

**Suggested Preventive Maintenance
Haskel International Air Amplifiers**

9/12/2002

This preventive maintenance outline is intended as a guideline and not as a set of hard rules. These guidelines are determined assuming a known set of conditions. As conditions vary, so will the frequency of the service required as well as seal life.

Note: It is important never to allow the amplifier to run “unloaded” with no pressure downstream from the amplifier (not connected to a machine, etc.). This will cause premature wear of the compression seals and/or cycling valve seals. Please reference the test procedure ‘set up’ for testing outside of the installation.

Please reference the trouble shooting manual for symptoms and how to correct them.

High Pressure air can be dangerous if improperly handled.

Suggested Preventive maintenance schedule (Every 30 days):

- Lubricate the spool; Dry plant air will cause the lubricant to dry out and cause the o-rings to become brittle and break.
 - 1) Disconnect and vent the air supply,
 - 2) Remove the muffler and retainer, then remove the cycling spool using needle nose pliers or Haskel Tool # 28546.
 - 3) Check condition of o-rings (if dry, brittle, swollen, or broken, replace o-rings).
 - 4) Lubricate the cycling spool with Parker O Lube or a light silicone lubricant.
 - 5) Clean or Replace Air Filters.

- Drain and clean the air filter bowl.
- Check Air Drive tie rod nuts for loosening; if loose, torque to 16-18 lbs/ft max; on Single or Double ended amplifiers, torque to 25lbs/ft max; (*AA, AAD, & AAT*).
- Check the muffler for constant exhausting; this could indicate there is possibly something wrong with the cycling valve). If constantly leaking, reseal complete air cycling valve (ref. manual, seal kit instructions). If air continues to leak from muffler, replace amplifier and repair (the main compression seals may be leaking).
- Check the pilot vent port for constant leakage, there should be a small pulse of air once every cycle or every other stroke from this port, if air is leaking constantly, replace the pilot stem in the upper cap.
 1. Remove the hex plug, 16510, located on the top of the upper cap, remove the spring, 16513, and the old pilot stem, 27375-3.
 2. Install new pilot stem and apply a light coating of lubricant.
 3. Install hex plug and spring.

- Check the 1/8” NPT vent port on the side of the center diaphragm for constant / audible leaking. If the leaking is excessive, the main piston rod seals are leaking and the amplifier should be replaced and repaired.

- If amplifier continues to cycle without the tire machine operating, the check valves may be leaking or there may be a leak downstream of the amplifier. Refer to the trouble-shooting chart “*will not stall*” if no external leaks are found.

Note: Each customer application will vary with the number of amplifier cycles per minute, pressure load, and dryness of the air or air quality, filtration, moisture, etc.

(Example of maintenance record sheet)

Date: _____ **Tech.** _____ **Machine:** _____

Serial No.: _____ **Cycle Rate:** _____ **per minute.**

<u>Check</u>	<u>Suggestion</u>
•Constant Air leaking from muffler: ___yes ___no	Re-lubricate cycling spool. Reseal cycling valve.
•Constant Air leaking from pilot vent port: ___yes ___no <i>(Located on the right side of the upper cap)</i>	Replace pilot stem.
•Erratic or uneven cycling of unit: ___yes ___no	Change check valve seats.
•Air leaking from 1/8” NPT vent port: ___yes ___no Located near the back of the machined center diaphragm, <i>(4AAD-2 & AAD-2 Only)</i>	Replace unit & repair.

When Maintenance technicians perform PM, it should be observed if there is lubricant on the spool or if the o-rings are dry and no lubricant is visible. This will help to determine the time allowed for preventive maintenance scheduling for lubricating the spools. It may be determined that the PM schedule can be 30, 60, 90 days or every 3-6 months, etc.

To begin the Preventive Maintenance program, Air Amplifiers should be inspected, using the “Suggested Preventive Maintenance Schedule” listed above.

Haskel International
Customer Service Department