

# PDMCC

Pendle District Model Car Club

[www.pdmcc.co.uk](http://www.pdmcc.co.uk)

## Setup Guide

### Maintaining your engine

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Source: RB Products

There are some important things you should know about nitro-engines...

These high performance engines are not indestructible and can break if not enough attention is given to the proper setting and use. No warranty for these failures exists, and we cannot be held responsible for the use and treatment of any engine. As you must understand these engines can make up to 40.000 rpm, and so there are incredible loads generated by the moving parts of the engine.

That is why it is extremely important that you check your engine on a regular basis to monitor the internal health of your engine like the play on the crankshaft pin/connecting rod fit, and if compression is still sufficient. Most failures happen because of poor quality fuel, bad carburetor settings, bad air filter or excessive wear of the moving parts.

**Attention: The nitro used in the fuel for these engines can react aggressively with the engine components, so to avoid internal corrosion we strongly suggest not leaving any fuel inside the engine after each day of use.**

To be sure, we suggest you start the engine, let the engine run, and then pinch the fuel line until the engine stops. We suggest that you check the internal condition of your engine on regular basis, and if you are not familiar with this then we recommend that you ask your LHS or Dealer where you have purchased the engine to help you to check the overall condition of your engine. If you run your engine very hard it is also advised that you replace the conrod after each 5 liters (1-1/2 gallons) of fuel run through the engine, because the conrod is the most stressed part inside the engine. Failure to do so may cause severe and irreversible damage to your engine.

The changing of the conrod is best done by an expert or with expert guidance.

Special attention should also be paid to the air-filter. Make sure that it is always in place, well secured, in good condition, and thoroughly oiled. Please note that it is very important that if you want to maintain or repair an engine yourself that you take care of the following;

- Always clean the outside of the engine thoroughly before you open it, work on a clean spot using appropriate tools, since any dust or dirt which comes into the engine will cause irreversible damage.
- All moving parts inside the engine are subject to wear, so you must know that if a piston and sleeve has worn, it is also probable the crankshaft pin and conrod are worn, so you must inspect and possibly replace these parts. If an engine has failed, you must check if all other moving parts are still in good shape, since if you only change the damaged part and other parts are not in good shape, it is highly likely there will be a new failure soon.
- Before you replace the conrod, be sure to measure the crankshaft pin and check if it is still round and at the right size (please check the technical sheet supplied with the engine for size information), if not you must also replace the crankshaft. If the crankshaft pin is not to the correct size and you do not replace the crankshaft and reuse the engine, a malfunction will occur such as the failure of the conrod or piston breakage.
- If you want to replace the piston and sleeve, we suggest that you also replace the conrod and to be sure to check the crankshaft pin as mentioned above, and be sure the wrist pin retaining clips are mounted in the piston correctly, otherwise they will jump out and damage the piston and sleeve.

**These engines are of high technology and need to be treated with precision. If you are not sure how to maintain or repair your engine, you can ask your LHS or dealer to do it for you**