

---

# CONLEY CASTING SUPPLY CORP.

---

## GENERAL OPERATION FOR 9"/12" AIR CAST MACHINE DC DRIVE

1. Always turn electric switch off when machine is not in use. Machine should not spin when no air is applied.
2. Turn off main electric switch and plug electric cord into wall outlet 115 volt 15 amp.
3. Apply air line to quick disconnect (located behind air regulator gauge and filter). Minimum pressure 10 - 60 PSI.
4. Lift machine cover, remove mold cover plate, turn on main electric switch, set desired air pressure. Insert mold, replace mold coverplate and lock.
5. Close machine cover, when doing so air pressure should clamp mold, if this does not occur increase mold pressure, generally a minimum of **10** PSI is required.
6. Check rotation, if the rotation is not desirable, "STOP" machine and reset reversing switch located under Micro-switch box. NEVER RESET MOTOR WHILE IN MOTION (SWITCH WILL SHORT OUT).
7. Adjust speed after machine cover is closed and motor is spinning.

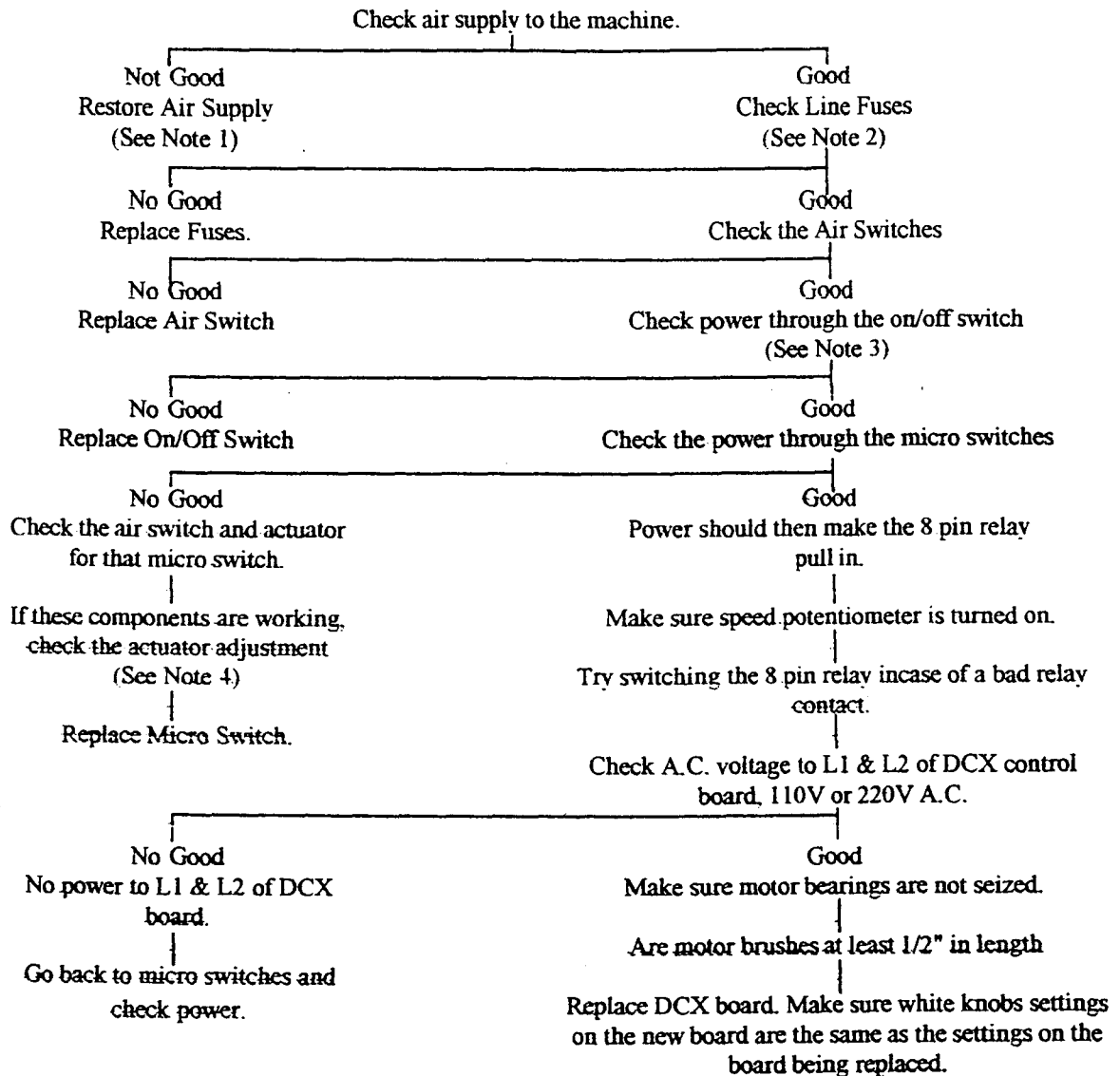
## GENERAL MAINTENANCE

1. Grease bearings yearly.
2. Oil machine cover hinge as needed.
3. Keep air filter clean of water and rust - weekly, or as needed.

NOTE: All preventive maintenance is based on a 40 hour work week.

# CASTING MACHINE TROUBLESHOOTING

## CASTING MACHINE WILL NOT SPIN



**NOTE 1:** The casting machine requires that a minimum of 2 - 4 PSI to make sure that the machine will not run without mold clamping pressure.

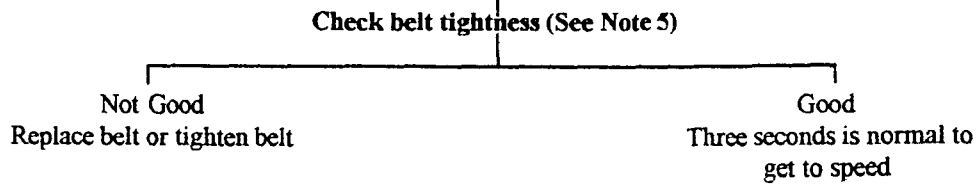
**NOTE 2:** The 110V casting machine has one AGC 8 amp fuse. The 220V machine has two AGC 8 amp fuses in each AC hot line. If these fuses are no good, you can see it visually. The one fuse that we put in the DC circuit (the white colored fuse) should not blow unless there is a major motor problem. The only way to check this fuse is out of the machine with an Ohms meter. The fuse should have continuity.

**NOTE 3:** The on/off switch can have voltage go through it and still be faulty. Casting powder can get into the switch and cause a weak contact. It is our recommendation that this switch be changed with any indication of electrical problems to eliminate that potential problem.

**NOTE 4:** The air actuator adjustment is to remove the air line that is attached to it. It will be necessary to disconnect the air supply. Remove actuator to make sure that it is not rusty inside. Screw actuator on to micro switch until micro switch clicks. Then turn it to the opposite way till it un-clicks. Then keep turning counter clockwise 1/4 to 1/2 a turn. Now you can reinstall the air line to actuator making sure not to change actuator position, except to reinstall air line.

# CASTING MACHINE TROUBLESHOOTING

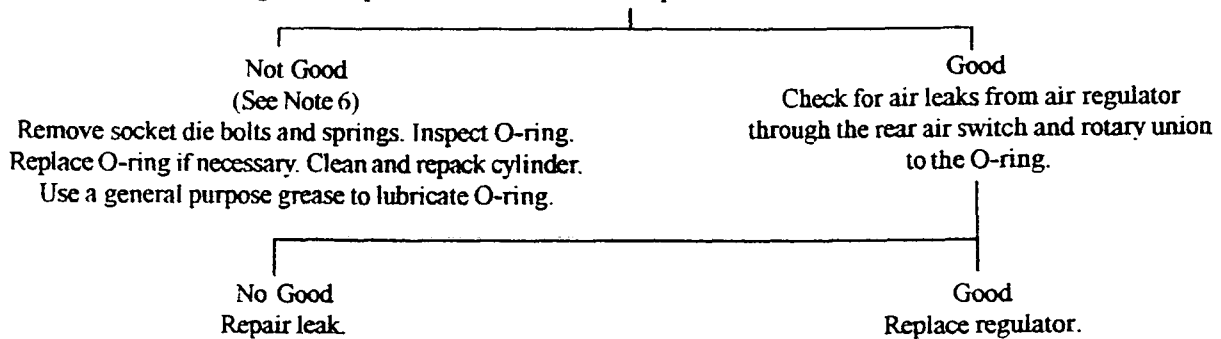
## CASTING MACHINE TAKES A LONG TIME TO GET UP TO SPEED



**NOTE 5:** We try to keep the belts on the loose side. This keeps the top motor bearings and shaft from wearing out prematurely. As long as the belt looseness does not affect acceleration of the machine, the belt is OK.

## CASTING CLAMP PRESSURE IS NOT CONSISTENT

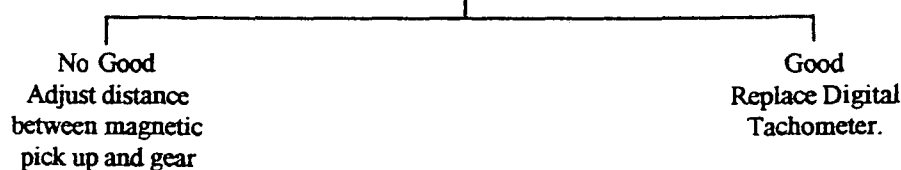
Check O-ring with the power off and the mold clamped. Listen for an air leak in the casting head.



**NOTE 6:** This is easily done with a 3/16" Allen wrench through a slot in the top shelf in the casting machine stand.

## RPM GAGE IS READING ERRATICALLY

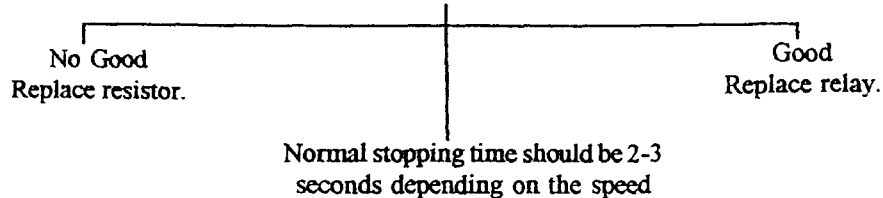
Check magnetic pick up adjustment (See Note 7)

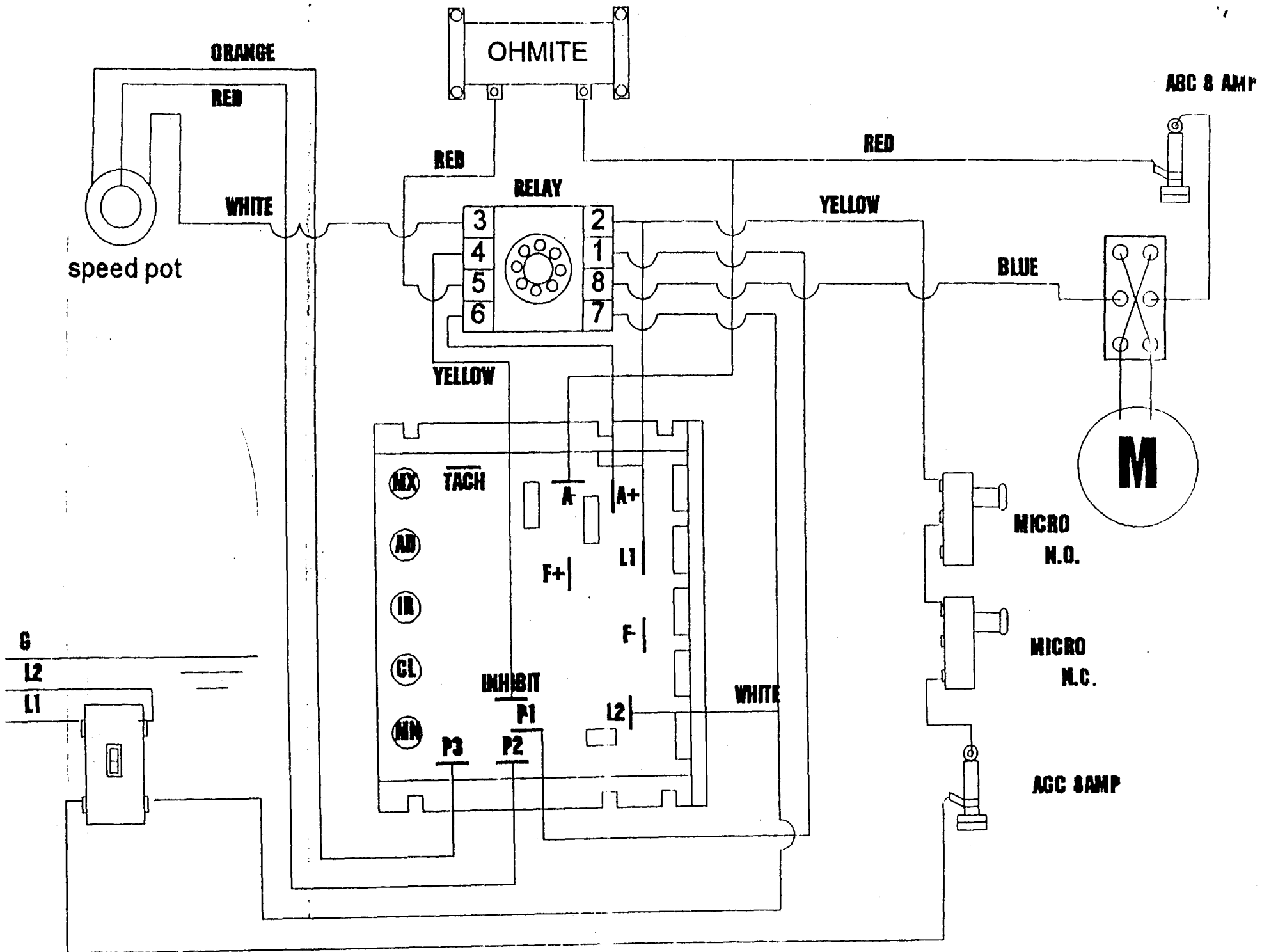


**NOTE 7:** The adjustment of the magnetic pick up means that the distance between the pick up and the spur gear should be .005" to .008" or as close as possible without rubbing.

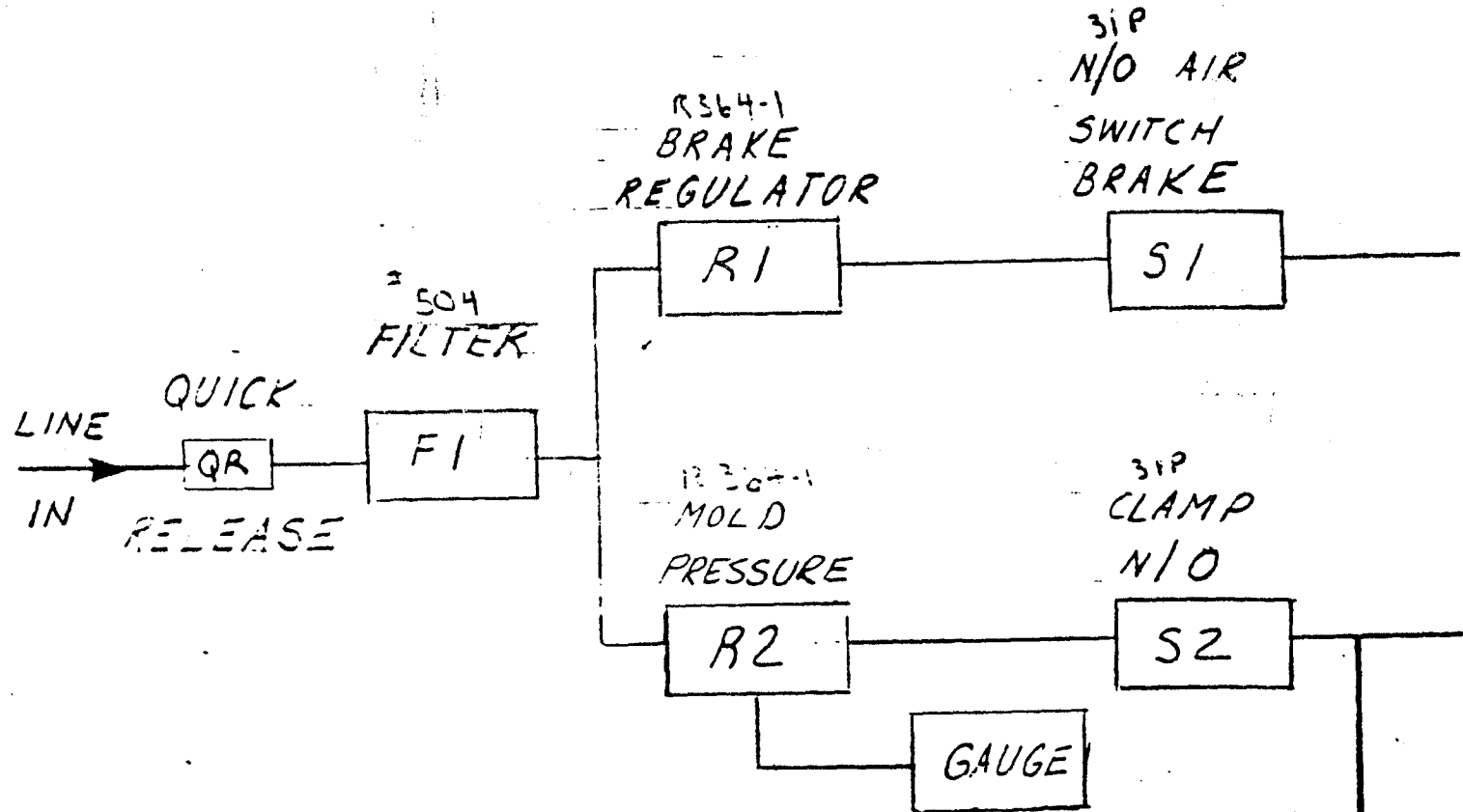
## MACHINE DOESN'T BRAKE

With power off, check the Ohmite red 5 ohm resistor with the 8 pin relay removed from its socket. Use an Ohm meter to measure the resistance.





# AIR SCHEMATIC CASTING MACHINE



# CONLEY CASTING SUPPLY CORP.

## CONLEY CASTING 9/12" DC DIGITAL CASTING MACHINE RECOMMENDED SPARE PARTS LIST

PART #	DESCRIPTION	QTY	PRICE EA.	TOTAL
Z01031	AIR GUAGE 1/8 NPT 0-60 PSI	1	\$30.00	\$30.00
Z01091	AIR ACTUATORS MPA-7	2	\$29.50	\$59.00
Z01092	AIR QUICK EXHAUST	1	\$36.00	\$36.00
Z01055	AIR REGULATOR (BOSTON GEAR)	1	\$75.00	\$75.00
Z01095	AIR ROTARY UNION	1	\$99.60	\$99.60
Z01100	AIR SWITCH 31P	2	\$35.00	\$70.00
Z01110-T	BEARING YEJT-1	1	\$93.06	\$93.06
Z01110-B	BEARING SCJT-1	1	\$94.20	\$94.20
Z01122	BELT 4L310	1	\$19.44	\$19.44
Z01158	FUSE AGC 8 AMP	5	\$1.50	\$7.50
Z01210	MICRO SWITCH FOR CASTING MACHINE	2	\$17.75	\$35.50
Z01213	MISCELANEOUS AIR LINE AND CONNECTORS	1	\$25.00	\$25.00
Z01223	MOTOR BRUSHES FOR 1/2 H.P.	2	\$45.00	\$90.00
Z01219	MOTOR CONTROL FOR 1/2 H.P.	1	\$186.00	\$186.00
Z01227	MOTOR RELAY	1	\$22.50	\$22.50
Z01270	O-RING FOR CASTING HEAD #433	1	\$8.95	\$8.95
Z01136	COVERPLATE SCREWS 1/4-20X3/8 FLAT/SOCKET	4	\$0.45	\$1.80
SPECIAL	SHOULDER BOLTS WITH SPRINGS SPECIFY LENGTH OF BOLT	3 PCS	\$15.00	\$44.00
		7/1/2008	<b>TOTAL</b>	<b>\$967.55</b>

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

7/16/2008

SALES@CONLEYCASTING.COM www.conleycasting.com