

## SUPPLEMENTAL ENGINE TUNING INSTRUCTIONS

If you have received one of the new Zenoah G25B-1 engines equipped with the Keihin slide-type carburetor and pointless CDI ignition, the steps on carburetor tuning, particularly low and high speed jet adjustment, on pages 5 and 6 will not apply.

The Keihin carburetor uses an external vacuum-operated fuel pump and has fixed, non-adjustable main jets which are pre-installed at the Zenoah factory in Japan. These jets are sized for the most common types of engine operation and you should not find it necessary to change carburetor jet sizes or settings unless extreme conditions dictate.

If you are operating at very hot, high altitude locations or in very cold dense air near sea level, you may find that the engine tends to run rich (four-stroking) or is prone to overheating (too lean). It then may become necessary to change the position of the jet needle bar or step up or down one complete main jet size.

In general the jet needle bar (located in the bottom of the carburetor slide) controls lower to mid-range R.P.M. mixture. Raising it a notch (richening the mixture) or lowering it (leaning the mixture) will not have a radical effect on the engine's overall R.P.M. but has the effect of fine tuning the mixture for smooth throttle response at mid-range throttle settings.

For more radical changes in tuning, the carburetor main jet can be removed from the bottom of the float chamber and be replaced with a larger #160 jet to richen the mixture or smaller #150 jet for leaner mixture. The carb comes equipped with jet size #155 which is best for all-around operations, but jets #150 and #160 are also supplied as spares packed with the fuel pump.

Consult the Zenoah engine owner's manual for further specifications on engine tuning, temperature limitations and/or other fine points of carburetor adjustment or engine operation.

The following is a list of steps summarizing engine adjustment/operation:

1. Start engine.
2. Warm up for 5-10 minutes at  $\frac{1}{4}$  throttle.
3. Set engine idle (screw on side of carb).
4. Stop engine; adjust slack from throttle cable by screwing barrel adjuster in carburetor top cover in or out as necessary to obtain about  $\frac{1}{16}$ " of free play with throttle lever completely closed.
5. Run engine on ground for at least one hour at low and medium throttle settings for proper break-in procedure prior to flight.
6. Follow steps #7 and #8 (high speed jet adjustment procedure) of Kasperwing Pilot Flight Operations Manual for final pre-flight engine break-in details.

### CAUTION:

Always stop the engine when making carburetor or engine adjustments as proximity to a rotating propeller could cause serious injury or death.