

## Engine Break-In Procedure

The purpose of the break-in procedure is to thoroughly prepare the engine and engine components for consistent and lasting performance. In order to allow for a smooth break-in, we recommend you follow the operating guidelines outlined for the first 5 tanks of fuel.

**CAUTION:** High speed running is not recommended until the engine has been broken in with the 5 fuel tank guidelines outlined below. Failure to do so can result in permanent engine damage, not covered under warranty.

Once broken-in, you will need to "tune" the engine by adjusting the carburetor settings also outlined in this manual. This will allow the nitro vehicle to operate efficiently and in tune with its environment.

### Things to keep in mind during the break-in procedure

- ▶ **Fuel Level:** Be mindful of the fuel level. Allowing the vehicle to run on an empty fuel tank can result in a damaged fuel plug or engine damage caused by high engine temperatures.
- ▶ **Location:** It is advised the break-in procedures be performed in a flat and clean surface since the part of this part of the break-in procedure will be performed without the car body. This environment will minimize the dirt and accidental damage that may occur with the car body removed.
- ▶ **Throttle Control:** Breaking and throttle should be applied gently; sudden breaking and acceleration may cause the engine to stall and increase the chances of damaging the RC vehicle.
- ▶ **Batteries:** Before operating your nitro vehicle, check the strength of the batteries in both the receiver and controller.  
**CAUTION:** Weak or dead batteries could cause you to lose control of your RC vehicle.

#### Tank 1 – Guidelines

- ▶ **Body:** Drive the vehicle with the body removed, in order to allow proper cooling.
- ▶ **Driving Procedure:** Gently pull back the throttle to  $\frac{1}{4}$  position, over a 2 second count. Then, gently apply the brake to stop. Repeat this "start and stop" procedure until the first tank of fuel is nearly empty.
- ▶ **Signals:** If there is a nice trail of blue smoke from the exhaust then your engine is being lubricated and the fuel mixture is properly set. If this blue smoke is absent, richen the high speed fuel mixture  $\frac{1}{4}$  turn counterclockwise until the blue smoke is present.
- ▶ **Shutdown:** Shut off the engine by pinching the fuel line to the carburetor. Before your next tank, let the car cool down for 10-15 minutes.

#### Tank 2

- ▶ **Driving Procedure:** Gently pull back the throttle to  $\frac{1}{2}$  position over a 2 second count. Then, gently apply the brake to stop. Repeat this "start and stop" procedure until the second tank of fuel is nearly empty.
- ▶ **Shutdown:** Shut off the engine by pinching the fuel line to the carburetor. Before your next tank, let the car cool down for 10-15 minutes.

#### Tank 3

- ▶ **Driving Procedure:** Gently pull back the throttle to  $\frac{1}{2}$  position, over a 3 second count. Then, gently apply the brake to stop.

Repeat this "start and stop" procedure until the third tank of fuel is nearly empty.

- ▶ **Idle Speed Adjustment:** As the engine loosens and the break-in procedure progresses, the idle speed may increase, causing the car to move forward without any movement from the throttle. If this occurs, you may have to reduce the idle speed by turning the idle adjustment (underneath the oil filter) on the carburetor counterclockwise, until the car no longer moves on its own.
- ▶ **Shutdown:** Shut off the engine by pinching the fuel line to the carburetor. Before your next tank, let the car cool down for 10-15 minutes.

#### Tank 4

- ▶ **Driving Procedure:** Gently pull back the throttle to full position, over a 3 second count. Then gently apply the brake to stop. Repeat this "start and stop" procedure until the fourth tank of fuel is nearly empty.
- ▶ Shut off the engine and refuel. Always make sure to apply throttle slowly! Keep your driving smooth and consistent.
- ▶ **Shutdown:** Shut off the engine by pinching the fuel line to the carburetor. Before your next tank, let the car cool down for 10-15 minutes.

#### Tank 5

- ▶ **Driving Procedure:** Gently pull back the throttle to full position, over a 3 second count. Then, hold for 2 seconds and gently apply the brake to stop. Repeat this "start and stop" procedure until the fifth tank of fuel is nearly empty. Shut off the engine and refuel. It is now time to "tune" the engine.
- ▶ **Shutdown:** Shut off the engine and refuel. Shut off the engine by pinching the fuel line to the carburetor. Before your next tank, let the car cool down for 10-15 minutes.

#### Tank 6

- ▶ At this stage the engine is now "broken in." It is now time to tune the engine for general performance.

**IT IS NOW TIME TO TUNE YOUR CARBURETOR.  
PLEASE VISIT OUR [NITRO TUNING GUIDE](#) FOR MORE INFORMATION.**

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