

Appendix

amendments to manual EOS 100 and EOS 100 Booster

status 07.2017

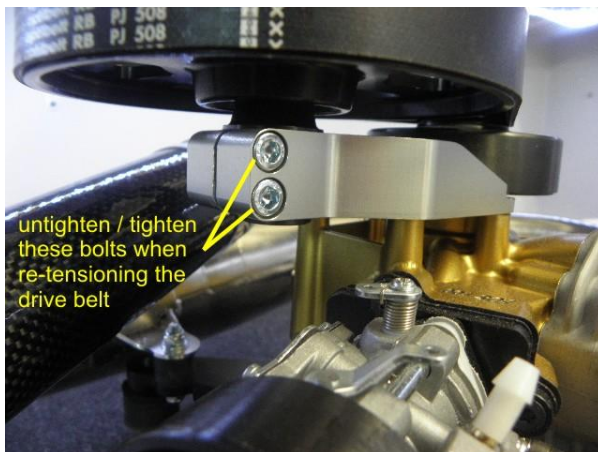
Drive belt tension

The tension of the belt needs to have proper adjustment. New engines should come with the right setting of the belt tension. However, after some time of engine operation it may and most probably will become necessary to re-adjust the tension.

A too loose tension of the belt will result in slipping and loss of power and thrust in medium and high engine RPM as the propeller is not turning in the same speed as the inducement. You may hear a squeaky noise and in very short time the belt will get damaged and in consequence needs replacement.

A too high tension of the belt will result in increased friction and loss of power and thrust in all engine RPM, engine will not reach max. RPM as it should. Extensive force may react on crank shaft, clutch and drive wheel bearings as well as on drive wheel support bracket what may lead to damages in medium and long term.

Advice how to set the right belt tension;



Untighten the shown bolts, open one after the other in small steps, until you can easily turn the drive wheel eccentric shaft



set your torque wrench to 8-9 NM, use a Inbus type hexagon socket 8mm (metric)



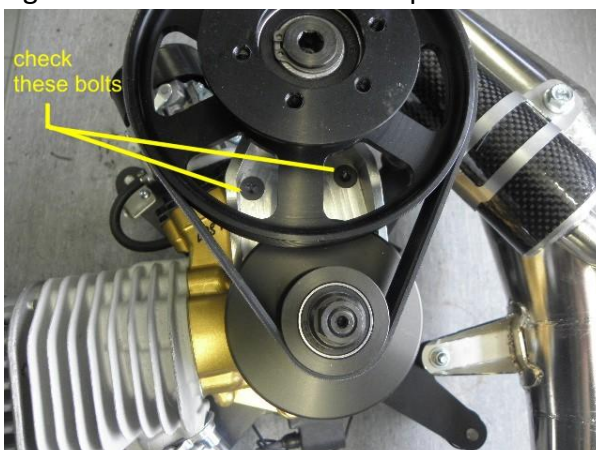
fit Inbus socket into the center bolt of the drive wheel front as shown. Now start to turn slowly in anticlockwise direction (!, never in the other way) until you reach the set torque

Now by holding the wrench / exactly keeping the set torque force start to close the 2 bolts on the drive wheel bracket what you have initially opened to prevent the eccentric shaft to turn back. Now in small steps close the 2 bolts one after the other until tight. We again refer to the bolts' general torque table in the manual.

Propeller damages

Damages to the propeller, even small ones, caused by stones or other objects whatsoever what may fall into or go through the propeller will generate imbalance resulting in increased vibrations. These vibrations, if not very minor, may cause defects to the engine and engine parts and/or to the whole system. By an expert propeller damages can be repaired and the propeller can be newly balanced. It is strongly recommended therefore to care for a balanced propeller or do a replacement if a repair is not possible or not practicable.

Important note! – If you had a propeller stroke and in consequence a broken propeller it is strongly recommended to replace all propeller bolts to new due to the heavy shock loading what may have occurred. Both, an imbalanced propeller in long term and a shock loading after a broken propeller may also damage or brake the bolts connecting the drive wheel bracket with the engine housing. A check of these bolts is imperative and a replacement safety wise recommended (to use only proper 10.9 bolt quality with Torx head, properly tightened acc. to the bolts' torque table and secured with Loctite 243 thread locker!).



Propeller hub extensions

A hub extension to bring the propeller further back for certain reasons (frame construction, different engine applications, purpose to increase thrust etc.) is seen as a general design change of our engine. Possible influences resulting by the additional prying effect cannot be foreseen and are not tested by EOS engine.

If nevertheless offered by a Paramotor-System supplier, then we advise to follow the operating and maintenance instructions given from this particular System manufacturer.

Mesh filter in carburetor - necessity for cleaning in a periodic time lapse

After the fuel inlet nipple, placed on the inside of the carburetor at the side where the membrane of the fuel pump is located, there is a fuel mesh filter. Even if you have installed a fuel filter in the fuel lines still dirt can reach this subject additional filter and can block a sufficient fuel flow. Especially additives in the fuel can cause this impurity (f.e. Ethanol). Sometimes it looks like a "jellylike" layer on the mesh filter. This can mostly pass the regular installed fuel filter but getting stuck in this internal very finely woven mesh filter.

Indication for a polluted mesh filter;

- loss of power
- loss of quick acceleration
- engine not reaching max. RPM
- engine reaching lesser and lesser RPM only, at the end running only at idle or stopping totally

Caution! - A polluted mesh filter may cause the engine to start running to lean step by step with danger of overheating and melting the piston! We therefore recommend to check the filter at least every 30 hours of engine operation.



ICI

Induced controlled ignition; Engines EOS 100 Booster have been upgraded to a new ignition system from productions series June 2017 onward. The new ignition grants for;

- remarkable easier start-up
- less sensitive to flooding
- perfect stable idle run with even lower RPM
- perfect run in all stages of RPM
- increased max. RPM with increased thrust
- easier start up when engine is hot

Exhaust rubber mounts - safety straps

Extensive vibrations caused f.e. by an unbalanced or wrong propeller may shake the engine and especially the exhaust in a severe way. In consequence the exhaust rubber mounts may get damaged and/or may brake totally. In order that the exhaust cannot get seperated from the engine going into the propeller and/or fall from the sky we have added safety straps to the exhaust rubber mounts.



Re-torque cylinder head nuts

We recommend to re-tighten the cylinder head nuts after the first 2 hours of engine operation. Open front part of the cooling cover and re-torque nuts with a torque wrench setting 18NM (tighten nuts crosswise).

Caution! - Open counter nuts first, remove them totally, re-torque main nuts with 18NM, re-install counter nuts again and also re-torque them with 18NM.

