
CONLEY CASTING SUPPLY CORP.

BULLETIN

Attn: President and Mold Makers:

I am writing to inform you and your employees that there is a potential for serious injury if one of the vulcanizers in your molding department overheats

Almost all of the vulcanizers manufactured in the last 20 to 30 years do not have a high temperature shut down mechanism. If the temperature control or thermocouple malfunctions, the heaters could raise the temperature of the platens and mold frame to above 500°F. At this temperature, the rubber in the frame reverts and becomes semi-liquid, and white metal models turn to a molten state. If the jack is lowered when the mold frame is at such a high temperature, the tremendous pressure which has built up will force the bottom and top cover from the ring and the operator could be burned by the spraying of molten rubber and metal.

We strongly advise the following for Conley and all other vulcanizers.

1. Never leave a vulcanizer unattended.
2. If mold maker feels the temperature is higher than normal, shut off the vulcanizer and allow to cool to room temperature before lowering the jack to remove mold frame.
3. Obtain a temperature gun which will instantly indicate whether the mold frame is above the desired temperature (cost approximately \$150.00).
4. Obtain magnetic thermometers and attach to platen or mold frame.
5. If you feel your vulcanizer is not functioning properly, contact us for a service call.

We are working to develop an inexpensive fail-safe device, and you will be kept apprised of our progress.

Please call me if you have any questions.

Best regards,



Frederick L. Pratt, President

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DIRECTIONS TO OPERATE INFRA-RED TARGET GUN

The infra-red sensing gun is a way that a mold maker can check the surface temperature of a mold frame very quickly and accurately. We have been testing this device in the field with excellent results. Since infra-red temperature is best sensed from a dark non-shiny surface, we can provide you with a template to spray paint a dark spot target on to the mold frame. When checking mold frame temperature, a good reading can be made with the gun pointed at the mold frame spot, at a distance of 1/8" to 1/4" away. Surface temperature for a 9" x 1" mold frame should be in the area of 275° to 285° after preheat.

With the infra-red system an operator can check the mold frame temperature before unloading a vulcanizer. The gun can also be used to check heating platen temperatures as well as other temperatures in your shop.

Again, temperature is best sensed from a dark surface at a short distance away.

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VULCANIZER CONTROL OPERATION 220V Single Phase

1. TURN ON ON/OFF SWITCH.
2. PRESS START BUTTON.
VULCANIZER WILL FIRST DISPLAY AND THEN TURN ON.
3. PRESET TIME ON THE TIMER.
SHOULD READ THE LETTER "C" FOLLOWED BY 005 H (FOR HOURS)
YOU CAN SELECT "H" FOR HOURS OR "M" FOR MINUTES, THEN SELECT THE NUMBER OF HOURS OR MINUTES.
4. THE FUGI TEMPERATURE CONTROLS ARE ALREADY SET AT 300 DEGREES F AT THE FACTORY.
5. A SET TEMPERATURE CHANGE IS AS FOLLOWS.
 - (A.) PRESS THE SEL KEY. SV LAMP SHOULD BE ON AND SET VALUE SHOULD BE DISPLAYED ON THE DISPLAY.
 - (B.) PRESS THE UP ARROW (^) TO INCREASE THE SET VALUE OR PRESS THE DOWN ARROW (v) TO DECREASE THE SET VALUE.
 - (C.) THE DATA IS AUTOMATICALLY REGISTERED WHEN THE SEL KEY IS PRESSED AGAIN.
 - (D.) THE SV LAMP SHOULD NOW TURN OFF AND THE ACTUAL TEMPERATURE SHOULD BE DISPLAYED.

NOTE: WHEN TIME INTERVAL IS COMPLETED, TEMPERATURE CONTROL WILL BE SHUT OFF. TIMER DISPLAY AND LIGHT WILL REMAIN ON, BUT HEAT WILL BE TURNED OFF. HEAT WILL NOT COME BACK ON UNTIL START BUTTON IS PUSHED AGAIN.

NOTE: WHEN CHANGING TIME INTERVAL, MACHINE ON/OFF SWITCH SHOULD BE TURNED OFF.

NOTE: TEMPERATURE CONTROLS ARE THE PROGRAMMABLE TYPE. ALL YOU CHANGE IS THE SET VALUE AS EXPLAINED IN STEP 5. ALL OTHER PROGRAMMABLE FUNCTIONS ARE LOCKED OUT AT THE FACTORY.

NOTE: PLEASE READ ATTACHED BULLETIN ON POTENTIAL OVERHEATING CONDITION.

124 MAPLE STREET, WARWICK, RI 02888 (401) 785-9500 • (800) 445-7900 • (401) 781-9420

VULCANIZER WARNINGS

- WE STRONGLY RECOMMEND THAT TROUBLESHOOTING BE PERFORMED BY A QUALIFIED ELECTRICIAN. ELECTRICAL HAZARD MAY BE LETHAL. A MEANS OF ELECTRICAL SERVICE DISCONNECT SHOULD BE INSTALLED, I.E. A PLUG OR A SERVICE DISCONNECT SWITCH. THE MAIN VULCANIZER ON/OFF SWITCH IS NOT A MEANS OF A SERVICE DISCONNECT.

- ALWAYS WEAR EYE PROTECTION WHEN WORKING WITH HYDRAULIC OIL.

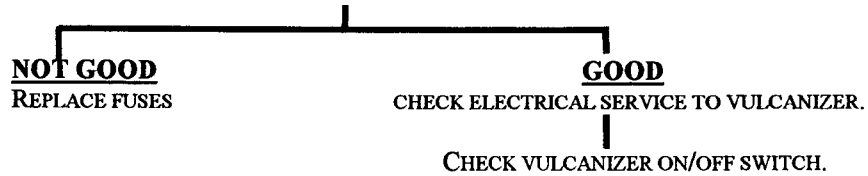
- ON MODELS WITH A MOLD MINDER, KEEP IN MIND THAT THIS UNIT WORKS WITH COMPRESSED AIR. COMPRESSED AIR MAY BE UP TO 150 PSI IN SOME FACTORIES. A PIECE OF DIRT OR MATERIAL WITH THAT KIND OF PRESSURE BEHIND IT MAY CAUSE EYE OR BODILY INJURY. PLEASE TAKE THE NECESSARY PRECAUTIONS.

- WE RECOMMEND THAT YOU CALL CONLEY CASTING FIRST IF YOU HAVE ANY PROBLEMS. MAKE SAFETY YOUR FIRST PRIORITY.

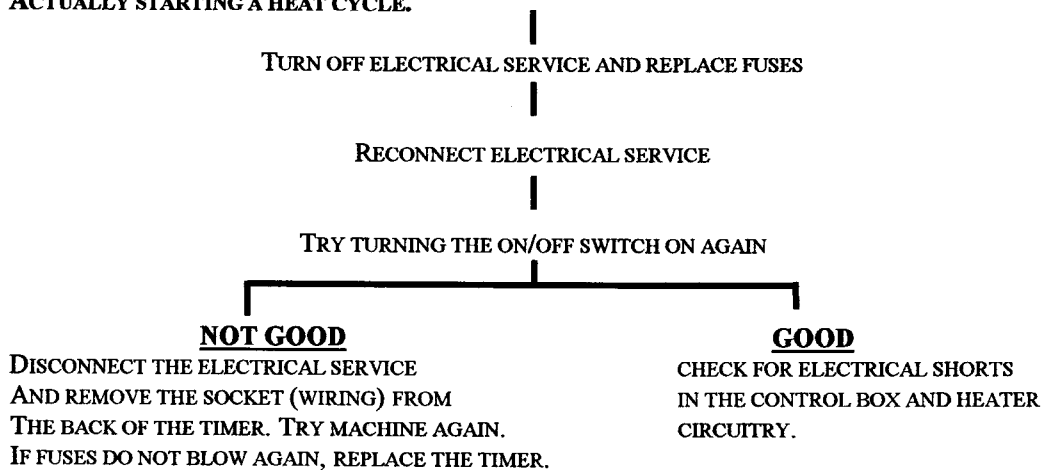
- ALSO SEE ATTACHED BULLETIN ABOUT VULCANIZER OVERHEATING POTENTIAL AND READ THE BULLETIN ON HOW TO USE AN INFRARED GUN TO CHECK MOLD FRAME TEMPERATURE BEFORE UNLOADING A VULCANIZER.

VULCANIZER TROUBLESHOOTING

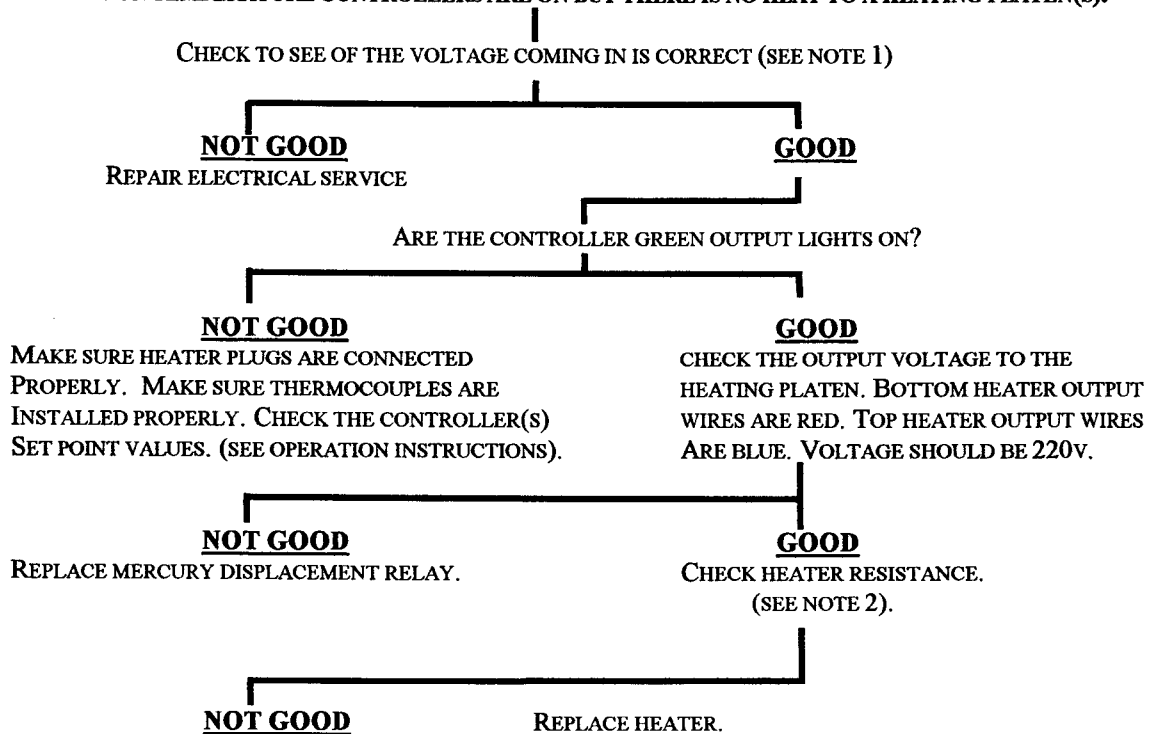
- VULCANIZER DOES NOT TURN ON.**
WITH THE ELECTRICAL SERVICE DISCONNECTED, CHECK THE MAIN NON-25 AMP FUSES FOR CONTINUITY. CHECK THE GLASS LAMP FUSES VISUALLY AND ALSO FOR CONTINUITY. THE GLASS FUSES ARE TO PROTECT THE CONTROL AND RELAY CIRCUITRY



- TURNING ON THE VULCANIZER RESULTS IN BLOWN NON-25 AMP FUSES WITHOUT ACTUALLY STARTING A HEAT CYCLE.**



- TIMER IS ON TEMPERATURE CONTROLLERS ARE ON BUT THERE IS NO HEAT TO A HEATING PLATEN(S).**



VULCANIZER TROUBLESHOOTING

NOTE 1: THE VULCANIZER WILL LIGHT UP WITH ONLY 110V TO THE MACHINE, BUT THE MERCURY RELAY WILL NOT WORK AND THE VULCANIZER WILL NOT HEAT UP. 220V IS REQUIRED TO RUN THE 220V MACHINE. A WORKING KNOWLEDGE OF A VOLTMETER AND ELECTRICITY IS NECESSARY TO PERFORM THIS CHECK.

NOTE 2: HEATER RESISTANCE IS MEASURED WITH THE POWER OFF AND THE HEATER PLUG DISCONNECTED. AN OHMS METER IS NECESSARY TO MEASURE THE RESISTANCE ACROSS HEATER LEADS. THE TOP HEATER HAS A RESISTANCE OF @ 24 OHMS. THE BOTTOM HEATER SHOULD ALSO HAVE A RESISTANCE OF @ 24 OHMS. IT IS POSSIBLE BUT NOT LIKELY THAT A HEATER HAS GOOD RESISTANCE AND THE CORRECT VOLTAGE TO IT AND STILL NOT HEAT UP. THIS IS CAUSED BY A WEAK CONNECTION IN THE HEATER. HAVE A QUALIFIED ELECTRICIAN MEASURE THE AMPERAGE WITH A CLAMP ON CURRENT PROBE. IF THE HEATER HAS THE CORRECT CURRENT TO IT THEN THE RESULT SHOULD BE HEAT.

ACCUMOLD JACK PRESSURE RISES AS THE MOLD IS BEING COOKED

- A. THIS IS SOMEWHAT NORMAL DUE TO RUBBER MOLD EXPANSION.
- B. TO MINIMIZE PRESSURE INCREASES.
 1. MAKE SURE MOLD FRAME IS PREHEATED.
 2. MAKE SURE RUBBER DISCS ARE WARMED UP.
 3. INCREASE LOW PRESSURE WARM UP TIME TO AT LEAST 5 TO 10 MINUTES PER ONE INCH OF THICKNESS BEFORE JACKING TO HIGH PRESSURE.

ACCUMOLD JACK LOSES PRESSURE

NOTE: FIRST CHECK THE PRESSURE WITH AN EMPTY MOLD FRAME AT 1500 PSI FOR ½ HOUR TO DETERMINE WHAT THE PRESSURE DROP IS EXACTLY.

- A. JACK COULD BE LOSING PRESSURE BECAUSE OF AIR IN THE HYDRAULIC OR SOMETHING IS STOPPING THE MAIN CHECK VALVE FROM SEALING.

NOTE: FIRST TRY OPENING THE SPEED AIR BALL VALVE TO LOWER THE PISTON. WITH THE VALVE STILL OPEN PUMP THE HAND PUMP SEVERAL TIMES. THIS WILL BLEED ANY AIR TRAPPED IN THE JACK. NEXT, PUT AN EMPTY MOLD FRAME IN THE VULCANIZER. BRING UP THE PRESSURE TO 1500 PSI, AND THEN RELIEVE THE PRESSURE. DO THIS PROCEDURE SEVERAL TIMES. IF THERE IS SOME DIRT OR MATERIAL IN THE CHECK VALVE THIS WILL PROBABLY CLEAR IT OUT.

JACK HAS A SMALL AMOUNT OF OIL THAT SQUIRTS OUT FROM UNDERNEATH IT WHEN THE JACK IS UNDER PRESSURE

PUT IN AN EMPTY MOLD FRAME THEN;

- A. BRING THE JACK UP TO 1500 PSI. THEN WIPE ALL THE VISUAL OIL AROUND THE JACK BASE. USE A HIGHLY ABSORBENT PAPER SUCH AS TISSUE PAPER AND PLACE IT UNDER ALL FITTINGS THAT SCREW INTO THE JACK BASE. ALSO PUT SOME PAPER AROUND THE HAND PUMP. THE PAPER WILL GIVE A VERY GOOD INDICATION AS TO WHERE THE JACK IS LEAKING. THERE ARE NO PLACES UNDER THE JACK THAT CAN LEAK. MOST LIKELY, A LEAK FROM A FITTING OR HAND PUMP CAN CAUSE OIL TO ACCUMULATE UNDER THE JACK. IF A FITTING OR A SEAL IS LEAKING EXCESSIVELY, IT MAY BE NECESSARY TO REMOVE THE JACK AND RESEAL A FITTING OR CHANGE A MAIN SEAL.
- B. IF A HAND PUMP SEAL LEAKS, FIRST CLOSE THE PRESSURE RELEASE VALVE. REMOVE THE HANDLE FROM THE HANDLE PUMP ASSEMBLY. GENTLY REMOVE THE ALUMINUM RETAINING NUT. BE CAREFUL NOT TO CRUSH THE NUT WHILE TRYING TO REMOVE IT. THE PUMP ASSEMBLY NOW CAN BE REMOVED, BE CAREFUL NOT TO SCRATCH THE BRONZE SEAL PLUNGER WHEN REMOVING THE SEAL. REINSTALL IN THE REVERSE ORDER.

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DIRECTIONS TO CHANGE AN ACCU-MOLD JACK

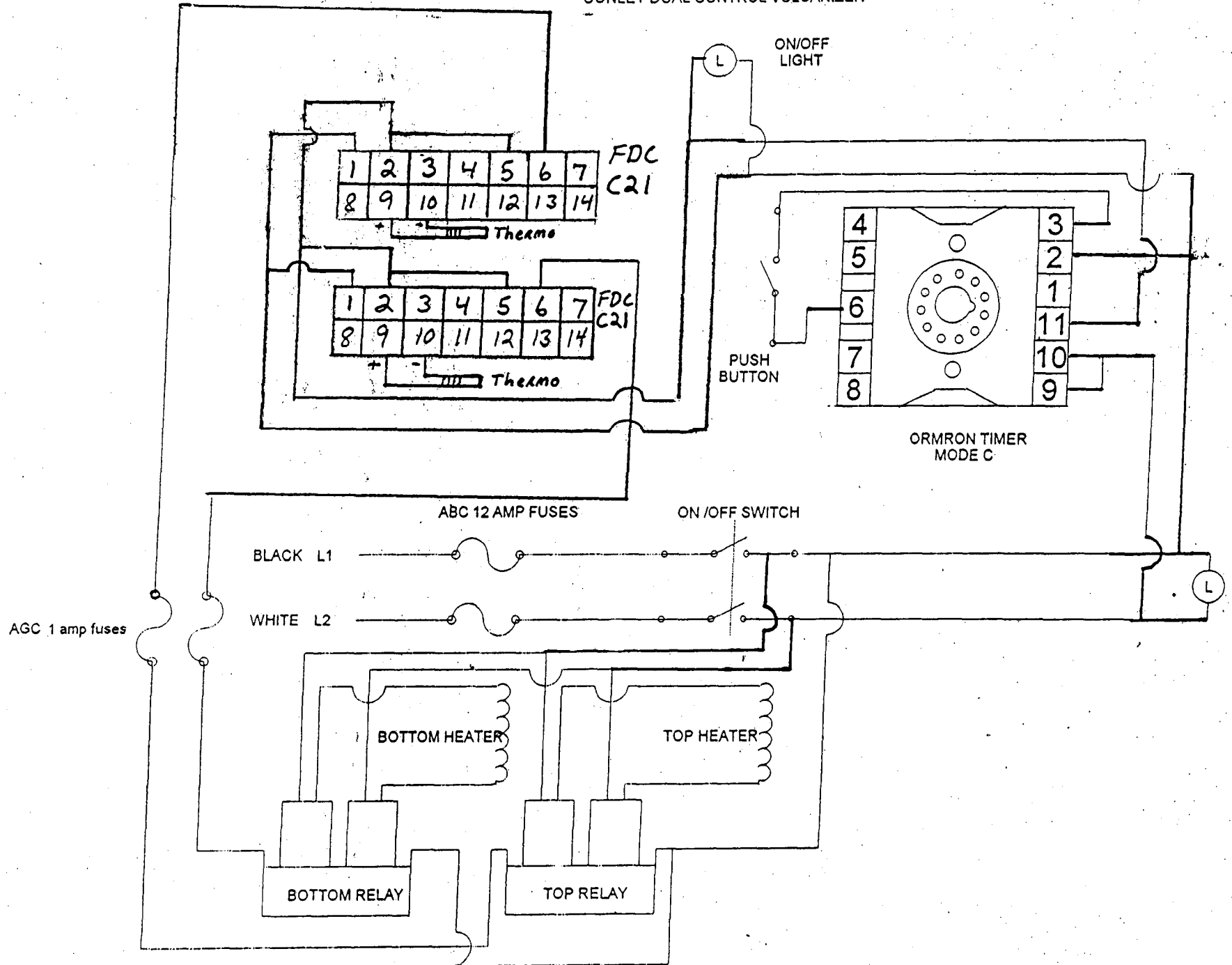
NOTE: DISCONNECT ELECTRICAL POWER TO THE MACHINE.

- 1) REMOVE THERMOCOUPLE FROM BOTTOM HEATING PLATEN. (BE GENTLE).
- 2) UNPLUG BOTTOM HEATER. (UNTWIST AND REMOVE).
- 3) REMOVE FOUR (4) SCREWS THE FASTEN BOTTOM HEATING PLATEN TO JACK PLATE.
(USE A ½" SOCKET OR ¼" ALLEN SOCKET WRENCH).
- 4) REMOVE HEATING PLATEN.
- 5) UNDER THE PLATEN INSULATION PLATE THERE WILL BE A 5/16" FLAT HEAD ALLEN
SCREW. (THIS IS THE SCREW THAT HOLDS THE PLATE (JACK) TO THE JACK).
- 6) REMOVE THE SCREW WITH A 5/16" ALLEN WRENCH. BE CAREFUL NOT TO DAMAGE THE
HEATER LEADS.
- 7) NOW YOU CAN REMOVE THE JACK PLATE ASSEMBLY FROM THE VULCANIZER.
- 8) THE JACK ITSELF IS FASTENED TO THE VULCANIZER WITH TWO (2) ALLEN SOCKET
SCREWS. (USE A ¼" ALLEN T-WRENCH OR SOCKET).
- 9) REMOVE THESE SCREWS AND THE JACK CAN SLIDE OUT. USE A CLOTH TO SLIDE IT ON.
- 10) INSTALL NEW JACK IN REVERSE ORDER.

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Future C21

CONLEY DUAL CONTROL VULCANIZER



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Pressure Gauge vs. Tonnage

1000 psi.	=	14.1 tons
2000 psi.	=	28.7 tons
3000 psi.	=	42.4 tons
4000 psi.	=	56.5 tons *
5000 psi.	=	70.6 tons
6000 psi.	=	84.8 tons **
7000 psi.	=	98.9 tons
7500 psi.	=	106.0 tons ***

- * Maximum pressure 12" mold
- ** Maximum pressure 15" mold
- *** Maximum pressure 18" mold

Do not exceed 7500 psi. Gauge pressure. Observe gauge pressure as mold heats up. Thermal expansion of rubber in the mold frame will cause gauge pressure to rise particularly when vulcanizing thick molds.

Slowly crack pressure relief valve to prevent pressure from exceeding 7500 psi on the gauge.

CONLEY CASTING ACCU-MOLD VULCANIZER RECOMMENDED SPARE PARTS LIST

PART #	DESCRIPTION	QTY	PRICE	TOTAL
Z01332	FUTURE C21- DIGITAL CONTROL	1	\$235.30	\$235.30
Z01307	THERMOCOUPLE TYPE "J" 3/16" X 6"	1	\$29.50	\$29.50
Z01169	HEATER ELEMENT C" TYPE" - 900 WATT, FLAT 11 SQ	1	\$155.00	\$155.00
Z01172	HEATER GASKET FOR "C" TYPE 11" SQUARE	1	\$35.00	\$35.00
Z01318	HEATER ISULATION BOARD FOR ACCU-MOLD VULC	1	\$31.25	\$31.25
Z01160	ABC 12 (ACCU-MOLD VULCANIZER FUSES)	2	\$7.95	\$15.90
Z01157	FUSE AGC 1 (VULC CONTROL FUSE)	2	\$3.95	\$7.90
Z01260	O-RING FOR ACCU MOLD JACK TYPE .250	1	\$36.00	\$36.00
Z01261	TEFLON WIPER FOR ACCU-MOLD JACK	1	\$55.00	\$55.00
Z01262	PUMP GASKETS FOR ACCU-MOLD YELLOW	1	\$35.00	\$35.00
				\$0.00
		8.25.08	TOTAL	\$635.85