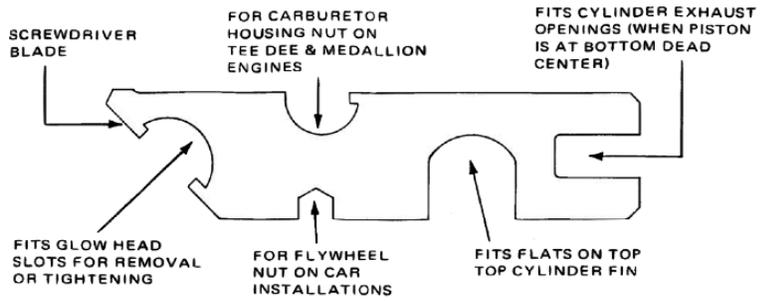




# Engine Troubleshooting Chart

## HOW TO USE YOUR COX WRENCH



Connect Cox glow head clip wires to a 1½ volt battery or Cox battery box (A). Attach glow head clip to glow head (B).



TROUBLE	PROBABLE CAUSE	REMEDY
<p><b>WILL NOT START ACTS LIKE BATTERY WASN'T ATTACHED TO GLOW HEAD</b></p>	Poor battery connection	Check connections of wires to battery and check to be sure clip is firmly and correctly attached to glow head. (see glow head clip info above)
	Weak or dead battery	A good battery should test 1½ volts or connect battery to a glow head that is known to be good. If filament does not glow bright orange – replace battery.
	Burned out glow head	Remove glow head. Attach glow head to a good 1½ volt battery. If filament does not glow bright orange – replace head.
	Engine wasn't primed	Squirt a few drops of fuel through exhaust port and into side of piston then continue starting procedure.
<p><b>WILL NOT START ENGINE POPS AND / OR "KICKS"</b></p>	Loose propeller screw	Tighten propeller screw.
	Dirt under reed (reed valve engines only)	Carefully remove reed retainer and then remove reed. Wash reed and retainer in solvent or fresh fuel. Replace reed, be sure it turns freely.
<p><b>ENGINE STIFF PROPELLER TURNS HARD / "KICKS"</b></p>	<p>Engine flooded Too much fuel in cylinder</p>	<p>Close needle valve completely. Leave battery attached and flip propeller (without priming) until short starting "burst" occurs. Then open needle valve 2½ (or suggested amount of turns for your engine) and start again.</p>

TROUBLE	PROBABLE CAUSE	REMEDY
<b>ENGINE STARTS THEN SLOWS DOWN AND STOPS</b>	Excess fuel at ports	Close needle valve. Flip propeller until engine starts and burns out excess fuel. Open needle valve and restart.
<b>SHORT RUNNING "BURST" (BRIEF START, THEN STOPS)</b>	Engine not getting enough fuel Mixture too lean or tank empty  Carburetor body cracked (Tee Dee & Medallion engines)	Check tank fuel level and refill if necessary. Or, open needle valve another ½ turn, prime and start again. It may be necessary to repeat the procedure 3 or 4 times, opening the needle valve ½ turn each time. (Replace carburetor body)
<b>ROUGH SOUNDING ENGINE, SLUGGISH, WEAK POWER</b>	Loose glow head	Tighten glow head with Cox wrench.
	Mixture too rich	Slowly close needle valve until maximum RPM is achieved. Then open needle valve ¼ to ½ turns.
	Not enough compression	With no battery attached, flip prop. If no definite "pop" is heard – replace cylinder/piston assembly.
	Not enough Nitro in fuel	One should use 25% nitro fuel although 15% will produce satisfactory results.
	Propeller too large	Ensure correct prop size for engine.
<b>ENGINE RUNS WELL BUT THEN STOPS</b>	Mixture too lean	Open needle valve ¼ turn or more.
<b>RUNS ERRATICALLY</b>	Missing or damaged venturi gasket (reed engines with integral tank only)	Replace venturi gasket.
	Bent or broken needle valve	Replace needle valve.
<b>RUNS WELL BUT NOT LONG ENOUGH (ENGINES WITH INTEGRAL TANKS)</b>	Missing fuel pickup tube (inside tank)	Install fuel pickup tube (with spring).
	Pickup tube in wrong position.	Reposition fuel pickup tube to "CL" position (8 o'clock) or to "FF", "RC" position (6 o'clock).

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