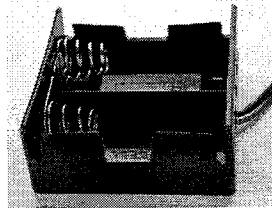
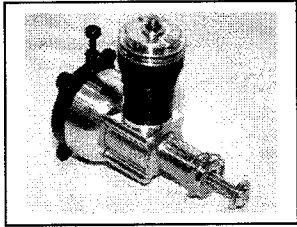
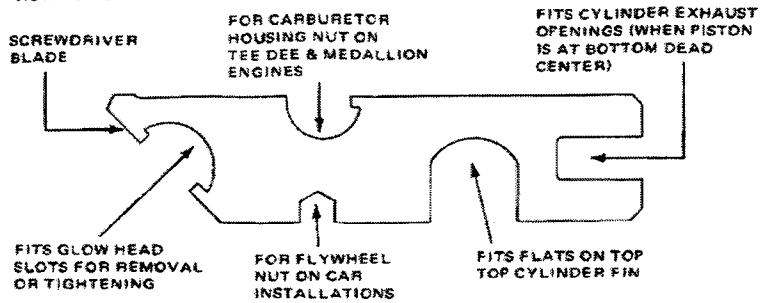


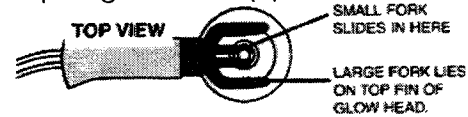


# Engine Troubleshooting Guide

## 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  |
|--|--|---|
| <b>WILL NOT START<br/>ACTS LIKE BATTERY WASN'T<br/>ATTACHED TO GLOW HEAD</b> | 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.   |
| <b>WILL NOT START<br/>ENGINE POPS AND / OR "KICKS"</b>                       | Loose propeller screw                        | Tighten propeller screw.  |
|  | Dirt under reed<br>(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.  |
| <b>ENGINE STIFF<br/>PROPELLER TURNS HARD /<br/>"KICKS"</b>                   | Engine flooded<br>Too much fuel in cylinder  | 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. |

| 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<br>Mixture too lean or tank empty         | 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. |
| <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).  |

**Cox International**



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