

Alternator Operator Check List

(Check list is to be performed after each pulse and the machine has returned to full speed)

1. Check all the PLC screens for machine temperatures and pressures
2. Core monitor:
 - a. purity above 85%
 - b. check printer, sometimes the paper gets jammed and needs to be dislodged
3. Limit-Amp:
 - a. current varies around 175 amps
 - b. motor temperature below 50°C
4. Kramerstat:
 - a. alternator RPM (1695-1705)
 - b. inverter current varies between 400 and 500 kilo-amps
 - c. inverter volts varies around 125 volts
5. Helium Cabinet:
 - a. gas pressure (1.0- 1.250 psi)
 - b. vacuum pressure (28- 30 in Hg)
 - c. gas temperature (~ 58- 60 C°)
 - d. gas purity above 90%
6. Air Compressor:
 - a. air pressure (~100 psi)
7. Vacuum pump:
 - a. oil- mid level on sight glass
 - b. vacuum pressure (30 in Hg)
8. Auto water valve (gas system)
 - a. range: (2:00 – 5:00) no oscillation
9. Auto water valve (alt, oil system)
 - a. range: (1:00 – 3:00) no oscillation
10. Oil levels in seal oil pit:
 - a. make-up tank
 - b. vacuum tank

Note: These levels can be observed from above the pit and do not require one enter into the pit unless a problem arises during the check.
11. Alternator lube oil tank:
 - a. oil temperature (~110-120°F)
 - b. oil tank vapor extractor (~4 in H2O)
 - c. oil drain loop seal (0.5 in H2O)
 - d. oil pressure (~ 34 psi)
 - e. tank oil level (~12:00)
 - f. flywheel oil drain loop seal (0.5 in H2O)

12. □ Flywheel lube oil tank:
 - a. oil temperature (~ 110- 115°F)
 - b. oil tank vapor extractor (~4 in H₂O)
 - c. oil pressure (~34psi)
 - d. tank oil level (normal range as indicated on sight glass)
13. □ Auto water valve (flywheel oil system)
 - a. (8:00-12:00) no oscillation
14. □ Alternator/flywheel vibration:
 - a. Vibration is very sensitive to changes in temperature, and needs to be carefully monitored.