HD15
LAMINATOR

220 VOLT - 20 AMP

ASSEMBLY
PROCEDURES

FEBURARY 2015

HD15
CONNECTING PLATE

1) FOUR IDENTICAL CONNECTING PLATE ASSEMBLIES ARE NEEDED FOR THE HD25 INDUSTRIAL SERIES LAMINATOR. THE ASSEMBLE IS AS FOLLOWS. PARTS ARE ON RACK 21.

2) ARBOR PRESS (4) 8ZZ ROLLER BALL BEARINGS (PRB038) INTO (4) TOP CONNECTING PLATES (H850 054.4T).

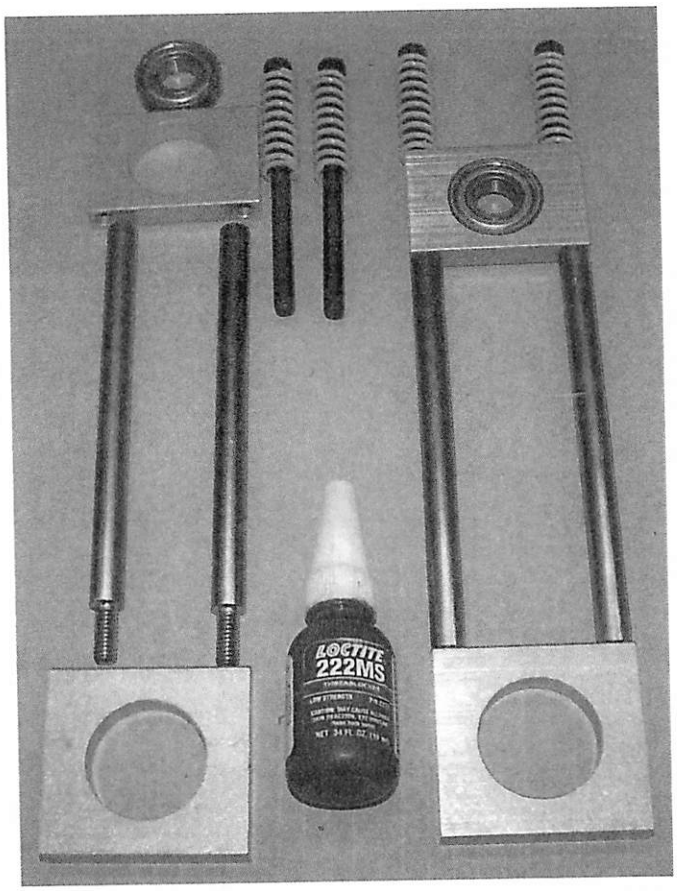
3) PLACE (8) GRAY HD25 PRESS SPRINGS (PRS224) ONTO (8) ¼-20 X 3 ½ SHCS (.250PAA56). INSERT THE SHCS WITH SPRING THROUGH THE TOP CONNECTING PLATE OPENINGS.

4) LOCTITE THE THREADS ON (8) CONNECTING PLATE SHAFT C (H850 053.4) BEFORE INSERTING, AND THREAD INTO (4) CONNECTING PLATE BOTTOM C (H850 054.4B). SOMETIMES THE THREADS ON THE BOTTOM CONNECTING PLATES NEED TO BE TAPPED OR YOU CAN USE A TOOL TO HELP INSERT THE CONNECTING PLATE SHAFTS.

5) THREAD THE ENDS OF THE SHCS IN THE CONNECTING PLATE TOPS INTO THE CONNECTING PLATE SHAFTS. ***DO NOT USE LOCTITE***. ROLL PRESSURE CAN BE ADJUSTED BY THE SPRING TENSION.

6) SET SPRING PRESSURE ON CONNECTING PLATE TOPS BY COMPLETING (2) 360 DEGREE TURNS ***AFTER*** THE SPRING TOUCHES THE TOP OF THE CONNECTING PLATE.

7) SET THE (4) CONNECTING PLATE ASSEMBLIES ASIDE UNTIL NEEDED.



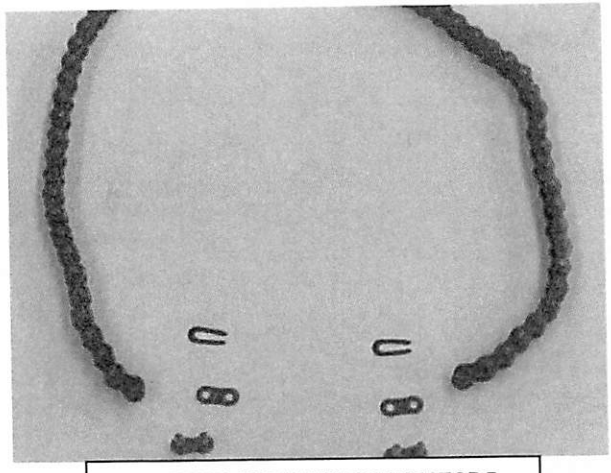
HD25 CONNECTING PLATE ASSEMBLY PARTS AND COMPLETED ASSEMBLY

HD15 #25 CHAINS

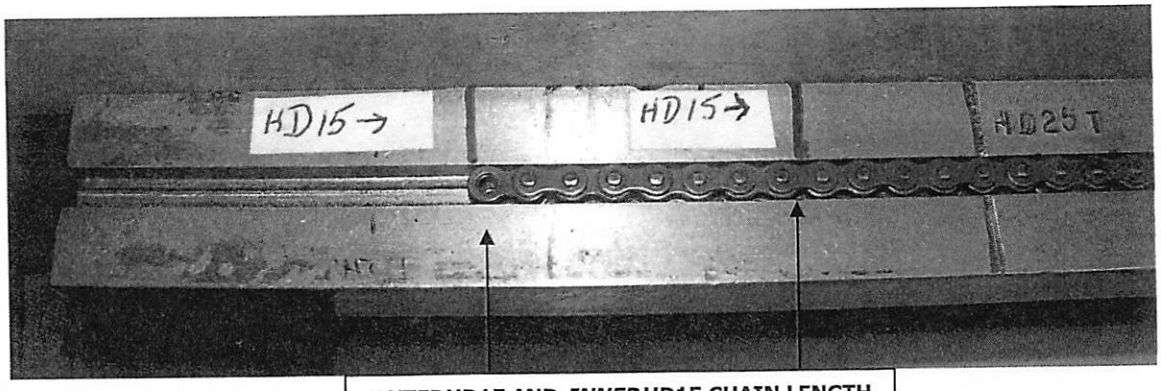
1) CUT (2) CHAINS FROM THE #25 CHAIN ROLL (PRC083.1) CCT. CUT TO LENGTH MARKED ON THE CHAIN CUTTING GAUGE.

2) THE SHORTER, OUTER CHAIN MEASURES TO 41.750 INCHES, INCLUDING THE CONNECTING LINK (PRC084) AS07.

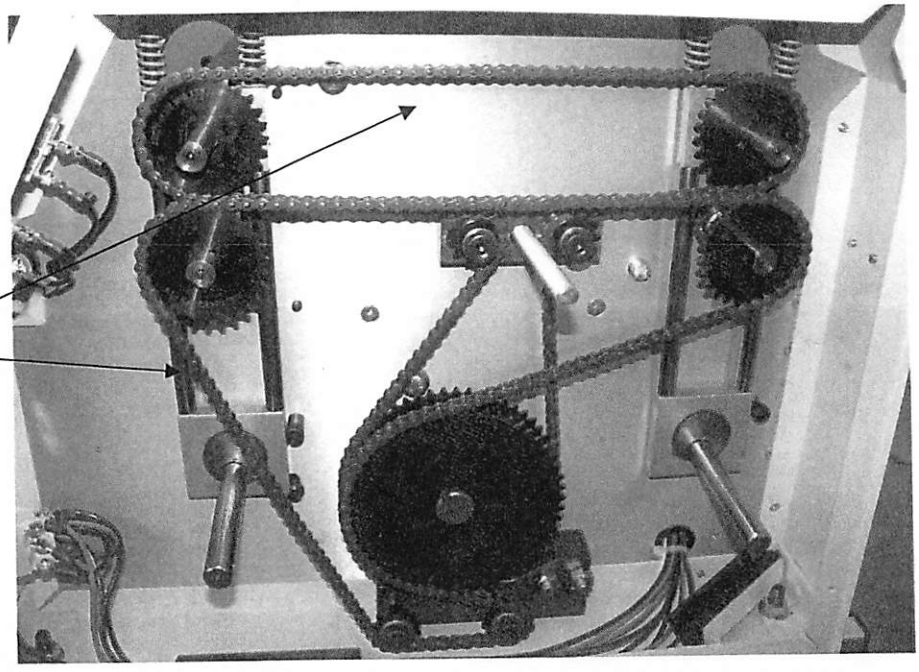
3) THE LONGER, INNTER #25 CHAIN MEASURES TO 44 INCHES, INCLUDING THE CONNECTING LINK.



#25 CHAIN AND LINK CONNECTORS



OUTER HD15 AND *INNER* HD15 CHAIN LENGTH

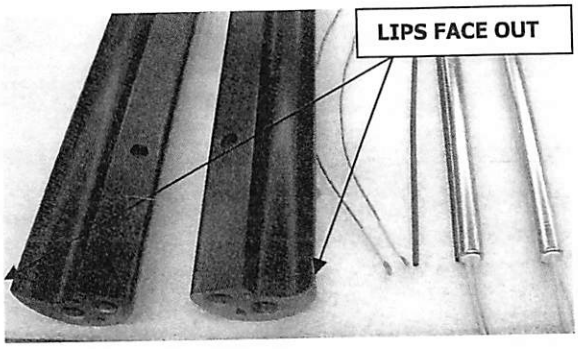


INNER CHAIN

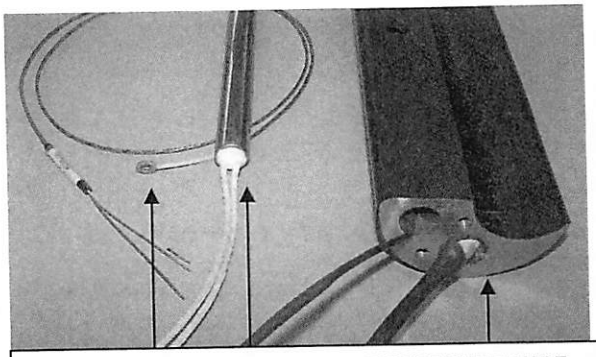
OUTER CHAIN

HD15 HEAT SHOE

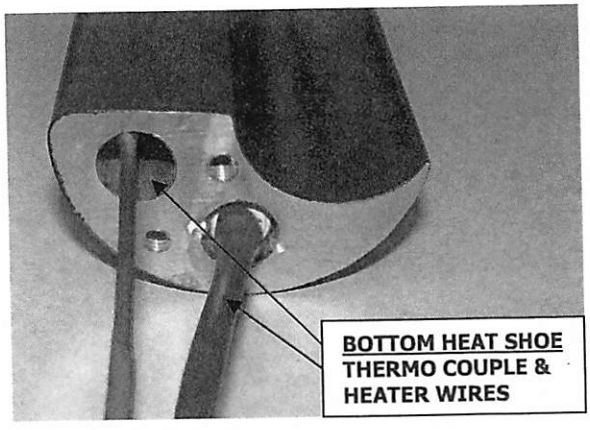
1) PLACE A HEAT SHOE TOP (HD15 060.4T) LOFT 7 AND A HEAT SHOE BOTTOM (HD15 060.4B) LOFT 7 ON A CLEAN, CUSHIONED WORKTABLE. ARRANGE HEAT SHOES WITH LIPS OUTWARD, WIRES WILL EXIT THE ***LEFT*** SIDE OF THE SHOE, AS THEY WILL EXIT THE ***LEFT*** SIDE PANEL. USE THE FLAT UNDERSIDE OPENING IN THE HEAT SHOES FOR THE THERMO COUPLE (PRH159) AS07 CONNECTION THAT IS CLOSEST TO HEATER WIRES ON BOTH HEAT SHOES.



2) INSERT A 15" 220V INDUSTRIAL HEATER (PRH015) LOFT 7 INTO BOTH HEAT SHOES. OPEN HEAT SHOE HOLE WITH A BRUSH ON A DRILL BIT IF NECESSARY. STAKE THE HEATERS ON BOTH SIDES.

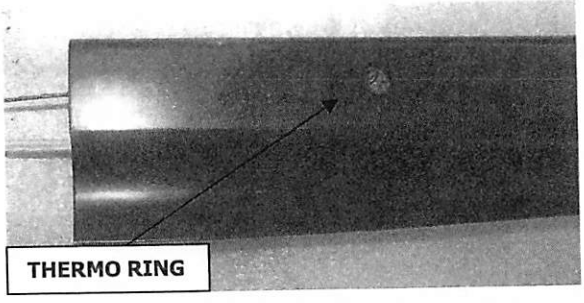

THERMO COUPLE – HEATER – STAKED HEAT SHOE

3) TRIM THE TOP HEATER WIRES LEAVING 8 INCHES FROM SHOE AND TRIM THE BOTTOM HEATER WIRES LEAVING 9 INCHES. TRIM 7 ½" OF BLACK 3/8" SHRINK TUBING (PRI164) CAB1 FOR THE TOP HEATER WIRES AND 8 ½" FOR THE BOTTOM HEATER WIRES. PLACE BLACK SHRINK TUBING OVER WIRES, FLUSH WITH HEATER CORE, AND SHRINK TUBING USING HEAT GUN.

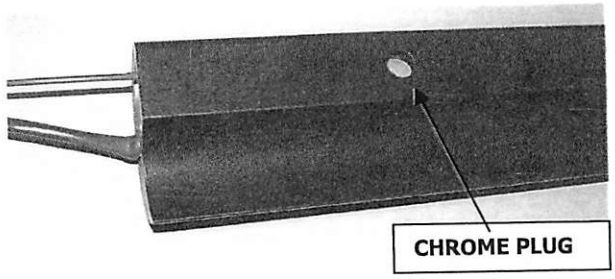


4) TRIM (2) 10 ½" OF BLACK 1/8" SHRINK TUBING (PRT162) CAB1 TO COVER THERMO COUPLE WIRES. MEASURE AND CUT THERMO COUPLE WIRES 11" FROM THE RING END. ***RETAIN CUT ENDS.*** SLIDE SHRINK TUBING OVER OPEN END OF THERMO COUPLE WIRE AND HEAT SHRINK TUBING, FLUSH WITH RING. ENOUGH WIRE SHOULD SHOW TO CONNECT PLUG.

5) INSERT THE RING END OF THE THERMO COUPLE INTO HEAT SHOE AND SECURE THE RING THROUGH THE HEAT SHOE OPENING BY THREADING WITH AN 8-32 X ¼ TRUSSHEAD.



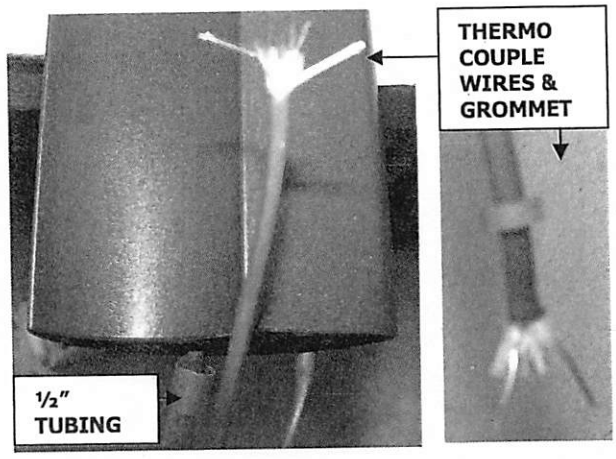
6) SNAP A CHROME PLUG BUTTON (PRC090) RACK 21 IN EACH OF THE FLAT SIDE, HEAT SHOE OPENINGS ABOVE THERMO COUPLE CONNECTION SCREW. BEND PLUG TEETH OUT, IF NECESSARY.



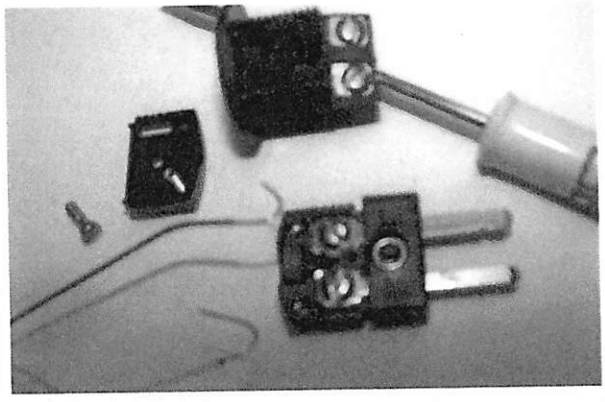
7) TRIM (2) ½" PIECES OF BLACK 3/8" SHRINK (PRI164) CAB1 TUBING AND SLIDE ONE PIECE EACH OVER BOTH HEATER AND THERMO COUPLE WIRES. THIS HOLDS THEM TOGETHER WHEN THE BRACKET IS ADDED.

8) STRIP ABOUT ½" OFF ENDS OF RED - (NEGATIVE) AND WHITE+ (POSITIVE) WIRES ON THE THERMO COUPLE.

9) UNTHREAD COVER SCREWS ON (2) THERMO COUPLE PLUGS (PRR229) AS08. NOTE THE + AND – INDICATIONS. REMOVE RUBBER GROMMET AND SLIDE GROMMET UP THERMO COUPLE WIRE.



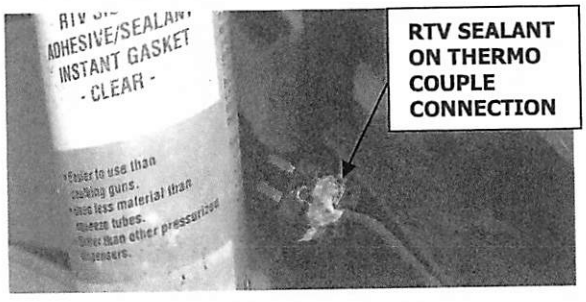
10) BEND EXPOSED THERMO COUPLE WIRES TO MAKE SMALL, *CLOCKWISE HOOKS*. LOOP THE WHITE + (POSITIVE) WIRE OVER + SCREW THREADS AND SECURE. LOOP THE RED - (NEGATIVE) CLOCKWISE WIRE HOOK OVER – SCREW THREADS AND SECURE. SLIDE THE RUBBER GROMMET INTO COVER OPENING.



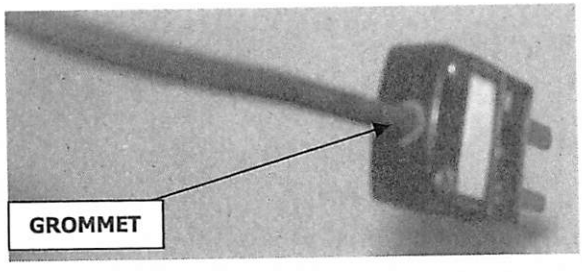
11) CAREFULLY FILL IN THE WIRE CONNECTIONS IN THE THERMO COUPLE PLUG WITH CLEAR RTV SILICONE ADHESIVE/SEALANT INSTANT GASKET.

12) REPLACE COVER ON THERMO COUPLE PLUG. SECURE WITH (2) SMALL SCREWS.

13) REMOVE THE (2) SCREWS ON THE END OF (2) ARROWHEAT PLUGS (PRR220) AS08. SLIDE OFF END CAP AND INSERT HEATER WIRES COVERED WITH INSULATION TUBING FROM HEAT SHOE, WITH OPEN PLUG END OUTWARD. CRIMP RED RING CONNECTORS (PRT296) ONTO HEATER WIRES.



14) ATTACH THE TWO RING CONNECTORS ON THE HEATER WIRES TO THE TWO BRASS SCREWS ON THE END CAP. ALIGN THE RING CONNECTIONS, AS THE PLUG HOUSING HAS TO COVER THEM.



15) SECURE THE WHITE FAN-LIKE NYLON GUARD OVER THE BRASS SCREWS AND BEND UP HEATER WIRES SO THEY WILL FIT BACK INTO THE PLUG HOUSING.

16) ALIGN SCREW HOLES ON END CAP WITH SCREW THREADS AND PLACE WIRED END CAP BACK ON ARROWHART PLUG HOUSING. RECONNECT THE PLUG HOUSING TO THE WIRED END CAP USING ORIGINAL SCREWS.

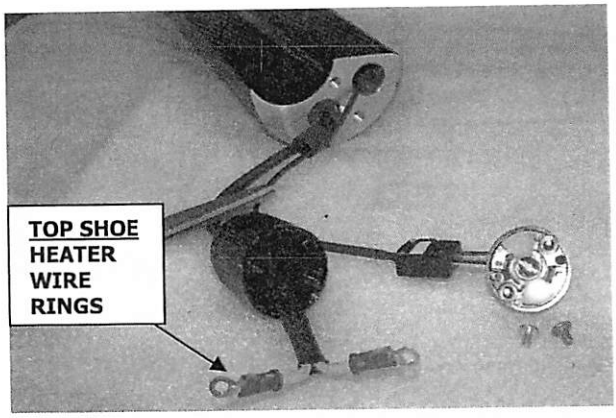
17) REPEAT THE COMPLETE ARROWHART PLUG CONNECTION PROCEDURE ON THE REMAINING HEAT SHOE.

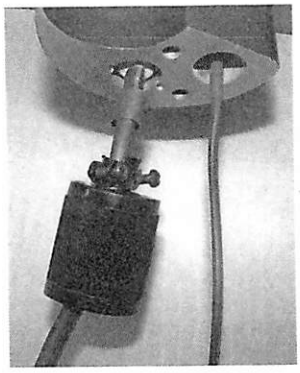
18) ARBOR PRESS A FLANGED OILITE BUSHING (PRB046A) RACK 21 ***WITH THE FLANGE ALIGNING TO THE INSIDE FACING THE HEAT SHOE***, INTO THE OPENING ALONG THE NOTCHED EDGE OF (2) HEAT SHOE BRACKET BOTTOMS (H850 065.4B) RACK 22, FOR THE RIGHT AND LEFT SIDE OF THE HEAT SHOE.

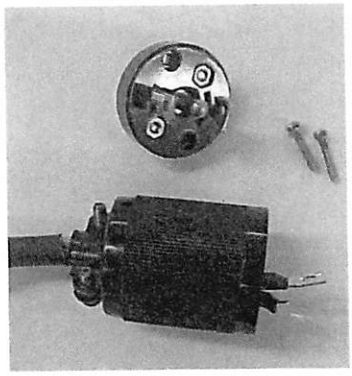
19) WITH NOTCH AND OILITE BUSHING FACING UPWARD FROM SHOE FLAT SIDE, CONNECT THE LEFT SIDE HEAT SHOE BRACKET BOTTOM TO THE WIRED SIDE OF THE BOTTOM HEAT SHOE USING (2) ¼-20 X 1 BHSH, EACH WITH A 7/16 STEEL SPACER CEM (PRS232) AS08 RIDING ON THE SCREW THREADS BETWEEN THE BOTTOM BRACKET AND THE HEAT SHOE. SEE PHOTO OF HEAT SHOE AND BRACKET ALIGNMENT.

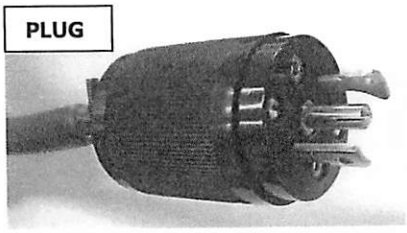
20) THE WIRES FOR THE BOTTOM HEAT SHOE SHOULD ALIGN ON THE INSIDE OF THE BOTTOM HEAT SHOE BRACKET, BENT FORWARD TOWARD THE THICKER PART OF THE HEAT SHOE RUNNING BETWEEN THE STEEL SPACERS.

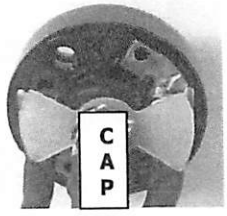
21) BEFORE CONNECTING THE RIGHT SIDE BOTTOM HEAT SHOE BRACKET, INSERT THE HD15 BOTTOM IDLER (HD15 052.4) LOFT 7 INTO THE OILITE BUSHING ON THE LEFT SIDE BOTTOM BRACKET. ALIGN THE BOTTOM IDLER INTO THE RIGHT SIDE OILITE BUSHING OF THE BOTTOM BRACKET AND CONNECT USING (2) ¼-20 X 1 BHSH WITH A STEEL SPACER ON THE THREADS BETWEEN THE BRACKET AND THE SHOE.

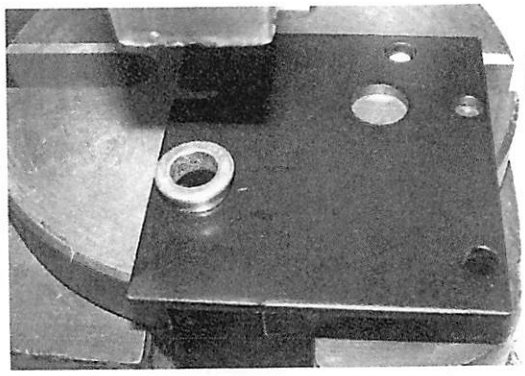




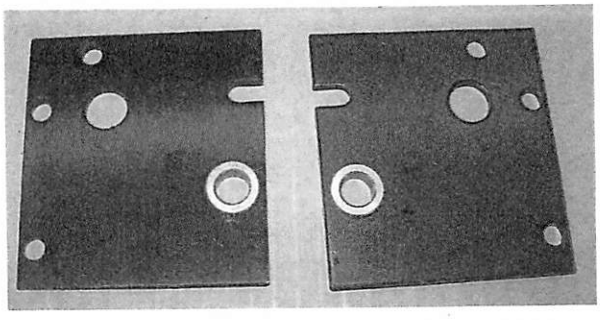




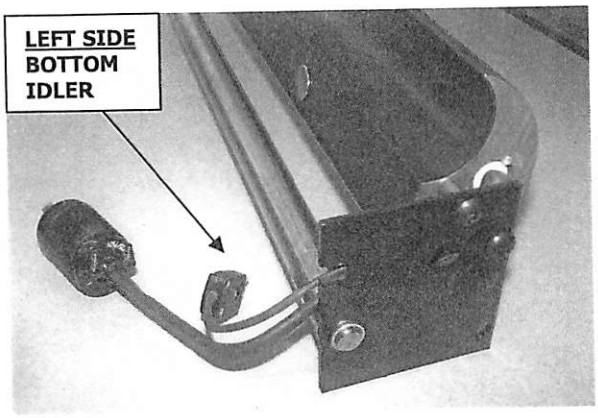




HEAT SHOE BRACKET BOTTOM WITH OILITE BUSHING

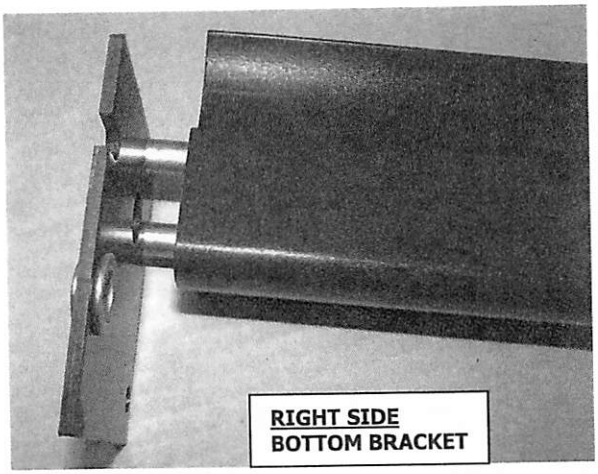


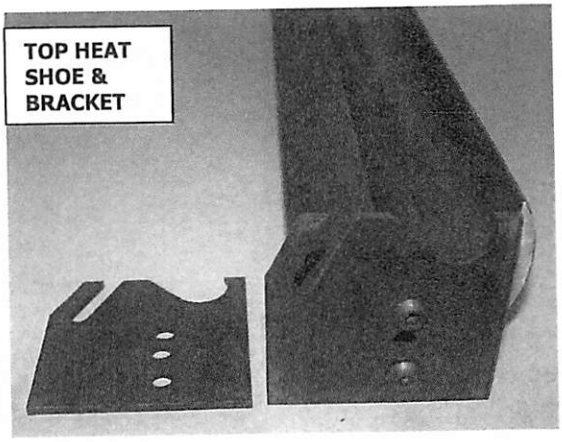
22) CONNECT THE TOP HEAT SHOE BRACKETS (H850 065.4T) RACK 22 TO THE RIGHT AND LEFT SIDE OF THE TOP HEAT SHOE USING (4) ¼-20 X 1 BHSH, EACH WITH A 7/16 STEEL SPACER CEM (PRS232) AS08 RESTING ON THE SCREW THREADS BETWEEN THE HEAT SHOE AND THE TOP HEAT SHOE BRACKETS. THE TOP HEAT SHOE BRACKETS ARE ALIGNED WITH THE NOTCH FACING DOWNWARD.

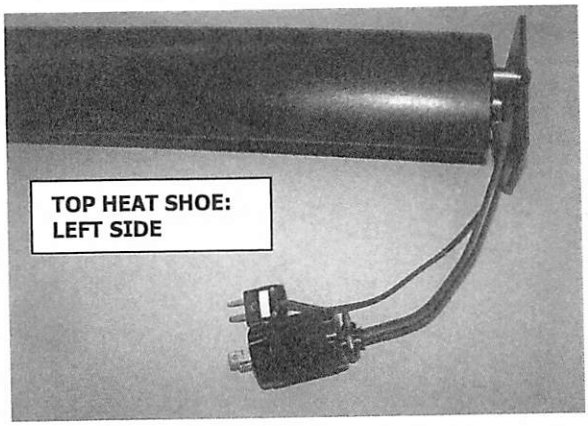


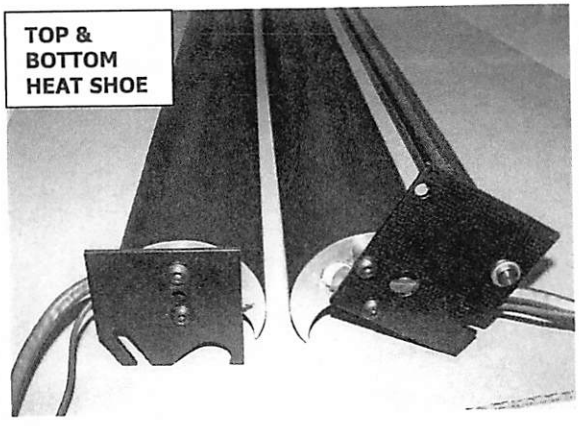
23) ALIGN THE WIRES ON THE TOP HEAT SHOE BETWEEN THE SHOE AND THE TOP HEAT SHOE BRACKET AND BETWEEN THE TWO SPACERS, TOWARD THICK SIDE.

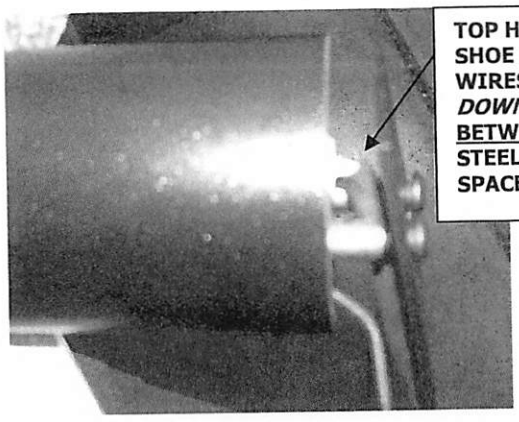
24) SET TOP AND BOTTOM HEAT SHOE ASSEMBLIES ASIDE UNTIL NEEDED FOR CHASSIS. BE VERY CAREFUL TO PROTECT THE TEFLON COATING ON THE SHOES, SO THEY DO NOT BECOME SCRATCHED.





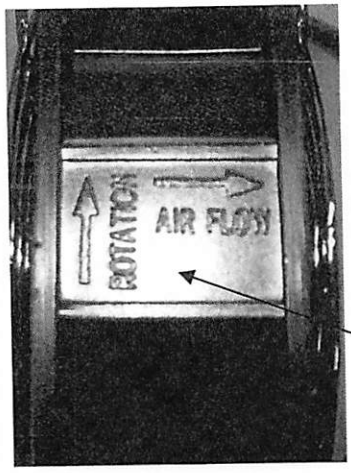


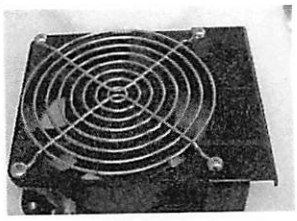




HD15 UPPER FAN ASSEMBLY

1) THE HD15 UPPER FAN ASSEMBLY (7225200) CONSISTS OF (2) HDTOP/LC 220V FANS (PRF111) AS07 CONNECTED TO EACH OTHER BY THE WIRING. WHEN COMPLETE, THE WIRED FAN ASSEMBLY WILL REST ON THE 15" TOP FAN ASSEMBLY MOUNTING BRACKET WHICH IS SUSPENDED BETWEEN THE SIDE PANELS. ASSEMBLE THE UPPER FANS AS FOLLOWS.

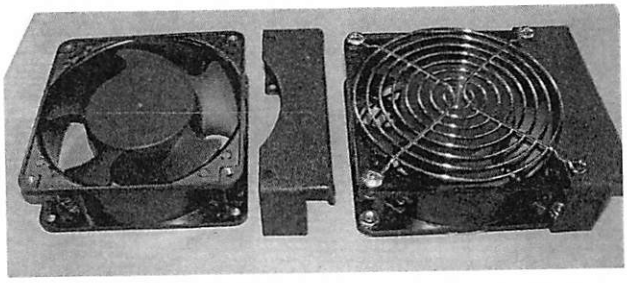




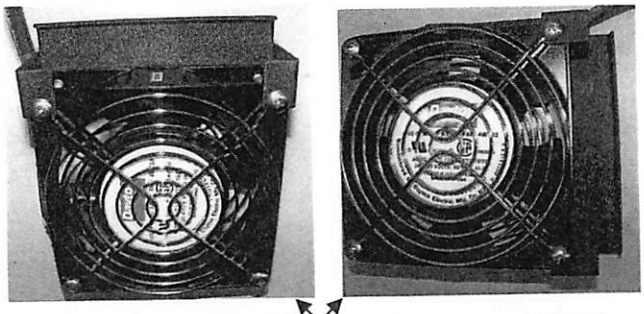
AIR FLOW & ROTATION

2) USE A 10-32 TAP TO THREAD THE (8) CORNER HOLES ON THE TOP AND BOTTOM SIDES OF THE (2) 220V FANS.

3) THE FAN BLADE ROTATION, ON ***BOTH SIDES OF THE FAN***, IS PROTECTED WITH SMALL FAN GUARDS (PRF120) AS07. TO SECURE THE FAN GUARDS USE 10-32 TRUSSHEADS, THE LENGTH DEPENDS ON THE POSITION. BE CONSISTANT WITH THE ORIENTATION OF THE FAN GUARDS ON ALL FOUR SIDES.

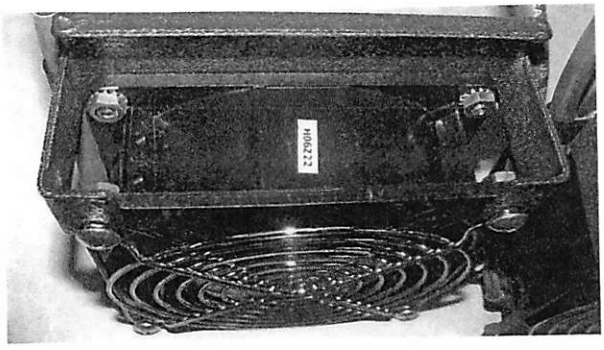


4) **<u>**ON THE DIAGONAL CORNER FROM FAN TERMINAL POSTS AND ON THE CORNER FACING TERMINAL POSTS ALIGN THE TOP FAN BRACKET (I30 181.4)</u> RACK 16 <u>BETWEEN THE FAN AND FAN GUARD</u>. ***AIRFLOW IS INWARD.*** THE LIP OF THE TOP FAN BRACKET FACES INWARD. THE LIP OF THE TOP FAN BRACKET IS ON THE '<u>ROTATION ARROW</u>' SIDE OF FAN. SECURE FAN GUARD AND FAN BRACKET TO FANS WITH (3) 10-32 X 3/8 THMS AND A 10-32 X ½ THMS ON TERMINAL POST SIDE. DO NOT TIGHTEN YET.



UNDERSIDE OF TOP FAN BRACKET~LIP INWARD

5) SECURE THE TOP FAN BRACKET <u>UNDERSIDE</u> WHICH IS THE '***AIR FLOW ARROW*** SIDE OF THE FAN, USING (4) 10-32 X 3/8 THMS THROUGH THE FAN GUARD, FAN BRACKET AND INTO THE THREADED FAN. CHECK THE FAN GUARD ORIENTATION ON BOTH SIDES. TIGHTEN THESE LOWER SCREWS.



6) ADAPT THE TOP FAN WIRING HARNESS (PRW358) RACK 21 WHICH CONTAINS ASSEMBLED WIRES FOR (3) HD25 FANS, AS FOLLOWS.

7) REMOVE THE FIRST FAN WIRE SET, *OPPOSITE THE PLUG END*, FROM THE (3) FAN HARNESS. CAREFULLY CUT THE TUBING BY THE CONNECTORS. TRIM OFF CONNECTORS, LEAVING AS MUCH WIRE AS POSSIBLE. CRIMP NEW CONNECTORS ONTO THE REMAINING HARNESS WIRE ENDS.

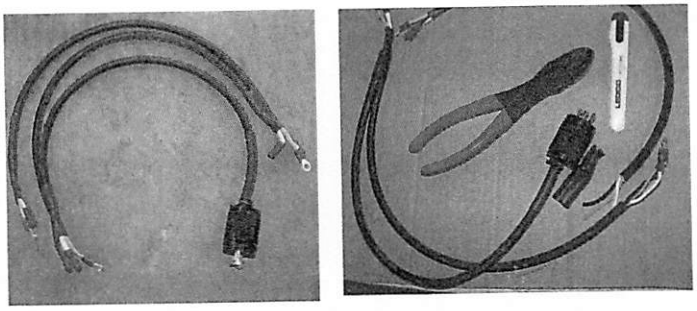
8) SLIDE 2" OF 3/8 BLACK INSULATION TUBING (PRI164) CAB 1 OVER CONNECTIONS. HEAT SHRINK TUBING AFTER CONNECTIONS ARE MADE.

9) THE FAN THAT IS FARTHEST FROM THE PLUG END (RIGHT SIDE) HAS (1) GREEN GROUND WIRE, (1) BLACK WIRE AND (1) WHITE WIRE. THE RING ON THE GREEN GROUND WIRE IS CONNECTED TO THE THREADS OF THE 10-32 X ½ THMS THAT HOLDS THE FAN GRILL, CLOSEST TO THE FAN TERMINAL POSTS. PLACE A #10 STAR WASHER ON THE THREADS, THEN THE GROUND RING CONNECTOR. HOLD THE KEPS HEX NUT AGAINST THE FAN AND THREAD THE SCREW INTO THE HEX NUT. TIGHTEN WITH WRENCH.

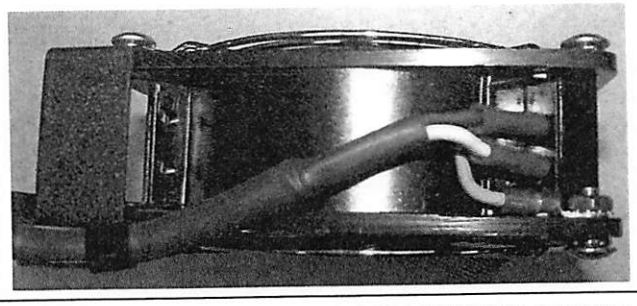
10) PLUG THE SINGLE BLACK AND WHITE WIRE CONNECTIONS INTO THE FAN TERMINAL POSTS. BE CONSISTANT WITH WIRE COLOR POSITION ON BOTH FANS. COVER AND SHRINK TUBING.

11) THE SECOND FAN, CLOSEST TO THE PLUG, HAS (2) GROUND WIRES AND (2) BLACK AND WHITE DOUBLE WIRES. SLIDE 1" OF ½ INSULATION TUBING (PRI163) CAB 1 OVER WIRES. SECURE GROUND WIRE AND TERMINAL POST WIRES WITH SAME HARDWARE. COVER AND SHRINK TUBING.

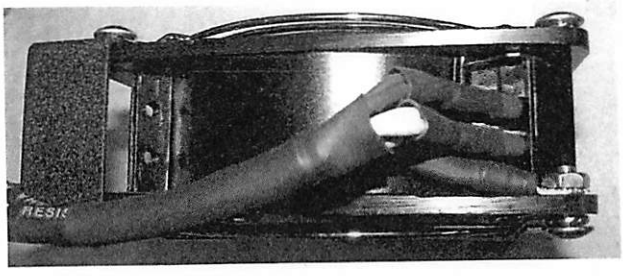
12) CHECK THAT THERE IS NO STRESS ON THE GROUND WIRE AND THAT IT IS NEATLY TUCKED ALONG BRACKET.



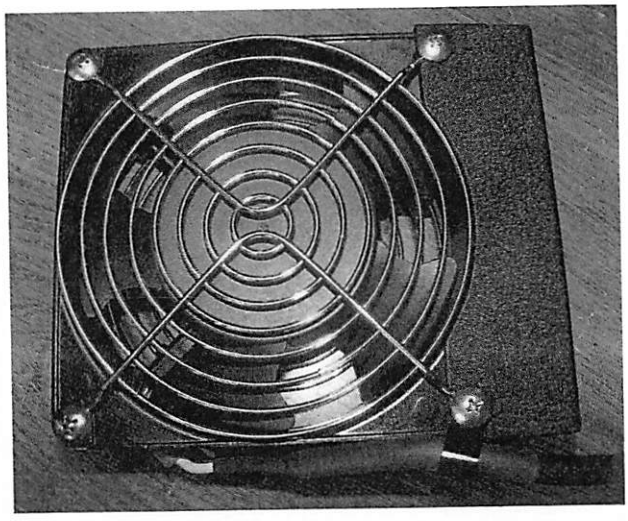
TOP FAN HARNESS



SINGLE WIRES ON TERMINAL POSTS OF RIGHT, END FAN



DOUBLED WIRES ON MIDDLE & LEFT, PLUG END FANS

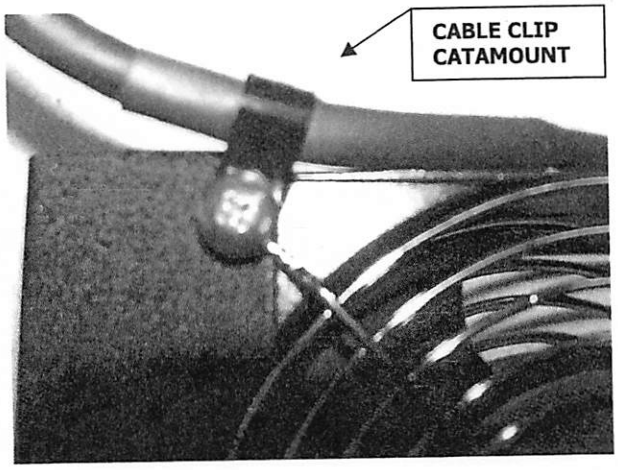


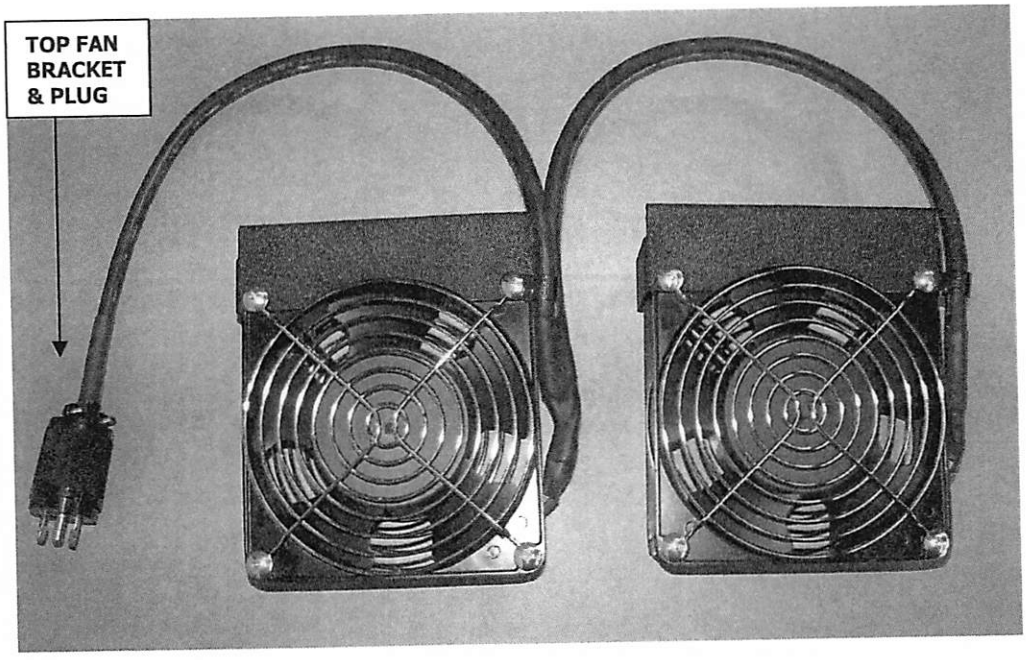
TOP SIDE FAN WITH BLACK CATAMOUNT CLIP

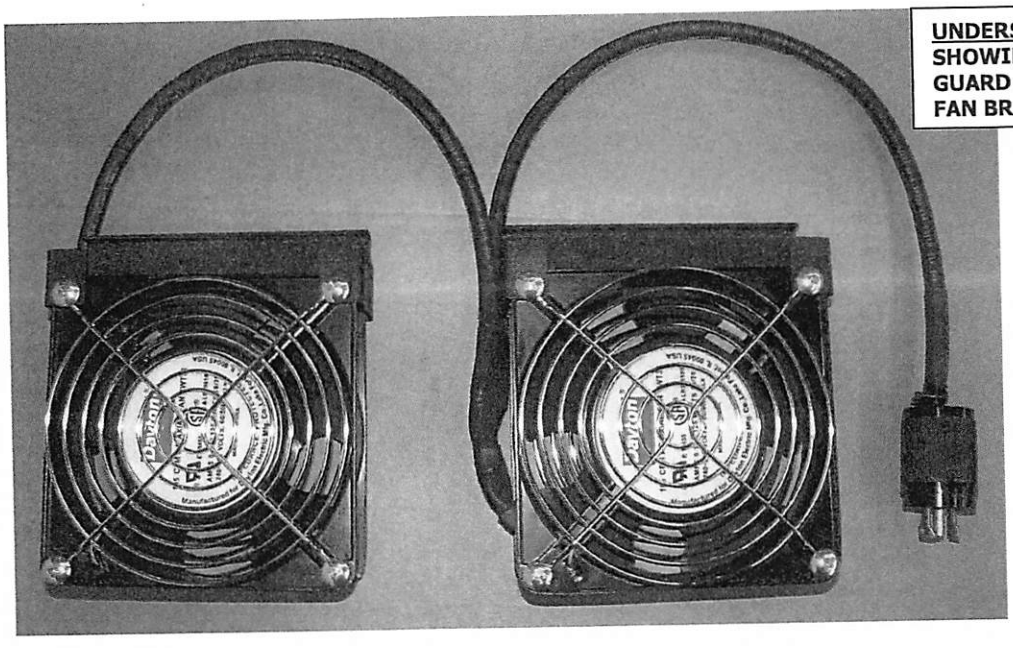
13) FINISH TIGHTENING THMS SCREWS ON FRONT AND BACK. TIGHTEN WITH WRENCH OR HOLD WITH PLYERS.

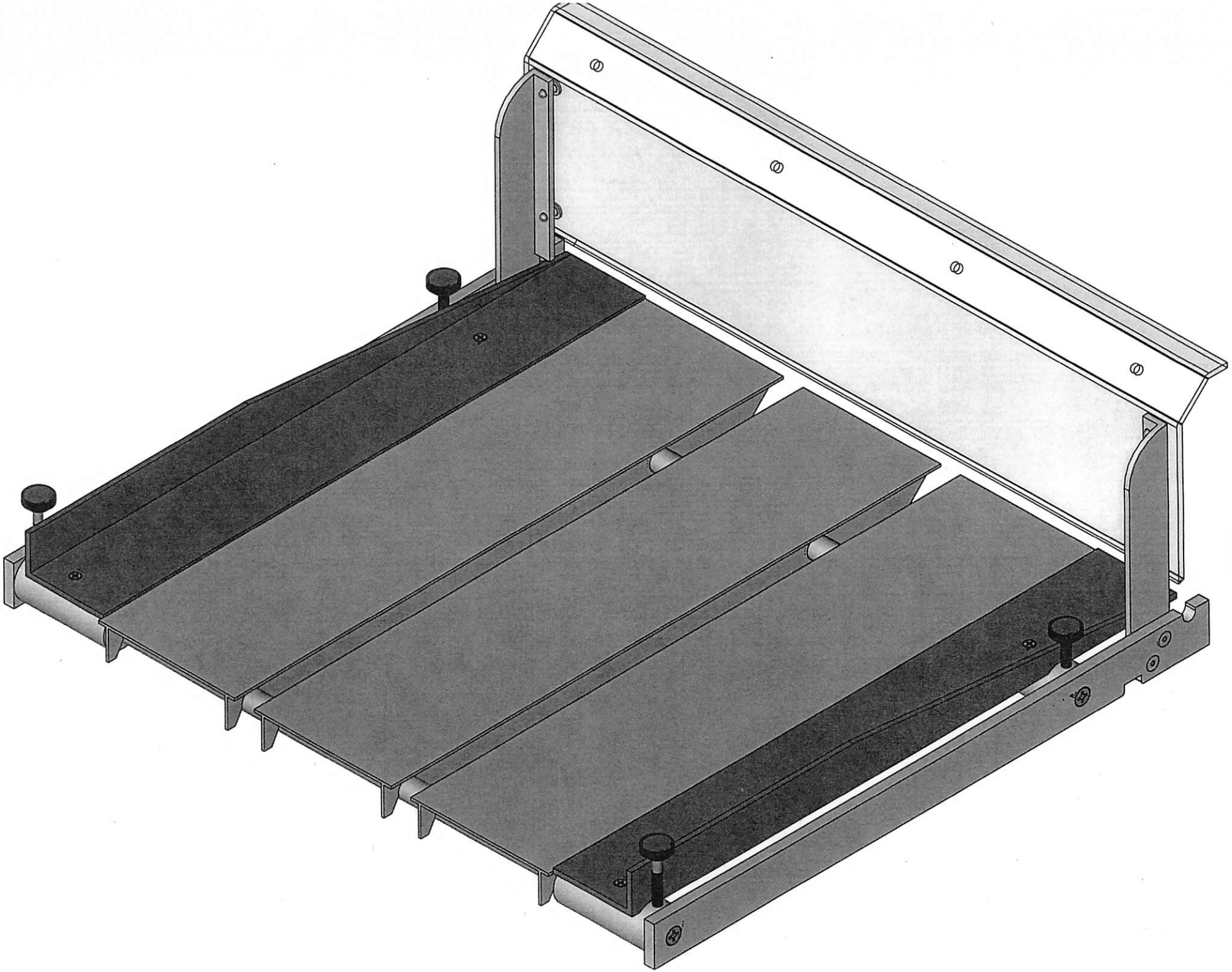
14) SECURE THE WIRING HARNESS TO THE FAN BRACKETS BY ADDING (2) CABLE CLIP CATAMOUNT (PRC080) RACK 21 , ONE TO EACH UPPER RIGHT CORNER OF THE FAN BRACKET.

15) STORE FAN ASSEMBLY UNTIL NEEDED.



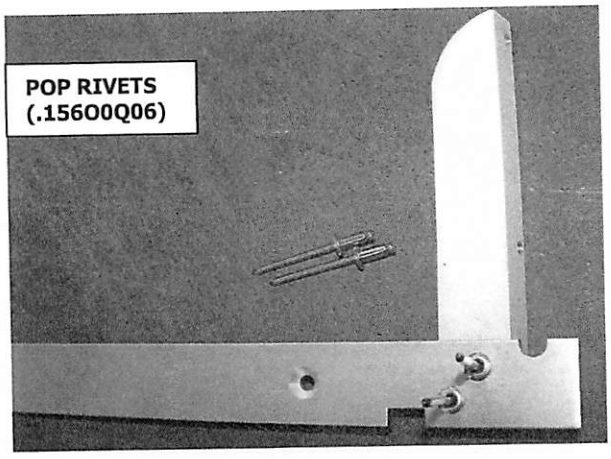


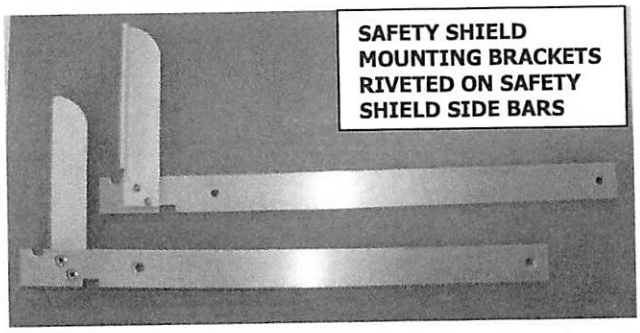




HD15 INDUSTRIAL SERIES
FEED TABLE ASSEMBLY

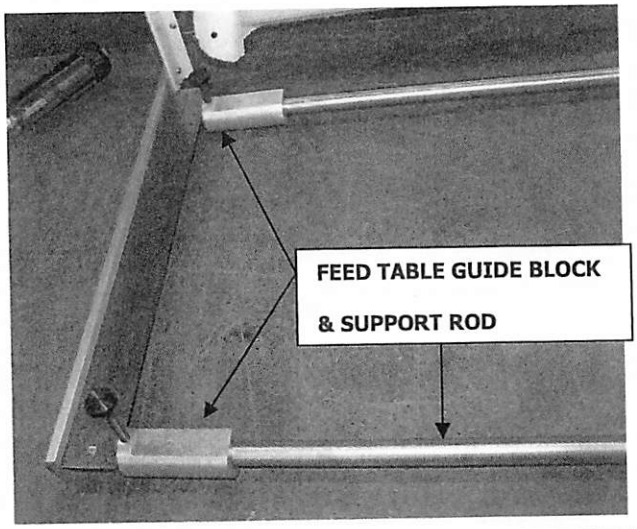
1) FROM RACK 22 SECURE A SAFETY SHIELD MOUNTING BRACKET RIGHT AND SAFETY SHIELD MOUNTING BRACKET LEFT (H850 075.4R AND H850 075.4L) BETWEEN THE INNER REAR NOTCHES OF THE FEED TABLE SIDE BAR RIGHT AND FEED TABLE SIDE BAR LEFT (H850 098.4R AND H850 098.4L). ORIENT THE END NOTCH UPWARD AND COUNTERBORED HOLES OUTWARD WITH THE BRACKET BREAK INWARD AND TO THE REAR. INSERT HEADS OF (2) 5/32 X 3/8 BH POP RIVETS AS12 (.156O0Q06) ***THROUGH SIDE BAR INTO MOUNTING BRACKETS***. USE POP RIVET AIR GUN.



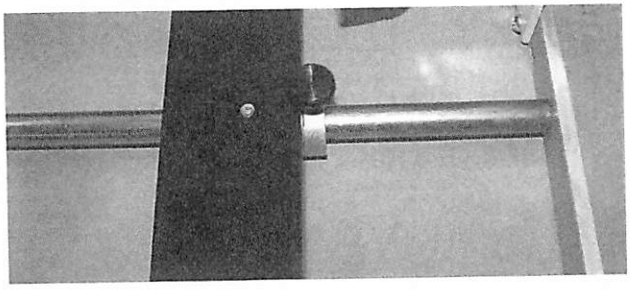


2) SLIDE (2) FEED TABLE GUIDE BLOCKS (H380 100.4) AS08 EACH ONTO (2) FEED TABLE SUPPORT RODS (HD15 096.4) LOFT 7. THE LARGER TAPPED THREADS SHOULD BE OUTWARD ON ALL (4) GUIDE BLOCKS.

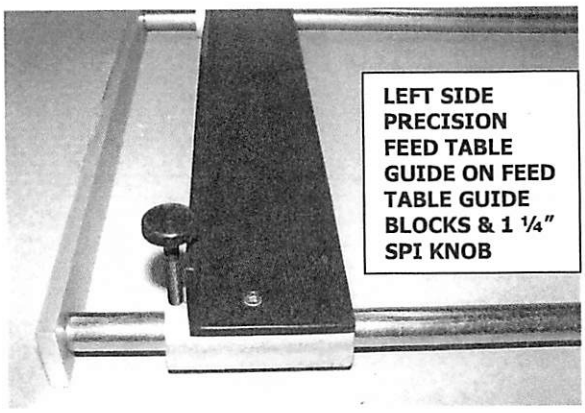
3) ALIGN THE FEED TABLE SUPPORT RODS BETWEEN THE RIGHT AND LEFT FEED TABLE SIDE BARS. THE MOUNTING BRACKET AND END NOTCH AT THE REAR OF THE SUPPORT BARS FACES UPWARD, AWAY FROM YOU. THE COUNTERSUNK HOLES ON THE RIGHT AND LEFT SIDE BARS ARE TO THE OUTSIDE. LOCTITE THE THREADS OF (4) 10-32 X ½ FHMS AND SECURE THE FEED TABLE SUPPORT RODS TO THE FEED TABLE SIDE BARS.



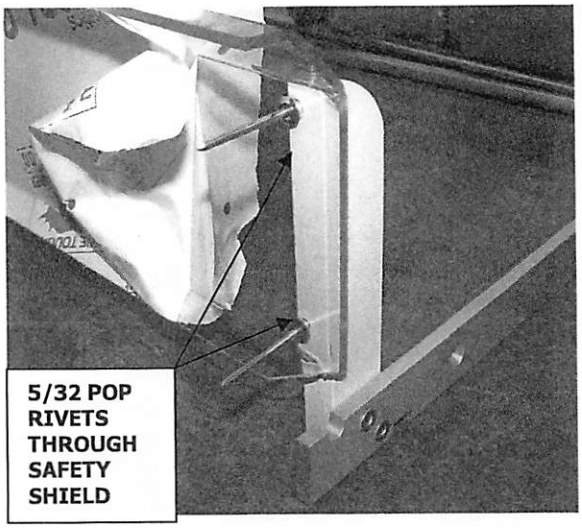
4) LOCTITE THE THREADS OF (4) 4-40 X 3/16 FHMS AND SECURE A PRECISION FEED TABLE GUIDE RIGHT (EP30 099.4R) AND A PRECISION FEED TABLE GUIDE LEFT (EP30 099.4L) RACK 10 TO FRONT AND REAR FEED TABLE GUIDE BLOCKS. THE HIGHER RAISED EDGE, OR "BREAK" OF THE GUIDES FACE FRONT OUTSIDE ON BOTH.



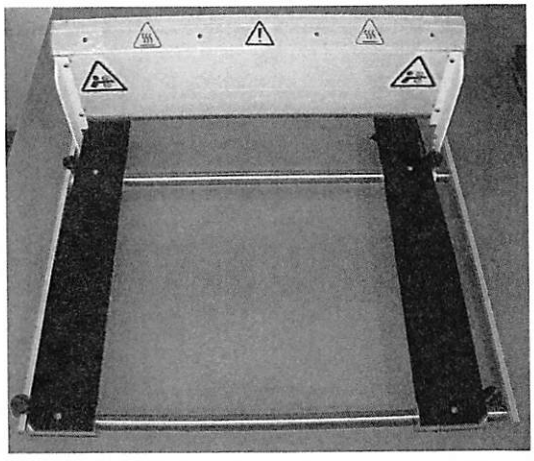
5) SECURE FRONT GUIDE BLOCKS TO THE SUPPORT ROD WITH A 1 ¼" SPI KNOB SCREW (PRK179) AS08 ON EACH. SECURE REAR GUIDE BLOCKS TO THE SUPPORT ROD USING A ¾" SPI KNOB SCREW (PRK178) AS08 ON EACH. SLIDE THE PRECISION FEED TABLE GUIDE BACK AND FORTH TO TEST MOVEMENT. TIGHTEN TO OUTSIDE.

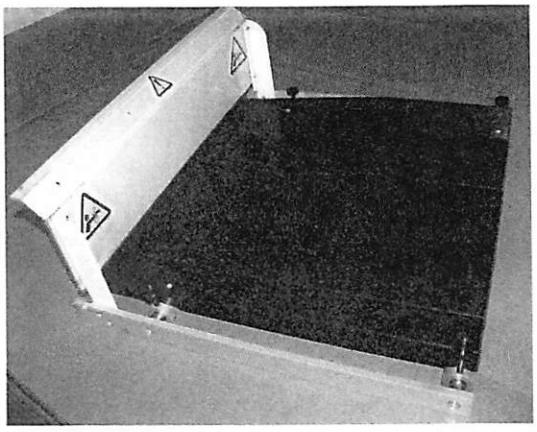


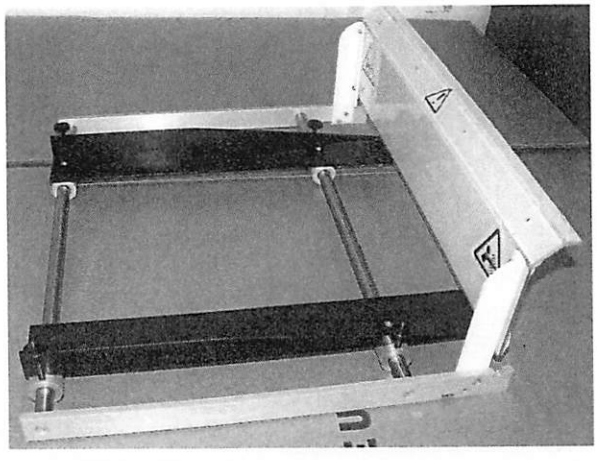
6) PEEL AWAY PROTECTIVE COVERING ON OUTER FRONT/REAR SAFETY SHIELD (HD15 074.4) RACK 7 AND EXPOSE POP RIVET OPENINGS. SET SAFETY SHIELD BEHIND REAR BREAKS OF THE SAFETY SHIELD MOUNTING BRACKETS. INSERT HEADS OF (2) 5/32 X .425 POP RIVETS (.15600Q04) AS11 THROUGH SAFETY SHIELD INTO THE MOUNTING BRACKET. USE A POP RIVET AIR GUN. LEAVE PROTECTIVE COVERING ON INNER SAFETY SHIELD.



7) LABELS: AS09 CENTER AND ADHERE A GENERAL DANGER (LAB52) ON FRONT SAFETY SHIELD. ON ENDS ADHERE (2) ARM ENTANTLEMENT (LAB51) AND (2) INTERNATIONAL HOT WARNING (LAB100) BETWEEN EACH.







HD15 SUPPLY ROLL ASSEMBLY

1) THE HD15 INDUSTRIAL SERIES LAMINATOR USES TWO IDENTICAL SUPPLY ROLL ASSEMBLIES. THE ASSEMBLIES ARE PREPARED AS FOLLOWS.

2) INSERT A 6-32 X ½ RHMS (.138CBA08) INTO BOTH ENDS OF THE (6) RUBBER SUPPLY ROLL GRIPPERS (HD15 003.4) LOFT 7. SET THE GRIPPERS ASIDE.

3) ALIGN THE SUPPLY ROLL END CAPS (I30 008.4) AS08 ORINTED WITH THE THREADED RECESSED SECTIONS FOR THE GRIPPER SCREWS INWARD, WITH THE RECESSED SECTIONS OF THE HD15 3" SUPPLY ROLL CORE (HD15 002.4) LOFT 7. TAP THE (4) END CAP HEX INTO THE (2) SUPPLY ROLL CORES.

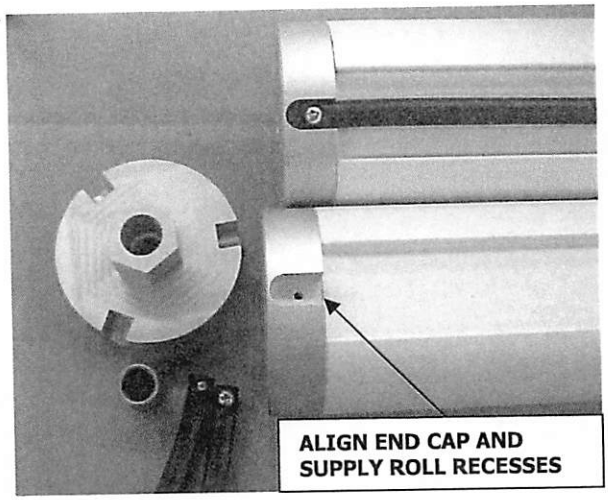
4) SECURE THE GRIPPERS TO THE THREADED END CAPS USING THE 6-32 X ½ RHMS ALREADY IN GRIPPER ENDS.

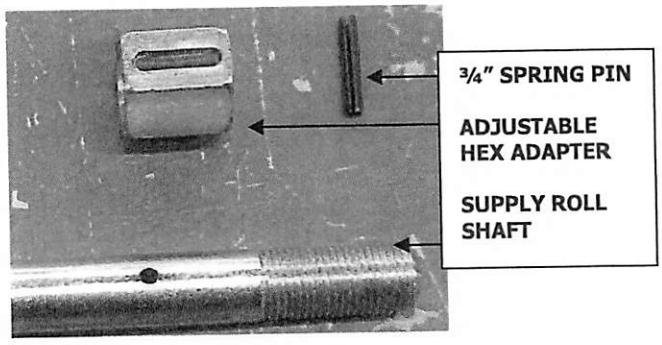
5) PREPARE (2) SUPPLY ROLL SHAFTS (HD15 011.4) LOFT 7 BY SLIDING ON AN ADJUSTABLE HEX ADAPTER (D105 022.4) AS08, ALIGNED OVER BOTH SHAFT APERTURES.

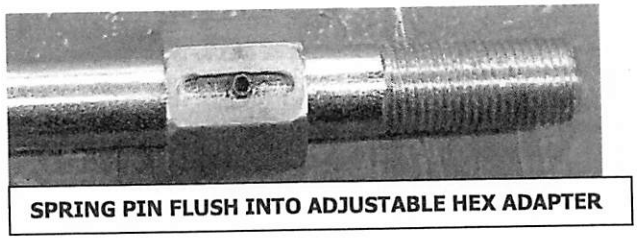
6) USING A STARTER TOOL INSTERT A 1/8 X ¾ SPRING PIN (.125J0012) THROUGH THE ADJUSTABLE HEX GROOVE INTO SHAFT APERTURE. REMOVE TOOL, ARBOR PRESS OR TAP PIN UNTIL IT IS FLUSH WITH HEX ON BOTH SIDES.

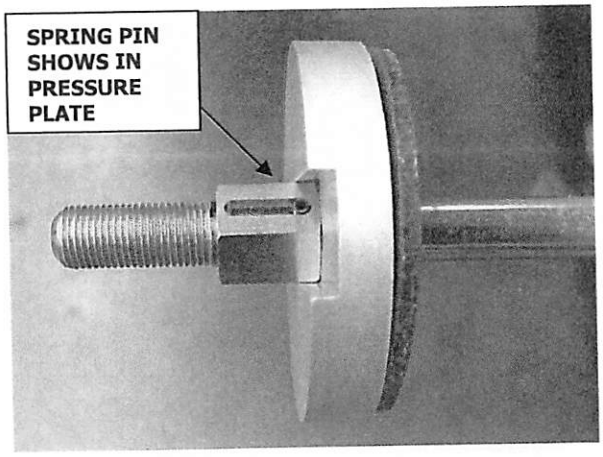
7) SLIDE A SUPPLY ROLL PRESSURE PLATE (LC38 007.4) AS08 DOWN THE LONG END OF BOTH SUPPLY ROLL SHAFTS. THE SPRING PIN ON ADJUSTABLE HEX ADAPTER SHOULD LOCATE <u>BETWEEN RECESS</u> ON PRESSURE PLATES.

8) SLIDE A 1/8 X ½ ID X 2 ¾ OD LEATHER DISC (H380 004.4) AS08 ONTO EACH SUPPLY ROLL SHAFT NEXT TO THE PRESSURE PLATE. INSERT ASSEMBLED







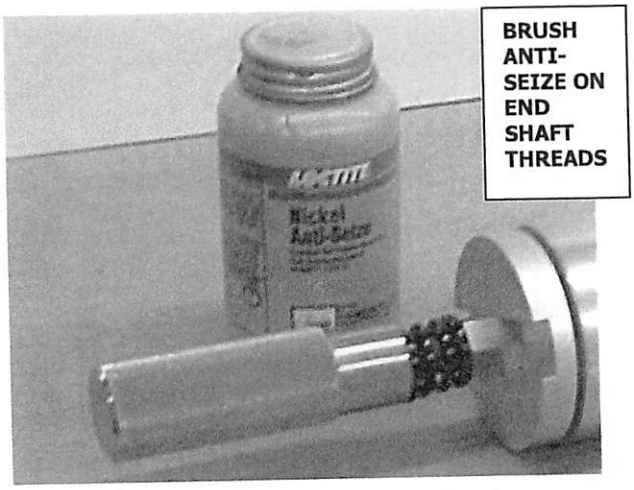


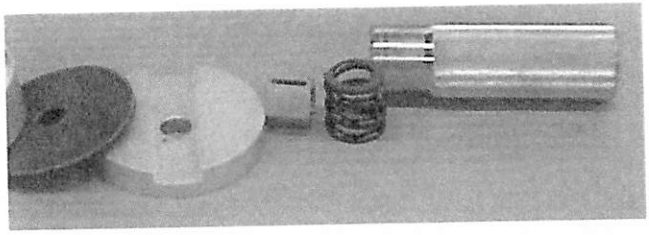
SHAFT THROUGH THE SLEEVE BEARINGS ON THE SUPPLY ROLL END CAPS.

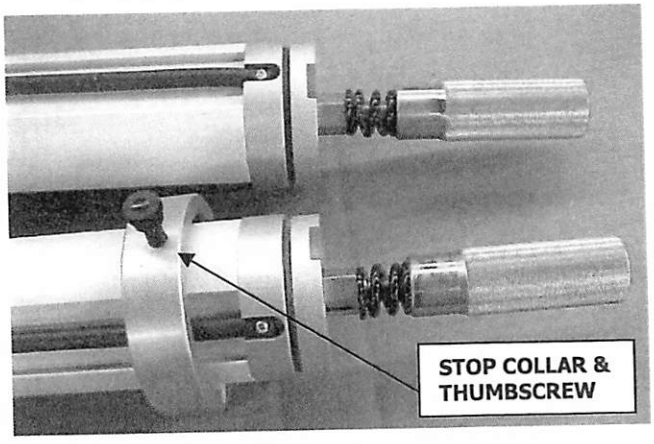
9) DUPLICATE THE OTHER END OF THE SUPPLY ROLL WITH ANOTHER LEATHER DISC, PRESSURE PLATE AND SUPPLY ROLL HEX ADAPTER (LC38 023.4) AS08 FITTING INTO PRESSURE PLATE RECESS.

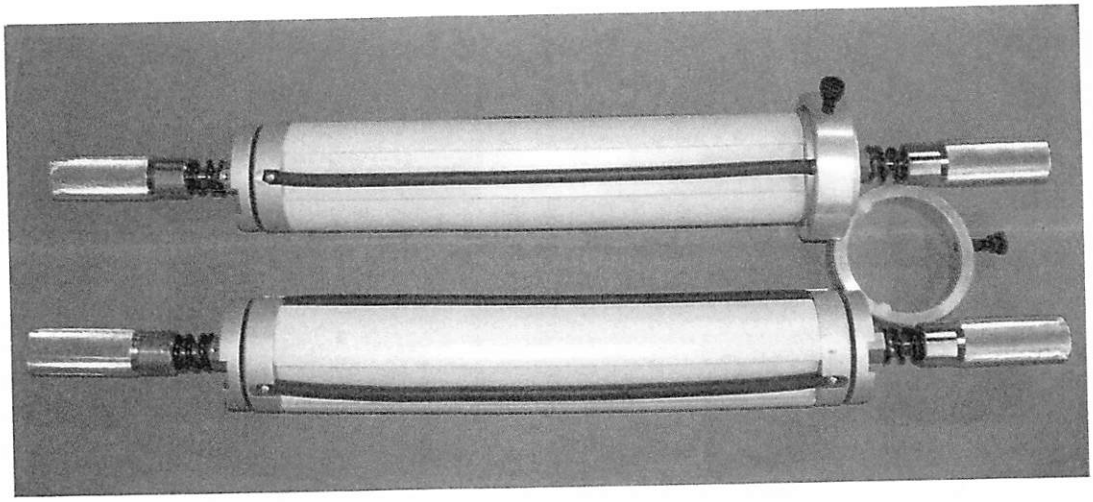
10) BRUSH LOCTITE ANTI-SEIZE ONTO END THREADS OF BOTH SUPPLY ROLL SHAFTS. SLIDE ON SUPPLY ROLL TENSION SPRING (PRS222) AS08 AND THREAD ON KNURLED SUPPLY ROLL TENSION KNOB (D105 001.4) AS13. IF SUPPLY ROLL SHAFTS' THREADS ARE OVER PLATED, TRIM THEM WITH DIE/THREAD CHASER. TIGHTEN KNOB UNTIL SPRING PIN IS CENTERED IN ADJUSTABLE HEX ADAPTOR CHANNEL.

11) THREAD A 5/16-18 X 1 PLASTIC MOLDED THUMBSCEWS (PRK184) AS09 INTO EACH OF (2) STOP COLLAR-CORE CHUCK STYLE (D105 004.4) AS09. SECURE A STOP COLLAR ONTO THE SUPPLY ROLLS AND STORE UNTIL NEEDED.







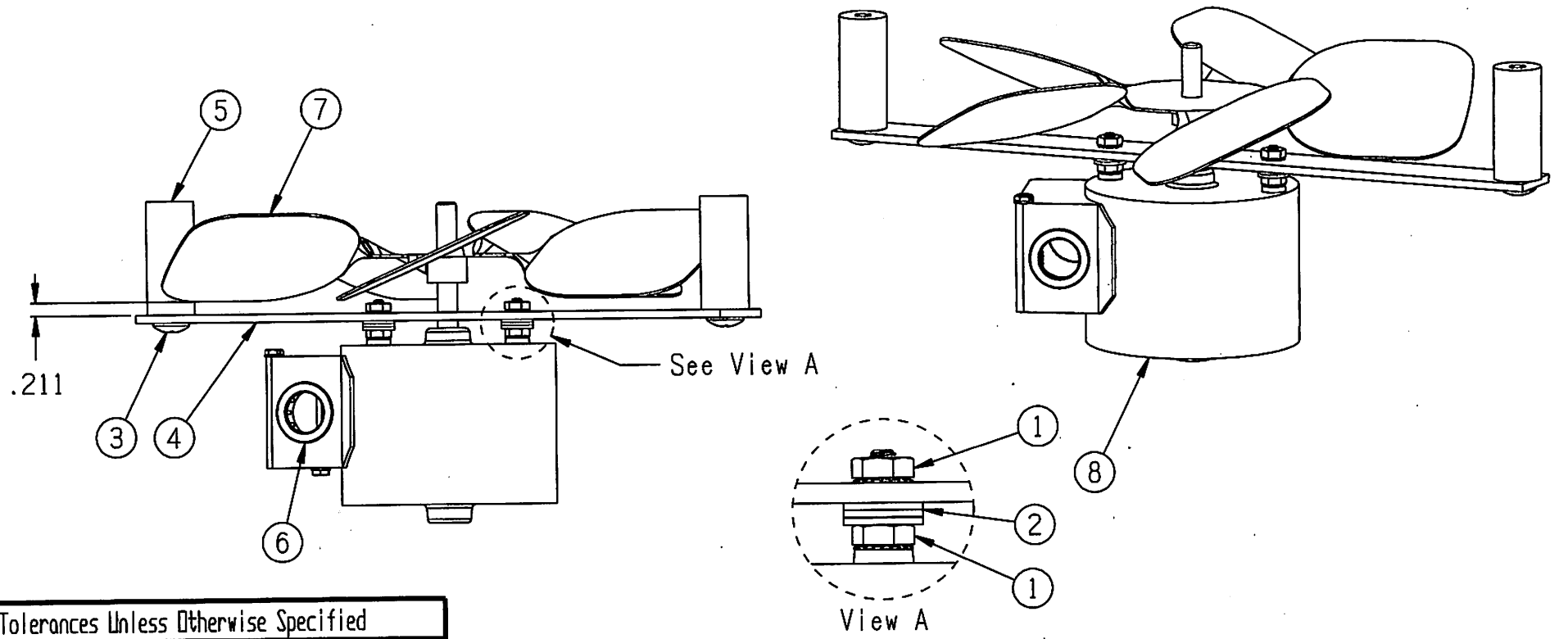


Part # HD15 007.5	Title: FAN MOTOR & BLADE ASSEMBLY	Date: 09/11/2012	Rev. Level:
Sheet 1 Of 1			

Rev.	Description	Date	App. By

Item	Part No.	Qty.	Description
1	.164LOL00	4	8-32 KEPS HEX NUT EXT. LOCK WASHER
2	.190KKC01	6	#10 FLAT WASHER SAE
3	.250EBA12	2	.250-20 X .750 PHIL MS
5	~~H15~~ 059.4	2	FAN MOTOR BRCKT STAND OFF SPACER
4	H850 057.4	1	Fan Brkt
6	PRB064	1	SNAP BSHG LG .875 HOLE - .125 T - .625 ID
7	PRF115	1	BLADE 4C477 BORED
8	PRF119	1	MOTOR 3M726D, HD

¼-20 x ¾ THMS
- Loft 7
- Rack 21
- A507
- Rack 22
- A501



Tolerances Unless Otherwise Specified				
Basic Dimension	UP TO 6.000	6.001 TO 24.000	ABOVE 24.000	∠ ±0° ±30'
2 Place Din.	±.005	±.010	±.031	
3 Place Din.	±.002	±.005	±.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: 09/11/2012

HD15 INDUSTRIAL SERIES
FRAMING & SIDE PANELS

1) FROM AS01 PLACE THE RIGHT SIDE PANEL (H850 090.4RA) AND THE LEFT SIDE PANEL (H850 090.4LA) TOGETHER ON A WORKTABLE. TOWARD THE FRONT BETWEEN THE SIDE PANELS AND BELOW THE OPENING FOR THE WHITE NYLINER BEARING, PLACE A PAINTED SPACER BAR (HD15 110.4) LOFT 7 VERTICALLY. USE ¼-20 X ¾ BHSH ON BOTH UPPER THREADS AND ¼-20 X ¾ FHSH ON BOTH LOWER THREADS.

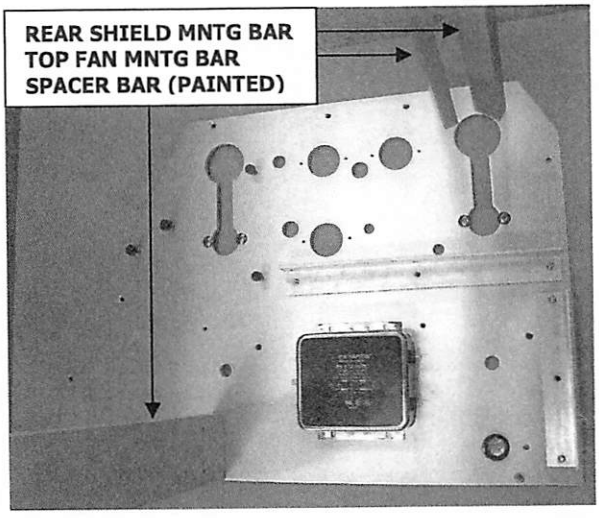
2) CONNECT (2) THREADED 15" TOP FAN AND REAR SHIELD MOUNTING BARS (HD15 152.4) LOFT 7 BOTH AT ANGLES BETWEEN SIDE PANELS IN THE UPPER REAR. THE FAN MOUNTING BAR IS LOCATED IN FRONT OF THE RUBBER ROLL APERTURE. SECURE BARS TO SIDE PANELS WITH (4) 10-32 X ½ FHMS.

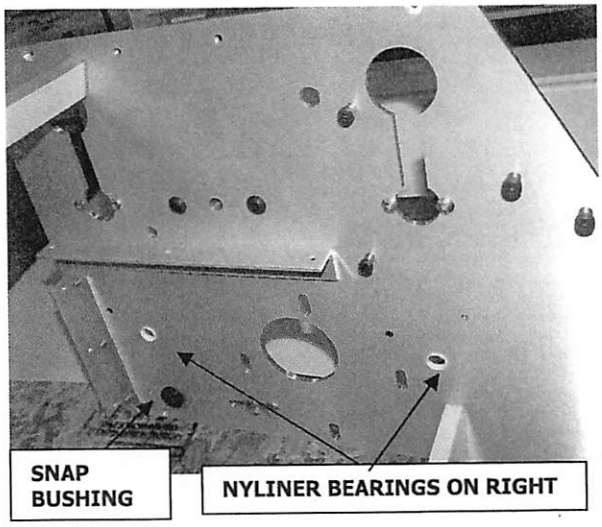
3) INSERT (2) WHITE NYLINER BEARINGS (PRB059) RACK 21 INTO THE LOWER RECESSED OUTER SIDE, FLANGE *OUTWARD*, ON BOTH OF THE SIDE PANELS. THESE NYLINER BEARINGS ARE FOR THE CAM SHAFTS TO RIDE IN.

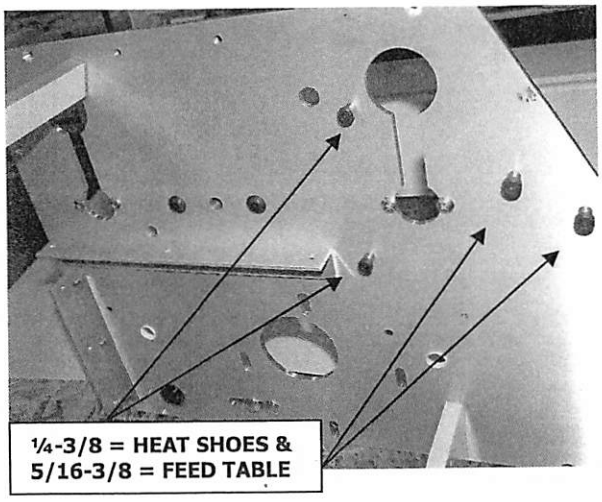
4) INSERT A SNAP BUSHING (PRB064) AS07 FROM THE *OUTSIDE* OF BOTH SIDE PANELS, FLANGE OUTWARD. THE BUSHINGS PROTECT THE WIRES WHEN EXITING THE SIDE PANEL.

5) FROM THE *INNER* RIGHT AND LEFT SIDE PANELS THREAD IN (4) 10-32 X ¼ THMS ON EACH, BY THE FRONT AND REAR LOWER RUBBER ROLL OPENS. THE TRUSSHEADS WILL SECURE THE ROLLER BEARINGS THAT HOLD THE RUBBER ROLL SHAFTS.

6) ON BOTH *INNER* SIDE PANELS THREAD IN (2) ¼ X 3/8 SHOULDER BOLTS TO SUPPORT HEAT SHOES.







7) ON BOTH *INNER* SIDE PANELS THREAD IN (2) 5/16 X 3/8 SHOULDER BOLTS TO SUPPORT THE FEED TABLE.

8) ON BOTH *INNER/LOWER* SIDE PANELS CONNECT A HD MOTOR COVER BRACKET BACK (H850 102.4B) RACK 22 USING (6) 10-32 X ½ FHMS. ORIENT THE MOTOR COVER BRACKET BACK BREAK TO THE REAR AND INWARD.

9) ON BOTH *INNER* SIDE PANELS CONNECT THE MOTOR COVER BRACKET TOP (H850 102.4T) RACK 22 USING (6) 10-32 X ½ FHMS. ORIENT BREAK UP AND INWARD.

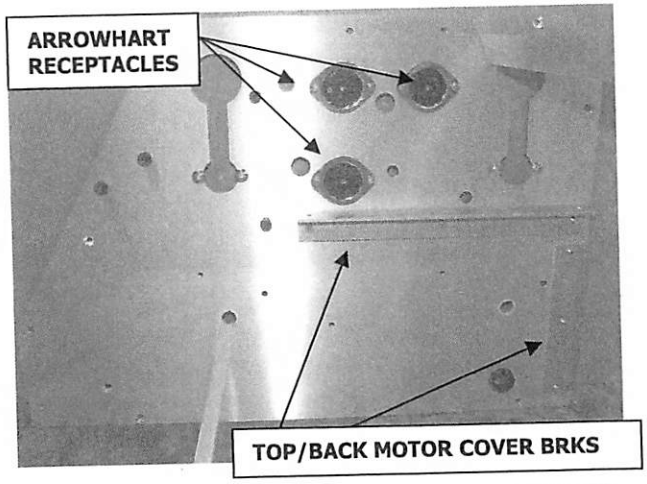
10) PLACE A 7/16 STEEL SPACER (PRS232) AS08 ON EACH OF (4) ¼-20 X 5/8 SHCS. THREAD (2) EACH INTO BOTH *OUTER* SIDE PANELS, LOCATED ABOVE AND BEHIND THE WHITE NYLINER BEARINGS. THE SPACERS WILL STABILIZE THE CONNECTING PLATES.

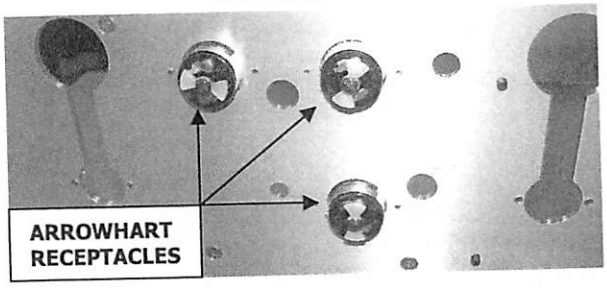
11) FROM THE *INNER* LEFT SIDE PANEL INSERT (3) ARROWHART RECEPTACLES (PRR221) AS08 ORIENTED WITH THE LARGER PLUG OPENING UPWARD. SECURE THE RECEPTACLES WITH (2) 6-32 X ¼ PHMS EACH. RECEPTACLES ARE FOR THE TOP FAN ASSEMBLY AND THE BOTH HEAT SHOES.

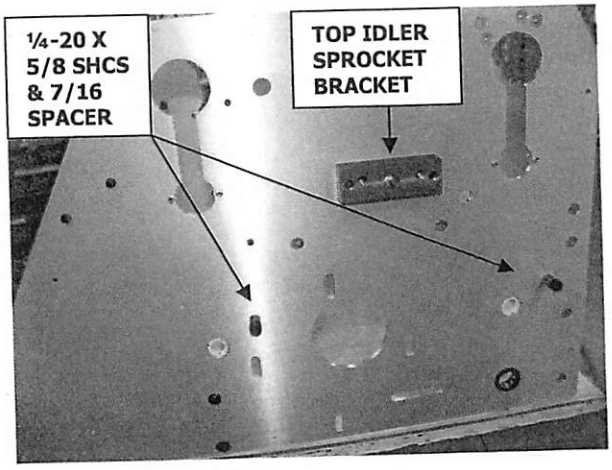
12) ON THE *UPPER, OUTER* RIGHT SIDE PANEL, ATTACH THE TOP IDLER SPROCKET BRACKET (H850 050.4) RACK 21 ORIENTED WITH THE INNER THREADS *UPWARD*. SECURE FROM THE INNER PANEL USING (2) 5/16-18 X ¾ BHSH INTO THE *OUTER* THREADS.

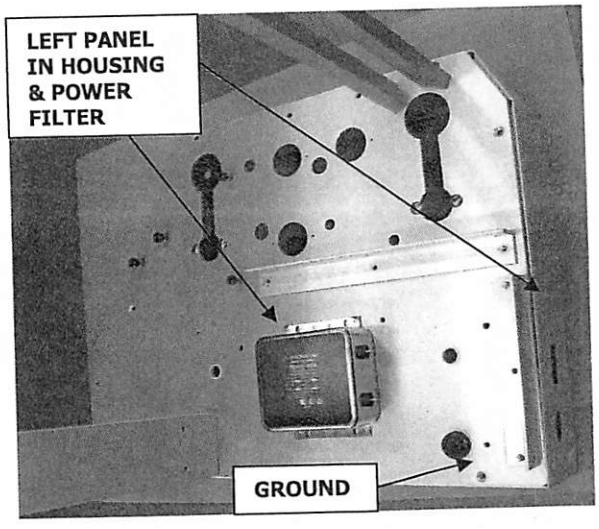
13) ON THE *INNER* LEFT SIDE PANEL SECURE THE POWER FILTER (PRF142) AS07 ORIENTED WITH THE (3) "LINE" TERMINAL POSTS FACING THE FRONT. USE (4) 10-32 X ¼ PH WITH (2) #10 STAR WASHERS ON DIAGONAL SCREWS.

14) *BEHIND THE SNAP BUSHING*, FROM INNER PANEL, THREAD IN A 10-32 X 1 BHSH *GROUND SCREW*, WITH A # 10 STAR WASHER. TIGHTEN WITH WRENCH.

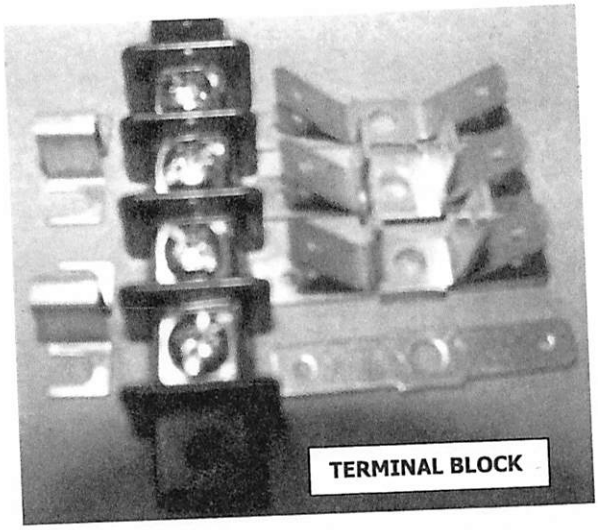






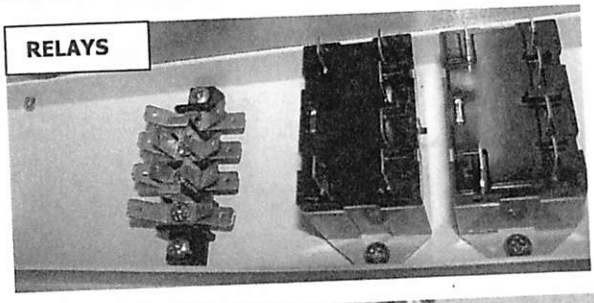


15) FROM AS09 REMOVE THE (4) SCREWS FROM A FOUR-POST TERMINAL BLOCK (PRT300). ADD (4) 180 DEGREE TERMINAL POSTS (PRT306), (3) 45 DEGREE TERMINAL POSTS (PRT307) LEAVING ONE END *WITHOUT* A 45 DEGREE POST, (2) 90 DEGREE TERMINAL POSTS (PRT308) LOCATED IN THE MIDDLE PAIR, AND (2) JUMPERS (PRT309) CONNECTING BOTH OUTER PAIRS OF TERMINAL POSTS. FACE THE SINGLE 180 DEGREE POST *OUTWARD*.



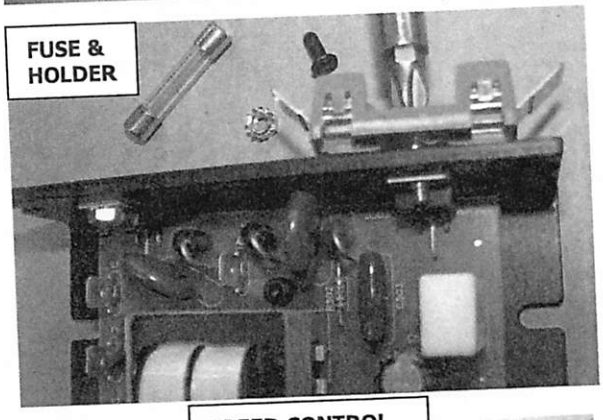
16) SECURE TERMINAL BLOCK TO LEFT HOUSING (H850 094.4L *OR* E850 094.4L *FOR RLTU*) AS01 USING (2) 8-32 X ½ RHMS, 180 POST *OUTWARD*.

17) USE A MALLOT TO TAP THE LEFT HOUSING OVER THE LEFT SIDE PANEL. SECURE HOUSING WITH (7) 8-32 X 3/8 FHMS THREADED INTO THE COUNTERSUNK OPENINGS ON *INNER* SIDE PANEL.

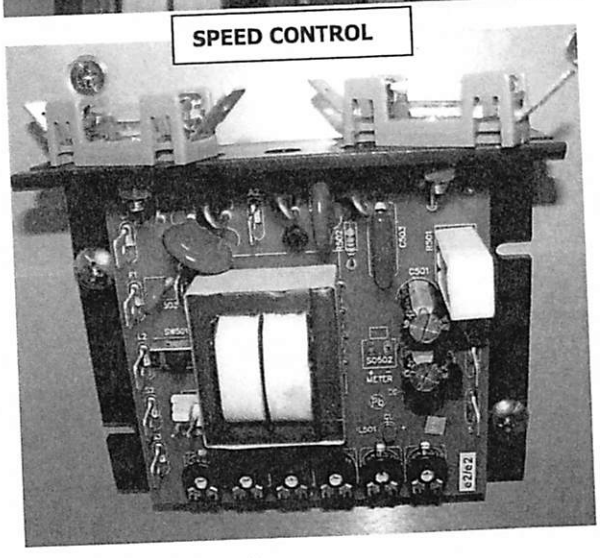


18) USE A RUBBER MALLOT TO TAP THE RIGHT HOUSING (H850 094.4R) AS01 OVER RIGHT SIDE PANEL. THREAD (7) 8-32 X 3/8 FH INTO THE COUNTERSUNK OPENINGS ON THE *INNER* SIDE PANEL.

19) ORIENT (2) OMRON RELAYS (PRR231D) AS08 WITH DOUBLE POSTS FACING LEFT/REAR AND SECURE BOTH TO LEFT HOUSING WITH 8-32 X ¼ RHMS.



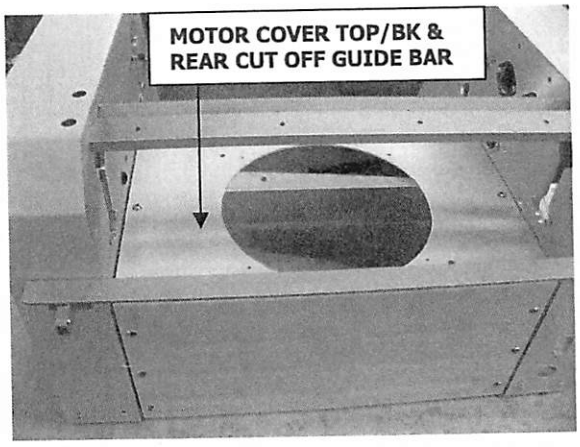
20) TO ASSEMBLE THE MINARIK SPEED CONTROL 115-240 VAC (PRM218A) AS08 REMOVE THE FH SCREW AND KEPS HEX NUT LOCATED ABOVE "SCR501 AND SCR502" ON CONTROL LIP. INSERT A 6-32 X ½ RH INTO EACH OF (2) GRAY LITTLEFUSE FUSE HOLDER (PRF126) AS07 AND REINSERT INTO THE LIP OF THE MINARIK BOARD, SECURING WITH THE #6 KEPS HEX NUT. *ANGLE* FUSE HOLDERS OFF CENTER AS IN PHOTO.



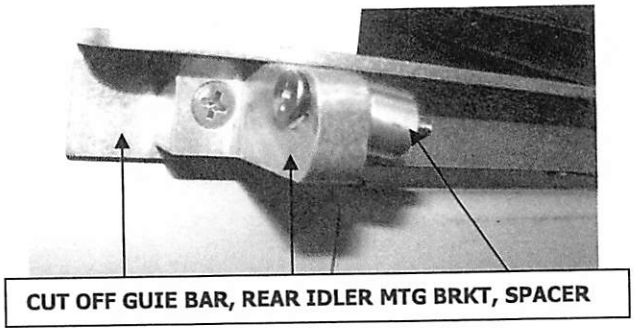
21) SNAP A 3 AMP FUSE (PRF127) AS07 INTO BOTH FUSE HOLDERS. SECURE THE SPEED BOARD TO THE OUTER LEFT SIDE PANEL WITH THE FUSES FACING UPWARD, LOCATED IN FRONT OF THE REAR CAM. USE A 10-32 X ¼ THMS IN THE LOWER FRONT SLOT AND A 10-32 X

3/8 THMS WITH A #10 STAR WASHER IN UPPER REAR SLOT, WASHER BETWEEN THE SIDE PANEL AND THE SPEED BOARD.

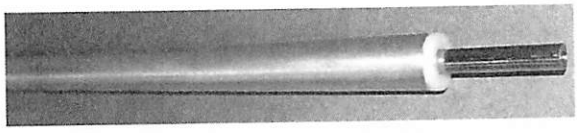
22) CONNECT THE MOTOR COVER TOP BACK (HD15 091.4) LOFT 7 BETWEEN THE SIDE PANELS, ORIENTED WITH THE FAN APERTURE UPWARD. SECURE WITH (12) 10-32 X 3/8 TH THREADED INTO THE BACK AND TOP MOTOR COVER BRACKETS ON EACH SIDE.



23) CONNECT THE CUT OFF GUIDE BAR (HD15 112.4) LOFT 7 ALONG WITH THE REAR IDLER BRACKET (HD15 192.4) LOFT 7 ORIENT THE CUT OFF GUIDE BAR WITH BREAK UPWARD AND OUTWARD, ABOVE THE MOTOR COVER BACK AND THE REAR IDLER BRACKET WITH THE EXTENDED COUNTERSINK *UPWARD*. SECURE THESE TWO PIECES INTO THE RIGHT AND LEFT REAR HOUSINGS. USE (4) 10-32 X ¾ FHMS.

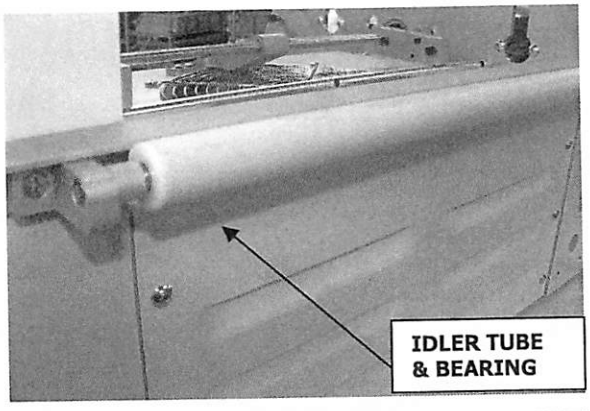


24) INSERT A 10-32 X 1¼ FHMS INTO BOTH EXTENDED COUNTERSINKS OF THE REAR IDLER BRACKET. PLACE AN IDLER TUBE SPACER (HD15 191.4) LOFT 7 ON THE INNER THREADS OF EACH FLATHEAD.

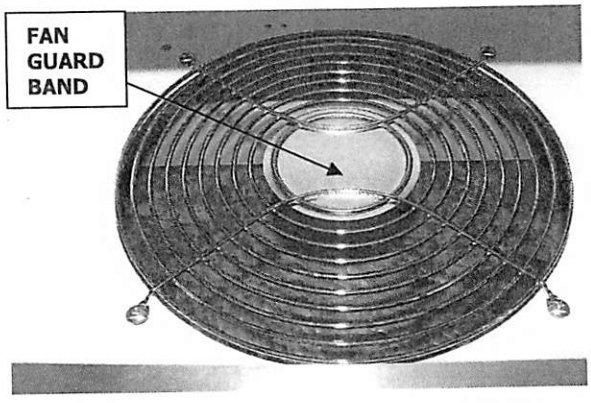


25) TAP A WHITE IDLER BEARING (LC25 009.4) LD12 INTO BOTH ENDS OF THE REAR IDLER TUBE (C15 008.4) LOFT 7. INSERT AN IDLER TUBE SHAFT (C15 011.4) LOFT 7 THROUGH THE IDLER BEARINGS.

26) SECURE THE REAR IDLER TUBE WITH SHAFT BETWEEN SPACERS BY THE IDLER TUBE BRACKETS. TIGHTEN THE 10-32 X 1¼ FHMS.



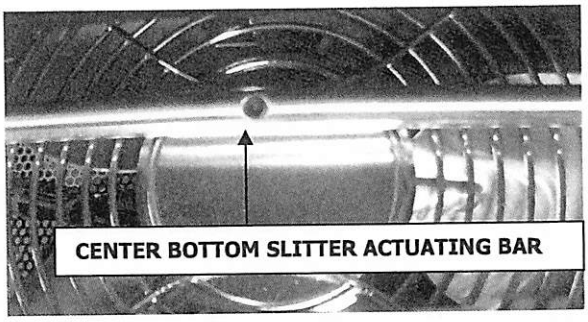
27) SECURE LARGE FAN GUARD (PRF121) AS07 TO CENTER TOP MOTOR COVER, ORIENTED SO THE RING CONNECTING BANDS DO NOT INTERFERE WITH ACTUATING BARS THAT LAY ACROSS FAN GUARD. SECURE LARGE FAN GUARD WITH (4) 8-32 X ¼ TH. ***SLIGHTLY FLATTEN GUARD INWARD.***



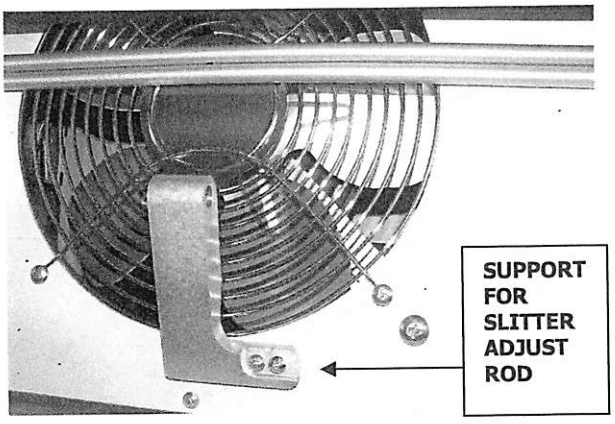
28) INSERT LONGER SLITTER ACTUATING BAR BOTTOM (HD15 184.4) LOFT 7 THROUGH SIDE PANELS ABOVE FAN

GUARD, WITH DEEPER TAPPED END THREADS BY *LEFT PANEL*. OPEN SIDE PANELS WITH "25/64" DRILL, IF NECESSARY.

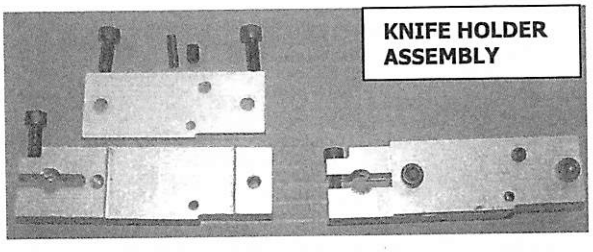
29) PLACE THE SHORTER, SLITTER ACTUATING BAR TOP (HD15 185.4) LOFT 7 OVER THE BOTTOM SLITTER ACTUATING BAR, BETWEEN THE SIDE PANELS. ORIENT THE TOP SLITTER ACTUATING BAR WITH THE (3) COUNTERBORED HOLES *UPWARD*. ALIGN ALL (3) COUNTERBORED OPENINGS WITH BOTTOM SLITTER ACTUATING BAR THREADS AND SECURE TOGETHER USING (3) 6-32 X 3/8 SHCS. TEST BACK AND FORTH MOTION OF SLITTER ACTUATING BARS IN SIDE PANEL.



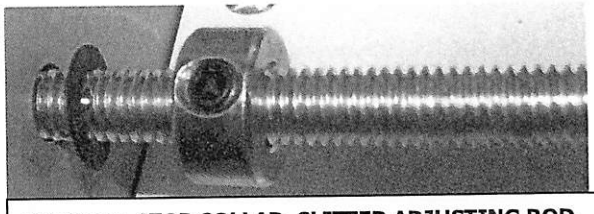
30) FROM LOFT 7 SECURE THE SUPPORT FOR SLITTER ADJUSTMENT ROD (HD15 182.4) ONTO THE TOP MOTOR COVER, ORIENTED SO THE SLITTER SUPPORT RESTS ABOVE THE FAN GUARD AND IN LINE WITH THE SLITTER ROD OPENINGS IN SIDE PANEL. USE (2) 8-32 X ½ RHMS FOR SLITTER SUPPORT.



31) GENERALLY THE KNIFE HOLDER IS ASSEMBLED AND STORED ON RACK 22. IF IT IS NOT, FOLLOW THE STEPS BELOW.

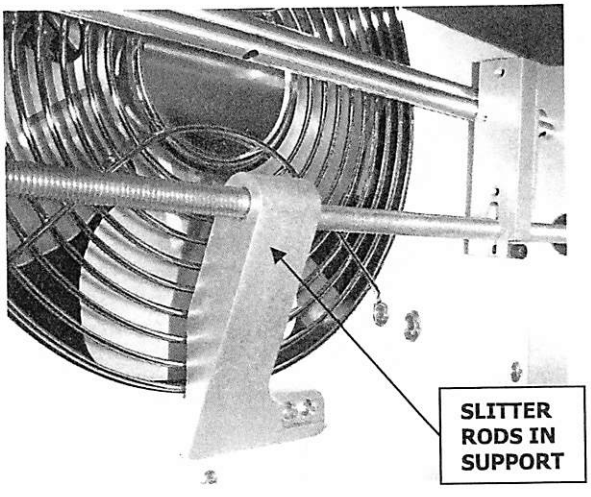


32) ASSEMBLE (2) KNIFE HOLDER AND COVER SETS (H850 186.5) RACK 22. PLACE THE KNIFE HOLDER PIECES TOGETHER AND USE (2) 10-32 X ½ SHCS TO CONNECT THE PIECES. ARBOR PRESS A 1/8 X ½ SPRING PIN INTO THE LOWER CORNER TO SECURE THE PIECES. THREAD A 10-32 X ¼ SET SCREW IN ABOVE THE SPRING PIN. PLACE AN 8-32 X ¾ SHCS IN THE TOP END OF THE KNIFE HOLDER ASSEMBLY.

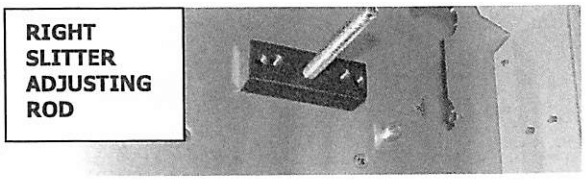


33) INSERT A THREADED HD15 SLITTER ADJUSTING ROD (HD15 183.4) LOFT 7 FROM THE LEFT SIDE PANEL, IN FRONT OF THE ACTUATING BARS AND BEHIND RECEPTACLE. FLAT END *OUTWARD*.

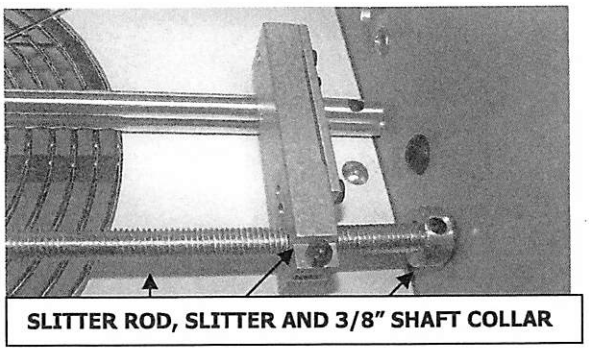
34) PLACE A 5/8 X 3/8 X 1/32 FIBER WASHER (PRW333) AS08 ON THE INNER ADJUSTMENT ROD, FLUSH TO SIDE PANEL. SLIDE ON A 3/8" SHAFT COLLAR



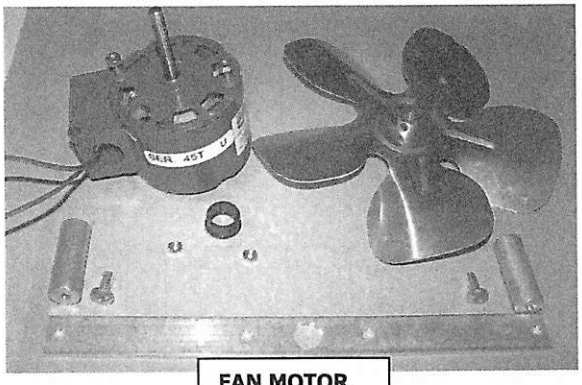
2X737 (PRC095) RACK LD03 AND THREAD ON THE KNIFE HOLDER. CONTINUE SLITTER ADJUSTING ROD HALF WAY INTO THE SLITTER CENTER SUPPORT TUBE.



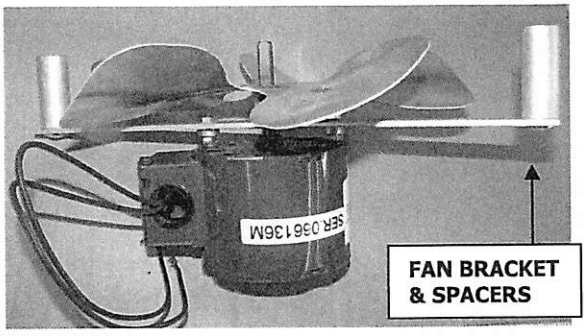
35) FROM THE <u>RIGHT SIDE PANEL</u> INSERT ANOTHER THREADED HD15 SLITTER ADJUSTMENT ROD RIGHT THROUGH THE TOP IDLER BRACKET AND SIDE PANEL. PLACE ANOTHER FIBER WASHER ON THE INNER ADJUSTING ROD, SLIDE ON ANOTHER 3/8" SHAFT COLLAR 2X737 AND THE SECOND KNIFE HOLDER. CENTER THE ENDS OF THE SLITTER ADJUSTING RODS IN THE SLITTER SUPPORT TUBE. TIGHTEN BOTH 3/8" SHAFT COLLARS BY THE SIDE PANEL. MORE ADJUSTMENT WILL FOLLOW.



36) ASSEMBLE THE HD FAN MOTOR (PRF119) AS01 AS FOLLOWS. INSERT MOTOR WIRES THROUGH THE SNAP BUSHING (PRB064) AS07 AND INSERT BUSHING INTO MOTOR WIRE HOUSING. TIGHTEN AN 8-32 KEPS HEX NUT ONTO EACH OF THE (2) MOTOR THREADS. ** ADD (3) #10 FLAT WASHERS TO ***<u>BOTH MOTOR THREADS (3) ON EACH</u>***.

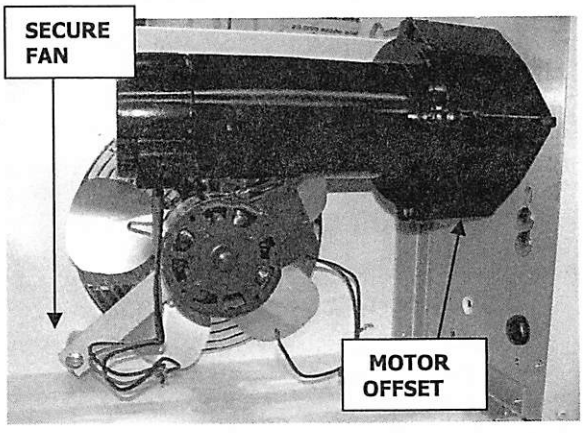


37) PLACE LOCTITE ON THE THREADS OF (2) ¼-20 X ¾ THMS AND CONNECT A FAN BRACKET STANDOFF SPACER (HD15 059.4) LOFT 7 TO BOTH ENDS OF THE HD15 FAN BRACKET (H850 057.4) RACK 21. PLACE THE MOTOR SHAFT THROUGH THE CENTER FAN BRACKET HOLE AND SECURE BRACKET TO MOTOR SHAFT WITH (2) 8-32 KEPS HEX NUTS. TIGHTEN WITH NUT DRIVER.

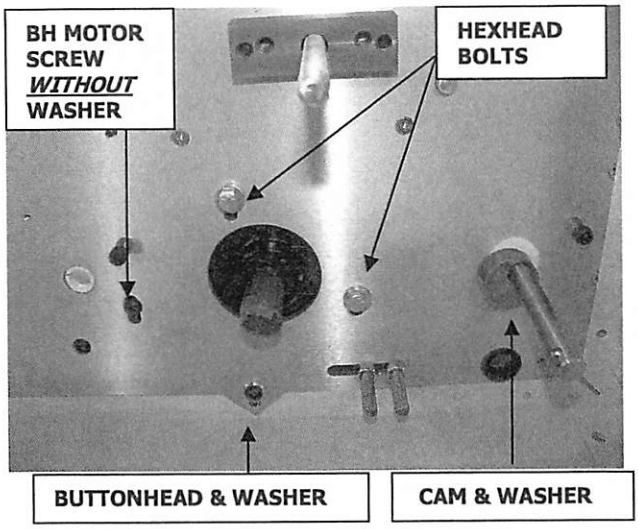


38) PLACE A BORED FAN BLADE (PRF115) RACK 22 SHAFT OVER THE FAN MOTOR SHAFT, WITH COLLAR INWARD. ALIGN FAN COLLAR SET SCREW WITH FLAT SIDE OF FAN MOTOR SHAFT. CHECK ROTATION; BLADES CANNOT TAP FAN GUARD OR BRACKET. TIGHTEN SET SCREW ON FLAT OF SHAFT.

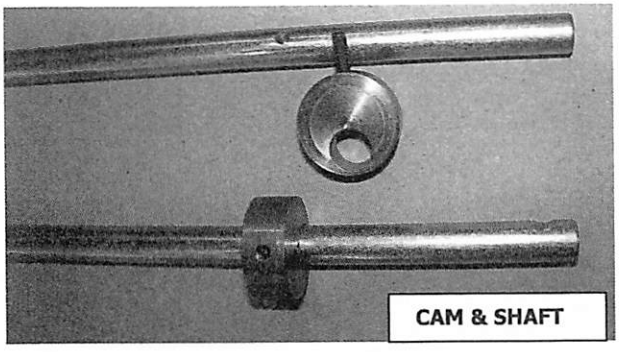
39) SECURE FAN STANDOFFS UNDER FAN GUARD THROUGH TOP COVER WITH (2) ¼-20 X ¾ TH. WIRES TO RIGHT PANEL.



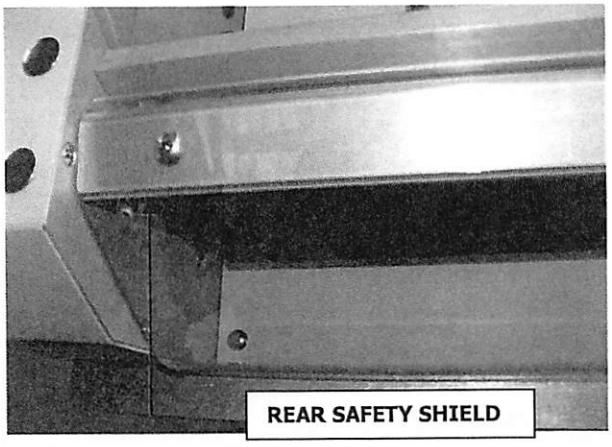
40) ALIGN THE 180V DC GEAR MOTOR (PRM2000) AS05 AT AN OFFSET ANGLE ON THE RIGHT SIDE PANEL. PLACE A ¼ X 5/8 X 1/8 FLAT WASHER ON A ¼-28 X ¾ BHSH, BUT NONE ON THE SECOND BHSH, AND ONE WILLIAMS WASHER EACH ON (2) ¼-28 X ¾ HEX HEAD. SECURE MOTOR TO SIDE PANEL WITH HEX HEAD IN TOP AND REAR CHANNEL AND BHSH ON FRONT AND BOTTOM CHANNEL. **NO WASHER IS USED BY THE FRONT CONNECTING PLATE AND WHITE NYLINER. SNUG MOTOR TO UPPER MOST POSITION IN SLOTS. RE-ADJUST MOTOR AFTER INSTALLING INNER CHAIN.



41) SECURE A CAM (H850 133.4) AS08 ONTO THE DEEPER RECESSED END OF (2) CAM SHAFTS (HD15 130.4) LOFT 7. USE A 10-32 X ¾ SET SCREW ON EACH CAM. SLIDE A TEFLON WASHER (PRW337) RACK 8 DOWN THE LONG END OF THE CAM SHAFT TO REST BETWEEN CAM AND OUTER SIDE PANEL. INSERT THE ***REAR*** CAM SHAFT FROM THE ***RIGHT SIDE PANEL***. PLACE TEFLON WASHER ON LEFT SIDE, OUTER CAM SHAFT AND SECURE WITH CAM AND 10-32 X ¾ SS. ***DO NOT*** INSERT THE FRONT CAM SHAFT YET.

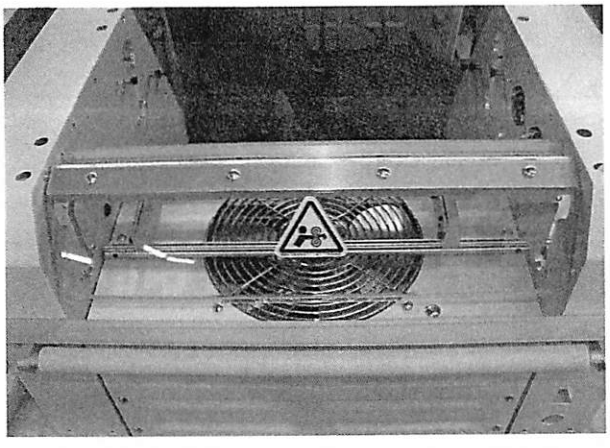


42) REMOVE THE PLASTIC COVERING ON THE INNER FRONT AND REAR SAFETY SHIELD (HD15 074.4) LOFT 7. PEEL BACK THE OUTER COVERING ALONG THE EDGE TO EXPOSE SCREW HOLES. PLACE THE SAFETY SHIELD OVER THE REAR SAFETY SHIELD MOUNTING BAR, ALIGNING THE HOLES WITH THE THREADS. SECURE THE REAR SAFETY SHIELD TO THE REAR SAFETY SHIELD BAR USING (4) 10-32 X 3/8 THMS.



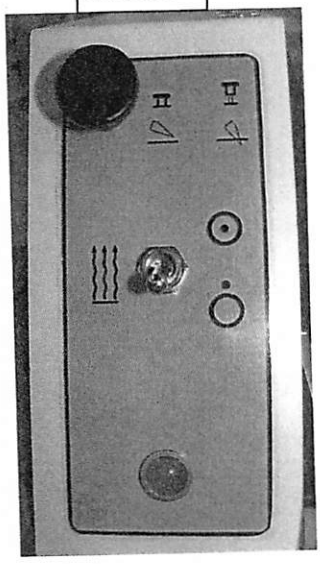
43) ADHERE AN ARM ENTANGLEMENT LABLE (LAB51) AS09 CENTERED BETWEEN SCREWS ON REAR SAFETY SHIELD.

44) FROM RACK 21 CENTER AND ADHERE GRAY HEAT AND SLITTER CONTROL LABEL (LAB139) ON UPPER FRONT LEFT HOUSING ABOVE CHROMALOX OPENINGS. ADHERE GRAY SPEED AND FOR/REV CONTROL LABEL (LAB140) BELOW DRIVE SWITCH ON RIGHT LOWER



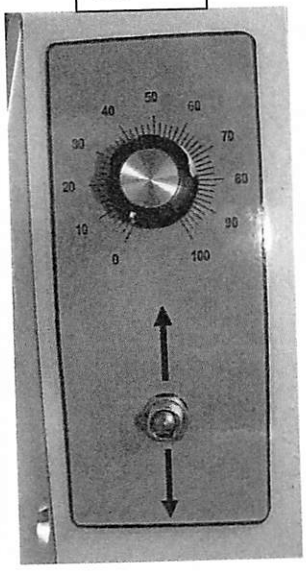
HOUSING. CENTER AND ADHERE DRIVE AND FAN CONTROL LABEL (LAB148) LOFT 7 OVER UPPER FRONT RIGHT HOUSING.

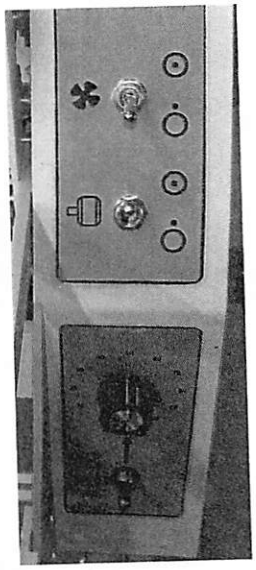
LAB139

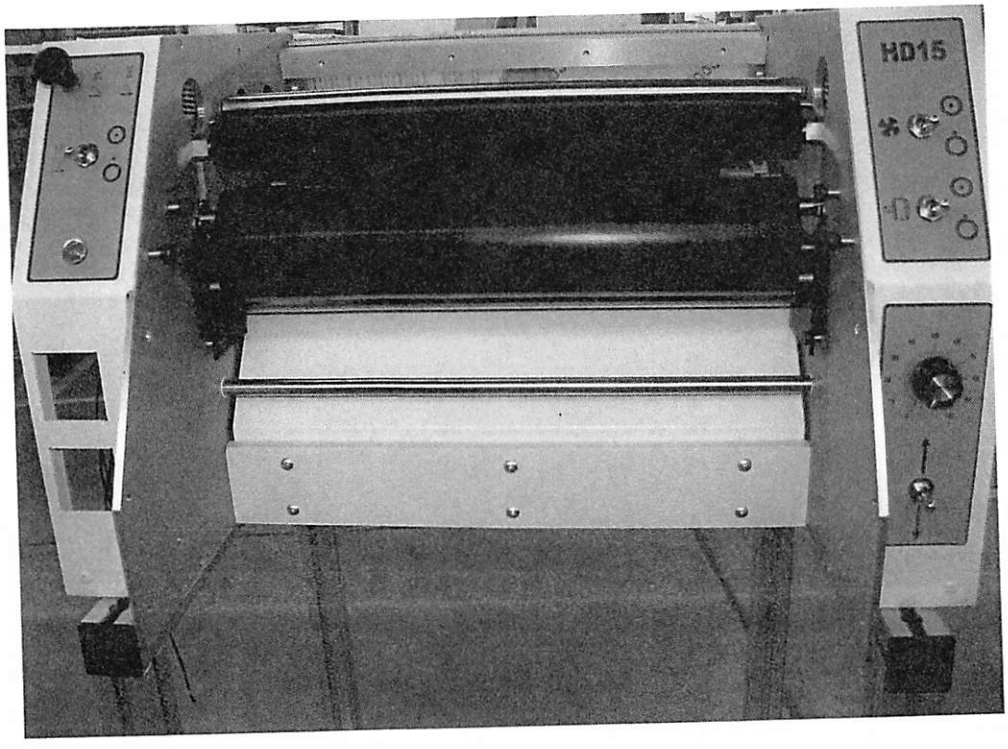


LAB148

LAB140

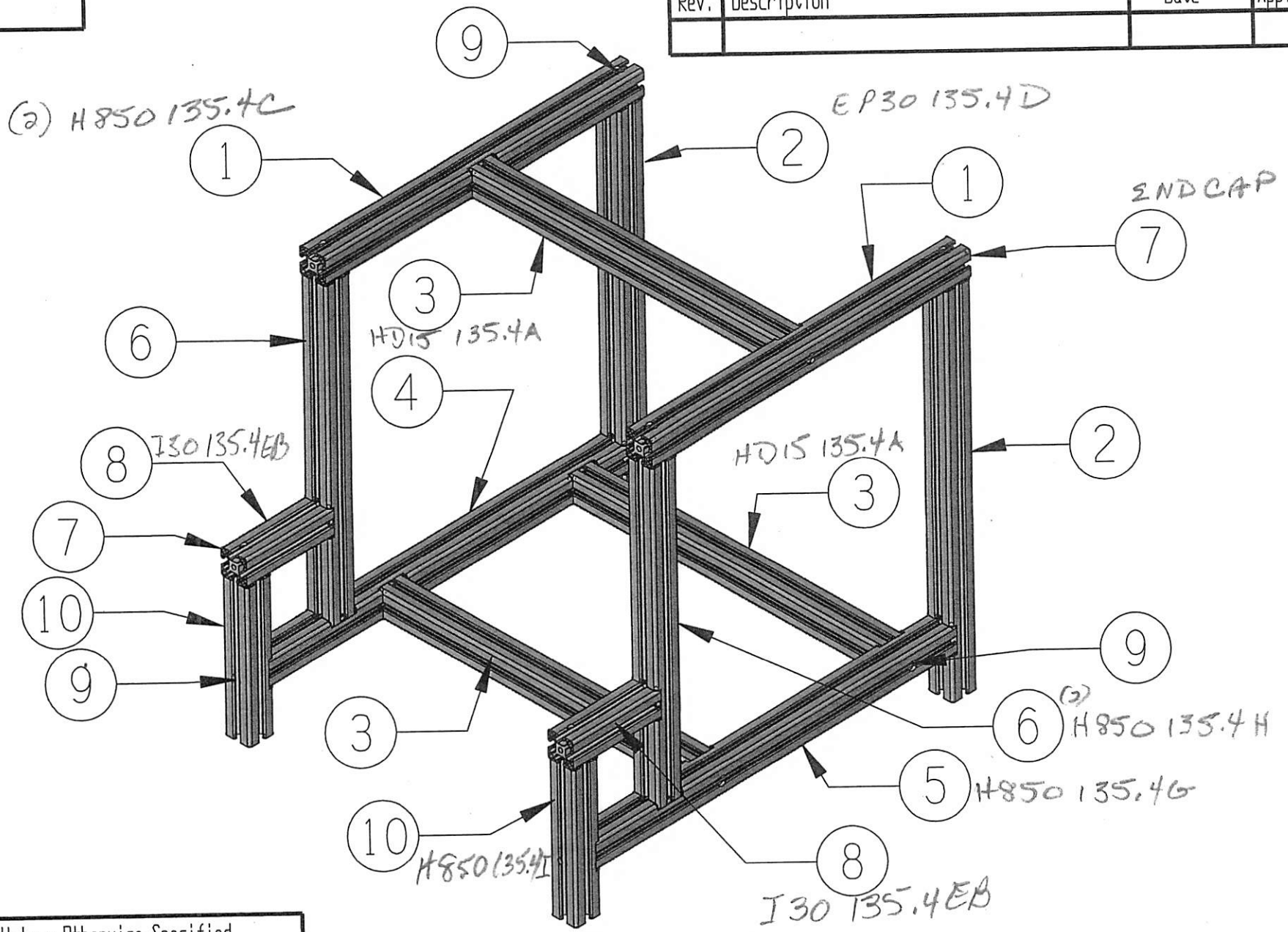






Part # HD15 135.5	Title: HD15 STAND ASSEMBLY	Date: 11/20/2014	Rev. Level:
Sheet 1 Of 2			

Rev.	Description	Date	App. By



Tolerances Unless Otherwise Specified				
Basic Dimension	UP TO 6.000	6.001 TO 24.000	ABOVE 24.000	∠ ±0° ±30'
2 Place Din.	±.005	±.010	±.031	
3 Place Din.	±.002	±.005	±.010	

Finish Specs: CLEAN STAND

LEDCO INC.

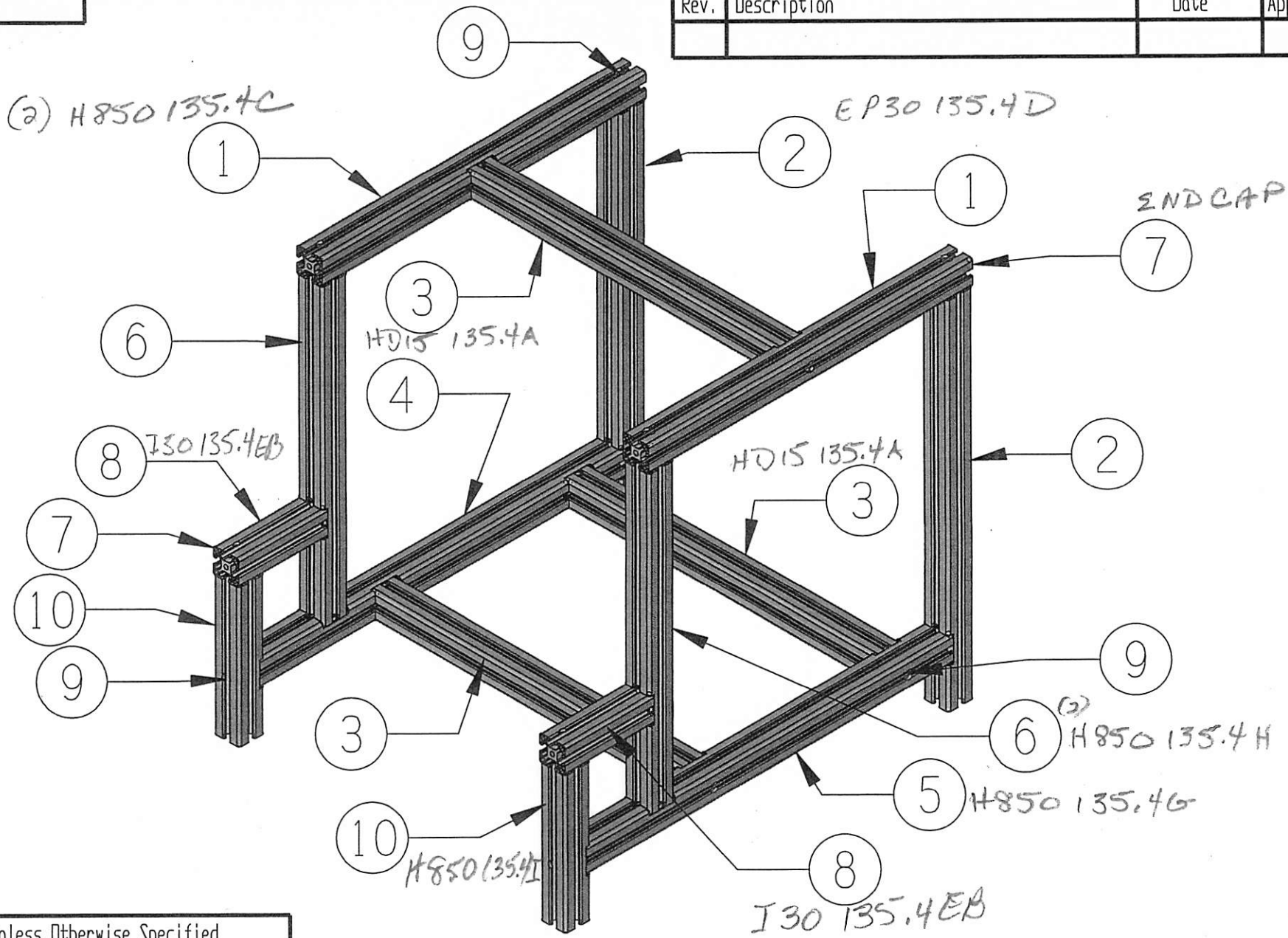
4265 N. Main St., Henlock N.Y. 14466
Ph # 585-367-2392 Fax # 585-367-2978

U/M		QTY.		WGT.		Drawn By: P.E.T.	App. By: Ron S.	Date: 11/20/2014

SEE SHEET 2

Part # HD15 135.5	Title: HD15 STAND ASSEMBLY	Date: 11/20/2014	Rev. Level:
Sheet 1 Of 2			

Rev.	Description	Date	App. By



Tolerances Unless Otherwise Specified				
Basic Dimension	UP TO 6.000	6.001 TO 24.000	ABOVE 24.000	∠ ±0° ±30'
2 Place Din.	±.005	±.010	±.031	√
3 Place Din.	±.002	±.005	±.010	

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

Material Specs: SEE SHEET 2	U/M		QTY.		WGT.		Drawn By: P.E.T.	App. By: Ron S.	Date: 11/20/2014

Part # HD15 135.5	Title: HD15 STAND ASSEMBLY	Date: 11/20/2014	Rev. Level:
Sheet 2 Of 2			

Rev.	Description	Date	App. By

#	PART #	DESCRIPTION	PCS	#	PART #	DESCRIPTION	PCS
1	H850 135.4C	TOP LEFT/RIGHT WITDH SPANNER	2	10	H850 135.4I	FRONT LEG	2
2	EP30 135.4D	BACK LEGS	2	11			
3	HD15 135.4A	TOP and BOTTOM LENGTH SPANNER	3	12			
4	H850 135.4F	BOTTOM LEFT WIDTH SPANNER	1	13			
5	H850 135.4G	BOTTOM RIGHT WIDTH SPANNER	1	14			
6	H850 135.4H	FRONT SUPPORT	2	15			
7	PRC250	EXTRUDED STAND END CAP 36414	6	16			
8	I30 135.4EB	LEG BRACE	2	17			
9	.312PAA24	5/16-18 x 1-1/2" SHCS	20	18			

Tolerances Unless Otherwise Specified				
Basic Dimension	UP TO 6.000	6.001 TO 24.000	ABOVE 24.000	∠ ±0° ±30'
2 Place Din.	±.005	±.010	±.031	√
3 Place Din.	±.002	±.005	±.010	

Finish Specs: CLEAN STAND

LEDCO INC.

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

Material Specs: SEE SHEET 2	U/M		QTY.		WGT.		Drawn By: P.E.T.	App. By: Ron S.	Date: 11/20/2014

HD15 STAND WITH LEG BRACE

1) THE HD15 EXTRUDED STAND DOES NOT USE DIAGONAL BRACES BUT DOES HAVE A FRONT SUPPORT AND LEG BRACE. ASSEMBLY OF THE HD15 STAND IS AS FOLLOWS:

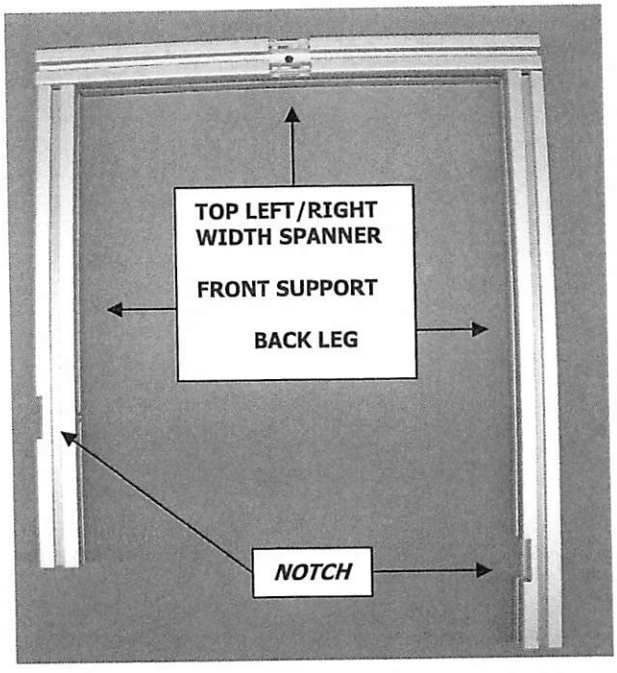
2) ALL EXTRUDED STAND PARTS ARE LOCATED IN LOFT 1 EXCEPT THE TOP/BOTTOM LENGTH SPANNER (HD15 135.4A) LOFT 7. THE HARDWARD USED IS (20) 5/16-18 X 1½ SHCS AS13.

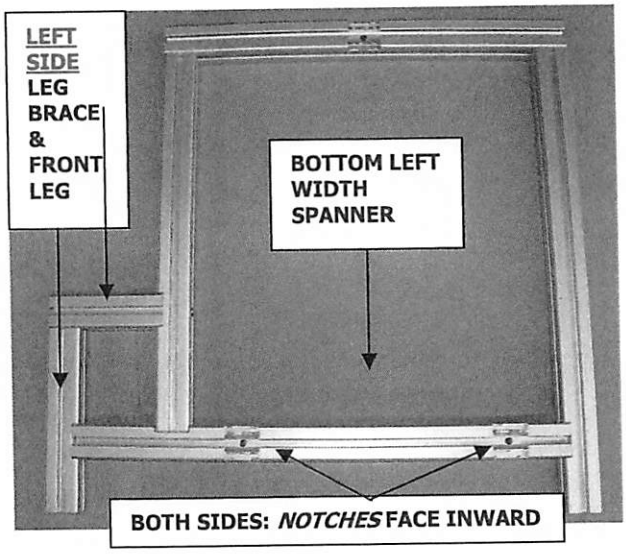
3) ASSEMBLE RIGHT AND LEFT ENDS. PLACE TOP LEFT/RIGHT WIDTH SPANNER (H850 135.4C) ON A WORKTABLE; OUTER COUNTERBORE *UPWARD*, NOTCH *INWARD*. SECURE FRONT SUPPORT (H850 135.4H) AND BACK LEG (EP30 135.4D) THROUGH TOP COUNTERBORE WITH 5/16-18 1½ SHCS. ORIENT NOTCHES FACING FRONT.

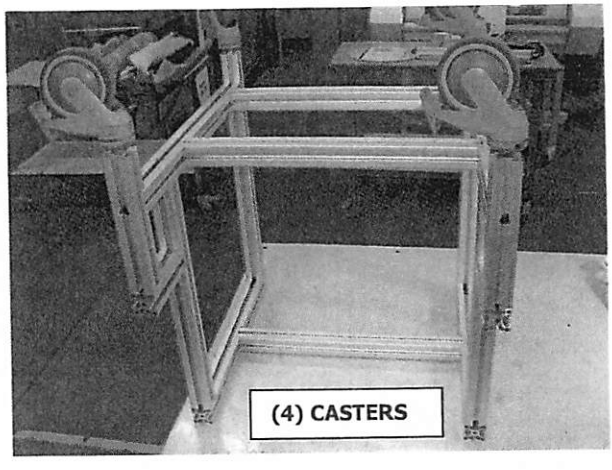
4) SECURE THE LEG BRACE (I30 135.4EB) INTO THE FRONT SUPPORT NOTCH, COUNTERBORE UPWARD, WITH 5/16-18 X 1½ SHCS. SECURE FRONT LEG (H850 135.4I) TO THE LEG BRACE, NOTCH *INWARD*, USING 5/16-18 X 1½ SHCS. SECURE BOTTOM LEFT WIDTH SPANNER (H850 135.4F) AND BOTTOM RIGHT WIDTH SPANNER (H850 135.4G) BETWEEN FRONT LEG, FRONT SUPPORT AND BACK LEG, NOTCH INWARD, USING 5/16-18 X 1½ SHCS.

5) PLACE ENDS UPSIDE DOWN ON WORKTABLE. SLIDE THE (3) TOP AND BOTTOM LENGTH SPANNERS (HD15 135.4A) LOFT 7 BETWEEN THE RIGHT AND LEFT, TOP AND BOTTOM SIDE NOTCHES. *LOOSELY* SECURE THE SIDES TOGETHER WITH 5/16-18 X 1½ SHCS. INSERTED THROUGH THE TOP WIDTH SPANNER. THEN TIGHTEN.

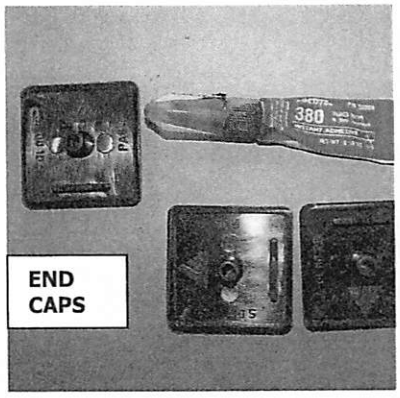
6) THREAD (4) 'IN HOUSE' CASTERS SHIPPING DEPT INTO LOWER LEGS FOR MOBILITY. PLACE STAND RIGHTSIDE UP ON FLOOR.



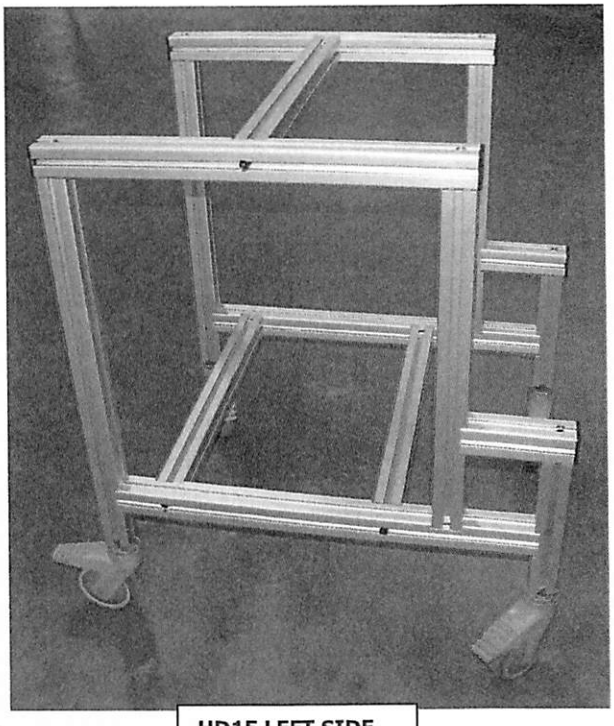




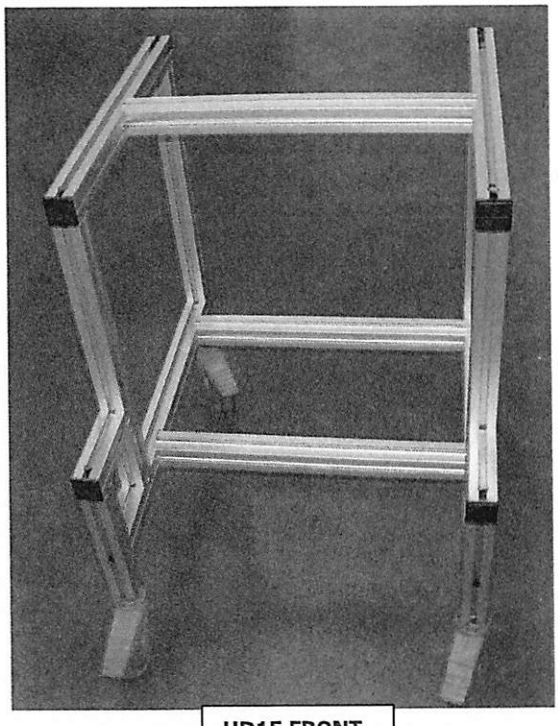
7) **PLACE A DROP OF LOCTITE BLACK 380 'INSTANT ADHESIVE' ON THE CENTER INSERT SECTION OF (6) EXTRUDED END CAPS (PRC250) AND TAP THE END CAPS INTO THE SHARP EXPOSED EXTRUSION ENDS ON FRONT AND BACK TOP WIDTH SPANNERS AND BOTH LEG BRACES. THE ADHESIVE DRIES QUICKLY.**



END CAPS



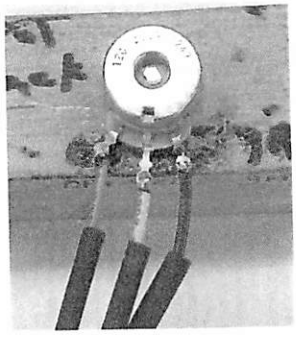
HD15 LEFT SIDE

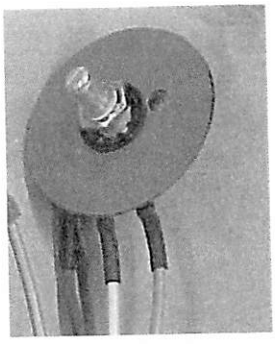


HD15 FRONT

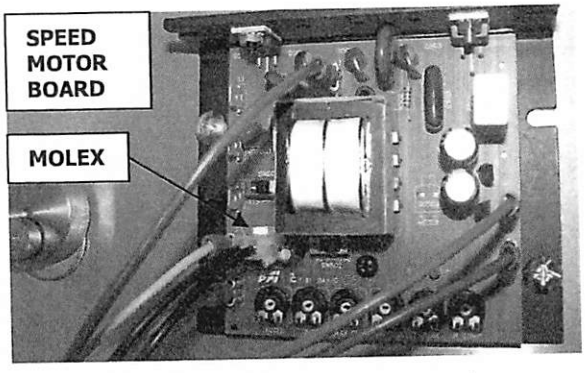
HD15 WIRING-6040 CHROMALOX

1) FROM THE WIRING HARNESS FOR HD25, (PRW364 ROHS) RACK 21 OPEN BAG 1 AND PREPARE TO SOLDER THE GRAY, YELLOW AND ORANGE WIRES. PLACE ¾" BLACK 3/16 INSULATION TUBING (PRI165) CAB1 ON EACH OF THESE WIRES. BREAK OFF AND DISCARD THE TAB ON THE POTENTIOMETER. ORIENT THE POTENTIOMETER WITH STEM FACING AWAY AND TERMINAL POSTS FACING DOWNWARD. SOLDER THE WIRES WITH THE ORANGE ON THE LEFT, YELLOW IN THE MIDDLE AND GRAY ON THE RIGHT. SLIDE THE INSULATION OVER SOLDER AND AS MUCH OF THE TERMINAL POST AS POSSIBLE. HEAT SHRINK TUBING.

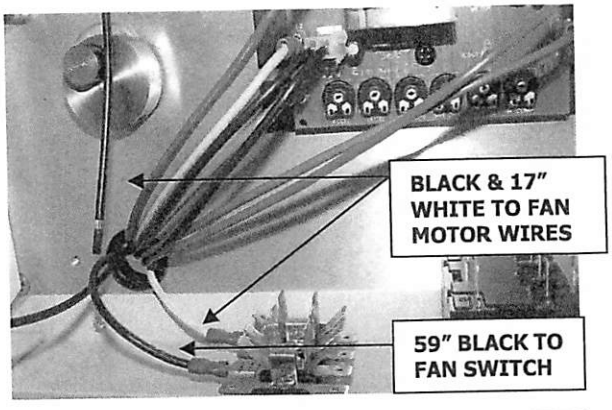




2) RUN THE FEMALE END POTENTIOMETER WIRES THROUGH RIGHT SIDE PANEL AND MOTOR COVER, EXIT THE LEFT SIDE PANEL. CONNECT THE POTENTIOMETER FEMALE WIRES TO THE ***SPEED BOARD CONTROL***: GRAY WIRE TO S1, ORANGE TO S3 AND YELLOW TO S2.



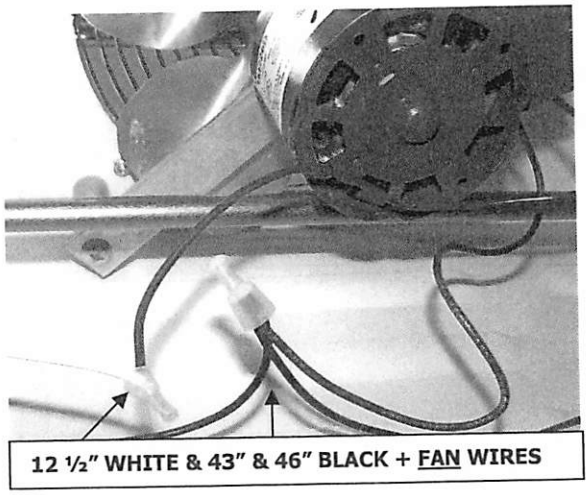
3) ***SPEED BOARD***: CONNECT 58" BROWN WIRE TO A2 AND 57" RED WIRE TO A1. THE FORKED BROWN AND RED ENDS WITH JUMPERS GO THROUGH MOTOR COVER AND CONNECT TO ***FORWARD/REVERSE SWITCH*** *LATER.*



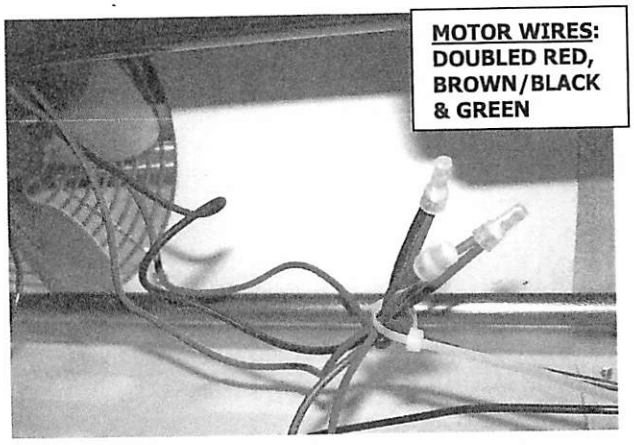
SNAP THE MOLEX CONNECTION ONTO THE SPEED CONTROL "INHIBIT." RUN THE 61" FORKED, DOUBLE BLACK WIRES THROUGH THE RIGHT SIDE PANEL. GENTLY KNOT THE MOLEX BLACK WIRES TOGETHER TO IDENTIFY FROM OTHER BLACK FORKED WIRES. THE MOLEX WIRES CONTROL THE ***DRIVE SWITCH***.

DO NOT USE FOR HDF WIRING FOLLOW WIRE DIAGRAM

5) CONNECT THE 12 ½" WHITE 18 GAUGE WIRE WITH A FEMALE AND OPEN END TO THE INNER REAR 180 DEGREE ***TERMINAL BLOCK*** POST. UNITE THE OPEN END OF THE WHITE WIRE TO EITHER ***FAN MOTOR*** WIRE, USE A CLOSED CAP CONNECTOR (PRT289).

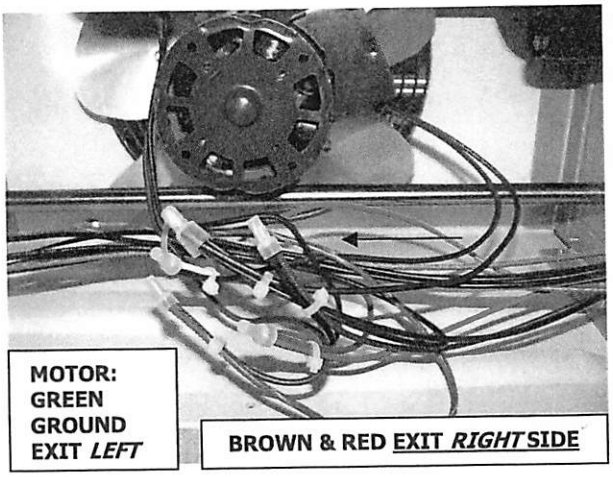


6) FROM THE LEFT SIDE PANEL INSERT ONE END OF THE 42" BLACK 18 GAUGE WIRE WITH BOTH ENDS OPEN. FROM THE RIGHT SIDE INSERT THE OPEN END OF THE 46" BLACK WIRE WITH A FORK ON THE OTHER END. USE A CLOSED CAP CONNECTOR TO UNITE THESE OPEN ENDS WITH THE REMAINING FAN MOTOR WIRE. THIS IS A ***TRIPLE*** CRIMP.

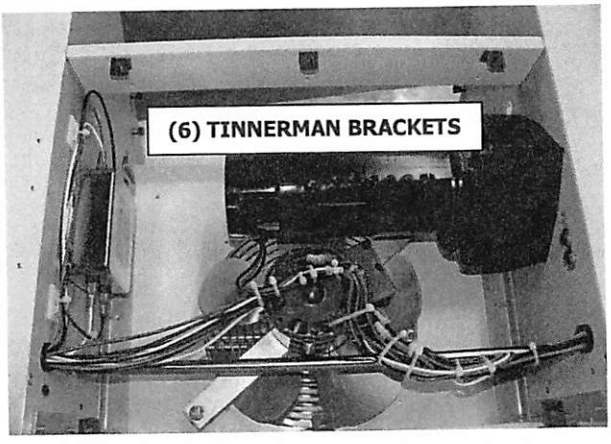


7) CONNECT 59" BLACK 18 GAUGE WITH FEMALE AND FORKED END BETWEEN OUTER REAR 180 DEGREE ***TERMINAL*** POST AND RIGHT SIDE ***FAN SWITCH***.

8) CRIMP 24" BROWN AND RED 18 GAUGE WIRE WITH FORK AND OPEN ENDS TO ***MOTOR*** WIRES: RED TO RED, BROWN TO BLACK. USE CLOSE CAP (PRT289). EXIT BROWN AND RED FORKED ENDS THROUGH RIGHT SIDE PANEL TO ***FORWARD/REVERSE SWITCH***. CRIMP 27" GREEN WITH RING AND OPEN END ONTO ***MOTOR*** GREEN. EXIT GREEN GROUND MOTOR WIRE THROUGH LEFT SIDE PANEL TO GROUND SCREW. ***AFTER*** POWER CORD GROUND WIRE AND KEPS HEX NUT, ADD A #10 STAR WASHER AND MOTOR GROUND.

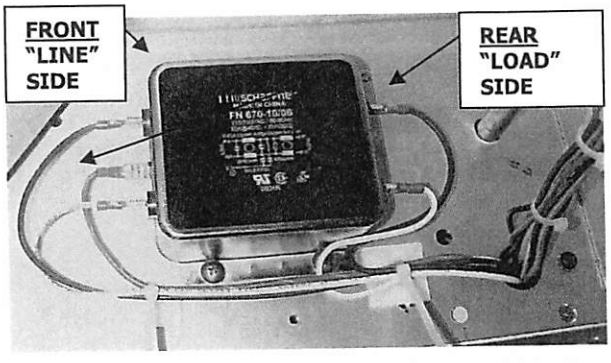


9) STRAIGHTEN WIRES FROM LEFT TO RIGHT. TIE BUNDLE TO LOWER FAN SECTION. SECURE (6) TINNERMAN BRACKETS (PRT319) LD01 TO BACK MOTOR COVER WITH 8 ½ PH SMS AND TO SPACER BAR WITH 8 X ¾ TH SMS.

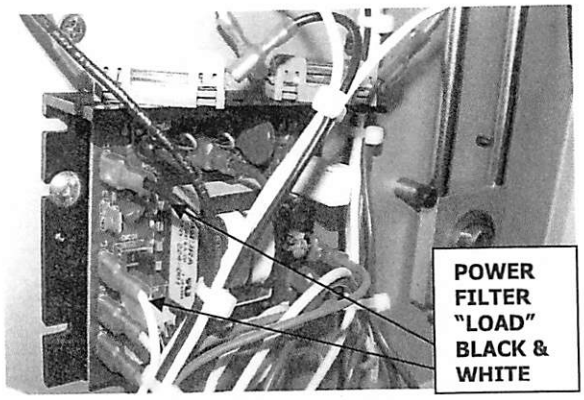


10) WIRE ***POWER FILTER***: "LINE" SIDE, UPPER FRONT POST WITH 25" BLACK 18 GAUGE CONTINUING TO REAR 3 AMP FUSE, REAR POST. "LINE" LOWER FRONT POST HAS 22" WHITE 18 GAUGE CONTINUING TO FRONT 3 AMP FUSE, REAR POST. CONNECT 16" GREEN GROUND WIRE BETWEEN POWER FILTER AND ***OUTER*** LEFT GROUND SCREW.

11) WIRE THE ***POWER FILTER***: "LOAD" SIDE, UPPER REAR POST WITH 17" BLACK 18 GAUGE CONTINUING TO SPEED BOARD L1. CONNECT "LOAD" 9 ½" WHITE WIRE BETWEEN LOWER REAR POWER FILTER POST AND SPEED BOARD L2.



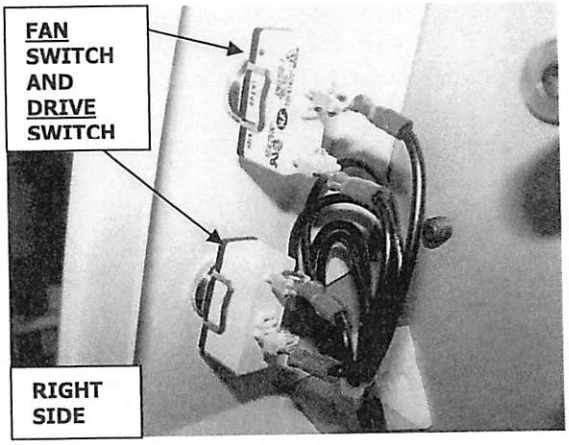
12) CONNECT A 10" WHITE WIRE BETWEEN INNER, FRONT 90 DEGREE TERMINAL BLOCK POST AND FRONT 3 AMP FUSE, FRONT POST. CONNECT A 9" BLACK WIRE BETWEEN OUTER, FRONT 90 DEGREE TERMINAL BLOCK POST AND THE REAR 3 AMP FUSE, FRONT POST.



13) THE HD15 AND HD25 USE THE SAME WIRING HARNESS. THE HD15 HAS 10" EXTRA ON SIDE-TO-SIDE WIRES. TIE EXCESS WIRE IN MOTOR COVER BY FAN.

14) ARRANGE PARTS OF (2) SWITCHES (PRS268) RACK 21. THREAD THE ROUND WASHERS ON BOTH SWITCHES.

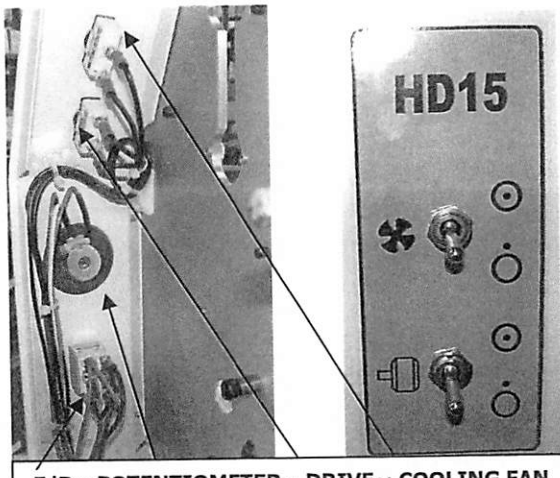
15) ON THE RIGHT SIDE CONNECT THE (2) BLACK WIRES WITH FORKED ENDS (ONE FROM THE LEFT SIDE TERMINAL BLOCK AND THE OTHER FROM THE TRIPLE FAN CONNECTION) USING SWITCH SCREWS. ORIENT THE ***COOLING FAN SWITCH*** WITH THE ***KEYWAY DOWNWARD***. THE UPPER WIRE IS IN SWITCH ***MIDDLE***, THE LOWER WIRE ON SWITCH END. INSERT INTO THE UPPER RIGHT HOUSING BY THE FAN INDICATION ON THE OUTER LABEL. ADJUST WASHER ON STEM AND SECURE SWITCH WITH THE HEX NUT ON THE OUTER HOUSING.



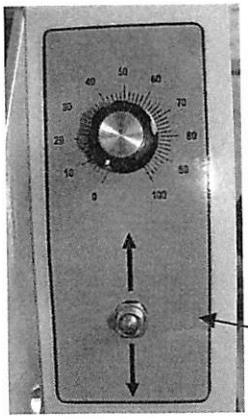
16) BELOW THE FAN SWITCH IS THE ***DRIVE SWITCH*** (PRS268). ON THE DRIVE SWITCH ORIENT THE ***KEYWAY UPWARD***, THIS WILL ACCOMMODATE THE INHIBIT SWITCH. CONNECT THE FORKED ENDS OF THE BLACK WIRES THAT WERE KNOTTED FROM THE SPEED MOTOR BOARD MOLEX INHIBIT. INSERT DRIVE SWITCH BELOW COOLING FAN SWITCH. ADJUST THE ROUND WASHER ON THE THREADS AND INSERT INTO HOUSING. SECURE WITH THE HEX NUT.

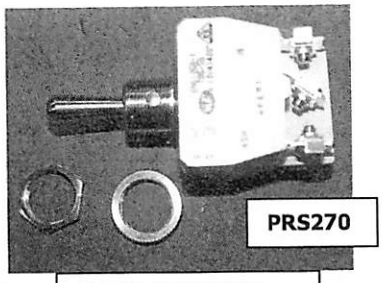
17) ARRANGE THE BLACK WIRES FROM THE DRIVE AND FAN SWITCHES WITH A COMFORTABLE LOOP TOWARD THE INNER HOUSING LIP AND DOWNWARD. DO NOT STRESS WIRES CONNECTIONS.

18) POSITION TERMINAL POSTS ON THE ***POTENTIOMETER*** UPWARD & OUTWARD. PLACE THE GRAY FIBER WASHER OVER



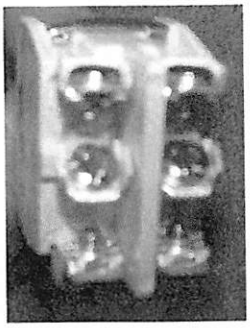
POTENTIOMETER STEM. INSERT STEM INTO THE FRONT RIGHT HOUSING BELOW THE DRIVE SWITCH. ON OUTER HOUSING, SLIDE TOOTHED WASHER OVER STEM. BEGIN THREADING HEX NUT ONTO THE STEM. HOLD POTENTIOMETER IN POSITION ON THE INNER HOUSING. TIGHTEN THE HEX NUT. ON THE OUTER HOUSING ALIGN AND SECURE A MINARIK KNOB (PRM221A) AS08. LOOP WIRES TOWARD OUTER HOUSING LIP.





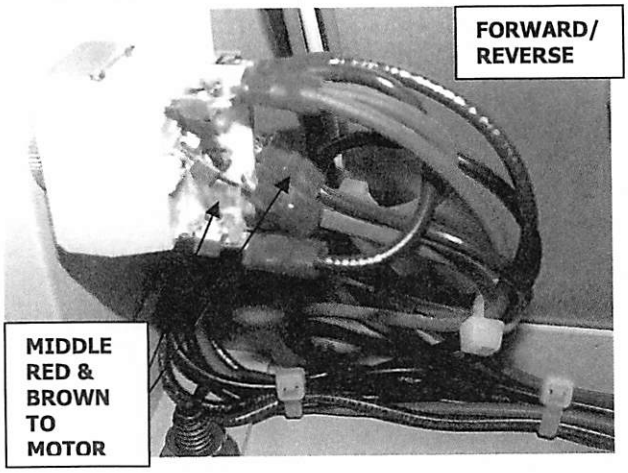
RIGHT HOUSING
PRS270 TOGGLE SWITCH FOR FORWARD/REVERSE

19) THREAD THE WASHER PROVIDED WITH FORWARD/REVERSE SWITCH (PRS270) RACK 21 ONTO THE STEM. HOLD THE FORWARD/REVERSE SWITCH WITH THE ***KEYWAY ORIENTED DOWNWARD*** AND THE TERMINAL POSTS FACING YOU.



20) USE THE RED AND BROWN ***MOTOR*** WIRES AND CONNECT THE RED RINGED WIRE TO THE MIDDLE OUTER POST AND THE BROWN RINGED WIRE TO THE MIDDLE INNER POST.

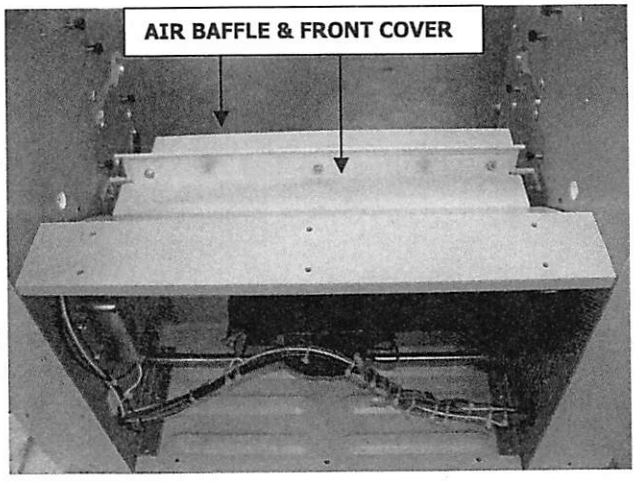
21) ON THE UPPER INSIDE POST, DOUBLE THE 2" BROWN JUMPER WIRE AND THE BROWN FROM THE ***SPEED MOTOR BOARD*** A2. DOUBLE THE 2" RED JUMPER WITH THE RED FROM THE ***SPEED MOTOR BOARD*** A1 AND CONNECT TO THE OUTER UPPER POST. THE REMAINING 2" JUMPER ENDS CONNECT TO THE LOWER DIAGONAL POSTS.



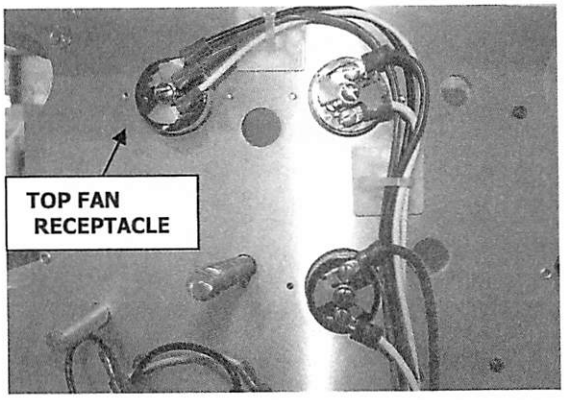
22) INSERT THE WIRED FORWARD/REVERSE SWITCH INTO HOUSING AND SECURE ON THE OUTER HOUSING WITH THE HEX NUT PROVIDED. KEYWAY DOWNWARD!

23) TIE RIGHT SIDE WIRES. USE RACEWAY.

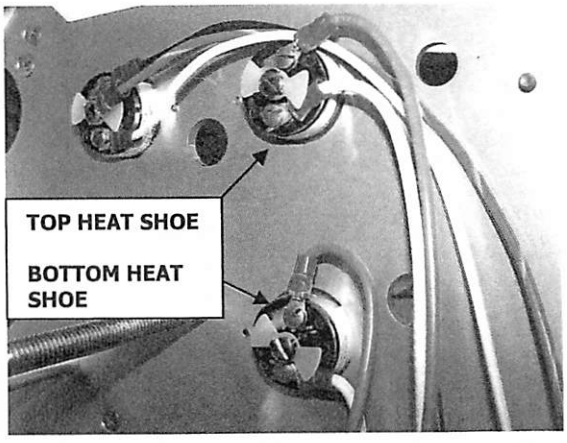
24) FROM LOFT 7 SLIDE BENT LIP OF THE FRONT MOTOR COVER (HD15 093.4) UNDER TOP MOTOR COVER, THE LOWER SECTION IS INWARD BY SPACER BAR. ALIGN HOLES INWARD ON AIR BAFFLE TOP (HD15 181.4). INSERT (3) 8-32 X ½ PHMS THROUGH AIR BAFFLE, TOP COVER AND FRONT COVER. SECURE UNDERSIDE WITH #8 KEPS HEX NUTS. SECURE LOWER FRONT COVER THROUGH UPPER SPACER BAR WITH 8-32 X ¾ TH SMS.



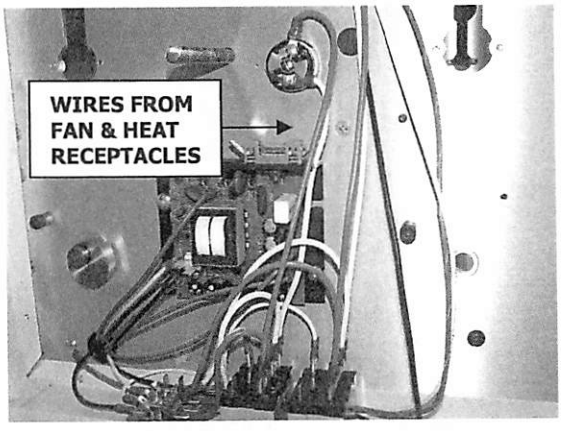
25) WIRE ***TOP FAN ASSEMBLY RECEPTICLE***. TERMINATE A 27" WHITE, 18 GAUGE WIRE WITH FEMALE AND OPEN END, TO INNER REAR 45 DEGREE TERMINAL POST. RUN THIS WHITE WIRE AND THE BLACK OPEN ENDED WIRE FROM THE TRIPLE FAN CONNECTION TOWARD THE FRONT. TRIM THE WHITE WIRE AND ADD RED FORKED CONNECTOR TO EACH.



26) REMOVE FAN RECEPTACLE CENTER SCREW, SECURE A 25" GROUND WIRE WITH #6 RING CONNECTOR (PRT276), TIGHTEN. CONNECT WHITE WIRE FROM TERMINAL POST TO BOTTOM "Y" SCREW AND BLACK WIRE FROM FAN MOTOR TO TOP "X" SCREW. ALIGN FAN RECEPTACLE WIRES DOWN THE SIDE PANEL AND ALONG INNER LIP TO REAR.

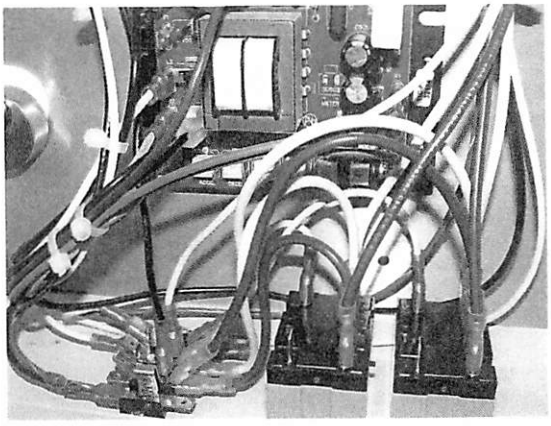


27) CONNECT THE 11" WHITE AND 12" PURPLE 14 GAUGE WIRES WITH FORKED AND FEMALE ENDS TO THE TOP HEATER RECEPTACLE. CONNECT THE 9" PURPLE AND THE 7 ½" WHITE 14 GAUGE TO THE BOTTOM HEATER RECEPTACLE. BOTTOM PURPLE CONNECTS TO REAR RELAY #2 AND TOP PURPLE CONNECTS TO FRONT RELAY #2. BOTTOM WHITE CONNECTS TO REAR RELAY #8 AND TOP WHITE CONNECTS TO FRONT RELAY #8.



28) CONNECT THE 14 GAUGE PURPLE WIRES WITH (2) FEMALE ENDS: 5" PURPLE BETWEEN REAR RELAY #4 AND OUTER MIDDLE FRONT 180 DEGREE TERMINAL BLOCK POST. CONNECT THE 8" PURPLE BETWEEN FRONT RELAY #4 AND OUTER MIDDLE FRONT 45 DEGREE TERMINAL BLOCK POST, ABOVE OTHER PURPLE.

29) CONNECT THE 14 GAUGE WHITE WIRES WITH (2) FEMALE ENDS: 7" WHITE BETWEEN REAR RELAY #6 AND INNER, FRONT/MIDDLE 180 DEGREE TERMINAL BLOCK POST. CONNECT THE 9" WHITE BETWEEN FRONT RELAY #6 AND INNER, FRONT, MIDDLE 45 DEGREE TERMINAL BLOCK POST.



30) CONNECT THE 4" WHITE 18 GAUGE WIRE WITH (2) FEMALE ENDS BETWEEN REAR RELAY #1 AND FRONT INNER 180

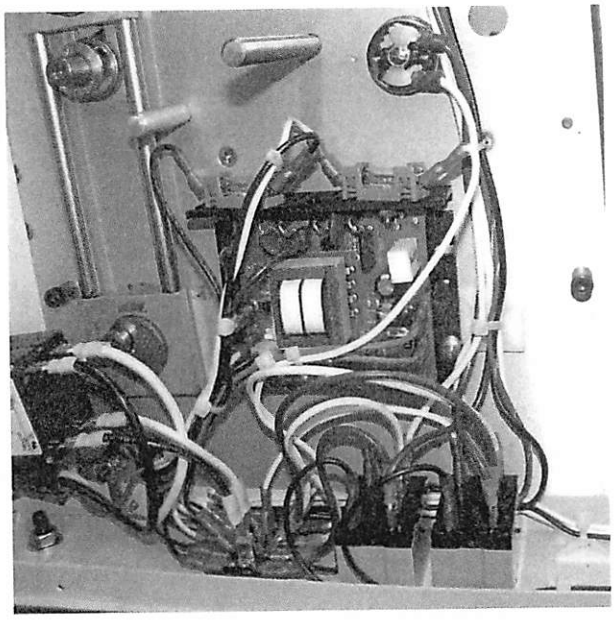
TERMINAL POST. CONNECT THE 5 ¼" WHITE 18 GAUGE WIRE BETWEEN FRONT RELAY #1 AND FRONT INNER 45 DEGREE TERMINAL POST.

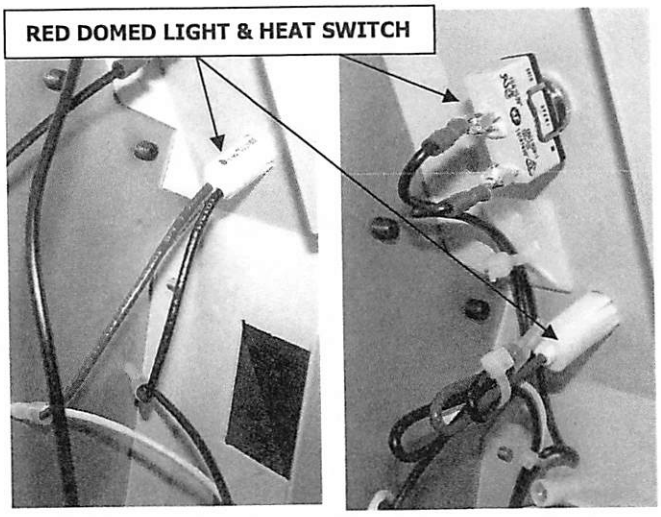
31) NEATLY COLLECT AND TIE THE FAN RECEPTACLE AND HEAT RECEPTACLE WIRES. CONTINUE GREEN GROUND FAN RECEPTACLE WIRE TO GROUND SCREW IN THE REAR HOUSING.

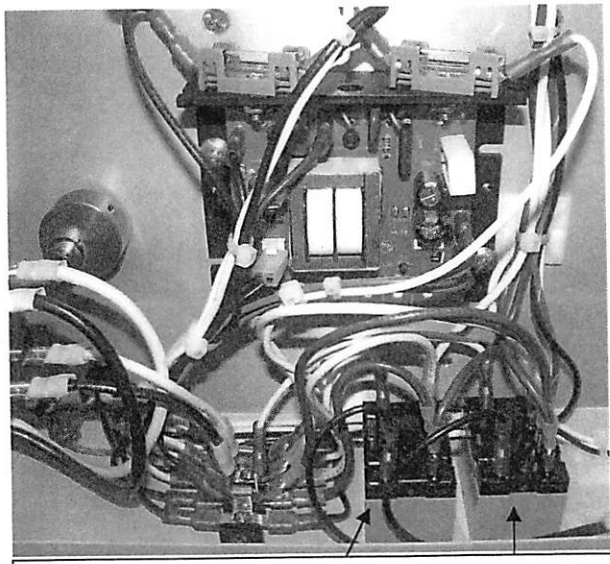
32) CONTINUE WIRING THE FRONT LEFT SIDE HOUSING. HOLD ***HEAT SWITCH*** (PRS268) RACK 21 WITH ***KEYWAY DOWNWARD.*** RUN WIRES ALONG OUTER HOUSING. CONNECT THE 27 ½" BLACK 18 GAUGE WIRE WITH A FORKED AND FEMALE END BETWEEN THE FRONT OUTER 180 DEGREE TERMINAL POST AND UPPER HEAT SWITCH TERMINAL SCREW. CONNECT A 9" FORKED AND OPEN ENDED BLACK 18 GAUGE WIRE TO THE LOWER HEAT SWITCH TERMINAL POST, USING FORKED END. INSERT HEAT SWITCH INTO HOUSING. ADJUST WASHER AND SECURE WITH HEX NUT ON OUTER HOUSING.

33) SNAP THE ***RED INDICATOR LIGHT FOR 220V*** (PRL199) LOFT 0 INTO THE FRONT LEFT HOUSING, LOCATED UNDER THE HEAT SWITCH. USE A CLOSE CAP CONNECTOR (PRT289) TO UNITE THE RED INDICATOR LIGHT WIRE WITH THE OPEN END OF A 26" 18 GAUGE WHITE HAVING A FEMALE CONNECTOR ON THE OTHER END. CONTINUE THE FEMALE END TO INNER/MIDDLE REAR 180 DEGREE TERMINAL BLOCK POST. USE A CLOSE CAP TO UNITE THE BLACK INDICATOR LIGHT WIRE WITH THE 27" BLACK WIRE WITH AN OPEN END AND FEMALE CONNECTOR. CONTINUE TO OUTER/MIDDLE REAR 180 DEGREE TERMINAL POST.

34) CONNECT THE 16" BLACK FEMALE AND OPEN ENDED 18 GAUGE WIRE TO THE FRONT RELAY #0. CONNECT THE 18" BLACK FEMALE AND OPEN ENDED WIRE TO THE REAR RELAY #0. RUN BOTH WIRES ALONG OUTER HOUSING. THEY WILL CONNECT TO THE CHROMALOX HEAT CONTROLLER.

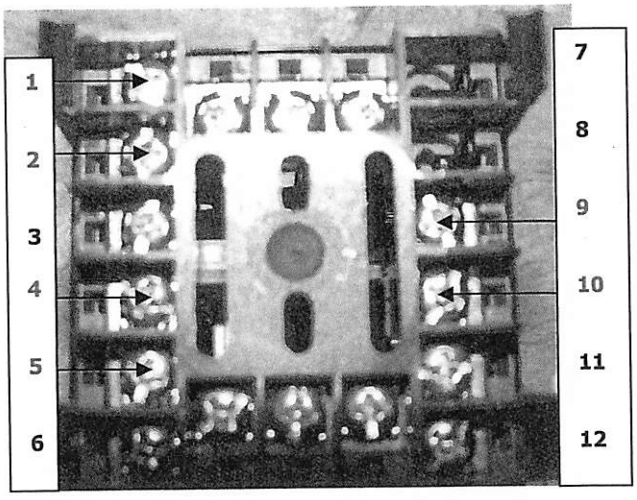




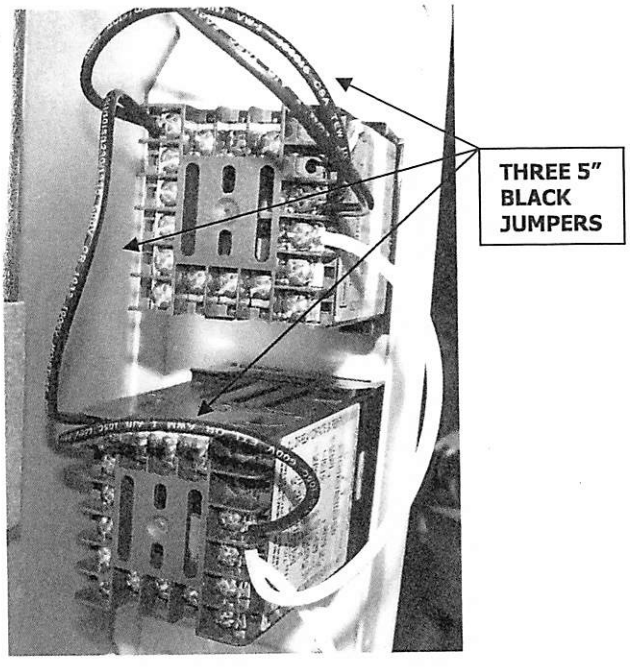


35) ********PROCEED TO THE CHASSIE COMPLETION PAGE, MOUNT TO STAND, ADD RUBBER ROLLS, CONNECTING PLATES, SPROCKETS AND CHAINS. THEN WIRE CHROMALOX.

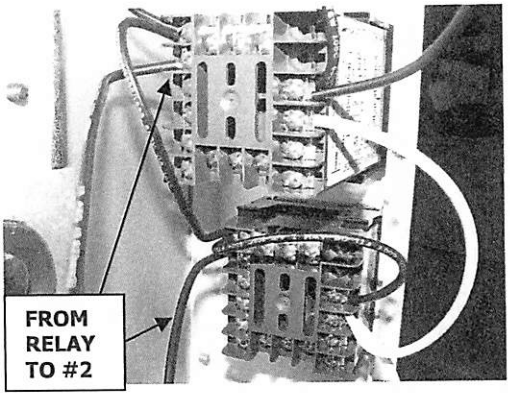
36) EACH HD15 HEATER IS CONTROLLED BY A 6040 CHROMALOX HEAT CONTROLLER (PRH1391A) AS07. WITH THE RUBBER GROMMET OVER THE CHROMALOX HOUSING ORIENT THE CHROMALOX UPRIGHT, "TOP" IS INDICATED. BEFORE INSERTING INTO LEFT HOUSING, LOOSEN ***OUTER*** 9, 10 SCREWS AND ***INNER*** 1, 2 AND 4, 5 SCREWS. INSERT BOTH CHROMALOX HEAT CONTROLLERS HALF WAY INTO THE LEFT HOUSING FRONT. ORIENT THE BROWN PLASTIC KEEPER WITH THE TEETH TOWARD SCREWS. ***AFTER WIRING*** SLIDE THE KEEPER OVER THE CHROMALOX UNTIL IT TOUCHES THE INNER HOUSING. PUSH THE KEEPER TIGHT UNTIL IT STOPS CLICKING. CHECK OUTER CHROMALOX FOR TIGHTNESS.



37) CONNECT THE 17" WHITE 18 GAUGE WIRE WITH A FEMALE AND OPEN TO THE INNER REAR 90 DEGREE TERMINAL BLOCK POST. INSERT THE OPEN END AND THE OPEN END OF A 5" WHITE JUMPER, BOTH INTO THE OUTER ***LOWER CHROMALOX*** #10. SECURE THE #10 SCREW. CONNECT THE REMAINING WHITE OPEN END OF THE JUMPER TO OUTER ***UPPER CHROMALOX*** #10 AND TIGHTEN UPPER #10 SCREW.



38) COMBINE THE OPEN ENDED 9" BLACK WIRE FROM THE HEAT SWITCH WITH A 5" BLACK OPEN ENDED JUMPER AND INSERT BOTH WIRES INTO THE UPPER CHROMALOX #9. TIGHTEN THE UPPER #9 SCREW. COMBINE THE REMAINING OPEN JUMPER END WITH ANOTHER 5" BLACK OPEN ENDED JUMPER AND CONNECT BOTH ENDS TO THE UPPER CHROMALOX #1. TIGHTEN UPPER #1 SCREW. CONNECT THE UPPER #1 OPEN JUMPER END AND THE OPEN END OF THE THIRD 5" BLACK JUMPER BOTH TO THE BOTTOM CHROMALOX #1. TIGHTEN THE BOTTOM #1 SCREW. INSERT THE BOTTOM CHROMALOX #1 JUMPER END



INTO THE BOTTOM CHROMALOX #9. TIGHTEN THE BOTTOM #9 SCREW.

39) CONNECT THE OPEN END OF THE BLACK WIRE ON FRONT RELAY #0 TO TOP CHROMALOX #2. TIGHTEN TOP #2 SCREW. CONNECT THE OPEN END OF THE BLACK WIRE ON REAR RELAY #0 TO THE BOTTOM CHROMALOX #2. TIGHTEN BOTTOM #2 SCREW.

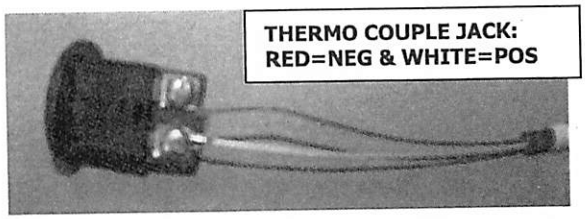
40) USE THE (2) THERMO COUPLE WIRE ENDS FROM THE HEAT SHOE; TOP=17" BOTTOM=14 ½" FOR THE (2) THERMO COUPLE JACK SOCKET (PRR230) AS08 ASSEMBLIES. THESE CONNECT TO BOTH CHROMALOX HEAT CONTROLLERS.

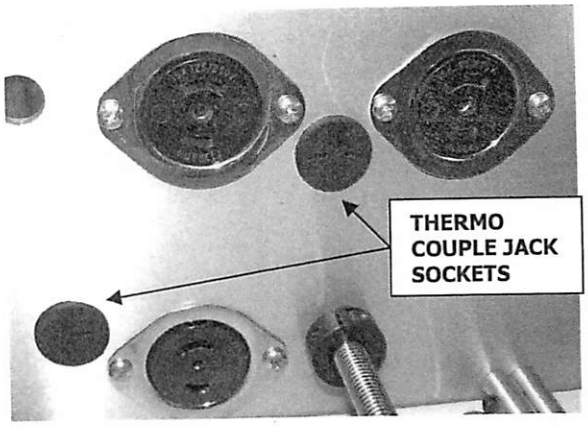
41) CONNECT THE OPEN WHITE (POSITIVE) AND OPEN RED (NEGATIVE) THERMO COUPLE WIRES TO THE THERMO COUPLE JACK SOCKET BY LOOSENING THE JACK SOCKET SCREWS AND BENDING THE EXPOSED WIRE CLOCKWISE TO HOOK ON SCREW THREADS, THEN RETIGHTEN SCREWS.

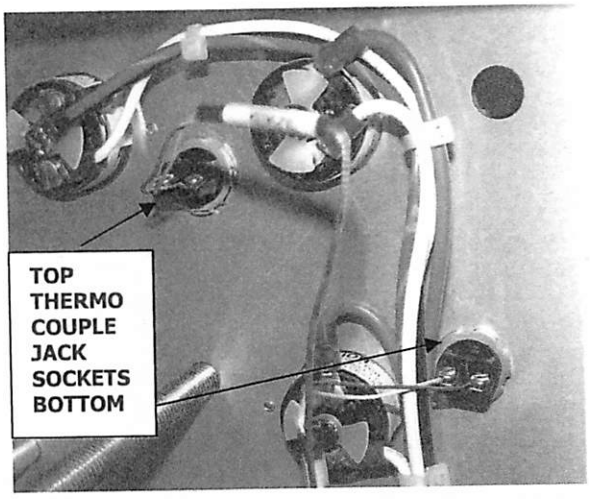
42) INSERT THERMO COUPLE WIRE AND JACK SOCKETS FROM THE INNER LEFT SIDE PANEL BETWEEN FAN AND TOP SHOE RECEPTACLE AND IN FRONT OF REAR SHOE RECEPTACLE. SLIDE THE TIGHTENING NUT OVER THE THERMO COUPLE WIRES AND THREAD ONTO JACK SOCKET. BE CERTAIN THE INNER PLUG OPENINGS ARE STRAIGHT.

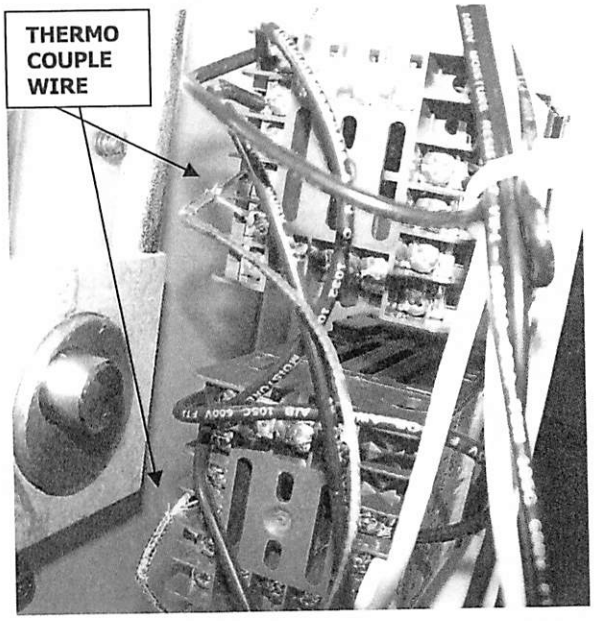
43) ALIGN THE THERMO COUPLE WIRES WITH THE FAN AND HEAT RECEPTACLE WIRES AND CONTINUE TO THE UPPER AND LOWER CHROMALOX. TRIM THERMO COUPLE IF NECESSARY AND STRIP ABOUT ½" OF THE COVERING OFF THE WHITE AND RED WIRES.

44) INSERT THE ***UPPER THERMO COUPLE*** WHITE/POSITIVE WIRE TO THE INNER ***UPPER CHROMALOX*** #5 AND RED/NEGATIVE WIRE TO #4. CONNECT THE INNER ***LOWER THERMO COUPLE*** WHITE/POSITIVE WIRES TO THE LOWER CHROMALOX #5 AND THE RED/NEGATIVE WIRE TO #4. TIGHTEN



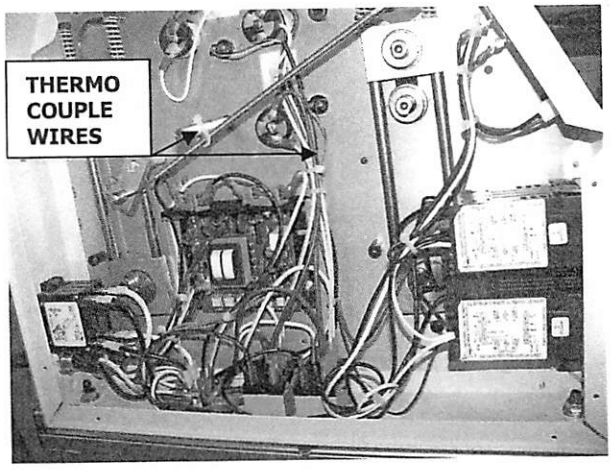






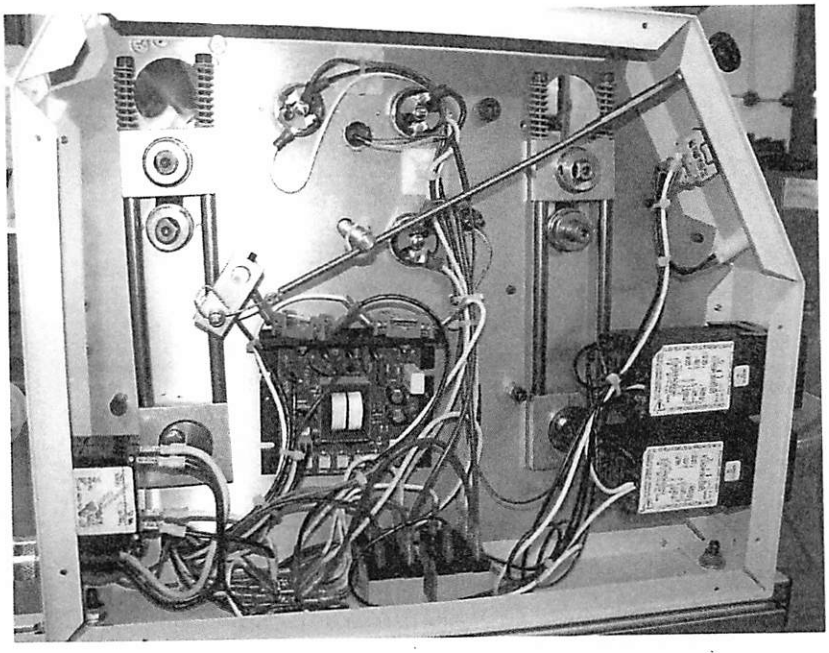
#4 AND #5 SCREWS ON BOTH CHROMALOX.

45) REPLACE AND SECURE BOTH CHROMALOX CONNECTION COVERS. TIE WIRES BEING CAREFUL NOT TO PULL ANY OF THE CONNECTIONS UNDER THE CHROMALOX SCREWS. BEND THE THERMO COUPLE WIRES TOWARD THE RELAYS AND THEN UPWARD WITH OTHER HARNESS WIRES.

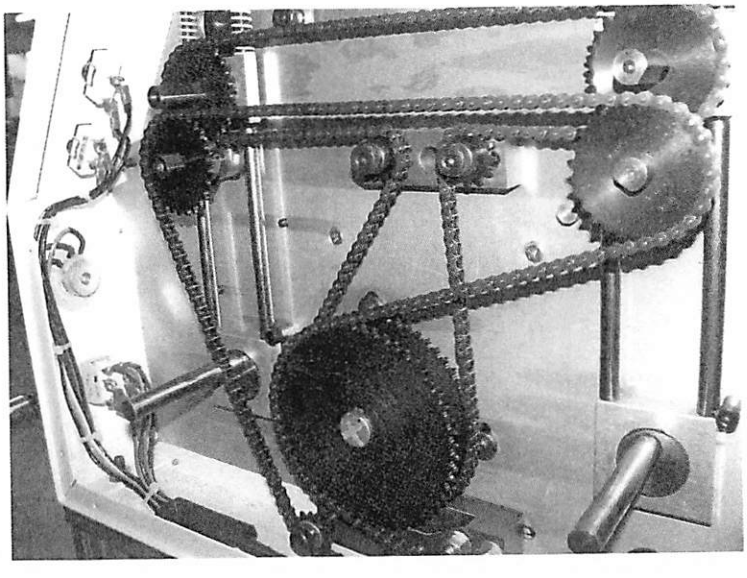


46) THE POWER CORD AND 20 AMP BREAKER CANNOT BE INSTALLED UNTIL ***AFTER*** THE CONNECTING PLATES ARE ADJUSTED. RETURN TO CHASSIS SECTION.

HD15
LEFT
SIDE
WIRING



HD15
RIGHT
SIDE
WIRING



HD15 CHASSIS COMPLETION

1) AFTER INTERNAL WIRING AND TYING, BUT BEFORE PLACING THE CHASSIS ON A STAND, BE CERTAIN THE (6) TINNERMAN BRACKETS ARE SECURED TO THE SPACER BAR IN FRONT AND THE BACK MOTOR COVER IN THE REAR. THE TINNERMAN BRACKET BREAK SHOULD BE DOWNWARD.

2) *****UNLIKE THE HD25, THE HD15 BOTTOM MOTOR COVER IS NOT PLACED ON THE CHASSIE UNTIL THE MACHINE IS ON THE STAND. THE CHAIN ADJUSTOR HAS A DIFFERENT DESIGN ON THE HD15, TO ACCOMMODATE THE LARGER MOTOR SPROCKETS. THEREFORE, ACCESS TO THE INNER CARRIAGE BOLTS MAY BE NECESSARY FOR CHAIN ADJUSTER MOVEMENT.

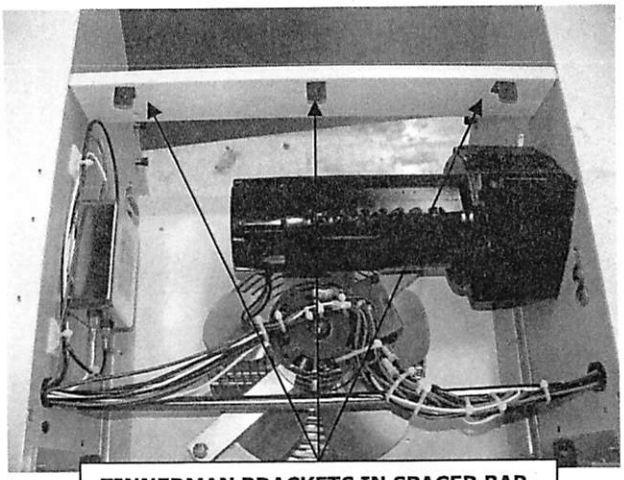
HD15 094.4

2) WHEN PREPARING TO SECURE THE BOTTOM MOTOR COVER, SLIDE THE BOTTOM COVER BETWEEN THE SIDE PANELS FROM THE FRONT AND OVER THE LENTGH SPANNER. ALIGN THE (6) CHANNELLED SLOTS WITH THE TINNERMAN BRACKETS. THE BOTTOM COVER FITS INSIDE THE SPACER BAR AND BACK COVER. HOLD THE BOTTOM COVER UPWARD AND SECURE.

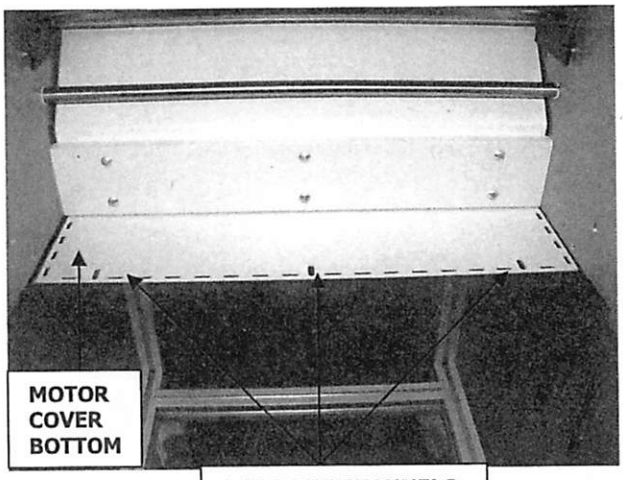
3) FROM THE RIGHT SIDE PANEL, INSERT THE FRONT CAM SHAFT WITH CAM AND NYLON WASHER ON THE DEEPER RECESS SIDE, THROUGH NYLINERS. THE RIGHT SIDE CAM SHAFT PROTRUDES FURTHER THAN THE LEFT. ON LEFT SIDE ADD ANOTHER NYLON WASHER TO CAM SHAFT AND SECURE WITH A CAM USING A 10-32 X ¾ SET SCREW INTO SHAFT OPENING.

4) TEST CAM SHAFT MOVEMENT.

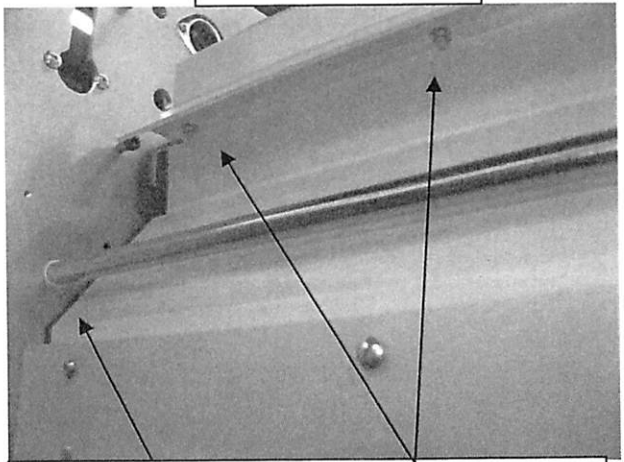
5) MOUNT THE CHASSIE TO THE STAND, ALIGNING HOUSING OPENINGS WITH STAND HOLES.



TINNERMAN BRACKETS IN SPACER BAR



(3) FRONT CHANNELS



NYLINER & FRONT CAM SHAFT, BAFFLE KEPS NUT

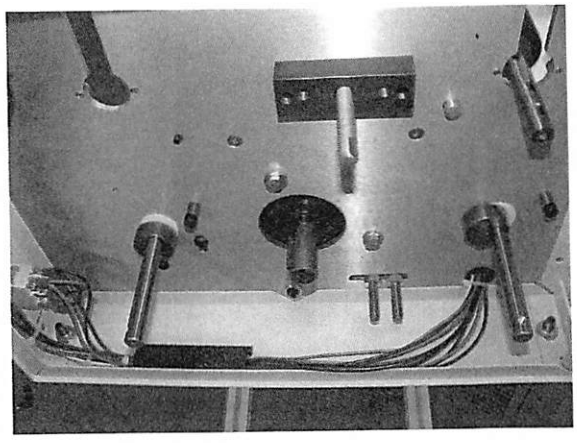
HD15 MOUNTING TO STAND

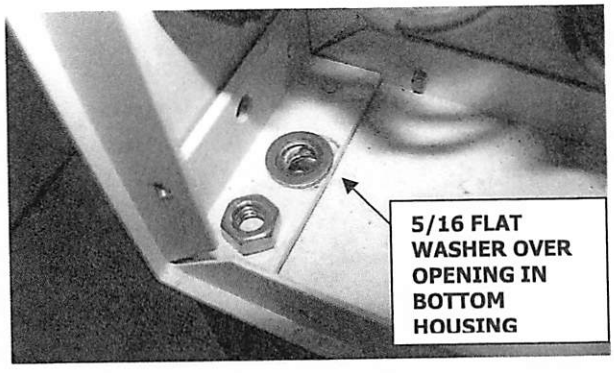
1) ORIENTED WITH THE FRONT OF THE CHASSIS WITH THE FRONT OF THE HD15 STAND. ALIGN THE (4) HOUSING OPENINGS OVER THE (4) STAND OPENINGS.

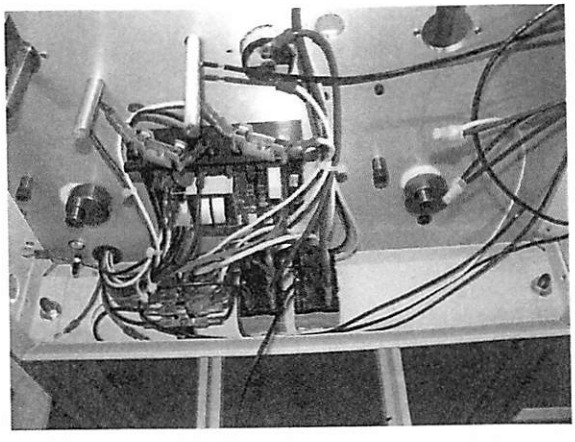
2) INSERT A 5/16-18 X 2 SHCS INTO THE COUNTERBORED UNDERSIDE OPENING AND THROUGH THE BOTTOM HOUSING.

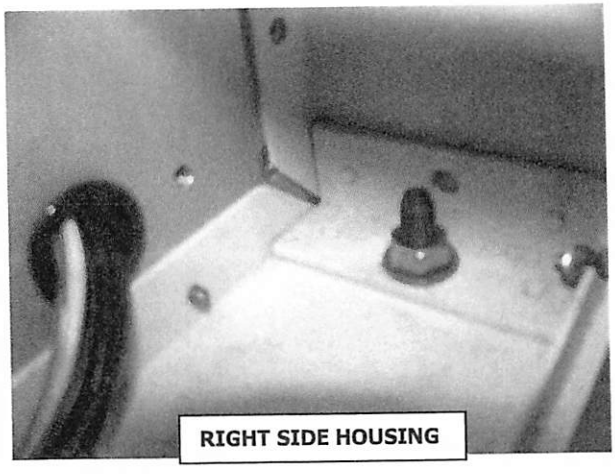
3) ON INNER BOTTOM HOUSING ADD A 5/16 FLAT WASHER. BEGIN THREADING A 5/16-18 HEX NUT ONTO THE SHCS.

4) DO NOT TIGHTEN HEX NUTS UNTIL ALL (4) SIDES ARE THREADED.









6) PLACE BOTTOM FRONT AND REAR HD15 RUBBER ROLLS (HD15 040.4) LOFT 7 BETWEEN SIDE PANELS ORIENTED WITH THE *KEYWAYS ON THE RIGHT* SIDE.

7) SLIDE (4) 8ZZ BALL BEARINGS (PRB038) RACK 21 ONE EACH OVER BOTH SIDES OF THE LOWER RUBBER ROLL JOURNALS AND PRESS THEM INTO THE SIDE PANELS AGAINST THE 10-32 X ¼ TH.

8) CENTER THE BOTTOM RUBBER ROLLS BETWEEN THE SIDE PANELS. FROM THE OUTER SIDE PANEL SLIDE A ½ SHAFT COLLARS (PRC096) AS07, ONTO EACH JOURNAL AND SNUG THE STOP COLLAR TO BALL BEARINGS. SECURE STOP COLLAR ON FLAT OF JOURNAL, OPPOSITE KEYWAY ON RIGHT SIDE. THE BOTTOM RUBBER ROLLS SHOULD BE SECURE AND NOT SLIDE BACK AND FORTH BETWEEN SIDE PANELS. USE THE PLUG HOLES IN THE UPPER HOUSINGS TO REACH SHAFT COLLARS.

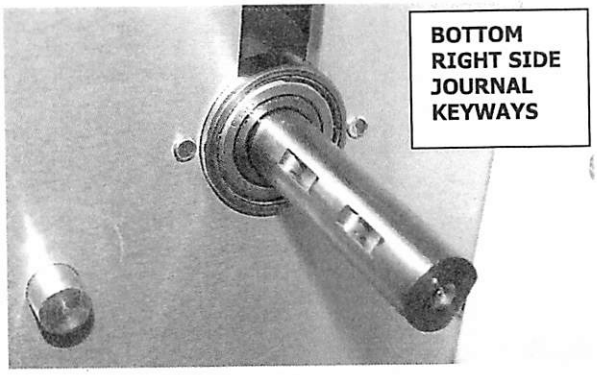
9) PLACE THE UPPER RUBBER ROLLS BETWEEN SIDE PANELS, AGAIN WITH THE KEYWAYS ON THE RIGHT SIDE.

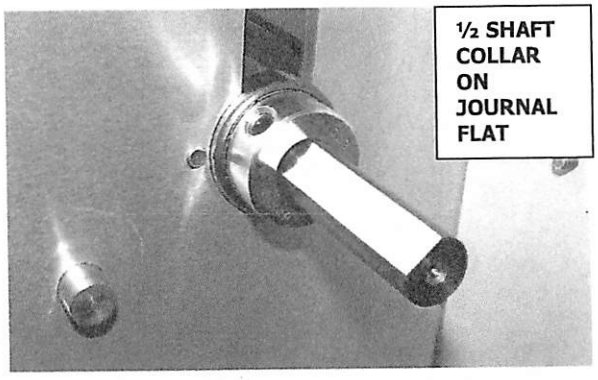
10) SLIDE A WORKED OILITE BEARING (PRB039) RACK 21 OVER EACH OF THE UPPER RUBBER ROLL JOURNALS, ORIENTED WITH THE <u>FLANGE OUTWARD</u>. THE FLAT SIDES OF THE OILITE BEARINGS FIT INTO SIDE PANELS.

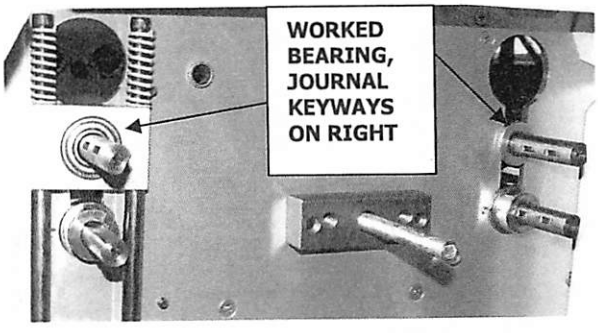
11) FROM INNER PANELS TAP (2) OILITE BEARINGS (PRB046) RACK 21 <u>FLANGE INWARD</u> BEHIND FRONT RUBBER ROLLS.

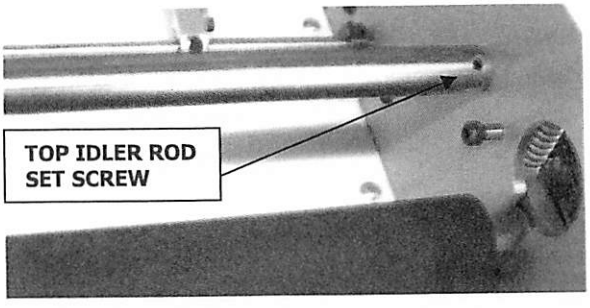
12) INSERT A 10-32 X ¼ SET SCREW INTO THE <u>RIGHT SIDE</u> OF THE HD15 TOP IDLER ROD (HD15 053.4) LOFT 7 AND SECURE TOP IDLER ROD BETWEEN OILITE BEARINGS WITH (2) 3/8 X ½ SHOULDER BOLTS FROM OUTER PANEL.

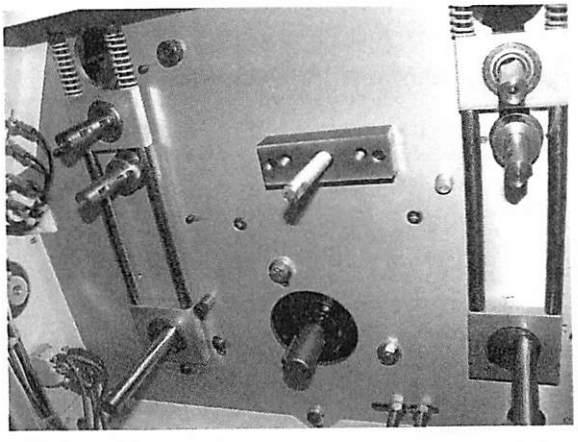
13) BRUSH LOCTITE ANTI-SEIZE ONTO THE CIRCUMFERENCE OF ALL (4) CAMS AND LOWER CONNECTING PLATES. ORIENT CONNECTING PLATES WITH ***<u>ROLLER BEARING FLUSH SIDE INWARD</u>***. SLIDE CONNECTING PLATES OVER UPPER RUBBER ROLL JOURNALS AND LOWER CAMS.





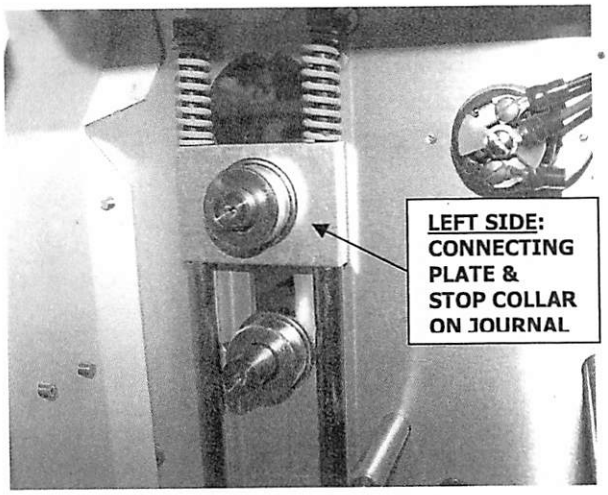






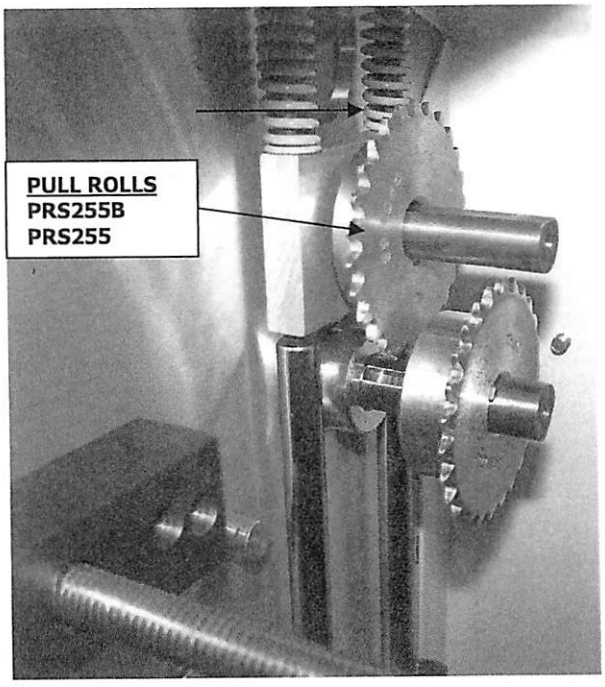
14) FOR PURPOSES OF ADJUSTMENT AND LATER TESTING, SECURE (2) BLACK CAM SHAFT HANDLES (PRH140) AS07 ONTO THE RIGHT SIDE CAM SHAFT. USE A ¼-20 X 3/8 SET SCREW IN EACH HANDLE.

15) RAISE AND LOCK THE TOP RUBBER ROLLS. ALIGN THE TOP AND BOTTOM RUBBER ROLLS. ON THE ***LEFT SIDE ONLY*** SNUG THE CONNECTING PLATES NEXT TO OILITE BEARING ON THE TOP JOURNAL AND THE CAM ON BOTTOM. SECURE BOTH LEFT TOP CONNECTING PLATES WITH A ½" SHAFT COLLAR (PRC096) AS07 ON JOURNAL FLAT.



16) ON THE RIGHT SIDE TURN KEYWAYS UP AND INWARD ON ALL FOUR JOURNALS. TAP A #3 WOODRUFF KEY (MI103 KEY) AS13 INTO THE INNER TOP RUBBER ROLL KEYWAYS.

17) THREAD A ¼-28 X ½ SET SCREW INTO EACH SPROCKET USED. WITH THE HUB FACING *INWARD*, SLIDE A 25B26 ½" BORE FACED SPROCKET (PRS255B) RACK 21 ONTO THE TOP REAR PULL ROLL JOURNAL OVER THE KEY. SNUG TO CONNECTING PLATE, USE PLUG HOLES.

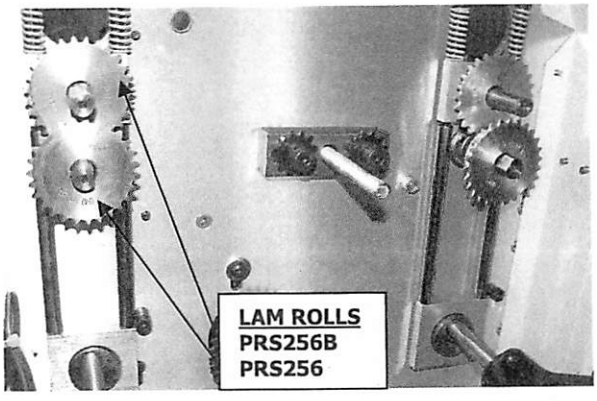


18) WITH HUB FACING *INWARD*, SLIDE A 25B27 ½" BORE FACED SPROCKET (PRS256B) RACK 21 ONTO TOP FRONT LAMINATING ROLL JOURNAL OVER KEY, SNUG WITH CONNECTING PLATE.

19) TAP A #3 WOODRUFF KEY (MI103) AS13 INTO BOTH OUTER RIGHT SIDE BOTTOM RUBBER ROLL KEYWAYS.

20) WITH THE HUB FACING *INWARD*, SLIDE A 25B26 ½" BORE SPROCKET (PRS255) RACK 21 ONTO THE BOTTOM PULL ROLL, OVER KEY. DO NOT TIGHTEN.

21) WITH HUB FACING *INWARD*, SLIDE A 25B27 ½" BORE SPROCKET (PRS256) RACK 21 ONTO THE BOTTOM LAMINATING ROLL, OVER KEY. DO NOT TIGHTEN.



22) PLACE (2) 25B12 ½" BORE SPROCKETS WITH BEARINGS (PRS245A.5) RACK 21 EACH ON A 3/8 X 5/8 SHOULDER BOLT, HUB *OUTWARD*, TEETH INWARD. THREAD THE SHOULDER BOLTS INTO THE INNER HOLES OF THE TOP IDLER BRACKET. TIGHTEN, THE SPROCKETS SHOULD MOVE FREELY.

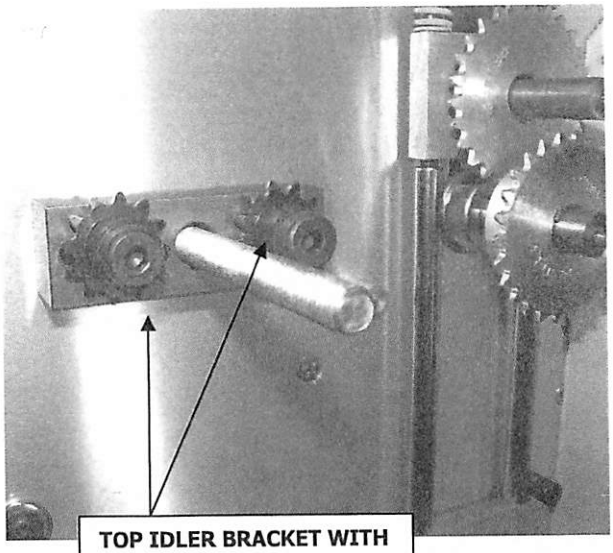
23) ALIGN MOTOR KEYWAY UPWARD. ONE END OF THE MOTOR KEY CAN BE ROUNDED SO IT SLIDES FULLY INTO KEYWAY, AS (2) SPROCKETS WILL BE USED ON THE MOTOR SHAFT.

24) SLIDE A 25B54 ¾" BORE SPROCKET (PRS285B) RACK 16 WITH A ¼-28 X ½ SET SCREW HUB INWARD ONTO MOTOR SHAFT OVER MOTOR KEY. MEASURE AND ALIGN THE INNER MOTOR SPROCKET TEETH WITH THE TOP CONNECTING PLATE SPROCKET TEETH AND IDLER SPROCKET TEETH. TIGHTEN SET SCREW ON MOTOR KEY.

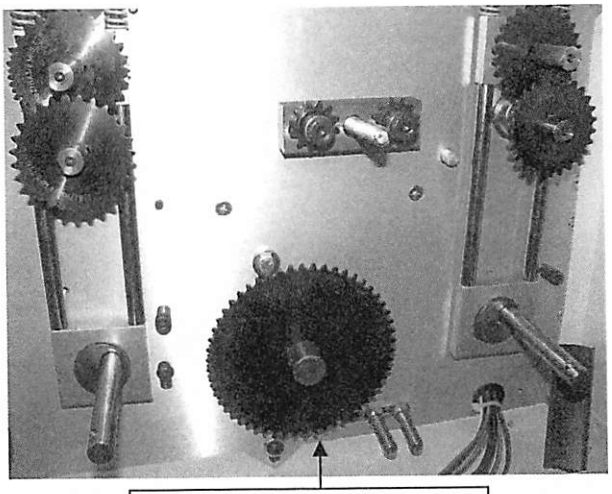
25) PLACE THE LONGER, PRECUT INNER #25 CHAIN (44" INCLUDING CONNECTING LINK) OVER THE TOP SPROCKETS, THREAD ONTO INSIDE OF THE TWO IDLER SPROCKETS AND AROUND THE INNER MOTOR SPROCKET. CONNECT THE CHAIN WITH A #25 CONNECTING LINK (PRC084) AS07.

26) TIGHTEN THE INNER CHAIN BY LOOSENING THE (4) MOTOR SCREWS AND LETTING THE WEIGHT OF THE MOTOR SNUG CHAIN. USE A WRENCH ON HEX HEAD BOLTS AND A TEE HANDLE ON BUTTONHEAD SCREWS. THE CHAIN SHOULD BE TIGHT WITH SOME GIVE AT THE TOP.

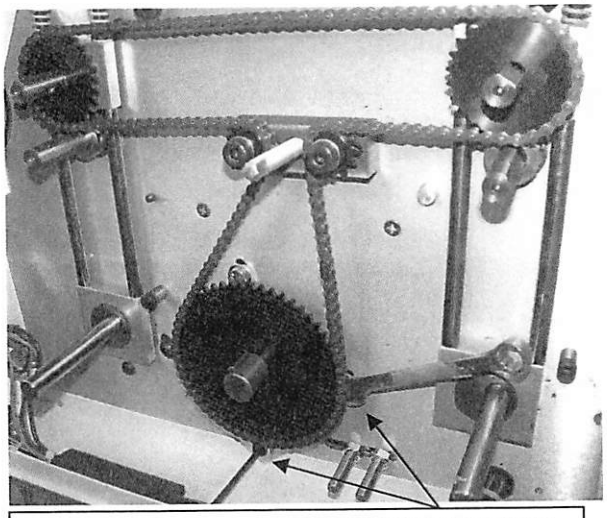
27) SLIDE THE HD15 CHAIN ADJUSTER (HD15 051.4) LOFT 7 UNDER THE INNER MOTOR SPROCKET, FROM THE REAR. REACH UNDER THE CHASSIS AND START THE CARRIAGE BOLTS INTO THE CHAIN ADJUSTER OPENINGS. THE BOTTOM MOTOR COVER MUST BE OFF FOR THIS PROCESS. SNUG THE (2) 5/16-18 X 1 ¾ CARRIAGE BOLTS FROM THE INNER SIDE PANEL INTO THE UPPER REAR CHAIN



TOP IDLER BRACKET WITH (2) PRS245A.5



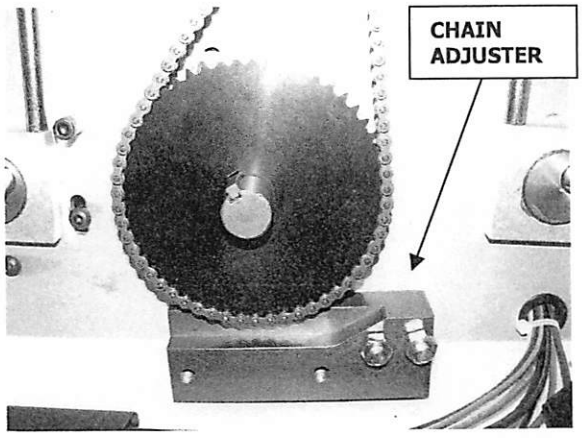
MOTOR SPROCKET PRS258B



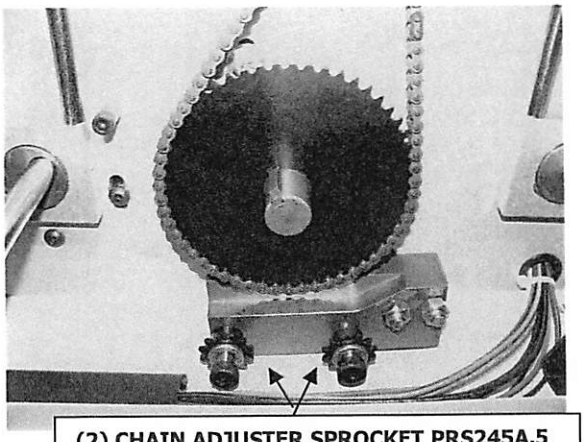
LOWER MOTOR TO TIGHTEN CHAIN (4) SCREWS

ADJUSTER OPENINGS AND LOOSLY SECURE WITH 5/16-18 HEX NUTS ON OUTER THREADS, WITH CHAIN ADJUSTER TO THE RIGHT IN SLOT.

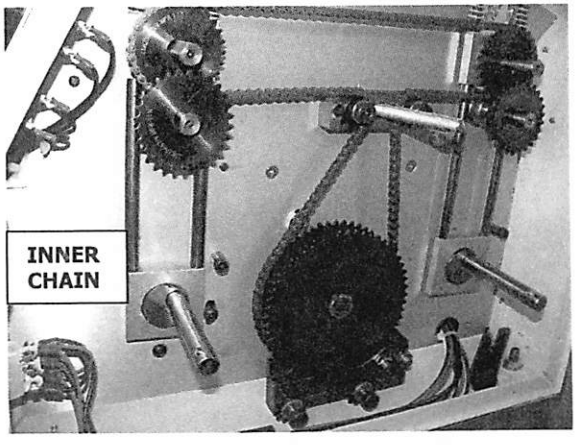
28) PLACE (2) 25B12 SPROCKETS WITH BEARINGS (PRS245A.5) AS21 ONTO (2) 3/8 X 7/8 SHOULDER BOLTS, WITH THE SPROCKET *HUB IN, TEETH OUT*. THREADED THE SHOULDER BOLTS INTO THE FRONT THREADS ON THE CHAIN ADJUSTER. TIGHTEN THE SHOULDER BOLTS.



29) SLIDE THE SECOND MOTOR SPROCKET (PRS258B) ONTO MOTOR SHAFT, HUB INWARD. MEASURE AND ALIGN OUTER MOTOR SPROCKET WITH THE BOTTOM RUBBER ROLL SPROCKETS. THE BOTTOM RUBBER ROLL SPROCKETS MUST NOT HIT THE TOP RUBBER TOLL SPROCKET CHAIN. TIGHTEN MOTOR SPROCKET SET SCREW.

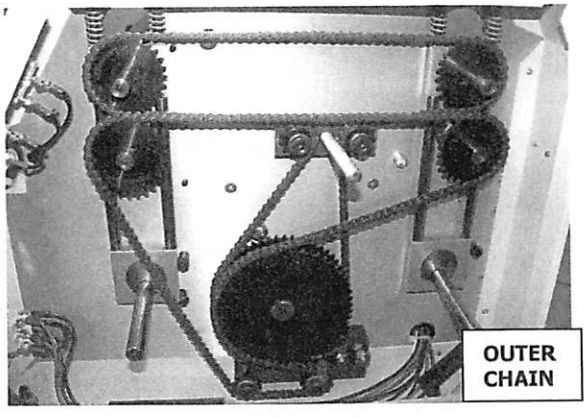


30) BEFORE CONNECTING THE OUTER CHAIN, CHECK THAT THE CHAIN ADJUSTER IS TO THE FAR LEFT IN THE SLOT AND THE ***RUBBER ROLLS ARE OPEN***. THREAD THE OUTER MOTOR SPROCKET CHAIN OVER THE BOTTOM RUBBER ROLL SPROCKETS. FROM THE REAR RUBBER ROLL SPROCKET THREAD TO THE UPPER FRONT OF THE MOTOR SPROCKET AND UNDER THE REAR CHAIN ADJUSTER SPROCKET TO THE FRONT CHAIN ADJUSTER SPROCKET UPWARD TO THE FRONT BOTTOM RUBBER ROLL. SECURE CHAIN WITH A #25 CHAIN CONNECTOR (PRC084) AS07.

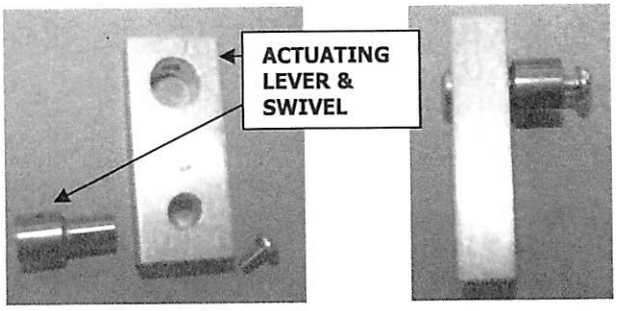


31) TIGHTEN THE OUTER CHAIN BY MOVING THE CHAIN ADJUSTER TO THE RIGHT/REAR UNTIL THE DESIRED TENSION IS REACHED. TIGHTEN HEX NUTS ON CARRIAGE BOLTS TO SECURE CHAIN ADJUSTER. WHEN THE RUBBER ROLLS ARE PUT IN THE "DOWN" POSITION THE CHAIN SHOULD BE AT OPTIMUM TENSION.

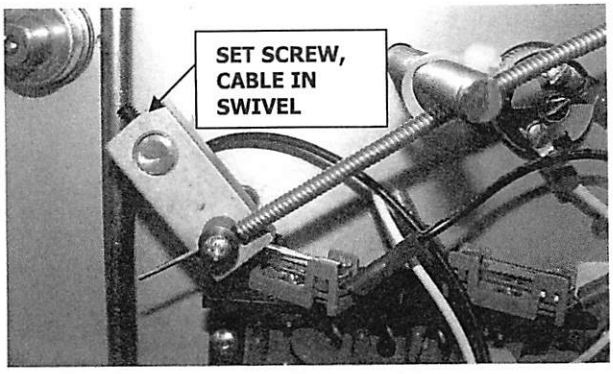
32) SECURE BOTTOM MOTOR COVER (HD15 094.4) LOFT 7 TO THE (6) TINNERMAN BRACKETS ON UNDERSIDE. LINE UP THE HOLES AND USE (6) 8 X ½ SMS.



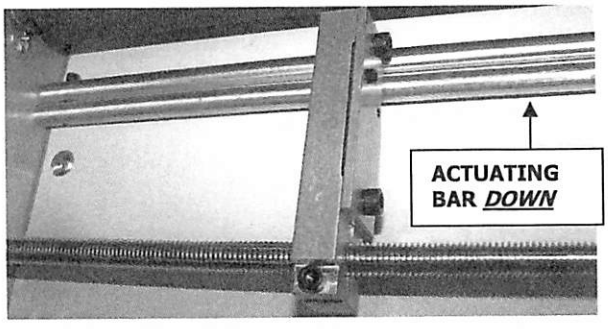
33) FROM RACK 22 ASSEMBLE ACTUATING LEVER (H850 188.4) BY SLIDING THE SWIVEL (H850 189.4) THROUGH THE LEVER AND SECURING WITH A #6 FLAT WASHER AND A 6-32 X ¼ PHMS. LOOSELY THREAD ANOTHER 6-32 X ¼ PH INTO THE OTHER END OF THE SWIVEL. INSERT A 10-32 X 3/8 SET SCREW INTO THE END OF THE LEVER.



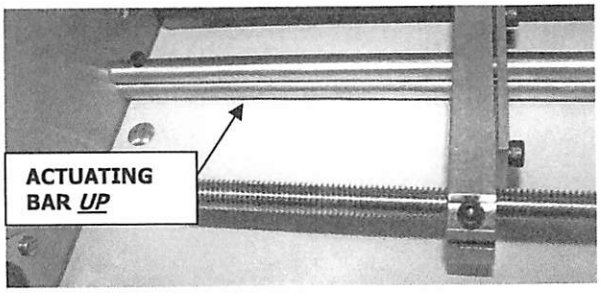
34) REMOVE THE WASHER AND NUT FROM THE SLITTER CHOKE CABLE (PRC089) RACK 21. INSERT THE CABLE INTO LEFT HOUSING, WITH KNOB ON THE OUTER HOUSING. RETHREAD THE CABLE WASHER AND NUT ON THE INNER HOUSING. TIGHTEN WITH WRENCH.



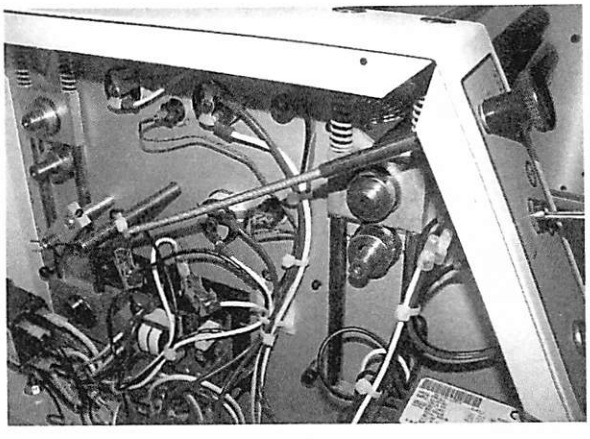
35) SLIDE THE ACTUATING LEVER ONTO THE OUTER, LEFT SIDE, BOTTOM SLITTER ACTUATING BAR. PLACE THE SET SCREW AT 11:00 O'CLOCK, WITH ACTUATING BARS UPWARD. *"UP" IS THE CUTTING POSITION*. TIGHTEN THE SET SCREW. PULL CABLE KNOB OUT SO 2 ½" CABEL SHAFT SHOWS. CUT CABLE FLUSH WITH SWIVEL. PUSH IN KNOB WHILE INSERTING CABLE THROUGH SWIVEL HOLE. PULL OUT KNOB 1 ½" WITH SET SCREW STILL AT 11:00, AND THE ACTUATORS UPWARD. TIGHTEN SWIVEL SCREW ON CABEL.



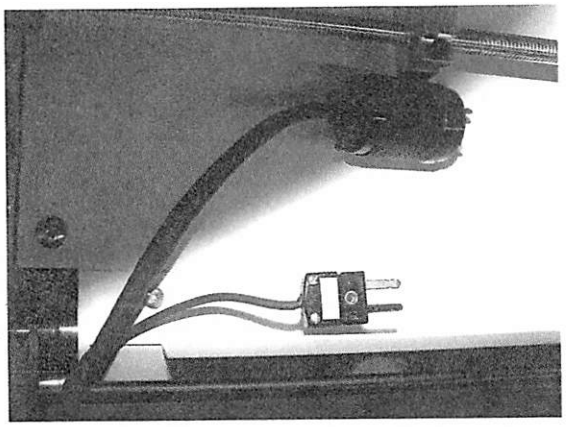
36) PUSH THE CABEL KNOB IN: SET SCREW MOVES TO 1:00, TOP ACTUATING BAR MOVES TO FLAT FORWARD. THE CABEL RUNS UNDER THREADED ROD AND SHOULD NOT TOUCH WIRES. TEST MOTION BY LOWERING AND RAISING SLITTERS, ADJUST THE ANGLE OF THE ACTUATOR IF NECESSARY. BEND CABEL END TO HOLD.



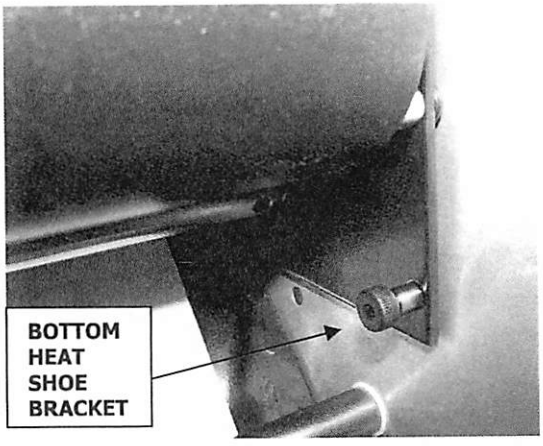
37) *LOOSELY* CABLE TIE THE COILED SPRING SECTION OF THE SLITTER CHOKE CABLE UNDER THE SLITTER ADJUSTING ROD, SO IT DOES NOT INTERFERE WITH ANY MOVING PARTS WHILE THE LAMINATOR IS RUNNING.

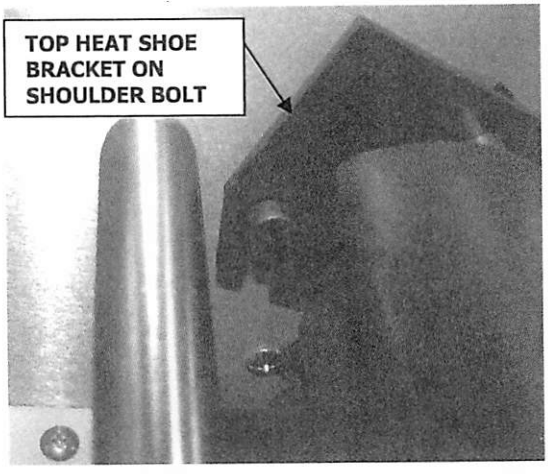


38) INSTALL THE BOTTOM HEAT SHOE ASSEMBLY BY FIRST PUTTING THE LEFT SIDE HEATER AND THERMO COUPLE PLUGS ON THE TOP HOUSING, FROM UNDER RUBBER ROLLS, TO AVOID PINCHING THEM. FIT THE BOTTOM HEAT SHOE BRACKET NOTCH ONTO THE SHOULDER BOLT IN PANEL. SECURE THE BOTTOM HEAT SHOE BRACKETS TO RIGHT AND LEFT PANELS WITH A ¼ X 5/16 SHOULDER BOLT ON EACH SIDE.



39) INSTALL THE TOP HEAT SHOE ASSEMBLY BY FIRST PLACING HEATER AND THERMO COUPLE PLUGS ***UNDER*** TOP IDLER ROD, THEN FIT THE DEEPER TOP HEAT SHOE BRACKET NOTCHES OVER THE SHOULDER BOLTS IN THE SIDE PANELS AND THE OUTER BRACKET NOTCH RESTS ON THE OILITE BEARINGS THAT HOLD THE RUBBER ROLL SHAFT.

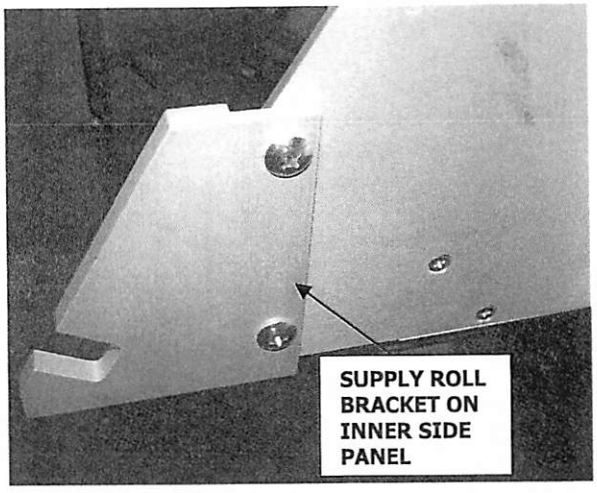




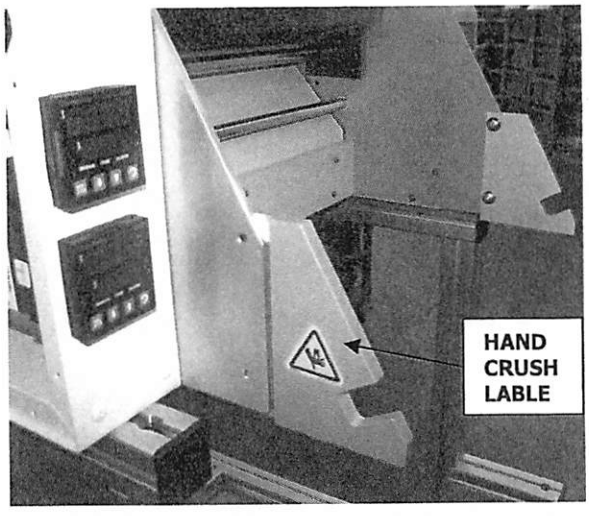
40) PLUG THE BOTTOM HEAT SHOE THERMO COUPLE AND HEATER PLUGS INTO THE LOWER RECEPTACLES.

41) PLUG THE TOP HEAT SHOE THERMO COUPLE AND HEATER PLUGS INTO THE UPPER RECEPTACLES.

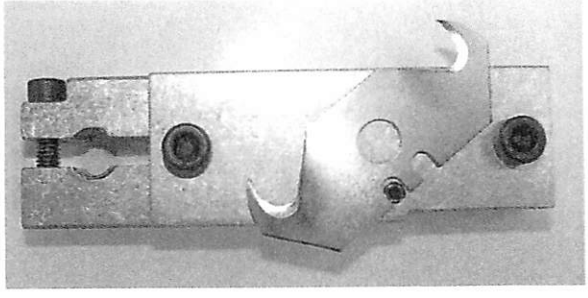
42) FROM RACK 21 CONNECT THE BOTTOM SUPPLY ROLL BRACKET RIGHT (E850 005.4R) AND THE BOTTOM SUPPLY ROLL BRACKET LEFT (E850 005.4L) ***FROM INNER PANEL,*** TO LOWER FRONT CORNERS OF THE SIDE PANELS USING (4) ¼-20 X 3/8 THMS. CONNECT THE TOP SUPPLY ROLL BRACKET RIGHT (E850 008.4R) AND THE TOP SUPPLY ROLL BRACKET LEFT (E850 008.4L) WITH ANGLE TO REAR, USING ¼-20 X 3/8 TH.



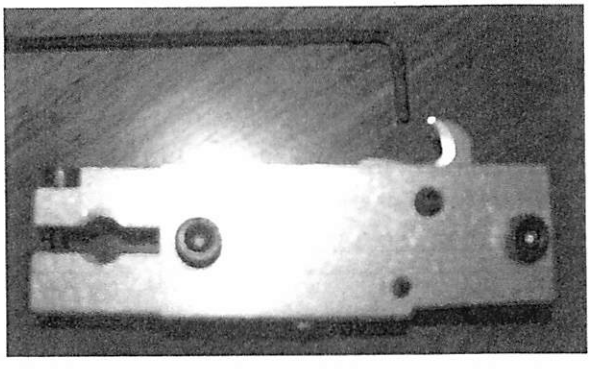
43) ADHERE (4) HAND CRUSH LABEL (LAB35) AS09 ONE EACH TO THE OUTER TOP AND BOTTOM SUPPLY ROLL BRACKETS, ALIGNED AND LOCATED ABOVE THE SUPPLY ROLL BRACKET NOTCH.

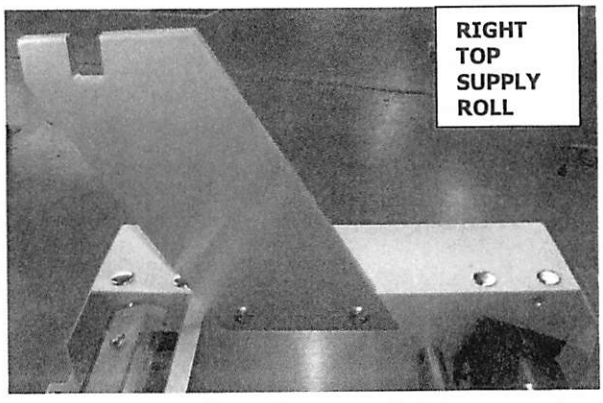


44) PICTURED IS AN EXAMPLE OF THE SLITTER KNIFE HOLDER WITH A HOOKED BLADE INSERTED. THE CUSTOMER WILL SECURE THE BLADE, WE ***DO NOT*** TEST WITH THEM IN ASSEMBLY.



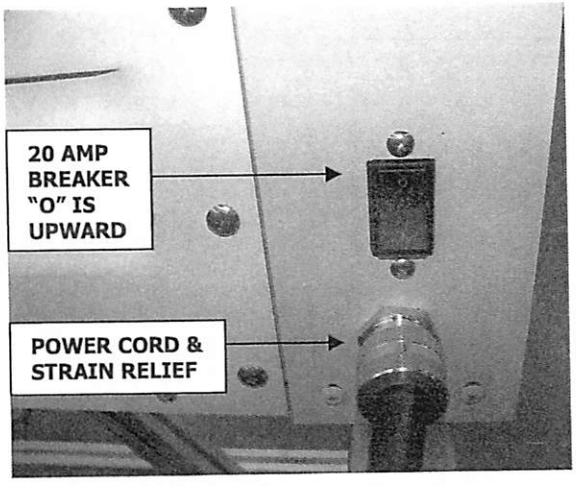
SLITTER KNIFE HOLDER





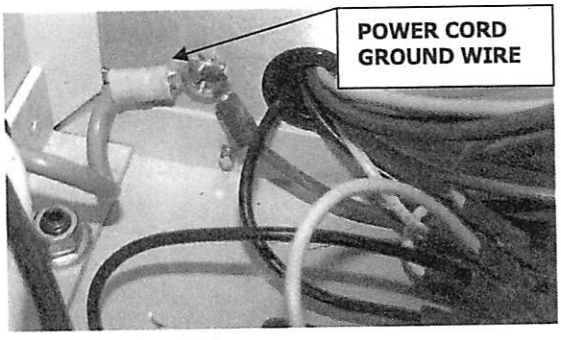
HD15 LEFT HOUSING & POWER

1) FROM REAR LEFT HOUSING INSERT THE HUBBLE 220V HD15 POWER CORD ASSEMBLY (PRC220) AS13. WITH LESS THAN 1" OF BLACK SHEATHING SHOWING ON INNER HOUSING, SECURE THE POWER CORD ON THE OUTER HOUSING WITH A STRAIN RELIEF BUSHING (PRB096) AS09.



2) USE A #10 STAR WASHER BY SIDE PANEL ON GROUND SCREW. ADD GREEN POWER CORD GROUND WIRE AND TIGHTEN WITH A #10 KEPS HEX NUT. ADD THE MOTOR GROUND WIRE, POWER FILTER GROUND, FAN RECEPTACLE GROUND AND TIGHTEN WITH A #10 KEPS HEX NUT.

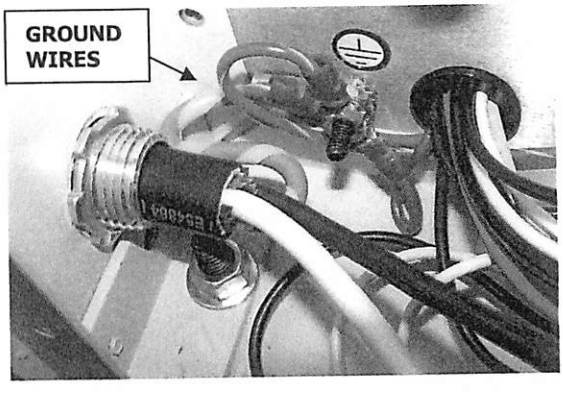
3) ADD YELLOW TAPE TO POWER WIRE. ADHERE A GROUND LABEL (LAB06) TO SIDE PANEL.

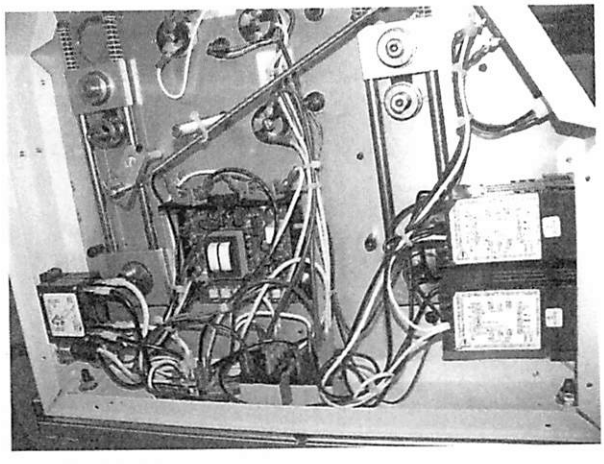


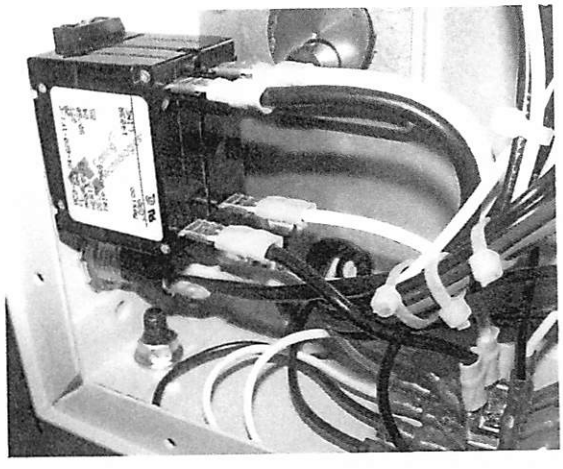
4) FROM THE INNER HOUSING INSERT THE 20 AMP BREAKER (PRS287) RACK 21 ORIENTED WITH THE "LOAD" POSTS DOWNWARD. THE "O" OFF POSITION IS UPWARD ON OUTER HOUSING. SECURE WITH (2) 6-32 X 3/8 THMS.

5) CONNECT WHITE POWER CORD WIRE TO THE *INNER*, UPPER "LINE" BREAKER POST AND BLACK POWER CORD WIRE TO THE *OUTER*, UPPER "LINE" POST.

6) CONNECT A 3" 12 GAUGE WHITE WIRE BETWEEN LOWER BREAKER *INNER* "LOAD" POST AND 90 DEGREE TERMINAL BLOCK POST. CONNECT A 3" BLACK 12 GUAGE WIRE BETWEEN LOWER, *OUTER* "LOAD" POST AND 90 DEGREE BLOCK POST.

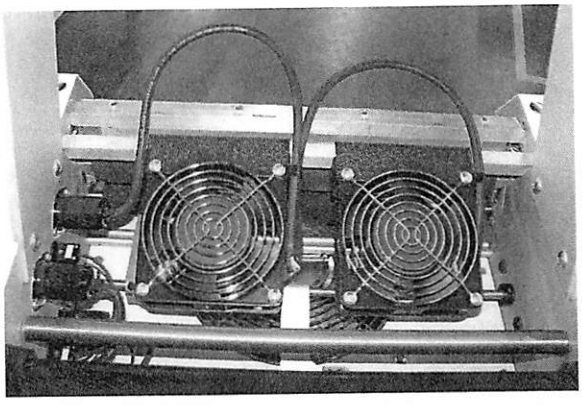




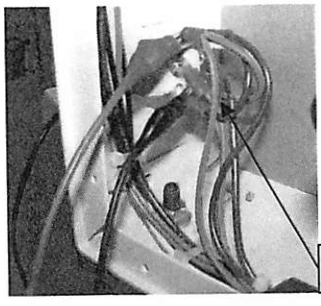


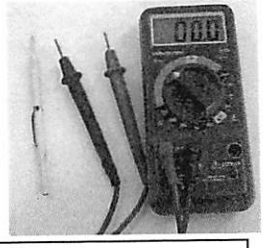
HD15 CHRMOLOX 6040
TESTING & COMPLETION

1) FOLLOW HD15 TESTING PROCEDURES. SET UPPER FAN ASSEMBLY BRACKETS ONTO TOP FAN MOUNTING BRACKET WITH PLUG ON LEFT. INSERT PLUG INTO UPPER, REAR RECEPTICLE.



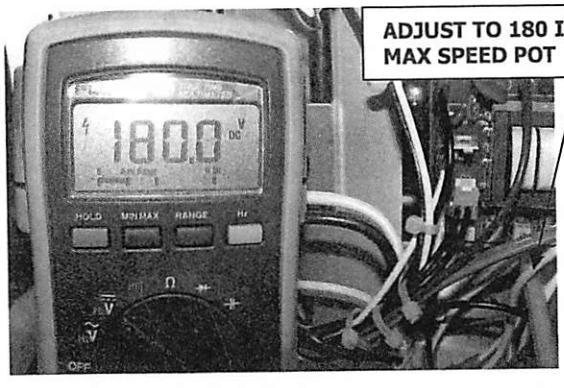
2) WITH ALL SWITCHES IN "OFF" POSITION, PLUG THE HD15 LAMINATOR INTO A 220V POWER SOURCE. TURN ON BREAKER, DRIVE SWITCH, THEN THE FORWARD/REVERSE SWITCH. TURN THE SPEED CONTROL KNOB AND TEST FUNCTION. TEST THE FAN SWITCH FOR TOP AND BOTTOM FANS. TURN OFF FANS. TURN MOTOR SPEED TO HIGHEST POSITION.





FORWARD/REVERSE

3) SET SPEED BOARD CONTROL SWITCHES, SW501=230 AND SW502=180. WITH ALLIGATOR CLIP, ON RIGHT CONNECT UPPER RED AND LOWER BROWN F/R WIRE TERMINALS TO LEFT SIDE MULTIMETER ON DIRECT CURRENT. INCREASE POTENTIOMETER TO MAXIMUM SPEED. THE MINARIK SPEED BOARD OPTIMUM READING IS 180.0 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 JEWLERY TO TOUCH ANYTHING, AS A SEVERE SHOCK CAN OCCUR***. AFTER SETTING SPEED BOARD, REDUCE POTENTIOMETER AND TURN OFF THE FORWARD/REVERSE SWITCH.



ADJUST TO 180 IN MAX SPEED POT

4) 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 "8.8.8.8" APPEARING. AFTER THE CHROMALOX CONFIGURES, THE SCREENS WILL CHANGE TO "Goto IN RED AND "ConF" IN GREEN.

ENTER~~~~SELECT

DEPRESS SELECT

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

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

7) DEPRESS *SELECT* BUTTON AGAIN. NOW YOU ARE IN THE MENU. INPUT MODE IS REPRESENTED BY "Pt.F" OR "0- 10" IN RED AND "InPt" IN GREEN SCREEN.

8) *ARROW UP* TO "J.F" IN RED SCREEN. BE CERTAIN TO GO PAST "JF" UNTIL YOU REACH "J.F". THE "J.F" WILL FLASH, DEPRESS *MAN/AUTO* BUTTON ON LEFT, TO ENTER. THE J REPRESENTS J-TYPE SENSOR USED IN HD15, F REPRESENTS FEHRENHEIT.

9) TO RESET THE MAXIMUM TEMPERATURE FROM 999.9 TO 400.0 F: DEPRESS THE *SELECT* BUTTON UNTIL 999.9 SHOWS IN RED AND "ruL" SHOWS IN GREEN. THEN DEPRESS THE *ARROW DOWN* KEY UNTIL 400.0 IS REACHED IN THE RED SCREEN. THE NUMBERS MOVE QUICKLY. 400.0 WILL BE <u>FLASHING</u> AND TO ENTER THE HIGH TEMPERATURE AT 400.0 DEPRESS THE *MAN/AUTO* BUTTON ON THE LOWER LEFT-*RATHER QUICKLY*.

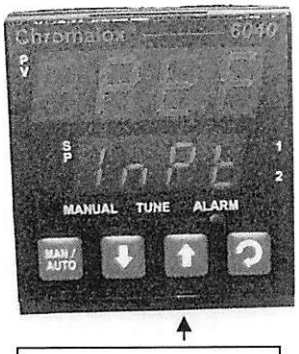
10) TO CHECK LOWER HEAT LIMIT OF THE 6040 CHROMALOX HEAT CONTROLS: DEPRESS THE LOWER RIGHT *SELECT* BUTTON. <u>IF IT READS -199.9</u>, DEPRESS AND HOLD *SELECT* BUTTON, THEN PRESS *ARROW UP*. *DO NOT PRESS 'ENTER' FOR LOWER SETTING. PRESS MANUAL/AUTO <u>*ONLY*</u> IF YOU CHANGE A READING.

11) IF CONTROL <u>DOES NOT</u> GO TO LOWER LIMIT OF 199.9, CHECK UPPER/LOWER CONFIGURATIONS ON DIAGRAM.

12) TO CHANGE MODES ON HEAT CONTROL, DEPRESS <u>TWO BUTTONS</u>: *SELECT* AND HOLD DOWN, AND *ARROW UP*. SCREEN GOES TO "ConF SLCt. DEPRESS *ARROW*

ARROW UP TO 20

DEPRESS SELECT



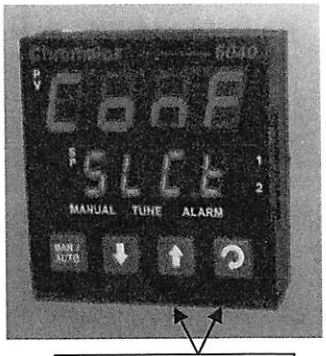
INPUT: ARROW UP

ENTER *FLASHING* J.F

MAX TEMP ARROW DOWN

MANUAL/AUTO=ENTER

LOW HEAT: ARROW DOWN TO -199.9



CHANGE MODES CONFIGURATION

UP TO 'OPtr SLCt" IN SCREENS. DEPRESS *SELECT* TWICE FOR TEMP.

13) USE *UP/DOWN ARROW* TO PLACE "SET POINT TEMP" IN RED AT 240 F DEGREES (CELCIUS 100.) THE 240 WILL NOT FLASH IN THIS MODE. QUICKLY DEPRESS *SELECT* AGAIN TO SET/SAVE TEMPERATURE. THE 240 MOVES TO GREEN, AMBIENT IN RED.

14) ALLOW THE TOP AND BOTTOM HEAT SHOES REACH TEMPERATURE AND STABLILIZE. USE PYROMETER ON TOP ROLL TO CHECK TEMPERATURES.

15) TURN ON THE FORWARD/REVERSE SWITCH. *LIGHTLY* COAT STP OIL LUBRICANT ONTO BOTH RIGHT SIDE #25 CHAINS, WITH CHAIN IN MOTION.

16) USING 3 MIL, LOW MELT FILM, LOAD THE FILM ONTO THE TOP AND BOTTOM SUPPLY ROLL MANDRELS. PLACE THE SUPPLY ROLLS IN TOP AND BOTTOM BRACKETS. REMEMBER THE FILM RULE: SHINY SIDE TOWARD THE SHOE.

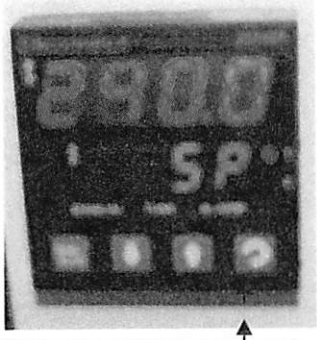
17) THREAD THE BOTTOM SUPPLY ROLL FILM IN FRONT OF THE CAM SHAFT, BEHIND AND OVER THE BOTTOM IDLER AND LAY TOWARD FRONT. THREAD THE TOP SUPPLY ROLL FILM UNDER THE TOP IDLER AND LAY OVER HEAT SHOES. USE A THREADING BOARD (XS100) LD00 TO THREAD THE FILM INTO THE NIP.

18) FILL OUT THE TEST PAPERWORK; JOB SHEET, FINAL TEST & INSPECTION SHEET, AND TEST LAMINATE WHILE THE TEMPERATURE IS BEING REACHED.

19) ADHERE THE YELLOW GENERAL DANGER LABEL (LAB52) AS09 INWARD, LEFT OF THE BREAKER ON THE REAR LEFT HOUSING.

20) ADHERE THE GRAY HD15" SERIAL TAG (LAB149) WITH JOB, ABOVE BREAKER, IN LINE WITH UPPER BACK COVER, ON REAR LEFT HOUSING.

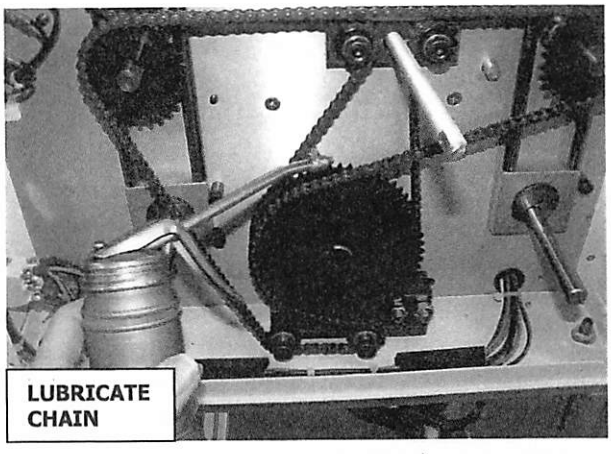
21) ADHERE THE YELLOW EARTH CONNECTION



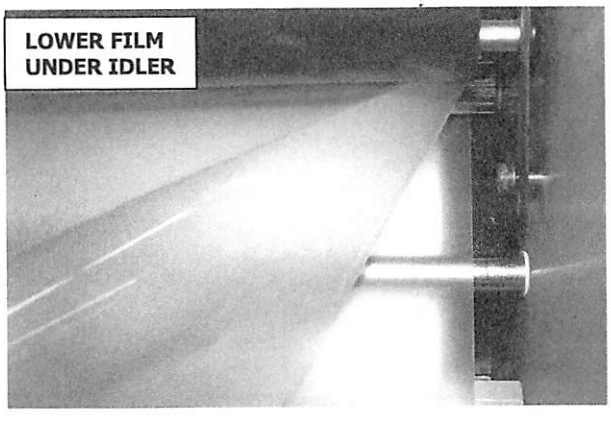
SELECT FOR TEMP

SP *ARROW UP, SELECT* TO SAVE 240T TEMP

AMBIENT/RED-SET/GREEN



LUBRICATE CHAIN



LOWER FILM UNDER IDLER

WARNING LABEL (LAB101A) AS09 ON THE UPPER REAR MOTOR COVER, IN LINE WITH THE SERIAL TAG.

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

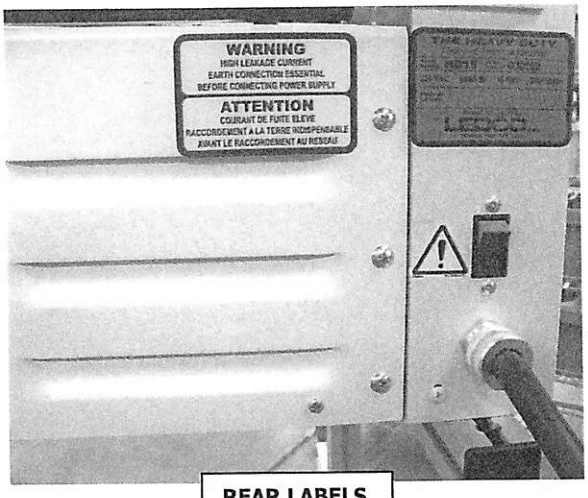
23) PLACE THE FEED TRAY ONTO THE SHOULDER BOLTS OF THE INNER SIDE PANELS. SNAP FEEDTABLE BASE SECTIONS THAT ARE USED FOR TESTING ONTO THE FEED TABLE SUPPORT RODS. (3) NEW WRAPPED FEED TABLE BASE SECTIONS (H385 099.4) AS06 ARE SHIPPED WITH THE HD15, AFTER TESTING. <u>BE CAREFUL NOT TO SCRATCH THE HEAT SHOES WHEN CONNECTING BASE SECTIONS</u>.

24) LOCK CONNECTING PLATES WITH THE RUBBER ROLLERS ARE IN THE ***<u>DOWN</u>*** POSITION. TURN ON THE FANS AND FORWARD/REVERSE SWITCH. ADJUST SPEED WITH POTENTIOMETER DIAL. LAMINATE THE PREPARED PAPERWORK.

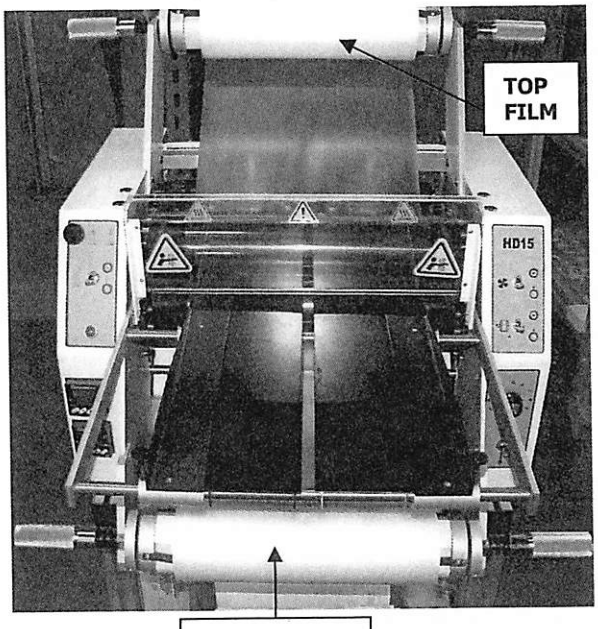
25) TURN OFF HEAT, LEAVE FANS ON TO COOL HEAT SHOES AND ROLLS. REMOVE THE FEED TRAY. LIFT THE RUBBER ROLLS BY OPENING THE CONNECTING PLATES. CAREFULLY CUT AND REMOVE FILM.

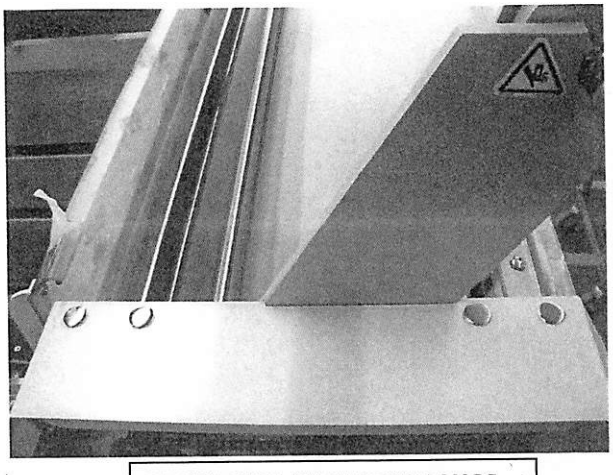
26) FROM THE DWELL LINE WE KNOW THE PRESSURE IS CORRECT. SNAP THE (8) CHROME PLUG BUTTONS (PRC090) RACK 21 INTO THE TOP OPENINGS ON THE RIGHT AND LEFT HOUSING, ABOVE THE CONNECTING PLATES.

27) ON THE <u>RIGHT SIDE</u> REMOVE THE CAM SHAFT AND SLITTER ADJUSTING HANDLES USED FOR TESTING. SECURE THE RIGHT HOUSING PANEL (H850 095.4R) AS01 TO THE HOUSING,



REAR LABELS





RIGHT SIDE (4) CHROME PLUGS

FITTING THE PANEL OVER THE (3) EXTENDING SHAFTS. USE (8) 8-32 X ¼ TH.

28) CENTER AND ADHERE A DOMED LEDCO EMBLEM (LAB05A) AS09 OVER (2) PANEL HOLES BETWEEN CAM HANDLES AND UNDER THE SLITTER ADJUSTING ROD.

29) CREATE A HD15 SPARE FUSE KIT FOR LEFT PANEL BY PLACING (2) 3 AMP FUSES (PRF127) AS07 INTO A SMALL BAG. ADHERE A FUSE IDENTIFICATION LABEL TO BAG AND SEAL IT. FROM AS09 INSERT THE FUSE BAG AND A SPARE FUSE LABEL (LAB126) INTO A POUCH.

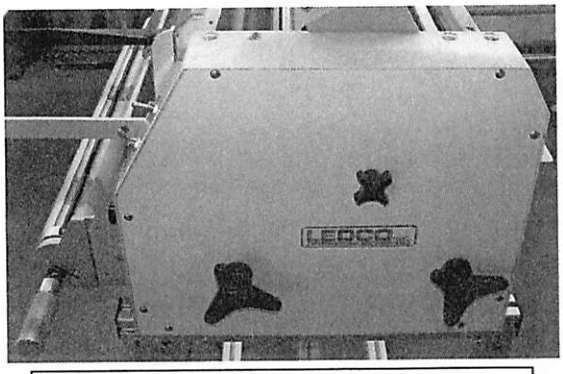
30) REMOVE THE ADHESIVE COVERING ON THE POUCH AND ADHERE THE SPARE FUSE POUCH TO THE LOWER FRONT CORNER OF THE INNER LEFT HOUSING PANEL (H850 095.4L) AS01, INWARD FROM THE SCREW OPENINGS.

31) CHECK WIRES AND CABLE TIES ON LEFT SIDE. SECURE THE LEFT HOUSING PANEL TO THE HOUSING USING (8) 8-32 X ¼ TH.

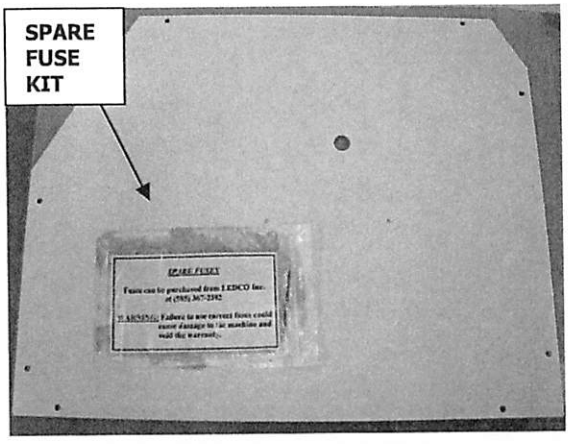
32) CENTER AND ADHERE A DOMED LEDCO EMBLEM (LAB05A) AS09 OVER THE (2) PANEL HOLES, BELOW THE SLITTER ADJUSTING ROD.

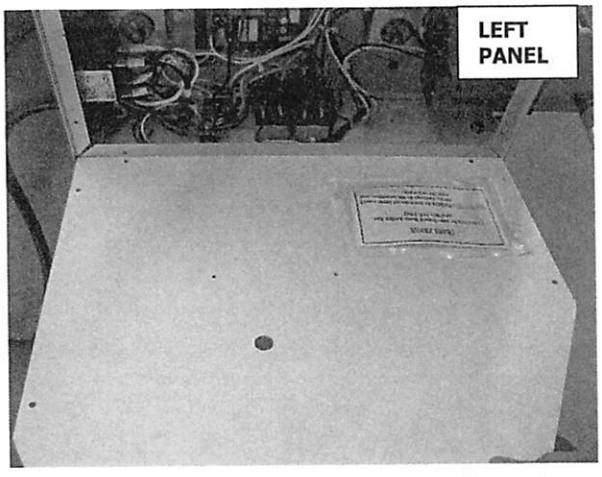
33) SECURE A SLITTER KNOB (PRK171) RACK 21 TO THE RIGHT AND LEFT SLITTER ADJUSTING RODS, SHOWING THROUGH THE HOUSING PANELS. USE A 10-32 X ¼ SET SCREW IN EACH SLITTER KNOB. TO ADJUST THE EVENNESS ON THE SLITTER ADJUSTING ROD, LOOSEN THE 3/8" SPLIT SHAFT COLLAR AND MOVE ROD INWARD OR OUTWARD IN THE SLITTER TUBE AND RETIGHTEN SPLIT COLLAR.

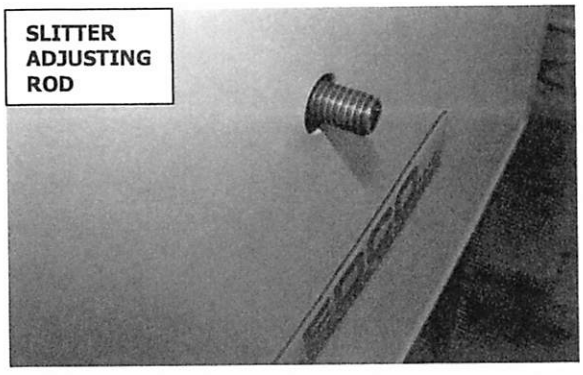
34) INSERT FEEDTABLE ASSEMBLY WITH THE INNER NOTCH FITTING UNDER THE INNER SHOULDER BOLT AND THE OUTER NOTCH FITTING OVER THE OUTER SHOULDER BOLT. REMOVE TESTING BASE SECTIONS SLOWLY, SO THE HEAT SHOE IS NOT SCRATCHED. SHIP (3) NEW BASE SECTIONS. PLACE SEPARATE ITEMS ON THE FEEDTABLE SUPPORT RODS.



RT HOUSING PANEL: CAM/SLITTER KNOBS







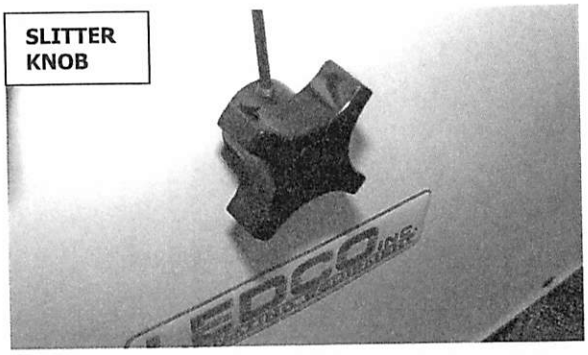
35) PLACE (5) BAGGED HOOK BLADES FOR SLITTER (PRB031) AS07 ONTO FEEDTABLE BASE SECTIONS. INCLUDE A NEW THREADING BOARD AND THE LAMINATED PAPERWORK.

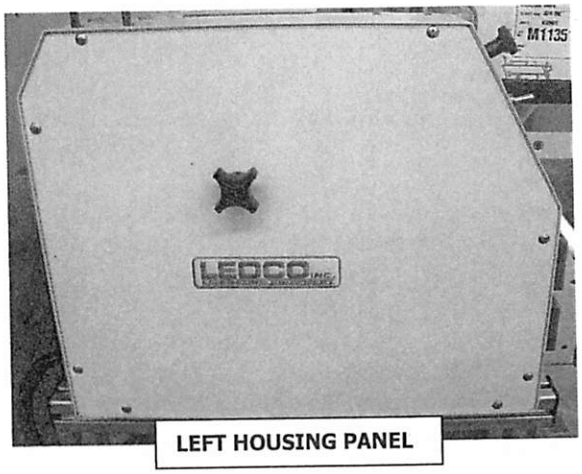
36) FOR CENTIGRADE TEMPERATURE HD15'S CHANGE BOTH HEAT REGISTERS FROM FAHRENHEIT TO 116 C. ADHERE "C" LABEL OVER LEFT EMPTY SECTION ON DISPLAYS.

37) FROM AS13 SNAP ORANGE OPERATOR STAFETY PRECAUTION (LIT011) AND NYLON LANYARD (PRL197) ONTO FRONT FEED TABLE ROD.

38) THREAD A ½-13 HEX NUT AS13 ONTO EACH OF (4) ½-13 X 1 ½ STEM CASTERS (PRC210) AS06. PLACE ON FEEDTABLE.

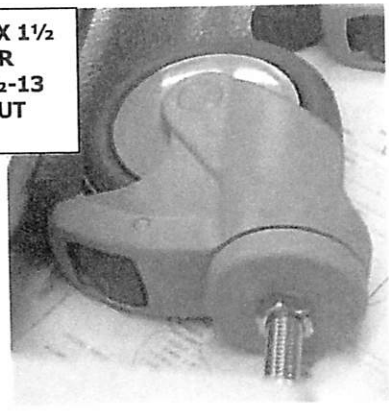
SLITTER KNOB



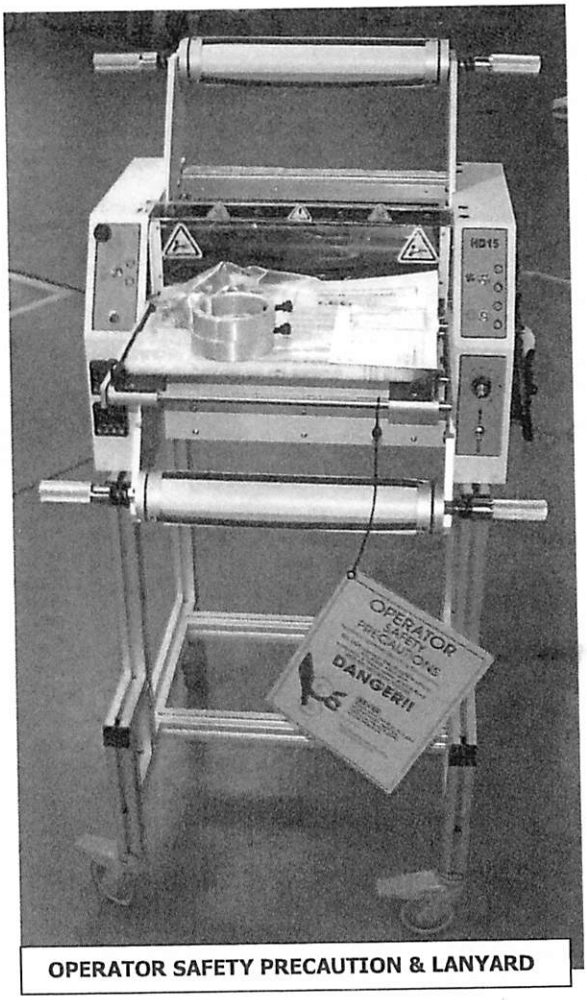


LEFT HOUSING PANEL

½-13 X 1½ CASTER AND ½-13 HEX NUT



(3) BASE SECTIONS, WRAPPED HOOK BLADES, FEET, STOP COLLARS, PAPERWORK, JOB



OPERATOR SAFETY PRECAUTION & LANYARD

HD15 HIGH POT TESTING

1) TO COMPLY WITH 2/2009 OUTSIDE CERTIFICATION THE HD15 INDUSTRIAL SERIES LAMINATOR MUST PASS A HIGH POT TEST FOR POWER LEAKAGE AND GROUNDING. THE PROCEDURES FOR THE HIGH POT TEST ARE AS FOLLOWS.

2) WITH HIGH POT TESTER POWER SWITCH IN "OFF" POSITION, CONNECT <u>TESTER POWER/GROUND CORD</u> BETWEEN THE TESTER "INPUT" INLET AND A 110 VOLT POWER SOURCE. THE WHITE "TESTER GROUND" LAMP GLOWS AMBER WHEN THE GROUND IS SATISFACTORY, INDICATING THE <u>TESTER</u> IS GROUNDED.

3) ***CLEAR THE AREA!! DO NOT TOUCH THE MACHINE OR THE CORD WHILE HIGH POT TESTING, AS SEVERE SHOCK MAY OCCUR IF MACHINE FAILS TEST.***

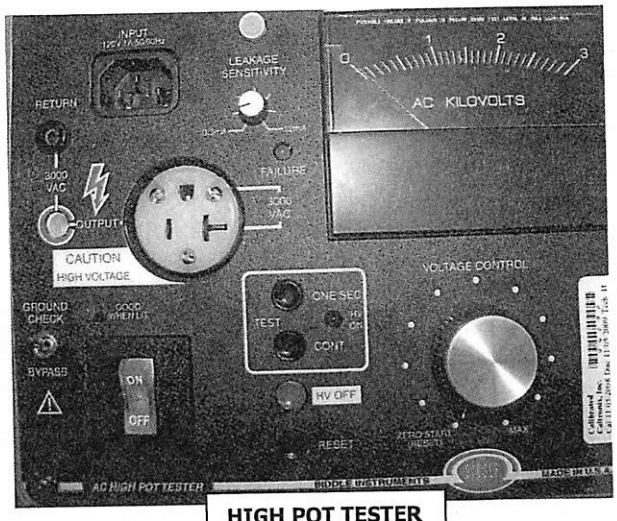
4) WITH "GROUND CHECK" SWITCH *UPWARD*, PLUG THE TESTER <u>MACHINE GROUND CORD</u> BETWEEN THE TESTER "RETURN" INLET AND ***<u>LEFT</u>*** SIDE SHOULDER BOLT FOR THE FEED TABLE. USE TOOTHED CLAMP END OF TESTER GROUND CORD. SCREW THREADS THAT GO INTO THE SIDE PANEL CONDUCT A GOOD GROUND. THE REQUIREMENTS FOR THE GROUND CHECK IS A MINIMUM OF 25 AMPS FOR 1 SECOND.

5) PLUG THE <u>HD15 20 AMP POWER CORD</u> INTO A 20 AMP ADAPTOR WITH A 3-PRONG GROUNDED ADAPTOR END. PLUG THE 3-PRONG ADAPTOR END INTO THE "OUTPUT" INLET ON THE HIGH POT.

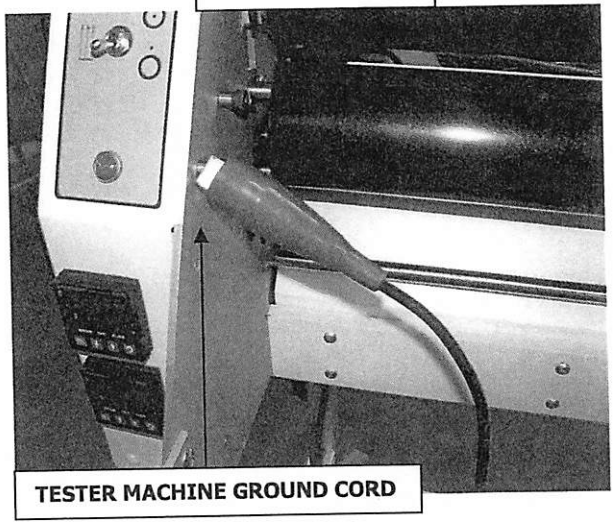
6) PRESS HIGH POT ROCKER SWITCH TO "ON" POSITION. THE GREEN "GOOD WHEN LIT" LIGHT GLOWS WHEN MACHINE IS GROUNDED.

7) WITH VOLTAGE CONTROL DIAL ON "ZERO/START," PRESS THE BLACK "RESET" BUTTON.

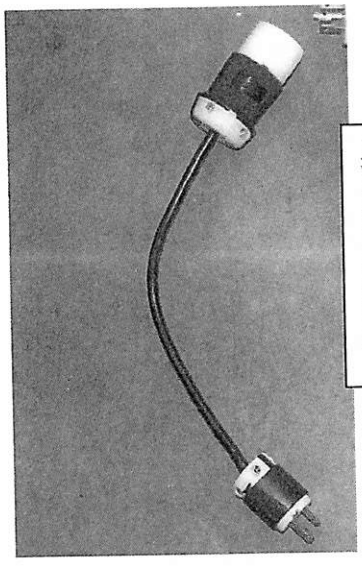
8) PRESS THE BLACK "CONT" BUTTON. THE



HIGH POT TESTER



TESTER MACHINE GROUND CORD



<u>HD15</u> 220 VOLT POWER CORD USES A 20 AMP ADAPTOR TO PLUG INTO THE 3-PRONG HIGH POT TESTER

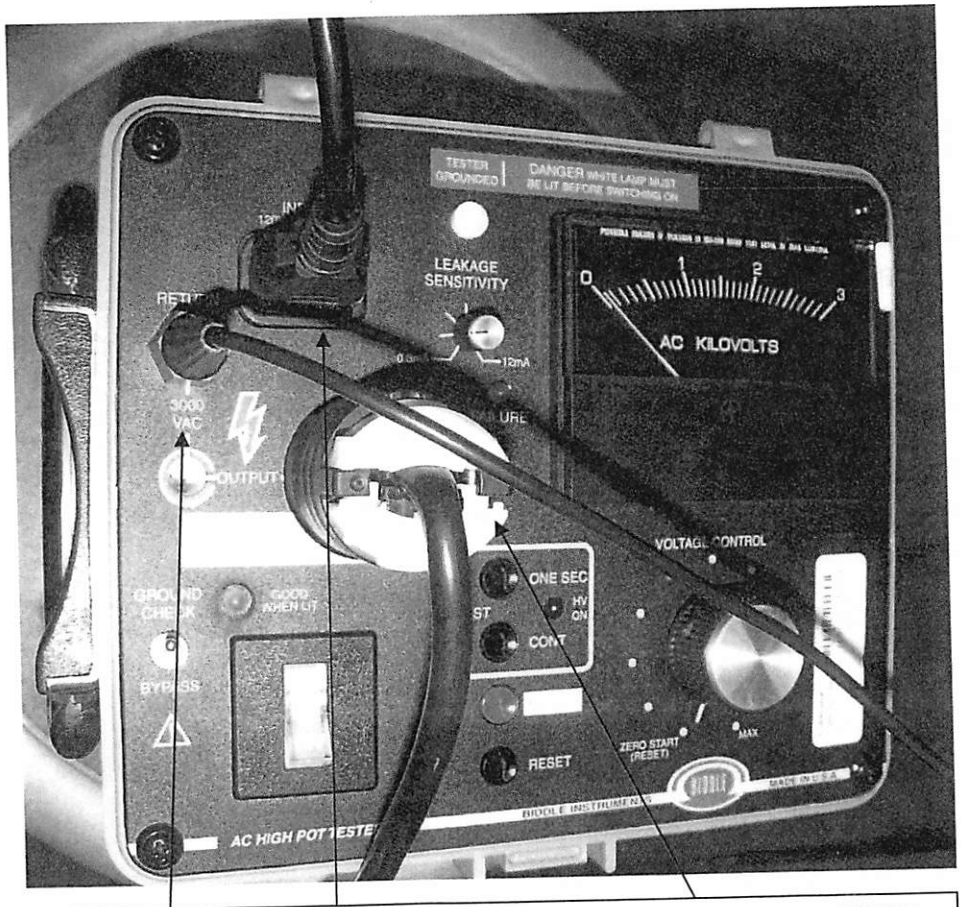
RED "HV" LIGHT COME ON.

9) WITH "VOLTAGE CONTROL" STILL AT ZERO/START, INCREASE AC KILOVOLT DIAL CLOCKWISE TO 1.6 AC KILOVOLTS ON THE REGISTER SCREEN. <u>MAINTAIN 1.6 AC KILOVOLTS FOR TWO SECONDS</u>. A *HIGH POT TEST FAILURE* REGISTERS WITH AN AMBER "FAILURE" LIGHT AND A "BEEP" SOUNDING.

10) TO END THE HIGH POT TEST, RETURN THE VOLTAGE DIAL TO ZERO/START, PRESS THE "HV OFF" BUTTON, "HV ON" LIGHT GOES OUT.

11) TURN "OFF" THE HIGH POT TESTER ROCKER SWITCH, <u>UNPLUG "INPUT" POWER CORD FIRST</u>, THEN UNPLUG REMAINING CORDS.

220 TO 110 ADAPTER



HD25 GROUND, TESTER POWER/ GROUND CORD, HD25 POWER CORD ADAJPTOR