

How to Release a Stuck Engine

A new engine will typically have a tight fit between the piston and the top of the sleeve. This is a tapered fit, and a tight piston sleeve fit on initial startup is desirable for those who want the best performing engine. The fit should not be too tight to start the engine, however. It is important to keep the engine running after initial startup, which allows the engine to break-in enough for the sticking to go away. If your engine is stuck, there are three things to look for and try:

1. Weak starter battery - A weak starter battery, or one that has not been fully charged, may not deliver enough power to crank the engine over at the appropriate RPM to keep the piston from sticking. Make sure you are using a good quality battery pack that is fully charged (new batteries usually require several charge cycles to reach peak voltage and full capacity). This is especially important with a new engine that needs to be broken in.

2. Piston stuck at top dead center (TDC) - "Top dead center" is the position where the piston is at the top-most portion. Sometimes an engine can get "stuck" at this position. This is most common during break-in, but can also happen at other times. If the engine is stuck at TDC, use the following procedure for your particular model to release the piston from the sleeve:

a) Remove the glow plug using the included tool and verify the piston is indeed at the top of its stroke and that the flywheel is difficult to turn. If not, the engine is not top dead centered and there is another problem.

b) Locate the flywheel at the front of the engine; it looks like a silver 50-cent piece with serrated edges. Part of the flywheel is obscured beneath the carburetor, but part of it is accessible from the top side. This is the part of the flywheel where the procedure is performed.

c) **Maxx Trucks** - Use a flat blade screwdriver to rotate the flywheel. Place the blade of the driver into one of the grooves of the flywheel and **push down, turning the flywheel counter-clockwise when viewed from the front**. You should see the flywheel turn and the piston should become unstuck from the sleeve.

Revo - Use a flat blade screwdriver to rotate the flywheel over. Place the blade of the driver **through the opening of the chassis beneath the flywheel**. Place the edge of the blade into one of the grooves of the flywheel and **rotate counter-clockwise (when viewed from the front), using the chassis for leverage**. The flywheel will turn, unsticking the piston from the sleeve.

d) Put **two or three drops** of light machine oil into the glow plug hole to lubricate the piston and sleeve. **Do not use too much oil. It will hydro-lock the engine.** Verify the starter will turn over the engine with the glow plug out. Rotate the flywheel so the piston is at bottom dead center.

e) Replace the glow plug.

f) You should now be able to turn the engine over with the glow plug in, using the EZ-Start.

Old-timers tip: When doing your after-run procedure, leave the piston at bottom dead center where the engine is the loosest. If your engine still sticks at TDC, call Customer Support at 1-888-TRAXXAS.

3. Flooded Engine - Too much unburned fuel in the engine crankcase will cause the engine to hydro-lock. This is usually caused by a rich high-speed needle setting or priming the engine for too long during start-up. A glow plug that does not heat up enough to burn the fuel (fouled glow plug) will also cause your engine to flood. Your EZ-Start will indicate if the glow plug is fouled, so keep your eye on the glow plug LED on the EZ-Start controller. Use the following procedure for clearing a flooded engine:

a) Disconnect the blue glow plug wire from the glow plug and remove the plug from the engine using the two-way glow plug wrench included in the instruction bag. Disconnect the fuel tubing from the carburetor. To keep the fuel from leaking, plug the tube with a clean 3mm machine screw (Alternate method: close the high-speed needle)

b) Plug in the EZ-Start controller, tip the truck upside down and press the red controller button for eight to ten seconds. This should turn the engine over at a very rapid rate, spitting the excess unburned fuel from the crankcase and combustion chamber of the engine. If there is still fuel coming out of the engine after a 10-second burst, release the button for a few seconds and repeat another eight to ten-second burst. Repeat this process until all fuel has exited the crankcase.

c) Clean the unburned fuel from the cooling head with a paper towel and reinstall the glow plug. Make sure the glow plug's copper gasket is installed correctly before installation. (There is a tapered edge between the threads of the plug and the hex body of the plug. This should match up with the tapered (concave) side of the gasket.)

d) Reconnect the blue glow plug wire and place it back into the protective slot in the head protector. To get the blue wire back onto the plug securely, use a pair of needle-nose pliers to press the connector down over the plug. Remove the screw that was used to plug the fuel line and reconnect the fuel line to the carburetor. Your engine is now ready to start. Do not try to prime the engine, there should be plenty of fuel residue inside the engine to start-up. The engine should fire up immediately.

Check out "www.Traxxas.com/howto/" for instructional videos.

If you have questions or need technical assistance, call Traxxas at

1-888-TRAXXAS

(1-888-872-9927) (U.S. residents only)