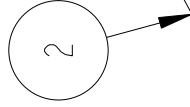
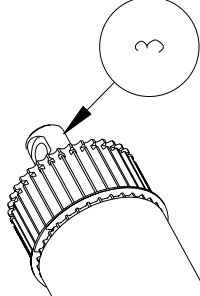
SECTION A-A
SCALE 0.375

5	730
REQ'D	WHERE USED

DRAWN BY: A KEY	SCALE 0.625	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. WOODSTOCK, GA 30188 USA	 KIRK - RUDY, INC. WOODSTOCK, GEORGIA
CHECKED BY:	DATE 04 - Jun - 09	.XX	.XXX	ANG. .5				
		REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED			HEAT TREAT: N/A	MODEL: 730	TITLE: ASSY, TUBE ROLLER	
TRACED BY:	MASTER	ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY			FINISH: N/A	SHEET NO.: 10F1	DRAWING #	554042-11



ITEM	QTY	PART #	DESCRIPTION
1	2	104100	SNAPRING, .375
2	1	554042-10	ASSY, TUBE ROLLER
3	1	554044-01	SHAFT, TUBE ROLLER

REV NO	DATE	DESCRIPTION	ECN NO	BY
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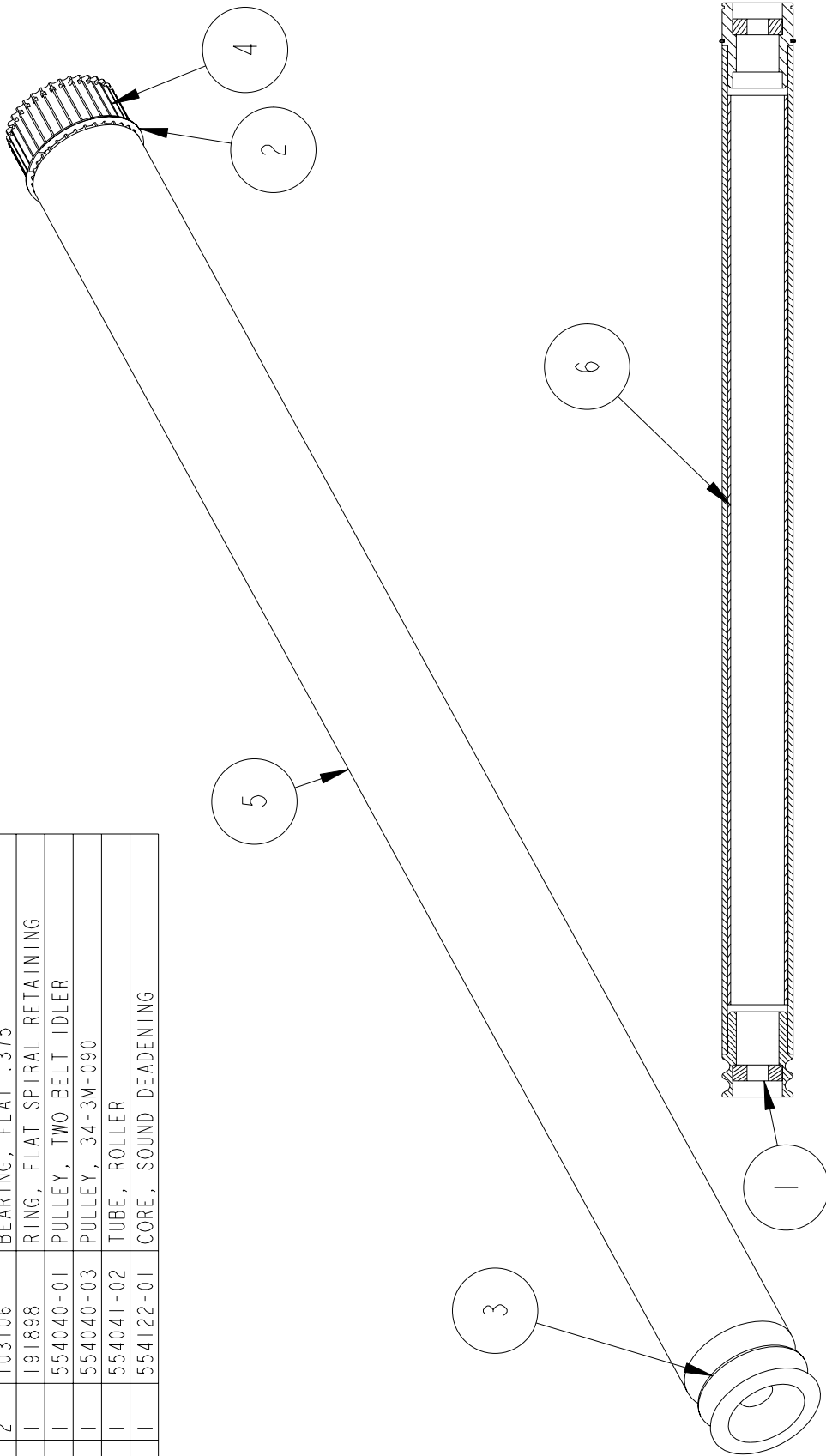
SECTION A-A
SCALE 0.375

1	730
REQ'D	WHERE USED

DRAWN BY: A KEY	SCALE 0.625	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. WOODSTOCK, GA 30188 USA	 KIRK - RUDY, INC. WOODSTOCK, GEORGIA
CHECKED BY:	DATE 04 - Jun - 09	-XX .XXX ANG. .01 .005 .5					
TRACED BY:	MASTER	REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED		HEAT TREAT: N/A	MODEL: 730	TITLE: ASSY, TUBE ROLLER	
		ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY		FINISH: N/A	SHEET NO: 10FI	DRAWING #	554042-08

ITEM	QTY	PART #	DESCRIPTION
1	2	103106	BEARING, FLAT .375
2	1	191898	RING, FLAT SPIRAL RETAINING
3	1	554040-01	PULLEY, TWO BELT IDLER
4	1	554040-03	PULLEY, 34-3M-090
5	1	554041-02	TUBE, ROLLER
6	1	554122-01	CORE, SOUND DEADENING

REV NO	DATE	DESCRIPTION	ECN NO	BY
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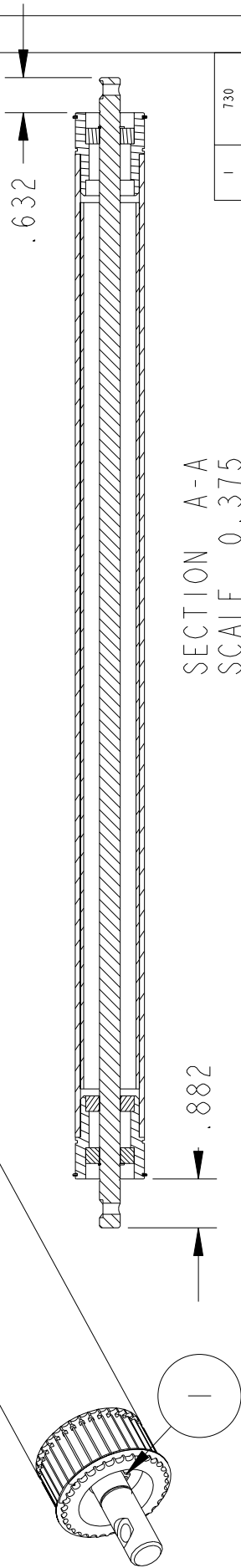
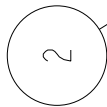
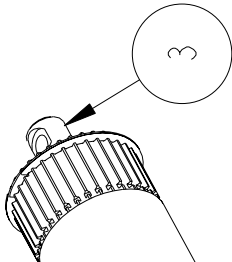
SECTION A-A
SCALE 0.375

2	730
REQ'D	WHERE USED

DRAWN BY: A KEY	SCALE 0.625	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED		MATERIAL: N/A	THIRD ANGLE PROJECTION 	PROPRIETARY AND CONFIDENTIAL NO PORTION OF THIS DRAWING MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS WITHOUT THE EXPRESS WRITTEN PERMISSION OF KIRK-RUDY, INC. WOODSTOCK, GA 30188 USA	 KIRK - RUDY, INC. WOODSTOCK, GEORGIA
	DATE 04-Jun-09	.XX	.XXX				
CHECKED BY:	MASTER	.01	.005	HEAT TREAT: N/A	MODEL: 730	TITLE: ASSY, TUBE ROLLER	
TRACED BY:		REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY		FINISH: N/A	SHEET NO.: 10F1	DRAWING # 554042-10	

ITEM	QTY	PART #	DESCRIPTION
1	2	104100	SNAPRING, .375
2	1	554042-09	ASSY, TUBE ROLLER
3	1	554044-01	SHAFT, TUBE ROLLER

REV NO	DATE	DESCRIPTION	ECN NO	BY
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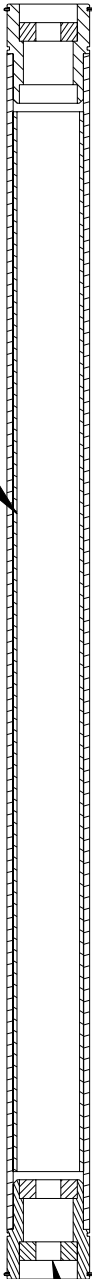
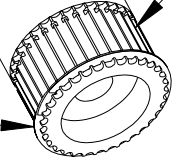
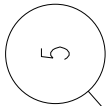
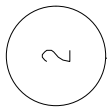
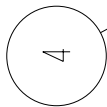
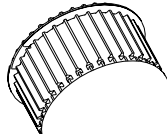
SECTION A-A
SCALE 0.375

1	730
REQ'D	WHERE USED

DRAWN BY: A KEY	SCALE 0.625	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED XX .01 .005 .5 XXX ANG. .5	MATERIAL: N/A	THIRD ANGLE PROJECTION 	PROPRIETARY AND CONFIDENTIAL NO PORTION OF THIS DRAWING MAY BE REPRODUCED OR COPIED IN ANY FORM WITHOUT THE EXPRESS WRITTEN PERMISSION OF KIRK-RUDY, INC. WOODSTOCK, GA 30188 USA	 KIRK - RUDY, INC. WOODSTOCK, GEORGIA	REQ'D	WHERE USED
CHECKED BY:	DATE 15-Apr-09	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: 730	TITLE: ASSY, TUBE ROLLER			
TRACED BY:	MASTER		FINISH: N/A	SHEET NO.: 20F2	DRAWING #	554042-13		

ITEM	QTY	PART #	DESCRIPTION
1	3	103106	BEARING, FLAT .375
2	2	191898	RING, FLAT SPIRAL RETAINING
3	2	554040-03	PULLEY, 34-3M-090
4	1	554041-02	TUBE, ROLLER
5	1	554122-01	CORE, SOUND DEADENING

REV NO	DATE	DESCRIPTION	ECN NO	BY
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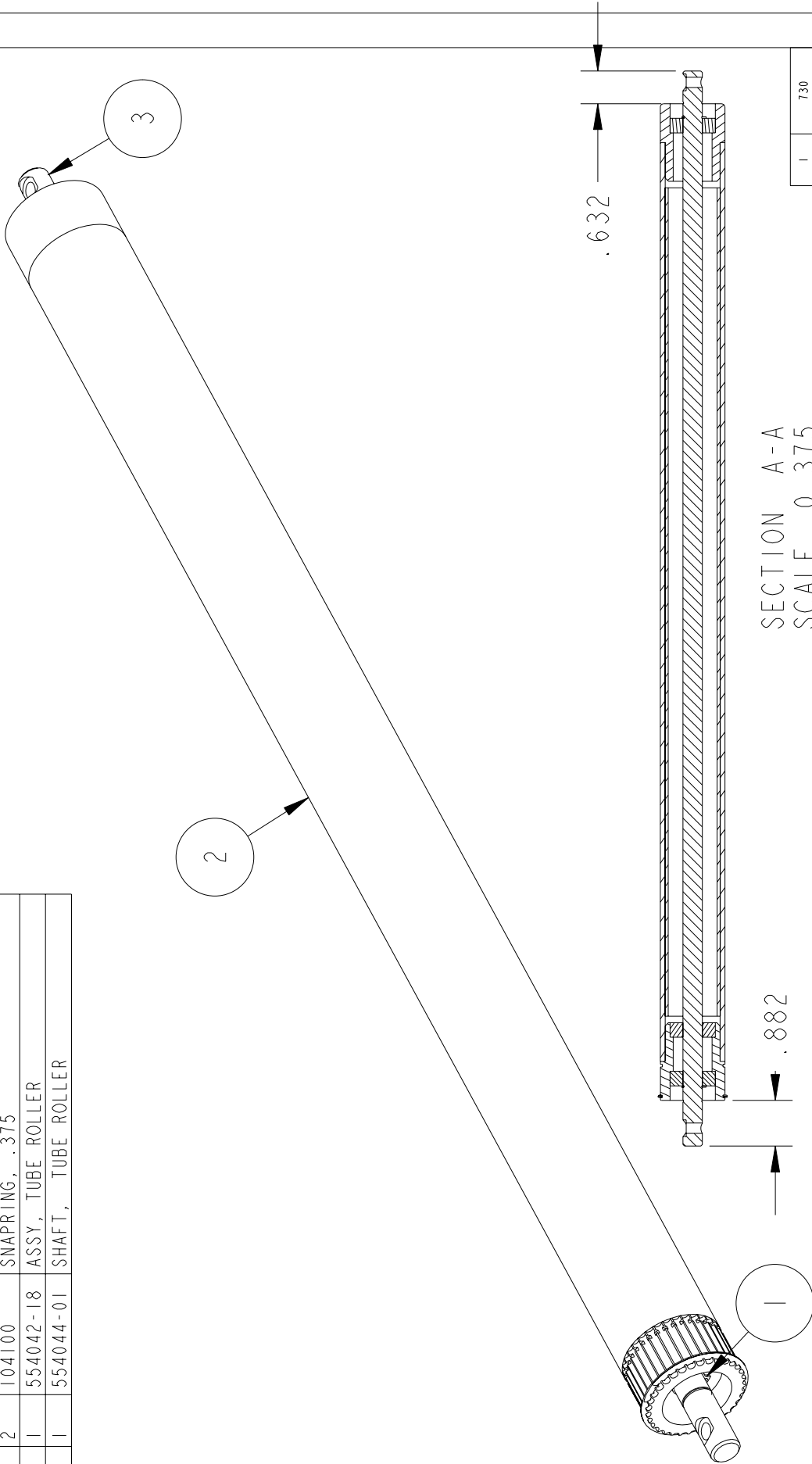
SECTION A-A
SCALE 0.375

REV NO	WHERE USED
1	730

DRAWN BY: A KEY	SCALE 0.625	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED		MATERIAL: N/A	THIRD ANGLE PROJECTION 	PROPRIETARY AND CONFIDENTIAL NO PORTION OF THIS DRAWING MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS WITHOUT THE EXPRESS WRITTEN PERMISSION OF KIRK-RUDY, INC. WOODSTOCK, GA 30188 USA	 KIRK - RUDY, INC. WOODSTOCK, GEORGIA
	DATE 15-Apr-09	.XX	.XXX				
CHECKED BY:	MASTER	.01	.005	HEAT TREAT: N/A	MODEL: 730	TITLE: ASSY, TUBE ROLLER	
TRACED BY:		REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY		FINISH: N/A	SHEET NO.: 20F2	DRAWING # 554042-09	

ITEM	QTY	PART #	DESCRIPTION
1	2	104100	SNAPRING, .375
2	1	554042-18	ASSY, TUBE ROLLER
3	1	554044-01	SHAFT, TUBE ROLLER

REV NO	DATE	DESCRIPTION	ECN NO	BY
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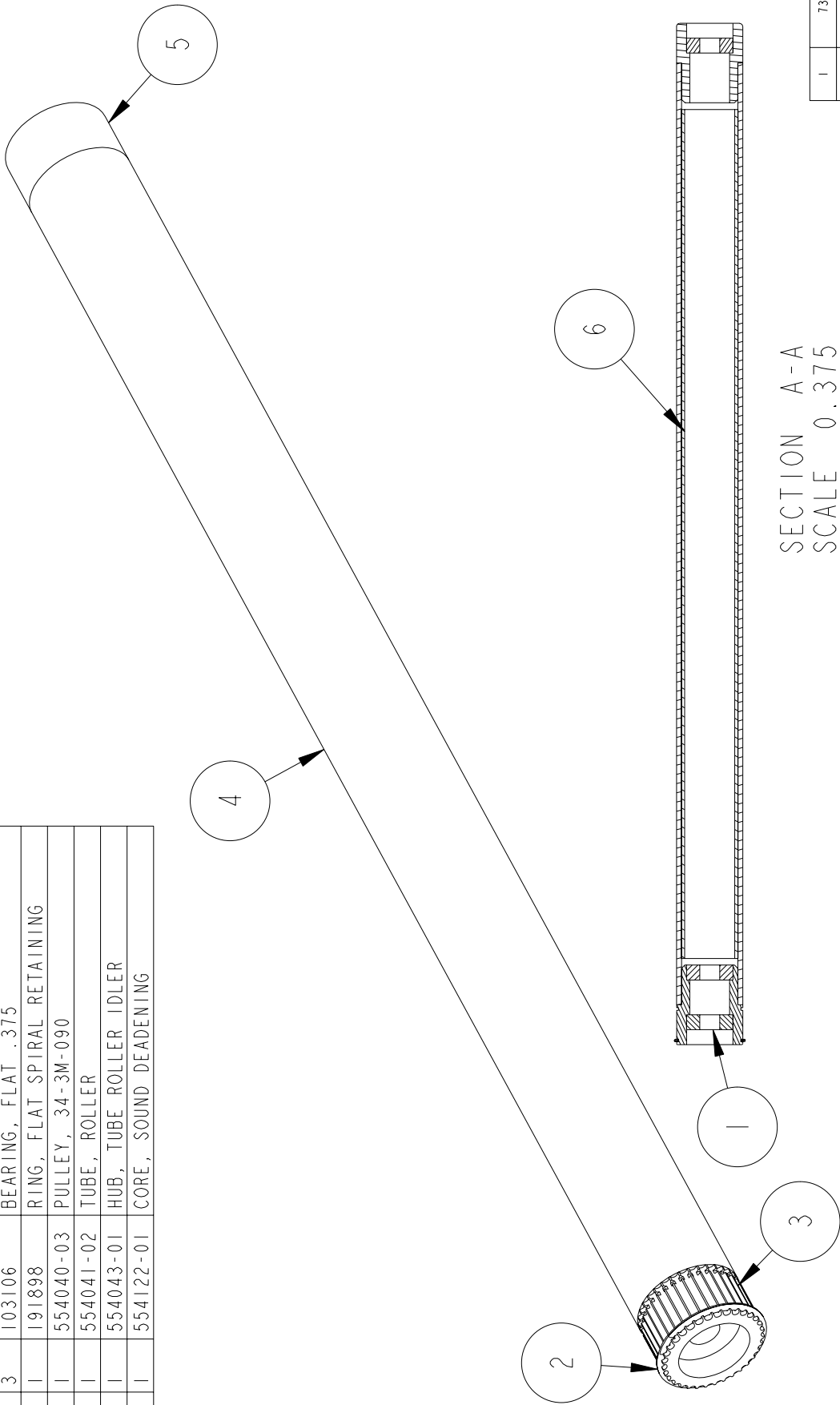
SCALE	0.625	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED	MATERIAL:	N/A	THIRD ANGLE PROJECTION	PROPRIETARY AND CONFIDENTIAL NO PORTION OF THIS DRAWING MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM WITHOUT THE WRITTEN EXPRESS WRITTEN PERMISSION OF KIRK-RUDY, INC. WOODSTOCK, GA 30188 USA
CHECKED BY:	DATE 15-Apr-09	.XX .01 .XXX .005 ANG. .5	HEAT TREAT:	N/A	MODEL: 730	TITLE: ASSY, TUBE ROLLER
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.: 20F2	DRAWING # 554042-17

I	730	WHERE USED
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KR KIRK - RUDY, INC.
WOODSTOCK, GEORGIA

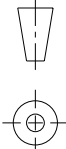

ITEM	QTY	PART #	DESCRIPTION
1	3	103106	BEARING, FLAT .375
2	1	191898	RING, FLAT SPIRAL RETAINING
3	1	554040-03	PULLEY, 34-3M-090
4	1	554041-02	TUBE, ROLLER
5	1	554043-01	HUB, TUBE ROLLER IDLER
6	1	554122-01	CORE, SOUND DEADENING

REV NO	DATE	DESCRIPTION	ECN NO	BY
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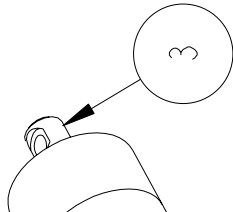
SECTION A-A
SCALE 0.375

I	730
REQ'D	WHERE USED

DRAWN BY: A KEY	SCALE 0.625	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. WOODSTOCK, GA 30188 USA	 KIRK - RUDY, INC. WOODSTOCK, GEORGIA
	DATE 15-Apr-09	.XX .01	.XXX .005				
CHECKED BY:	MASTER	REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED		HEAT TREAT: N/A	MODEL: 730	TITLE: ASSY, TUBE ROLLER	
TRACED BY:		ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY		FINISH: N/A	SHEET NO.: 20F2	DRAWING # 554042-18	

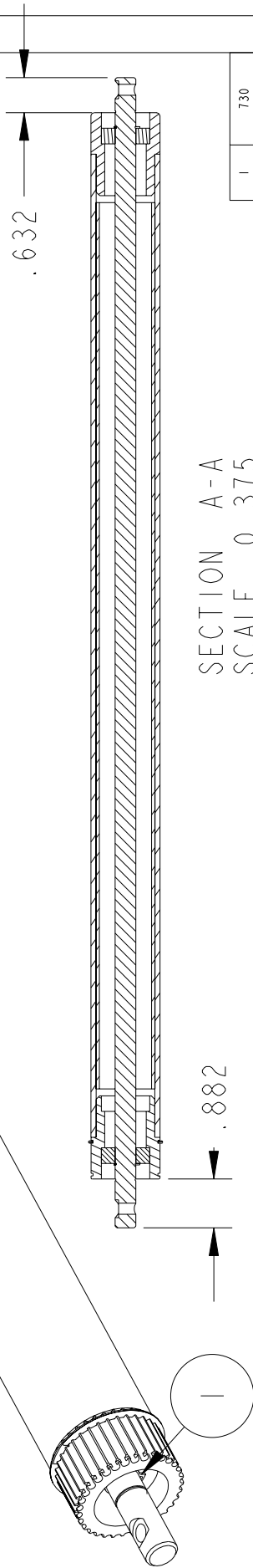
ITEM	QTY	PART #	DESCRIPTION
1	2	104100	SNAPRING, .375
2	1	554042-22	ASSY, TUBE ROLLER
3	1	554044-01	SHAFT, TUBE ROLLER

REV NO	DATE	DESCRIPTION	ECN NO	BY
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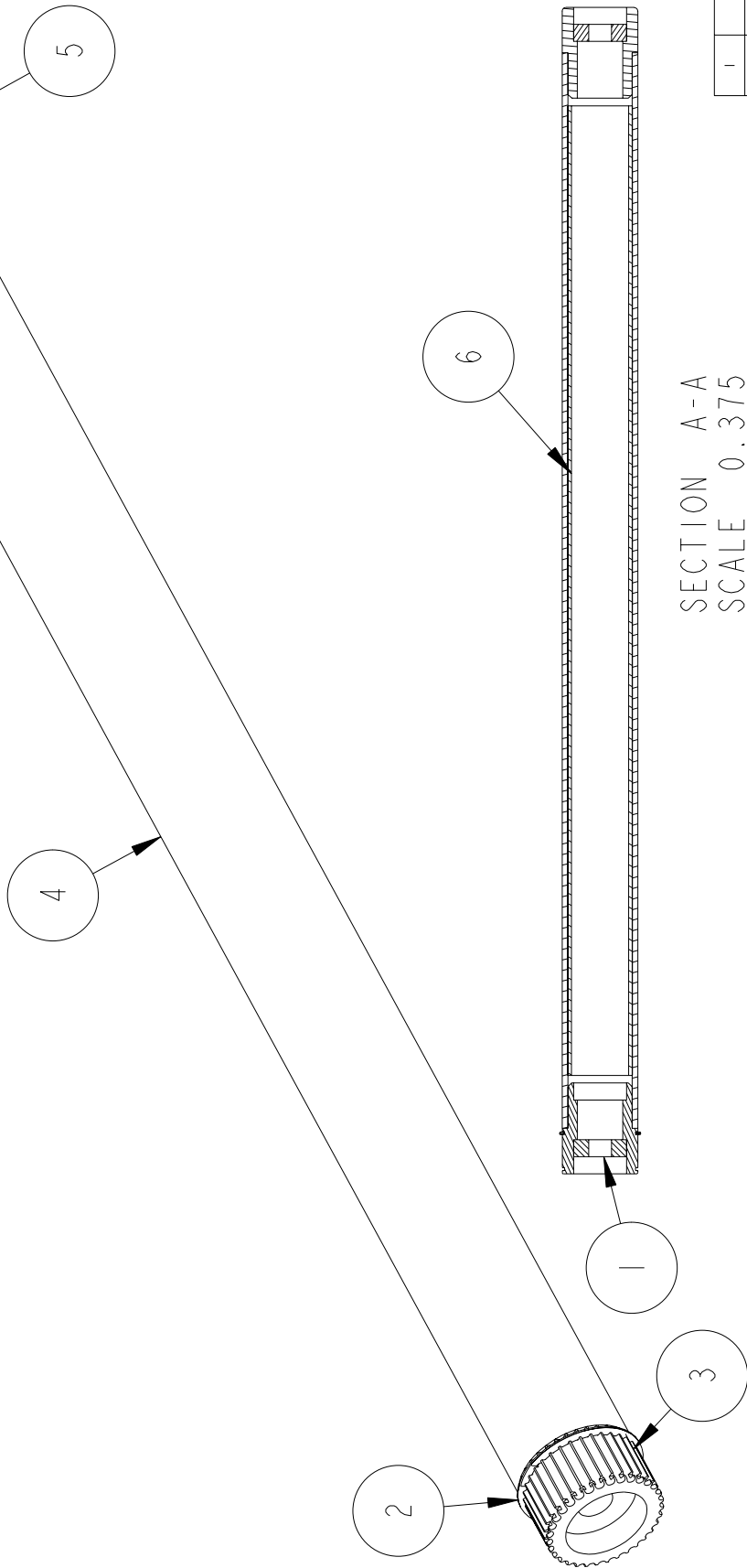


SECTION A-A
SCALE 0.375



1	730
REQ'D	WHERE USED

DRAWN BY: A KEY	SCALE 0.625	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED		MATERIAL: N/A	THIRD ANGLE PROJECTION 	PROPRIETARY AND CONFIDENTIAL NO PORTION OF THIS DRAWING MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM WITHOUT THE WRITTEN EXPRESS WRITTEN PERMISSION OF KIRK-RUDY, INC. WOODSTOCK, GA 30188 USA	 KIRK - RUDY, INC. WOODSTOCK, GEORGIA
CHECKED BY:	DATE 15-Apr-09	.XX .XXX ANG. .01 .005 .5					
TRACED BY:	MASTER	REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED		HEAT TREAT: N/A	MODEL: 730	TITLE: ASSY, TUBE ROLLER	DRAWING # 554042-19
		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	103106	BEARING, FLAT .375					
2	1	191898	RING, FLAT SPIRAL RETAINING					
3	1	554040-03	PULLEY, 34-3M-090					
4	1	554041-02	TUBE, ROLLER					
5	1	554043-01	HUB, TUBE ROLLER IDLER					
6	1	554122-01	CORE, SOUND DEADENING					



SECTION A-A
SCALE 0.375

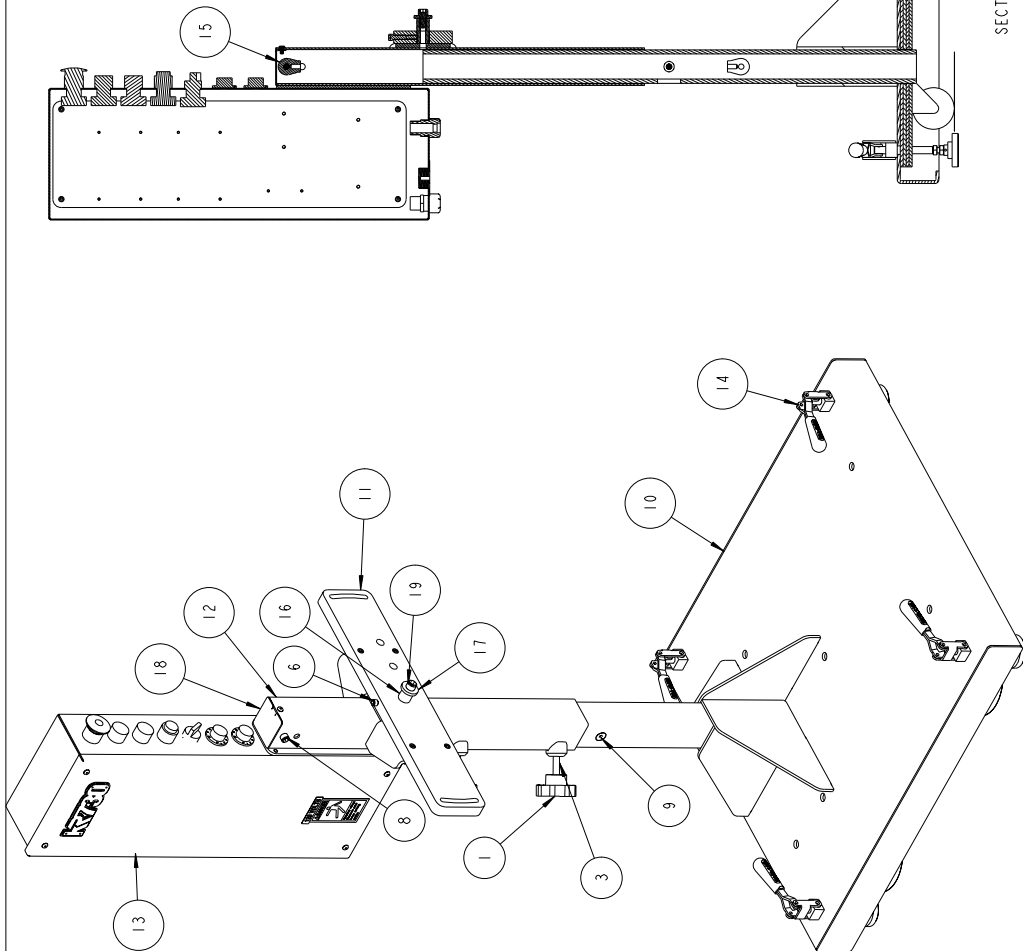
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		.XX	.XXX	ANG.								
	CHECKED BY:	DATE 15-Apr-09	REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED							HEAT TREAT: N/A	MODEL: 730	PROPRIETARY AND CONFIDENTIAL NO PORTION OF THIS DRAWING MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM WITHOUT THE WRITTEN EXPRESS WRITTEN PERMISSION OF KIRK-RUDY, INC. WOODSTOCK, GA 30188 USA
		TRACED BY:	MASTER	ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY						FINISH: N/A	SHEET NO.: 20F2	TITLE: ASSY, TUBE ROLLER
									DRAWING #	554042-22		

DRAWING 4

547338-05

REV	NO	DATE	DESCRIPTION	ECN	BY
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ITEM	QTY	PART #	DESCRIPTION
1	2	102112	KNOB, 2.38" HANDLE .375BORE
2	4	102204	COLLAR .313
3	2	105601	SHAFT, THREADED 3/8-16
4	2	106712	NUT, HEX 5/16-18
5	1	106813	SCREW, BUTTON HEAD #10-32X.375
6	1	107404	SCREW, SHCS 1/4-20X1.500
7	4	107422	SCREW, SHCS 5/16-18X1.000
8	1	107475	SCREW, SHCS 5/16-18X2.50
9	1	191897	SCREW, FLATHEAD 5/16-18X2.00
10	1	547344-03	WLDMNT, TURN OVER BASE
11	1	547349-03	PLATE, TURNOVER ARM MOUNT
12	1	547423-03	WLDMNT, VERTICAL TUBE
13	1	548886-04	ASSY, CONTROL BOX
14	4	554036-02	ASSY, FLOOR JACK
15	1	554062-01	ASSY, GAS SHOCK
16	1	554069-01	STUD, PIVOT
17	1	554084-01	WASHER, HOLD BACK
18	1	554151-01	COVER, TUBE TOP
19	1	CSD0346	SCREW, SHCS 3/8-16X.750



SECTION C-C

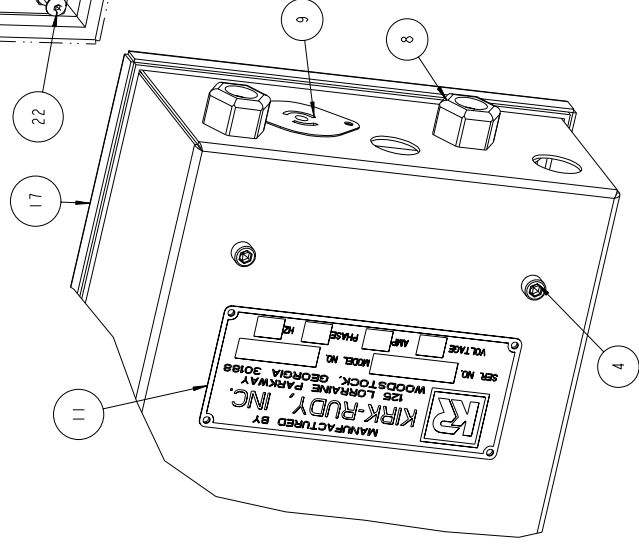
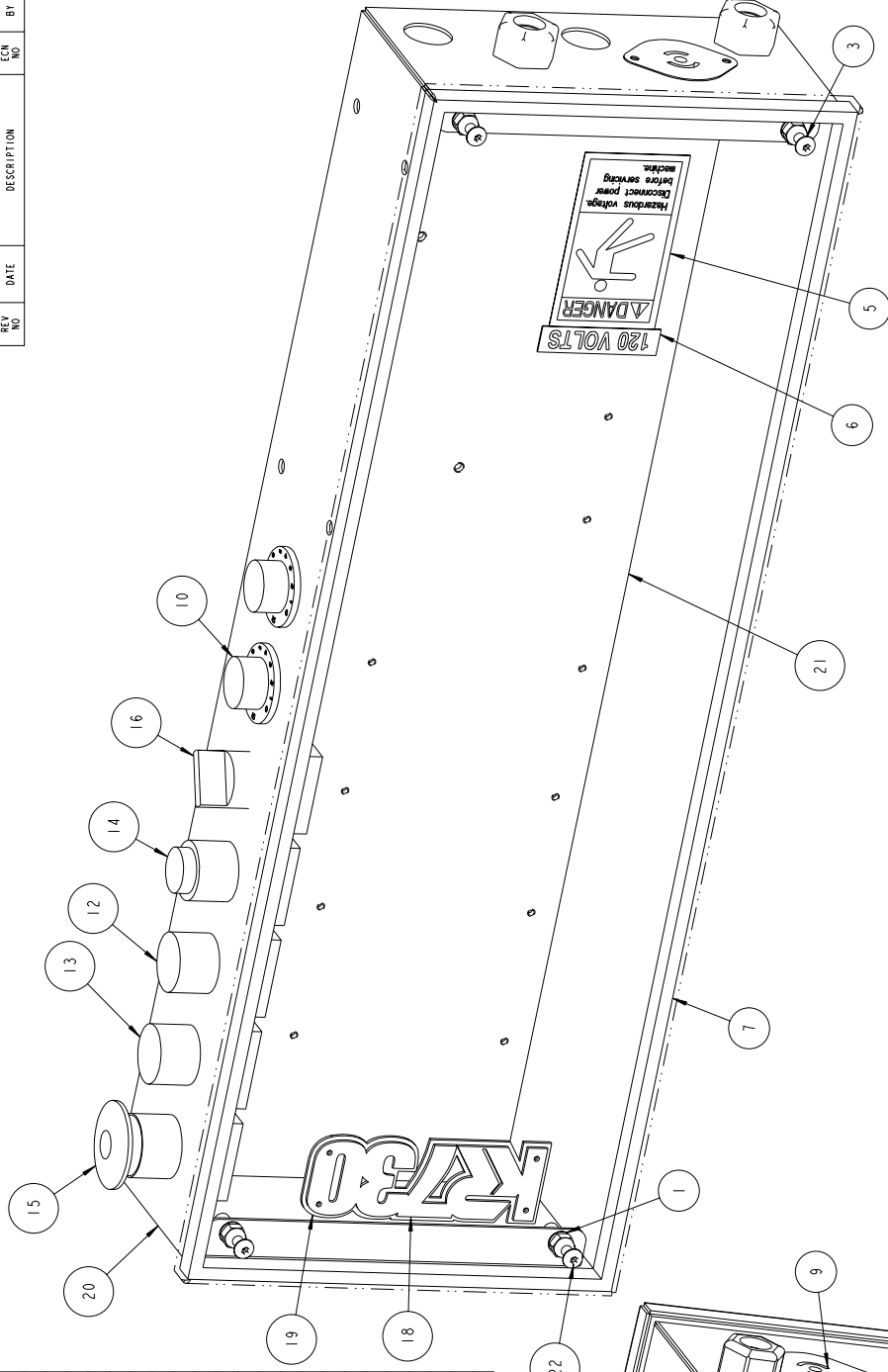
1	SA380
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DRAWN BY: A KEY	SCALE 0.145	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED REMOVE ALL BURETS AND SHARP EDGES UNLESS OTHERWISE NOTED	MATERIAL: NOTED	THIRD ANGLE PROJECTION NOTED	PROPRIETARY AND CONFIDENTIAL MAY BE QUOTED OR REPRODUCED WITHOUT WRITTEN PERMISSION KIRK RUDY, INC. WOODSTOCK, GA 30188 USA	KIRK - RUDY, INC. WOODSTOCK, GEORGIA	REQ'D WHERE USED
CHECKED BY:	DATE 11-May-09	WEAT TREAT: NONE	ALL DIMENSIONS ARE FINI SHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY	MODEL SA380	TITLE ASSY, BASE		
TRACED BY:	MASTER			SHEET NO. 10F1			
							547338-05

DRAWING 4

REV NO	DATE	DESCRIPTION	ECN NO	BY
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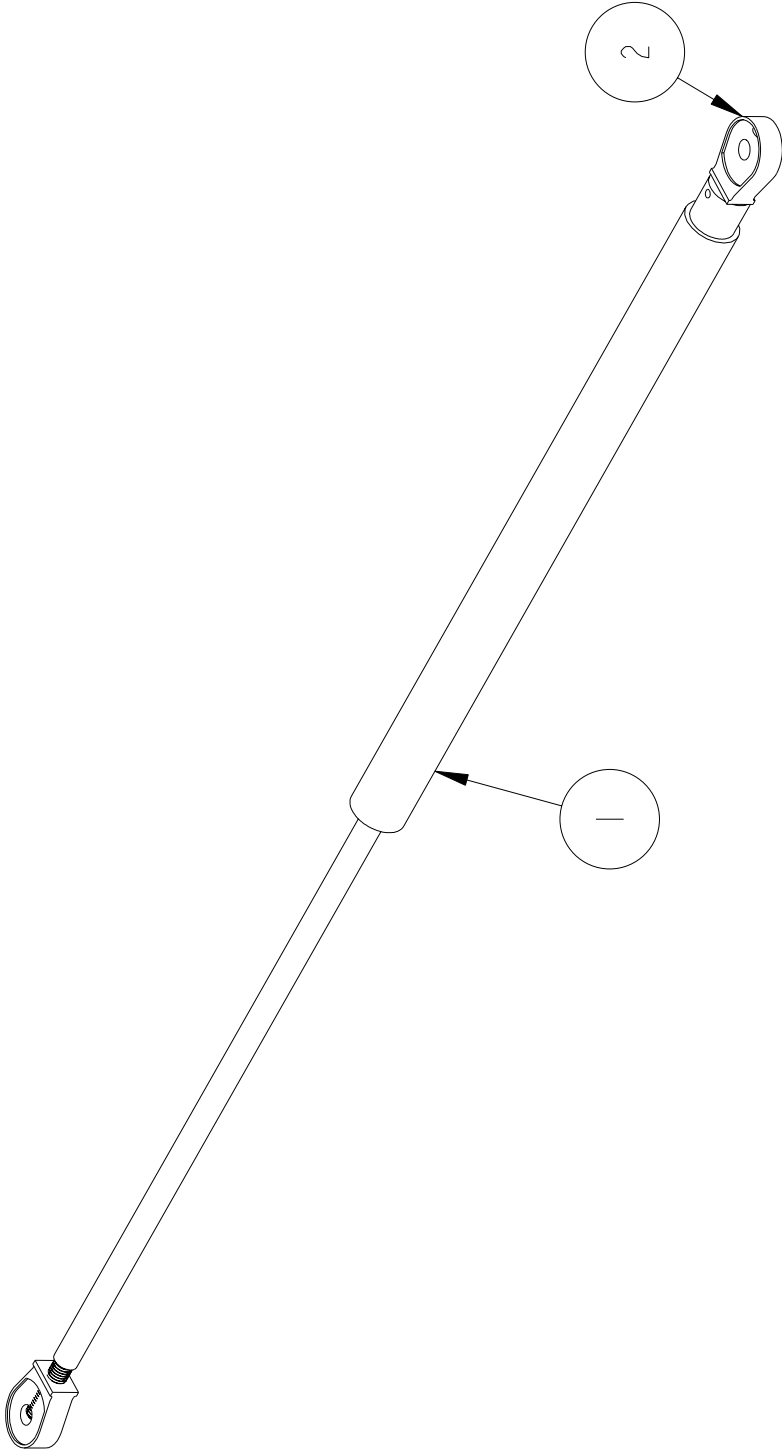
ITEM QTY	PART #	DESCRIPTION
1	4	RIVET NUT, 10-32 THREAD
2	4	NUT, HEX 1/4-20
3	4	NUT, HEX #10-32 SELF LOCKING
4	4	SCREW, SHCS 1/4-20X.750
5	1	190788 LABEL, VOLTAGE WARNING LARGE
6	1	190794 LABEL, 120 VOLTS
7	1	190862 EDGING, RUBBER 16 GA
8	2	200323 STRAIN RELIEF
9	1	201528 RECEPTACLE, FLANGED TWIST 3 PIN
10	2	209016 KNOB, POT
11	1	190619-1 PLATE, NAME
12	1	201124-2 BUTTON, START
13	1	201124-4 BUTTON, POWER ON
14	1	201125-3 BUTTON, STOP
15	1	201125-5 BUTTON, POWER OFF
16	1	201145-1 SELECTOR, 2 POSITIONS
17	1	530711-04 PANEL, CONTROL
18	1	547184-04 LOGO, KR730
19	1	547185-05 PLATE, KR730 LOGO BACKING
20	1	551696-02 WLDMNT, CONTROL BOX
21	1	554067-01 PANEL, CONTROL WHITE
22	4	CSFF62 SCREW, BUTTON HEAD #10-32X1.000



DRAWN BY: A KEY	SCALE 0.500	DATE 11-May-09	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED IN INCHES .125 .015 .005 .003	MATERIAL: N/A	THIRD ANGLE PROJECTION N/A	PROPRIETARY AND CONFIDENTIAL THIS DRAWING IS THE PROPERTY OF KIRK-RUDY, INC. IT IS TO BE USED FOR THE PROJECT AND NOT BE LOANED, REPRODUCED OR COPIED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF KIRK-RUDY, INC. WOODSTOCK, GA 30188 USA	KIRK - RUDY, INC. WOODSTOCK, GEORGIA	SHEET NO. 1 OF 2	TITLE ASSY, CONTROL BOX	DRAWING 1 548886-04
CHECKED BY:	MASTER		REMOVE ALL DIMENSIONS AND TOLERANCES UNLESS OTHERWISE NOTED	HEAT TREAT: N/A	MODEL SA380					

ITEM	QTY	PART #	DESCRIPTION
1	1	191899	SPRING, GAS 270 LB 11.812 S
2	2	191900	END, GAS SPRING BLADE

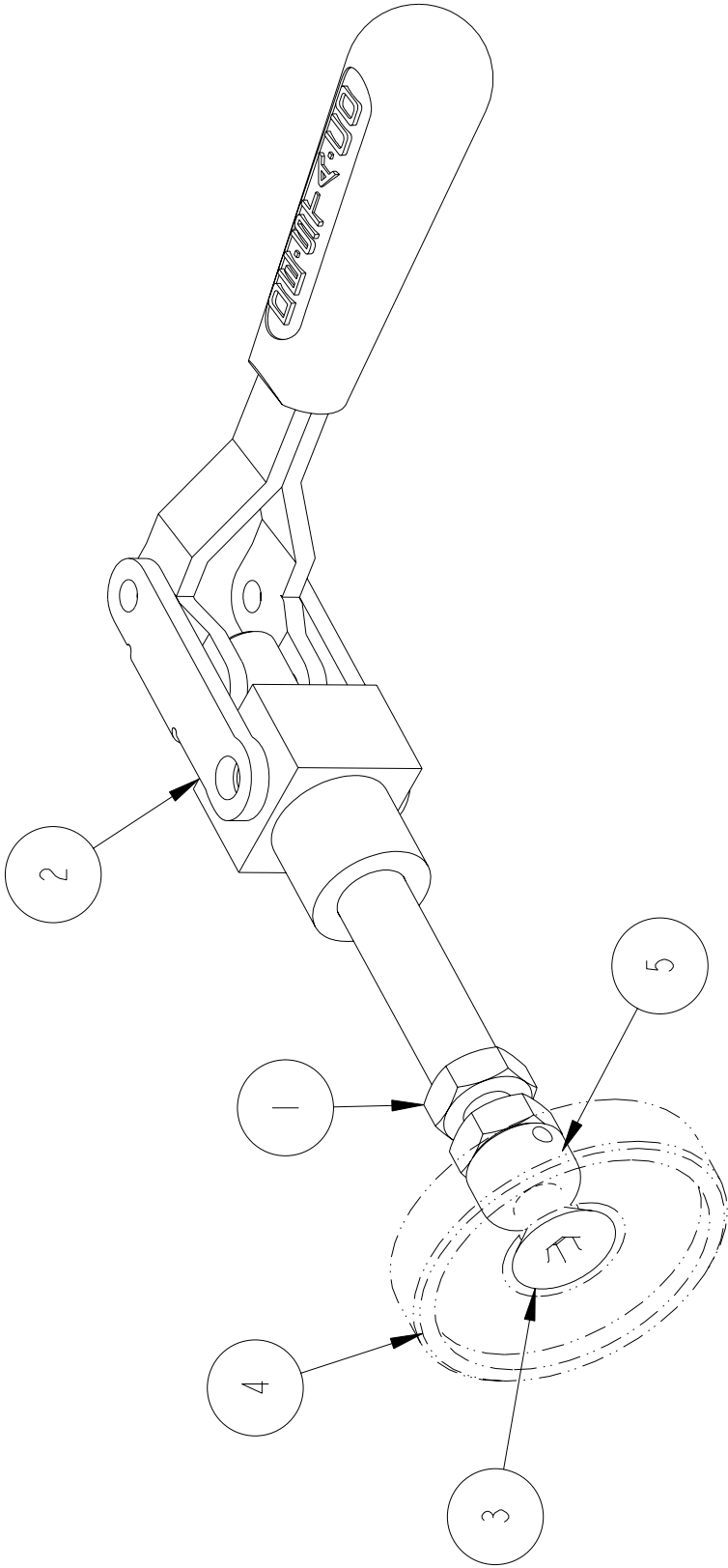
REV NO	DATE	DESCRIPTION	ECN NO	BY
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



DRAWN BY: A KEY	SCALE 0.375	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED XX .01 .XXX .005 ANG. .5	MATERIAL: N/A	THIRD ANGLE PROJECTION 	PROPRIETARY AND CONFIDENTIAL NO PORTION OF THIS DRAWING MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM WITHOUT THE WRITTEN EXPRESS WRITTEN PERMISSION OF KIRK-RUDY, INC. WOODSTOCK, GA 30188 USA	 KIRK - RUDY, INC. WOODSTOCK, GEORGIA	I SA380	WHERE USED
	CHECKED BY:						DATE 09-Apr-09	REO'D
TRACED BY:	MASTER	HEAT TREAT: N/A		MODEL: SA380	TITLE: ASSY, GAS SHOCK			
FINISH: N/A							DRAWING # 554062-01	

ITEM	QTY	PART #	DESCRIPTION
1	2	106712	NUT, HEX 5/16-18
2	1	191234	CLAMP, DESTACO QUICK RELEASE
3	1	107529-1	SCREW, FLATHEAD 5/16-18X1.750
4	1	554123-01	PAD, LIFT
5	1	554124-01	SHAFT, LIFT PAD

REV NO	DATE	DESCRIPTION	ECN NO	BY
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DRAWN BY: A KEY	SCALE 1.000	DIMENSIONAL TOLERANCES UNLESS OTHERWISE NOTED		MATERIAL: N/A	THIRD ANGLE PROJECTION 	PROPRIETARY AND CONFIDENTIAL NO PORTION OF THIS DRAWING MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM WITHOUT THE WRITTEN EXPRESS PERMISSION OF KIRK-RUDY, INC. WOODSTOCK, GA 30188 USA	 KIRK - RUDY, INC. WOODSTOCK, GEORGIA	I SA380	REQ'D WHERE USED	
		.XX .01	.XXX .005							ANG. .5
	CHECKED BY:	DATE 11-May-09	REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE NOTED							
TRACED BY:	MASTER	ALL DIMENSIONS ARE FINISHED DIMENSIONS DO NOT SCALE - WORK TO DIMENSIONS ONLY		FINISH: N/A	MODEL: 730	TITLE: ASSY, FLOOR JACK				
					SHEET NO.: 1 OF 1	DRAWING #	554036-02			

9 ELECTRICAL

9.1 SCHEMATIC

See following pages for the electrical diagram.

9.2 ELECTRICAL PARTS LIST

NO.	PART NO.	DESCRIPTION	QTY
1	201514	PLUG, MALE 3 PIN TWIST	1
2	201515	PLUG, FEMALE 3 PIN TWIST	1
3	201516	PLUG, POWER	1
4	201528	PLUG, 3 PIN TWIST FEMALE	1
5	201540	RECEPTICAL, STOP IN	1
6	201542	CABLE, TURCK STOP OUT	1
7	202277	SOCKET	3
8	202291	RELAY, 24VAC	3
9	202426	BOARD, KBMM-225D	1
10	203029	TRANSFORMER	1
11	204318	POTS 5K	2
12	208009	FUSE, 2 AGC	1
13	208017	FUSE, 1/2 MDL	1
14	208021	FUSE, 8 MDL	1
15	208023	FUSE, 12 AGC	2
16	208044	FUSE, 4 AGC	1
17	209238	CAP, END	2
18	209245	HOLDER, FUSE	1
19	209247	HOLDER, FUSE	3
20	200165-9	MOTOR, .3 HP DC BRUSH 2500RPM	1
21	200170-4	MOTOR, DC 1/15HP 3500RPM 90VDC LEESON M1110015.00	1
22	200323-1	RELIEF, STRAIN	3
23	201124-2	BUTTON, START	1
24	201124-4A	SWITCH, POWER ON	1
25	201125-3	SWITCH, STOP	1
26	201125-9	SWITCH, POWER OFF	1
27	201130-1	CONTACT, NORMALLY OPEN	3
28	201131-1	CONTACT, NORMALLY CLOSED	2
29	201145-1	SWITCH, SELECTOR	1
30	202426-4	BOARD, KBMG-212D	1
31	209016-2	DISC, POT KNOB LOCKING	2
32	209016-3	POT KNOB	2
33	209233-2	BLOCK, TERMINAL	6
34	209234-2	BLOCK, TERMINAL	2
35	209237-2	BLOCK, GROUND	1
36	209547-3	CABLE, 10' 16-3	1

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[illegible]

[illegible]

11 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

For Service or Replacement Parts Please Call:
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