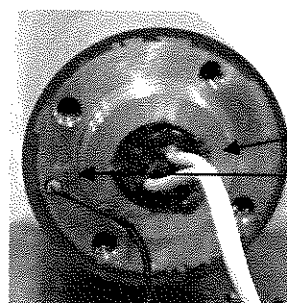


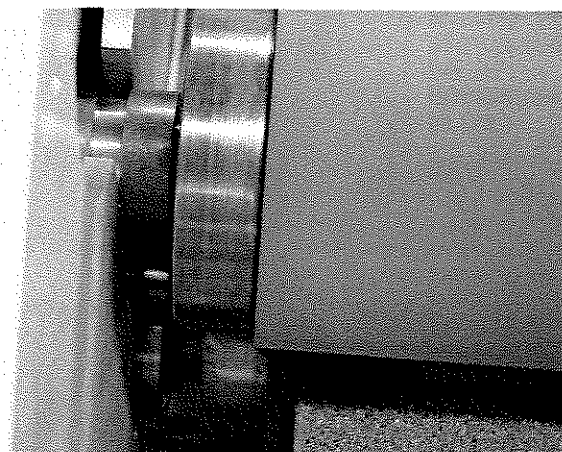
EHR SIGNMASTER ASSEMBLY PROCEDURES DRIVE AND HOT ROLLS, CONNECTING PLATES AND SLIP RING

- 1) INSTALL (2) SNAP RINGS (PRR193) ON DRIVE ROLL COMPLETE (EHR44 035.4) BEFORE CAREFULLY SLIDING INTO CHASSIS. ON LEFT SIDE ONLY, ADD (1) SPACER (LC38 031.4) SLIDE TIGHT TO SNAP RING. ADD BALL BEARING (PRB087A) WITH STAINLESS CENTER ONTO BOTH JOURNAL ENDS AND TAP INTO SIDE PANELS. SECURE WITH (4) 10-32 X 1/4 TH.

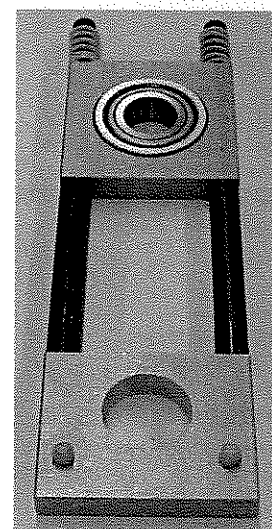
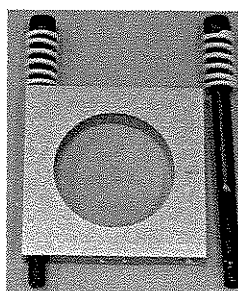
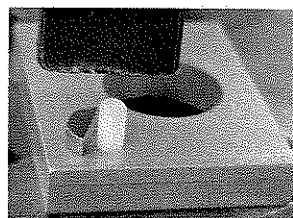


SILICONE
SEALANT ON
HEATER CORE
SENSOR

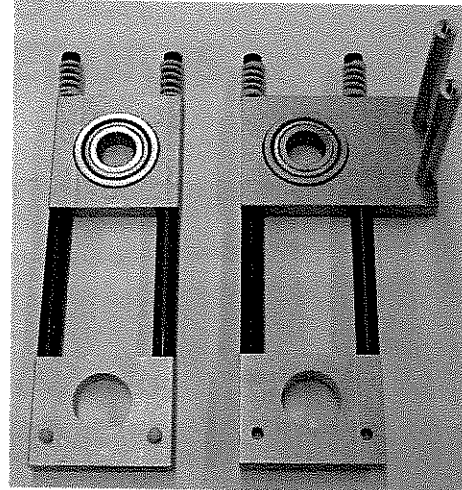
- 2) REMOVE END WITHOUT KEYWAY ON HOT ROLL COMPLETE (EHR44 040.4). INSERT SENSOR (PRC212S) AND STAKE BY EDGE TO HOLD IN PLACE. INSERT HEATER (PRH181) FOR 110 VOLT MACHINE AND SEAL HEATER END COVERING CERAMIC CORE WITH LOCTITE SUPERFLEX RED HIGH TEMPERATURE RTV SILICONE ADHESIVE SEALANT. THIS ELIMINATES SEEPAGE OF SAND PARTICLES AROUND HEATER ELEMENTS. REPLACE END CAP ALIGNING SENSOR GROOVE. INSERT HOT ROLL OVER DRIVE ROLL WITH WIRES ON RIGHT. SLIDE HOT ROLL GUIDE BUSHING (EHR44 044.4) OVER EACH JOURNAL, THICK SIDE INBOARD AND SLIDE INTO SIDE PANEL.



- 3) TO ASSEMBLE CONNECTING PLATES ARBOR PRESS (4) WHITE PLASTIC CONNECTING PLATE SPACERS (H850 044.4) INTO (2) BOTTOM CONNECTING PLATES (EP30 042.4B) DEPTH OF A M.161 WOODRUFF KEY SHOWING. THREAD IN (4) 5/16-18 X 1 SET SCREWS INTO BOTTOM CONNECTING PLATES. LOCTITE THREADS, LEAVING 1/4 INCH OF THREADS SHOWING. LOCTITE SHOWING THREADS AND SCREW ON (4) CONNECTING PLATE

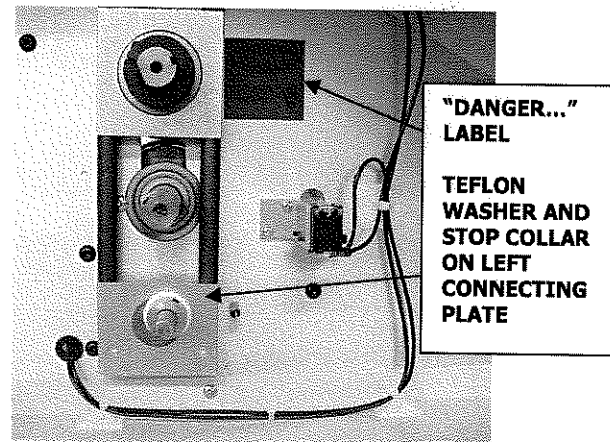


SPACERS (EP30 043.4) AND TIGHTEN WITH CHANNEL LOCKS. FOR LEFT SIDE ARBOR PRESS STAINLESS BALL BEARING (PRB087A) INTO TOP CONNECTING PLATE (EP30 042.4T) FLUSH GOES ON SIDE SHOWING PLASTIC SPACER. RUN (2) 5/16-18 X 4 1/2 SHCS WITH SPRING (PRS229) THROUGH TOP CONNECTING PLATE INTO CONNECTING PLATE SPACERS WITH SPRING MOVABLE WITH PRESSURE. ON RIGHT CONNECTING PLATE FOLLOW SAME PROCEDURE BUT USE TOP CONNECTING PLATE (EHR44 042.4T). ATTACH (2) TOP STANDOFFS (EHR44 049.4) TO TOP CONNECTING PLATE WITH (2) 1/4-20 X 3/4 BH.

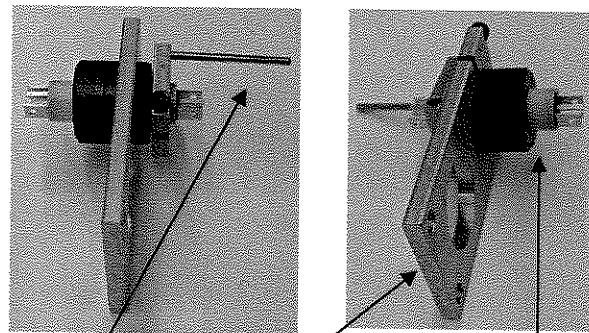


- 4) ADHERE (1) DANGER/HAZARD LABEL (LAB50) ABOVE MICROSWITCH ON LEFT AND (3) ON RIGHT SIDE.

- 5) ALIGN DRIVE AND HOT ROLLS ON LEFT SIDE. ADD ANTI-SEIZE TO CAM CIRCUMFERENCE AND SLIDE ON LEFT CONNECTING PLATE, PLASTIC SPACERS TO INSIDE. SNUG BALL BEARING TO HOT ROLL BUSHING AND SECURE WITH 7/8 SPLIT SHAFT COLLAR (PRC112). SNUG CAM, ADD TEFLON WASHER (PRW337) TO CAM SHAFT AND SECURE WITH 1/2 INCH STOP COLLAR (PRC096). USE SAME PROCEDURE ON RIGHT SIDE.

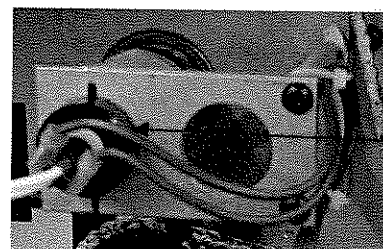


- 6) ON RIGHT SIDE ADD SLIP RING DRIVER (EHR44 012.4) FLUSH WITH END OF HOT ROLL, TIGHTEN ON FLAT OF JOURNAL WITH 10-32 X 3/8 SS. 3/8 TERMINATE HEATER AND SENSOR WIRES TO 4 INCHES PAST JOURNAL.



SPRING PIN, SLIP RING CLAMP, MERCOTAC SLIP RING

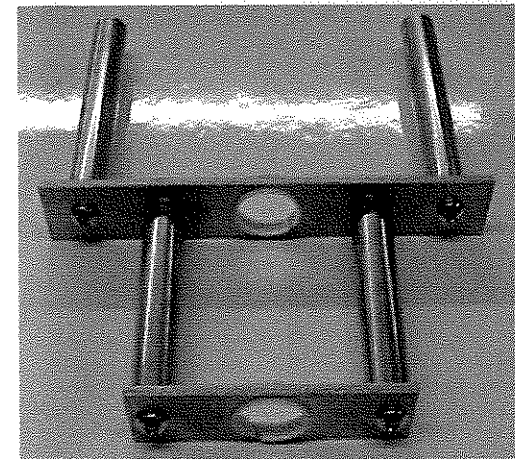
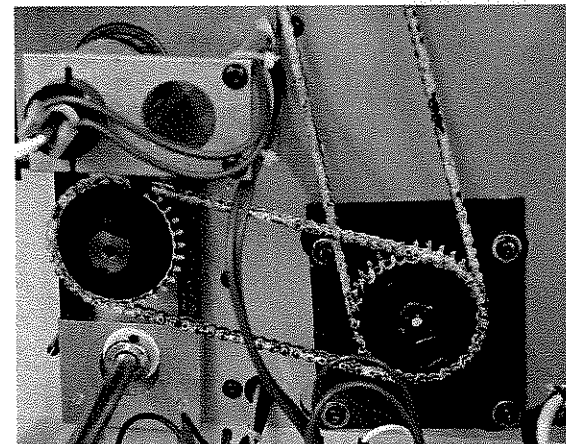
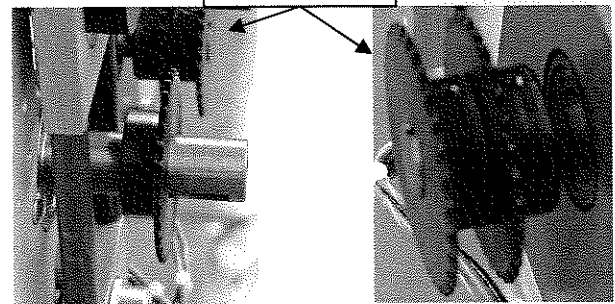
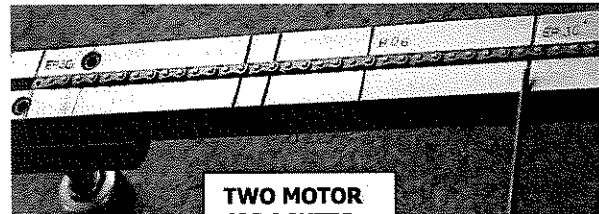
- 7) PRESS 1/8 X 2 SPRING PIN (.125J0032) INTO SLIP RING DRIVER CLAMP (XL44 024.4). CENTER ON ROTATING HUB OF MERCOTAC SLIP RING (PRS001) AND SNUG WITH 8-32 X 1 SHCS. DON'T OVER TIGHTEN AND DAMAGE HUB. ADD SLIP RING CLAMP (EHR44 022.4) ON MERCOTAC BODY AND THREAD IN 10-32 X 1 1/4 SHCS. INSERT SPRING PIN INTO SLIP RING DRIVER HOLE AND TIGHTEN SLIP RING CLAMP TO STANDOFFS WITH (2) 1/4-20 X 3/4 BHCS.



MERCOTAC SLIP RING WIRED AND ATTACHED TO STANDOFFS

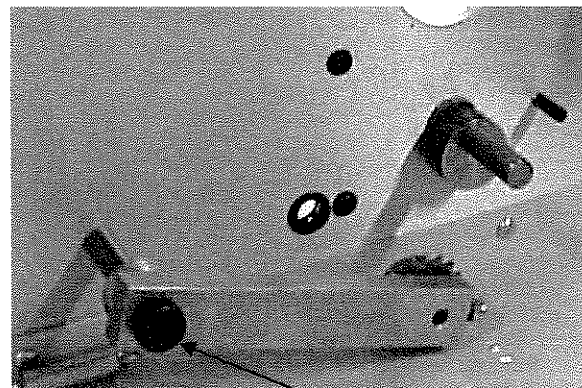
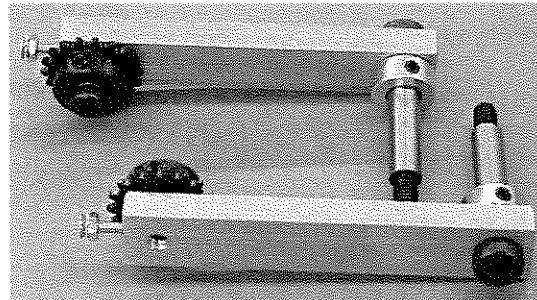
EHR SIGNMASTER GEARING PROCEDURES

- 1) **USE THE #25 CHAIN ROLL (PRC083.1) AND CUT (3) CHAINS: ONE MEASURED TO LONG EP30, ONE TO SHORT EP30 AND ONE SHORT EP30 PLUS ONE LINK. SET CHAINS ASIDE WITH (3) #25 CHAIN CONNECTING LINKS (PRC084).**
- 2) **START (2) 10-32 X 1/4 SET SCREWS INTO (2) 3/4 BORE SPROCKETS (PRS258A) AND SLIDE ONTO MOTOR JOURNAL OVER KEY SUPPLIED, HUB IN/TEETH OUT ON BOTH. MEASURE INSIDE SPROCKET 7/8" FROM MOTOR PLATE TO CENTER OF TEETH, AND TIGHTEN SET SCREW ON KEY. SNUG SPROCKETS TO EACH OTHER AND TIGHTEN OUTER SET SCREW ON KEY.**
- 3) **INSERT (3) PIN KEYS (MI187) IN BOTH ENDS OF DRIVE ROLL AND LEFT SIDE HOT ROLL. FILE IF NECESSARY. ALIGN DRIVE ROLL SPROCKET 7/8 BORE (PRS258C) HUB IN AND 1/4 X 28 X 3/8 SET SCREW WITH OUTER MOTOR SPROCKET USING STRAIGHT EDGE. TIGHTEN SET SCREW ON DRIVE ROLL KEY. CONNECT LONG EP30 CHAIN TO CLUTCH ASSEMBLY SPROCKET AND INNER MOTOR SPROCKET. CONNECT MIDDLE LENGTH CHAIN TO OUTER MOTOR SPROCKET AND DRIVE ROLL SPROCKET. LOOSEN SCREWS ON MOTOR AND ADJUST POSITION TO TIGHTEN CHAIN. RETIGHTEN MOTOR SCREWS.**
- 4) **FINISH CLUTCH ASSEMBLY BY USING (6) 10-32 X 3/8 RH SCREWS: USE (2) SCREWS TO ATTACH ENDS OF INNER CLUTCH SUPPORT (EP30 076.4) TO (2) INNER CLUTCH SPACERS (EP30 078.4). USE (2) SCREWS TO ATTACH OUTER CLUTCH SUPPORT (EP30 077.4) TO (2) OUTER CLUTCH SPACERS (EP30 079.4). USE (2) SCREWS TO ATTACH OUTER CLUTCH SPACERS TO INNER CLUTCH SUPPORT. ADD (2) NYLINERS (PRB068) FROM INSIDE TO OUTSIDE, SO FLANGE**



IS TOWARD SIDE PANEL. SLIDE THIS ASSEMBLY OVER THE REWIND DRIVER NUT AND SECURE WITH (2) 10-32 X $\frac{3}{4}$ BH FROM INSIDE OF PANEL.

- 5) ASSEMBLE LEFT SIDE TENSION SPRING ARM. INSERT $\frac{1}{2}$ X 2 $\frac{1}{2}$ SHOULDER BOLT INTO TENSION SPRING ARM (EP30 055.4) SECURED WITH $\frac{1}{2}$ INCH STOP COLLAR (PRC096). ARM MUST TURN FREELY ON BOLT. ARBOR PRESS OILITE BEARING (PRB047) INTO 18 TOOTH SPROCKET (PRS249) WITH FLANGE ON TOOTH SIDE, SET SCREW REMOVED. ATTACH SPROCKET TO TENSION SPRING ARM WITH $\frac{3}{8}$ X $\frac{5}{8}$ SHOULDER BOLT, FLANGE NEXT TO ARM. RUN A #10 KEPS NUT UP THE THREADS OF A 10-32 X $\frac{3}{4}$ FH SCREW AND INSERT SCREW ON END OF TENSION ARM TO SET SHOULDER BOLT. SPROCKET MUST SPIN FREELY. TIGHTEN THREADS OF $\frac{1}{2}$ X 2 $\frac{1}{2}$ SHOULDER BOLT INTO SIDE PANEL AND SECURE WITH $\frac{3}{8}$ -16 ACORN NUT ON INSIDE OF SIDE PANEL, LOCTITE ACORN THREADS.



$\frac{1}{2}$ X 2 $\frac{1}{2}$ SHOULDER BOLT IN SIDE PANEL WITH ACORN NUT ON OTHER SIDE OF SIDE PANEL

- 6) (2) ON LEFT SIDE PLACE A SPROCKET (PRS258C) WITH $\frac{1}{4}$ -28 X $\frac{3}{8}$ SET SCREW ONTO DRIVE AND HOT ROLL, BOTH HUBS INWARD. ALIGN THESE SPROCKETS WITH SPRING ARM SPROCKET AS GUIDE AND TIGHTEN SET SCREWS ONTO KEYS. CABLE TIE SPRING (PRS223) TO BOTTOM OF HOUSING AND HOOK OTHER END OF SPRING BETWEEN FLATHEAD AND KEPS NUT ON TENSION ARM.
- 7) CONNECT SHORTEST EP30 CHAIN AS PICTURED.
- 8) APPLY WHITE LITHIUM GREASE TO ALL THREE CHAINS, CAREFUL NOT TO GET GREASE ON WIRES.

