Thank you for purchasing our Autostart system for the NGH 38 Four stoke engine.

Here are the fitting instructions to guide you through the installation process. This unit has been previously fitted to an identical engine to ensure you have the minimum of effort with fitting the unit to your engine.

First off if your engine came with a beam mounting and not the firewall or standoff type mounts you will need the nickel plated flat plate normally supplied with the standoff mounted engine. This is **not** part of the Autostart kit however it is available from ourselves or Just Engines the UK importer.

This plate if you haven't already got one fitted mounts on the four bolts securing the back of the crankcase casting, remove the bolts and fit the plate in position replacing the bolts. You will also have to remove the carb and its bracket to complete this task, these can be set aside for the moment.

Remove the prop driver being careful not to lose the woodruff key, if it is tight a little heat from your covering film gun will assist.

Next fit the front mounting plate, first remove the intermediate gear being careful to note the position of the washers, also remove the starter motor and set these aside.

At this time it might be a good idea to attach wires to the starter motor, as it is removed from the front plate it will make fitting them easier. Note one terminal has a red marking for polarity. We suggest soldering the wires using no less than 16swg silicon wire supported with heat shrink. The other end of the wires will need the XT90 relay plug attaching. The power to the starter motor on the other side of the relay will need a two cell 7.4 Volt Lipo or similar. Note voltage to the motor should not exceed 8.4 volts. The control lead similar to a servo lead plugs into a spare channel on your receiver, this needs to be an on/off switch and not a slider.

Returning to the Front plate, it should be a snug fit around the crankcase and it may be necessary to remove any excess flashing on the crankcase casting of your engine. The spacer bars fit between the front plate and the nickel plated rear bracket using the long bolts and locknuts supplied. Also at this time fit the mounting brackets which go in place at the back of the nickel plated bracket.

You can now refit the carb, you will need to remove a little material from the carb support bracket as it interferes with the new engine mounting bracket.

Next trial fit the new prop driver assembly without the woodruff in the first instance. It should be a gentle push fit. When you are happy refit using the woodruff key.

Refit the starter motor and intermediate gear, the intermediate gear nut need not be fully tightened as you will need to adjust the mesh between the gears.

Use a piece of writing paper fed between the large gear on the crankshaft and the intermediate gear to give the correct gear mesh clearance and tighten the intermediate gear lock nut, we apply blue Loctite as an extra precaution.

You now need to set up the engine timing, a protractor is necessary to achieve this and if its drilled to fit on the crankshaft you might find it easier to set up.

Remove the spark plug and bring the engine to TDC, use a straw or similar to ascertain this position.

Put the spark plug in the plug cap and ground it before powering the ignition unit other wise damage to the ignition unit is possible.

Turn back the engine to between 27 and 30 degrees BTDC. Rotate the inner part of the prop driver assembly which is secured by a small grub screw using an Allen key. You will hear if not see the spark as you rotate the inner prop driver as the magnet makes contact with the Hall sensor. Lock up the grub screw and you are all set to run the engine.

NB. Before running the engine ensure the gears are lubricated with grease or motor cycle chain lub. Do not engage the starter without a propeller being fitted.

Please ensure the engine is fully primed and not flooded before using the Autostart.

We hope you enjoy your Autostart system!

Happy and safe flying from the Propguy Team!