

PDMCC

Pendle District Model Car Club

www.pdmcc.co.uk

Setup Guide

Starting your engine

October 2009

Source: RB Products

Note: The piston of the engine can feel tight at the top of its stroke (TDC) when the engine is cold, and this is normal. The piston/sleeve is designed in a way that when the engine has reached its normal temperature this fit is perfect and so the engine produces the best power possible.

1. Fill up the fuel tank.
2. When starting the engine for the first time of the day, prime the engine by covering the exhaust pipe stinger while turning the flywheel with the help of the starter box for 2 seconds; when using a pull starter, pull 4 to 5 times. This will build up extra pressure in the pipe and in the pressure line to the fuel tank, causing the fuel to be pushed into the carburetor.
3. Turn the flywheel with the help of your starter box (do not apply the glow plug driver) for about 3 seconds or when using a pull starter pull 4 to 5 times so the fuel goes through the engine. When using the starter box you will notice an increase of rpm, this means the fuel is going through the engine and lubrication is making things easier.
4. Check to be certain that the throttle is closed and then apply the glow driver on the glow plug and start the engine. If the engine does not fire-up immediately, or does not make any sound that it wants to fire-up, then do not keep trying and instead stop for a few seconds keeping the glow driver on the glow plug. After about 10 seconds, try again to start the engine, and if the engine still does not fire-up, repeat the process from point 2. However, if the engine is flooded (too much fuel inside), then remove the glow plug, open the throttle completely, cover the glow plug hole with a piece of cloth, and turn over the flywheel with the starter box (or pull starter). The excess fuel will be ejected through the glow plug hole. Before mounting the glow plug again, check the operation of the glow plug with the glow plug driver.

Attention: Hydraulic lockup is possible due to an excess of fuel in the engine and causes the cylinder to flood and to prevent the piston from moving upwards. If this happens,

DO NOT keep trying to start the engine, or damage may occur. The excessive fuel also prevents the wire from glowing up correctly and so the engine will not start.

- Once the engine has started, open the throttle a little to gradually let the engine to warm up to operating temperature. This is an important routine that you should always follow, especially when the engine is still new. The internal parts need to receive lubrication and reach operating temperature before pushing the engine to maximum performances.

Tip: When the piston/sleeve is still new the fit can be very tight and so at first starting the engine can be quite difficult. To make this easier, you can heat up the engine with a hairdryer or heatgun before starting.

If the engine fails to start...

- Check if the glow plug is still working.
- Check if the battery of the glow driver is properly charged.
- Check if the fuel is reaching the carburetor.
- Check that the engine is not flooded.
- If you have your engine equipped with a pull starter, then proceed as point 1 to 5 above. The only thing which is important to know is never to pull the cord all the way out, limit the pulls to 12 inches(30cm) and do not insist when the engine is flooded since you can break the cord which then has worked like a failsafe. If your would not break the cord, then you probably can break something else inside the engine which then is worse.