

Bringing your engine to life is exciting and rewarding. These points and procedures will assure the greatest success.

## SAFETY FIRST!

- \_\_\_ 1. Have the correct propeller installed, torqued and tracked. **DO NOT OPERATE THE ENGINE WITHOUT A PROPELLER.**
- \_\_\_ 2. Remove loose tools, rags, and debris from the engine and immediate area.
- \_\_\_ 3. One person **MUST** remain in the cockpit while the engine is running, and an observer **MUST** be on hand to keep an eye on the engine in case of oil leak, fire, and to observe and keep bystanders safely away.
- \_\_\_ 4. Have an approved fire extinguisher available.
- \_\_\_ 5. Know your aircraft's cockpit controls.
- \_\_\_ 6. Tie the aircraft down securely, set the brakes, and chock the wheels.
- \_\_\_ 7. Start the engine using a checklist. The AeroCarb manual includes some sample start-up and shut-down checklists which may be used or adapted to your aircraft.

## Engine Checks

- \_\_\_ 1. Cowl removed.
- \_\_\_ 2. Oil in crankcase.
- \_\_\_ 3. All parts installed and secured.
- \_\_\_ 4. Propeller installed, torqued, and tracked.
- \_\_\_ 5. Heads torqued and valves properly adjusted.
- \_\_\_ 6. Electronic ignition system static-timed.

## Starting the Engine

- \_\_\_ 1. Install the correct oil and prime the engine as described in "Engine Oil", previous page.
- \_\_\_ 2. Use your start-up checklist to start the engine.
- \_\_\_ 3. Immediately upon engine start look for oil pressure. If no oil pressure registers in 5 seconds, turn off the engine and investigate.
- \_\_\_ 4. If the engine does not start, investigate the cause (see Troubleshooting section).
- \_\_\_ 5. Adjust the timing of the electronic ignition as required. There should be little or no change in RPM when performing a mag check between 1600 and 2000 RPM. A change of more than 50 RPM indicates a timing correction is needed.
- \_\_\_ 6. Tune the AeroCarb for optimum engine performance. Tuning is detailed in the AeroCarb manual.
- \_\_\_ 7. Limit ground running to the minimum necessary to correct the timing, tune the AeroCarb, assure smooth throttle response, confirm proper oil pressure, and assure no oil leaks.

**Important: Extended ground running will overheat the engine and cause serious damage.**

## Break-in, the First 25 Hours

Proper break-in will help you get the best performance and longest life from your AeroVee engine.

- \_\_\_ 1. Limit ground running to what is needed to properly tune the engine and assure no oil leaks.
- \_\_\_ 2. Do not "baby" the engine during the first few flights. As soon as possible, climb to a safe altitude over your airfield and operate the engine at 3000 rpm and above for at least an hour. This will seat the rings. Monitor the engine's temperatures and reduce throttle as needed to keep the engine temperatures "in the green". Step climb if needed. Higher than normal temperatures during the break-in period are to be expected, however, temperatures which exceed the redline or continue to climb must be investigated.
- \_\_\_ 3. Change the oil at 1 hour, 5 hours, 10 hours, and 25 hours.
- \_\_\_ 4. Adjust the valves at 5 hours, 10 hours, and 25 hours.
- \_\_\_ 5. Torque the heads and adjust the valves at 10 hours and 25 hours. Always torque the heads before adjusting the valves.

After 25 hours you should see the engine's temperatures decrease and stabilize and there should be little change in the head torque.