

EOS 150

BREAK-IN

advices for the break-in procedure on a new engine

If no break-in procedure will be conducted generally the engine should not get damaged or fail but this procedure may improve the performance and durability of the engine though. CAUTION! - an operation in max. RPM for a longer period of time on any new and/or cold engine however may lead to engine damages! Therefore we recommend to follow the procedure as described.

Any new engine should be treated with special care within the very first approx. 5 hours of operation, say until the first about 20 Liters of fuel are burned. It is recommended to use a fuel mixture ratio of 2,5% (1:40) during the break-in procedure.

Warm-up (general advice for a procedure before any flight operation of an engine); Start the engine and accelerate gently until about 20-30% throttle and let it run in this range for about 1-2 minutes, then after that go several times to idle to check if it is set right else make the necessary adjustments to have a perfect idle run (see chapter how to set the carburetor in the manual). Finally accelerate the engine up to full throttle, about 5-10 seconds, go back to idle, full throttle again for about 10-20 seconds. Warm-up procedure is completed.

CAUTION! - the break-in procedure should be conducted with factory jet settings (L-jet and H-jet in positions as the engine comes new, as described in the manual). Well take care that the fuel tank is filled with sufficient quantity and will never ran out within the duration of the break-in procedure!

Break-in;

For the corrt break-in procedure you need a proper installed and working RPM tachometer and a watch to check each duration of the suggested sequences.

After warm-up, operated on the ground;

Step 1 -

4.000 – 5.000 RPM – 5 minutes, after that back to idle for 1 minute

6.000 RPM – 3 minutes, after that back to idle for 1 minute

7.000 RPM – 2 minutes, after that back to idle for 1 minute

8.000 RPM – 1 minute, after that back to idle for 1 minute

about 9.000 RPM = full throttle – ½ minute

After that stop the engine and let it cool down between 10-20 minutes and repeat the Step 1 procedure again for a second and thereafter for a third time. After all is completed, make a general check of the engine, check all componets and bolts and fuel system for air tightness. Remove spark plug and check the condition and color (we refer to the chapter carburetor setting in the manual and the different spark plug pictures).

Step 2 -

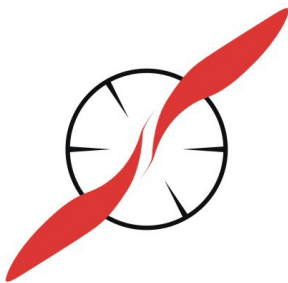
Start to use the engine in flight by always gently accelerating, avoid full throttle operations over a longer period else than ½ minute. Try to operte the engine in various RPM runs and not using staedily same RPM ranges. Never make flights longer than about ½ hour and carefully check the engine after every flight for loose bolts, general check of the components, check for possible oil leaking on cylinder. Check fuel system and filter.

The Step-2 operation and in consequence the whole break-in procedure is completed once you have reached about 5 hours of opertation and/or about 20 Liters of fuel burn. Go back to 20% (1:50) fuel mix ratio.

REMARKS! - We assume that the engine installation has been made properly by experts and fuel system as well as wiring system is without failure. Fuel tank to be double checked for proper ventilation that under no circumstances vacuum can occur. Only quality fuel with enough Octane and only quality 2-stroke oil as per recommended specifications to be used. All bolts fastened and no loose items. Correct propeller installed, hub bolts tight. Only persons with proper knowledge to conduct the break-in procedure and the unit should be well under control during ground operation (Step 1). If the unit cannot be properly secured on ground it is recommended to conduct Step 1 by having the unit on the back of the person/pilot. If any other person(s) present during ground operation of Step 1 to be warned about the danger of the propeller!

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