



Break-In Instructions for Overhauled Engines

- 1.) **BEFORE START:** Fill engine oil sump with correct amount of STRAIGHT WEIGHT MINERAL OIL corresponding to the outside air temperature the engine will be operating in. With the spark plugs removed, motor the engine over to verify positive oil pressure.
- 2.) **INITIAL START:** Re-install the spark plugs and start the engine. Run the engine long enough to check magneto RPM drop, propeller operation, fluid leaks, proper engine operation, and indications. Shut down the engine, inspect for leaks and other installation errors. Allow the engine to cool, then start again and run for approximately four (4) minutes. Again inspect the engine for leaks or other problems. If no problems are found the aircraft is ready to be flown.
- 3.) **INITIAL FLIGHT:** For the initial flight, it is recommended to get airborne as soon as possible. Use approximately 5-10 knots extra climb speed above normal. Remain close to the airport for safety and continually monitor the cockpit gauges for normal indications. Fly the aircraft for thirty (30) minutes, return to the airport, and perform another leak and installation inspection of the engine.
- 4.) **SECOND & SUBSEQUENT FLIGHTS:** Cruise at a minimum 75% power for the first ten (10) hours of engine operation. DO NOT perform touch & go landings, with the aircraft until a minimum of ten (10) hours of flight has been conducted. If traveling on long cross-country flights, at altitude, lean the engine to 100 degrees rich of peak EGT. This will keep the combustion temperatures at a reasonable level.
- 5.) **OIL CHANGES:** At ten (10) and thirty-five (35) hours the oil and filter should be changed. Maintain the use of straight weight mineral oil during the first fifty (50) hours of engine operation if applicable to your model engine. After the first fifty (50) hours ashless dispersant oils can be used. G&N recommends STRAIGHT WEIGHT ashless dispersant oil that is appropriate for the outside air temperature that the aircraft will be operated in.

NOTE: If your engine is equipped with an oil screen instead of an oil filter, change the oil at ten (10), twenty-five (25), and fifty (50) hours. The normal oil change interval after that point should be twenty-five (25) hours thereafter.