

HEAVY DUTY 38/60 LAMINATOR

ASSEMBLY PROCEDURES

JULY 2007 UPDATED March 5, 2014

HD 38/60 ASSEMBLY PROCEDURES TABLE OF CONTENT

- 1) COMPRESSOR PAN ASSEMBLY**
- 2) SIDE PANEL ASSEMBLY**
- 3) GEARMOTOR PREPARATION**
- 4) AIR CYLINDER ASSEMBLY**
- 5) PRESSURE ATUATOR ASSEMBLY**
- 6) CHAIN CUTTING**
- 7) SLITTER ASSEMBLY**
- 8) STAND ASSEMBLY**
- 9) TOP MOTOR COVER ASSEMBLY**
- 10) SAFETY SHIELD ASSEMBLY**
- 11) HEAT SHOE ASSEMBLY**
- 12) CHASSIS ASSEMBLY**
- 13) HOUSING AND AIR TUBING ASSEMBLY**
- 14) WIRING**
- 15) FEED TABLE ASSEMBLY**
- 16) SUPPLY ROLL ASSEMBLY**
- 17) UPPER FAN ASSEMBLY**
- 18) TESTING, LABELS & COMPLETION**

Part # PRV003.5

Title: MAC VALVE HD38-60 ASSEMBLY

(2 PER MACHINE)

Date: 03/11/2014

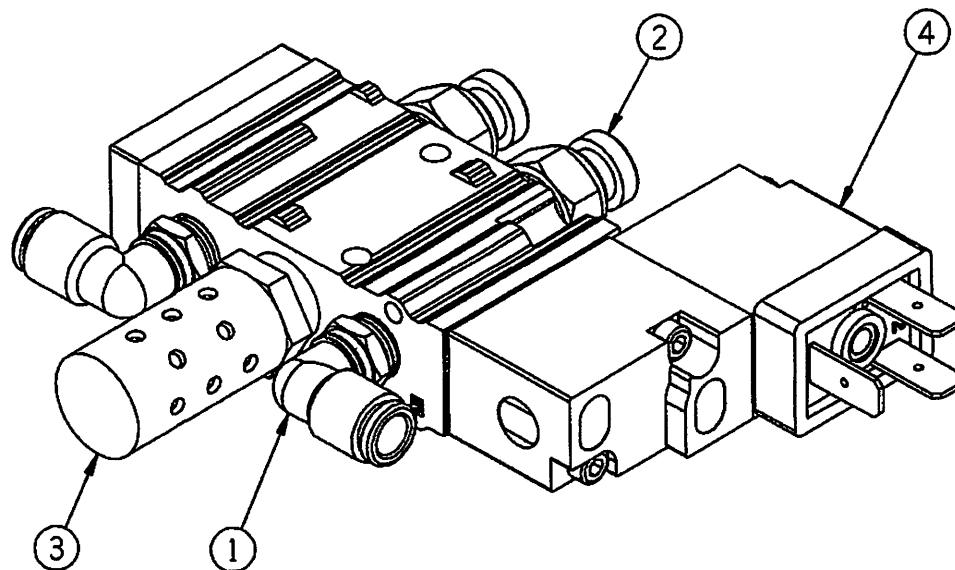
Rev. Level:

Sheet 1 of 1

Rev.	Description	Date	App. By

NOTE:

1. USE TEFLON TAPE ON THREADS OF ALL FITTINGS AND MUFFLER THEN TIGHTEN USING WRENCH.



Item	Part No.	Qty.	Description
1	PRA013	2	Elbow Fitting 169PLNS 4-2
2	PRA017	2	Male Connector .250NP - .250 Tubing 04 x 04
3	PRA029	1	Compact High-Flow Muffler, .250 NPT, Male
4	PRV003	1	MAC VALVE HD38-60 (431A-BOA-DM-DJBJ-1JM)

Tolerances Unless Otherwise Specified

Basic Dimension	UP TO 5.000	5.000 TO 25.000	25.000 TO 100.000	100.000 TO 250.000	Surface Finish
2 Place Din.	±.005	±.010	±.031	±.031	√ ±0° ±30'
3 Place Din.	±.002	±.005	±.010	±.010	√

Finish Specs:

LEDCO INC.

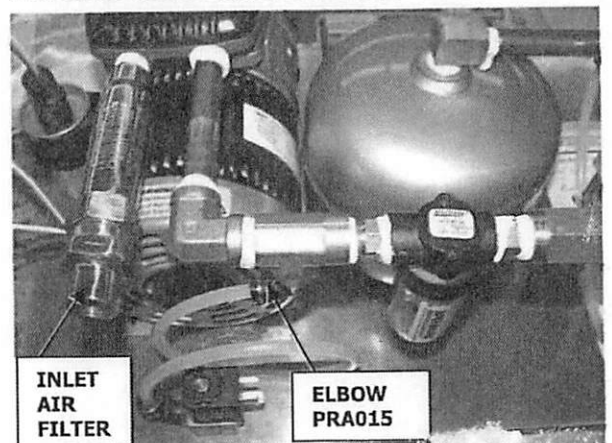
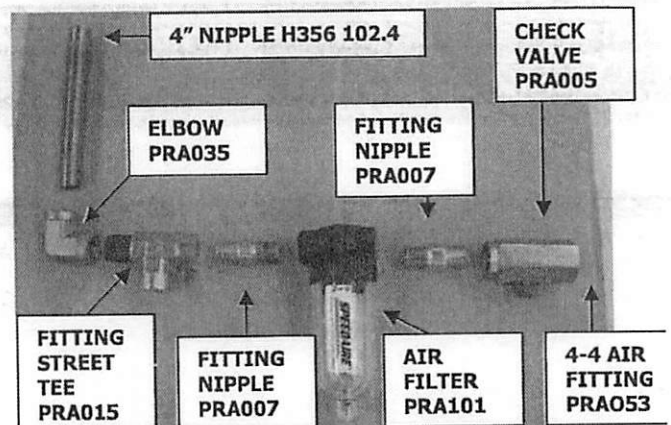
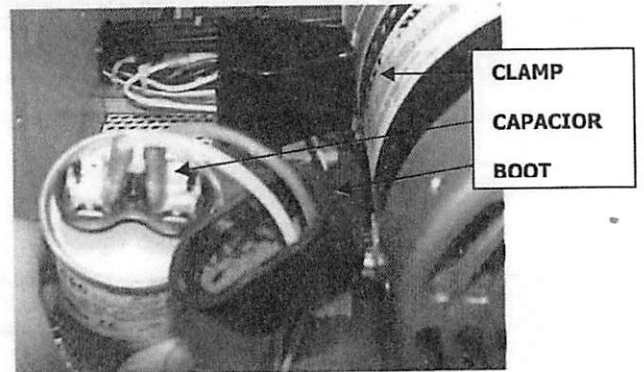
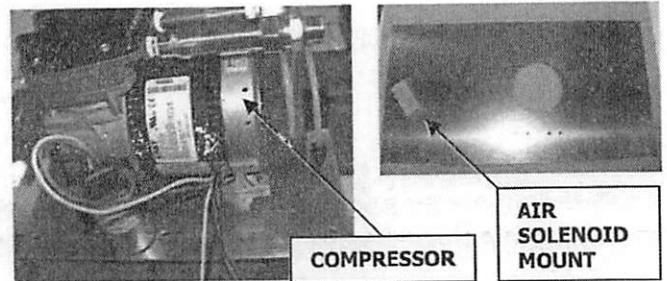
4265 N. Main St., Henlock N.Y. 14466
Ph # 585-367-2392 Fax # 585-367-2978

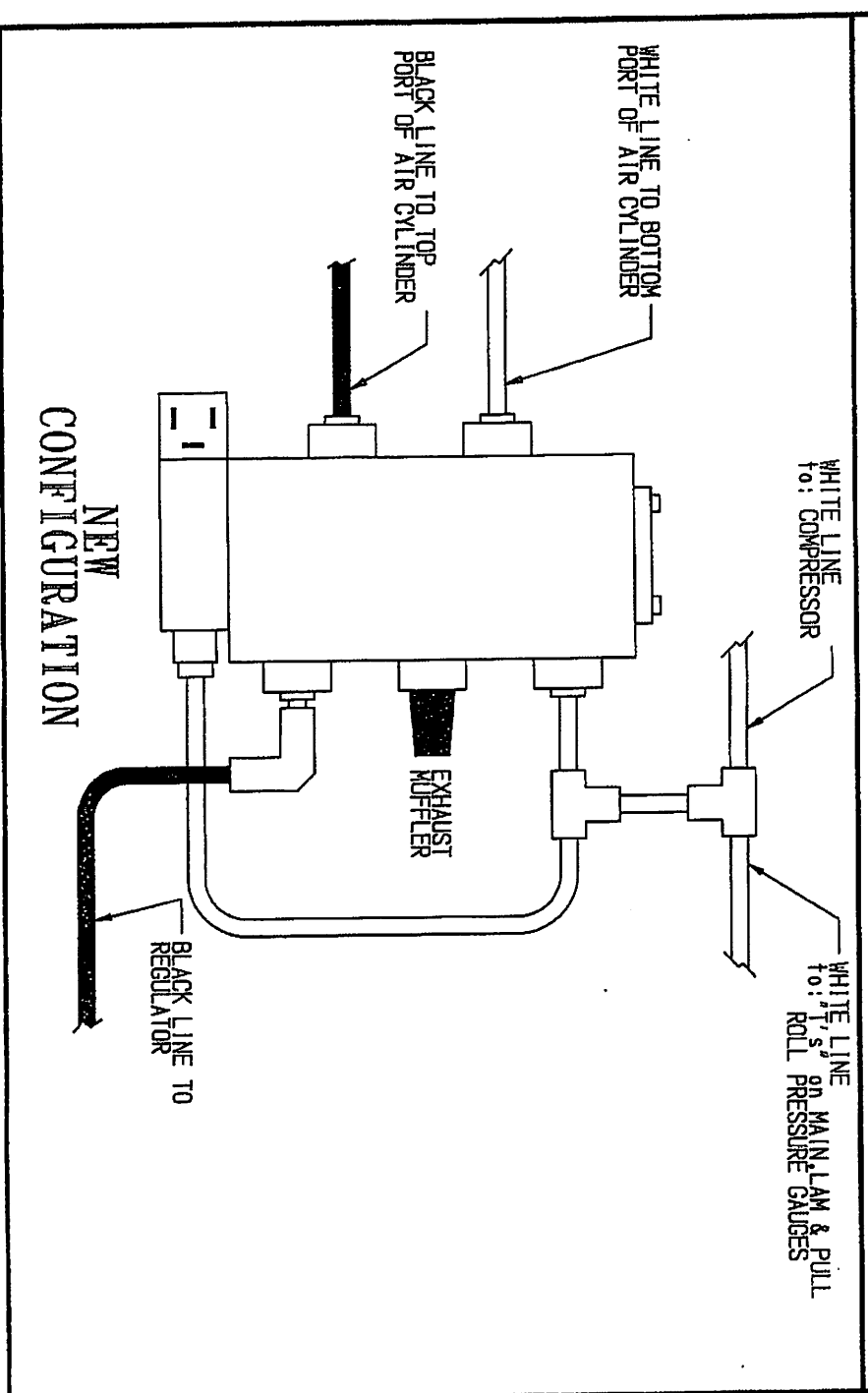
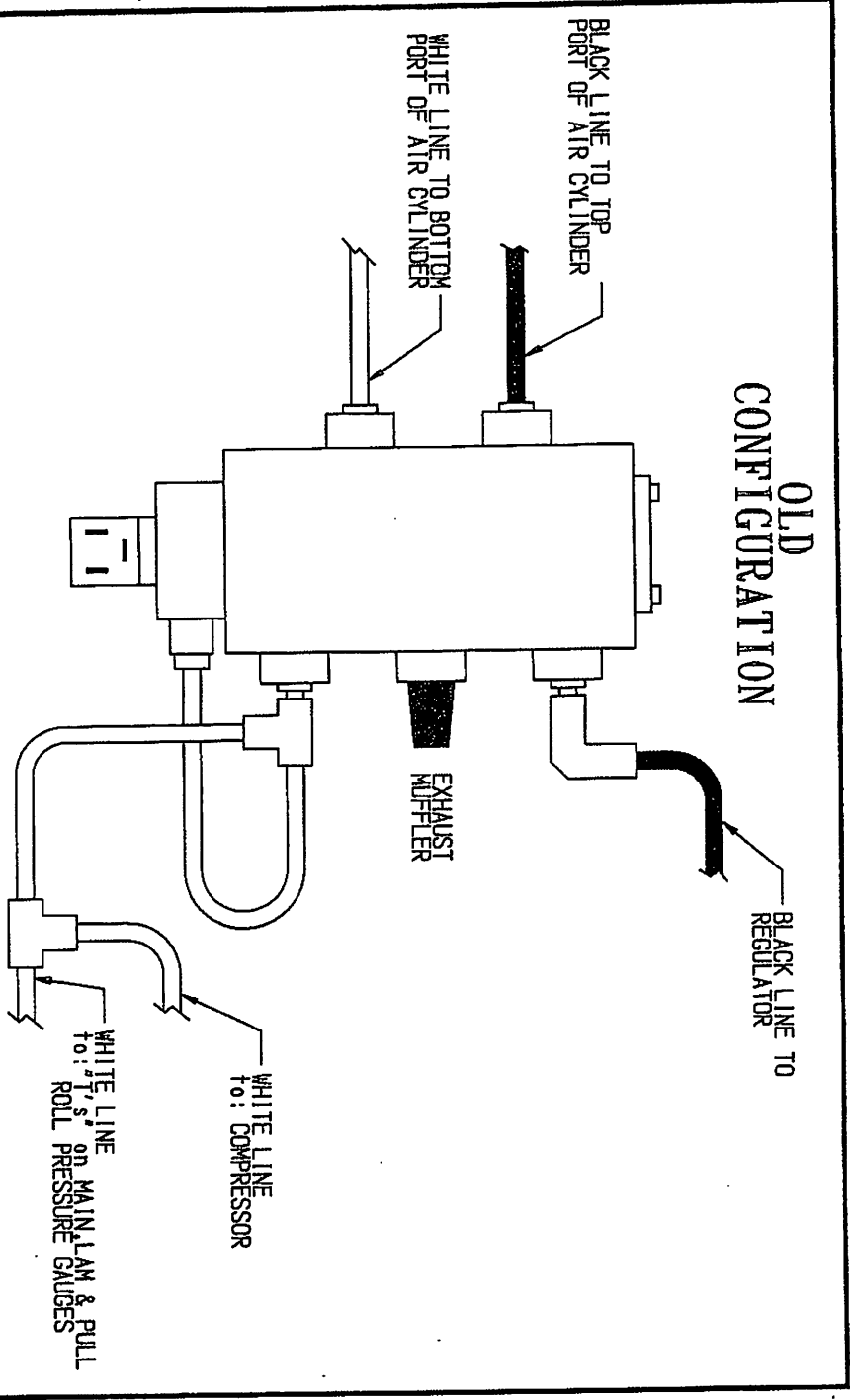
Material Specs: SEE PARTS LIST

U/M	QTY.	WGT.	Drawn By: P.E.T.	App. By:	Date: 03/11/2014

HD 38/60 INDUSTRIAL SERIES COMPRESSOR MOUNTING PLATE 2016

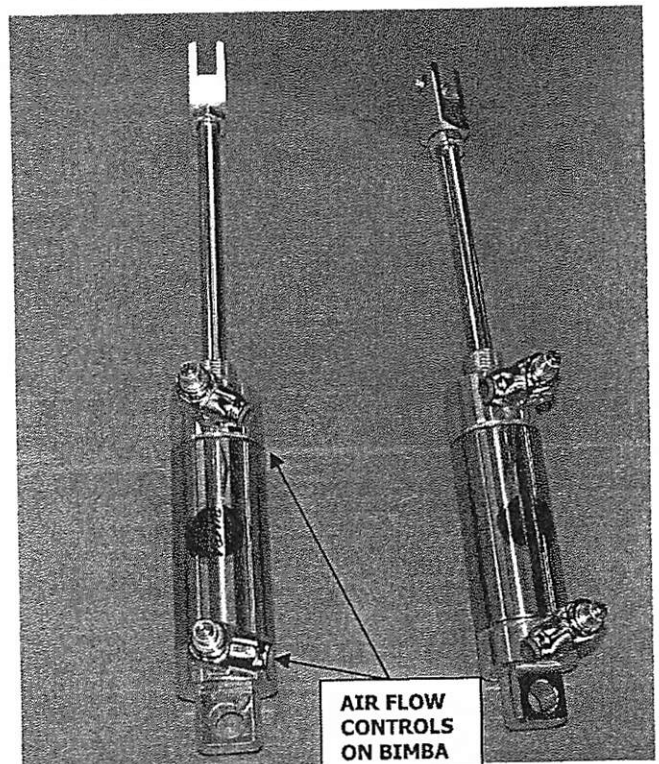
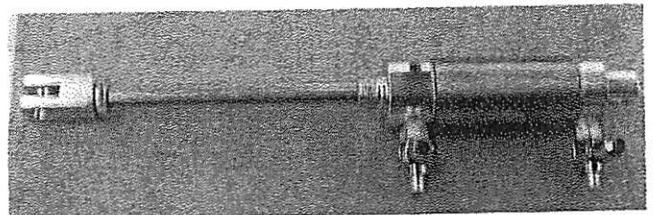
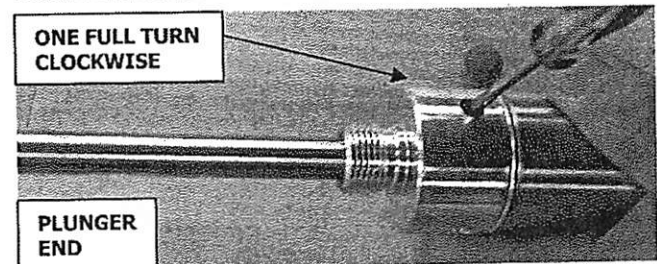
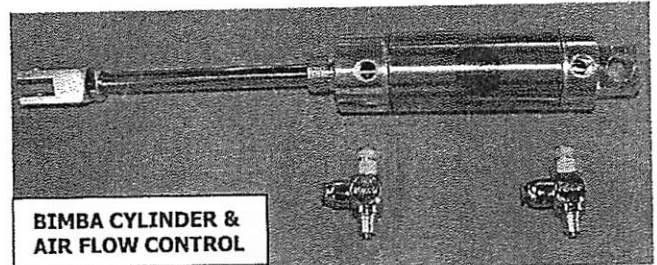
- 1) ASSEMBLE HD 38/60 "GAST" AIR COMPRESSOR (PRA003) AS18, AIR TANK, FITTINGS AND TUBINGS ON MOUNTING PLATE BEFORE SECURING TO CHASSIS.
- 2) SET AIR COMPRESSOR MOUNTING PLATE (H380 211.4A) AS15 ON TABLE. COMPRESSOR WIRES FACE OUTWARD. SECURE CAPACITOR CLAMP OUTWARD. CRIMP A FIF ONTO YELLOW AND BROWN WIRES. TERMINATE ON INNER CAPICITOR POSTS, SLIDE ON BOOT.
- 3) SECURE THE AIR SOLENOID MOUNTING BLOCK (H380 217.4) RACK 6 ONTO THE SIDE OF THE AIR COMPRESSOR MOUNTING PLATE, LARGER THREADS OUTWARD. USE (2) 10-32 X 3/4 BSH THROUGH MOUNTING PLATE UNDERSIDE INTO AIR SOLENOID MOUNTING BLOCK.
- 4) SECURE THE GAST AIR COMPRESSOR TO AIR COMPRESSOR MOUNTING PLATE THROUGH (4) 5/16 TAPPED HOLES. THE FITTINGS FACE THE HD REAR AND MOTOR WIRES FACE THE OUTWARD. SECURE AIR COMPRESSOR USING 5/16-18 X 3/4 BSH THROUGH THE MOUNTING PLATE UNDERSIDE AND COMPRESSOR SLOTS, SLIDE INWARD. ADD A 5/16 FLAT WASHER ON EACH THREAD AND TIGHTEN WITH (4) 5/16 HEX NUTS.
- 5) USE FITTINGS FROM RACK 6. IF FITTINGS DO NOT HAVE PIPE SEALANT COVERING THREADS, ADD TEFLON PIPE THREAD SEALER CLOCKWISE. REMOVE PLASTIC PLUGS FROM COMPRESSOR AND DISCARD. ON LEFT, THREAD AN INLET AIR FILTER (PRA234). ON RIGHT THREAD A 4" FITTING NIPPLE (H356 102.4) INTO THE AIR COMPRESSOR. THREAD A 100B-4-4 ELBOW (PRA035) INTO THE FITTING NIPPLE, ENDING WITH THE UNUSED ELBOW THREADS FACING INWARD. ON THE MIDDLE FEMALE THREADS OF A 1/4" NPT 3/4" FITTING-STREET TEE (PRA015) SECURE A 269P 04X04 FITTING ELBOW (PRA009)



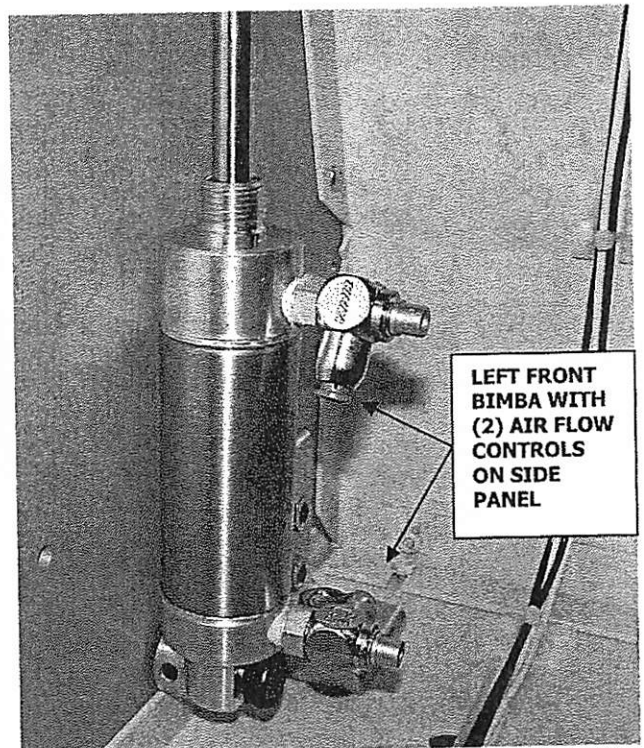
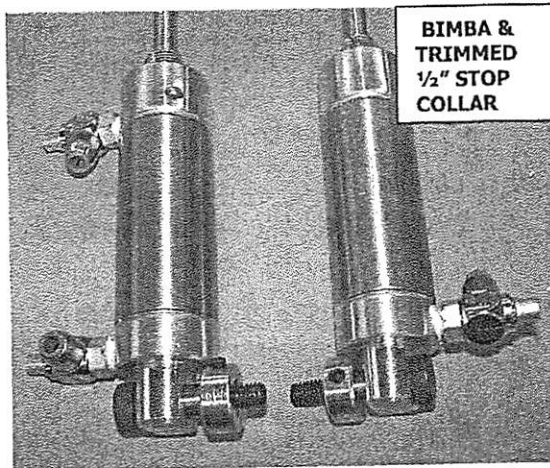


HD 38/60 INDUSTRIAL SERIES AIR SYSTEM: BIMBA CYLINDERS 2019

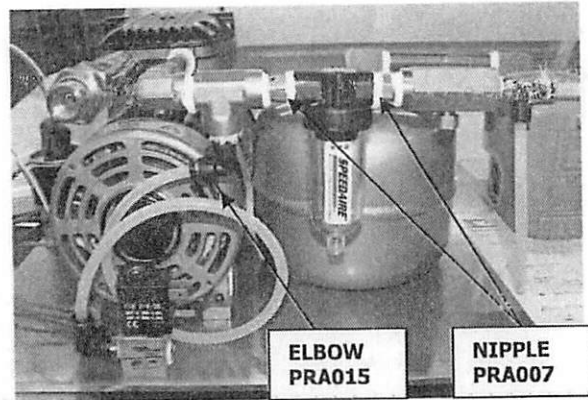
- 1) REMOVE THE PLASTIC COVERING FROM (4) BIMBA AIR CYLINDERS WITH EXTENSION (H356 200.4) AS15. REMOVE HOLE PLUGS FROM ALL (4) BIMBAS, IF THEY HAVE PLUGS. REMOVE PLASTIC FROM (8) FLOW CONTROL FQP2 BIMBA 1/8 PT (PRA040) RACK 6. SET AIR FLOW CONTROLS ASIDE.
- 2) DESIGNATE (2) BIMBA AIR CYLINDERS FOR THE "REAR" PULL ROLL LOCATION AND (2) FOR THE "FRONT" LAMINATING LOCATION. USE A SMALL SCREWDRIVER TO TURN THE AIR FLOW REGULATOR SCREW, ON THE OPPOSITE SIDE OF THE BIMBA THREADS, ONE 360 DEGREE COMPLETE TURN CLOCKWISE.
- 3) ADD PIPE SEALER CLOCKWISE ON ALL (8) AIR FLOW CONTROL THREADS. SECURE (4) AIR FLOW CONTROLS INTO THE PLUNGER END OF THE BIMBAS. ***ALIGN AIR FLOW CONTROLS TO FACE INWARD ON ALL BIMBAS, AWAY FROM SIDE PANEL. USE WRENCH TO TIGHTEN.
- 4) WITH PIPE SEALER WITH TEFLON CLOCKWISE ON OUTER THREADS OF AIR FLOW CONTROLS, SECURE (4) AIR FLOW CONTROLS TO THE LOWER BIMBA AIR CYLINDERS. ***ALIGN AIR FLOW CONTROLS TO FACE INWARD. USE A WRENCH TO TIGHTEN THE AIR FLOW CONTROL. DON'T STRIP THE THREADS.



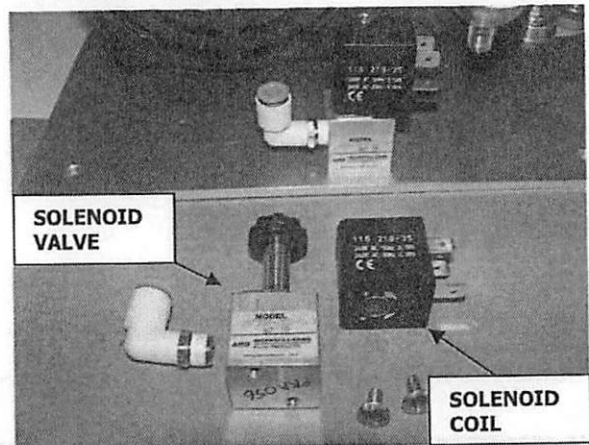
- 5) INSERT A 1/2 X 1 1/4 SHOULDER BOLT THROUGH THE LOWER BIMBA AIR CYLINDER, INSERTED FROM THE AIR FITTING SIDE.
- 6) WITH THE BELT SANDER, TRIM A FLAT SECTION ON (4) 1/2" STOP COLLARS (PRC096) AS09 TO AVOID BINDING ON CYLINDER AND SO YOU CAN REACH THE SET SCREW. PLACE STOP COLLAR ON INNER SHOULDER BOLT WITH SET SCREW OUTWARD AND ACCESSIBLE.
- 7) THREAD PLUNGER NUT AND CONNECTOR ALL THE WAY DOWN ON ALL (4) BIMBAS.
- 8) WHEN SECURING THE ASSEMBLED BIMBA AIR CYLINDERS TO SIDE PANEL, THREAD SHOULDER BOLT THROUGH SIDE PANEL. ON THE INNER SIDE PANEL SECURE WITH A 3/8-16 ACORN NUT.



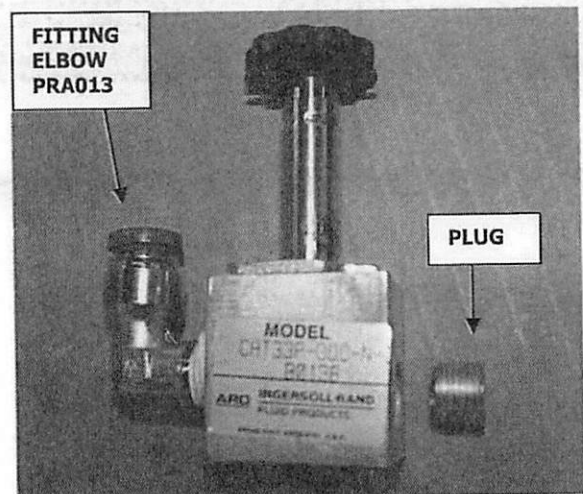
ENDING WITH THE AIR TUBING CONNECTION FACING LEFT. THREAD THE MALE END OF THE FITTING-STREET TEE INTO THE ELBOW ON THE COMPRESSOR, ENDING WITH THE MIDDLE FEMALE THREADS FACING DOWNWARD. BRUSH ON PIPE SEALER AND SECURE A NIPPLE (PRA007) ONTO THE FEMALE THREADS. ALIGN THE AIR FLOW ARROW INWARD/RIGHT ON AN AIR FILTER (PRA101) AND THREAD INTO THE NIPPLE. THREAD A SECOND FITTING NIPPLE (PRA007) INTO THE AIR FILTER. ALIGN THE AIR FLOW ARROW INWARD ON A CHECK VALVE (PRA005) AND THREAD THE CHECK VALVE ONTO THE FITTING NIPPLE, ENDING WITH THE AIR VALVE NUT DOWNWARD. THREAD A 171PL-4-4 AIR FITTING (PRA053) INTO THE CHECK VALVE, ENDING WITH THE MIDDLE AIR TUBING CONNECTION FACING THE DOWNWARD.



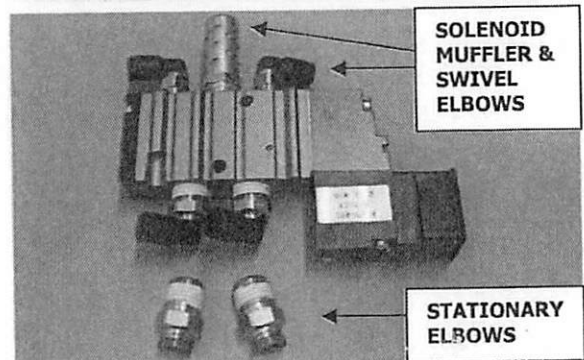
- 6) FROM RACK 6 THE 1/8 SOLENOID VALVE (PRA056) HAS NUMBERS ENGRAVED ON *INWARD* SIDE. THREAD A 169PLN 4-2 FITTING ELBOW (PRA013) INTO #2 POSITION. ELBOW AIR FITTING FACES UPWARD. INSERT 1/4 PLUG (PRA014) INTO #1 THREADS, LOCATED OPPOSITE THE ELBOW. UNTHREAD NUT ON THE SOLENOID VALVE AND SLIDE SOLENOID COIL 240VAC (PRA057) ONTO SOLENOID VALVE SHAFT, WITH TERMINAL POSTS FACING OPPOSITE THE FITTING ELBOW. RETHREAD NUT, WITH NUT WASHER INWARD TO SECURE SOLENOID COIL TO SOLENOID VALVE.



- 7) SECURE SOLENOID VALVE TO THE COMPRESSOR MOUNTING PLATE FROM UNDERSIDE THROUGH COUNTERSUNK HOLES, WITH TERMINAL POSTS FACING INWARD. USE (2) 8-32 X 3/8 FH MS.

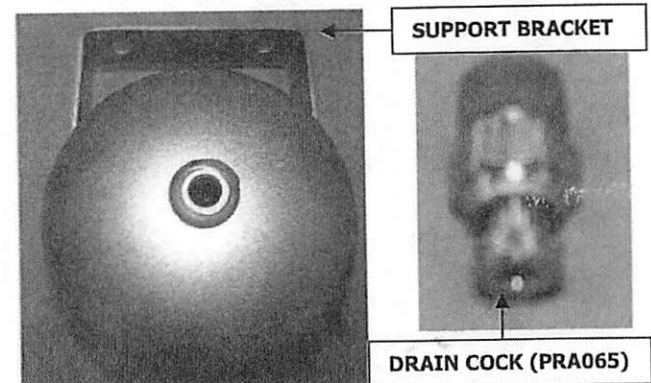
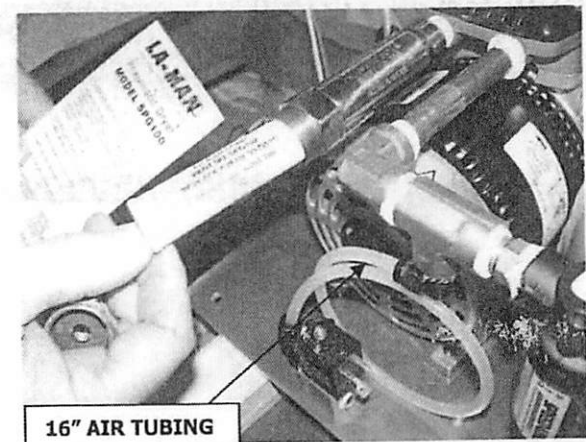
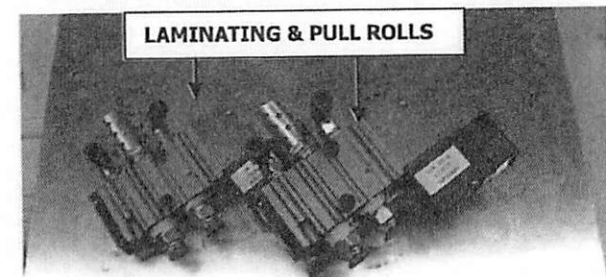
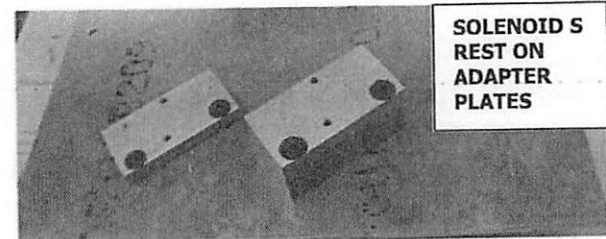
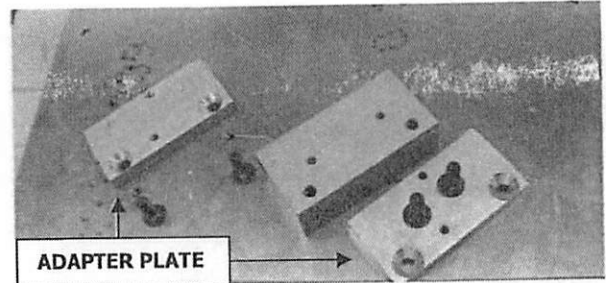


- 8) PREPARE (2) SOLENOID MAC VALVES (PRV003) 431A-BOA-DM-DJBJ-1JM RACK 6. PARTS FOR THIS ASSEMBLY ARE INCLUDED IN KIT. DO NOT TRIM BLOCK AS NO PILOT FITTING IS NECESSARY. THE SOLENOID AIR VALVES SHOULD BE PROPERLY ASSEMBLED UPON ARRIVAL. IF NOT HOWEVER, THE CORRECT FITTINGS SHOULD BE: (2) SWIVEL ELBOW FITTINGS ON LOCATION #3 AND



#5 RIGHT AND LEFT OF THE MUFFLER WHICH IS LOCATED ON #1. LOCATION #2 AND #4 SHOULD HAVE SATIONARY MALE AIR FITTINGS (PRA017) RACK 6. IF SWIVEL FITTINGS ARE ON #2 AND #3, REMOVE AND REPLACE WITH MALE AIR FITTINGS. RETAIN SWIVEL FITTINGS.

- 9) SECURE (2) ADAPTER PLATES (H380 218.4) RACK 6 WITH THE COUNTERSINKS UPWARD TO THE SOLENOID MOUNTING BLOCK AND TO THE COMPRESSOR MOUNTING PLATE. USE $\frac{1}{4}$ -20 X $\frac{3}{4}$ FSH.
- 10) PLACE ASSEMBLED SOLENOIDS ON ADAPTER PLATES WITH MUFFLERS INWARD. SECURE EACH SOLENOID TO ADAPTER WITH (2) 8-32 X 1 BHCS.
- 11) THE HIGHER PULL ROLL SOLENOID IS LOCATED IN FRONT ON THE ADAPTER SECURED TO THE MOUNTING BLOCK. THE LAMINATING ROLL SOLENOID IS IN THE REAR ON THE ADAPTER SECURED TO THE MOUNTING PLATE.
- 12) ALWAYS USE A PLASTIC TUBING CUTTER TO OBTAIN CLEAN, STRAIGHT CUT ENDS ON AIR TUBING. THE CLEAN, STRAIGHT CUTS HELP AVOID ANY AIR LEAKAGE.
- 13) THE BLACK AND NATURAL AIR TUBING CAN BE MEASURED AS YOU NEED IT, OR YOU CAN USE THE INCHES SUGGESTED IN THIS MANUAL.
- 14) CONNECT AND COIL 16" OF $\frac{1}{4}$ " NATURAL AIR TUBING (PRA027) LOFT 2 BETWEEN THE LOWER FITTING ELBOW ON THE COMPRESSOR FITTING-STREET TEE AND THE SOLENOID VALVE ON THE COMPRESSOR MOUNTING PLATE. THE PLASTIC ELBOWS ROTATE TO ALIGN TUBING.
- 15) IN 2009 THE HD AIR TANK COMPLETE (PRA024A) AS18 WAS INTRODUCED. BEFORE SECURING THE AIR TANK TO THE COMPRESSOR MOUNTING PLATE, THREAD A DRAIN COCK (PRA065) RACK 6 INTO THE LOWER AIR TANK OPENING. THE DRAIN COCK ALIGNS ABOVE THE LARGE OPENING IN THE COMPRESSOR MOUNTING PLATE.



16) SECURE THE (2) AIR TANK MOUNTING BRACKETS (H380 212.4) AS16 TO THE COMPRESSOR MOUNTING PLATE BY INSERTING (4) 1/4-20 X 3/4 BSH THROUGH THE UNDERSIDE OF THE COMPRESSOR MOUNTING PLATE INTO THE THREADED AIR TANK MOUNTING BRACKETS, EXCESS BRACKET INWARD.

17) PLACE THE SUPPORT BRACKET THAT IS WELDED ONTO THE AIR TANK, OVER THE AIR TANK MOUNTING BRACKETS. INSERT (2) 1/2-13 X 1 1/4 BSH (H380 213.4) AS11 THROUGH THE AIR TANK SUPPORT AND THE AIR TANK BRACKET CLEARANCE HOLES. SECURE THE INNER THREADS WITH (2) 1/2-13 HEX NUTS. THIS WILL BE A CLOSE FIT BY THE TANK.

18) ON THE UPPER AIR TANK OPENING, THREAD ON A 2202PA-4-4 STREET ELBOW (PRA028) RACK 6 ENDING WITH THE FEMALE OPEN ELBOW THREADS FACING INWARD, TOWARD SOLINOIDS.

19) SECURE A 1/4 X 4" AIR FITTING NIPPLE (H356 102.4) RACK 6 ONTO THE STREET ELBOW.

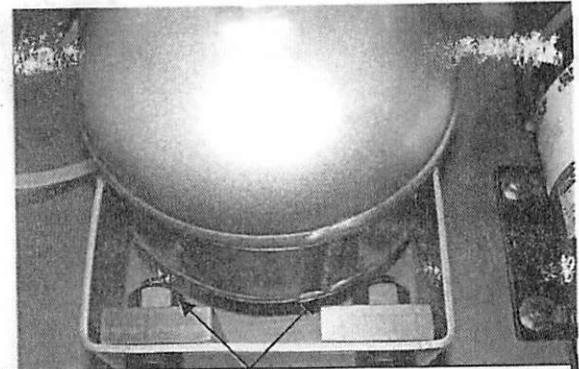
20) ADD ANOTHER 2202PA-4-4 STREET ELBOW (PRA028) ONTO THE 4" AIR FITTING, ENDING WITH THE MALE THREADS FACING DOWNWARD.

21) THREAD A 269P 04X04 FITTING ELBOW (PRA009) RACK 6 INTO THE FEMALE END OF A FITTING-STREET TEE (PRA015), ENDING WITH THE ELBOW AIR TUBING END FACING OPPOSITE CENTER THREAD.

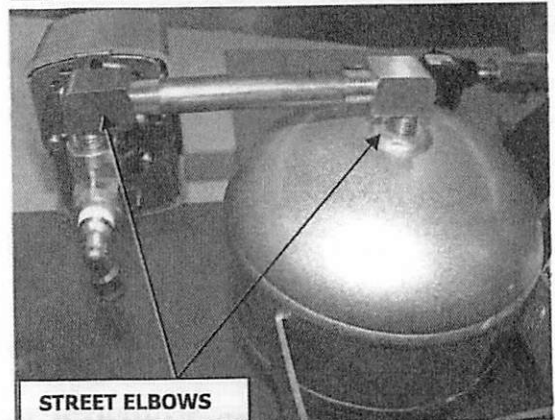
22) THREAD MIDDLE FEMALE SECTION OF FITTING-STREET TEE INTO MALE STREET ELBOW FROM AIR TANK. END WITH FITTING ELBOW ON BRACKET SIDE.

23) ON THE MALE END OF THE FITTING-STREET TEE, THREAD THE PRESSURE SWITCH (PRS272) LOFT 2. WIRE THE PRESSURE SWITCH AT LATER TIME.

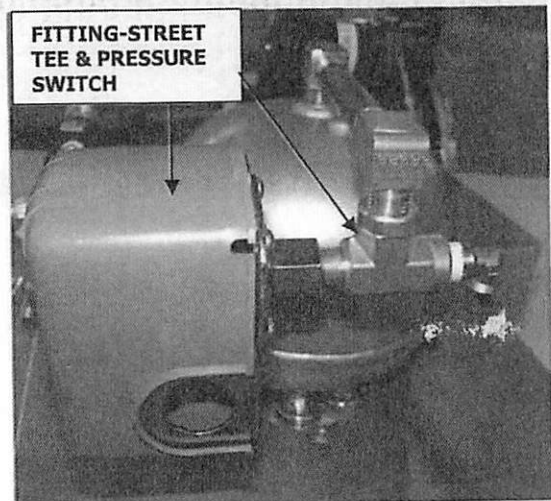
24) CONNECT A 5" SECTION OF AIR TUBING 1/4" NATURAL (PRA027) LOFT 2 UPWARD BETWEEN THE LAMINATING ROLL AIR VALVE SOLENOID #5 AND A 164PL-4 FITTING TEE (PRA012) RACK 6 MIDDLE.



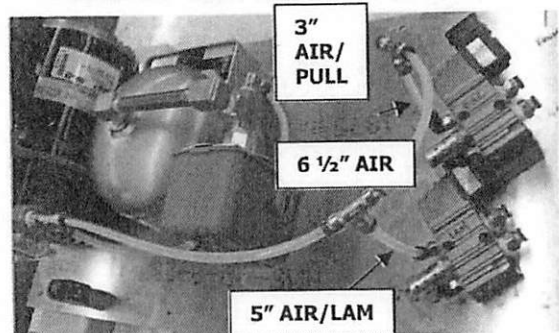
AIR TANK MOUNTING BRACKETS/EXCESS INWARD



STREET ELBOWS



FITTING-STREET TEE & PRESSURE SWITCH



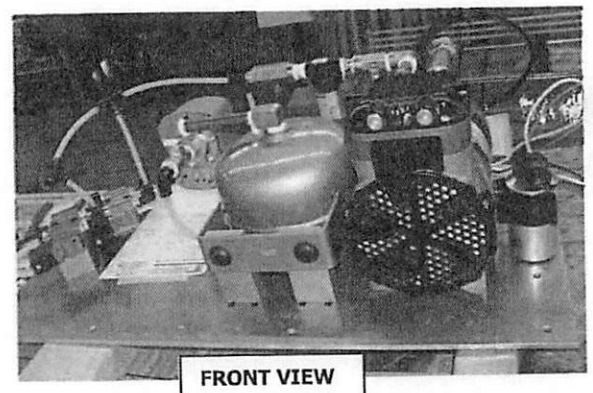
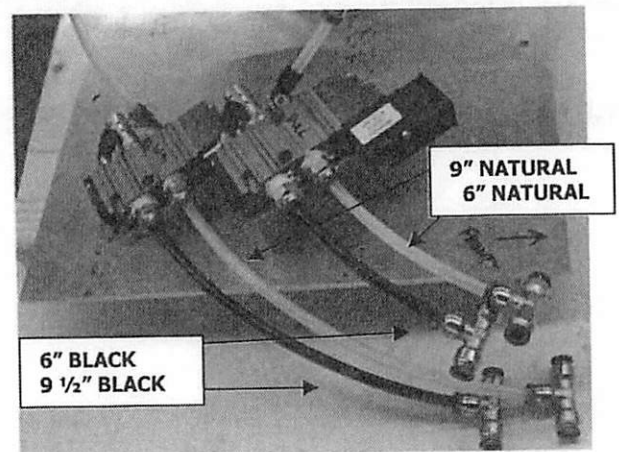
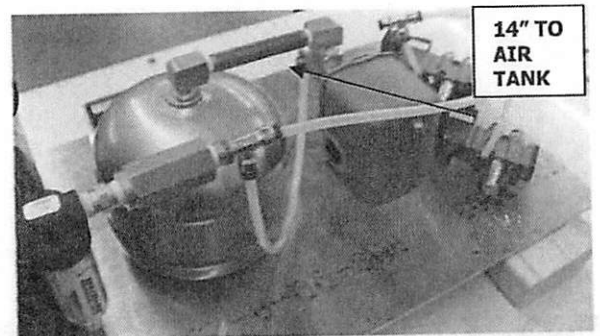
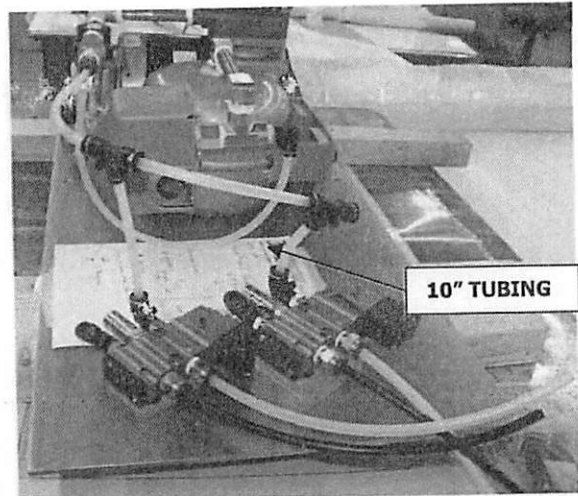
3" AIR/PULL

6 1/2" AIR

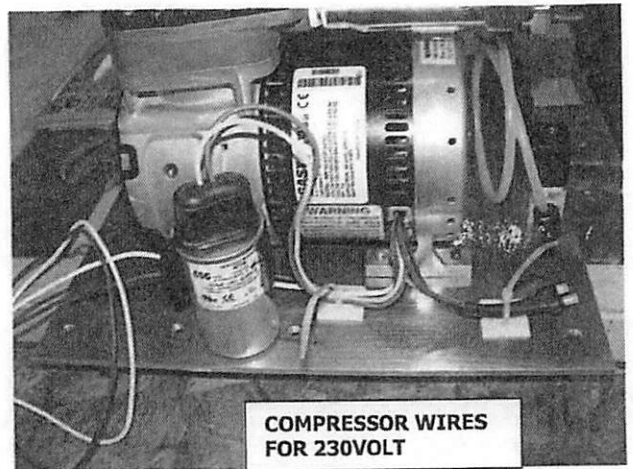
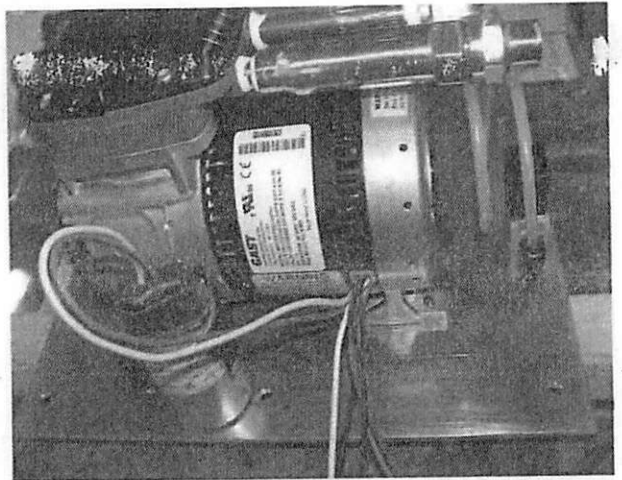
5" AIR/LAM

CONNECT A 3" SECTION OF 1/4" NATURAL AIR TUBING UPWARD BETWEEN THE PULL ROLL AIR VALVE SOLENOID #5 (ON MOUNTING BLOCK) AND FITTING TEE (PRA012) MIDDLE SECTION.

- 25) CONNECT BOTH OF THESE AIR FITTING TEES TOGETHER WITH A 6 1/2" SECTION OF 1/4" NATURAL AIR TUBING.
- 26) SOME PICTURES REFLECT AN EARLIER VERSION OF THE AIR COMPRESSOR. SOME FITTING END COLORS HAVE CHANGED. SOME BRASS FITTINGS HAVE BEEN REPLACED WITH PLASTIC FITTINGS. GENERAL ASSEMBLY OF THE AIR COMPRESSOR, TANK, TUBING, AND FITTING POSITIONS REMAIN THE SAME. SOLENOID NATURAL/BLACK POSITIONS HAVE REVERSED.
- 27) CONNECT A 10" SECTION OF 1/4 NATURAL AIR TUBING BETWEEN THE LAMINATING ROLL SOLENOID #5 (WITHOUT MOUNTING BLOCK) UPPER AIR FITTING TEE AND THE CHECK VALVE FITTING TEE.
- 28) CONNECT A 14" SECTION OF 1/4 NATURAL AIR TUBING BETWEEN THE MIDDLE THREADS OF THE CHECK VALVE FITTING TEE AND THE FITTING ELBOW ON THE STREET FITTING TEE COMING FROM THE AIR TANK.
- 29) CONNECT 9 1/2" OF BLACK AIR TUBING (PRA026) LOFT 2 TO THE #2 AIR FITTING ON THE LAMINATING ROLL SOLENOID, CONNECT 9 1/2" OF NATURAL AIR TUBING (PRA026) LOFT 2 TO THE #4 AIR FITTING ON THE LAMINATING ROLL SOLINOID.
- 30) CONNECT 6" OF BLACK AIR TUBING TO THE #2 AIR FITTING ON THE PULL ROLL SOLINOID AND 6" OF NATURAL AIR TUBING TO THE #4 AIR FITTING ON THE PULL ROLL SOLINOID.
- 31) CONNECT THE MIDDLE SECTION OF (4) FITTING TEE (PRA012) RACK 6 TO THE BLACK AND NATURAL OPEN ENDS OF THE AIR TUBINGS ON THE SOLINOIDS.
- 32) PREPARE THE COMPRESSOR WIRES. FOR A 230V MACHINE: CLOSE CAP THE ORANGE WIRE. COMBINE THE BLACK AND

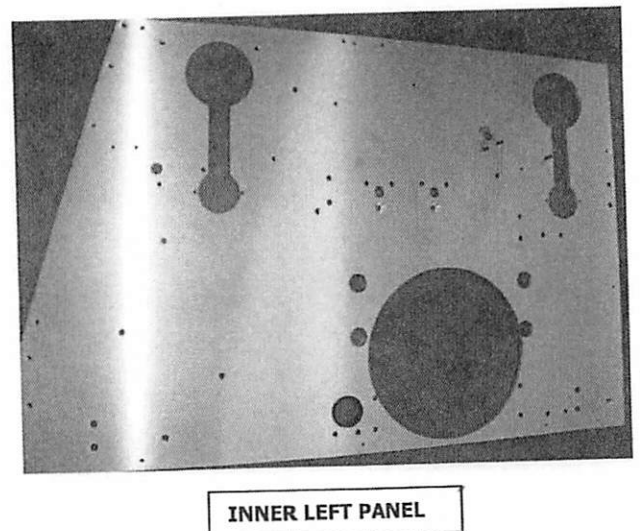
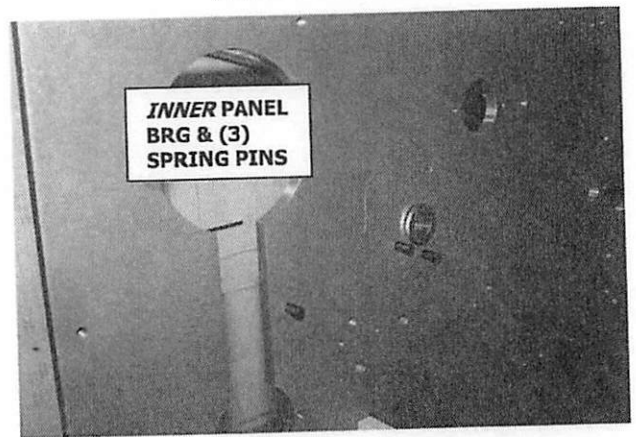
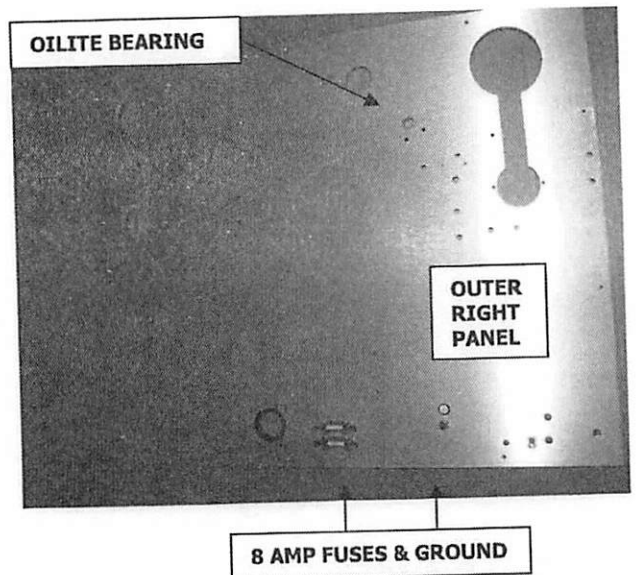


RED WIRES AND CLOSE CAP THEM. THE BLUE AND WHITE WIRES ARE FOR THE "LINE IN." THE YELLOW AND BROWN WIRES GO TO THE CAPACITOR. USE SHRINK TUBING ON ORANGE, RED AND BLACK CAPPED WIRES. PRESS CLIP TO MOUNTING PLATE. PRESS CLIP CAPACITOR WIRES TO MOUNTING PLATE.



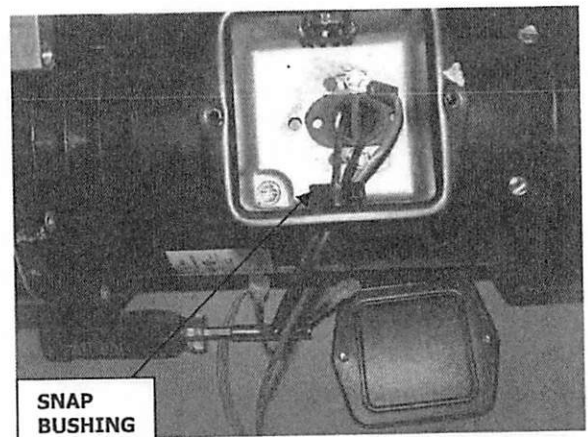
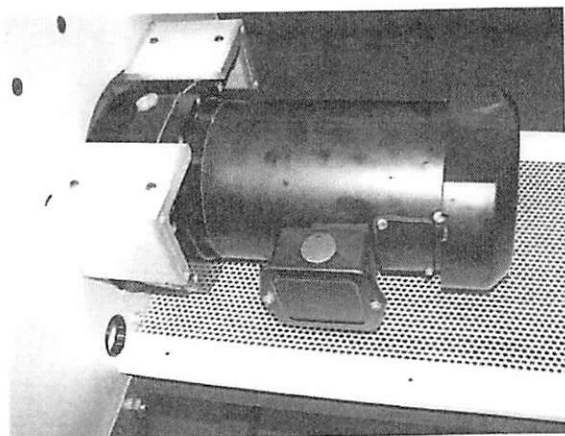
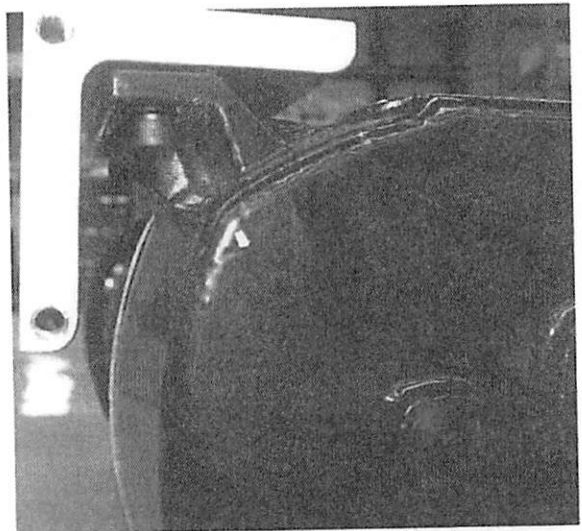
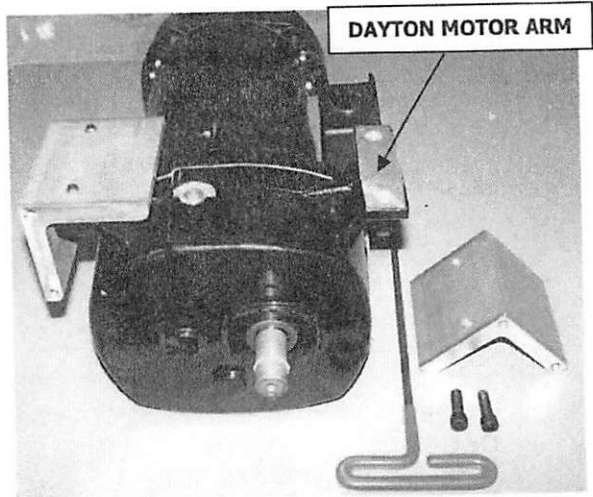
HD 38/60 SIDE PANELS

- 1) **ASSEMBLE THE RIGHT SIDE PANEL (H380 090.4R) AND LEFT SIDE PANEL (H380 090.4L) AS15.**
- 2) **PLACE THE RIGHT AND LEFT SIDE PANELS ON A WORKTABLE.**
- 3) **ARBOR PRESS AN OILITE BEARING (PRB048B) RACK 8, FLANGE INWARD, INTO THE RIGHT AND LEFT SIDE PANELS IN FRONT OF THE PULL ROLLS. OPEN BEARINGS WITH A .505 REAMER.**
- 4) **ARBOR PRESS (3) 3/16 X 3/4 SPRING PINS INTO BOTH INNER SIDE PANELS, (2) LOCATED BELOW OILITE BEARING AND (1) IN FRONT OF TOP PULL ROLLS. THESE ARE SAFETY SHIELD STOPS.**
- 5) **INSERT A 6-32 X 1/4 PH INTO EACH OF (2) LITTLEFUSE FUSE HOLDERS (PRF126) AS07 AND SECURE HORIZONTALLY ALONG THE OUTER LOWER RIGHT SIDE PANEL, BEHIND SNAP BUSHING APERTURE. INSERT (2) LITTLEFUSE 8 AMP FUSES (PRF124) AS07 INTO THE LITTLEFUSE FUSE HOLDERS.**
- 6) **INSERT SNAP BUSHING (PRB088) AS07, FLANGE OUTWARD, ON BOTH PANELS.**
- 7) **THREAD FROM THE INNER RIGHT SIDE PANEL, BEHIND AND IN LINE WITH THE LITTLEFUSE FUSE HOLDERS, A 10-32 X 1 BH WITH A #10 STAR WASHER. THIS IS THE GROUND WIRE CONNECTION. ADHERE A GROUND LABEL ON OUTER PANEL ABOVE GROUND SCREW.**



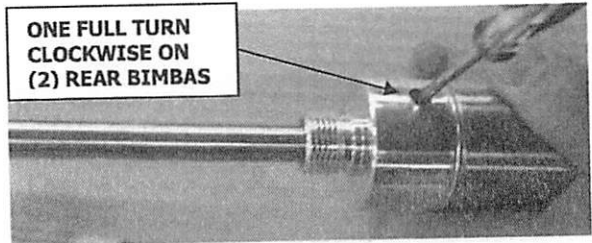
HD 60 INDUSTRIAL SERIES MOTOR PREPARATION

- 1) PREPARE THE DAYTON GEAR MOTOR (PRM199) AS04 BY ATTACHING (2) MOTOR MOUNTING BRACKETS (H380 049.4) RACK 6 TO THE DAYTON MOTOR ARMS USING (4) 5/16-18 X 1 SHCS, EACH WITH A 5/16-18 FLAT WASHER. INSERT THE SHCS THROUGH THE UNDERSIDE OF THE MOTOR ARM INTO THE MOTOR MOUNTING BRACKET.
- 2) REMOVE THE COVER ON THE MOTOR WIRE BOX. POP OUT THE LOWER WIRE EXIT PLUG AND INSERT A PROTECTIVE SNAP BUSHING (PRB064) AS07 IN ITS PLACE. DISCARD THE PLUG.
- 3) CRIMP A BLUE MALE CONNECTOR (PRT325A) ONTO THE (2) MOTOR WIRES. SECURE A 53" 16 GAUGE GREEN GROUND WIRE FROM BAG FOR HD60 OR MAKE A 25" GREEN GROUND FOR HD38. SECURE WITH MOTOR NUT AND STAR WASHER. GROUND CONNECTS TO COMPRESSOR PLATE GROUND SCREW. EXIT (3) WIRES THROUGH THE MOTOR HOUSING SNAP BUSHING. REPLACE WIRE BOX COVER.
- 4) THE DAYTON MOTOR SECURES TO THE INNER LEFT SIDE PANEL OF THE HD 38/60, OR STORE UNTIL NEEDED.

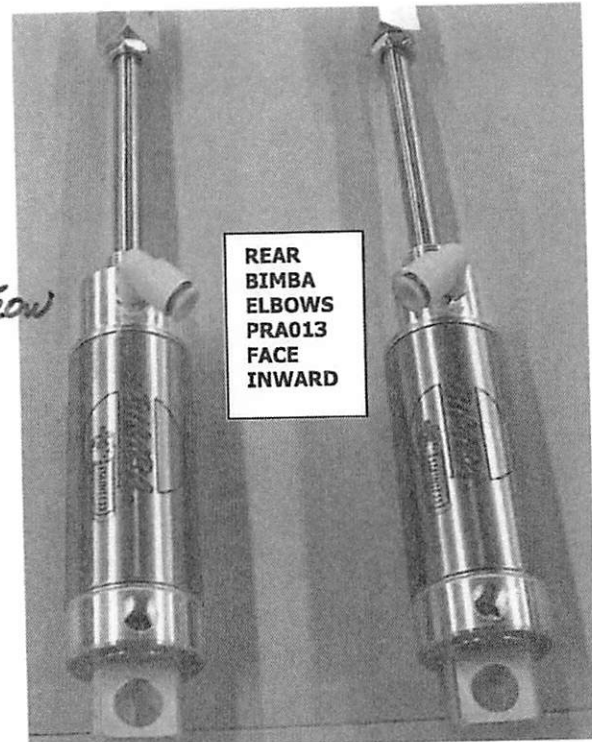


HD 60 INDUSTRIAL SERIES AIR SYSTEM: BIMBA CYLINDERS

- ASIS*
- 1) REMOVE THE PLASTIC COVERING FROM (4) BIMBA AIR CYLINDERS WITH EXTENSION (H356 200.4) LOFT 2. REMOVE THE HOLE PLUGS FROM ALL (4) BIMBAS. REMOVE PLASTIC FROM (4) FLOW CONTROL FQP2 BIMBA 1/8 PT (PRA040) RACK 6.



- 2) DESIGNATE (2) OF THE BIMBA AIR CYLINDERS FOR THE "REAR" PULL ROLL LOCATION. ON THESE TWO ONLY, USE A SMALL SCREWDRIVER TO TURN THE AIR FLOW REGULATOR SCREW ONE 360 DEGREE, COMPLETE TURN CLOCKWISE.

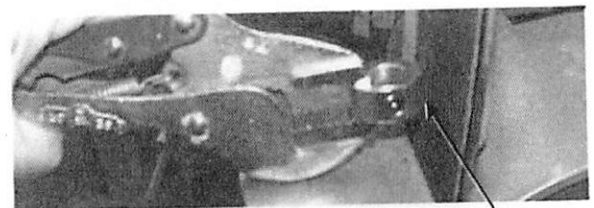


- Flow Control*
- 3) ~~THREAD A FITTING ELBOW (PRA013) RACK 6 INTO THE PLUNGER END OF THE (2) REAR BIMBAS.~~ ALIGN THE FITTING ELBOW TO FACE INWARD TOWARD THE FRONT OF THE MACHINE, AWAY FROM THE SIDE PANEL. WRENCH TIGHTEN.

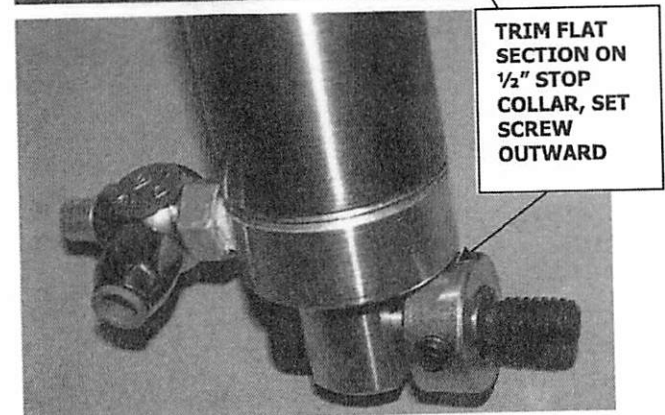
- threading
tape
clockwise*
- 4) BRUSH PIPE THREAD SEALER WITH TEFLON ONTO THE OUTER THREADS OF (2) AIR FLOW CONTROLS. SECURE AN AIR FLOW CONTROL TO THE LOWER REAR BIMBA AIR CYLINDER, BELOW THE ELBOW CONNECTION. WRENCH TIGHTEN.

- 5) THE FRONT, LAMINATING ROLL BIMBA AIR CYLINDERS HAVE (2) AIR FLOW CONTROLS *EACH*. BRUSH PIPE THREAD SEALER ON THREADS AND TIGHTEN.

- x-12*
- 6) INSERT A 1/2 X 1 1/4 SHOULDER BOLT AS15 THROUGH THE LOWER BIMBA AIR CYLINDER FROM THE AIR FITTING SIDE.



- 7) WITH THE BELT SANDER, TRIM A FLAT SECTION ON (4) 1/2" STOP COLLARS (PRC096) AS09 TO AVOID BINDING ON CYLINDER AND SO YOU CAN REACH THE SET SCREW. PLACE ON INNER SHOULDER BOLT WITH SET SCREW OUTWARD AND ACCESSIBLE.

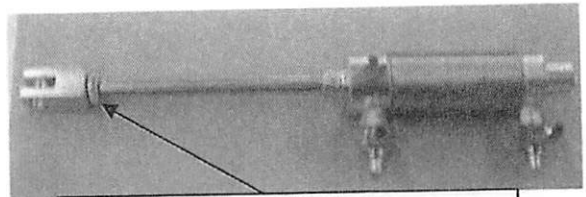


- 8) THREAD PLUNGER NUT AND CONNECTOR ALL THE WAY DOWN ON ALL (4) BIMBAS.

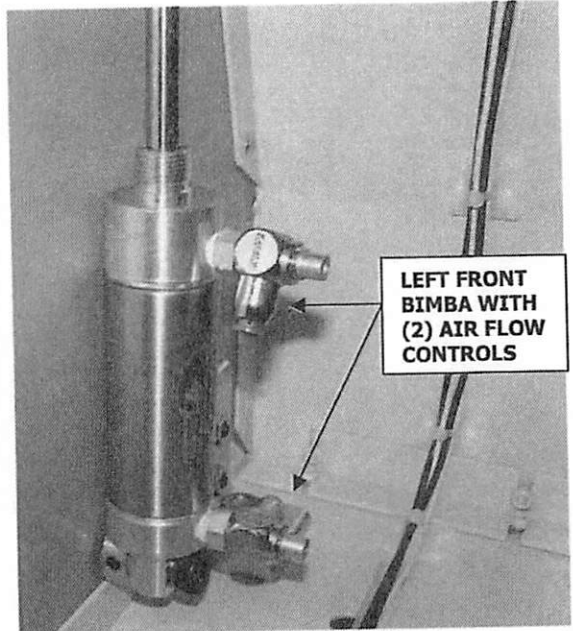
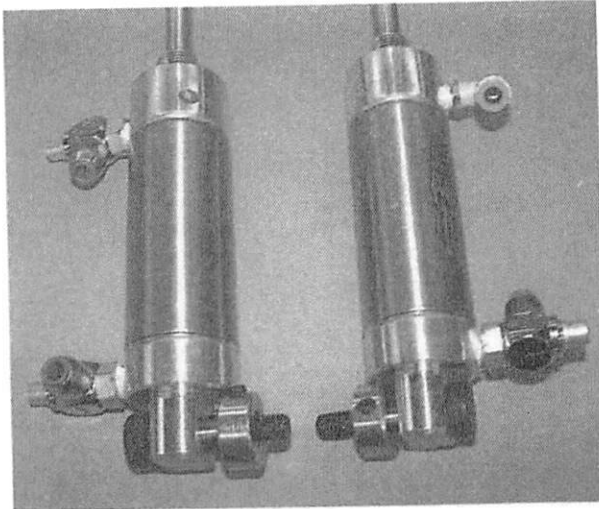
- 9) WHEN SECURING THE ASSEMBLED BIMBA AIR CYLINDERS TO SIDE PANEL,

**THREAD SHOULDER BOLT THROUGH
SIDE PANEL. ON THE INNER SIDE PANEL
SECURE WITH A 3/8-16 ACORN NUT.**

10) REFER TO CHASSIS SECTION.



BIMBA PLUNGER NUT AND CONNECTOR



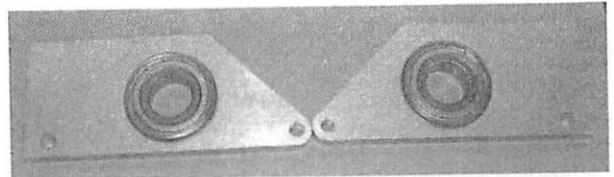
**LEFT FRONT
BIMBA WITH
(2) AIR FLOW
CONTROLS**



**REAR BIMBA
WITH
TRIMMED 1/2"
STOP COLLAR**

HD 60 INDUSTRIAL SERIES PRESSURE ACTUATORS

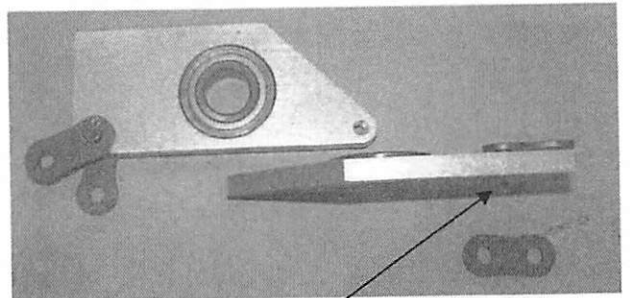
- 1) ARBOR PRESS (4) R14-ZZ ROLLER BALL BEARING (PRB087) AS07, ONE EACH INTO (4) RUBBER ROLL PRESSURE ACTUATORS (H380 030.4) RACK 6. ORIENT SO THE EXCESS ROLLER BEARING WILL BE INWARD WHEN ASSEMBLED AND THE POINTED ENDS OF THE ACTURATORS WILL FACE OUTWARD ON BOTH SIDE PANELS.



RUBBER ROLL PRESSURE ACTUATORS & PRB087

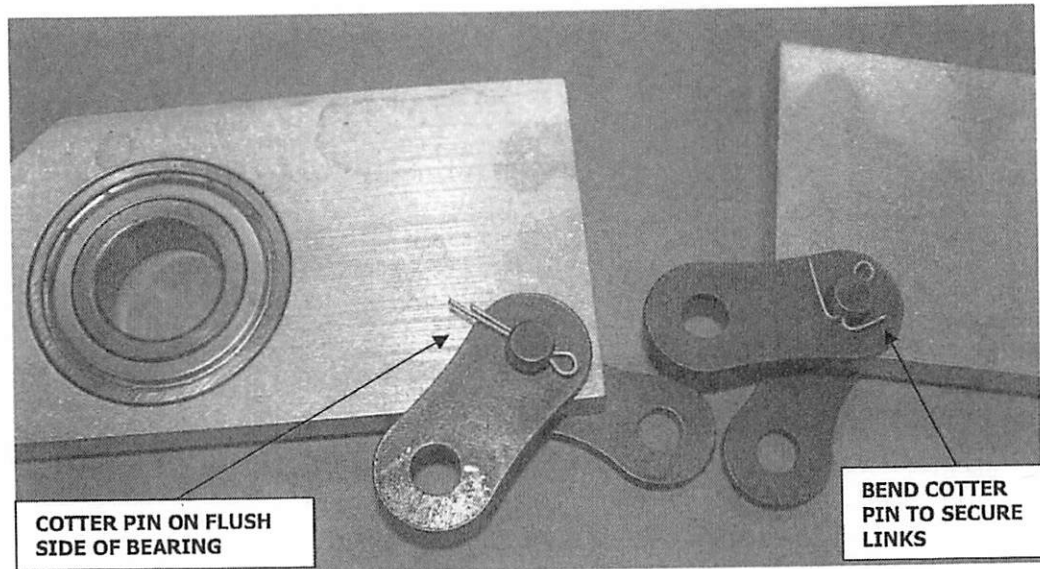
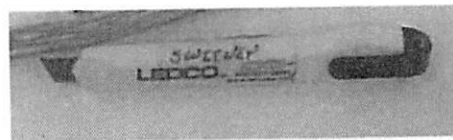
- 2) FROM THE EXCESS ROLLER BEARING SIDE OF THE PRESSURE ACTUATOR, INSERT THE STEM PORTION OF AN 80 PITCH CHAIN CONNECTING LINK (PRC108) AS07. PLACE THE SECOND PORTION OF THE CONNECTING LINK OVER THE STEM AND INSERT THE COTTER PIN.

AS07



STEM OF 80 PITCH CHAIN CONNECTING LINK THROUGH EXCESS SIDE

- 3) USE HEAVY NEEDLENOSE PLIERS TO BEND COTTER PIN ENDS AND CONNECT LINK. THE COTTER PIN WILL BE ON THE OUTER, FLUSH SIDE OF THE RUBBER ROLL PRESSURE ACTUATORS.

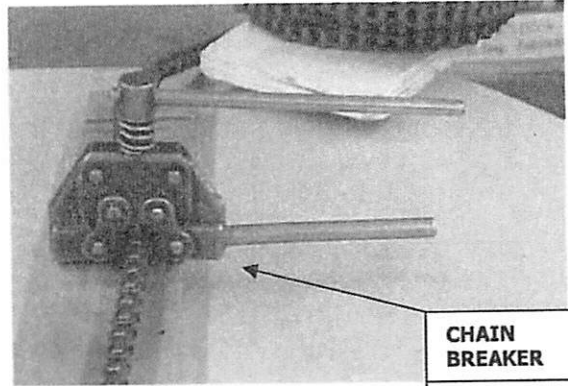


COTTER PIN ON FLUSH SIDE OF BEARING

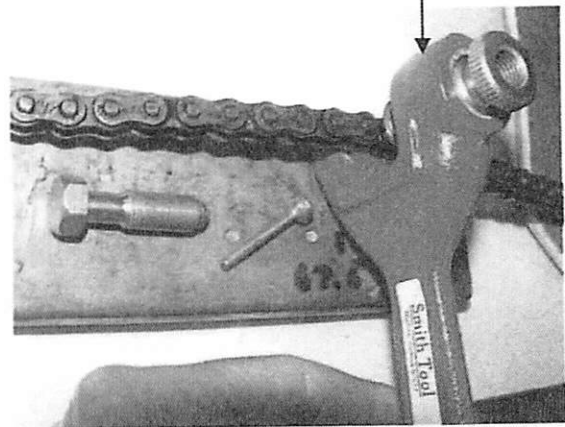
BEND COTTER PIN TO SECURE LINKS

HD 38/60 INDUSTRIAL SERIES CHAINS

- 1) CUT (2) CHAINS FROM #35 CHAIN ROLL (PRC086) CCT. THE LONG INNER CHAIN MEASURES TO 67 1/2" AND USES A #35 CHAIN OFFSET LINK (PRC088) AS07. CUT TO RED INDICATION. REMOVE PIN ON OFFSET LINK, PLACE LINK OVER CHAIN END, INSERT PIN ALIGNING FLAT END THROUGH LINK AND CHAIN. SECURE WITH COTTER PIN. SECURES WITH A #35 CHAIN CONNECTING LINK (PRC087) AS07.



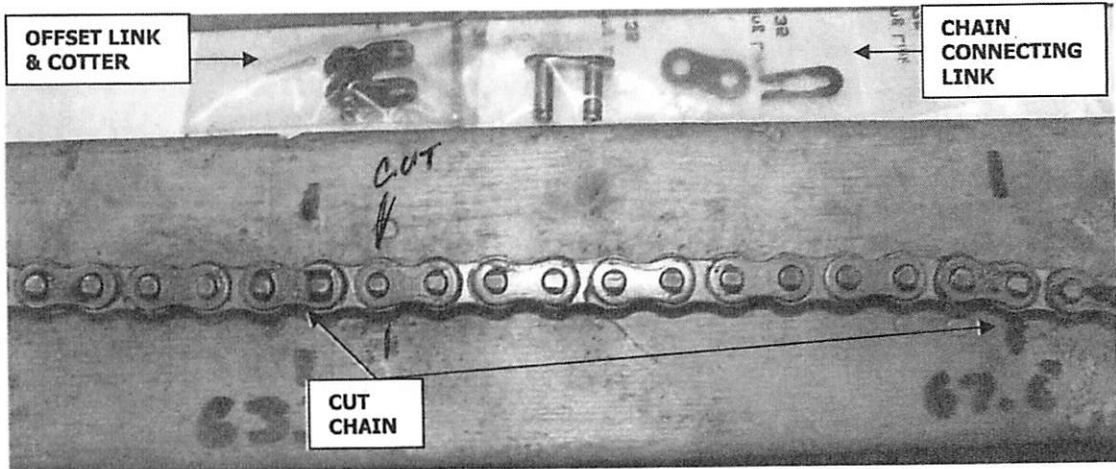
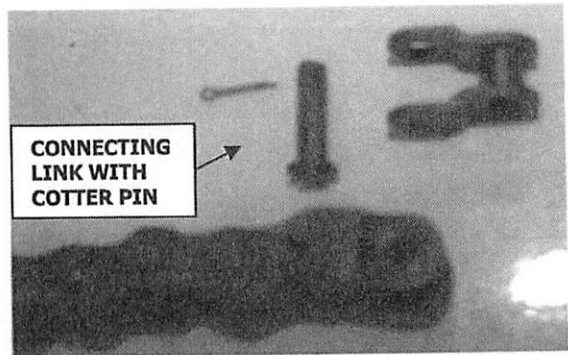
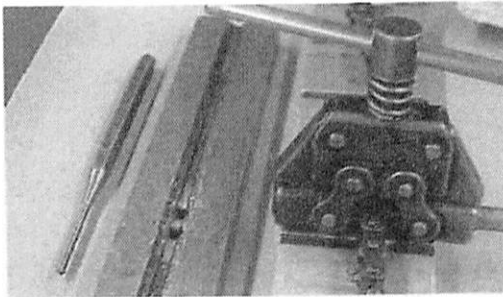
- 2) THE SHORTER OUTER CHAIN MEASURES TO 63" AND USES A #35 OFFSET AND A #35 CONNECTING LINK. LENGTH INDICATIONS ON MARKED WOODEN CHAIN GAUGE CCT. CHAINS VARY SLIGHTLY WITH MANUFACTURERS. CUT THE CHAIN LONG, IF IT DOES NOT LINK UP DIRECTLY ON MARKED GAUGE.



Cut link past all 12 marks

- 3) PROCEDURE FOR CUTTING #35 CHAIN: PLACE END LINK OVER POST ON WOODEN CHAIN GAUGE. SET CHAIN BREAKER ON INDICATED LINK PIN AND TURN HANDLE OR WRENCH TO DISCONNECT, RIGHT OF LINE.

- 4) PUNCH AND BAR REMOVES LINKS.

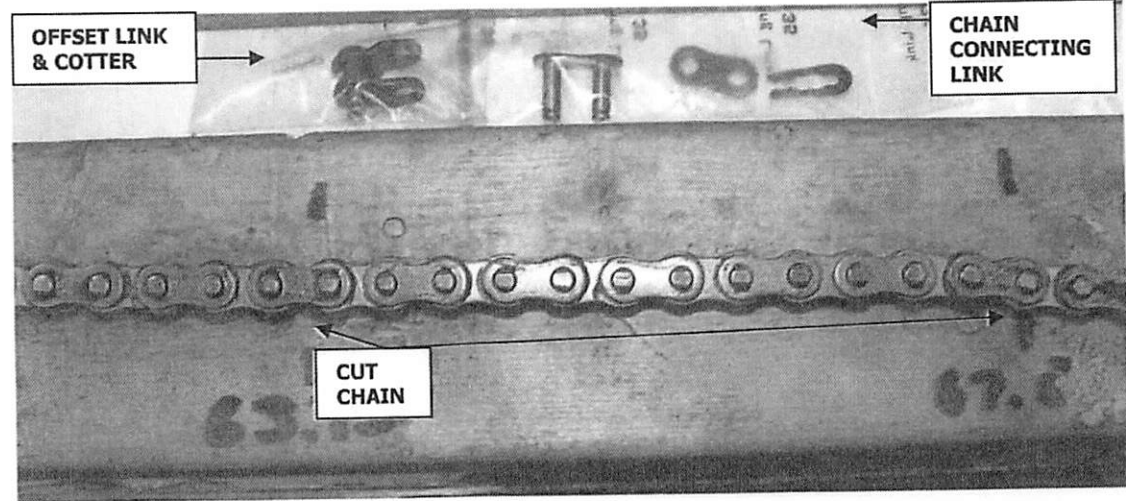
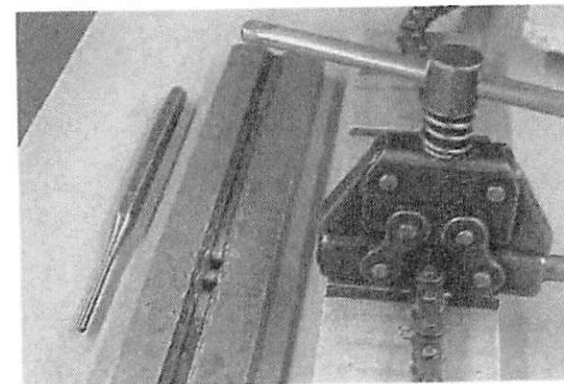
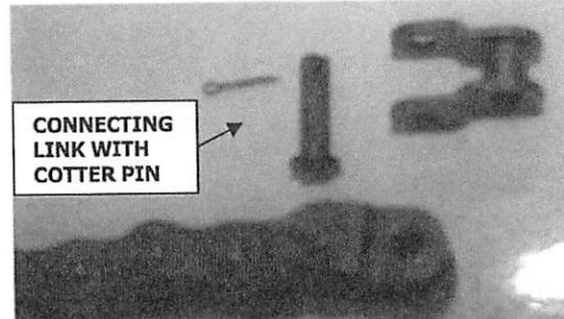
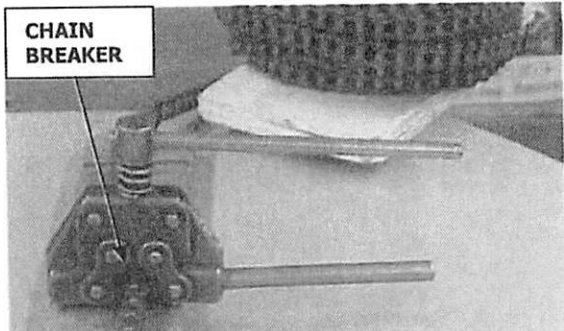


11/16/09
Per A. Swinefe
1 less link + offset
long chain

1 additional
link on
outer, short
chain

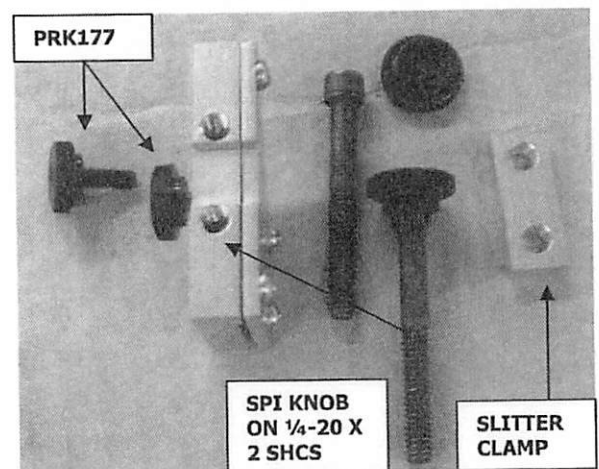
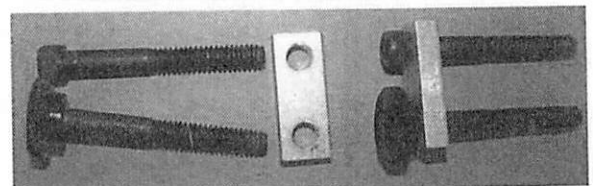
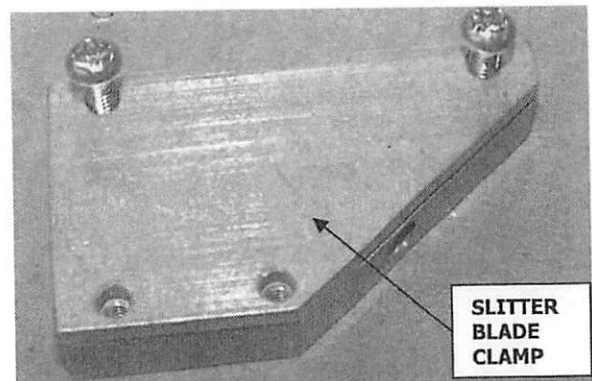
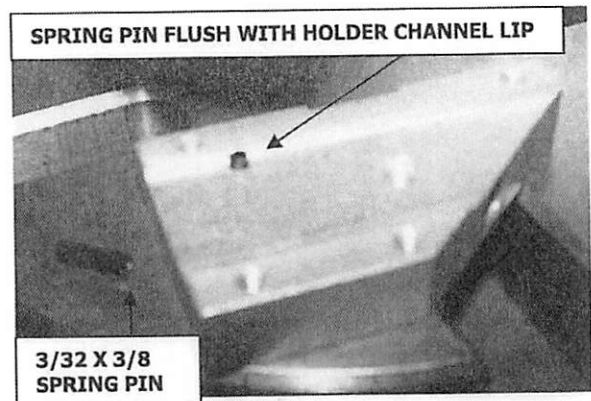
HD 60 INDUSTRIAL SERIES CHAINS

- 1) CUT (2) CHAINS FROM #35 CHAIN ROLL (PRC086) CCT. THE INNER CHAIN MEASURES TO 67 1/2" AND CONNECTS WITH AND A #35 CHAIN OFFSET LINK (PRC088) AS09. REMOVE PIN ON OFFSET LINK, PLACE LINK OVER CHAIN END, INSERT PIN ALIGNING FLAT END THROUGH LINK AND CHAIN. SECURE WITH COTTER PIN INCLUDED. USE A #35 CHAIN CONNECTING LINK (PRC087) AS09 WHEN ADDING TO SPROCKETS.
- 2) THE OUTER CHAIN MEASURES TO 63" AND CONNECTS WITH A #35 OFFSET AND A #35 CONNECTING LINK. LENGTH INDICATIONS ON MARKED WOODEN CHAIN GAUGE CCT. CHAINS VARY SLIGHTLY WITH MANUFACTURERS. CUT THE CHAIN SHORT, IF IT DOES NOT LIGN UP DIRECTLY ON MARKED GAUGE.
- 3) PROCEDURE FOR CUTTING #35 CHAIN FOLLOWS: PLACE END LINK OVER POST ON WOODEN CHAIN GAUGE. SET CHAIN BREAKER ON INDICATED LINE AND TURN HANDLE TO DISCONNECT LINK RIGHT OF LINE.
- 4) USE PUNCH AND CHANNELLED BAR PICTURED TO REMOVE LINKS.



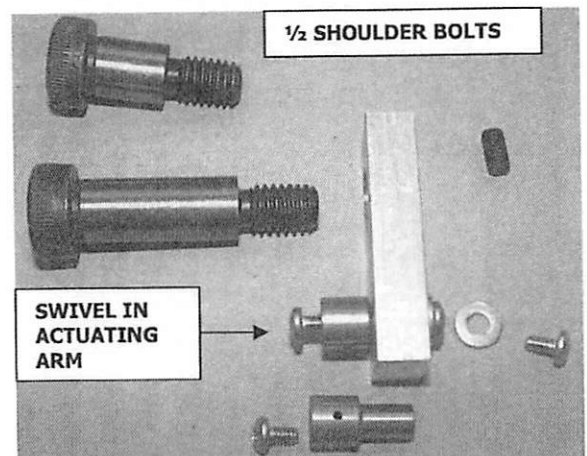
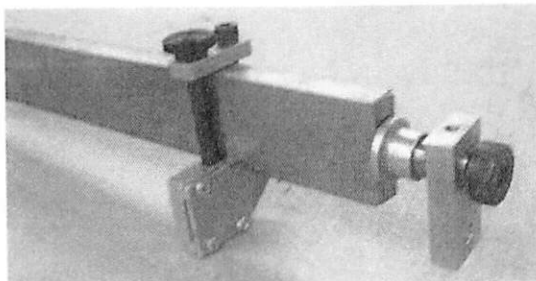
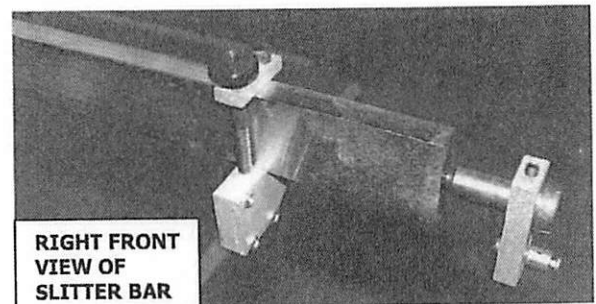
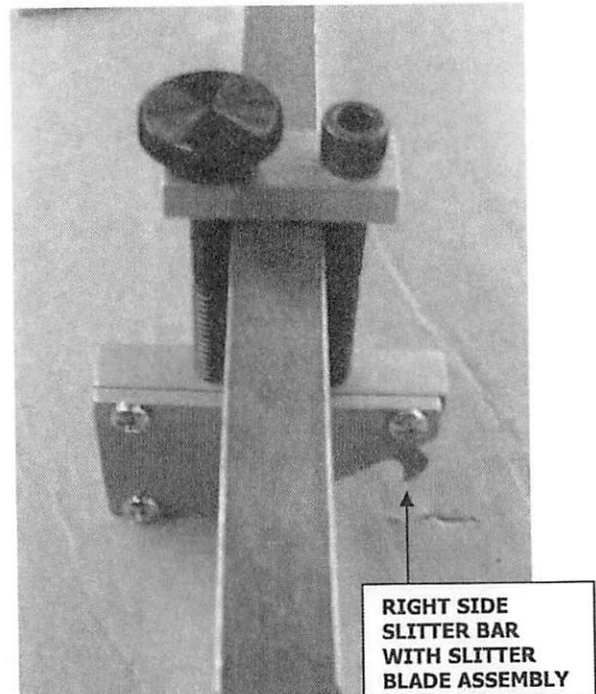
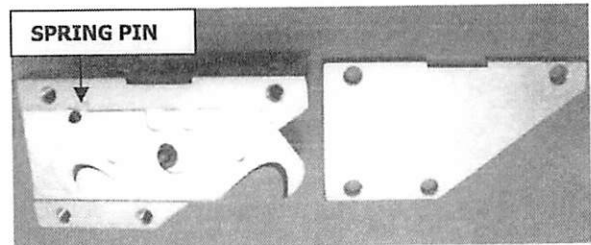
HD 38/60 SLITTER ASSEMBLY

- 1) WHEN REFERRING TO THE HD38/60, ORIENT FROM THE FRONT OF THE MACHINE. ASSEMBLE (2) SLITTER BLADE HOLDERS.
- 2) FROM RACK 6 ARBOR PRESS A 3/32 X 3/8 SPRING PIN, ONE EACH INTO THE CHANNEL SIDE OF (2) SLITTER BLADE HOLDERS (H380 186.4), FLUSH WITH THE CHANNEL LIP OF THE SLITTER BLADE HOLDERS. THE SPRING PIN WILL SECURE THE HOOK BLADE.
- 3) SECURE A SLITTER BLADE CLAMP (H380 187.4) RACK 6 TO BOTH SLITTER BLADE HOLDERS, AFTER THE SPRING PIN IS INSERTED, USING (4) 6-32 X 1/4 RH.
- 4) THREAD A SPI KNOB WITH 1/2" SCREW (PRK177) AS08 INTO THE THREADED SLITTER BLADE HOLDER SIDE, TO SECURE THE SLITTER BLADE.
- 5) ARBOR PRESS (2) 1/4-20 SPI KNOBS (PRK167) AS08 ONTO (2) 1/4-20 X 2 SHCS. THE SLITTER ASSEMBLY WILL REQUIRE (2) ADDITIONAL 1/4-20 X 2 SHCS WITHOUT SPI KNOBS.
- 6) INSERT (1) 1/4-20 X 2 SHCS WITH THE SPI KNOB AND (1) 1/4-20 X 2 SHCS WITHOUT THE SPI KNOB, EACH INTO (2) SLITTER CLAMPS (H380 185.4) RACK 6.
- 7) PLACE THE THREADED ENDS OF THE 1/4-20 X 2 SHCS THAT ARE THROUGH THE SLITTER CLAMPS ONTO THE HD60 SLITTER BAR (H360 184.4) LOFT 3. ORIENT THE 1/4-20 X 2 SHCS WITH THE SPI KNOB TOWARD THE FRONT OF THE LAMINATOR.
- 8) FROM THE UNDERSIDE OF THE SLITTER BAR SECURE THE SMALLER END OF THE SLITTER ASSEMBLY WHICH WILL HOLD THE EXPOSED SLITTER BLADE TOWARD THE REAR OF THE LAMINATOR AND THREAD IN THE 1/4-20 X 2 SHCS



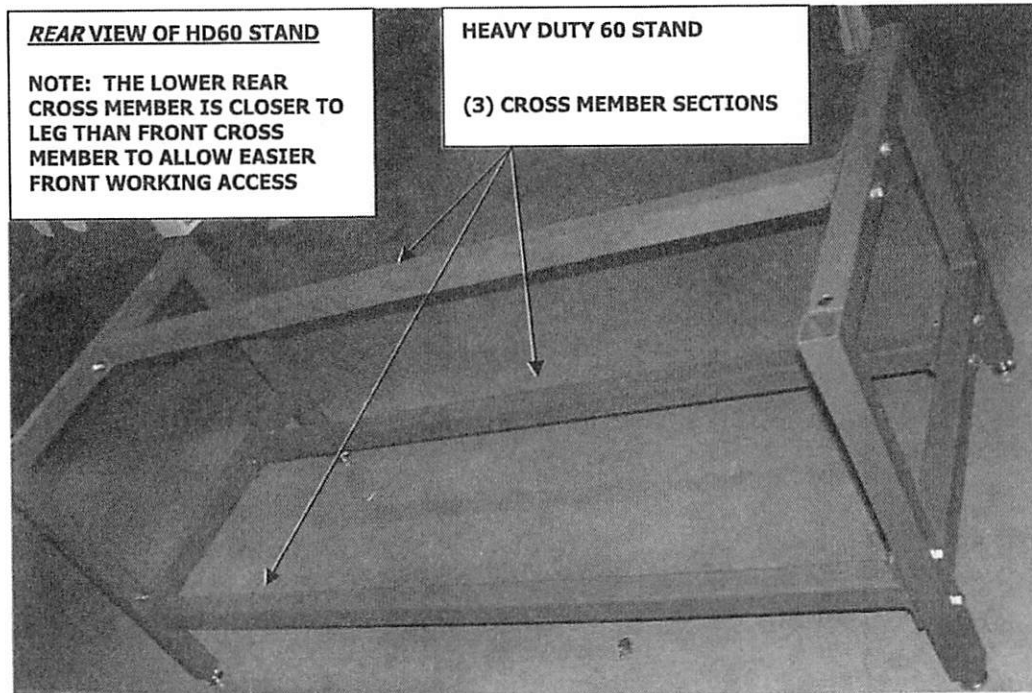
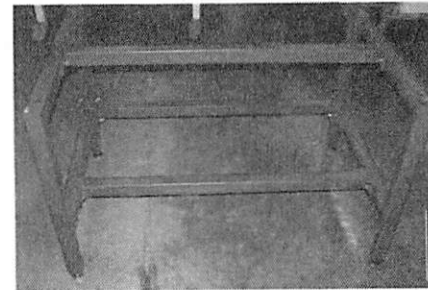
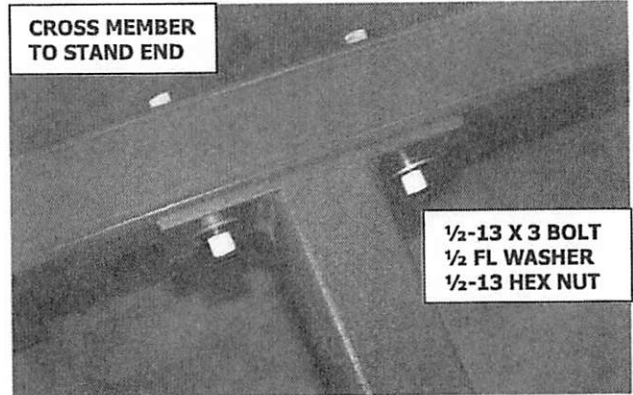
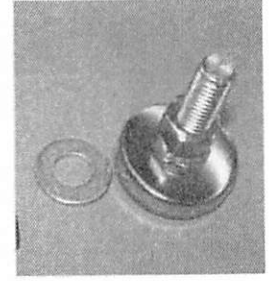
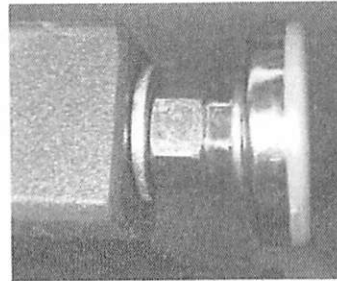
(WITHOUT CAP). THREAD THE 1/4-20 X 2 SHCS WITH THE SPI KNOB INTO THE FRONT, THICKER END OF THE SLITTER BLADE HOLDER. THE 1/2" SPI KNOB THAT SECURES THE SLITTER BLADE WILL FACE THE LEFT SIDE PANEL ON BOTH SLITTER BLADE ASSEMBLIES.

- 9) ALTHOUGH THE HD60 IS **NOT** SHIPPED WITH THE HOOK BLADES FOR SLITTER (PRB031) AS07 INSTALLED, FOR ORIENTATION PURPOSES THE BLADES ARE INSTALLED ON THESE PICTURES. NOTE BLADE RESTING ON SPRING PIN.
- 10) PREPARE THE SLITTER ACTUATING ARM (H380 188.4) RACK 6 BY THREADING A 10-32 X 3/8 SET SCREW INTO THE UPPER END. PLACE THE SMALLER END OF THE SWIVEL (H850 189.4) RACK 22 INTO THE ACTUATING ARM AND SECURE SWIVEL ON THE OTHER SIDE OF ARM USING A 6-32 X 1/4 PH WITH A #6 FLAT WASHER. BEGIN THREADING ANOTHER 6-32 X 1/4 PH INTO THE END OF THE SWIVEL. THE SWIVEL HOLDS THE CHOKE CABLE.
- 11) THE SLITTER ASSEMBLY IS NOW READY TO SECURE BETWEEN THE SIDE PANELS.
- 12) ORIENT THE SLITTERS WITH THE EXPOSED BLADE DOWNWARD, TOWARD THE REAR OF THE LAMINATOR.
- 13) SEE "HD 38/60 CHASSIS" 52) SECTION FOR INSTALLATION.



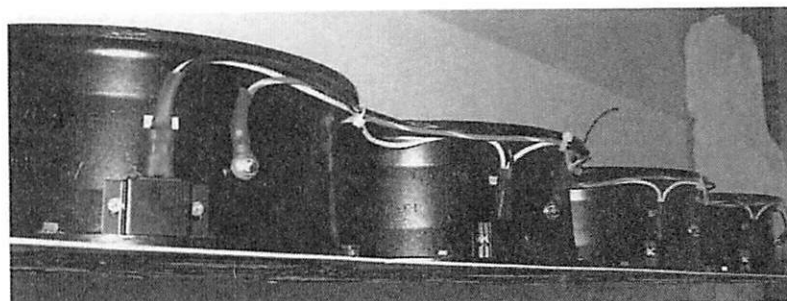
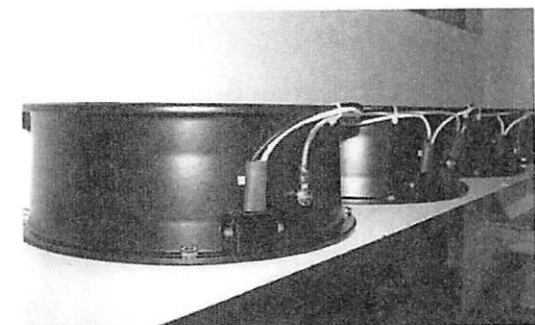
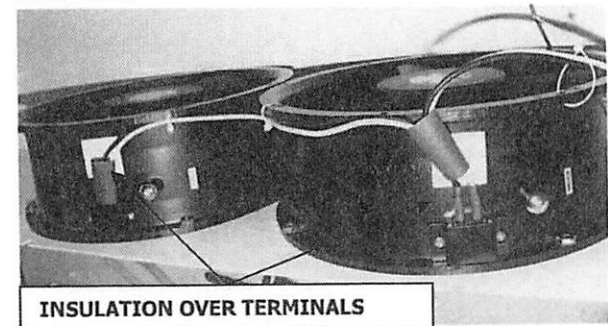
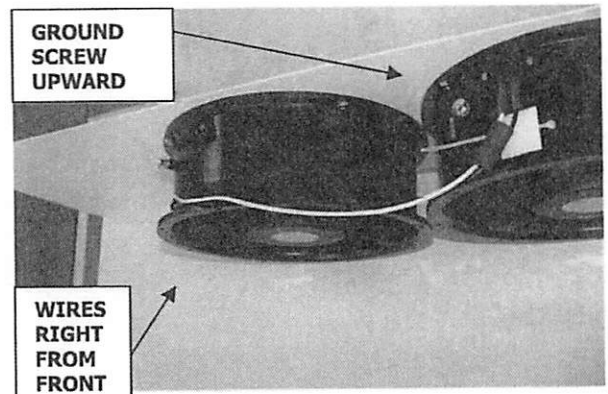
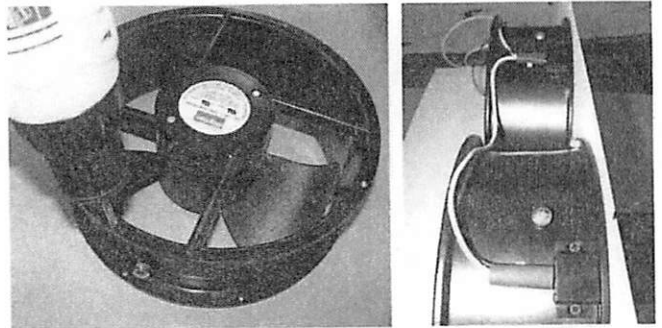
HD60 STAND ASSEMBLY

- 1) THE WELDED HD60 STAND (H360 135.4) LOFT 3 IS PAINTED BLUE AND REQUIRES THE FOLLOWING ASSEMBLY.
- 2) THREAD A 1/2-13 HEX NUT AS13 ONTO EACH OF (4) RISER LEVELER FEET (PRR225) LOFT 1. ADD A 1/2 FLAT WASHER SAE ONTO EACH LEVELER FOOT BY HEX NUT.
- 3) THREAD THE LEVELER FEET ASSEMBLIES INTO THE (2) STAND END LEGS. TAP THE LEG THREADS IF NECESSARY. TIGHTEN HEX NUT WITH WRENCH.
- 4) ALIGN STAND ENDS ON LEVELER FEET. THE RECESSED CROSS MEMBER OPENINGS WILL FACE THE *FRONT*. PLACE A 1/2 FLAT WASHER SAE ONTO EACH OF (12) 1/2-13 X 3 HEX HEAD BOLTS. INSERT BOLT WITH WASHER THROUGH STAND ENDS AND INTO CROSS MEMBERS. PLACE ANOTHER 1/2 FLAT WASHER SAE ON BOLT THREADS AND SECURE BOLT WITH A 1/2-13 HEX NUT. RATCHET TIGHT. CONNECT ALL (3) CROSS MEMBERS THIS WAY.



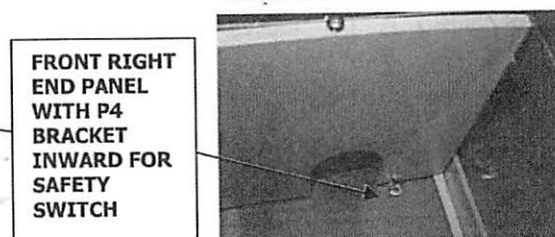
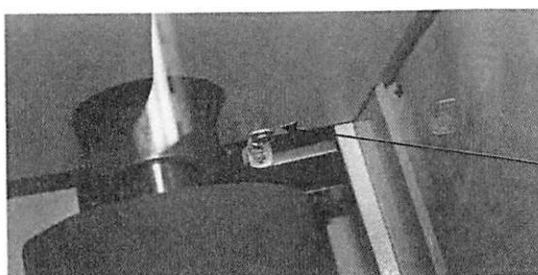
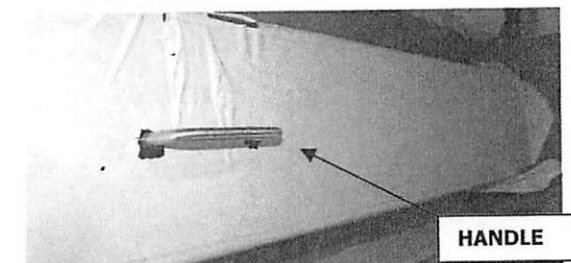
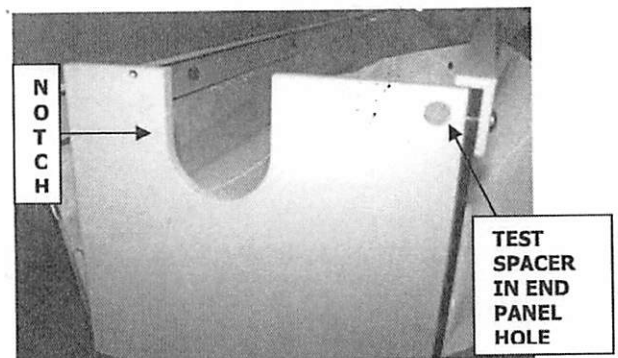
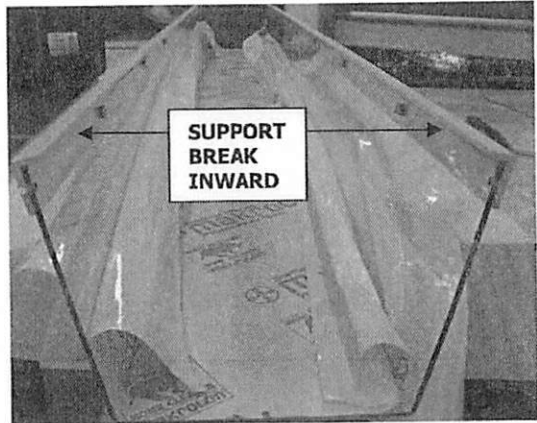
HD 38/60 TOP MOTOR COVER

- 1) THE HD38 HAS (2) FANS, THE HD60 HAS (4) FANS. ASSEMBLY PROCEDURES ARE THE SAME. PLACE A TOP MOTOR COVER (H360 093.4FT) LOFT 3 ON A TABLE WITH FAN OPENINGS ACCESSIBLE.
- 2) THREAD (4) ALTERNATE FAN HOLES ON 10" AXIAL FANS (PRF130) AS09, ON TERMINAL POST, AIR FLOW ARROW SIDE WITH A #10 TAP. SECURE AXIAL FANS ORIENTED WITH GROUND SCREWS AND WIRE CONNECTING POSTS FACING UPWARD AWAY FROM THE BREAK IN THE TOP MOTOR COVER. AIR FLOW IS UPWARD. THE PRINTING ON THE FANS FACES TOWARD FAN GUARD. USE 10-32 X 3/4 TH TO SECURE A LARGE FAN GUARD (PRF121) AS07 TO EACH FAN FROM THE OUTER TOP MOTOR COVER. WRENCH TIGHTEN A #10 NYLON LOCKNUT ON INNER THREADS. ORIENT FAN GUARDS TO ALLOW SLITTER ASSEMBLY.
- 3) SLIDE A 1" PIECE OF 1/2" BLACK INSULATION TUBING (PRI163) CAB 1 OVER 14" OF BLACK AND WHITE 16 GAUGE WIRE. PREPARE "DAISY CHAIN" BY DOUBLING WIRES FAN TO FAN. CRIMP BLUE FEMALE CONNECTORS (PRT286) ONTO ONE END OF EACH DOUBLED WIRE AND CONNECT TO THE FANS. SLIDE THE INSULATION TUBING OVER THE CONNECTION. WIRES EXIT RIGHT SIDE, LAST EXITING PIECE 18" FOR HD38 AND 15" FOR HD60.
- 4) REPEAT LENGTH WITH 16 GAUGE GREEN GROUND WIRE ON SCREW PROVIDED PLUS A #10 STAR WASHER. PLACE INSULATION ON DOUBLE WIRES, LAST EXIT WIRE 24".
- 5) SECURE WIRES TO FAN USING (2) EACH 4" SMALL CABLE TIES (PRC082) AS07.



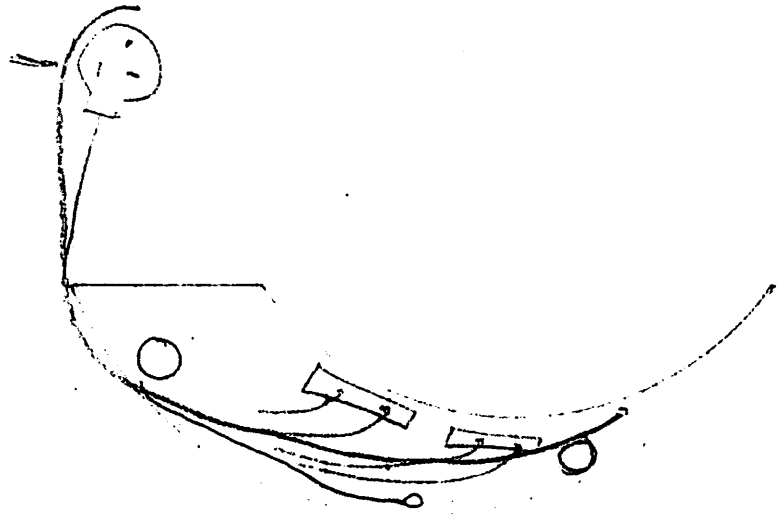
HD 60 SAFETY SHIELD ASSEMBLY

- 1) PEEL BACK THE PLASTIC COVERING ON A CLEAR POLYCARBONATE REAR SAFETY SHIELD (H360 071.4) LOFT 3 EXPOSING ALL HOLES ALONG THE OUTER EDGES.
- 2) PLACE SAFETY SHIELD UPSIDE DOWN ON A WORKTABLE. WITH THE SMALLER BREAK FACING INWARD, SECURE (2) REAR SAFETY SHIELD SUPPORTS (H360 073.4) LOFT 3 ON ALL HOLES EXCEPT THE ENDS. USE 6-32 X 3/8 THMS FROM THE OUTSIDE AND 6-32 KEPS HEX NUTS INSIDE. DO NOT ATTACH THE ENDS.
- 3) ORIENT (2) REAR SAFETY SHIELD END PANELS (H380 070.4) RACK 6 WITH THE NOTCH FACING OPEN SIDE AND LARGER, CORNER HOLE ON THE SAME SIDE OF BOTH END PANELS. SECURE SAFETY SHIELD SUPPORT ENDS THROUGH SHIELD INTO END PANEL WITH (2) 6-32 X 1/2 RHMS. *** TEST A SPACER (LC25 057.4) RACK 6 IN THE OPEN END PANEL HOLES. THE SCREW THREADS SHOULD NOT RESTRICT SPACER ROTATION IN END PANEL. REMOVE SPACER. SET SAFETY SHIELD UPRIGHT. SECURE UPPER, CENTER SAFETY SHIELD TO END PANEL WITH 6-32 X 1/2 RHMS.
- 4) REMOVE ALL INNER PLASTIC COATING AND DISCARD. DO NOT REMOVE OUTER PLASTIC COATING. CUT SMALL HOLES AROUND CENTER OPENINGS FOR THE HANDLE (PRH141R) AS09 ON TOP OF SAFETY SHIELD. THE OUTER PLASTIC COATING PROTECTS THE SAFETY SHIELD FROM SCRATCHES AND SMUDGES.
- 5) THREAD (2) 8-32 X 1/2 PHMS FROM THE INSIDE INTO HANDLE THREADS.
- 6) SECURE A SAFETY SHIELD BRACKET FOR PREM 4 (4285 190.4) LD03 THROUGH THE BRACKET'S UNTHREADED HOLE, WITH THREADED HOLE FACING DOWNWARD, ONTO THE INNER RIGHT END PANEL. USE A 6-32 X 1/4 PHMS.

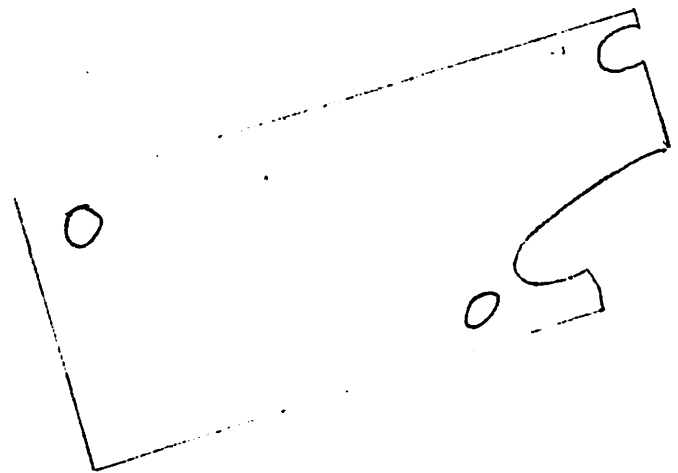
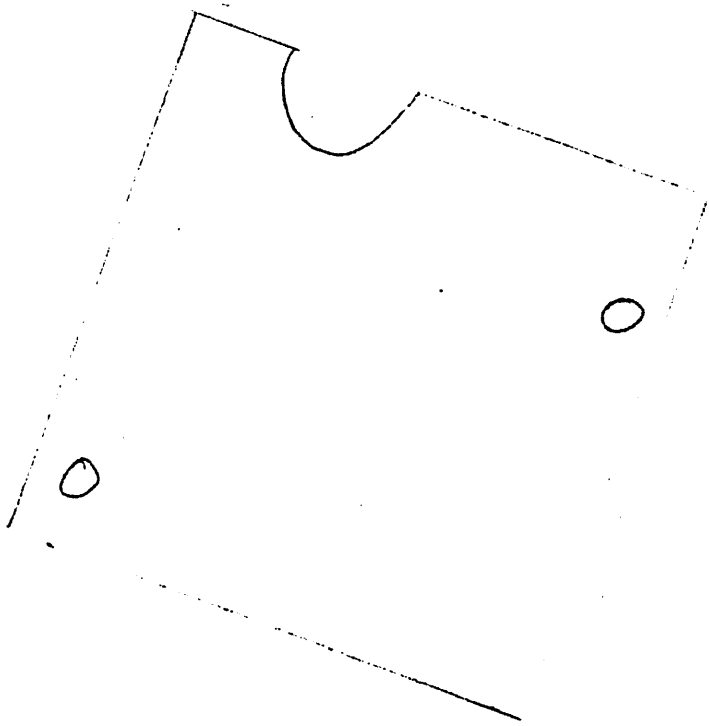
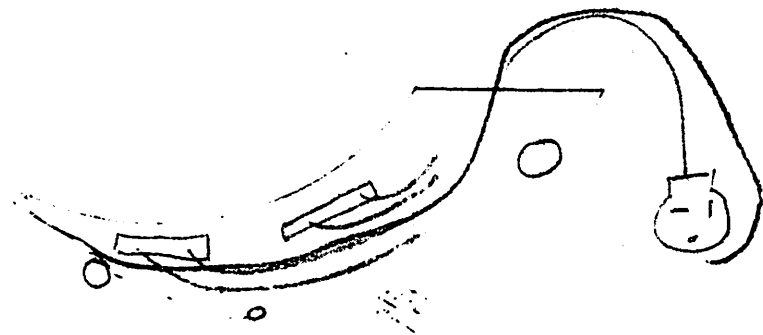


HD60 HEAT SHOES

TOP



BOTTOM

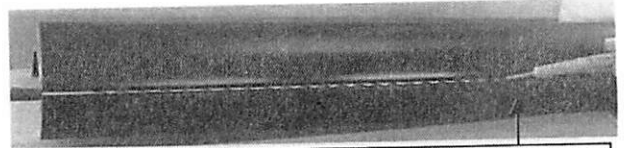


5/16-18 x 1 1/2 SHCS
+ SPACER

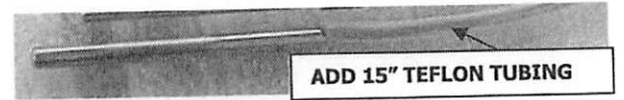
38/60

HD 60 INDUSTRIAL SERIES CARTRIDGE HEAT SHOE ASSEMBLY

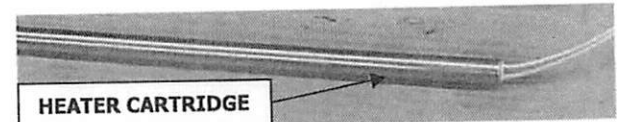
- 1) PLACE (2) HD60 HEAT SHOES COMPLETE (H360 060.4A) LOFT 3 ON A CUSHIONED TABLE. ORIENT THE HEAT SHOES WITH THE LARGE FLAT SIDE OUTWARD, LIP INWARD. WIRES WILL EXIT THE RIGHT SIDE OF THE SHOE AND CONNECT TO THE RIGHT SIDE PANEL RECEPTICLES.
- 2) PREPARE BOTH HEAT SHOES TO HOLD TYPE J THERMOCOUPLE SENSORS (PRC214J) RACK 16. MEASURE 15" INTO RIGHT SIDE SENSOR CHANNEL. STAKE INSIDE CHANNEL AT END OF TOOL. THIS WILL SECURE SENSOR FROM SLIDING INWARD.
- 3) INSERT THERMO COUPLE TYPE J SENSOR INTO STAKED AREA. REMOVE BLACK TUBING END, IF NECESSARY.
- 4) SLIDE 15" OF TEFLON TUBING (LC38 344.4) AS17 OVER SENSOR WIRE, FLUSH TO SENSOR. STAKE SENSOR ON END.
- 5) SLIDE 13" OF 1/8 TUBING (PRI162) CAB1 UP SENSOR WIRE TO SENSOR.
- 6) INSERT (2) EACH 5/8 X 60" 220V 230V 2000W CARTRIDGE HEATERS (PRH158.A) LOFT 3 INTO BOTH HEAT SHOES, FROM THE RIGHT SIDE, AS THE HEAT SHOE WILL SIT ON LAMINATOR. ALIGN HEATERS FLUSH WITH ENDS.
- 7) APPLY SUPERFLEX RED HIGH TEMP RTV SILICONE ADHESIVE SEALANT CAB1, COVERING CERAMIC HEATER ENDS AND BETWEEN HEATER WIRES.
- 8) STAKE BOTH HEATER ENDS ON SHOE.
- 9) BEND ALL HEATER WIRES AND SENSOR WIRE WITH TEFLON TOWARD THE FLAT SIDE OF THE HEAT SHOE, ON BOTH TOP AND BOTTOM SHOES. VARIOUS SIZES OF BLACK INSULATION TUBING ARE USED ON WIRES AND AS THEY ARE HEATED TO SHRINK THE TUBING, KEEP



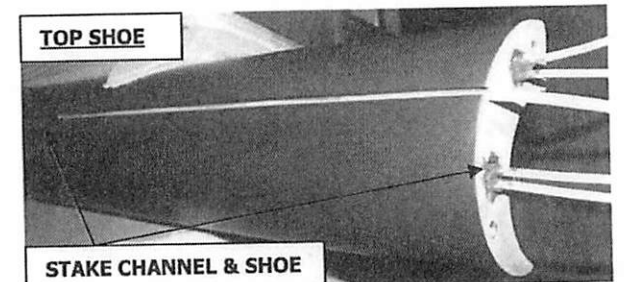
STAKE 15" INWARD FOR SENSOR THERMOCOUPLE



ADD 15" TEFLON TUBING

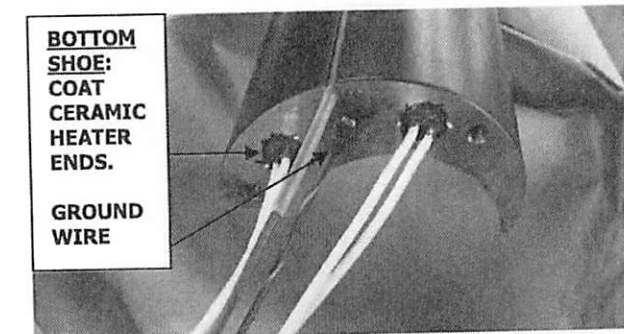


HEATER CARTRIDGE



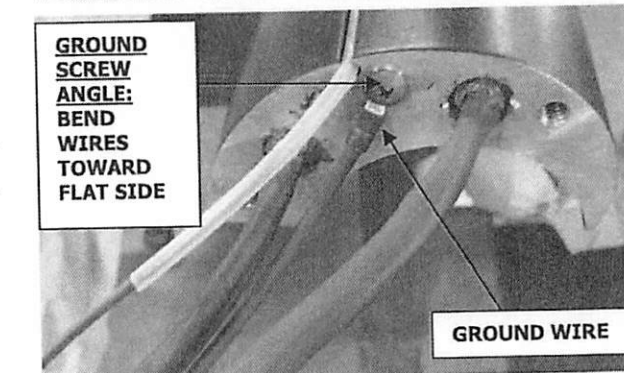
TOP SHOE

STAKE CHANNEL & SHOE



BOTTOM SHOE:
COAT CERAMIC HEATER ENDS.

GROUND WIRE

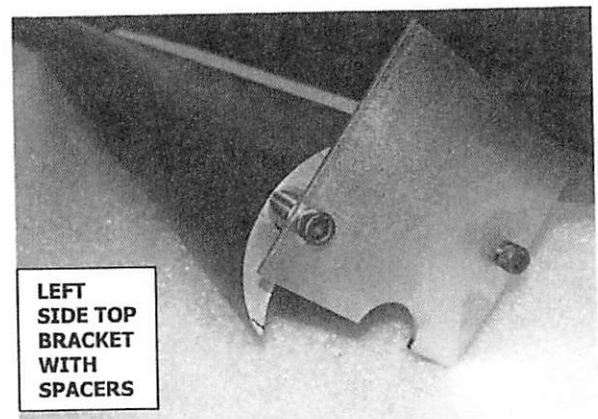
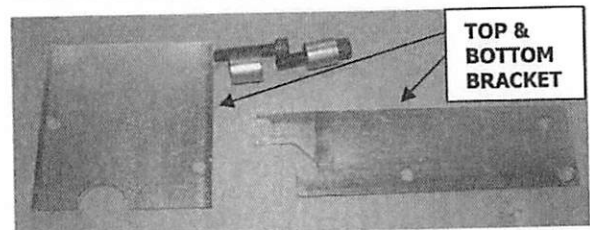
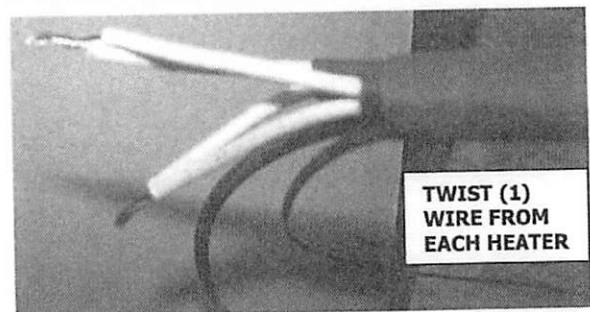
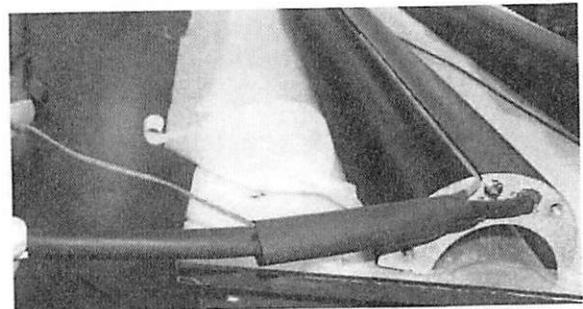
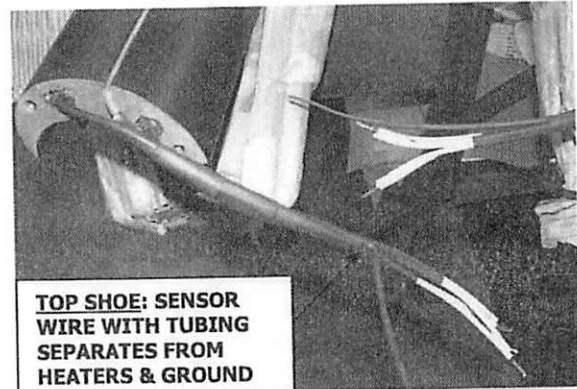


GROUND SCREW
ANGLE:
BEND WIRES TOWARD FLAT SIDE

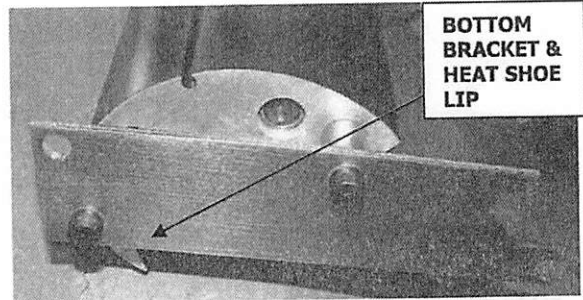
GROUND WIRE

WIRES DIRECTED TOWARD FLAT SIDE OF HEAT SHOE.

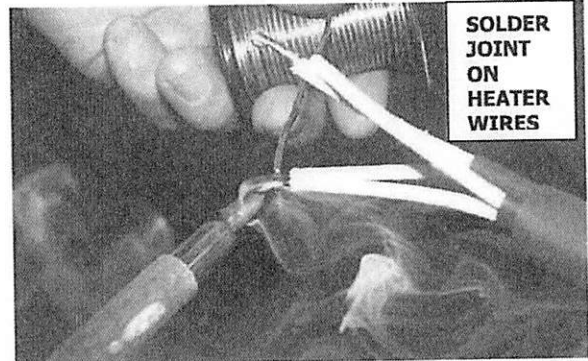
- 10) **FOR TOP HEAT SHOE AND BOTTOM HEAT SHOE:** TRIM AN 8" PIECE OF BLACK 3/8" INSULATION TUBING (PRI164) CAB 1 FOR HEATER WIRES CLOSEST TO THIN LIP AND A 6 1/2" PIECE OF 3/8" TUBING FOR HEATER WIRES BY FLAT EDGE. PLACE BLACK INSULATION TUBING OVER HEATER WIRES, FLUSH WITH HEATER CORE. HOLD WIRES TOWARD FLAT EDGE, HEAT SHRINK TUBING. TRIM LONGER HEATER WIRES TO EVEN LENGTH MATCHING SHORTER HEATER WIRES. IDENTIFY ONE PAIR WITH INK.
- 11) CUT (2) 10" PIECES OF BLACK 1/8" INSULATION TUBING (PRI162) CAB 1. CUT AND COVER (2) 12", 16 GAUGE GREEN GROUND WIRES. GROUND WIRE MEASURES 1" LONGER THAN HEATER WIRES. THE TOP AND BOTTOM HEAT SHOES BOTH HAVE A GROUND WIRE. CRIMP A BLUE RING CONNECTOR (PRT294) ONTO BOTH GROUND WIRES AND SLIDE THE TUBING OVER WIRE TO CONNECTION POINT. HEAT SHRINK TUBING. THREAD GROUND WIRE INTO HEAT SHOES, ALIGNING THE RING CONNECTION AWAY FROM THE SENSOR ON BOTH HEAT SHOES. SECURE USING A 10-32 X 3/8 THMS WITH A #10 STAR WASHER BITING INTO THE SHOE.
- 12) CUT 4" OF 3/8" INSULATION TUBING (PRI164) TO COVER SENSOR WIRE TOGETHER WITH HEATER WIRE BY THIN LIP, FLUSH TO HEATER CORE. HEAT SHRINK TUBING.
- 13) CUT 4" OF 3/4" INSULATION TUBING (PRI166). COVER BOTH HEATER WIRE SETS, SENSOR AND GROUND. DON'T SHRINK. ****THEN SLIDE 5" OF 1/2" (PRI163) UP WIRES. EXCLUDE SENSOR WIRE. DON'T SHRINK YET.
- 14) STRIP 1/2" OFF HEATER WIRE ENDS AND TWIST TOGETHER' CLOCKWISE, ONE WIRE FROM EACH HEATER IN BOTH HEAT SHOES.
- 15) **CONNECT TOP HEAT SHOE BRACKETS (H380 065.4T) RACK 6 TO THE RIGHT**



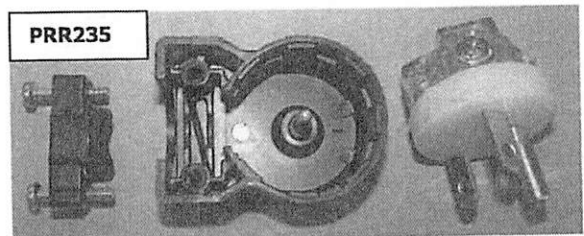
AND LEFT SIDE OF THE TOP HEAT SHOE, ORIENTED WITH THE NOTCH FACING DOWNWARD, CLOSER TO THE FLAT SIDE OF HEAT SHOE. THE SHORTER BRACKET EDGE WILL BE INWARD, TO THE HEAT SHOE FLAT SIDE. USE 5/16-18 X 1 1/2 SHCS WITH A HEAT SHOE SPACER (H380 063.4) RACK 6 ON THREADS BETWEEN BRACKET AND HEAT SHOE. DRAPE THE INSULATED WIRES BETWEEN SPACERS, UPWARD.



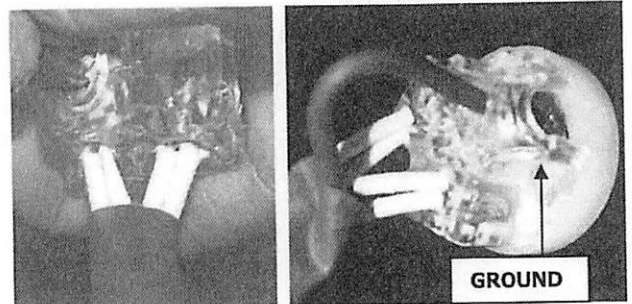
- 16) CONNECT THE BOTTOM HEAT SHOE BRACKETS (H380 065.4B) RACK 6 TO THE BOTTOM HEAT SHOES WITH LARGE NOTCH UPWARD TOWARD FLAT. USE 5/16-18 X 1 1/2 SHCS WITH HEAT SHOE SPACERS BETWEEN BRACKET AND HEAT SHOE. DRAPE INSULATED WIRES UPWARD BETWEEN SHOE SPACERS.



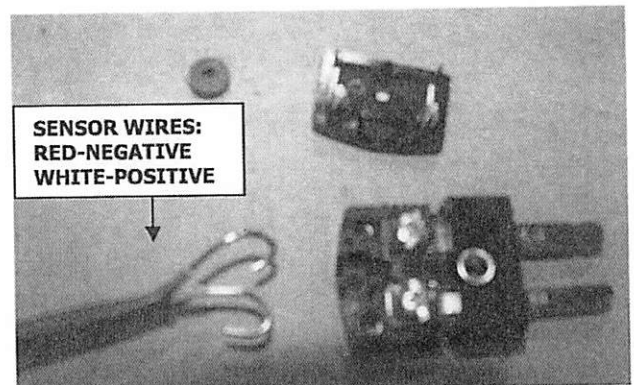
- 17) BRUSH FLUX ON TWISTED HEATER WIRE ENDS. HEAT SOLDER IRON AND VERY LIGHTLY WICK A SOLDER JOINT ONTO TWISTED WIRES OF THE UNITED HEATERS ON BOTH HEAT SHOES.



- 18) LOOSEN THE (2) STRAIN RELIEF SCREWS AND THE (1) BACK SCREW ON (2) 90 DEGREE HUBBLE PLUGS (PRR235) RACK 6. SEPARATE HUBBLE PLUG PIECES FOR WIRING. LOOSEN CONNECTING INNER PORTION SCREWS OF PLUG. INSERT THE OPEN SOLDERED HEATER WIRES BETWEEN THE SCREW AND THE METAL BRACKET AND TIGHTEN. TRIM THE GREEN GROUND WIRE 1 1/4" BEYOND HUBBLE ENTRY OPENING, STRIP BACK AND TWIST WIRE CLOCKWISE. INSERT THE OPEN GROUND WIRE BETWEEN THE GREEN SCREW INDICATED "GR" AND METAL BRACKET, SECURE GROUND WIRE WITH SCREW. ORIENT THE GROUND WIRE FURTHEST AWAY FROM STRAIN RELIEF, REINSERT CONNECTED WIRES INTO PLUG HOUSING. TIGHTEN BACK SCREW. PLACE STRAIN RELIEF WITH CURVED SIDE INWARD, OVER WIRES AND TIGHTEN (2) SCREWS.

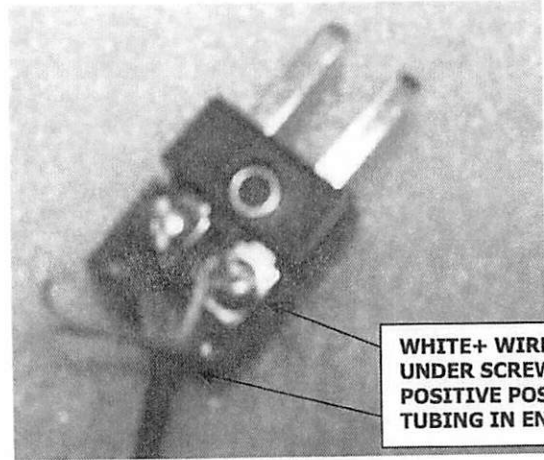


- 19) CUT SENSOR WIRE 4" PAST THE END OF THE HUBBLE PLUG. UNTHREAD AND SAVE BOTH SMALL SCREWS ON (2) SENSOR PLUGS (PRR229) AS08. REMOVE THE SENSOR PLUG COVER AND

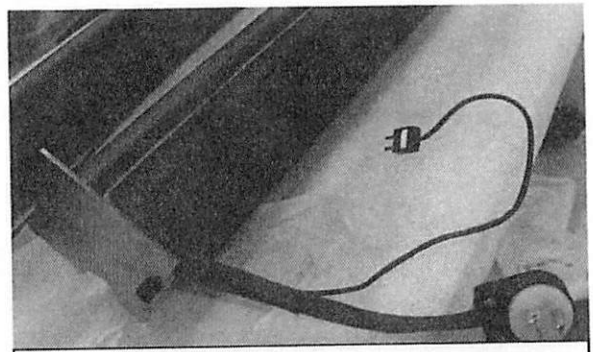


NOTE THE + AND - INDICATIONS. EITHER GROMMET OR INSULATION TUBING MUST BE IN PLUG END.

- 20) STRIP ABOUT 3/8" OFF THE ENDS OF THE RED - (NEGATIVE) AND THE WHITE+ (POSITIVE) SENSOR WIRES. BEND EXPOSED WIRE ENDS TO MAKE SMALL HOOKS. CAREFULLY TRIM BACK INSULATION BETWEEN WIRES.
- 21) BEGIN TO UNTHREAD INNER PLUG SCREWS. LOOP THE WHITE (POSITIVE) WIRE ON THE + SCREW THREADS AND LOOP THE RED (NEGATIVE) WIRE ON THE - SCREW THREADS. TIGHTEN TO SECURE WIRES.
- 22) RUBBER GROMMET MAY NOT FIT WITH J-TYPE SENSOR TUBING. REPLACE PLUG COVER AND SECURE WITH SCREWS.



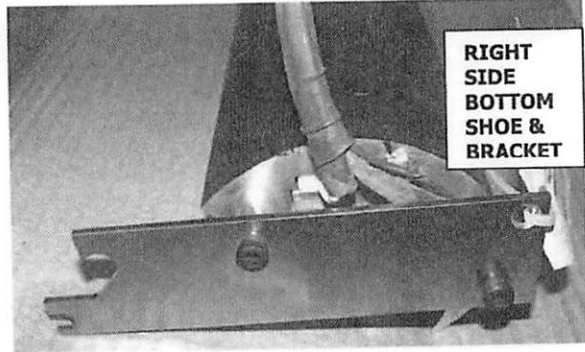
WHITE+ WIRE UNDER SCREW POSITIVE POST, TUBING IN END



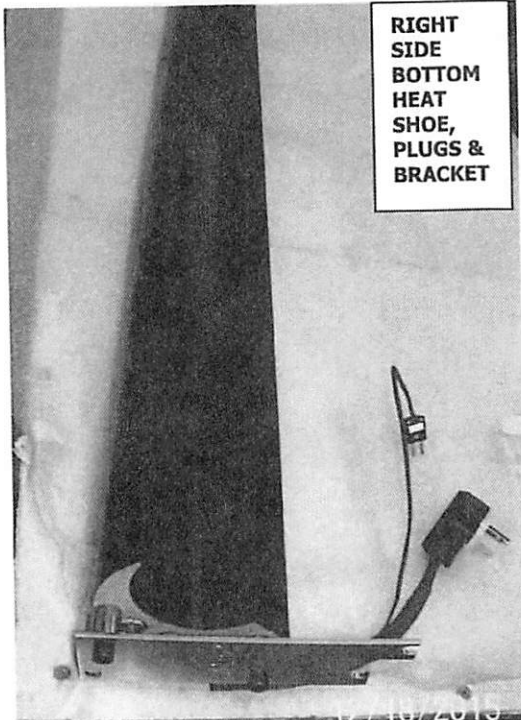
RIGHT SIDE TOP HEAT SHOE, BRACKET AND PLUGS



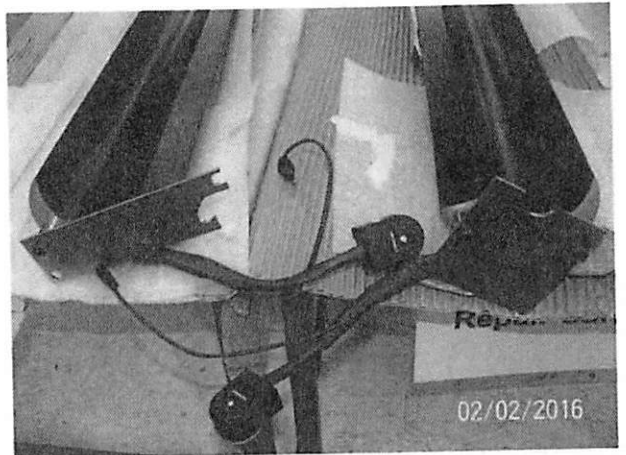
RIGHT TOP SHOE



RIGHT SIDE BOTTOM SHOE & BRACKET



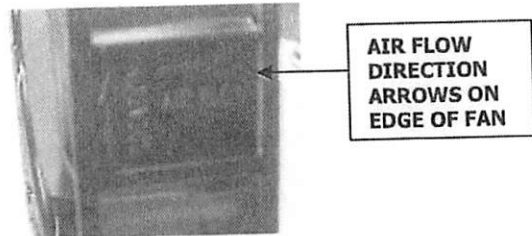
RIGHT SIDE BOTTOM HEAT SHOE, PLUGS & BRACKET



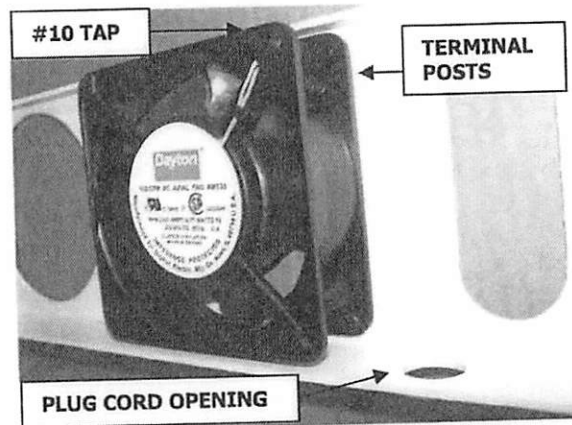
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HD 38/60 INDUSTRIAL SERIES TOP FAN ASSEMBLY

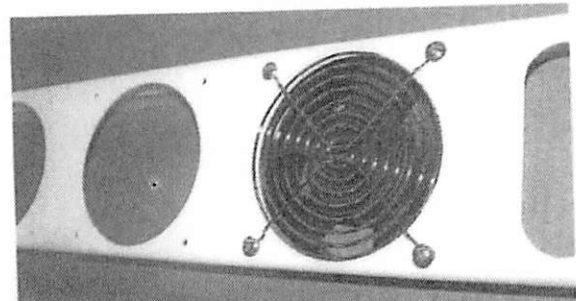
- 1) THE HD60 TOP FAN ASSEMBLY CONSISTS OF (8) HDTOP/LC 220V FANS (PRF111) AS07 (THE HD38 USES 3 FANS) CONNECTED INDIVIDUALLY TO 38/60" FAN BRACKET (H380 181.4) OR (H360 181.4) LOFT 3 WITH **DOWNWARD** BLOWING AIR. CONNECT WIRED FANS, ONE TO THE NEXT (DAISY CHAIN). WHEN COMPLETE, THE WIRED FAN ASSEMBLY RESTS ON SHOULDER BOLTS ON THE INNER SIDE PANELS. ASSEMBLE THE HD38/60 FANS AS FOLLOWS.



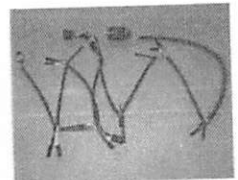
- 2) USE A 10-32 TAP TO THREAD THE (4) HOLES ON THE **INTAKE SIDE** OF THE (8) 220V FANS, **OPPOSITE** THE LABEL SIDE. **FAN ROTATION AND AIR FLOW DIRECTION** IS INDICATED ON EDGE OF THE FANS WITH ARROWS. TURN OVER THE FAN AND TAP THE (1) CORNER BY THE WIRES AND TERMINAL POSTS. THESE THREADS WILL ACCOMMODATE THE GROUND WIRE, USING A #10 STAR WASHER AND #10 KEPS NUT.



- 3) PLACE THE 60" FAN BRACKET, FACE DOWNWARD, ON A CLEAN WORKTABLE. ORIENT THE FAN BRACKET WITH THE PLUG CORD OPENING, LOCATED ON THE LARGER LIP, TO THE RIGHT.

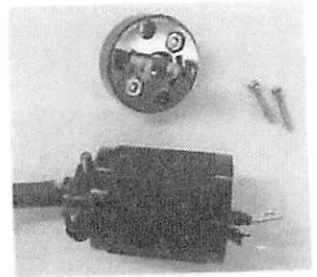
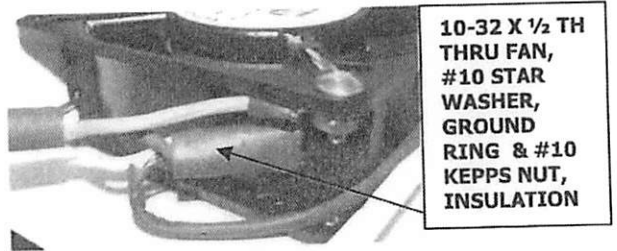


- 4) SET FAN BRACKET ON EDGE AND ATTACH THE (8) SMALL FAN GUARDS (PRF120) AS07 TO THE TAPPED, **INTAKE SIDE** OF THE FANS, CONNECTING THE FANS AND GUARDS TO THE FAN BRACKET. USE (4) 10-32 X 3/8 TH EACH WITH A DROP OF LOCTITE THREAD LOCKER FOR EACH FAN. BE CONSISTANT WITH THE ORIENTATION OF THE FAN GUARDS AND CONNECT ALL EIGHT FANS.

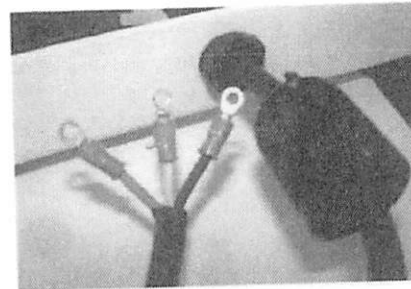


- 5) IF ASSEMBLER IS USING A TOP FAN WIRING HARNESS, CONTINUE READING DIRECTIONS. IF THE ASSEMBLER IS MAKING A HARNESS, ADVANCE TO 18) FOR DIRECTIONS.

- 6) PLACE THE 60/38" FAN BRACKET WITH CONNECTED FANS AND GUARDS FACE DOWNWARD WITH THE PLUG CORD CONNECTION TO THE RIGHT. ARRANGE THE FAN WIRE HARNESS WITH THE PLUG CORD TO THE RIGHT. PLACE A 1" PIECE OF 3/8" BLACK INSULATION TUBING (PRI164) CAB 1 OVER EACH DOUBLE FAN WIRE CONNECTION. CONSISTENTLY CONNECT THE BLACK AND WHITE FAN WIRES TO THE FAN TERMINAL POSTS, IE. BLACK WIRES ON BOTTOM, WHITE WIRES ON TOP. **CONNECT THE GROUND WIRE FOR THE FAN TO THE TAPPED THREADS ON THE FAN CORNER BY TERMINAL POSTS. USE A 10-32 X 3/8 TH THROUGH FAN CORNER, ADD A #10 STAR WASHER, LOCTITE, AND SECURE WITH A #10 KEPS HEX NUT. COVER WITH INSULATION.



- 7) INSERT THE PLUG CORD THROUGH THE OPENING IN THE LARGER FAN BRACKET LIP AND SECURE PLUG CORD WITH A STRAIN RELIEF BUSHING (PRB065) AS07.



PLUG HOUSING ON CORD BEFORE TERMINATING WIRES

- 8) CAREFULLY STRIP THE PROTECTIVE SHEATHING ON THE END OF THE PLUG CORD ABOUT 1 INCH, EXPOSING THE WHITE, BLACK AND GREEN GROUND WIRES. STRIP WIRES FOR CONNECTING TERMINALS.

- 9) CRIMP A RED RING CONNECTOR (PRT296) ONTO EACH WIRE END. NO BLACK INSULATION TUBING IS USED ON THESE WIRES.

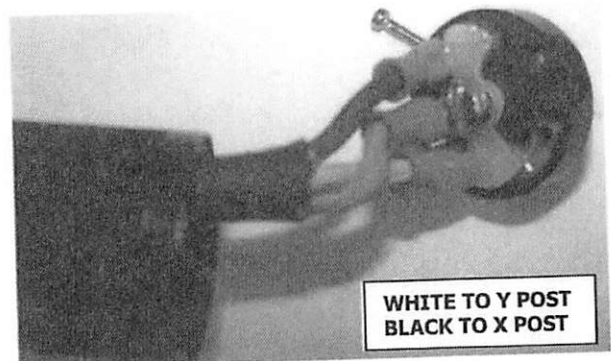


GROUND IN CENTER

- 10) REMOVE THE (2) SMALL SCREWS ON THE ARROWHEAD TWIST LOCK PLUG (PRR220) AS07. SLIDE THE FASTENER END OF THE PLUG HOUSING OVER THE CONNECTORS AND ONTO THE CORD.

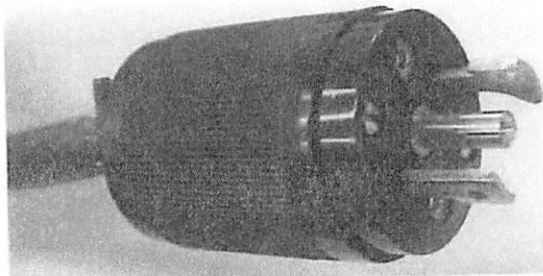
- 11) REMOVE THE THREE WIRE CONNECTION SCREWS.

- 12) CONNECT THE GROUND WIRE RING TO THE RAISED CENTER SCREW IN THE PLUG, ALIGNING TERMINAL IN THE WASHER OPENING.

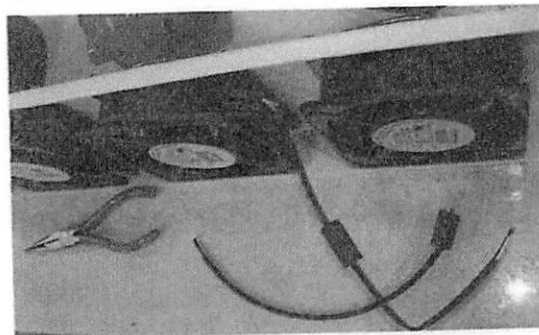


WHITE TO Y POST
BLACK TO X POST

- 13) CONNECT THE WHITE WIRE RING TO THE "Y" INDICATED, SMALLER PLUG POST WITH THE BRASS SCREW. REMEMBER THE HOUSING HAS TO COVER THIS. CONNECT THE BLACK WIRE RING TO THE "X" INDICATED POST WHICH IS LARGER POST.



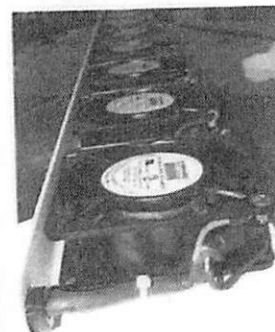
- 14) SECURE THE WHITE FAN-LIKE NYLON GUARD OVER THE BRASS SCREWS AND BEND WIRES UPWARD SO THEY WILL FIT BACK INTO THE PLUG HOUSING. ALIGN SCREW HOLES WITH THREADS.



- 15) RECONNECT THE PLUG HOUSING TO THE WIRED END, USE ORIGINAL (2) SCREWS.

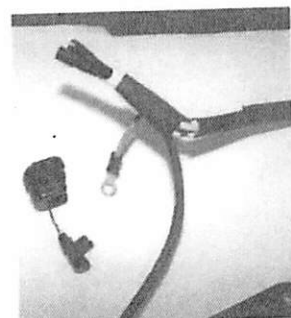
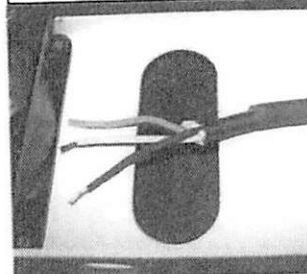
- 16) PUSH THE WIRES INTO THE HOUSING FROM THE PLUG CORD SIDE AND TIGHTEN THE (2) SCREWS ON THE PLUG FASTENER CLAMP.

- 17) SECURE THE FAN WIRES STARTING FROM THE LEFT USING (2) 4" CABLE TIES (PRC082A) AS09 PER FAN, CONNECTING TO THE FAN ON ITS UPPER WIRE END, WITH NO TENSION ON TERMINALS. USE A CABLE TIE MOUNTING PAD (PRC081) AS09 AND CABLE TIE TO SECURE PLUG CORD TO FAN BRACKET.

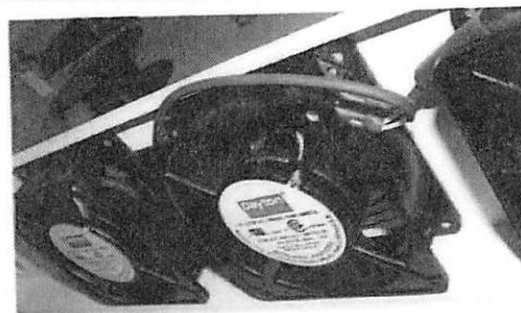


- 18) WHEN MAKING A HARNESS FOR THE TOP FAN, FOLLOW THESE DIRECTIONS. CUT (7) 10" PIECES EACH OF BLACK AND WHITE THIN 18 GAUGE WIRE. STRIP BOTH ENDS OF EACH PIECE.

STRIP CORD WIRES 2 1/2"

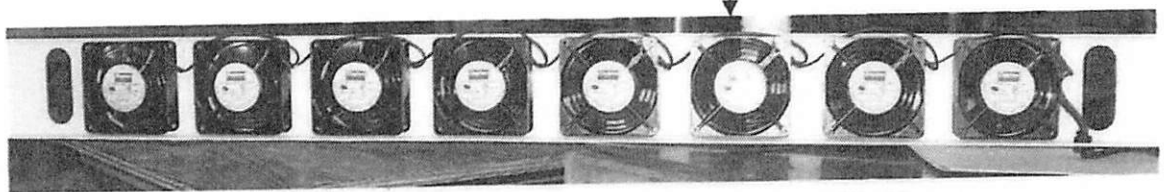
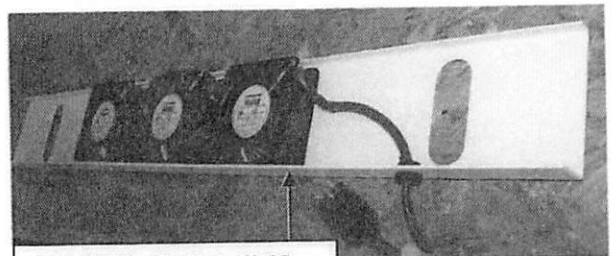


- 19) CUT (7) 8 1/2" PIECES OF BLACK 1/8" INSULATION TUBING (PRI162) CAB 1. SLIDE THE TUBING OVER EACH PAIR OF BLACK AND WHITE WIRES. TWIST THE BLACK WIRE FROM ONE PAIR WITH THE BLACK WIRE FROM ANOTHER PAIR AND CRIMP A BLUE FEMALE CONNECTOR (PRT286) ONTO THE WIRE UNION. CUT (7) 1" PIECES OF 3/8" INSULATION (PRI164) OVER TERMINALS. CONNECT EACH PAIR TO FAN TERMINAL POSTS. PULL THE 1" PIECES OVER TERMINAL CONNECTIONS. LEAVE LAST FAN PLUG END WIRES OPEN.

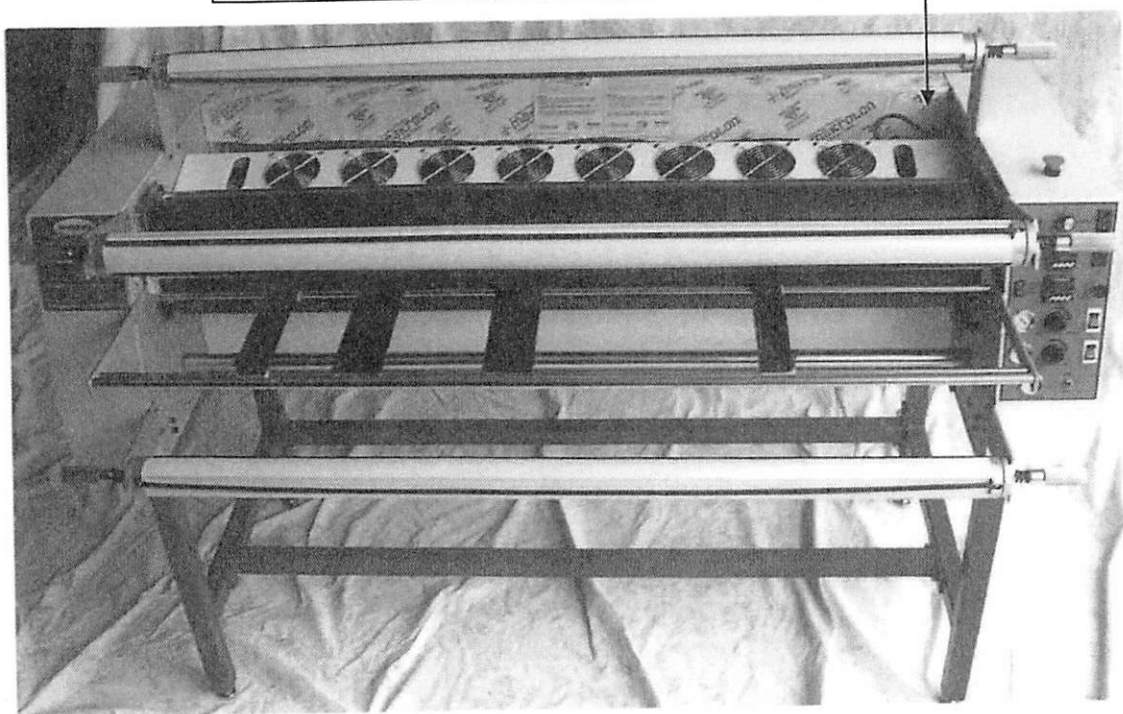


20) CUT 16" OF 16/3 CORD (PRC115) CAB 1 FROM SPOOL. STRIP CORD 2 1/2" FOR CONNECTION ON FAN SIDE. TWIST THE WHITE CORD WIRE WITH THE LAST WHITE FAN WIRE AND CRIMP A BLUE FEMALE (PRT286) ONTO THE UNION. REPEAT WITH BLACK CORD AND FAN WIRES. CRIMP A BLUE RING CONNECTOR (PRT294) ONTO THE GREEN GROUND WIRE. SLIDE 3" OF 3/8" BLACK TUBING OVER THE CORD END. CONNECT THE BLUE FEMALES ONTO THE LAST FAN TERMINAL POSTS. USE A 10-32 X 3/8 TH, A #10 STAR WASHER, THE BLUE RING AND A #10 KEPS NUT TO CONNECT THE GROUND WIRE TO THE TAPPED FAN ABOVE TERMINAL POSTS.

*Daisy chain
8 1/4" 18g
ground
w/ 2 1/2" 1/8" tubing
PRI 162 21)*

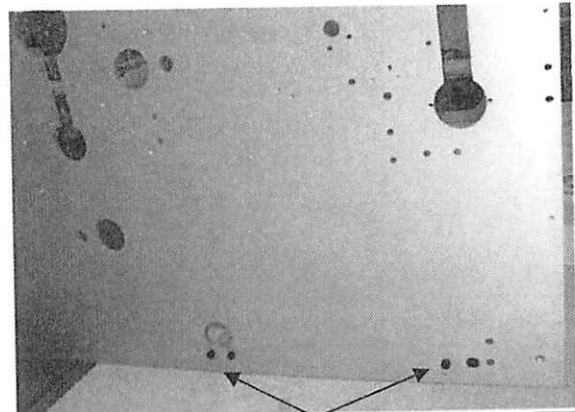


FAN ASSEMBLY INSTALLED IN HD 60 CHASSIS - NOTE CORD PLUG



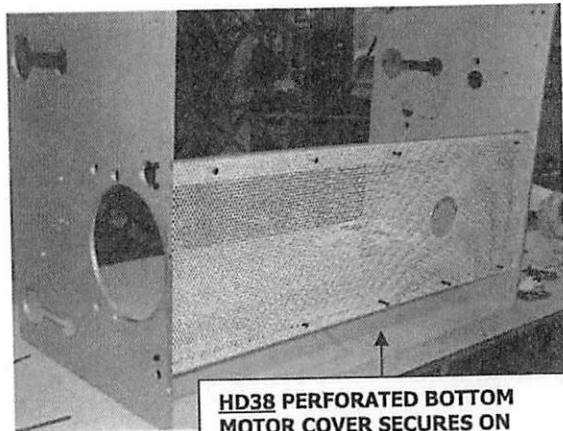
HD 60 INDUSTRIAL SERIES CHASSIS

- 1) CONNECT THE RIGHT SIDE PANEL ASSEMBLY AND THE LEFT SIDE PANEL ASSEMBLY TOGETHER ON A WORKTABLE. THERE IS A FRONT AND REAR BOTTOM SPREADER BAR (H360 110.4B) LOFT 3 CONNECTING BETWEEN THE SIDE PANELS. PLACE THE BOTTOM SPREADER BARS HORIZONTALLY, WITH THE LENGTH TAPPED EDGES OUTWARD. USE (2) 1/4-20 X 3/4 FSH IN THE REAR AND (6) 1/4-20 X 5/8 SHCS ON REMAINING SPREADER BAR THREADS.



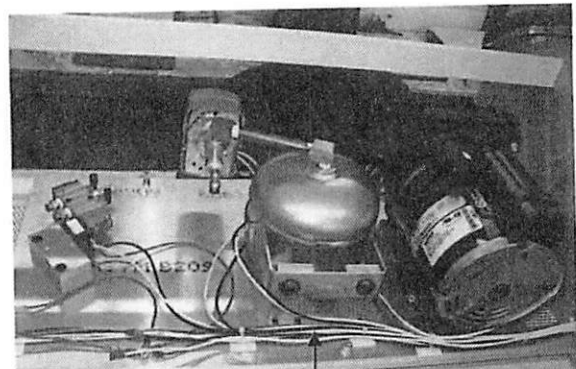
OUTER RIGHT BOTTOM SPREADER BAR LOCATION

- 2) PLACE THE SIDE PANEL AND BOTTOM SPREADER BAR ASSEMBLY ON ITS BACK AND ORIENT THE PERFORATED 60" BOTTOM MOTOR COVER (H360 092.4) LOFT 3 UNDER THE BOTTOM SPREADER BARS, HOLE ON RIGHT. USE (4) 10-32 X 3/4 BHCS ON RIGHT SIDE WHERE THE COMPRESSOR MOUNTING PLATE WILL LOCATE AND (2) 10-32 X 1 BHCS FOR THE GROUNDS, THIRD INWARD FROM FRONT AND SECOND FROM REAR. ADD (10) 10-32 X 1/2 BHCS WITH LOCTITE ON THE REMAINING THREADS, MOTOR SIDE.



HD38 PERFORATED BOTTOM MOTOR COVER SECURES ON BOTTOM SPREADER BARS

- 3) PLACE SIDE PANELS BACK IN UPRIGHT POSITION. MOUNT THE ASSEMBLED AIR COMPRESSOR ASSEMBLY AND MOUNTING PLATE ONTO THE EXPOSED SCREW THREADS ON THE RIGHT SIDE OF THE BOTTOM SPREADER BARS. ORIENT THE COMPRESSOR BY THE SIDE PANEL AND THE SOLINOID FITTINGS TOWARD THE INSIDE OF THE MACHINE. TIGHTEN A #10 KEPS HEX NUT ON THE THREADS AND SECURE (6) #10 ACORN NUTS OVER THE KEPS HEX NUTS.

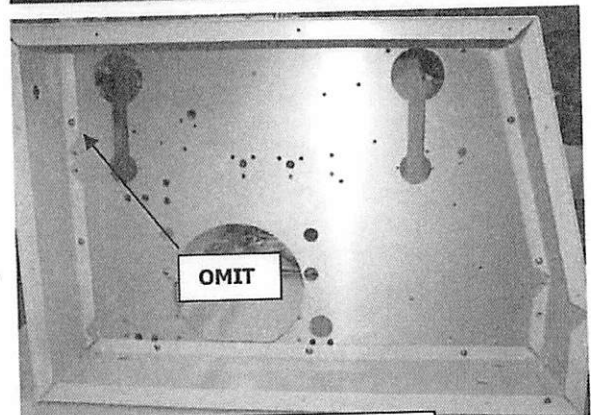
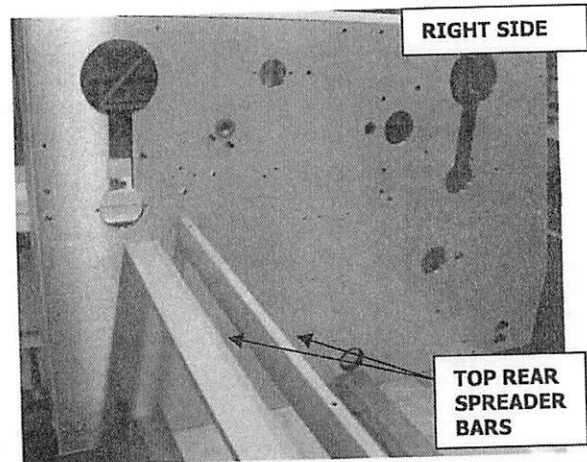


FRONT GROUND SCREW; 10-32 X 1 BUTTONHEAD SH

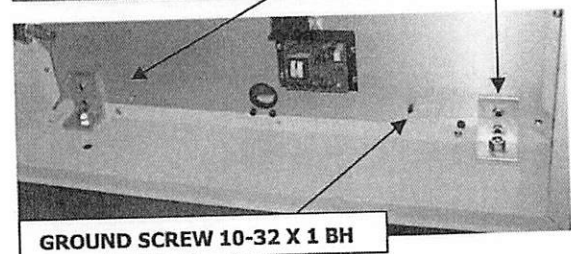
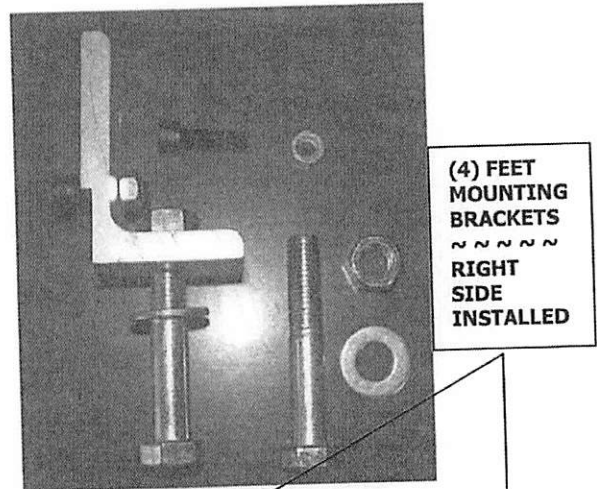
COMPRESSOR MOUNTING PLATE ON SPREADER BARS; 10-32 BUTTONHEAD SH

- 4) CONNECT THE PAINTED (2) TOP REAR SPREADER BARS (H360 110.4TR) LOFT 3 BETWEEN THE SIDE PANELS BELOW THE PULL ROLL LOCATION ORIENTED WITH THE LENGTH TAPPED EDGES OUTWARD ON REAR HORIZONTAL SPREADER BAR AND UPWARD ON VERTICLE SPREADER

- BAR. USE $\frac{1}{4}$ -20 X $\frac{3}{4}$ BHCS ON ALL THREADS. THE VERTICAL BAR WITH UPWARD THREADS IS FOR THE FRONT MOTOR COVER. THE HORIZONTAL BAR WITH OUTWARD THREADS IS FOR THE REAR MOTOR COVER. THESE SPREADER BARS MAY BE PAINTED BLUE OR TAN.
- 5) THE FLANGE SHOULD BE OUTWARD ON (2) SNAP BUSHINGS, IN LOWER SIDE PANELS FOR WIRE PROTECTION.
 - 6) FROM THE INNER RIGHT AND LEFT SIDE PANELS, THREAD (4) 10-32 X $\frac{1}{4}$ TH INTO HOLES BY REAR, BOTTOM RUBBER ROLL JOURNALS. DO NOT THREAD THE FRONT SCREWS UNTIL AFTER THE FRONT MOTOR COVER IS INSTALLED, AS THE COVER WILL CATCH ON SCREW HEADS.
 - 7) LOOSEN THE (3) SOCKETHEAD SCREWS HOLDING THE BOTTOM SPREADER BARS ON EACH SIDE PANEL. LEAVE THE FLATHEAD SCREWS. THE HOUSING WILL FIT BETTER IF THE SOCKETHEADS ARE RETIGHTENED AFTER HOUSING IS ON.
 - 8) SECURE RIGHT HOUSING (H380 094.4R) AND LEFT HOUSING (H380 094.4L) LOFT 3 ONTO SIDE PANELS USING 10-32 X $\frac{3}{8}$ TH PER SIDE. OMIT UPPER REAR THREADS FOR SAFETY SHIELD.
 - 9) ATTACH (4) FEET MOUNTING BRACKETS (H380 048.4) RACK 6 TO OUTER RIGHT AND LEFT SIDE PANELS BY THREADING (2) 5/16-18 X 1 SHCS PER FEET MOUNTING BRACKET THROUGH INNER SIDE PANEL INTO THE MOUNTING BRACKETS, ALIGNING LARGER MOUNTING BRACKET HOLE OVER MATCHING HOUSING HOLE. SECURE THREADS SHOWING THROUGH OUTER FEET MOUNTING BRACKETS WITH 5/16 WASHERS AND 5/16-18 HEX NUTS.
 - 10) MOVE THE CHASSIS TO THE STAND AND CENTER THE FEET MOUNTING BRACKETS OVER THE STAND OPENINGS. PLACE A $\frac{1}{2}$ FLAT WASHER SAE ON TO EACH OF (4) $\frac{1}{2}$ -13 X 3 HEX HEAD BOLTS. THREAD UP FROM UNDERSIDE INTO FEET MOUNTING BRACKETS. AS THE THREADS



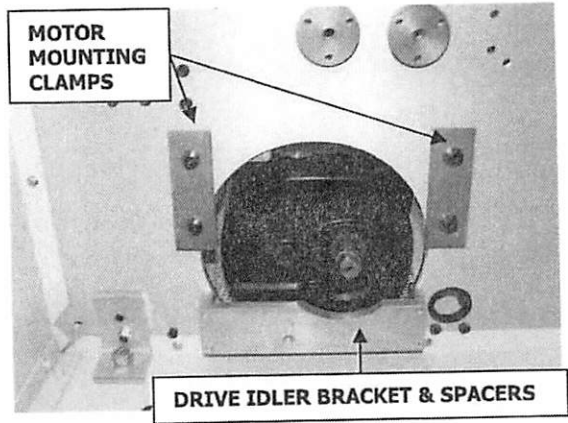
SIDE PANEL SITS ON HOUSING LIP



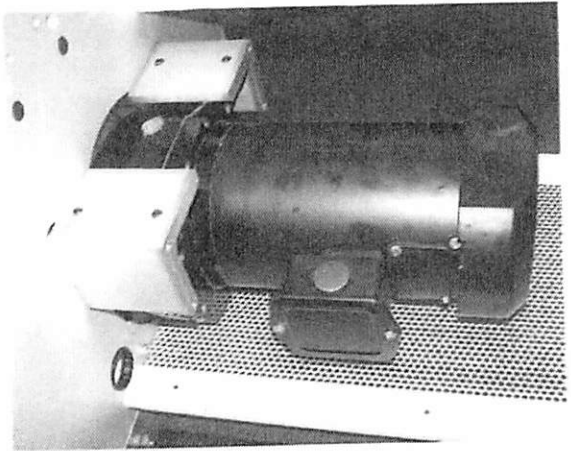
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BEGIN TO SHOW ON THE UPPER FEET MOUNTING BRACKETS, BEGIN THREADING INTO A 1/2-13 HEX NUT. HARDWARD ASIS. USE RATCHET.

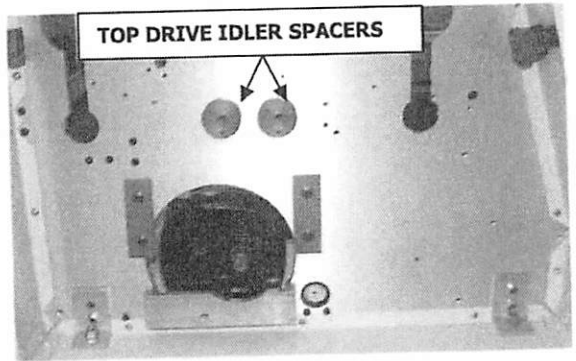
- 11) ON THE OUTER LEFT SIDE PANEL, BELOW THE MOTOR MOUNTING HOLES CONNECT THE DRIVE IDLER BRACKET (H380 055.4) RACK 6 SEPARATED FROM THE SIDE PANEL WITH (2) DRIVE IDLER SPACERS (H380 056.4) RACK 6. ORIENT THE DRIVE IDLER BRACKET WITH THE CURVED EDGE UPWARD, TO LINE UP WITH THE MOTOR SHAFT. USE (4) 1/4-20 X 1 1/2 HEX HEAD BOLTS INSERTED FROM THE INNER SIDE PANEL OUTWARD TO SECURE DRIVE IDLER BRACKET.



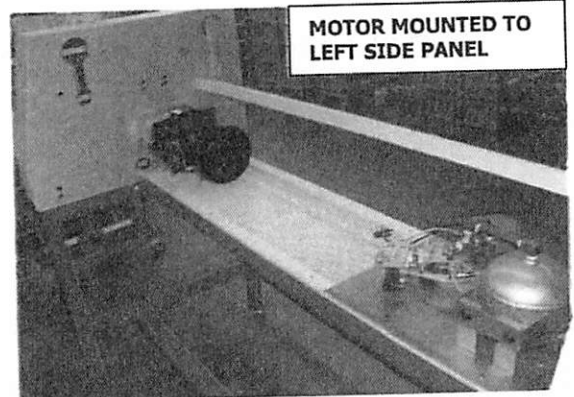
- 12) SEE DAYTON MOTOR (PRM199) PREPARATION PAGE. THIS SHOWS THE ORIENTATION OF THE (2) MOTOR MOUNTING BRACKETS (H380 049.4) RACK 6 TO THE DAYTON MOTOR ARMS USING (4) 5/16-18 X 1 SHCS AND (4) 5/16-18 FLAT WASHERS.



- 13) MOUNT THE DAYTON MOTOR TO THE LEFT SIDE PANEL. PLACE A 5/16 FLAT WASHER SAE ON EACH OF (4) 5/16-18 X 1 SHCS. WITH THE MOTOR MOUNTING BRACKETS UPWARD, ALIGN THE HOLES WITH THE MOTOR MOUNTING HOLES IN THE SIDE PANEL. PLACE THE SCREWS AND WASHERS THROUGH (2) MOTOR CLAMPS (H380 050.4) RACK 6 AND SECURE THROUGH THE OUTER SIDE PANEL INTO THE THREADS OF THE MOTOR MOUNTING BRACKETS.



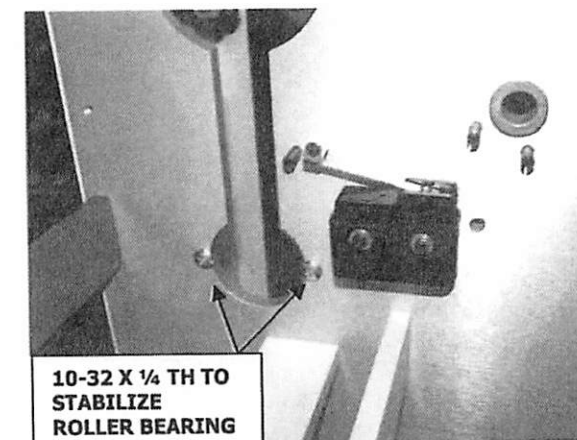
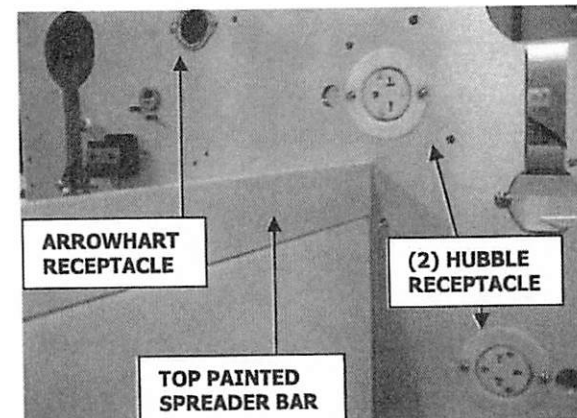
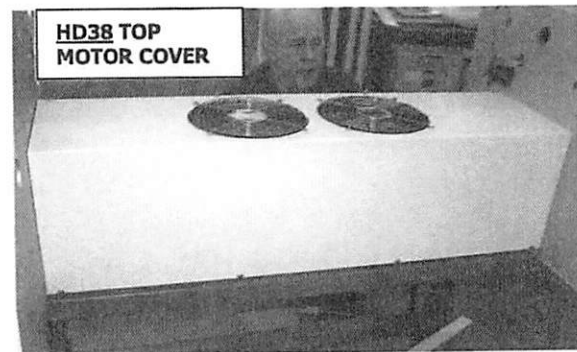
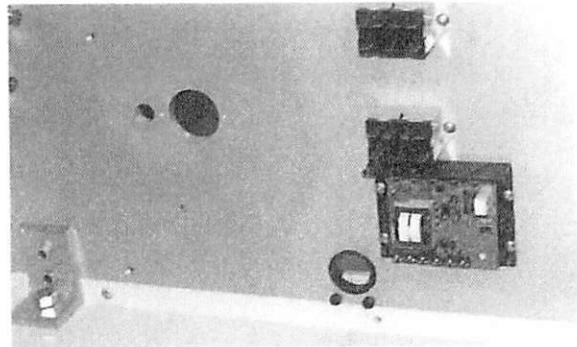
- 14) CONNECT THE CIRCULAR (2) TOP DRIVE IDLER SPACERS (H380 054.4) RACK 6 ABOVE THE MOTOR ON THE OUTER LEFT SIDE PANEL. ALIGN ALL THREADS AND SECURE WITH THE BOTTOM 1/4-20 X 3/4 FH. THE REMAINING 1/4-20 X 3/4 BHCS WILL BE INSERTED AFTER THE TOP MOTOR COVER IS INSTALLED.



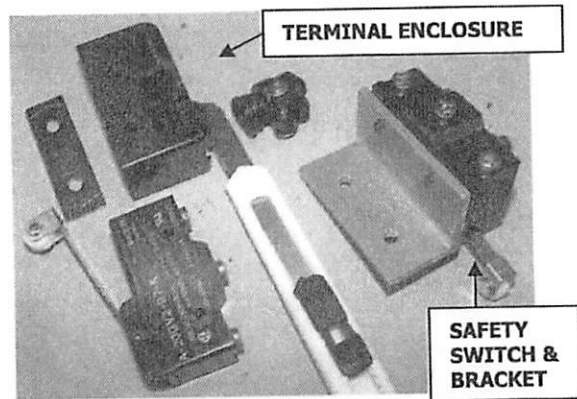
- 15) ON OUTER RIGHT PANEL SECURE THE MINARIK MOTOR CONTROL (PRM218D) RACK 10 WITH THE LEDGE UPWARD AND TRIMMING POTS DOWNWARD. USE (4) 8-32 X 1/4 TH AND A #8 STAR WASHER

ON THE UPPER REAR SCREW. SET CONTROL SWITCHES TO 90 AND 230.

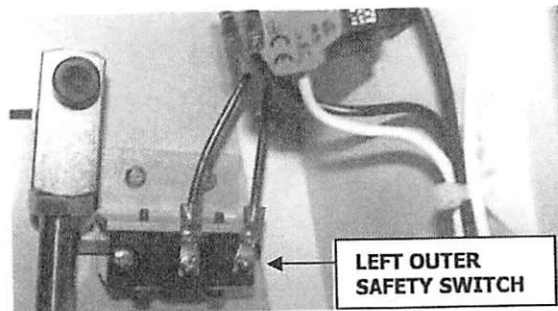
- 16) ORIENT (2) OMRON RELAYS (PRR231D) AS08 WITH THE FOUR TERMINAL POSTS UPWARD. USE (4) 8-32 X 1/4 RH.
- 17) SEE HOUSINGS, WIRING & AIR SYSTEM PAGES. COMPLETE INNER BODY WIRING AND AIR SYSTEM.
- 18) **START THE THREADS OF 10-32 X 3/8 TH ON VERTICLE PAINTED TOP REAR SPREADER BAR. START THE THREADS OF 10-32 X 3/8 TH ON FRONT BOTTOM SPREADER BAR HOLDING PERFORATED BOTTOM COVER. FROM THE FRONT OF THE LAMINATOR SLIDE THE NOTCHED SECTIONS OF THE TOP COVER WITH FAN ASSEMBLY BETWEEN THE 3/8 TH THREADS. SECURE TOP COVER SCREWS.**
- 19) TIGHTEN (4) 1/4-20 X 3/4 BH ON LEFT SIDE CIRCULAR TOP DRIVE IDLER SPACERS.
- 20) ON THE UPPER RIGHT INNER SIDE PANEL INSERT AN ARROWHART RECEPTACLE (PRR221) AS08 AND SECURE WITH (2) 6-32 X 1/4 PH. THIS CONNECTS TO THE ARROWHART PLUG ON THE TOP FAN ASSEMBLY.
- 21) CONNECT THE PAINTED TOP FRONT SPREADER BAR (H360 110.4TF) LOFT 3 VERTICALLY ABOVE THE TOP MOTOR COVER. USE (4) 1/4-20 X 3/4 BHSC.
- 22) SECURE (2) HUBBLE RECEPTACLES (PRR234) RACK 6 TO THE INNER RIGHT SIDE USING (4) 8-32 X 1/4 RH. ORIENT THE UPPER HUBBLE RECEPTACLE WITH THE GROUND PLUG OPENING FACING TOWARD THE REAR AND THE LOWER HUBBLE GROUND PLUG OPENING FACING THE FRONT. THESE HUBBLE RECEPTACLES ARE FOR THE TOP AND BOTTOM HEAT SHOE PLUGS.
- 23) ADD THE (4) 10-32 X 1/4 TH TO THE INNER SIDE PANELS TO SECURE THE FRONT ROLLER BEARINGS FOR THE FRONT RUBBER ROLLS.



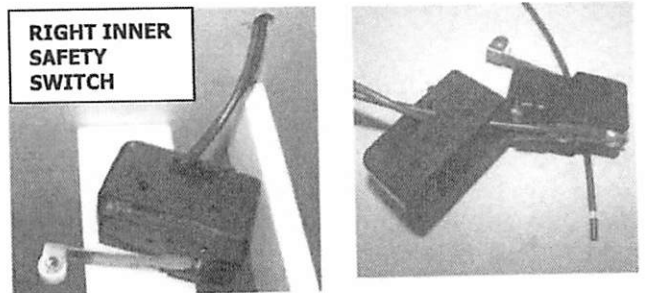
24) **THREAD (4) 5/16 X 3/8 SHOULDER BOLTS, (2) PER SIDE, INTO THE INNER SIDE PANELS. THE RIGHT SIDE PANEL THREADS ARE LOCATED IN FRONT OF THE FAN RECEPTACLE AND ABOVE THE TOP HUBBLE RECEPTACLE. THE SHOULDER BOLTS ARE A CATCH FOR THE TOP FAN ASSEMBLY.**



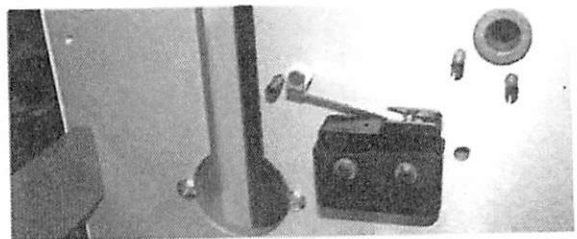
25) **FROM LOFT 2 THE (2) MICRO ROLLER SAFETY SWITCHES (PRS308) ARE ASSEMBLED DIFFERENTLY. FOR THE LEFT SIDE OUTER FRONT SIDE PANEL, INSERT (2) 6-32 X 1 SHCS EACH WITH A #6 FLAT WASHER THROUGH THE ROLLER SAFETY SWITCH AND INTO THE SAFETY SWITCH MOUNTING BRACKET (H380 170.4) AS PICTURED. SECURE THIS TO THE SIDE PANEL WITH (2) 8-32 X 1/4 RH.**



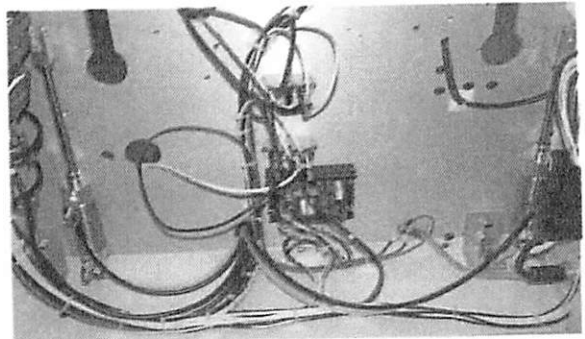
26) **TO PREPARE THE RIGHT SIDE ROLLER SAFETY SWITCH FIRST USE A KNIFE AND CUT OFF THE PLASTIC THREADED END OF THE TERMINAL ENCLOSURE (PRS308A) LOFT 2. CUT AN EXIT OPENING ON THE TERMINAL ENCLOSURE WHERE IT MEETS THE SIDE PANEL OPENING FOR "COM" AND "NO" WIRE CONNECTIONS. USE (2) 6-32 X 1 SHCS AND #6 FLAT WASHERS OR THE BRACKET INCLUDED WITH TERMINAL ENCLOSURE AND PLACE SCREWS THROUGH THE SUPPLIED BRACKET/WASHERS, TERMINAL ENCLOSURE AND ROLLER SAFETY SWITCH. SECURE TO THE INNER REAR RIGHT SIDE PANEL IN FRONT OF THE PULL ROLLS.**



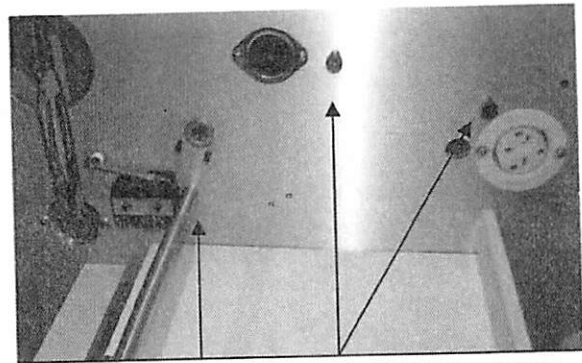
27) **ALL FOUR BIMBA AIR CYLINDER ASSEMBLIES ARE ATTACHED TO THE LOWER SIDE PANELS, ORIENTED WITH THE FITTINGS FACING INWARD, BY THREADING IN THE 1/2 X 1 1/4 SHOULDER BOLT WITH A 1/2" STOP COLLAR ON IT AND SECURING THE SHOULDER BOLT THREADS ON THE INNER PANEL WITH A 3/8-16 ACORN NUT. THE STOP COLLAR MUST ALLOW THE SHOULDER BOLT TO MOVE, AND MAY NEED TO BE TRIMMED.**



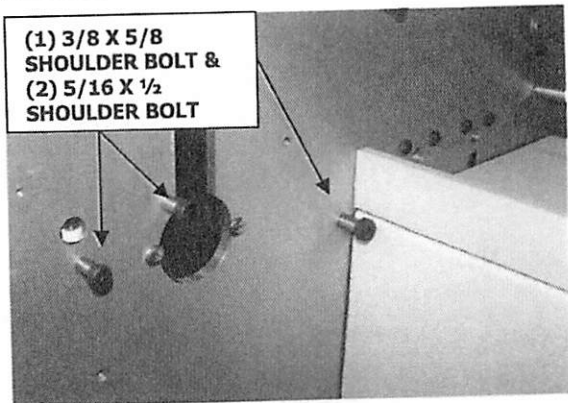
28) **TEST THE AIR SYSTEM FOR LEAKS AND MAKE ANY NECESSARY ADJUSTMENTS.**



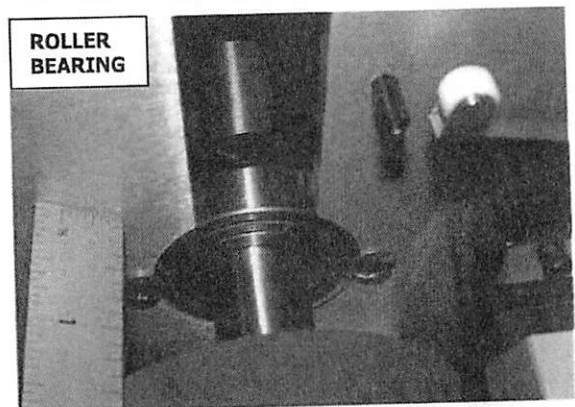
- 29) SECURE A HD38/60 TOP IDLER SHAFT (H380 OR H360 053.4T) LOFT 3 TOWARD THE REAR, ABOVE THE MOTOR COVER AND UNDER THE OILITE BEARING. USE (2) $\frac{1}{4}$ -20 X $\frac{3}{4}$ BSHS. THIS SHAFT STABILIZES THE SLITTER BAR.
- 30) THREAD A $\frac{3}{8}$ X $\frac{5}{8}$ SHOULDER BOLT PER SIDE BELOW THE PAINTED TOP FRONT SPREADER BAR, NEXT TO TOP MOTOR COVER FOR BOTTOM HEAT SHOE BRACKET TO CATCH ON.
- 31) THREAD (2) $\frac{5}{16}$ X $\frac{1}{2}$ SHOULDER BOLTS PER SIDE INTO INNER SIDE PANELS BY BOTTOM FRONT RUBBER ROLL ROLLER BEARING AND UNDER SAFETY SWITCH.
- 32) PLACE (2) BOTTOM 38/60" RUBBER ROLLS (H380 OR D60 040.4) FLOOR BETWEEN SIDE PANELS IN FRONT AND REAR SLOTS, ORIENTED WITH KEYWAYS ON THE LEFT, BIMBAS OUTWARD. USE TWO PEOPLE TO MOVE RUBBER ROLLS!!
- 33) SLIDE A R14-ZZ ROLLER BALL BEARING (PRB087) AS07 ONTO EACH OF THE (4) BOTTOM RUBBER ROLL JOURNALS AND PRESS THE ROLLER BEARING INTO SIDE PANELS, SECURED ON INSIDE BY TRUSSHEAD SCREWS.
- 34) CENTER THE BOTTOM RUBBER ROLLS BETWEEN THE SIDE PANELS, WITH APPROXIMATELY $1 \frac{3}{8}$ " ON EACH SIDE. SLIDE A $\frac{7}{8}$ SPLIT SHAFT COLLAR (PRC112) RACK 2 ONTO EACH BOTTOM RUBBER ROLL JOURNAL AND SNUG THE SPLIT SHAFT COLLAR TO THE ROLLER BEARING ON JOURNAL. ALIGN LEFT SIDE KEYWAYS UPWARD. THERE SHOULD BE NO PLAY.
- 35) PLACE (2) TOP RUBBER ROLLS (D60 040.4) FLOOR BETWEEN SIDE PANELS, KEYWAYS ON LEFT. ALIGN RUBBER ON TOP AND BOTTOM ROLLS.
- 36) SLIDE A WORKED OILITE FLANGE BEARING (PRB089) RACK 2 ONTO EACH OF THE (4) TOP JOURNALS WITH THE FLANGE OUTWARD.



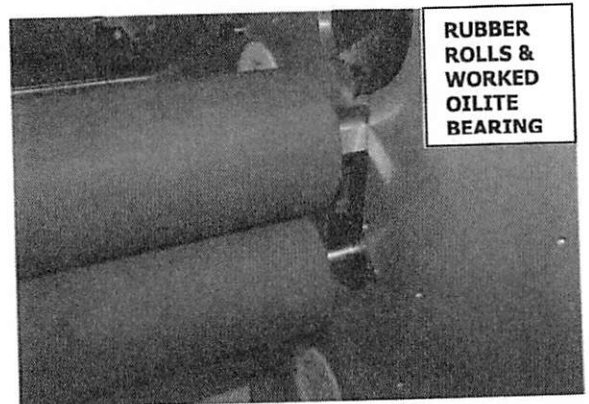
TOP IDLER SHAFT & $\frac{5}{16}$ X $\frac{3}{8}$ SHOULDER BOLTS



(1) $\frac{3}{8}$ X $\frac{5}{8}$ SHOULDER BOLT & (2) $\frac{5}{16}$ X $\frac{1}{2}$ SHOULDER BOLT

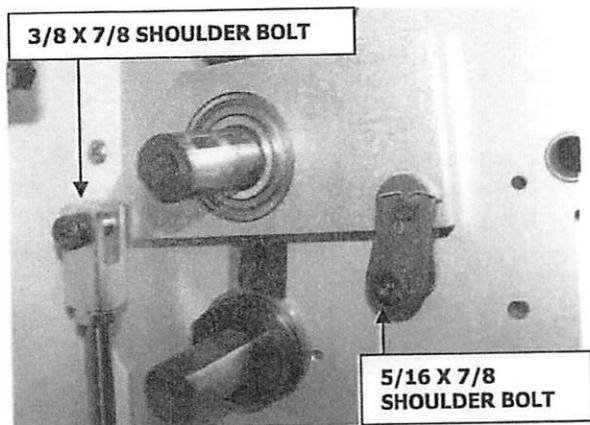


ROLLER BEARING

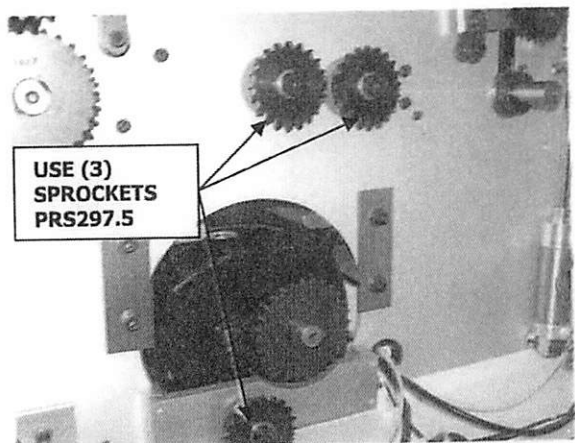


RUBBER ROLLS & WORKED OILITE BEARING

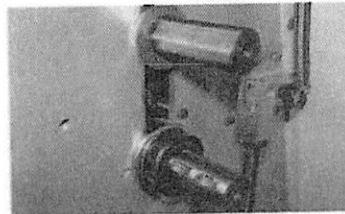
- 37) SLIDE AN ASSEMBLED PRESSURE ACTUATOR ONTO EACH OF THE TOP RUBBER ROLL JOURNALS. ORIENT WITH THE POINTED PRESSURE ACTUATOR END FACING THE HOUSING AND THE 80 PITCH CHAIN CONNECTOR FACING INWARD. THE FLUSH SIDE OF THE ROLLER BEARING AND THE COTTER PIN ARE OUTWARD. SNUG PRESSURE ACTUATOR AGAINST FLANGE BEARING ON JOURNAL, POINT BEHIND PLUNGER.



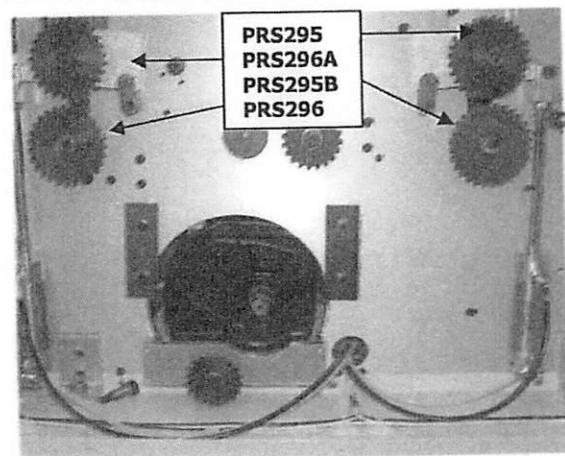
- 38) SECURE THE UPPER BIMBA PLUNGER TO THE PRESSURE ACTUATOR WITH A 3/8 X 7/8 SHOULDER BOLT. SECURE THE PRESSURE ACTUATOR 80 PITCH CHAIN CONNECTOR TO THE SIDE PANEL WITH A 5/16 X 7/8 SHOULDER BOLT. ***FOR THE RIGHT REAR BIMBA ONLY: FILE DOWN THREADS ON THE 5/16 X 7/8 SHOULDER BOLT SO ONLY (4) THREADS REMAIN, OR THE WIDTH OF THE SIDE PANEL. WHEN SECURING THE SHOULDER BOLT TO THE SIDE PANEL, THE THREADS MUST NOT DAMAGE THE SAFETY SWITCH ON THE OPPOSITE SIDE OF THE SIDE PANEL.



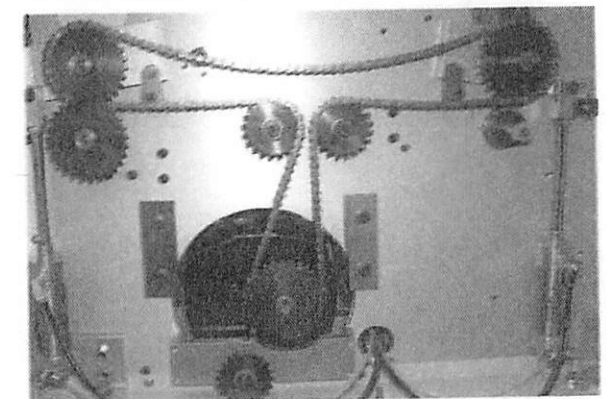
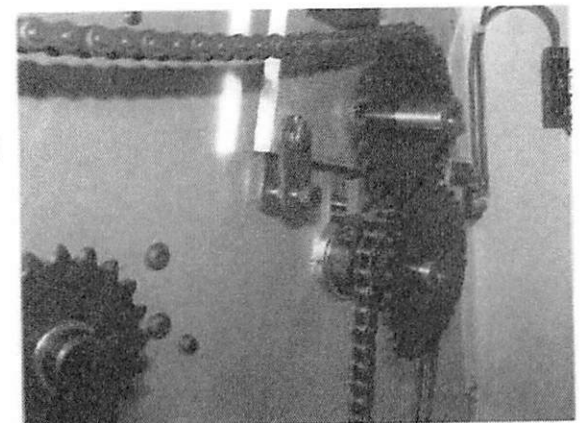
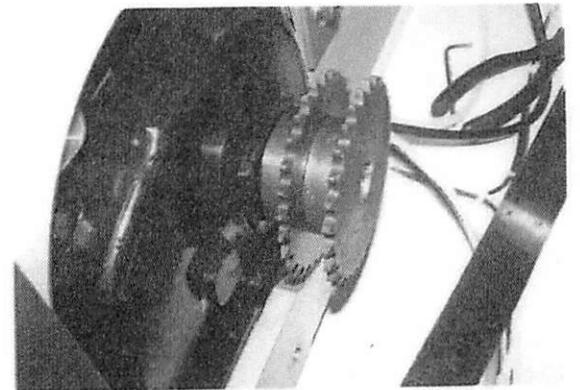
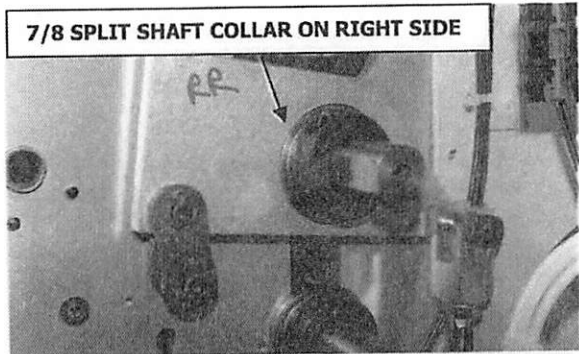
- 39) PLACE (3) 35B20 SPROCKETS WITH BEARING (PRS297.5) RACK 6 ORIENTED WITH THE HUBS INWARD AND THE TEETH OUTWARD EACH ONTO A 1/2 X 1 SHOULDER BOLT AS13. THREAD TWO OF THESE SPROCKETS INTO THE CENTER OF THE TOP DRIVE IDLER SPACERS AND THREAD THE THIRD INTO THE DRIVE IDLER BRACKET UNDER THE GEAR MOTOR. ALL SPROCKETS MUST SPIN FREELY ON THE SHOULDER BOLTS. SAND INNER OILITE BEARINGS IF NECESSARY.



- 40) ROTATE TOP RUBBER ROLLS UNTIL KEYWAYS ARE UPWARD. PLACE A KEY (MI61) AS13 INTO THE INNER KEYWAYS. SLIDE A 35B28 7/8 BORE AND FACED SPROCKET (PRS295) RACK 6, WITH HUB INWARD, TEETH OUT ONTO THE TOP LAMINATING ROLL JOURNAL. SNUG TIGHTLY TO ROLLER BEARING AND SECURE WITH 1/4-28 X 1/2 SET SCREW.

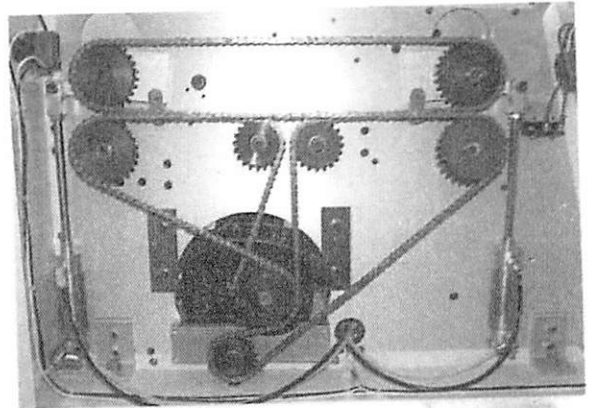


- 41) SLIDE A 35B27 7/8 BORE AND FACED SPROCKET (PRS296A) RACK 6 ORIENTED HUB INWARD, TEETH OUTWARD ONTO THE TOP PULL ROLL JOURNAL. SNUG TIGHTLY TO ROLLER BEARING AND SECURE WITH A 1/4-28 X 1/2 SS. BOTH FRONT AND BACK TOP SPROCKET TEETH ARE MEASURED TO EQUIL DISTANCE FROM SIDE PANEL WITH CIRCULAR IDLER SPROCKETS. THE FRONT SPROCKETS HAVE ONE MORE TOOTH THAN THE REAR SPROCKETS.
- 42) ON THE RIGHT SIDE OF THE LAMINATOR, SLIDE A 7/8 SPLIT SHAFT COLLAR OVER BOTH TOP RUBBER ROLL JOURNALS AND TIGHTEN SNUG TO THE ROLLER BEARING IN THE PRESSURE ACTUATOR.
- 43) ROTATE BOTTOM RUBBER ROLLS SO THE KEYWAYS FACE UPWARD. PLACE A KEY (MI61) AS13 INTO THE OUTER KEYWAYS. THREAD A 1/4-28 X 1/2 SET SCREW INTO THE 35B28 7/8 BORE AND TURNED SPROCKET (PRS295B) RACK 6 AND SLIDE IT ONTO THE BOTTOM LAMINATING ROLL JOURNAL, HUB INWARD AND TEETH OUTWARD, OVER KEY. **BOTH BOTTOM RUBBER ROLL SPROCKET TEETH ARE MEASURED TO EQUIL DISTANCE WITH SPROCKET TEETH ON BOTTOM DRIVE IDLER BRACKET.
- 44) THREAD A 1/4-28 X 1/2 SET SCREW INTO THE 35B27 7/8 BORE AND TURNED SPROCKET (PRS296) RACK 6 AND SLIDE IT ONTO THE BOTTOM PULL ROLL JOURNAL, HUB INWARD AND TEETH OUTWARD, OVER KEY. MEASURE TEETH DISTANCE WITH A STRAIGHT EDGE.
- 45) THREAD A 1/4-28 X 1/2 SET SCREW INTO (2) 35B28 3/4" BORE AND FACED MOTOR SPROCKETS (PRS295A) RACK 6. SLIDE BOTH SPROCKETS ONTO THE MOTOR SHAFT OVER MOTOR KEY. ORIENT SPROCKETS WITH HUB INWARD AND TEETH OUTWARD. MEASURE INNER SPROCKET TEETH DISTANCE TO EQUIL TOP ROLLS AND CIRCULAR IDLER SPROCKET TEETH. MEASURE OUTER MOTOR SPROCKET TEETH TO EQUIL BOTTOM ROLL SPROCKET AND DRIVE



IDLER SPROCKET TEETH. USUALLY THAT IS ALL THE WAY IN ON THE MOTOR SHAFT. MEASURE WITH STRAIGHT EDGE. **THE MOTOR SHAFT CAN BE ROTATED TO ALLOW ACCESSIBILITY TO SET SCREWS.

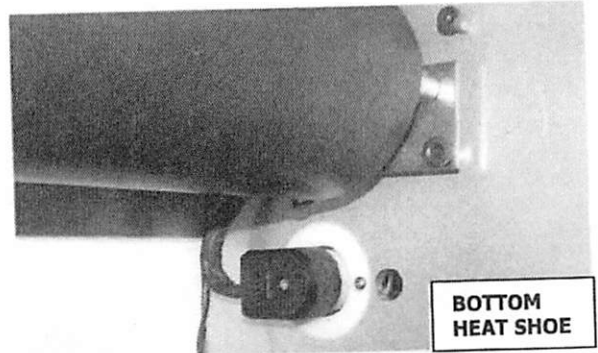
- 46) **SECURE THE LONGER CUT CHAIN TO THE INNER TOP SPROCKETS, TO THE INSIDE OF THE IDLER SPROCKETS AND TO THE INNER MOTOR SPROCKET WITH A #35 CHAIN OFFSET LINK, A SMALL COTTER PIN AND A #35 CONNECTING LINK. SECURE THE OUTER BOTTOM ROLL SPROCKETS, THE OUTER MOTOR SPROCKET AND THE LOWER IDLER SPROCKET WITH THE SHORTER CHAIN AND A #35 CONNECTING LINK ONLY. LOOSEN MOTOR TO ADJUST CHAIN TENSION. CHAINS VARY IN LENGTH.**



BOTTOM RUBBER ROLL & BOTTOM HEAT SHOE BRK

down & forward

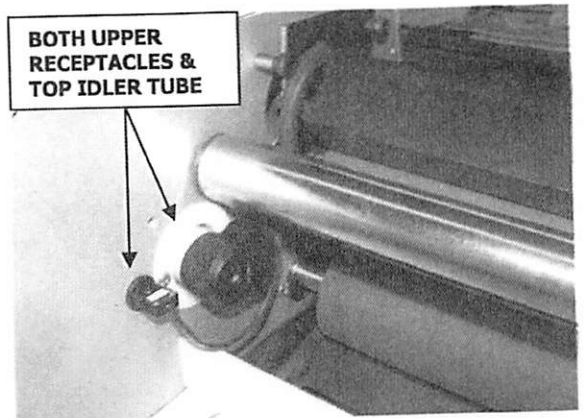
47) **SECURE THE BOTTOM HEAT SHOE ASSEMBLY UNDER THE BOTTOM FRONT RUBBER ROLL. THE NOTCH IN THE BRACKET FITS ON THE 3/8 X 5/8 SHOULDER BOLTS. BEND WIRES TO ACCOMMODATE MOVABLE IDLER TUBE. BE CAREFUL NOT TO PINCH WIRES. USE (2) MORE 3/8 X 5/8 SHOULDER BOLTS THROUGH HEAT SHOE BRACKET OPENINGS INTO SIDE PANELS TO SECURE. THIS PROCESS REQUIRES TWO PEOPLE.**



BOTTOM HEAT SHOE

- 48) **PLUG BOTTOM HEAT SHOE HEATER WIRES INTO LOWER THERMOCOUPLE AND HUBBLE RECEPTACLES ON RIGHT SIDE PANEL.**

- 49) **SECURE TOP HEAT SHOE ASSEMBLY OVER TOP FRONT RUBBER ROLL. INSERT THE INNER (2) 3/8 X 5/8 SHOULDER BOLTS TO SECURE BRACKET. THE TOP BRACKET NOTCH RESTS ON THE TOP RUBBER ROLL OILITE BUSHING AS THE FLAT UPPER PORTION OF THE BRACKET SITS AGAINST THE INNER SHOULDER BOLTS. ADD ANOTHER (2) 3/8 X 5/8 SHOULDER BOLTS TO SECURE BRACKET. RUN THE TOP HEAT SHOE WIRES UP BETWEEN HEAT SHOE SPACERS AND**



BOTH UPPER RECEPTACLES & TOP IDLER TUBE

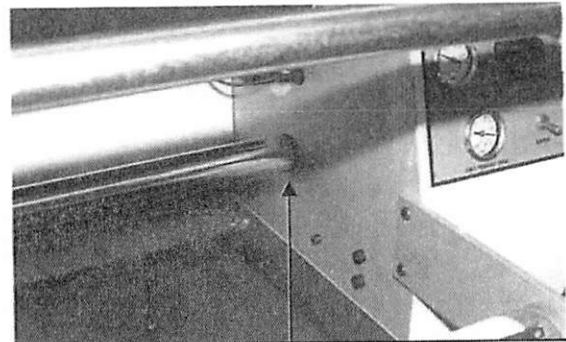
UNDER IDLER TUBE. BEND WIRES INWARD SO THEY DON'T TOUCH HEAT SHOE.

50) PLUG TOP HEAT SHOE WIRES INTO UPPER THERMOCOUPLE AND HUBBLE RECEPTACLES ON RIGHT SIDE PANEL.

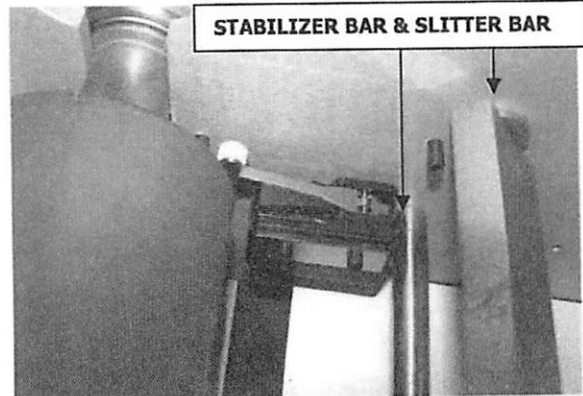
51) PREPARE (2) TOP IDLER TUBES (H360 052.4T) LOFT 3 BY TAPPING (4) NYLATRON STYLE IDLER BEARINGS (PRB086A) AS13, ONE EACH INTO THE ENDS OF THE TOP IDLER TUBES. INSERT AN HD 60 TOP IDLER SHAFT (H360 053.4T) LOFT 3 THROUGH THE NYLATRON BEARINGS IN EACH IDLER TUBE AND SECURE THIS ASSEMBLY BETWEEN SIDE PANELS USING $\frac{1}{4}$ -20 X $\frac{3}{4}$ BH WITH LOCTITE ON THREADS. LOCATE ONE OF THE IDLER TUBE ASSEMBLIES BEHIND THE TOP HEAT SHOE, JUST IN FRONT OF THE HUBBLE RECEPTACLE, AND THE SECOND IDLER TUBE ASSEMBLY BELOW THE BOTTOM HUBBLE RECEPTACLE.

52) PLACE THE SLITTER ASSEMBLY BETWEEN THE OILITE BEARING FLANGES ON THE SIDE PANELS WHILE ALIGNING THE POINTED BLADE END OF THE SLITTER BLADE HOLDER TOWARD THE REAR, RESTING *ABOVE* SPRING PINS. FROM THE OUTER RIGHT SIDE PANEL PLACE THE ASSEMBLED SLITTER ACTUATING ARM ONTO A $\frac{1}{2}$ X $1 \frac{1}{4}$ SHOULDER BOLT AS13 WITH THE SWIVEL FACING OUTWARD. INSERT THE SHOULDER BOLT THREADS THROUGH THE OILITE BEARING AND INTO THE SLITTER BAR. FROM THE OUTER LEFT SIDE PANEL SECURE THE OTHER END OF THE SLITTER BAR THROUGH THE OILITE BEARING WITH A $\frac{1}{2}$ X $\frac{5}{8}$ SHOULDER BOLT. IT IS EASIER TO INSTALL THE SLITTER ASSEMBLY WITH TWO PEOPLE.

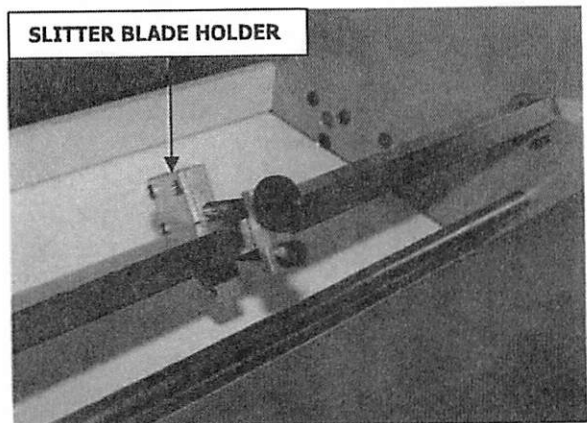
53) PREPARE THE SHORTER REMOVABLE IDLER TUBE ASSEMBLY WHICH WILL SET IN THE BOTTOM HEAT SHOE BRACKET NOTCH. TAP A NYLATRON BEARING (PRB086A) AS13 INTO BOTH ENDS OF A BOTTOM IDLER TUBE (H360 052.4B) LOFT 3. INSERT THE BOTTOM IDLER



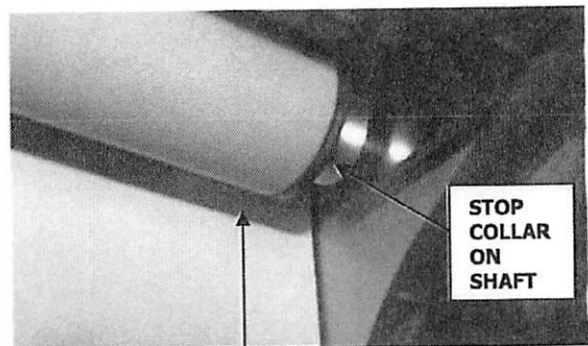
LOWER IDLER TUBE BELOW HUBBLE RECEPTACLE



STABILIZER BAR & SLITTER BAR



SLITTER BLADE HOLDER

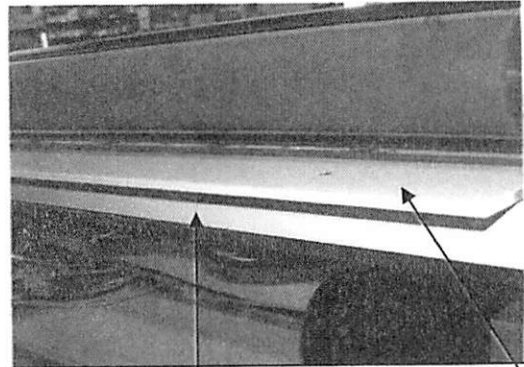


STOP COLLAR ON SHAFT

REMOVABLE IDLER TUBE ON LOWER HEAT SHOE BRK

THE NYLATRON BEARINGS, CENTER THE EXCESS SHAFT ON BOTH SIDES AND SLIDE A 1/2" STOP COLLAR (PRC096) AS09 ONTO BOTH ENDS OF THE SHAFT. THE STOP COLLARS MUST BE SECURED NEXT TO THE BEARINGS CLOSE ENOUGH SO THE IDLER TUBE DOES NOT SLOP BACK AND FORTH, BUT STILL SPINS FREELY. MEASURE ENDS FOR EVENNESS AND TIGHTEN STOP COLLARS.

- 54) PLACE THE PAINTED EXIT TABLE MOUNTING BRACKET (H360 115.4) LOFT 3 VERTICALLY BETWEEN THE REAR SIDE PANELS ORIENTED WITH THE TAPPED LENGTH SIDE UPWARD. SECURE EXIT TABLE MOUNTING BRACKET BETWEEN PANELS WITH (4) 1/4-20 X 3/4 BHCS.



EXIT TABLE MOUNTING BRACKET & EXIT TABLE

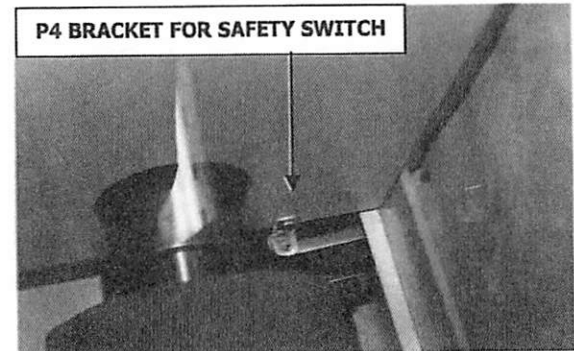
- 55) ALIGN THE COUNTERSUNK HOLES UPWARD ON THE PAINTED EXIT TABLE (H360 113.4) LOFT 3 OVER THE THREADED EDGE OF THE EXIT TABLE MOUNTING BRACKET. SECURE THE EXIT TABLE TO THE MOUNTING BRACKET WITH (5) 10-32 X 3/4 FHMS.



SAFETY SHIELD OVER EXIT TABLE

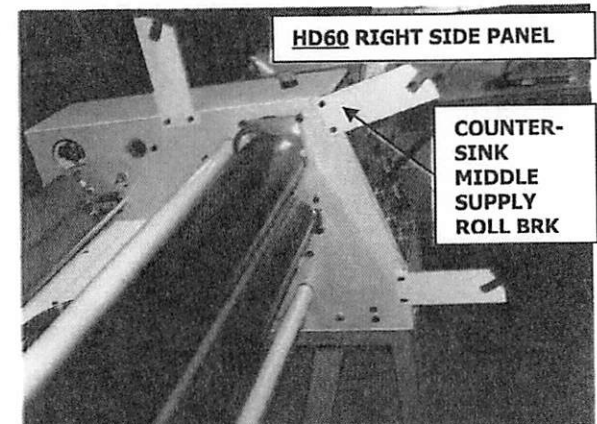
- 56) SECURE THE SAFETY SHIELD ASSEMBLY FROM THE REAR OVER THE EXIT TABLE. USE (2) 10-32 X 3/4 SHCS EACH WITH A SPACER (LC25 057.4) RACK 6. THE SPACER RIDES IN THE OPENING IN THE SAFETY SHIELD SIDE PLATE.

P4 BRACKET FOR SAFETY SWITCH



- 57) SECURE (6) SUPPLY ROLL BRACKETS (H380 008.4) RACK 6 ON HD60 OR (4) ON HD38. ON HD60. COUNTERSINK UPPER, FRONT PAIR FOR FEEDTABLE INSTALLATION. ORIENT SUPPLY ROLL BRACKETS WITH NOTCH UPWARD TO HOLD SUPPLY ROLLS. INSERT 1/4-20 X 3/4 BSHS OR FSHS THROUGH EACH SUPPLY ROLL BRACKET AND THREAD INTO SIDE PANELS. THE BRACKETS ARE LOCATED: A) BOTH: MIDWAY ACROSS THE UPPER HOUSING B) FOR HD60 IN FRONT OF TOP HEAT SHOE BRACKET AND C) BOTH: ON THE VERTICAL BREAK OF THE FRONT HOUSING.

HD60 RIGHT SIDE PANEL

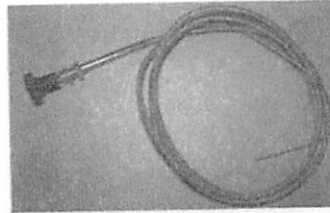


COUNTER-SINK MIDDLE SUPPLY ROLL BRK

- 58) USE EXTREME CAUTION WHEN WORKING AROUND TEFLON COATED HEAT SHOES. THEY SCRATCH EASILY.

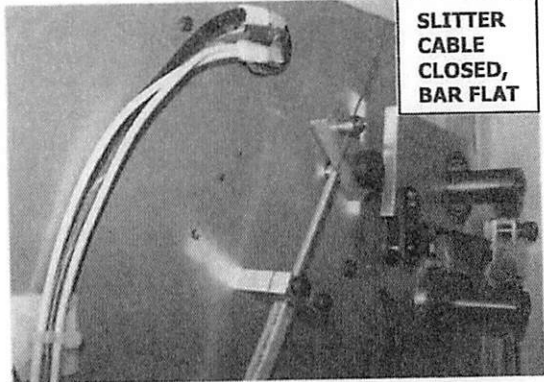
10-32 x 3/4

- 59) PREPARE THE SLITTER CHOKE CABLE (PRC089) AS04 BY UNTHREADING THE NUT AND TOOTHED WASHER AND REMOVING FROM THE SLITTER CHOKE CABLE. INSERT THE CABLE PORTION INTO THE RIGHT FRONT HOUSING. SLIDE THE TOOTHED WASHER AND NUT BACK UP THE CABLE AND SECURE TO THE INSIDE OF THE HOUSING. THE PURPOSE OF THIS CABLE IS TO ACTIVATE THE SLITTER BAR ACTUATOR: PULL TO ENGAGE/PUSH TO DISENGAGE.



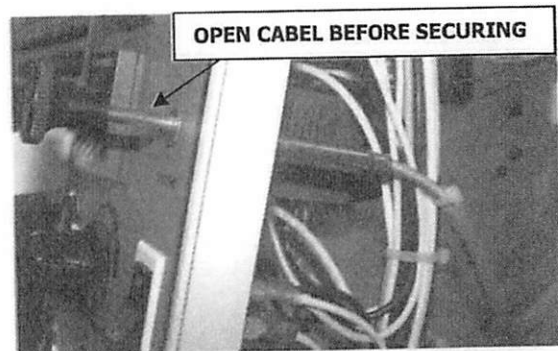
SLITTER CHOKE CABLE, NUT & TOOTHED WASHER

- 60) PLACE THE SLITTER ACTUATING BAR WITH THE SWIVEL FACING 11 O'CLOCK AND THE SLITTER BAR FLAT, OFF THE SPRING PINS. SECURE ACTUATING BAR SET SCREW. TEST SMOOTH MOTION OF SLITTER BAR.



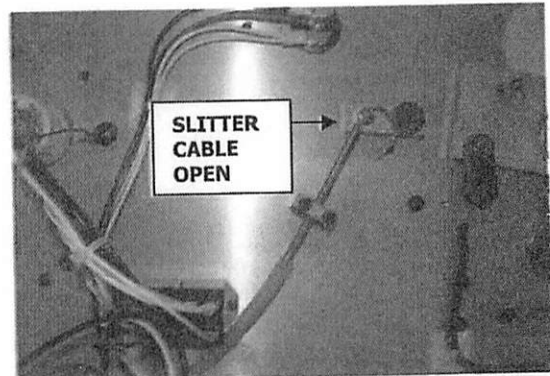
SLITTER CABLE CLOSED, BAR FLAT

- 61) CUT 16" OF 3/8" AIR TUBING NATURAL (PRA0271) LOFT 2. PULL CHOKE KNOB OUT LEAVING 1" OF CABLE WIRE SHOWING. ALIGN CHOKE CABLE ON THE OUTSIDE OF FRONT HOUSING WIRES, BETWEEN THE RELAYS, AND UP TOWARD ACTUATOR. MEASURE CABLE TO ENGAGED POSITION OF SWIVEL, WITH SLITTER IN DOWNWARD POSITION. CUT THE CHOKE CABLE TO THIS LENGTH, AS PICTURED. SLIDE THE 3/8" AIR TUBING OVER THE CHOKE CABLE AND SECURE TUBING BETWEEN RELAYS USING A PRESS CLIP AND CABLE TIE. PLACE A CABLE TIE AT BOTH ENDS OF THE TUBING, SO IT WILL NOT SLIP.



OPEN CABEL BEFORE SECURING

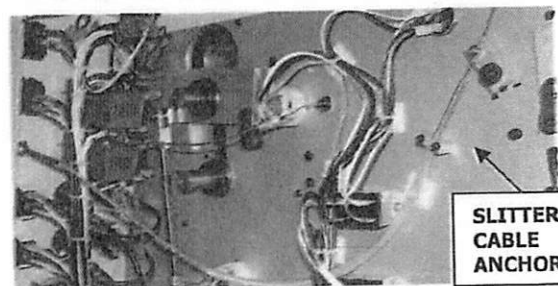
- 62) SECURE CABLE END ABOVE THE RELAYS TO THE SIDE PANEL USING THE TWO-PIECE SLITTER CABLE ANCHOR H380 182.4 AND H380 183.4 RACK 6. THE LARGER CABLE ANCHOR IS BY THE SIDE PANEL. USE (2) 10-32 X 1 1/2 SHCS.



SLITTER CABLE OPEN

- 63) PLACE THE CABLE WIRE END THROUGH THE SWIVEL HOLE IN THE SLITTER ACTUATING ARM ASSEMBLY. TIGHTEN THE 6-32 X 1/4 PH IN THE SWIVEL FIRMLY ONTO THE WIRE. TEST UP AND DOWN MOTION OF THE SLITTER BAR.

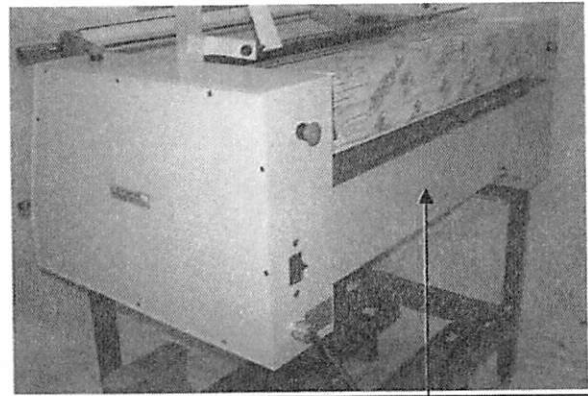
- 64) START THE THREADS OF 10-32 X 3/8 TH IN THE LOWER REAR SPREADER BAR



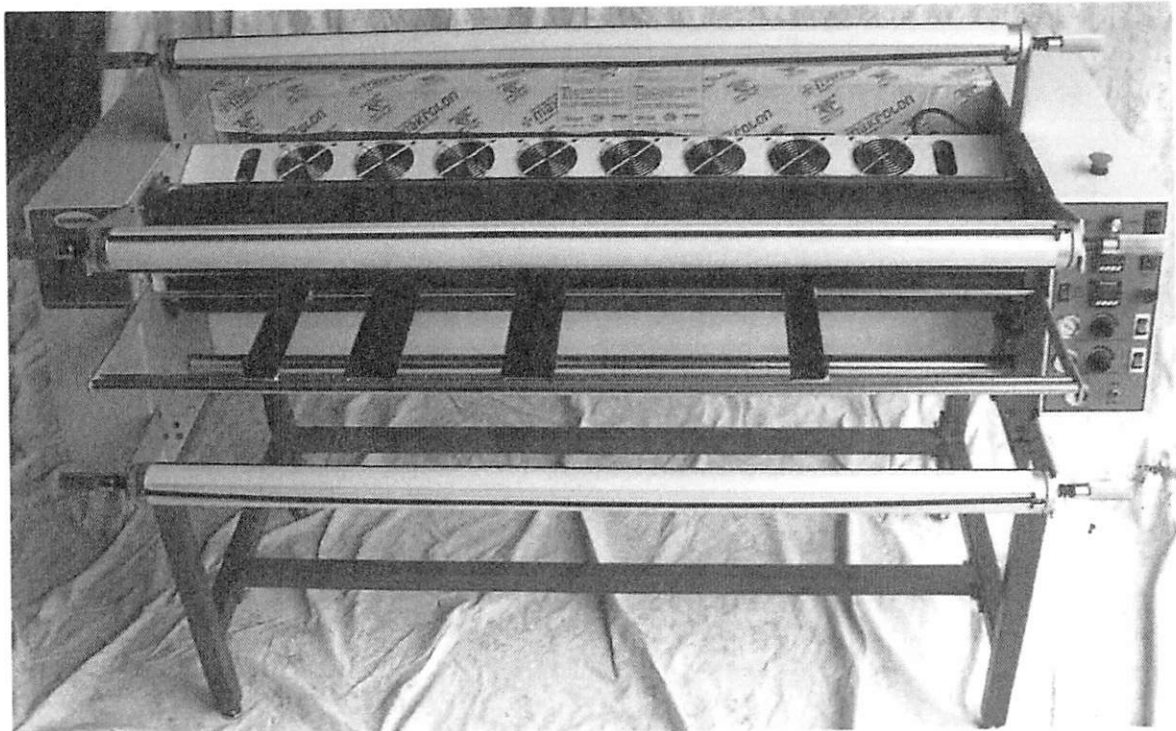
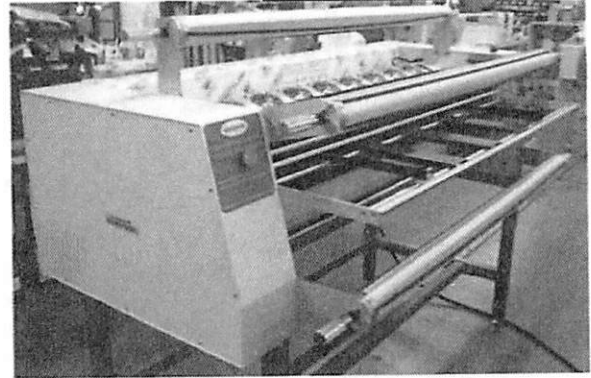
SLITTER CABLE ANCHOR

EDGE. BE CERTAIN INNER WIRES ARE CORRECT AND SWITCHES FUNCTION. SET THE HD60 BACK MOTOR COVER (H360 093.4BK) OR HD38 (H380 093.4BK) LOFT 3 ON LOWER THREADS, TILT UPWARD SLOWLY. DO NOT SCRATCH SIDE PANELS. START UPPER SPREADER BAR THREADS WITH 10-32 X 3/8 TH WHILE HOLDING THE CENTER UPWARD. TIGHTEN TRUSSHEAD SCREWS.

- 65) ***FROM THE REAR***, PLACE THE TOP FAN ASSEMBLY ON THE (4) SHOULDER BOLTS IN THE UPPER RIGHT AND LEFT INNER SIDE PANELS, BELOW THE TOP SUPPLY ROLL BRACKET. INSERT THE TOP FAN PLUG INTO THE RIGHT SIDE ARROWHART RECEPTACLE.



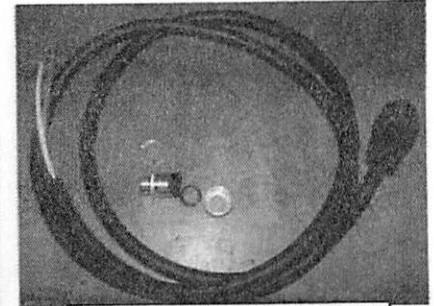
HD38 BACK MOTOR COVER



HD 38/60 HOUSINGS & AIR TUBING

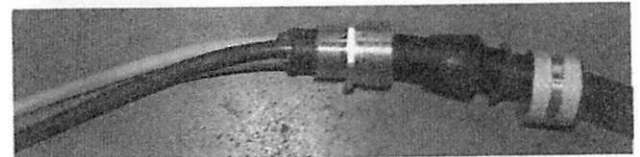
AS09

- 1) FROM ~~AS15~~ UNTHREAD STRAIN RELIEF CORD CONNECTOR (PRB095). TRIM OFF 1" SHEATHING ON HD38-60 POWER CORD (PRC219) **YELLOW BARREL**. SLIDE STRAIN RELIEF OVER WIRES, MEASURED TO GROUND SCREW. TIGHTEN THREADS ON STRAIN RELIEF. INSERT POWER CORD FROM REAR OF RIGHT HOUSING. SECURE POWER CORD ON INNER HOUSING, ORIENTED WITH THE GREEN GROUND WIRE DOWNWARD. THREAD TOOTHED NUT ONTO CORD CONNECTOR AND TIGHTEN NUT.

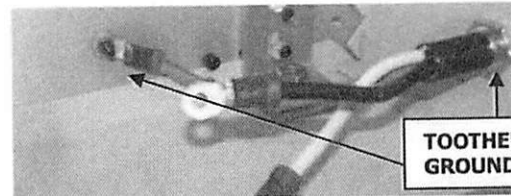


(PRC219) POWER CORD & (PRB095) STRAIN RELIEF

- 2) PLACE A #10 STAR WASHER ON THE 10-32 X 1 BSHS GROUND SCREW THREADED FROM THE INNER RIGHT SIDE PANEL. ADD THE GREEN GROUND POWER CORD RING CONNECTOR. SECURE THIS WITH A #10 KEPS HEX NUT. USE NUT DRIVER.



- 3) PLACE A MOVABLE LIGHT IN THE RIGHT HOUSING TO ILLUMINATE THE FRONT OPENINGS. REMOVE THE BACKING ON THE HD38 PANEL LABEL (XS17) ~~LOFT 2~~ **EXCEPT** FOR THE SECTION OVER THE (3) UPPER LEFT BREAKERS. ALIGN AND ADHERE LABEL. USE ADHESIVE TAPE BY BREAKERS. CUT OUT OPENINGS FOR SWITCHES, DIALS, ETC. CHECK PRINTING ON THE LABELS, AS IT IS AVAILABLE IN (3) LANGUAGES: ENGLISH, SPANISH AND GERMAN.



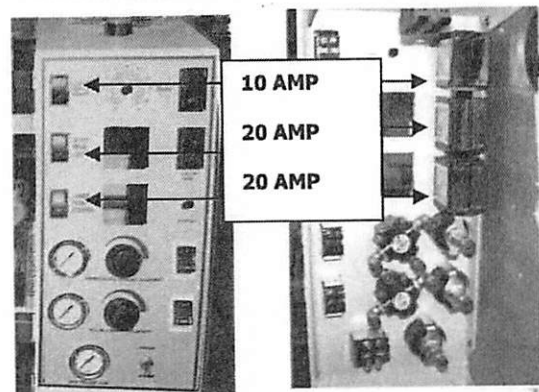
TOOTHED NUT, GROUND SCREW

- 4) REMOVE ADHESIVE TAPE AND HOLD BACK COVERED PORTION OF LABEL, INSERT A DRIVE AND COMPRESSOR 10 AMP BREAKER (PRS286) ~~LOFT 2~~ IN THE UPPER LEFT FROM THE INSIDE. ORIENT BREAKER WITH "LOAD" TERMINALS DOWNWARD AND "OFF" INDICATION UPWARD. SECURE IN COUNTERSUNK HOLES WITH 6-32 X 3/8 FH.



ADHESIVE TAPE

- 5) BELOW THE 10 AMP BREAKER, INSERT THE UPPER TEMPERATURE CONTROL FOR THE TOP HEAT SHOE, 20 AMP BREAKER (PRS287) ~~AS02~~ AND UNDER THAT INSERT THE LOWER TEMPERATURE



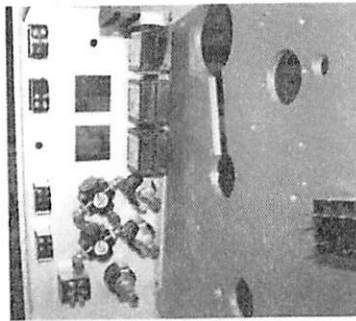
10 AMP
20 AMP
20 AMP

AS16

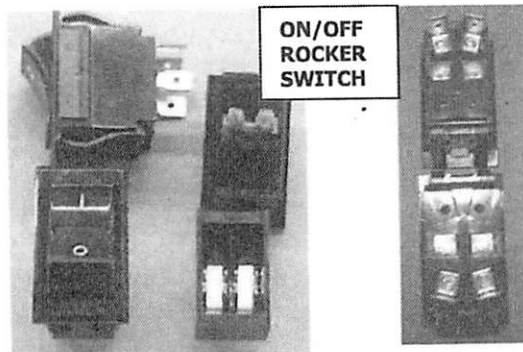
AS16

Rack 21

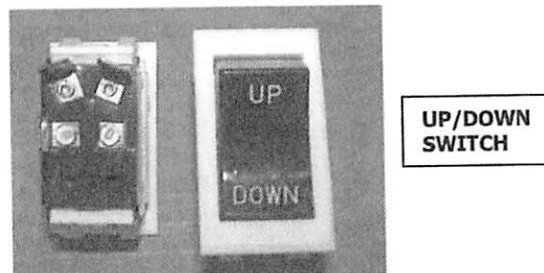
CONTROL FOR THE BOTTOM HEAT SHOE 20 AMP BREAKER. BOTH 20 AMP BREAKERS ORIENT WITH "LOAD" TERMINALS DOWNWARD AND "OFF" INDICATION UPWARD. SECURE WITH 6-32 X 3/8 FH.



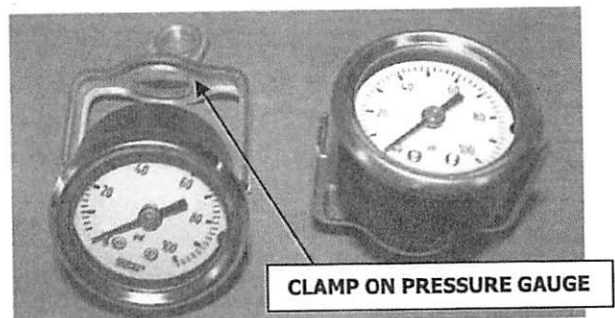
- 6) CAREFULLY UNSNAP THE COVER ON (1) OF (2) ON/OFF ROCKER SWITCHES (PRS290) AS ~~TO~~ USED. REVERSE COVER DIRECTION AND SNAP BACK ON. **DO NOT DISTURB COPPER CONTACTS THAT LAY FLAT IN LUBTRCANT.** THIS CHANGE REPRESENTS THE DRIVE SWITCH. INSERT DRIVE SWITCH INTO UPPER RIGHT OPENING, ORIENTED WITH TERMINAL POSTS UPWARD AND "O" INDICATION DOWNWARD. BELOW THAT INSERT THE UNCHANGED ON/OFF SWITCH FOR THE COOLING FANS, TERMINAL POSTS AND "O" INDICATION BOTH DOWNWARD.



- 7) BELOW THE SLITTER CHOKE CABLE OPENING IN THE HOUSING, SNAP IN (2) WHITE TRIMMED UP/DOWN SWITCHES (PRS049) RACK 6. CHECK THE UP/DOWN POSITION ON THE OUTSIDE, THE TERMINAL POSTS ARE ORIENTED UPWARD ON BOTH ON THE INNER HOUSING.

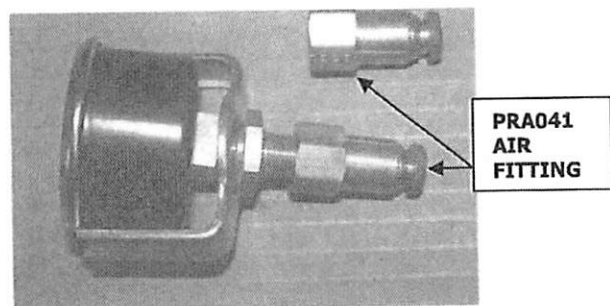


- 8) UNDER THE 20 AMP BREAKERS, INSERT THE GAUGE SECTION OF (3) 100 PSI PANEL MOUNTED PRESSURE GAUGES (PRA023) RACK 6 INTO THE HOUSING. FROM THE INSIDE, SLIDE THE CLAMP OVER THE GAUGE THREADS, VERTICALLY ANGLED, SNUG TO THE HOUSING. CHECK GAUGE READINGS ON THE OUTER HOUSING AND SECURE THE CLAMP NEXT TO THE HOUSING USING THE NUT PROVIDED. THE SHOULDER OF THE NUT THREADS FIRST, CLOSER TO THE GAUGE. TIGHTEN WITH A WRENCH.

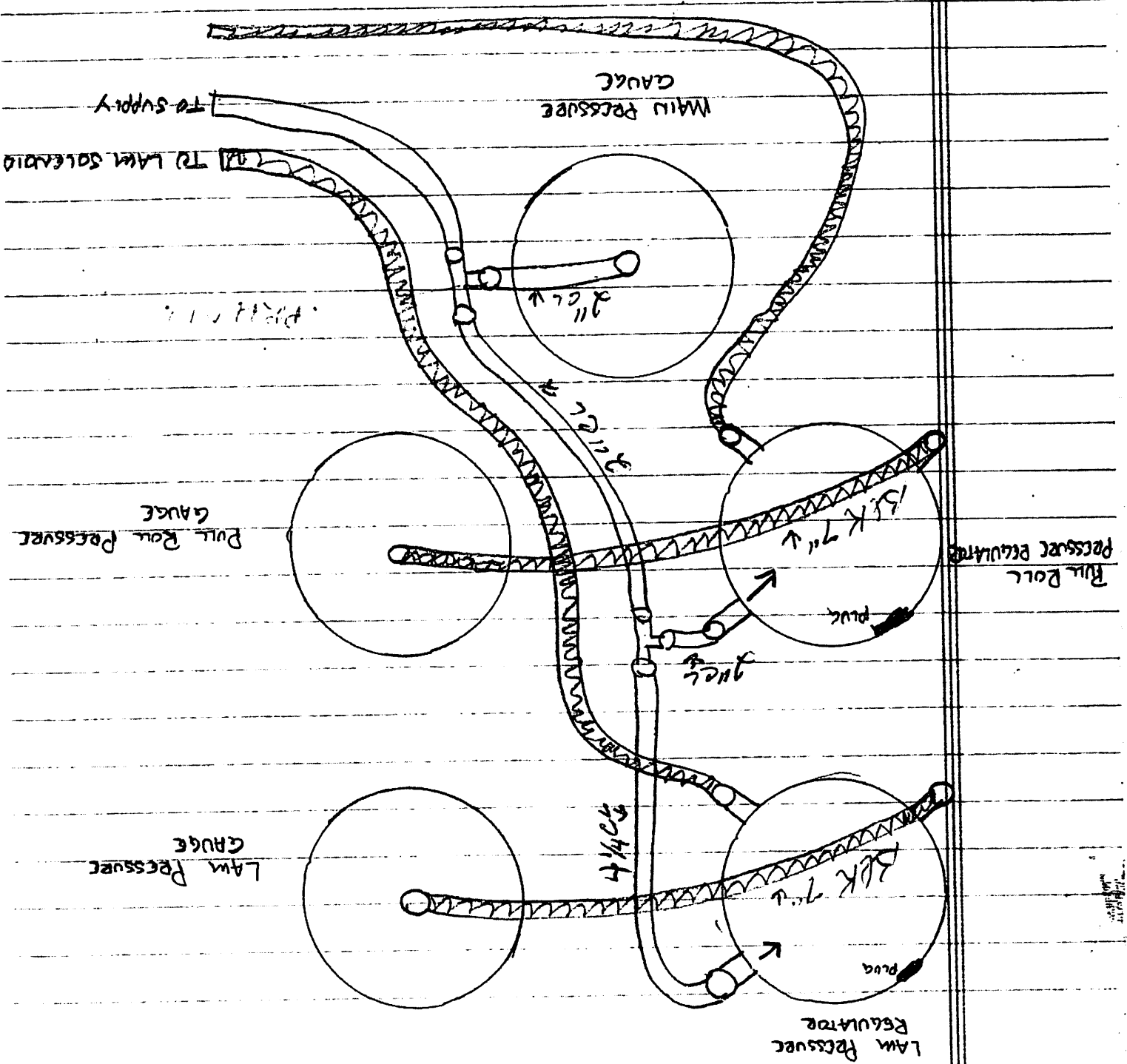


- 9) CAREFULLY BRUSH PIPE THREAD SEALER WITH TEFLON ONTO THE OUTER PRESSURE GAUGE THREADS.

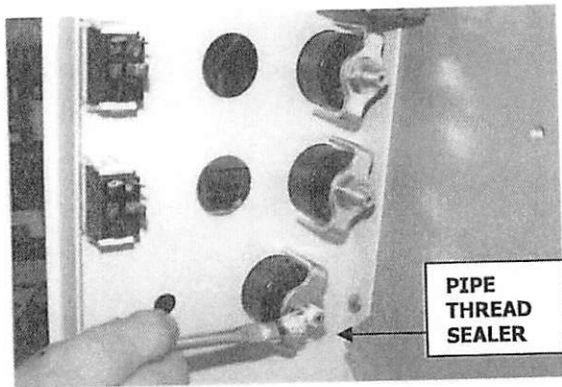
- 10) THREAD AN AIR FITTING 66PL-4-2 (PRA041) RACK 6 ONTO EACH OF THE (3) PIPE SEALER COATED PANEL MOUNTED PRESSURE GAUGES.



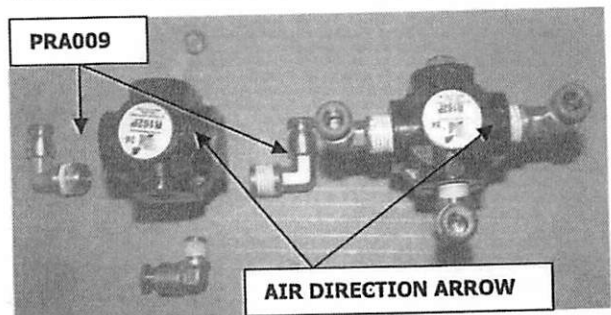
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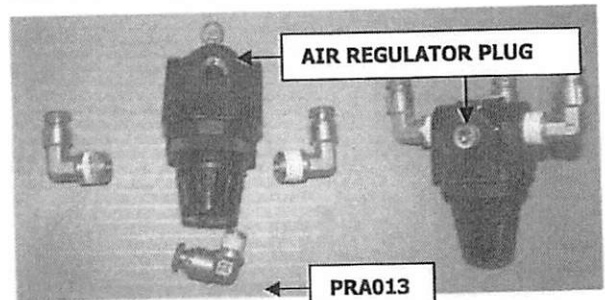
- 11) ASSEMBLE (2) AIR REGULATORS (PRA021) RACK 6 AS FOLLOWS. LOCATE THE ARROW INDICATING AIR FLOW DIRECTION ON THE CONNECTING SECTION OF THE AIR REGULATORS. ORIENT THE ARROW ON TOP, POINTING DOWNWARD. SECURE WITH VICE AND THREAD A FITTING ELBOW 269P 04X04 (PRA009) RACK 6 INTO THE THREADS BY THE ARROW AND ANOTHER FITTING ELBOW INTO THE THREADS DIRECTLY ACROSS FROM THE ARROW. **IF THESE ELBOWS DO NOT HAVE PIPE SEALER ON THEM, ADD SOME BEFORE THREADING.



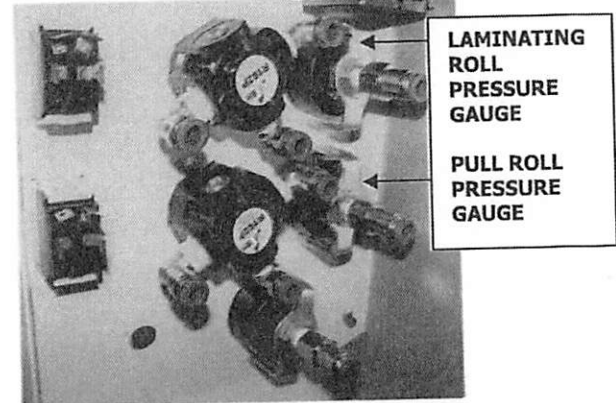
- 12) THREAD A FITTING ELBOW 169PLN 4-2 (PRA013) RACK 6 INTO THE SMALLER AIR REGULATOR THREADS LOCATED RIGHT OF THE ARROW. *NOTE ELBOW ORIENTATION.



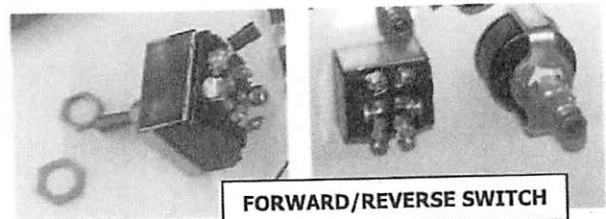
- 13) INSERT THE HEX PIPE PLUG THAT COMES WITH THE AIR REGULATOR UNIT INTO THE AIR REGULATOR THREADS REMAINING, ACROSS FROM THE SMALLER AIR FITTING. TIGHTEN HEX PIPE PLUG ALL THE WAY INTO THE AIR REGULATOR, USE AN ALLEN WRENCH.



- 14) REMOVE THE NYLON NUT ON THE AIR REGULATOR AND INSERT THE UPPER AIR REGULATOR FROM THE INNER HOUSING, ORIENTING THE MIDDLE ELBOW FITTING TOWARD THE MIDDLE PRESSURE GAUGE FOR THE PULL ROLL. INSERT THE LOWER AIR REGULATOR ORIENTED WITH THE ARROW ELBOW TOWARD THE UPPER PRESSURE GAUGE FOR THE LAMINATING ROLL. SECURE BOTH AIR REGULATORS TO THE OUTER HOUSING WITH THE NYLON NUT.



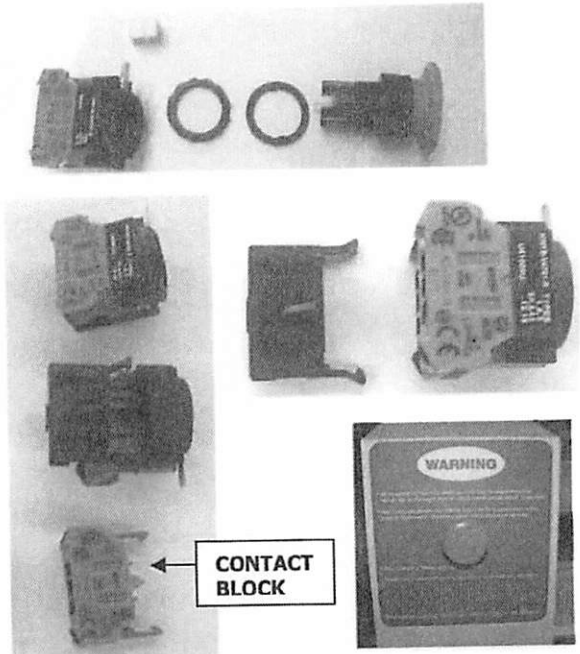
- 15) PREPARE THE FORWARD/REVERSE SWITCH (PRS277) AS08 BY LOOSELY THREADING THE (6) BRASS SCREWS INTO THE SWITCH TERMINAL POSTS. THREAD THE LARGER WASHER PROVIDED ALL THE WAY ONTO THE STEM. ORIENT THE KEYWAY DOWNWARD AND INSERT THE FORWARD/REVERSE SWITCH INTO THE HOUSING. THREAD SMALLER NUT ONTO STEM, BUT NOT TIGHTLY AS SWITCH WILL BE REMOVED TO WIRE LATER.



- 16) THE HD 60 LAMINATOR HAS (4) EMERGENCY PUSHBUTTON ACTUATORS (PRS054) *AS10*, TWO ON THE RIGHT HOUSING AND TWO ON THE LEFT HOUSING. EACH OF THE FOUR EMERGENCY ACTUATORS IS ASSEMBLED WITH A PINK CONTACT BLOCK (PRS055) *LOFT 2*. ASSEMBLY IS AS FOLLOWS. RETAIN THE YELLOW LEVER CAP FROM THE EMERGENCY ACTUATOR AND SET CAP ASIDE. MOVE THE LEVER AND DISCONNECT THE BUTTON ACTUATOR FROM THE CONTACT SECTION. USE A TOOL TO BEND AND RELEASE LOCKS ON DARK SIDE OF CONTACT SECTION AND SLIDE THAT SECTION OUT. DISCARD DARK SECTION AND LINE UP THE PINK CONTACT BLOCK FITTING THE MALE AND FEMALE RUNNERS TOGETHER. SLIDE THE CONTACT BLOCK INTO POSITION UNTIL IT SNAPS ON.

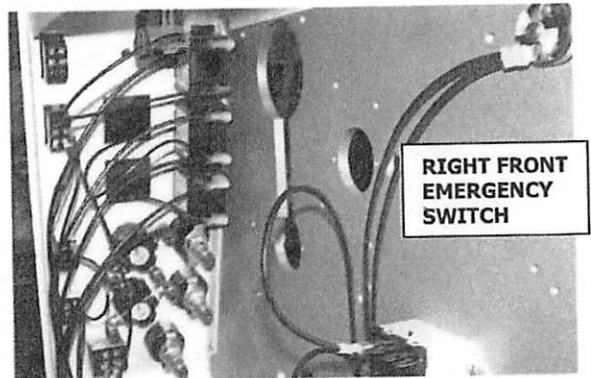
AS08

AS16



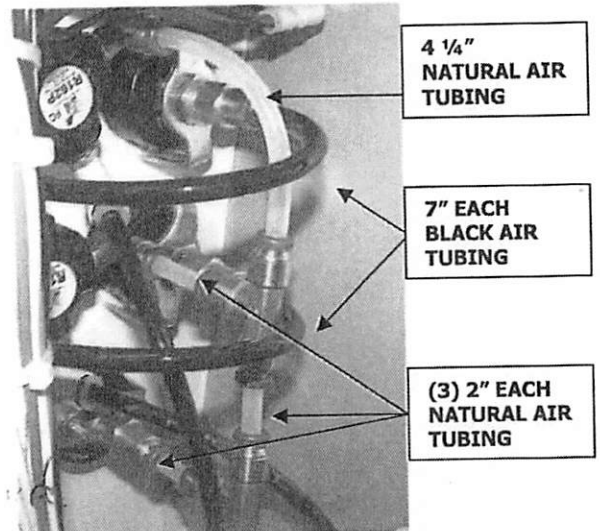
- 17) UNSCREW THE PLASTIC LOCK ON THE PUSHBUTTON ACTUATOR. CHECK BUTTON ACTUATOR SECTION FOR "TOP" INDICATION OR WIRE CONNECTION ALIGNMENT AND INSERT INTO HOUSING. RETHREAD PLASTIC LOCK AND TIGHTEN WITH CASTLE TOOL. **ADHERE A RED LARGE WARNING LABEL (LAB102) *AS11* ONTO THE FRONT LEFT HOUSING BEFORE INSERTING EMERGENCY SWITCH. ALIGN AND SLIDE ASSEMBLED CONTACT SECTION INTO ACTUATOR AND CLOSE LEVER. THE YELLOW GOES ON LEVER AFTER WIRING. ALL EMERGENCY SWITCHES INSTALL THE SAME WAY, EXCEPT THE CONTACT SECTION IS ORIENTED HORIZONALLY WITH THE WIRE CONNECTION SCREWS FACING OUTWARD.

AS09

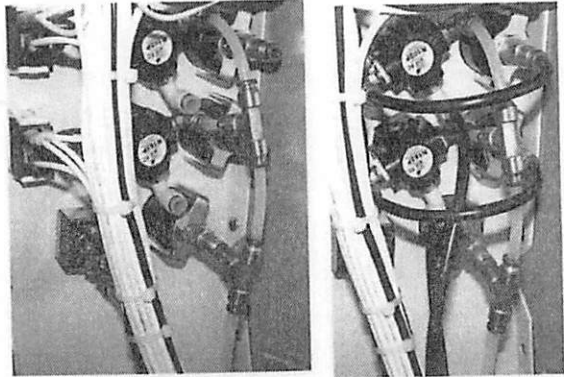


- 18) SEE WIRING PAGES. TIE RIGHT SIDE.
- 19) USE THE PLASTIC AIR TUBING CUTTER TO OBTAIN STRAIGHT, CLEAN ENDS. CONNECT THE LOWER MAIN PRESSURE GAUGE WITH 2" OF NATURAL AIR TUBING (PRA027) *LOFT 2* TO A FITTING TEE (PRA012) RACK 6. CONNECT THAT FITTING TEE TO ANOTHER FITTING TEE (PRA012) WITH 2 1/2" NATURAL TUBING.

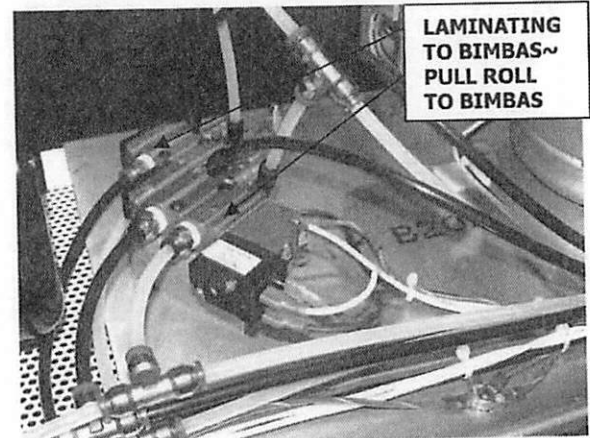
models



- 20) **CONNECT PULL ROLL AIR REGULATOR ARROW ELBOW TO THE SECOND FITTING TEE MIDDLE WITH 3" OF NATURAL AIR TUBING. CONNECT THE ARROW ELBOW ON THE LAMINATING AIR REGULATOR TO THE FITTING TEE FROM THE PULL ROLL AIR REGULATOR USING 4 3/4" OF NATURAL AIR TUBING.**

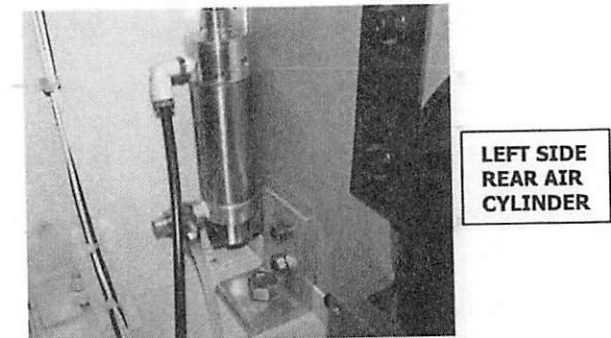


- 21) **CONNECT THE UPPER LAMINATING ROLL PRESSURE GAUGE WITH THE MOST DISTANT ELBOW FITTING (OPPOSITE ARROW FITTING ELBOW) ON THE UPPER AIR REGULATOR. USE A BLACK 7" AIR TUBING (PRA026) LOFT 2. CONNECT THE PULL ROLL PRESSURE GAUGE WITH THE MOST DISTANT ELBOW FITTING (OPPOSITE ARROW FITTING ELBOW) ON THE LOWER AIR REGULATOR, USING A BLACK 8" AIR TUBING.**

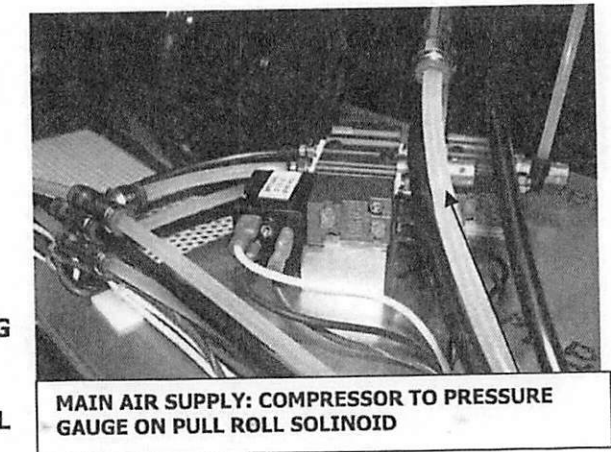


- 22) **FROM THE SOLINOIDS LOCATED ON THE COMPRESSOR MOUNTING PLATE, CONNECT THE FITTING TEES ON BLACK #2 AND ON NATURAL #4 AIR TUBING AND EXTEND TUBING THROUGH THE SNAP BUSHINGS IN THE RIGHT AND LEFT SIDE PANELS TO BIMBAS.**

- 23) **THE LAMINATING SOLINOID AIR TUBING CONNECTS TO THE FRONT LAMINATING BIMBAS. CONNECT THE NATURAL #4 TUBING TO THE LOWER FITTING ON THE AIR CYLINDERS AND THE BLACK #2 AIR TUBING TO THE TOP FITTING ON THE AIR CYLINDERS.**



- 24) **THE PULL ROLL SOLINOID LOCATED ON THE MOUNTING BLOCK HAS AIR TUBING WHICH CONNECTS TO THE REAR PULL ROLL BIMBAS. CONNECT THE NATURAL #4 TUBING TO THE LOWER FITTING ON THE AIR CYLINDERS AND THE BLACK #2 AIR TUBING TO THE TOP FITTING ON THE AIR CYLINDERS.**



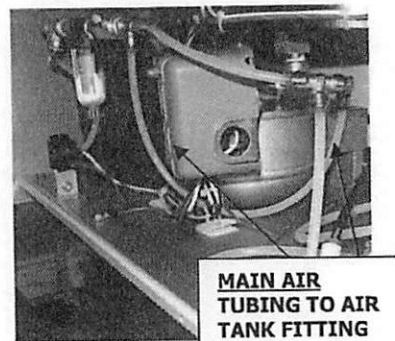
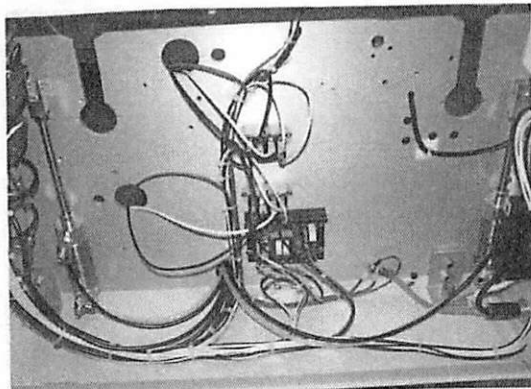
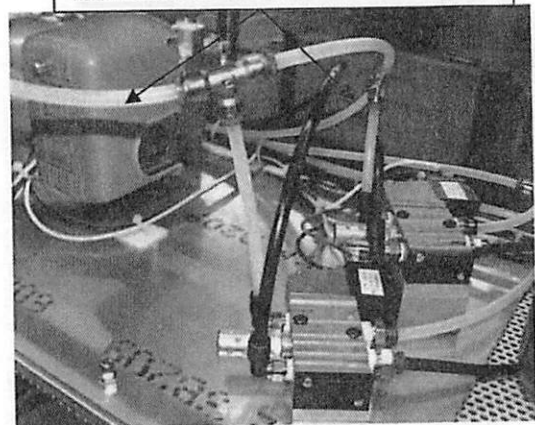
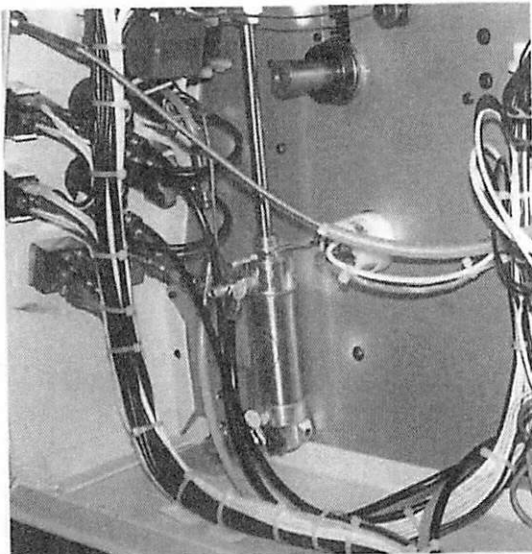
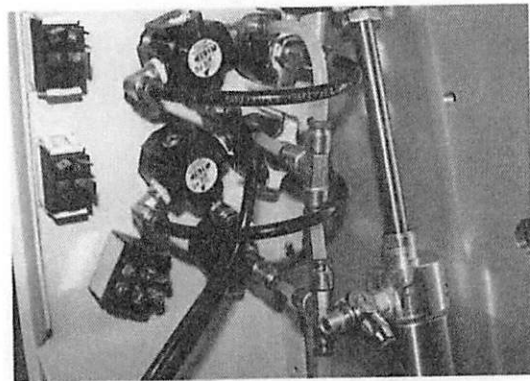
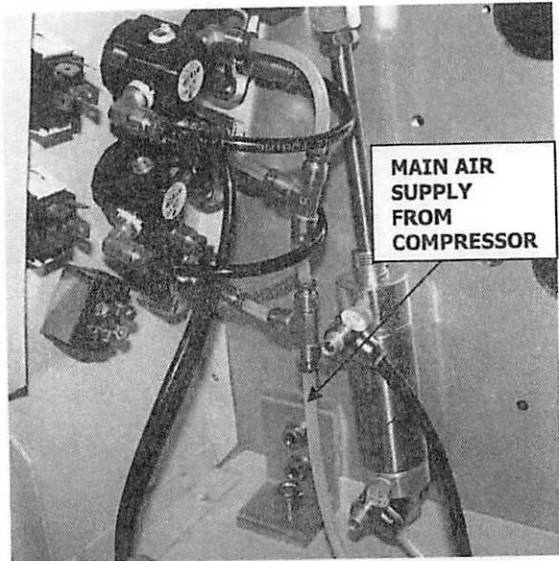
- 25) **THE MAIN AIR SUPPLY FROM THE COMPRESSOR USES NATURAL AIR TUBING THROUGH THE RIGHT SIDE PANEL. CONNECT THE NATURAL TUBING TO THE FITTING TEE #5 ON THE PULL ROLL SOLINOID. COMPLETE THE CONNECTION THROUGH THE SIDE PANEL TO THE LOWER FITTING TEE ON THE**

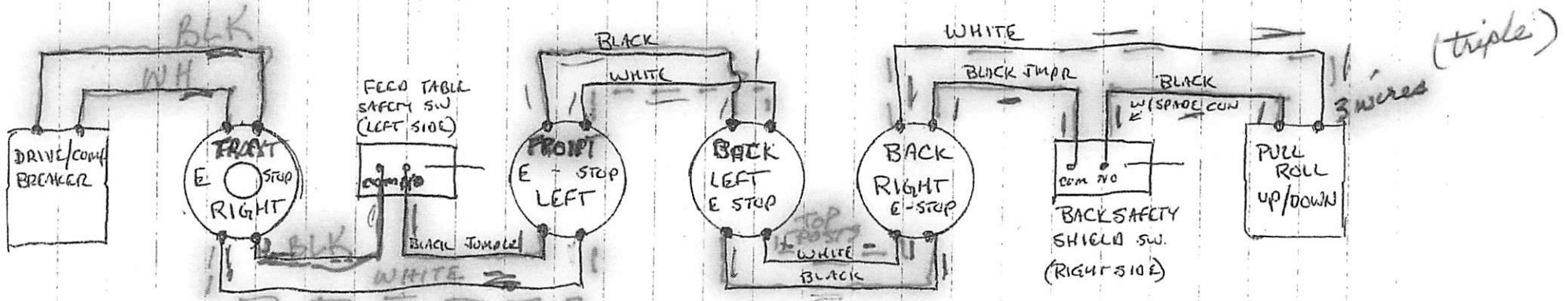
MAIN PRESSURE GAUGE.

- 26) **CONNECT AN INDIVIDUAL PIECE OF THE BLACK AIR TUBING TO THE ELBOWS ON BOTH #3 SOLINOID VALVES. THESE AIR TUBINGS WILL EXIT THE RIGHT SIDE PANEL. CONNECT THE BLACK AIR TUBING ON THE LAMINATING ROLL SOLINOID WITH THE MIDDLE ELBOW ON THE LAMINATING AIR REGULATOR. CONNECT THE BLACK AIR TUBING ON THE PULL ROLL SOLINOID WITH THE MIDDLE ELBOW ON THE PULL ROLL REGULATOR.**

- 27) **NOTE THAT (7) SECTIONS OF AIR TUBING EXIT THE RIGHT SIDE PANEL: (4) TO THE AIR CYLINDERS (1) FOR MAIN AIR SUPPLY AND (2) TO AIR REGULATORS.**

- 28) **ALIGN TUBING IN BOTTOM MOTOR COVER ALONG WITH WIRING HARNESS AND CABLE TIE DOWN. DO NOT OVER TIGHTEN AS IT MIGHT DAMAGE AIR TUBING.**



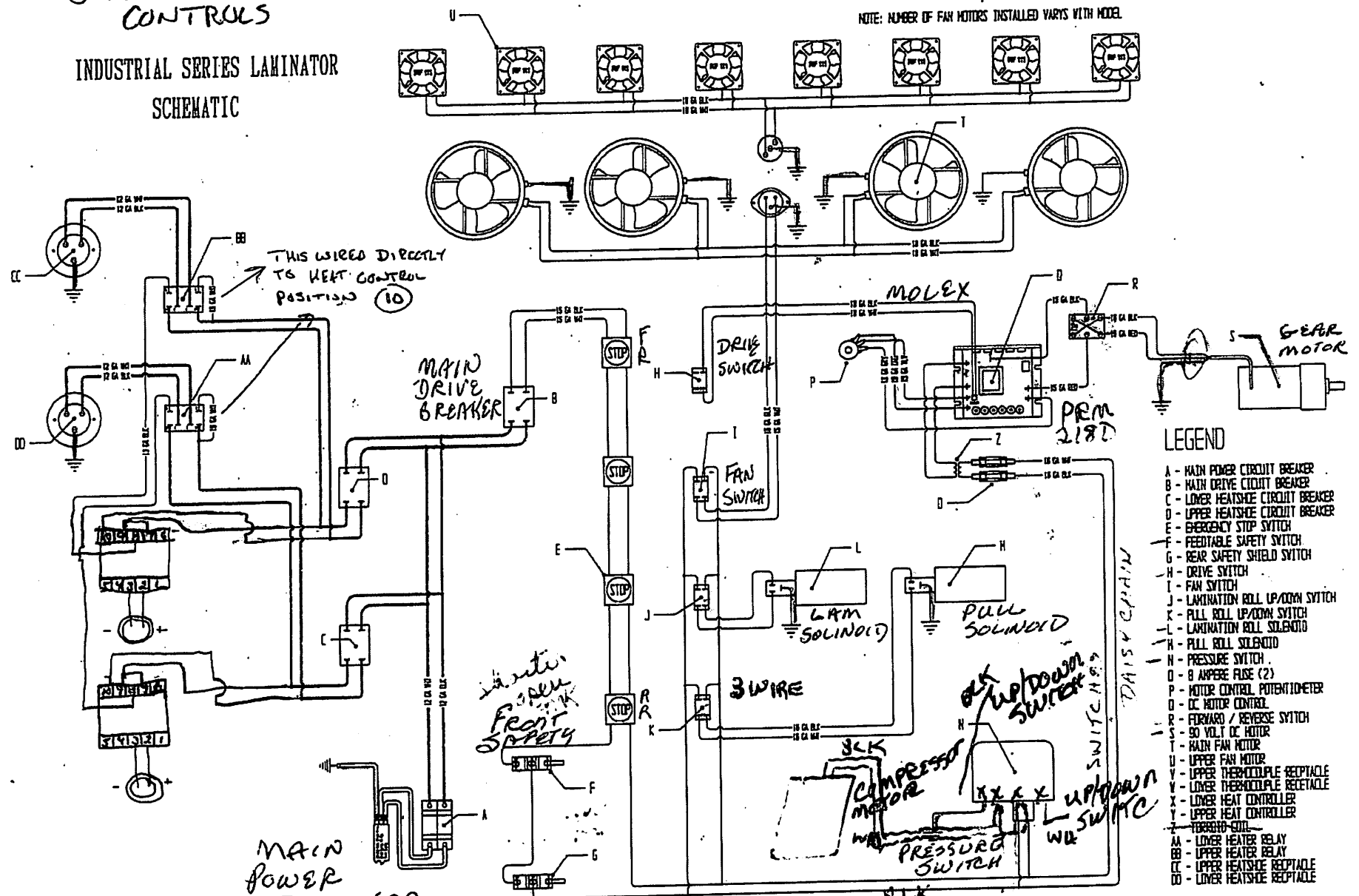


DRIVE/
COMPRES
BREAKER

WIRING

CHROMALOX HEAT CONTROLS INDUSTRIAL SERIES LAMINATOR SCHEMATIC

NOTE: NUMBER OF FAN MOTORS INSTALLED VARIES WITH MODEL



- LEGEND**
- A - MAIN POWER CIRCUIT BREAKER
 - B - MAIN DRIVE CIRCUIT BREAKER
 - C - LOWER HEATSHEE CIRCUIT BREAKER
 - D - UPPER HEATSHEE CIRCUIT BREAKER
 - E - EMERGENCY STOP SWITCH
 - F - FEEDTABLE SAFETY SWITCH
 - G - REAR SAFETY SHIELD SWITCH
 - H - DRIVE SWITCH
 - I - FAN SWITCH
 - J - LAMINATION ROLL UP/DOWN SWITCH
 - K - PULL ROLL UP/DOWN SWITCH
 - L - LAMINATION ROLL SOLENOID
 - M - PULL ROLL SOLENOID
 - N - PRESSURE SWITCH
 - O - 8 AMPERE FUSE (2)
 - P - MOTOR CONTROL POTENTIOMETER
 - Q - DC MOTOR CONTROL
 - R - FORWARD / REVERSE SWITCH
 - S - 90 VOLT DC MOTOR
 - T - MAIN FAN MOTOR
 - U - UPPER FAN MOTOR
 - V - UPPER THERMOCOUPLE RECEPTACLE
 - W - LOWER THERMOCOUPLE RECEPTACLE
 - X - LOWER HEAT CONTROLLER
 - Y - UPPER HEAT CONTROLLER
 - Z - THERMO-COIL
 - AA - LOWER HEATER RELAY
 - BB - UPPER HEATER RELAY
 - CC - UPPER HEATSHEE RECEPTACLE
 - DD - LOWER HEATSHEE RECEPTACLE

MOUNTING PLATE GROUND

- ① MOTOR
- ② SOLENOID/PULL
- ③ SOLENOID/2 AMMUNITE

REAR SAFETY

OLD STYLE MOTOR CONTROL
7001 149 0101 = PRM 2187

BLK with SIDE PANEL / 6 ROUND

- ① power cord
- ② Top handle
- ③ Bottom handle
- ④ TOP FANS

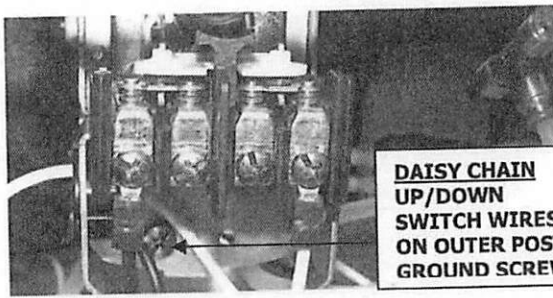
HD 38/60 WIRING - 6040 CHROMALOX

1) *ASIS* USE HARNESS HD38/60 (PRW343) ~~LOFT~~ 2' ALONG FRONT SPREADER BAR, EXIT SNAP BUSHINGS.



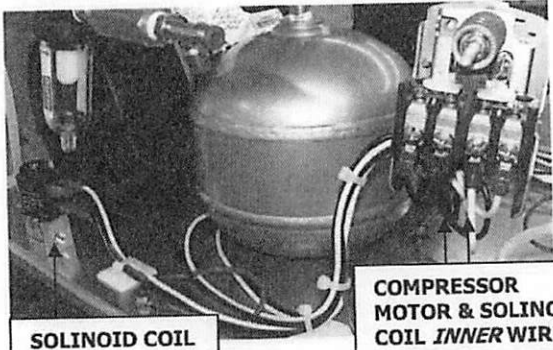
COMPRESSOR MOTOR

2) UNSCREW *COMPRESSOR MOTOR* PLATE. CUT 3' OF 16 GAUGE WHITE AND BLACK WIRE AND 2' OF GREEN WIRE. CRIMP A BLUE FEMALE (PRT292) ON WHITE AND BLACK, A BLUE RING (PRT294) ON GREEN WIRE. CONNECT BLACK WIRE TO RIGHT POST, WHITE TO LEFT POST AND GREEN GROUND UNDER SCREW WITH #8 STAR WASHER. REPLACE COVER. RUN BLACK AND WHITE BETWEEN COMPRESSOR AND AIR TANK, GREEN TO REAR HOUSING GROUND SCREW.



DAISY CHAIN UP/DOWN SWITCH WIRES ON OUTER POSTS: GROUND SCREW

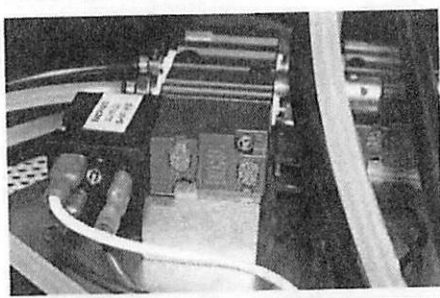
3) REMOVE *PRESSURE SWITCH* CAP. SNAP IN BUSHING (PRB064) AS07. INSERT COMPRESSOR MOTOR WIRES AND 17" SOLINOID COIL WIRES WITH BLUE FORKS (PRT298) AND CONNECT BOTH WHITE WIRES TO INNER RIGHT SCREW AND BOTH BLACK WIRES TO INNER LEFT. CONNECT 6" COIL GROUND TO REAR SCREW AND 20" SWITCH GROUND TO FRONT MOUNTING PLATE GROUND. CONNECT WHITE AND BLACK *SHORTER DAISY CHAIN* WIRES FROM UP/DOWN & FAN SWITCHES TO OUTER SCREWS, WHITE ON THE RIGHT. REPLACE CAP.



SOLINOID COIL

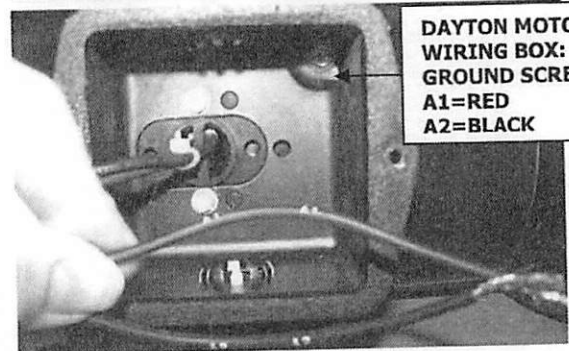
COMPRESSOR MOTOR & SOLINOID COIL INNER WIRES

4) TERMINATE 50/51" & 45/46" BLUE FLAG & FEMALE WIRES BETWEEN *PULL AND LAMINATING ROLL SOLINOID*S AND UP/DOWN SWITCHES. SOLINOID WHITE ON TOP, UP/DOWN WHITE OUTWARD. GREEN GROUNDS TO MOUNTING PLATE.



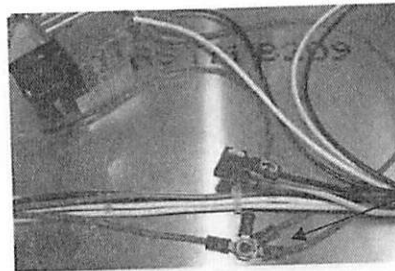
SOLINOID WIRES TO FRONT UP/DOWN SWITCHES

5) WIRE *DAYTON MOTOR* A1=RED AND A2=BLACK. MATCH LIKE CONNECTORS WITH LONG RED AND BLACK WIRES FROM BAG #3. TERMINATE WIRES BETWEEN RED *MOTOR A1* AND BLACK *MOTOR A2* TO FORWARD/REVERSE SWITCH. CONNECT 3 FEET GREEN 16 GAUGE GROUND WIRE BETWEEN GREEN SCREW IN MOTOR BOX AND MOUNTING PLATE SCREW. TUCK CONNECTORS INTO WIRING HOUSING AND REPLACE COVER ON MOTOR HOUSING BOX.



DAYTON MOTOR WIRING BOX: GROUND SCREW A1=RED A2=BLACK

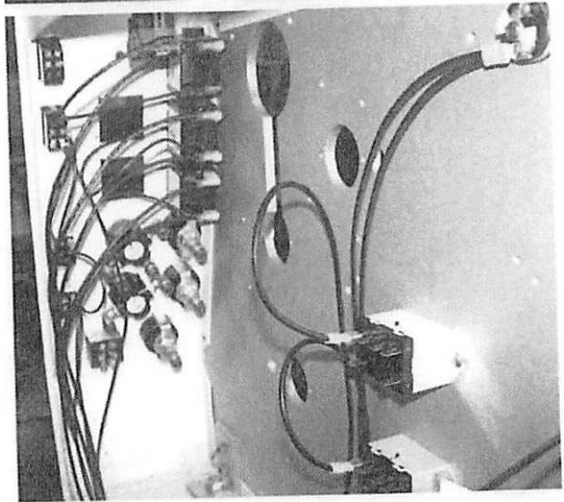
- 6) NOTE HOW THE (4) 16 GAUGE GROUND WIRES FROM THE *MOTOR, PRESSURE SWITCH, PULL ROLL SOLINOID* AND *LAMINATING ROLL SOLINOID* CONNECTIONS ARE SPACED BEFORE SECURING TO COMPRESSOR MOUNTING PLATE WITH A KEPS NUT. ALONG THE FRONT BOTTOM MOTOR COVER THE



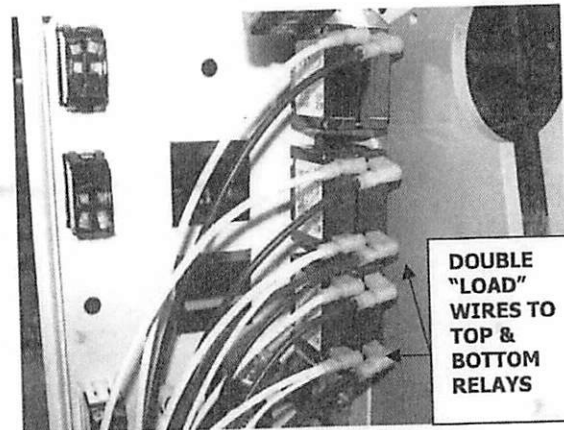
(4)
GROUND
WIRES

GREEN AND RED WIRES ARE FROM THE MOTOR. NOTE USE OF CABLE TIES AND PRESS CLIPS.

- 7) FROM BAG #6 SEPARATE THE (3) SINGLE BLACK 12 GAUGE WIRES WITH YELLOW FLAG CONNECTORS FOR THE RIGHT SIDE. MEASURE THESE BLACK WIRES TO FIND THE LONGEST. THE LONGEST GOES TO THE UPPER *DRIVE BREAKER*, INNER "LINE" POST BY SIDE PANEL. THE MIDDLE LENGTH WIRE GOES TO THE *TOP HEATER BREAKER* INNER "LINE" POST. THE SHORTEST BLACK GOES TO THE *BOTTOM HEATER BREAKER* INNER "LINE" POST.



- 8) MEASURE THE (3) SINGLE WHITE 12 GAUGE WIRES WITH YELLOW FLAG CONNECTORS FROM BAG #7 AND ATTACH THEM TO THE SAME THREE *BREAKERS* ON THE OUTER "LINE" POSTS.

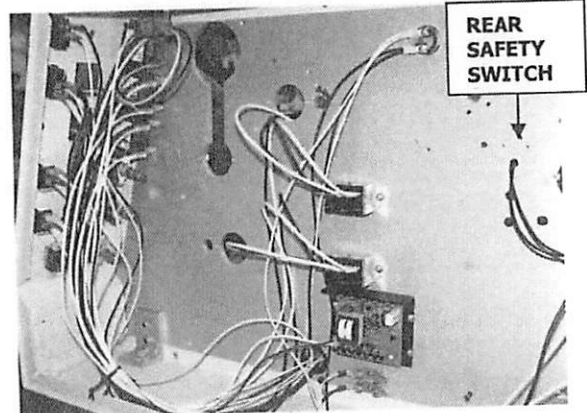


DOUBLE
"LOAD"
WIRES TO
TOP &
BOTTOM
RELAYS

- 9) CONNECT THE DOUBLED BLACK 12 GAUGE WIRES WITH FLAG CONNECTORS TO LOWER INNER "LOAD" TERMINAL POSTS ON THE *TOP HEATER BREAKER*. THE FEMALE END CONNECTS TO THE *TOP RELAY* UPPER LEFT TERMINAL POST #8.

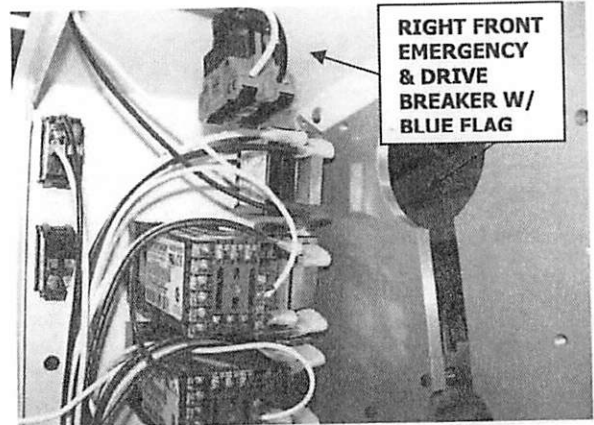
- 10) CONNECT THE SHORTER BLACK DOUBLED WIRE TO THE INNER "LOAD" TERMINAL POSTS ON THE *BOTTOM HEATER BREAKER*. THE FEMALE END CONNECTS TO THE *BOTTOM RELAY* UPPER LEFT TERMINAL POST #8.

- 11) REPEAT THIS PROCEDURE WITH THE (2) DOUBLED WHITE 12 GAUGE WIRES FROM BAG #7. CONNECT BETWEEN THE OUTER "LOAD" TERMINALS ON TOP AND BOTTOM *HEAT BREAKERS* AND THE TOP AND BOTTOM *RELAYS* ON THE UPPER RIGHT/REAR TERMINAL POST #2.

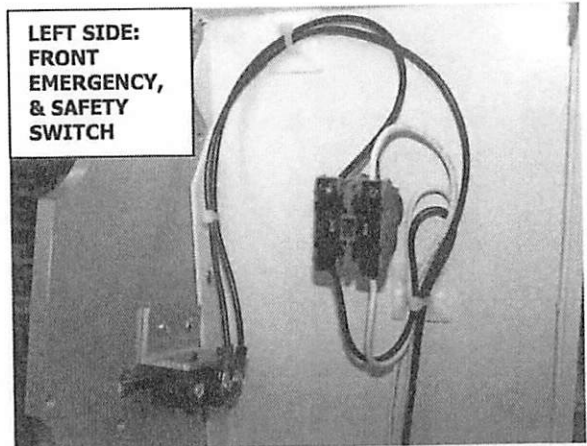


REAR
SAFETY
SWITCH

- 12) FOR ***SAFETY CIRCUIT***: FROM BAG #4 CONNECT THE BLUE FLAG 14" BLACK WIRE BETWEEN ***INNER "LOAD"*** ON ***DRIVE BREAKER*** AND TOP ***INNER FRONT RIGHT EMERGENCY STOP***. CONNECT THE BLUE FLAG SHORT 13" WHITE WIRE BETWEEN ***OUTER DRIVE "LOAD"*** AND ***OUTER FRONT EMERGENCY STOP***.

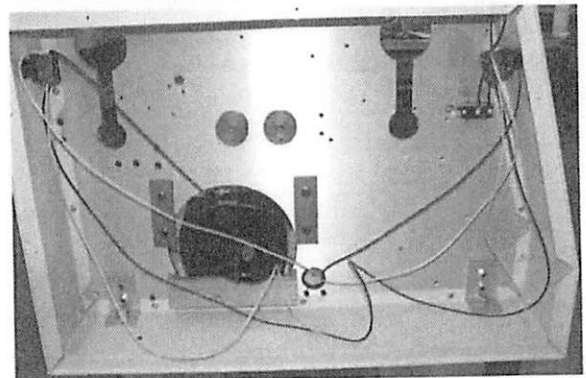


- 13) CONNECT THE LONGEST BLACK WIRE WITH FORK AND OPEN END RUNNING BETWEEN SNAP BUSHINGS UNITING ***INNER RIGHT SIDE FRONT EMERGENCY STOP SWITCH*** AND ***FRONT, LEFT SIDE SAFETY SWITCH*** ON ***FRONT "COMMON" SCREW***. THE SHORTER 7 1/2" BLACK 16 GAUGE WIRE WITH FORK AND OPEN ENDS CONNECTS ***FRONT LEFT SIDE, TOP INNER EMERGENCY SWITCH*** WITH N/O (NORMALLY OPEN) CENTER SCREW ON ***FRONT LEFT SIDE SAFETY SWITCH***.



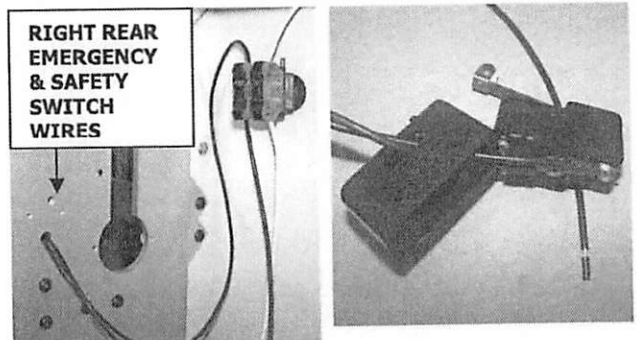
- 14) ON LEFT SIDE: CONNECT ONE EACH 68" OPEN ENDED BLACK AND WHITE 16 GAUGE WIRE BETWEEN THE LOWER TERMINALS ON FRONT AND REAR LEFT SIDE ***EMERGENCY STOP SWITCHES***. WHITE WIRE ON THE OUTSIDE.

- 15) CONNECT A WHITE 16 GAUGE WIRE BETWEEN UPPER TERMINALS ON THE OUTER FRONT RIGHT AND OUTER FRONT LEFT SIDE ***EMERGENCY STOP SWITCHES***.

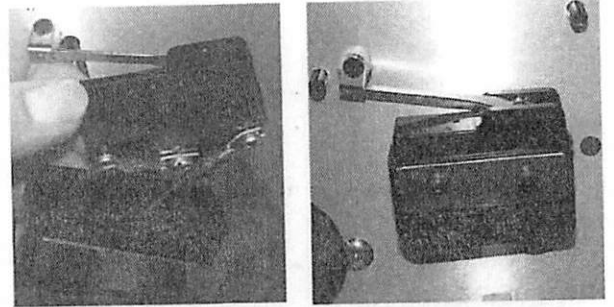


- 16) CONNECT ONE EACH, BLACK AND WHITE 16 GAUGE WIRE BETWEEN THE LOWER REAR RIGHT SIDE AND UPPER REAR LEFT SIDE ***EMERGENCY STOP SWITCHES***. BLACK WIRE BY SIDE PANEL.

- 17) FOR ***RIGHT SIDE SAFETY SWITCH*** INSERT BLACK 21" JUMPER WITH FORK AND OPEN END AND ***LONGER BLACK WIRE*** WITH FORK FROM DAISY CHAIN TRIPLE WIRE ON PULL ROLL UP/DOWN SWITCH THROUGH RIGHT OUTER SIDE PANEL. INSERT BOTH FORKED WIRES INTO OPENING IN PLASTIC COVER; CONNECT JUMPER TO "COM" SCREW AND UP/DOWN WIRE TO "N/O" SCREW ON SAFETY SWITCH. WIRES MUST ALIGN TOWARD ROLLER OR COVER WILL NOT FIT.



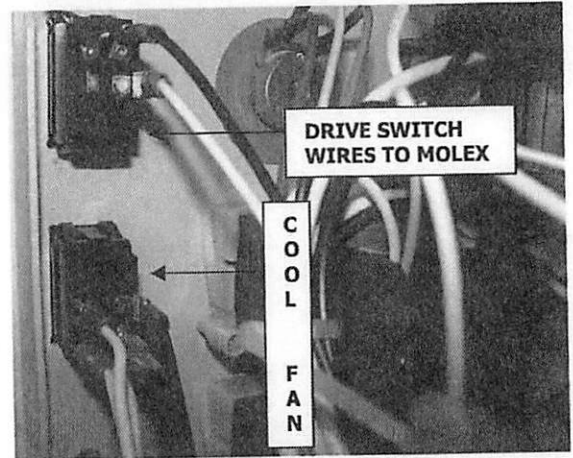
18) ALIGN SAFETY SWITCH WITH ROLLER UPWARD AND WIRES DOWNWARD. USE BRACKET OR #6 WASHER ON THE OUTSIDE AND INSERT (2) 6-32 X 1 SHCS THROUGH BRACKET, PLASTIC HOUSING AND SWITCH. THREAD INTO SIDE PANEL.



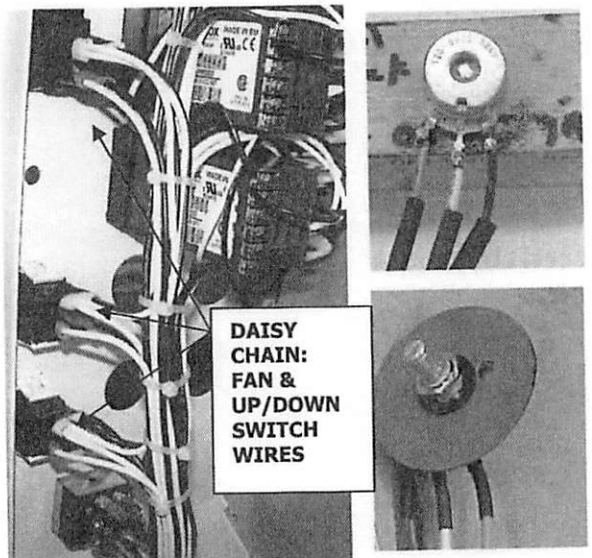
19) CONNECT INNER TOP BACK RIGHT SIDE EMERGENCY SWITCH WITH THE SHORT BLACK WIRE FROM RIGHT REAR SAFETY SWITCH ON THE "COM" SCREW.

20) CONNECT THE WHITE OPEN ENDED DAISY CHAIN WIRE FROM TRIPLE PULL ROLL UP/DOWN SWITCH TO TOP OUTER RIGHT SIDE REAR EMERGENCY SWITCH.

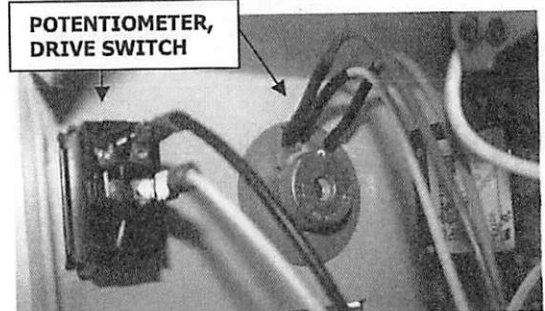
21) FROM THE HARNESS CONNECT THE 18 GAUGE BLACK AND WHITE WIRE WITH A MOLEX TERMINAL ON ONE END TO THE DRIVE ON/OFF SWITCH. THE WHITE WIRE CONNECTS TO THE INNER BOTTOM TERMINAL POST AND THE BLACK WIRE TO INNER TOP. SNAP MOLEX ON "INHIBIT" SPEED BOARD POSTS. THE CONTACTS ARE REVERSED ON THE "DRIVE" SWITCH.



22) THE SECOND SWITCH, IS THE COOLING FAN ON/OFF SWITCH. FROM THE DAISY CHAIN HARNESS CONNECT THE DOUBLE BLACK WIRES TO INNER BOTTOM POST. THE REMAINING END WITH A FEMALE CONNECTOR TERMINATES ON LOWER FRONT FUSE. THE SINGLE BLACK FAN RECEPTACLE WIRE CONNECTS TO INNER TOP POST. CONNECT THE DAISY CHAIN DOUBLE WHITE WIRE TO OUTER BOTTOM POST AND THE REMAINING END WITH A FEMALE CONNECTOR TERMINATES ON UPPER FRONT FUSE. THE SINGLE WHITE FAN RECEPTACLE WIRE TO OUTER TOP.

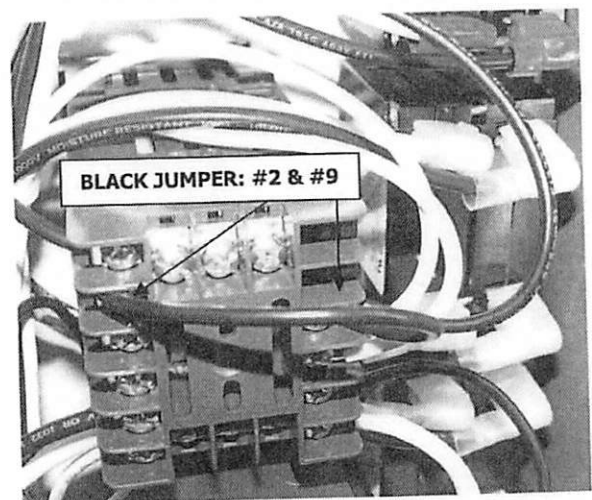
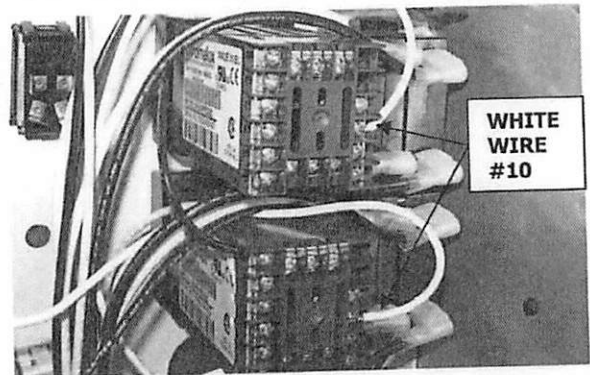
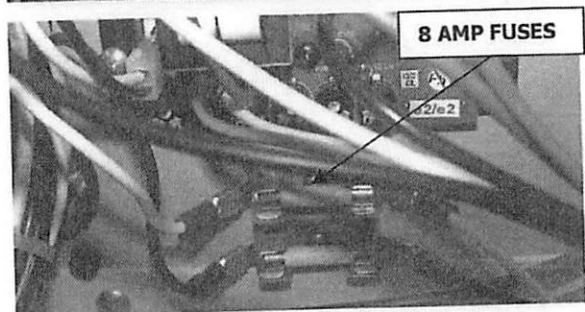
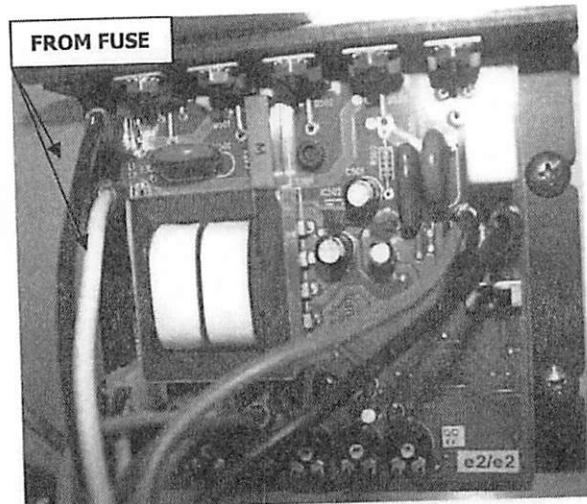


23) FROM THE DAISY CHAIN CONNECT THE DOUBLE BLACK WIRES TO THE INNER TOP UP/DOWN SWITCHES. CONNECT SINGLE BLACK SOLINOID WIRE TO INNER BOTTOM POST. CONNECT DAISY CHAIN DOUBLE WHITE WIRES TO OUTER TOP POST AND SINGLE WHITE SOLINOID WIRE TO OUTER BOTTOM. PULL ROLL UP/DOWN SWITCH HAS (3) TOP WIRES PER POST.



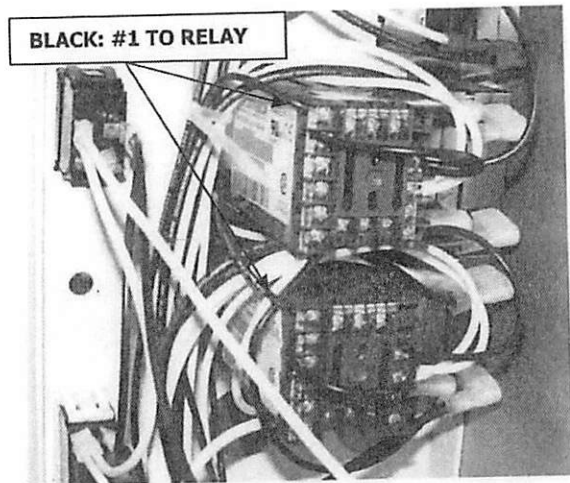
TUBING (PRI164) CAB1 OVER THE OPEN ENDS OF THE ORANGE, YELLOW AND GRAY 18 GAUGE WIRES IN BAG #1. SOLDER WIRES TO THE TERMINAL POSTS OF THE MINARIK SPEED BOARD POTENTIOMETER, ORIENTED WITH THE STEM AWAY FROM YOU AND THE POSTS DOWNWARD: ORANGE TO THE LEFT, YELLOW IN THE MIDDLE AND GRAY TO THE RIGHT. SLIDE THE INSULATION TUBING OVER THE SOLDERED CONNECTIONS AND HEAT SHRINK.

- 25) PLACE THE FIBER WASHER ON THE STEM OF THE *POTENTIOMETER* AND INSERT THE STEM INTO THE OPENING LEFT OF THE COMPRESSOR BREAKER, WITH TERMINAL POSTS FACING UPWARD (ORANGE WIRE TO THE INSIDE). SECURE TO THE OUTER RIGHT HOUSING WITH THE TOOTHED WASHER AND THE HEX NUT. THE WIRES CONNECT THE *MOTOR SPEED BOARD* AS FOLLOWS: GRAY WIRE TO S1, YELLOW TO S2 AND ORANGE TO S3.
- 26) SECURE A MINARIK KNOB (PRM221A) AS08 ONTO THE *POTENTIOMETER* STEM.
- 27) FROM DAISY CHAIN COOLING FAN SWITCH CONNECT WHITE FEMALE WIRE TO LEFT/FRONT UPPER *8 AMP FUSE* AND BLACK DAISY CHAIN COOLING FAN SWITCH WIRE TO LOWER LEFT/FRONT *8 AMP FUSE*.
- 28) CONNECT 16 GAUGE 11" WHITE WIRE BETWEEN TOP/REAR FUSE AND L2 ON *SPEED MOTOR BOARD*. CONNECT 13" BLACK WIRE BETWEEN LOWER/REAR FUSE AND L1 ON *SPEED MOTOR BOARD*. BOTH WIRES HAVE (PRT292) FEMALES.
- 29) WITH RUBBER GROMMETS OVER (2) 6040 CHROMALOX HEAT CONTROLLERS (PRH1391B) AS07. INSERT BOTH *CHROMALOX CONTROLLERS* INTO RIGHT HOUSING, RESTING ON RUBBER GROMMET OUTWARD. ORIENT THE DISPLAY SCREEN IN PROPER POSITION AND SNUG RETAINER ON INNER BODY. THE RETAINER TIGHTENS BY CATCHING THE TEETH IN BODY CHANNELS. TOP 6040 CHROMALOX CONTROLLER IS THE TEMPERATURE CONTROL FOR TOP HEAT

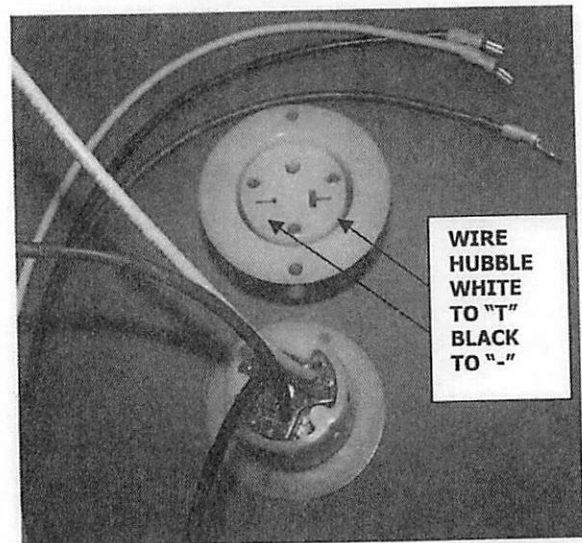


TEMPERATURE CONTROL FOR TOP HEAT SHOE AND THE BOTTOM CHROMALOX CONTROLLER IS THE TEMPERATURE CONTROL FOR THE BOTTOM HEAT SHOE.

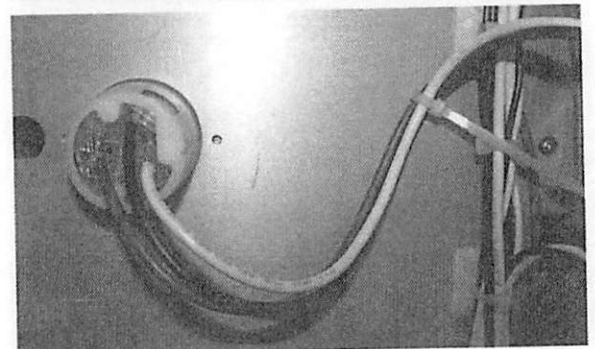
- 30) WIRE 6040 CHROMALOX HEAT CONTROLLERS: LOOP WHITE WIRE DOUBLED FROM "LOAD" TOP HEAT BREAKER LOOSEN INNER #10 SCREW ON TOP CHROMALOX. ALSO ADD 51" OPEN END OF LONGER WHITE 18 GAUGE WITH FEMALE END. CONNECT FEMALE END TO UPPER RELAY "0" POST. INSERT BOTH WHITE WIRE ENDS INTO #10 AND TIGHTEN BRACKET SCREW. CONNECT BLACK WIRE DOUBLED FROM "LOAD" TOP HEAT BREAKER AND INSERT END INTO #9, ALONG WITH A 4" JUMPER THAT CONNECTS TO #2. TIGHTEN SCREWS ON #9 AND #2. INSERT 46" OPEN ENDED LONGER BLACK 18 GAUGE WIRE INTO OUTER #1 AND TERMINATE ON UPPER RELAY "1". ADJUST WIRES. REPEAT PROCEDURE WITH THE LOWER HEAT BREAKER DOUBLED WIRES, LOWER 6040 CHROMALOX HEAT CONTROLLER AND LOWER RELAY. USE 44" BLACK AND 40" WHITE 18 GAUGE WIRES WITH FEMALE AND OPEN END.



- 31) REMOVE THE (6) BRASS SCREWS, ORIENTING THE SWITCH KEYWAY DOWNWARD AND WIRE THE FORWARD/REVERSE SWITCH (PRS277) AS08. THE RED AND BLACK RINGED WIRES FROM THE DAYTON MOTOR DOUBLE WITH THE SHORT RED AND BLACK RINGED JUMPERS ON THE LOWER TERMINAL POSTS, RED TO THE OUTSIDE. THE TOP SHORT BLACK JUMPER GOES TO THE OUTSIDE, TOP SHORT RED JUMPER GOES TO THE INSIDE. THE 30" RING AND FEMALE ENDED RED WIRE TIGHTENS TO THE OUTER MIDDLE AND TERMINATES ON THE SPEED MOTOR BOARD A2. THE 31" RING AND FEMALE ENDED BLACK WIRE TIGHTENS TO THE INNER MIDDLE ON THE FORWARD/REVERSE SWITCH AND TERMINATES ON THE SPEED MOTOR BOARD A1.

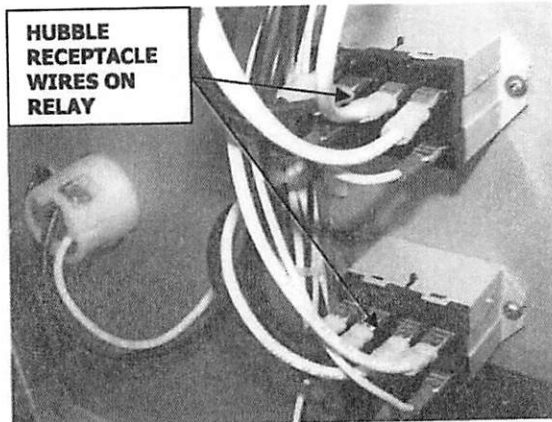


- 32) WIRE (2) HUBBLE RECEPTACLES (PRR234) RACK 6 BY LOOSENING SCREWS ON UNDERSIDE AND INSERTING OPEN END OF 14" 12 GAUGE BLACK AND

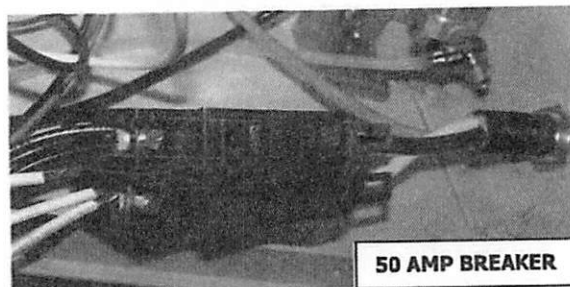


SCREWS. THE BLACK WIRE CONNECTS TO THE "-" INDICATION AND THE WHITE WIRE CONNECTS TO THE "T" INDICATION. THE 35" GREEN GROUND 12 GAUGE WIRE CONNECTS TO THE GREEN SCREW.

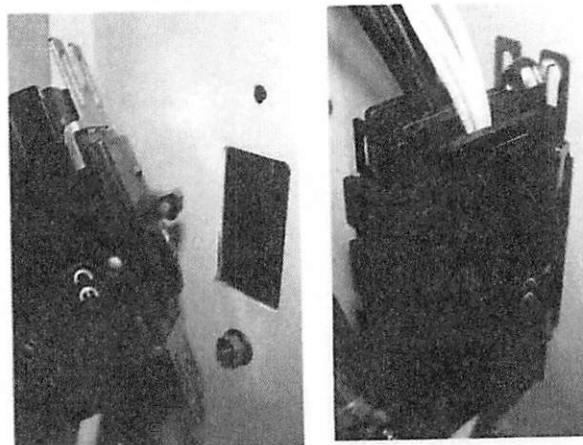
- 33) **DO NOT SECURE HUBBLE RECEPTACLES TO THE SIDE PANELS UNTIL AFTER THE TOP MOTOR COVER HAS BEEN INSTALLED. THE SCREWS HOLDING THE RECEPTACLES INTERFERE WITH MOTOR COVER INSTALLATION. THIS INSTALLATION IS DESCRIBED IN THE CHASSIS SECTION OF THE MANUAL.**



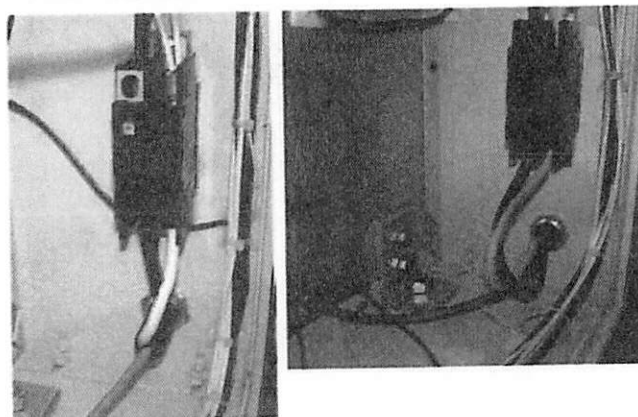
- 34) **AFTER HUBBLE RECEPTACLES ARE INSTALLED, CONNECT THE FEMALE END TO THE INNER TOP POSTS ON BOTH RELAYS. THE WHITE WIRE GOES ON #4 TOWARD THE RIGHT/REAR AND BLACK WIRE GOES ON #6 TO THE LEFT/FRONT. THE HUBBLE RECEPTACLES ARE FOR HEAT SHOE PLUGS.**



- 35) **THE GREEN GROUND HUBBLE RECEPTACLE WIRES CONTINUE DOWNWARD ON THE SIDE PANEL AND WILL TERMINATE ON THE GROUND SCREW IN RIGHT HOUSING.**



- 36) **ASSEMBLE THE 50 AMP BREAKER (PRS304) ~~LOFT 2~~ FOR THE HD60 (40 AMP BREAKER (PRS298) LOFT 2 FOR THE HD38): REMOVE THE MOUNTING BRACKETS AND SET ASIDE. CUT OFF THE RING CONNECTORS ON THE WHITE AND BLACK 6 GAUGE POWER CORD WIRES. TRIM THESE OPEN ENDS TO 1/2" ON BOTH POWER WIRES. SECURE 9" OF WIRES IN HOUSING. CONNECT BLACK POWER WIRE WITH THE LOWER INSIDE SCREW. CONNECT WHITE POWER CORD WIRE TO THE LOWER OUTSIDE SCREW. TRIM THE (3) BLACK 12 GAUGE WIRES FROM THE "LINE" TERMINALS ON THE (3) FRONT SECONDARY BREAKERS AND INSERT ALL (3) OPEN BLACK ENDS UNDER THE UPPER INSIDE SCREW. SECURE ALL (3) WHITE 12 GAUGE WIRES FROM THE "LINE" TERMINALS ON THE SECONDARY BREAKERS UNDER THE OUTER TOP SCREW.**

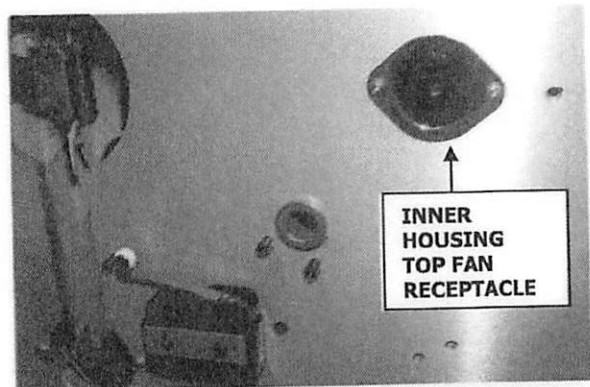


AS 16

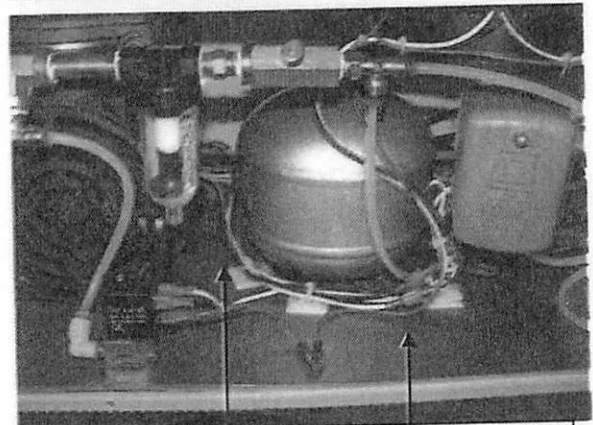
- 37) SLIDE THE MOUNTING BRACKETS INTO THE SLOTS ON THE BREAKER. FROM THE OUTER HOUSING INSERT (2) 1/4-20 X 3/8 TH. START A 1/4 WASHER AND 1/4-20 HEX NUT ONTO THE LOWER THREADS. SET THE LOWER BRACKET BETWEEN THE HOUSING AND WASHER. INSERT BREAKER THROUGH HOUSING. ALIGN UPPER BRACKET, AND A 1/4 WASHER AND TIGHTENING WITH ANOTHER 1/4-20 HEX NUT.



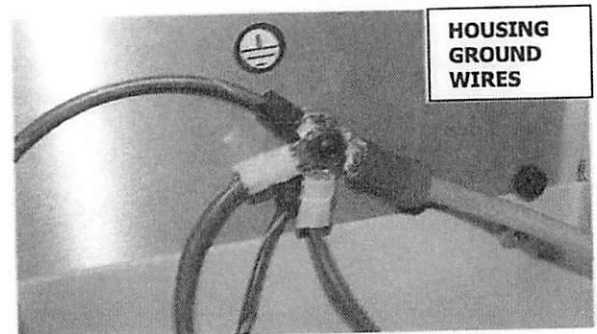
- 38) WIRE *TOP FAN RECEPTACLE* (PRR221) AS08: MOVE PROTECTIVE FAN LIKE COVERING OFF SCREWS. CONNECT DOUBLED WHITE FORKED WIRES TO THE "Y" POST AND THE DOUBLED BLACK FORKED WIRES TO THE "X" POST. REPLACE PROTECTIVE COVER OVER SCREWS. FEMALE ENDS WILL TERMINATE ON UPPER *COOLING FAN SWITCH* POSTS, BLACK WIRE INSIDE. REMOVE *FAN RECEPTACLE* CENTER SCREW. ADD 39" GREEN GROUND WIRE, TIGHTEN SCREW. GROUND WIRE RING END TERMINATES ON THE *GROUND SCREW* IN LOWER RIGHT SIDE PANEL.



- 39) SECURE WIRED FAN RECEPTACLE TO RIGHT SIDE PANEL WITH (2) 6-32 X 1/4 PH. ORIENT WIRES TO LEFT ON OUTER PANEL.



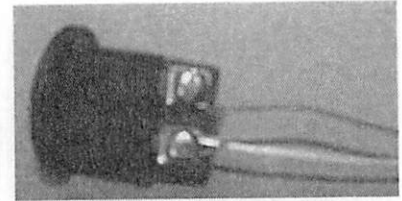
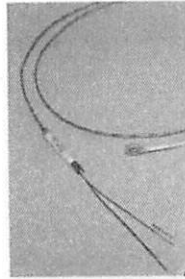
- 40) THE OPEN END OF THE *FAN RECEPTACLE* WHITE AND BLACK WIRES WILL RUN THROUGH THE SNAP BUSHING IN THE RIGHT HOUSING AND BETWEEN COMPRESSOR AND AIR TANK TO THE REAR OF THE LAMINATOR. CONNECT WITH THE LARGE *BOTTOM FAN ASSEMBLY* ON THE TOP MOTOR COVER. CRIMP A RED MALE AND FEMALE (PRT330 AND PRT 331) ONTO THESE WHITE AND BLACK WIRES AND UNITE THE LIKE COLORED WIRES. TIE WIRES DOWN NEATLY USING PRESS CLIPS AND CABLE TIES.



- 41) SECURE THE LARGE FAN GROUND WIRE TO THE COMPRESSOR MOUNTING PLATE WITH A 10-32 X 1 BHCS, #10 STAR WASHER, KEPS NUT AND ACORN NUT.

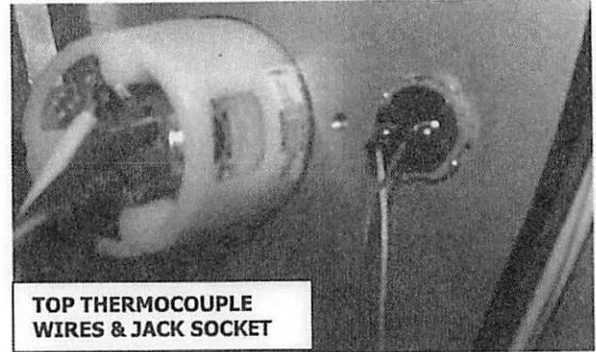
- 42) PLACE A #10 STAR WASHER ON THE GROUND SCREW IN THE LOWER RIGHT

HOUSING. CONNECT THE GREEN GROUND *POWER CORD* WIRE AND SECURE WITH A #10 KEPS HEX NUT. ADD GREEN GROUND WIRES FROM THE *TOP AND BOTTOM HUBBLE RECEPTACLES, COMPRESSOR MOTOR AND TOP FAN RECEPTACLE*. SECURE WITH A KEPS HEX NUT. ADHERE AN INTERNATIONAL GROUND LABEL.



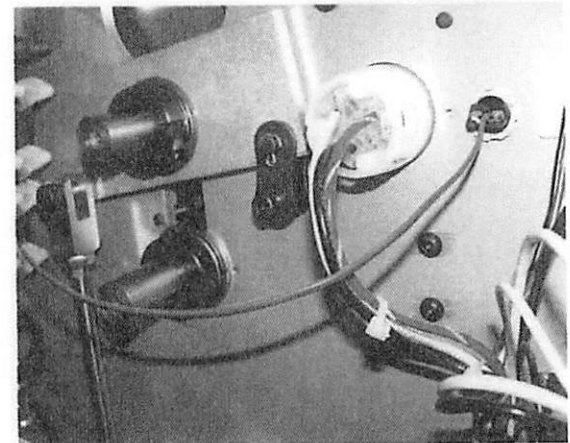
HERMOCOUPLF WIRE AND JACK SOCKET

- 43) ORGANIZE WIRES AND AIR TUBING IN A NEAT FASHION. USE PRESS CLIPS AND CABLE TIES TO SECURE TO HOUSINGS. BE CAREFUL NOT TO DAMAGE AIR TUBING BY COMPRESSING TOO TIGHTLY WITH CABLE TIES.

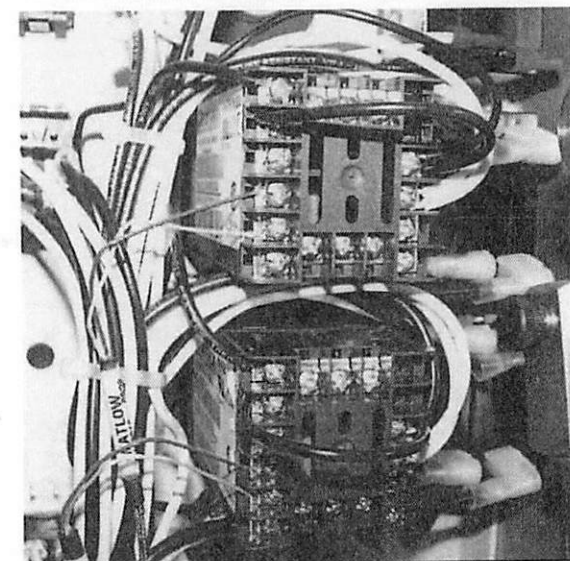


TOP THERMOCOUPLF WIRES & JACK SOCKET

- 44) PREPARE THE (2) THERMOCOUPLF WIRE ENDS FROM THE HEAT SHOE ASSEMBLY WHICH ARE LONG ENOUGH TO RUN FROM THE UPPER AND LOWER *CHROMALOX HEAT CONTROLLER* SCREWS TO THE UPPER AND LOWER *THERMOCOUPLF JACK SOCKETS (PRR230) AS08* LOCATED BY THE HUBBLE RECEPTACLES IN THE RIGHT SIDE PANEL. WIRE THE THERMOCOUPLF JACK SOCKETS BEFORE SECURING IN SIDE PANEL.



- 45) LOOSEN THE TWO THERMOCOUPLF JACK SOCKET SCREWS. BEND THE EXPOSED WIRES ON THE CONNECTOR END OF THE THERMOCOUPLF WIRE TO LOOP OUTWARD. THE WHITE + (POSITIVE) WIRE LOOPS UNDER THE + INDICATED SCREW AND THE RED - (NEGATIVE) WIRE LOOPS UNDER THE - INDICATED SCREW. SECURE WIRES BY RETIGHTENING SCREW. DO NOT CRUSH OR BREAK WIRES WHEN TIGHTENING.



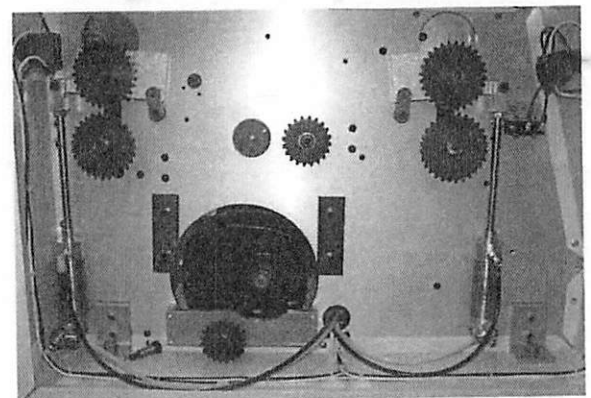
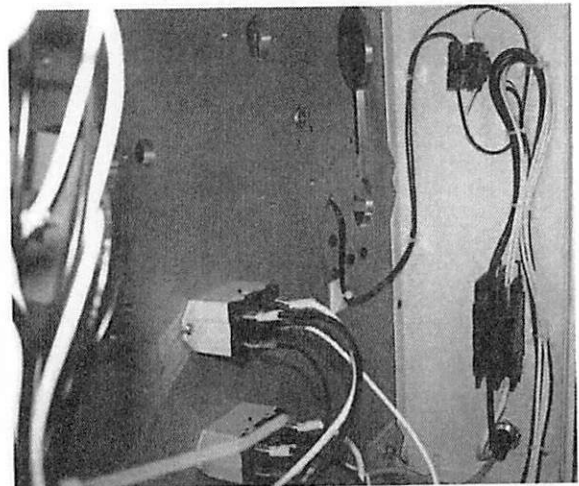
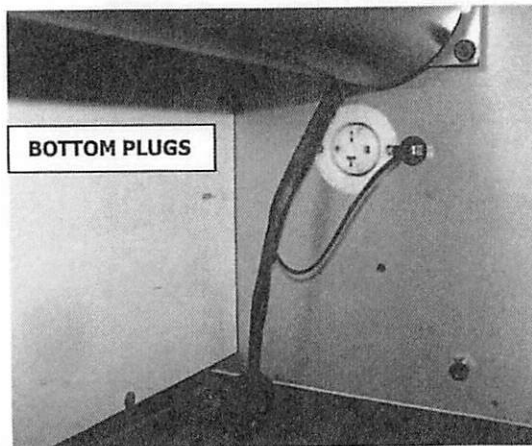
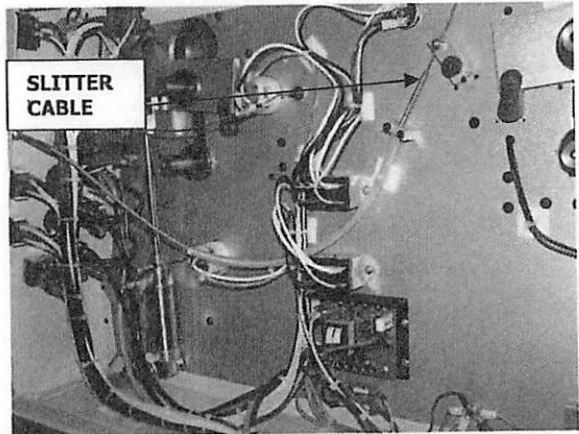
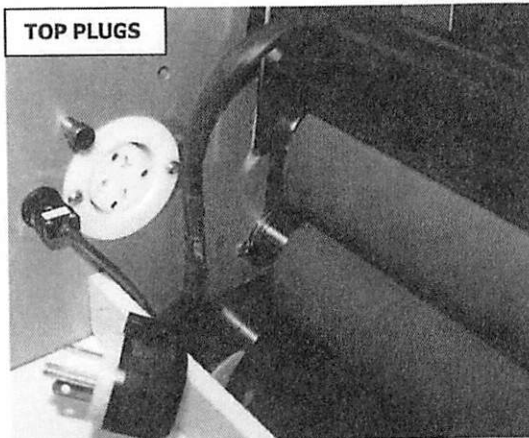
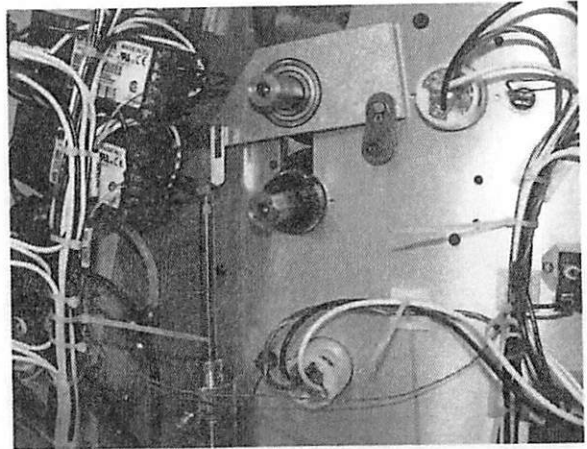
THERMOCOUPLF: RED=#4 SCREW & WHITE=#5

- 46) INSERT THE WIRED JACK SOCKET THROUGH THE INNER RIGHT SIDE PANEL, ALIGN PLUG AND TIGHTEN METAL NUT ON OUTER SIDE PANEL JACK SOCKET THREADS.

- 47) CAREFULLY STRIP ABOUT 1/2 INCH OF SHEATHING ON THE UPPER RED - (NEGATIVE) THERMOCOUPLF WIRE AND CONNECT IT TO THE UPPER CHROMALOX #4 SCREW. STRIP THE WHITE + (POSITIVE) THERMOCOUPLF WIRE AND CONNECT IT TO THE CHROMALOX

CONTROLLER #5 SCREW. REPEAT THIS PROCEDURE FOR THE LOWER THERMOCOUPLE WIRES AND LOWER CHROMALOX. THESE WIRES CONTINUE TO THE TOP AND BOTTOM HEAT SHOES THERMOCOUPLE RECEPTACLES.

- 48) BEND THERMOCOUPLE WIRES AWAY FROM SIDE PANEL SO NOT TO INTERFERE WITH ANY OTHER WIRES OR MOVING PARTS. THE UPPER THERMOCOUPLE WIRE RUNS UNDER THE UPPER HUBBLE RECEPTACLE WIRES.**



HD 38/60 INDUSTRIAL SERIES FEED TABLE ASSEMBLY

- 1) PLACE PARTS FOR THE HD38/60 FEED TABLE ASSEMBLY ON WORK AREA. USE 38" OR 60" SHAFTS AND SUPPORTS.

- 2) SLIDE (4) FEED TABLE GUIDE BLOCKS (H380 100.4) AS08 TWO EACH, ONTO (2) FEED TABLE SUPPORT SHAFTS (H360 096.4) LOFT 3. THE TAPPED, FLAT SIDE OF THE GUIDE BLOCKS FACES UPWARD WITH THE LARGER TAPPED THREADS OUTWARD.

- 3) ALIGN THE FEED TABLE SUPPORT SHAFTS BETWEEN A FEED TABLE SIDE BAR RIGHT (H380 098.4R) AS16 AND A FEED TABLE SIDE BAR LEFT (H380 098.4L) AS16. THE NOTCHES AT THE REAR END OF THE SUPPORT BARS FACE DOWNWARD AND AWAY FROM YOU. THE COUNTERSUNK HOLES ON THE RIGHT AND LEFT SIDE BARS FACE THE OUTSIDE. LOCTITE THE END THREADS OF (4) 10-32 X 1/2 FH AND SECURE THE FEED TABLE SUPPORT SHAFTS BETWEEN THE INNER FRONT AND THE REAR COUNTERSUNK HOLES OF THE FEED TABLE SIDE BARS. LEAVE ONE SIDE LOOSE AT THIS POINT.

- 4) FROM RACK 10 LOCTITE THE THREADS OF (4) 4-40 X 3/16 FH AND SECURE A PRECISION FEED TABLE GUIDE RIGHT (EP30 099.4R) AND A PRECISION FEED TABLE GUIDE LEFT (EP30 099.4L) TO THE FRONT AND REAR FEED TABLE GUIDE BLOCK. THE RAISED EDGE OF THE PRECISION FEED TABLE GUIDES FACE THE OUTER FRONT ON BOTH.

- 5) SECURE THE FRONT GUIDE BLOCKS TO THE SUPPORT SHAFT USING A 1 1/4" SPI KNOB SCREW (PRK179) AS08 ON EACH. SECURE THE REAR GUIDE BLOCKS TO THE SUPPORT SHAFT USING A 3/4" SPI KNOB SCREW (PRK178) AS08 ON EACH. BEFORE TIGHTENING, SLIDE PRECISION FEED

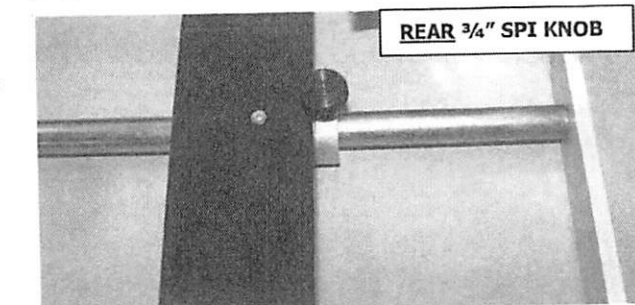
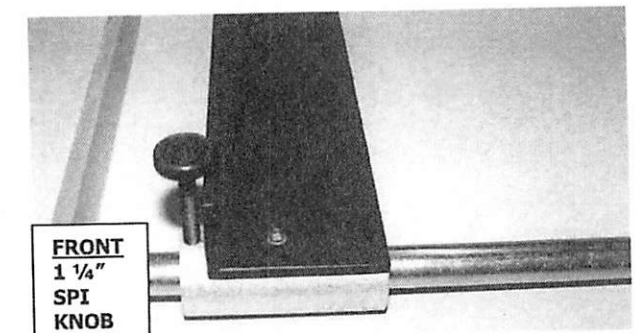
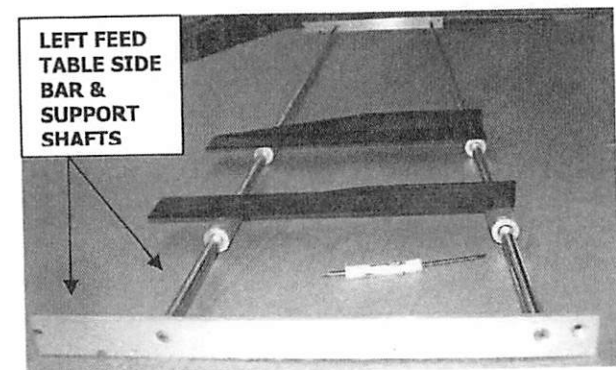
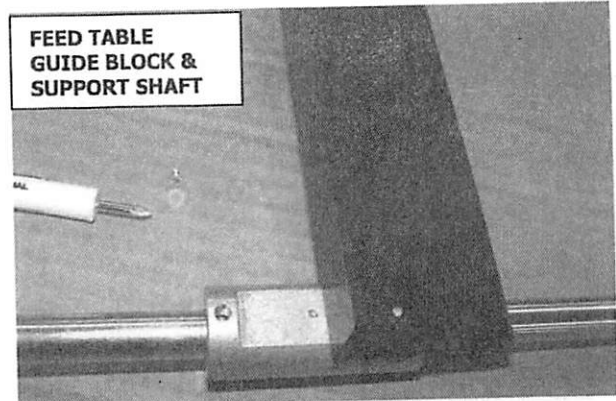
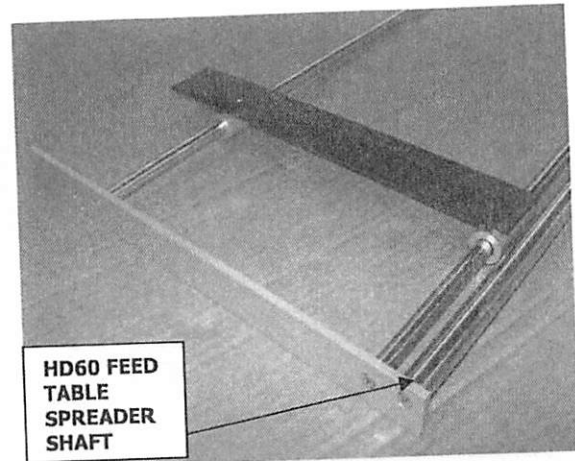
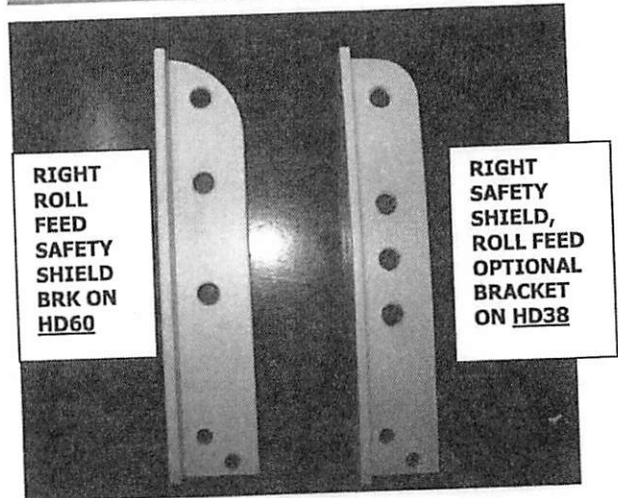


TABLE GUIDE BACK AND FORTH TO CHECK FIT, SNUG TO THE OUTSIDE.

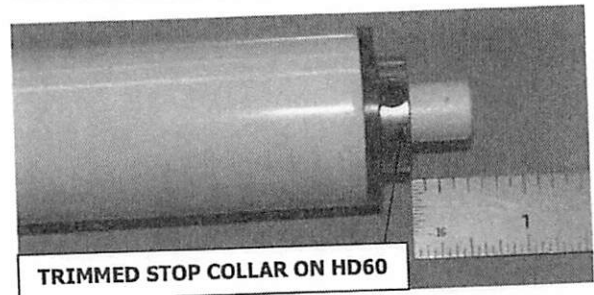
- 6) SECURE THE FEED TABLE SPREADER SHAFT (H360 097.4) LOFT 3 BETWEEN THE FRONT COUNTERSUNK HOLES ON THE RIGHT AND LEFT FEED TABLE SIDE BARS. USE (2) 10-32 X $\frac{3}{4}$ FHMS WITH LOCTITE ON THE END THREADS.



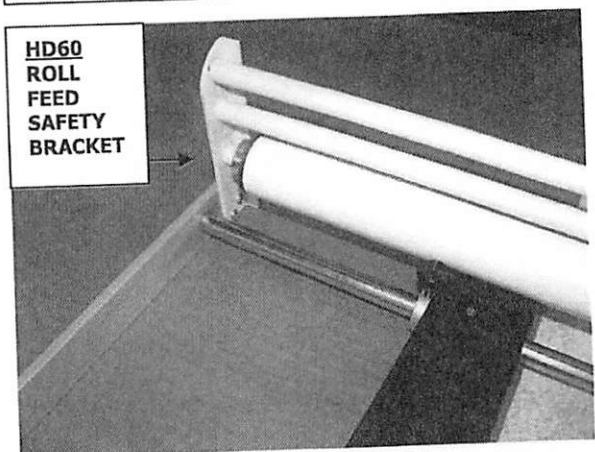
- 7) FOR HD60 ORIENT A ROLL FEED SAFETY BRACKET RIGHT (H382 075.4R) AND ROLL FEED SAFETY BRACKET LEFT (H382 075.4L) AS16, WHICH HAS (3) LARGE UPPER HOLES, WITH THE BREAK FACING INWARD TOWARD EACH OTHER AND CURVED END FACING THE FRONT. CONNECT (2) PAINTED SAFETY BARS (H360 077.4) LOFT 3, ONE TO THE UPPER, CURVED END AND ONE TO THE MIDDLE HOLE ON THE ROLL FEED SAFETY BRACKETS. USE 10-32 X $\frac{3}{4}$ TAMPER PROOF TORX WITH LOCTITE.



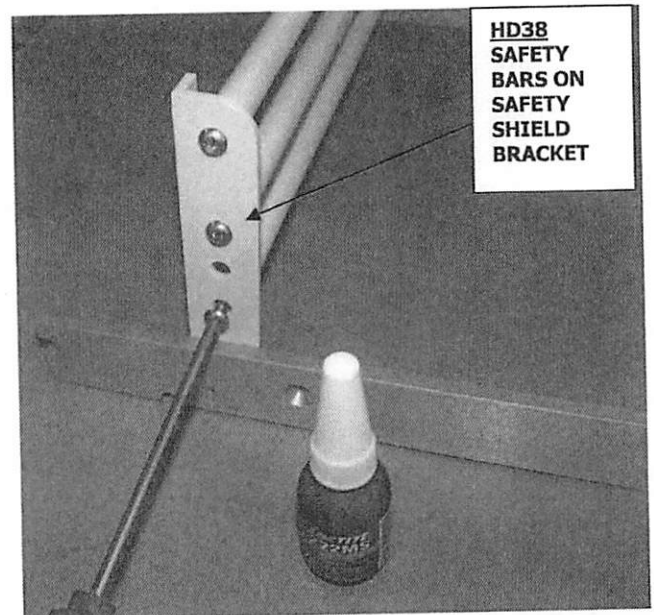
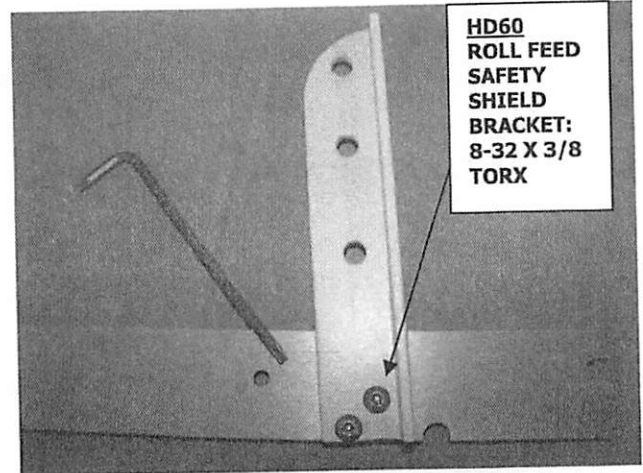
- 8) FOR HD60 PREPARE A BOTTOM IDLER TUBE (H360 052.4B) LOFT 3 WITH (2) NYLATRON BEARINGS (PRB086A) AS13. INSERT A PAINTED SAFETY BAR. ADD A $\frac{1}{2}$ " STOP COLLAR (PRC096) AS07 WITH TRIMMED CIRCUMFERENCE ON ENDS OF EXTENDED SAFETY BAR BY NYLATRON BEARINGS. THE IDLER TUBE MUST SPIN FREELY. SECURE STOP COLLARS. PLACE IDLER TUBE BETWEEN ROLL FEED SAFETY BRACKETS IN LOWER HOLES, SECURE WITH .1900FB12 10-32 X $\frac{3}{4}$ TAMPER PROOF TORX, USE LOCTITE.



- 9) ****HD38 USES (3) PAINTED SAFETY BARS (H380 077.4) LOFT 3 BETWEEN SAFETY SHIELD MOUNTING BRACKET RIGHT AND LEFT (H380 074.4RA AND (H380 074.4LA) AS16, WHICH HAS (4) UPPER LARGE HOLES. USE LOCTITE ON THREADS OF (6) 10-32 X $\frac{3}{4}$ TAMPER PROOF TORX SCREWS. NO IDLER TUBE.

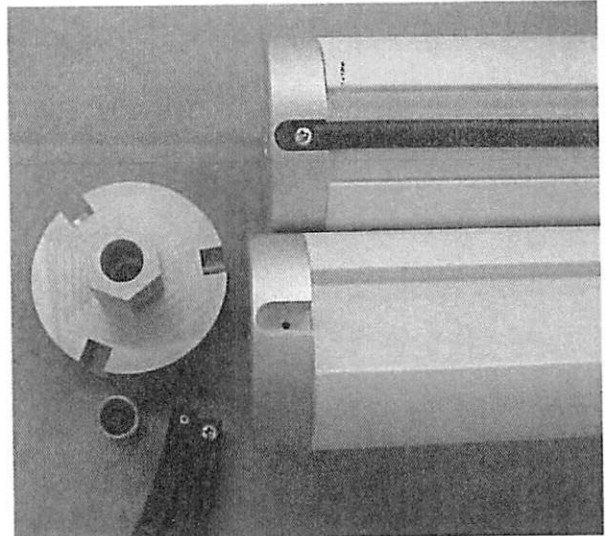


- 10) **CONNECT ROLL FEED OR SAFETY SHIELD BRACKET ASSEMBLY BETWEEN INNER REAR SIDE BARS ****UPPER BRACKET TILTED FORWARD.** USE .1640FB06 8-32 X 3/8 RH TAMPER PROOF TORX WITH LOCTITE ON THREADS.**
- 11) **TIGHTEN FEED TABLE SIDE BAR SCREWS.**
- 12) *****IF A ROLL FEED OPTION IS ADDED TO THE HD38, REMOVE THE BOTTOM SAFETY BAR AND USE IT AS THE IDLER TUBE SHAFT FOR THE 38 REMOVABLE IDLER TUBE, WITH STOP COLLARS ON EACH SIDE. REPLACE IDLER TUBE IN BRACKET.**



HD38/60 INDUSTRIAL SERIES SUPPLY ROLL ASSEMBLY

- 1) THE HD60 INDUSTRIAL SERIES LAMINATOR USES (3) IDENTICAL SUPPLY ROLL ASSEMBLIES. THE HD38 USES (2) IDENTICAL SUPPLY ROLL ASSEMBLIES. PREPARE AS FOLLOWS.
- 2) EACH SUPPLY ROLL USES (2) SUPPLY ROLL END CAPS (I30 008.4) AS07. OPEN BEARINGS WITH A .505 REAMER IF NECESSARY.
- 3) INSERT (2) 6-32 X 1/2 RH (.124J0012) INTO ENDS OF HD60 RUBBER SUPPLY ROLL GRIPPERS (H360 003.4B) OR HD38 (H380 003.4B) LOFT 3. EACH SUPPLY ROLL HAS (3) RUBBER GRIPPERS.
- 4) ALIGN END CAP THREADS FOR THE GRIPPER SCREWS WITH THE RECESSED SECTIONS OF THE HD60 SUPPLY ROLL CORE (H360 002.4B) OR HD38 (H380 003.2B) LOFT 3. TAP END CAP HEXES INTO THE SUPPLY ROLL CORES.
- 5) SECURE THE GRIPPERS TO THE THREADED END CAPS USING THE 6-32 X 1/2 RH ALREADY IN GRIPPER ENDS.
- 6) PREPARE (3) HD60 SUPPLY ROLL SHAFTS (H360 011.4A) OR (2) HD38 (H380 011.4A) LOFT 3. SLIDE AN ADJUSTABLE HEX ADAPTER (D105 022.4) AS07, ALIGNED OVER EACH SHAFT APERTURE.
- 7) USING THE STARTER TOOL, INSERT A 1/8 X 3/4 SPRING PIN (.125J0012) THROUGH THE ADJUSTABLE HEX GROOVE INTO SHAFT APERTURE. REMOVE TOOL, TAP PIN UNTIL IT IS FLUSH WITH HEX ON BOTH SIDES.
- 8) SLIDE A SUPPLY ROLL PRESSURE PLATE (LC38 007.4) AS07 DOWN THE LONG END OF THE SUPPLY ROLL SHAFTS. THE SPRING PIN ON ADJUSTABLE HEX ADAPTER SHOULD LOCATE BETWEEN RECESS ON PRESSURE PLATES.

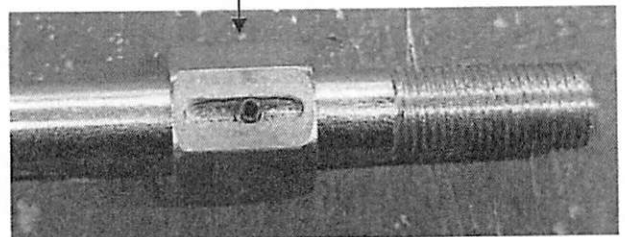


END CAP INTO SUPPLY ROLL CORE. SCREWS IN END OF RUBBER GRIPPERS THREAD INTO END CAP



3/4" SPRING PIN
ADJ. HEX ADAPTER
SUPPLY ROLL SHAFT

SPRING PIN FLUSH INTO ADJUSTABLE HEX ADAPTER

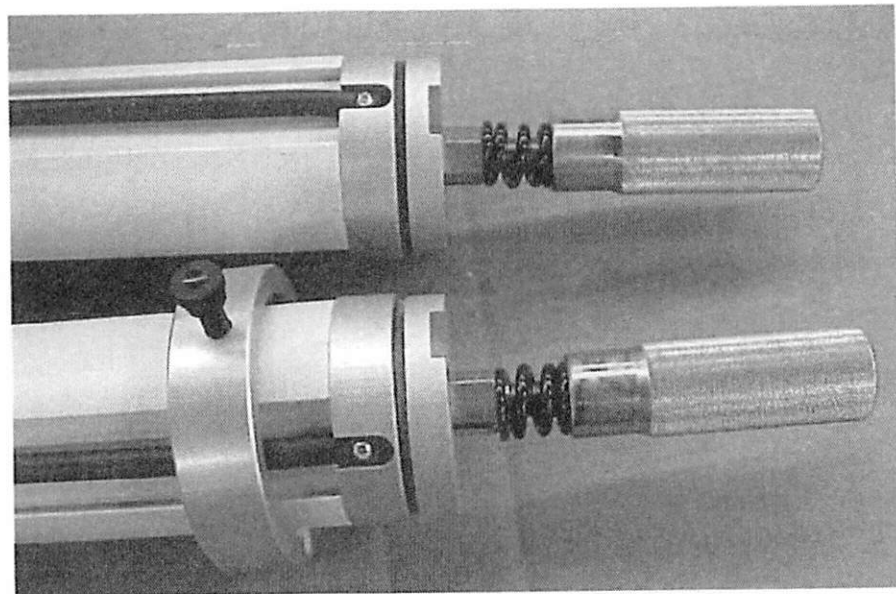
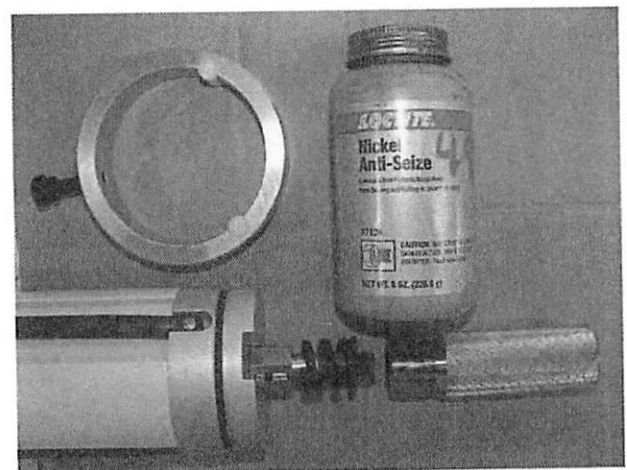
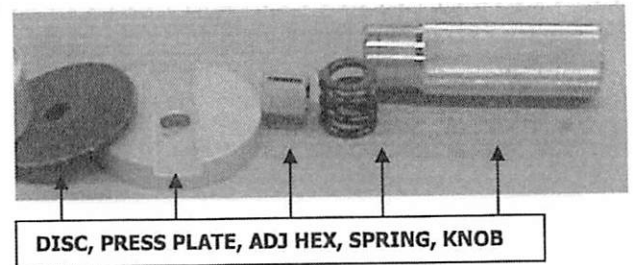
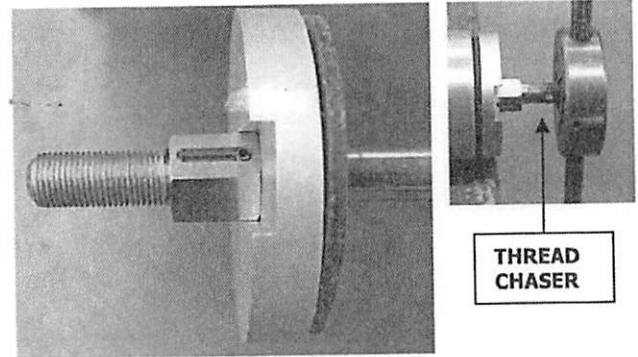


9) SLIDE A 1/8 X 1/2 ID X 2 3/4 OD LEATHER DISC (H380 004.4) AS07 ONTO EACH SUPPLY ROLL SHAFT NEXT TO THE PRESSURE PLATE. INSERT SHAFT WITH ASSEMBLY THROUGH THE END CAP SLEEVE BEARINGS AND SUPPLY ROLL CORE.

10) DUPLICATE ASSEMBLY ON THE OTHER END OF THE SUPPLY ROLL WITH ANOTHER LEATHER DISC, PRESSURE PLATE AND A SUPPLY ROLL HEX ADAPTER (LC38 023.4) AS07 FITTING INTO PRESSURE PLATE RECESS.

11) BRUSH LOCTITE ANTI-SEIZE ONTO END THREADS OF BOTH SUPPLY ROLL SHAFTS. SLIDE ON SUPPLY ROLL TENSION SPRING (PRS222) AS07 AND THREAD ON KNURLED SUPPLY ROLL TENSION KNOB (D105 001.4) AS01. IF SUPPLY ROLL SHAFTS' THREADS ARE OVER PLATED, TRIM THEM WITH DIE/THREAD CHASER. TIGHTEN KNOB UNTIL SPRING IS SNUG.

12) THREAD (3) 5/16-18 X 1 PLASTIC MOLDED THUMBSCREWS (PRK184) AS08 INTO (3) STOP COLLAR-CORE CHUCK STYLE (D105 004.4) AS08. SECURE THIS ASSEMBLY TO THE SUPPLY ROLLS AND STORE UNTIL NEEDED.



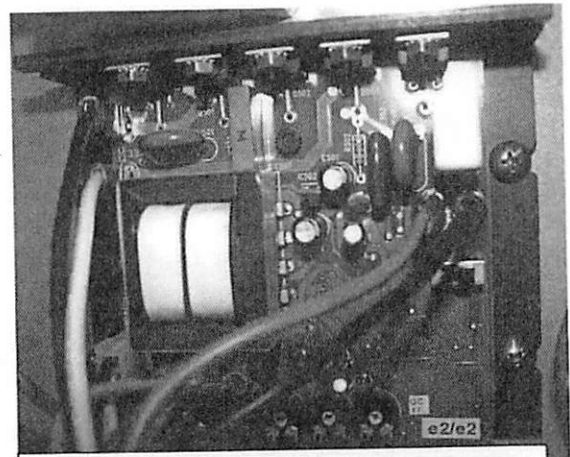
HD 38/60 TESTING WITH 6040 CHROMLOX & COMPLETION

1) TESTING PROCEDURES FOR THE HD 38/60 LAMINATORS ARE AS FOLLOWS.

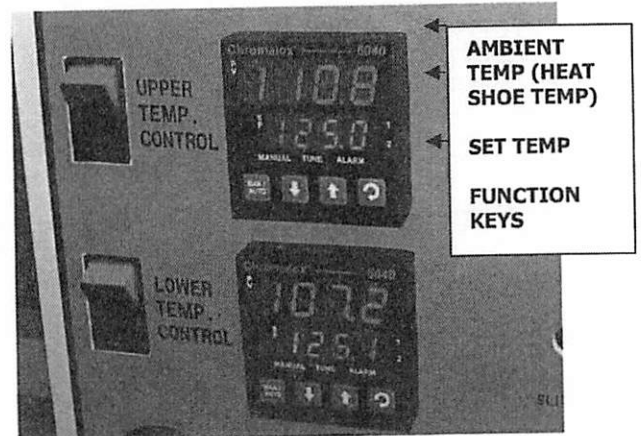
2) CHECK THAT ALL SWITCHES ARE IN "OFF" POSITION. PLUG THE HD 38/60 LAMINATOR INTO A 220V POWER SOURCE, 60HZ. TURN ON THE MAIN BREAKER LOCATED IN THE REAR, THE DRIVE COMPRESSOR BREAKER, DRIVE SWITCH, AND THE FORWARD/REVERSE SWITCH. INCREASE THE SPEED CONTROL KNOB TO TEST RUBBER ROLL DIRECTION. TURN ON THE COOLING FAN SWITCH TO TEST ALL THE FANS, TURN FANS OFF.

3) TO SET THE SPEED BOARD CONTROL, USE A MULTIMETER ON DC 500. WITH SWITCHES SET AT 230 AND AT 90 AND LAMINATOR POTENTIOMETER RUNNING AT MAXIMUM SPEED. PLACE THE TEST LEADS ON THE BLACK WIRE TERMINAL POST AND RED WIRE TERMINAL POST ON THE OUTER FORWARD/REVERSE SWITCH. THE MINARIK SPEED BOARD OPTIMUM READING IS 90 ON THE MULTIMETER. ADJUST THE SPEED IN THE "MAXIMUM" SPEED POT USING A TRIMMING TOOL. BE VERY CAREFUL NOT TO TOUCH ANY METAL PARTS, OR ALLOW JEWELRY TO TOUCH ANYTHING, AS A SEVERE SHOCK CAN OCCUR. AFTER SETTING THE SPEED, REDUCE THE POTENTIOMETER AND TURN OFF THE FORWARD/REVERSE SWITCH.

4) THE MORE ADVANCED AND UPDATED (3/2014) CHROMALOX 6040 HEAT CONTROLS ARE SET UP DIFFERENTLY THAN THE PREVIOUS CHROMALOX CONTROLS. THE DISPLAY PANEL IS BASICALLY THE SAME BUT HAS SOME DIFFERENCES. THE FOLLOWING EXPLANATIONS AND PICTURES WILL SHOW THE NEW SETTING PROCEDURES, STEP BY STEP.



ADJUST IN "MAX" SPEED POT, 2ND FROM LEFT



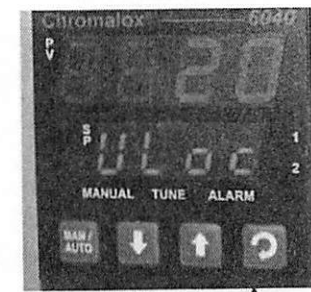
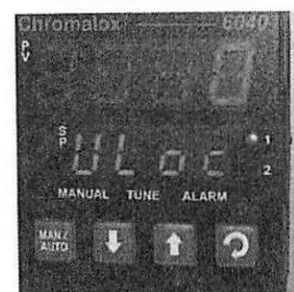
5) TO SET THE TEMPERATURE ON THE TOP AND BOTTOM 6040 CHROMALOX HEAT CONTROLLER DISPLAYS FOR 'J TYPE' SENSOR, TURN ON THE HEAT SWITCH. THE CHROMALOX SCREENS WILL LIGHT UP WITH RED AND GREEN "888.8" APPEARING. AFTER THE CHROMALOX CONFIGURES, THE SCREENS WILL CHANGE TO "Goto IN RED AND "ConF" IN GREEN.



ENTER~SELECT

DEPRESS SELECT

6) DEPRESS *SELECT* BUTTON ON LOWER RIGHT, WHICH HAS A CLOCKWISE ROTATION SYMBOL. THIS BUTTON WILL TAKE YOU TO "ULoc" IN GREEN WITH "0" IN RED.

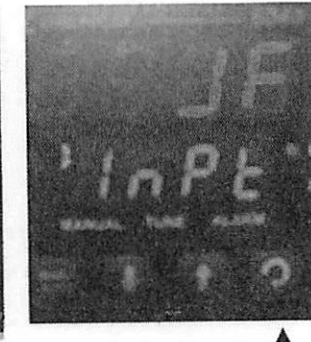


ARROW UPTO 20

DEPRESS SELECT

7) DEPRESS THE *ARROW UP* KEY UNTIL YOU REACH "20" WHICH IS A SECURITY LOCK CODE NUMBER. NUMBER "20" WILL UNLOCK THE CODE AND ALLOW YOU TO CHANGE INPUT.

8) DEPRESS THE *SELECT* BUTTON AGAIN. NOW YOU ARE IN THE MENU. THE INPUT MODE IS REPRESENTED BY "Pt.F" IN RED AND "InPt" IN GREEN SCREEN.

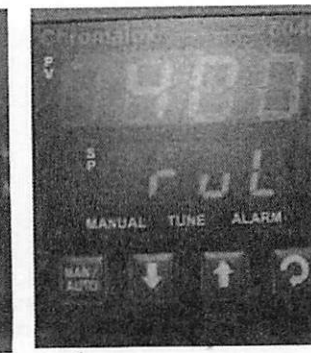


INPUT: ARROW UP

J.F- DEPRESS SELECT

9) *ARROW UPTO* "JF" IN RED SCREEN. DO NOT GO PAST "JF" OR YOU REACH "J.F" SHOWING DECIMAL SIGN. THE SCREEN WILL BE FLASHING. QUICKLY DEPRESS *MAN/AUTO* ON LEFT TO ENTER/SAVE "JF". J REPRESENTS J-TYPE SENSOR.

10) TO RESET THE MAXIMUM TEMPERATURE FROM 2192 TO 400F: DEPRESS THE *SELECT* BUTTON, "2192" SHOWS IN RED AND "ruL" SHOWS IN GREEN. THEN, DEPRESS THE *ARROW DOWN* KEY UNTIL "400" IS REACHED IN THE RED SCREEN, "ruL" IN GREEN. NUMBERS MOVE QUICKLY. THE "400" WILL BE FLASHING AND TO ENTER AND SAVE THE HIGH TEMPERATURE AT "400" *QUICKLY* DEPRESS THE *MAN/AUTO* BUTTON ON THE LOWER LEFT.



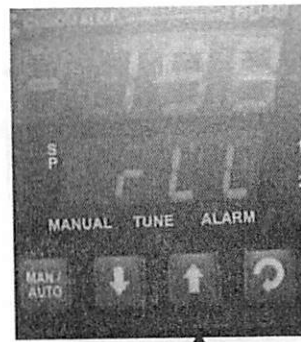
TEMP ARROW DOWN

MAN/AUTO=ENTER/SAVE

11) TO CHECK AND SET LOWER HEAT LIMIT ON THE CHROMALOX HEAT CONTROLS: DEPRESS LOWER RIGHT *SELECT*

BUTTON. IF IT READS -199 DEPRESS **ARROW UP** TO "0". IT FLASHES, QUICKLY DEPRESS **MAN/AUTO**. DEPRESS **MAN/AUTO** ONLY CHANGE TO A FLASHING READING.

- 12) IF THE CONTROL DOES NOT GO TO THE LOWER LIMIT OF 199 CHECK THE UPPER/LOWER CONFIGURATIONS ACCORDING TO MANUAL DIAGRAM.



ARROW UP TO '0'



MAN/AUTO SAVES '0'

- 13) TO CHANGE MODES ON THE HEAT CONTROL, DEPRESS TWO BUTTONS SIMULTANEOUSLY: THE **SELECT** BUTTON AND THE **ARROW UP** BUTTON UNTIL THE SCREEN DISPLAYS "ConF & SLct". NOW DEPRESS **ARROW UP** TO 'OPtr & SLct' IN SCREENS. DEPRESS **SELECT** FOR TEMP.

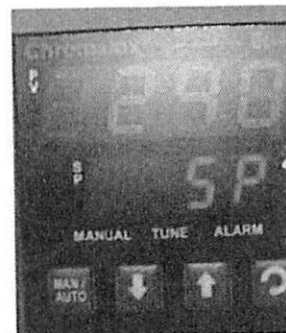


CHANGE MODE

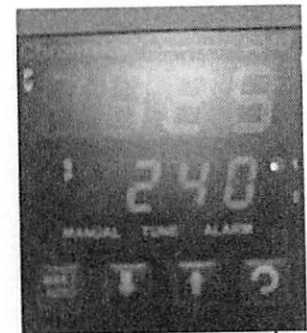


SELECT TO REACH SP

- 14) TO SET LAMINATING TEMPERATURE, DEPRESS **SELECT** UNTIL YOU REACH SET POINT "SP" IN GREEN. USE **UP/DOWN ARROW** TO REACH DESIRED TEMP. THE HD 38/60 "SP" IS 240 F (CELCIUS 100.) THE 240 WILL NOT FLASH IN THIS MODE. QUICKLY DEPRESS **SELECT** AGAIN TO ENTER/SAVE TEMP. THE 240 TEMP GOES TO GREEN SCREEN.



ARROW TO TEMP IN RED

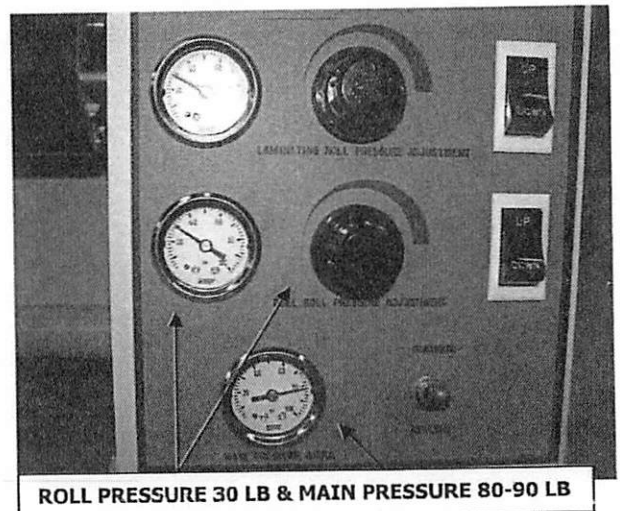


SAVE SET TEMP=SELECT

- 15) ALLOW THE TOP AND BOTTOM CHROMALOX HEATERS TO REACH SET TEMPERATURE AND STABILIZE. USE PYROMETER ON HEAT SHOES TO VERIFY TEMPERATURES. NORMALLY, IT IS NOT NECESSARY TO ADJUST THE CHROMALOX SET TEMPERATURES TO MATCH PYROMETER READINGS.

- 16) TURN ON THE FORWARD/REVERSE SWITCH. WITH THE CHAIN IN MOTION, LIGHTLY ADD LUBRICANT ONTO BOTH #35 CHAINS. CLEAN HOUSING OF ANY OIL DROPS BEFORE ADDING COVERS.

- 17) SET THE LAMINATING ROLL PRESSURE AND PULL ROLL PRESSURE ADJUSTMENT DIALS BY PULLING OUTWARD AND TURNING UNTIL BOTH GAUGES READ 30 POUNDS. THEY RESPOND SLOWLY. THE MAIN PRESSURE GAUGE SHOULD HOLD BETWEEN 80-90 POUNDS FOR ONE HOUR TO PASS TEST. DROPPING BELOW 80 POUNDS IN THAT TIME INDICATES AIR LEAK. TEST LEAKS BY SQUIRTING SOAPY



ROLL PRESSURE 30 LB & MAIN PRESSURE 80-90 LB

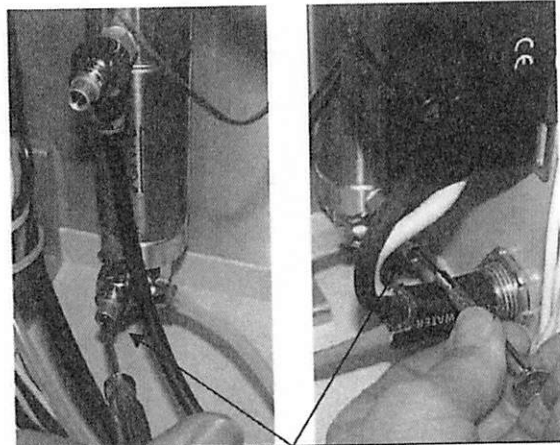
WATER ONTO THE FITTING JOINTS. BUBBLES OCCUR AT JOINT LEAKS. LEAKS ALSO OCCUR AT THE TANK SEAMS OR THE HOSE FITTINGS.

- 18) TO SET THE UP/DOWN RUBBER ROLL EVENNESS, WATCH AS THE ROLL LOWERS TO SEE WHICH SIDE NEEDS ADJUSTING. LOWER FITTINGS EFFECT DOWN, UPPER FITTINGS EFFECT UP. INCREASE AIR PRESSURE TO THE SIDE THAT YOU WISH TO DROP MORE QUICKLY. THIS IS DONE BY OPENING THE VALVE ON THE LOWER BIMBA FITTING WITH A SCREWDRIVER. LEFT, COUNTERCLOCKWISE TURNS OPEN THE VALVE ALLOWING MORE AIR TO FLOW WHICH INCREASES SPEED. RIGHT, CLOCKWISE TURNS CLOSE THE VALVE AND REDUCE AIR AND SPEED. YOU MUST WORK BACK AND FORTH TO ADJUST EVENNESS. ~~THE REAR RUBBER ROLLS WILL SLAM OPEN~~, AS THE BIMBAS WERE ALREADY ADJUSTED DURING ASSEMBLY. ADJUST THE LEVEL DROP OF THE REAR RUBBER ROLL USING THE LOWER BIMBA FITTING.



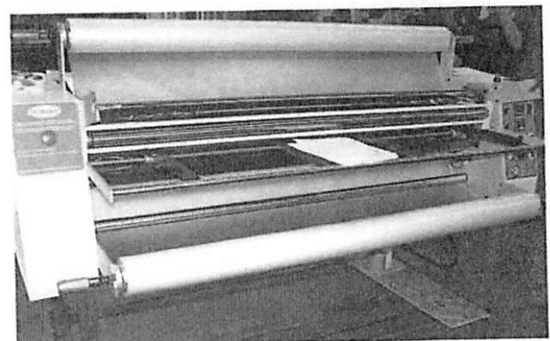
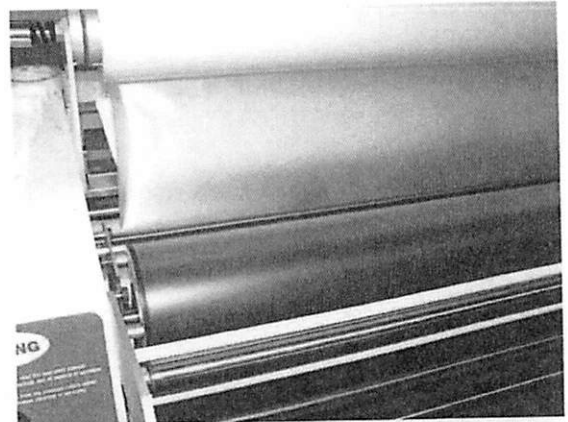
SPRAY SOAPY WATER ON FITTINGS TO SEE BUBBLES

- 19) USING 3 MIL, LOW MELT FILM, LOAD THE FILM ONTO THE TOP AND BOTTOM SUPPLY ROLL MANDRELS. TAKE THE REMOVABLE IDLER TUBE OFF THE BOTTOM HEAT SHOE BRACKET AND SET ASIDE. PLACE THE SUPPLY ROLLS IN TOP AND BOTTOM BRACKETS. REMEMBER THE FILM RULE: SHINY SIDE TOWARD THE SHOE.



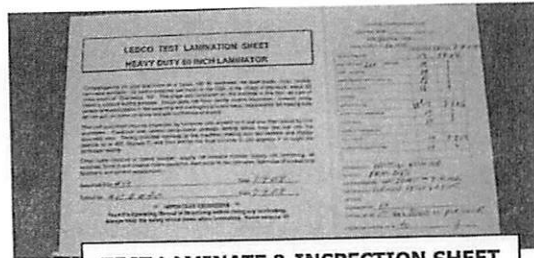
ADJUSTING RIGHT FRONT/REAR BIMBA PRESSURE

- 20) THREAD THE TOP SUPPLY ROLL FILM UNDER THE TOP IDLER TUBE AND DRAPE OVER THE WARM HEAT SHOES.
- 21) THREAD THE BOTTOM SUPPLY ROLL FILM UNDER LOWER FRONT IDLER TUBE AND ADHERE FILM ONTO THE HOT FILM DRAPPED FROM THE TOP ROLL. IF THE HEAT SHOES ARE NOT WARM ENOUGH TO STICK FILM, USE MASKING TAPE TO ADHERE TOP AND BOTTOM FILM.
- 22) CREATE SLACK IN BOTTOM FILM. INSERT THE REMOVABLE IDLER TUBE *OVER* THE BOTTOM IDLER TUBE, REPLACING IT IN THE BOTTOM HEAT SHOE BRACKETS. TAKE UP FILM SLACK.



23) USE A THREADING BOARD (XS100) LD06 TO THREAD THE FILM INTO THE NIP BETWEEN HEAT SHOES.

24) FILL OUT THE TEST PAPERWORK; JOB SHEET, FINAL TEST & INSPECTION SHEET, AND APPROPRIATE TEST LAMINATE FOR THE 38 OR 60 HD LAMINATOR WHILE THE TEMPERATURE IS BEING REACHED.



TEST LAMINATE & INSPECTION SHEET

25) CENTER AND ADHERE THE HD-60 SERIAL TAG (LAB85) OR HD-38 SERIAL TAG (LAB83) WHICH COMES WITH THE JOB SHEET, TO THE OUTER REAR RIGHT HOUSING, RIGHT OF THE POWER CORD.

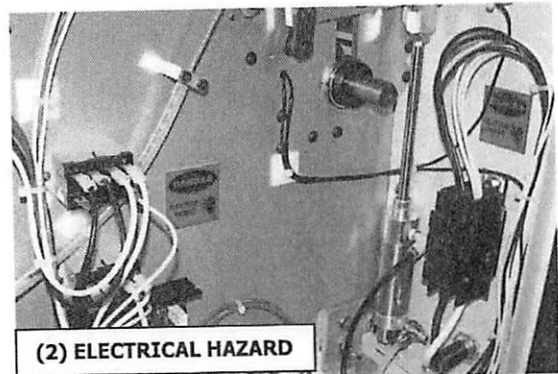
26) CENTER AND ADHERE THE ALWAYS DISCONNECT POWER LABEL (LAB40) AS09 ON THE RIGHT REAR HOUSING, RIGHT OF THE MAIN POWER BREAKER.



REAR LABELS

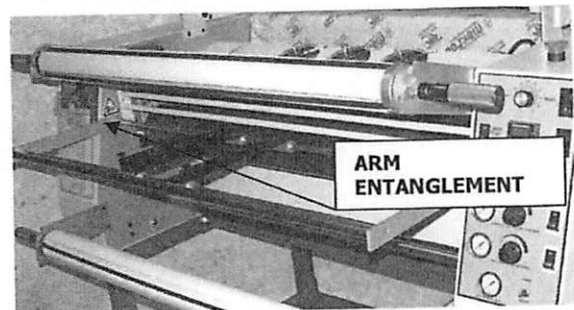
27) ADHERE THE MADE IN AMERICA (XS33) RACK 7 ON THE RIGHT REAR HOUSING ABOVE SERIAL TAG.

28) CENTER AND ADHERE THE (2) DANGER ELECTRICAL HAZARD LABELS (LAB50) AS09 ON THE INNER RIGHT HOUSING ABOVE THE MAIN POWER BREAKER AND ON THE RIGHT SIDE PANEL RIGHT OF RELAYS.



(2) ELECTRICAL HAZARD

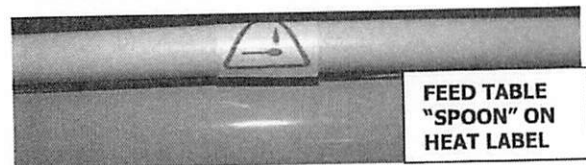
29) ADHERE THE (3) ARM ENTANGLEMENT LABELS (LAB51) AS09 WITH (2) ON THE INNER SIDE PANELS ABOVE THE FEED TABLE SIDE BARS AND (1) ON THE SAFETY SHIELD IN FRONT OF THE HANDLE.



ARM ENTANGLEMENT

30) ADHERE (3) RED AND WHITE SPOON "HOT" LABELS (LAB03) LD06 ON THE TOP FEED TABLE SAFETY BAR. ONE LABEL IS CENTERED AND THE OTHER TWO ARE EQUIDISTANT BETWEEN THE ENDS. THE HD38 HAS (2) LABELS.

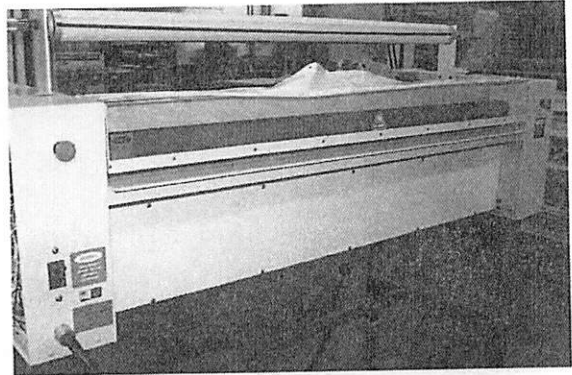
31) CENTER AND ADHERE THE "3X3" SAFETY SHIELD WARNING LABEL (LAB10) AS09 ON LEFT REAR HOUSING BELOW THE EMERGENCY SWITCH BUTTON.



FEED TABLE "SPOON" ON HEAT LABEL

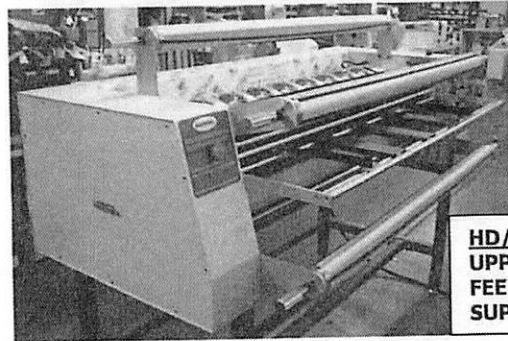
32) ADHERE THE RED SMALL WARNING ALL

**SAFETY SHIELDS IN PLACE (LAB21)
RACK 7 ON LOWER EDGE OF THE OUTER
RIGHT SIDE REAR SAFETY SHIELD.**

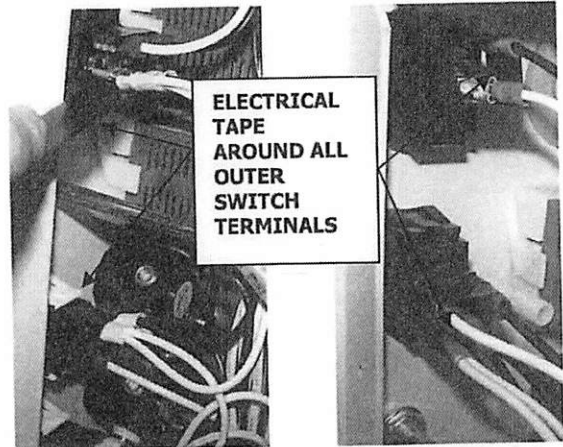


- 33) **ONCE THE 240 DEGREE TEMPERATURE HAS BEEN REACHED AND STABILIZED ON BOTH CHROMALOX HEAT CONTROLLERS, RUN SOME FILM THROUGH TO CHECK THE DWELL LINE AND FOR CURVES AT THE EDGE OF THE FILM. ADJUST THIS BY TENSION ON THE SUPPLY ROLLS. GENERALLY, THE RIGHT SIDE ADJUSTABLE HEX SPRING PIN IS ABOUT IN THE MIDDLE OF THE SLOT.**

- 34) **WITH THE FEED TABLE RESTING ON THE SHOULDER BOLTS OF THE INNER SIDE PANELS. SNAP SEVERAL USED/TEST FEED TABLE BASE SECTIONS THAT ARE USED FOR TESTING ONTO THE FEED TABLE SUPPORT ROD. BE CAREFUL NOT TO SCRATCH THE HEAT SHOES WHEN CONNECTING BASE SECTIONS.**



- 35) **PLACE THE UPPER FAN ASSEMBLY BRACKETS ON THE SHOULDER BOLTS. INSERT PLUG INTO RIGHT SIDE FAN RECEPTACLE. PLACE THE RUBBER ROLLS IN THE DOWN POSITION. TURN ON THE FANS AND THE FORWARD SWITCH AND CHECK TOP FAN FUNCTION. LAMINATE THE PREPARED PAPERWORK.**

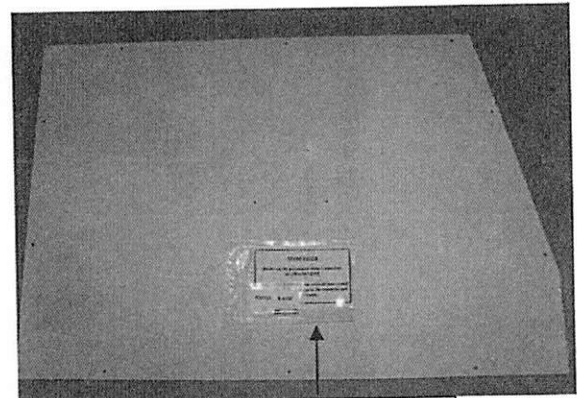


- 36) **TURN OFF HEAT, LEAVE FANS ON AND REMOVE THE FEED TRAY. LIFT THE RUBBER ROLLS WITH THE UP/DOWN SWITCH. CAREFULLY CUT AND REMOVE FILM. UNTHREAD FILM.**

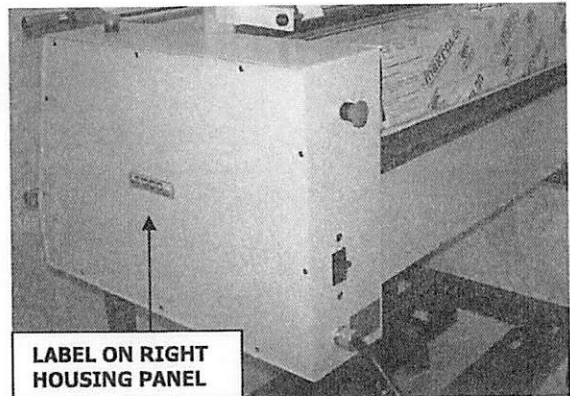
- 37) **PLACE ELECTRICAL TAPE OVER FRONT RIGHT HOUSING TERMINAL POSTS.**

- 38) **FUSE KIT: CENTER AND ADHERE POUCH BETWEEN MIDDLE AND BOTTOM HOLES ON AN INNER RIGHT HD38 HOUSING PANEL (H380 095.4) LOFT 2. INSERT (1) 8 AMP FUSE (PRF124) AS07 INTO A LABELED BAG. PLACE FUSE AND SPARE FUSE LABEL (LAB126) AS09 IN POUCH AND SEAL CLOSED.**

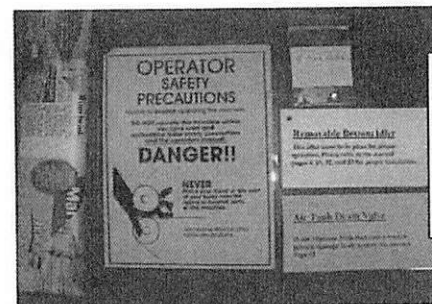
- 39) **SECURE THE RIGHT AND LEFT HOUSING PANELS TO RIGHT AND LEFT HOUSINGS WITH (10) 8-32 X 1/4 TH PER SIDE.**



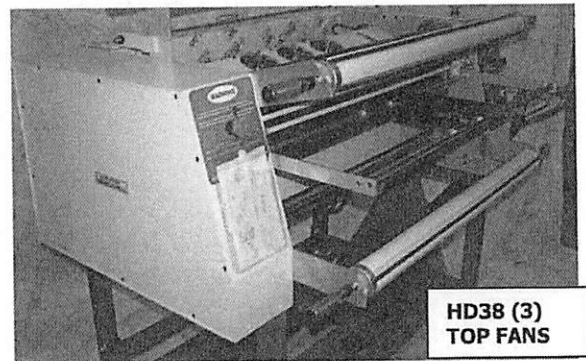
- 40) CENTER AND ADHERE A DOMED LEDCO EMBLEM (LAB05A) AS09 TO BOTH OUTER HOUSING PANELS, OVER CENTER HOLES.
- 41) ATTACH ORANGE OPERATOR SAFETY CARD FOR THERMAL MACHINES (LIT011) AS13 TO A NYLON LANYARD (PRL197) AS09 WITH A 1/8 POP RIVIT WASHER (.125K0Q06) AND 1/8 DIA RH POP RIVET (.125C0Q06). SNAP NYLON LANYARD ONTO FEEDTABLE SHAFT.
- 42) REMOVE TEST BASE SECTIONS. PLACE (17) FEEDTABLE BASE SECTIONS (H385 099.4) AS13 FOR HD60 OR (10) FOR THE HD38 ON FEEDTABLE.
- 43) PLACE (5) LOOSE HOOK BLADES FOR SLITTER (PRB031) AS07 IN BAG ON FEED TABLE BASE SECTIONS, THREADING BOARD AND LAMINATED PAPERWORK.
- 44) INCLUDE THE LAMINATED REMOVABLE BOTTOM IDLER AND AIR TANK VALVE INFORMATION CARDS WITH PAPERWORK.
- 45) FOR CENTIGRADE TEMPERATURE MACHINES, CHANGE CHROMALOX REGISTERS FROM FAHRENHEIT TO 126 CENTIGRADE. ADD "C" TO DISPLAY.
- 46) INCLUDE (3) STOP COLLARS FOR THE HD60 OR (2) FOR HD38 SUPPLY ROLLS.
- 47) PLACE PAPERWORK IN CLEAR PLASTIC BAG AND HANG BAG ON LEFT FRONT EMERGENCY STOP BUTTON.



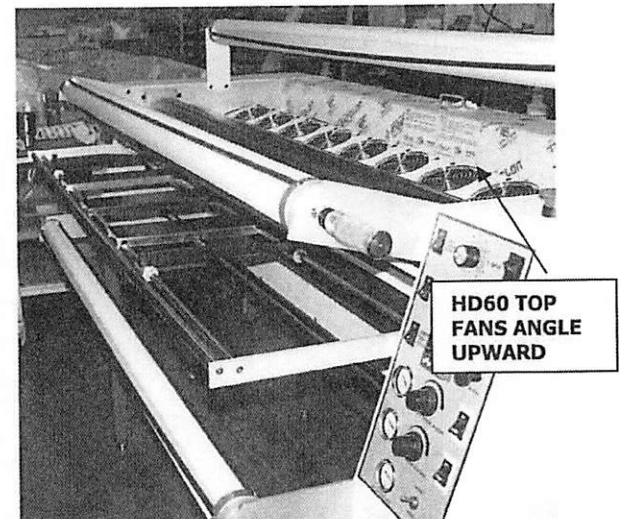
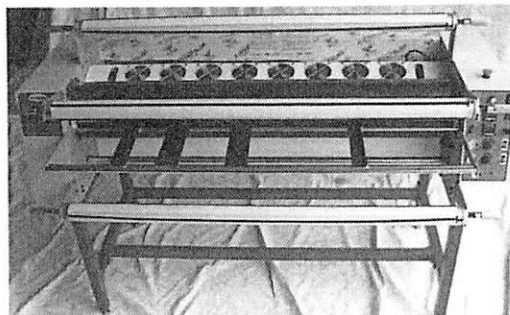
LABEL ON RIGHT HOUSING PANEL



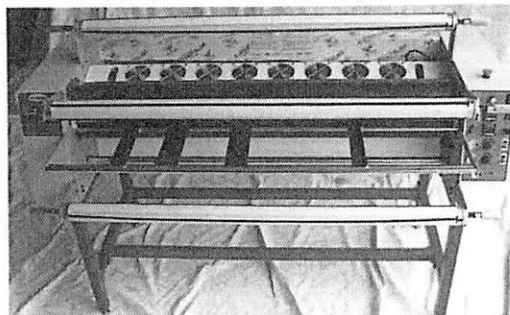
BASE SECTIONS, SAFETY SHEETS, HOOK BLADES



HD38 (3) TOP FANS

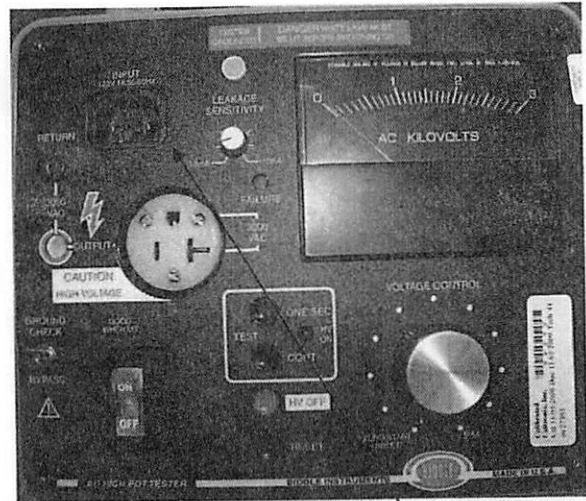


HD60 TOP FANS ANGLE UPWARD

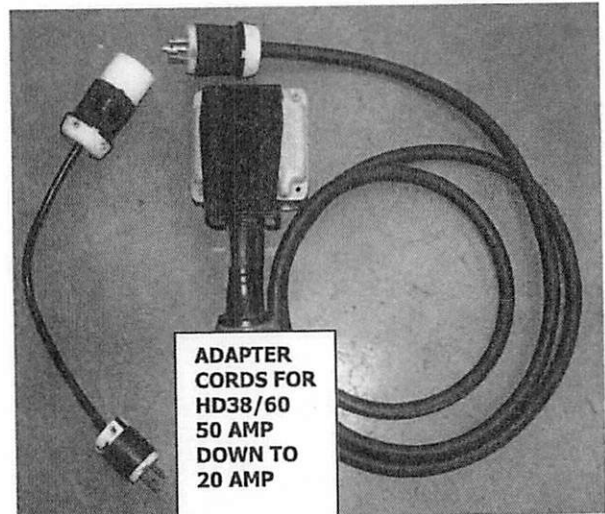


HD 38/60 HIGH POT TESTING

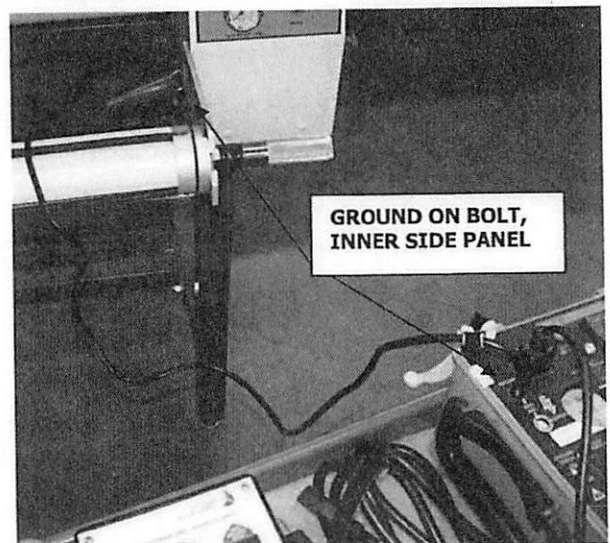
- 1) A) WITH THE HIGH POT POWER SWITCH IN THE "OFF" POSITION, CONNECT THE HD 38/60 POWER CORD TO ADAPTERS, DECREASING TO 120 VOLT ON THE TESTER "INPUT" INLET. MOST OF THE ADAPTERS ARE LOCATED ON THE HIGH POT TESTING CART OR UNDER LOFT 2.
- 2) B) THE WHITE "TESTER GROUND" LAMP INDICATES THAT THE TESTER, ITSELF, IS GROUNDED. THE LAMP IS LOCATED RIGHT OF THE "INPUT" INLET AND IS ORANGE WHEN LIT. IF THE LAMP DOES NOT LIGHT WITH SWITCHES ON, THE POWER OUTLET IS UNSUITABLE, DO NOT CONTINUE. IF THE LAMP LIGHTS ORANGE, CONTINUE TEST.
- 3) C) **CLEAR THE AREA!! DO NOT TOUCH THE MACHINE OR THE CORD WHILE HIGH POT TESTING, AS SEVERE SHOCK MAY OCCUR IF THE MACHINE FAILS.**
- 4) D) SECURE THE TOOTHED MACHINE GROUND CORD CLAMP BETWEEN THE "RETURN" INLET ON THE HIGH POT TESTER UNIT AND THE SHOULDER BOLT ON THE FRONT, INNER SIDE PANEL.
- 5) E) THE "GROUND CHECK" SWITCH SHOULD BE *UPWARD*.
- 6) F) PRESS THE HIGH POT TESTER ROCKER SWITCH TO THE "ON" POSITION. IF THE GROUND TO THE MACHINE IS ACCEPTABLE, THE "GOOD WHEN LIT" GREEN LIGHT COMES ON.
- 7) G) WITH VOLTAGE CONTROL DIAL ON ZERO/START, PRESS THE BLACK "RESET" BUTTON ON THE HIGH POT TESTER.
- 8) H) PRESS THE BLACK "CONT" (FOR CONTINUOUS) BUTTON AND THE RED "HV" LIGHT SHOULD COME ON.
- 9) I) WITH VOLTAGE CONTROL STILL AT ZERO/START POSITION, INCREASE AC "KILOVOLT CONTROL" DIAL CLOCKWISE UNTIL READING 1.6 KILOVOLTS ON THE REGISTER SCREEN. MAINTAIN 1.6 AC KILOVOLTS FOR TWO SECOND. IF MACHINE *FAILS HIGH POT TEST*: AN



ON/OFF POWER SWITCH & INPUT INLET



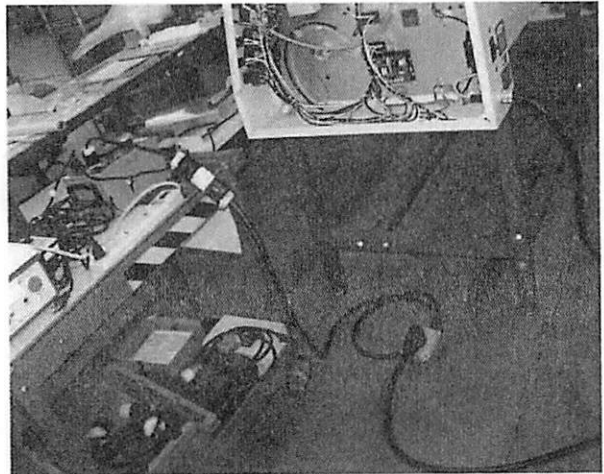
ADAPTER CORDS FOR HD38/60 50 AMP DOWN TO 20 AMP



GROUND ON BOLT, INNER SIDE PANEL

AMBER "FAILURE" LIGHT COMES ON AND A "BEEP" WILL SOUND.

- 10) J) TO END TEST RETURN VOLTAGE DIAL TO ZERO/START, PRESS THE "HV OFF" BUTTON, "HV ON" LIGHT WILL GO OUT.
- 11) K) TURN OFF HIGH POT TESTER SWITCH, UNPLUG "INPUT" POWER CORD, THEN UNPLUG THE REMAINING CORDS.



HD38/60 POWER CORD WITH ADAPTERS TO HIGH POT TESTER

