



# REVOLUTION

HELICOPTER CORP., INC.



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May 7, 1996

Service information letter #042696

Subject: Carburetor jetting

Applicability: All Mini-500's

Proper carburetor jetting of your Rotax engine is critical for proper performance. If the mixture is too rich, the engine will have low power, produce carbon buildups, and have higher than normal fuel burn. If the mixture is too lean, you could burn holes in the pistons, or experience a hot seizure and engine failure.

The most accurate indicator of your mixture is your exhaust gas temperature (EGT) gauge. Ideally, your EGT's should read between 1000 and 1150 degrees F. in all modes of flight. **If at any time your EGT's go above 1200 degrees, do not fly the aircraft until you adjust the jetting.**

There are two different modes of flight when you should check your EGT readings. First, check the readings while in a hover. This is your 3/4 throttle and above area. This area is controlled by the main jets. (item #17 on the attached drawing). If your EGT's read below 1000 degrees, you must lean the mixture. Do this by installing smaller main jets. The standard main jets that come with your engine are #165. In most cases you will not have to go below #160 main jets.

If your EGT's read above 1150 degrees in a hover, you must enrich the mixture. Do this by installing larger main jets. In most cases you should not have to go more than one size larger.

Now you must check your EGT readings after you have throttled back for cruise flight and also on descent during an approach. This is your 1/2 to 3/4 throttle area. This area is mainly controlled by the needle, (item #4 on the attached drawing), and needle jets, (item #15 on the attached drawing).

The needle has 4 clip positions as shown on the attached drawing. Put the clip in the #4, (bottom), slot. If in cruise flight or during an approach, your EGT's go above 1150 degrees, you need to enrich the mixture. Do this by installing larger **needle** jets. The standard needle jets that come installed in your engine are #2.72. In most cases you will not have to go above #2.78 needle jets.

Your EGT's will probably not read below 1000 degrees, but if they do, install one size smaller needle jets.

You will probably end up with a set of summer jets and a set of winter jets appropriate for your area.

Please print your name and date, then mail or fax a copy of this letter to Revolution Helicopter before May 31, 1996.

Name: \_\_\_\_\_ Date: \_\_\_\_\_  
If you have any questions please contact Brian Thomas at (816) 637-2800.

