<table>
<thead>
<tr>
<th>TROUBLE</th>
<th>PROBABLE CAUSE</th>
<th>REMEDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor battery connection</td>
<td>Weak or dead battery</td>
<td>Check connections of wires to battery and terminals. Replace battery, if necessary.</td>
</tr>
<tr>
<td>Weak or dead battery</td>
<td>Batteries should last 1-2 weeks when used as intended. Replace battery, if necessary.</td>
<td></td>
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<tr>
<td>Burned out glow head</td>
<td>Glow head is damaged. Replace glow head.</td>
<td></td>
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<tr>
<td>Glow head loose</td>
<td>Replace glow head.</td>
<td></td>
</tr>
<tr>
<td>Engine won't run</td>
<td>Remove tank. Wash tank and refuel tank. Replace propeller, if necessary.</td>
<td></td>
</tr>
<tr>
<td>Engine stops, too much backfire</td>
<td>Check fuel line for proper temperature. Replace propeller, if necessary.</td>
<td></td>
</tr>
<tr>
<td>Loose propeller screw</td>
<td>Tighten propeller screw.</td>
<td></td>
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<tr>
<td>Engine stops, too much backfire</td>
<td>Check propeller for damage. Replace propeller, if necessary.</td>
<td></td>
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<tr>
<td>Excessive fuel at ports</td>
<td>Check fuel line for proper temperature. Replace propeller, if necessary.</td>
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Use only Cox model fuel - NEVER USE GASOLINE! Gasoline can explode and burn, causing serious injury to you AND THE ENGINE. CxG Customer Service Department 10400 E. Alfa Ct., Pico Rivera, CA 90660. Phone: 1-866-726-3342. Fax: 1-866-726-3340. For Questions regarding your model engine, call the appropriate service department. Cox and Cox products are covered by a limited warranty. See warranty information enclosed with your model engine. Do not operate engine indoors. Model engine is for outdoor use only.
Starting Engine (cont):
7. If engine fires, but only runs a short burst, it has probably not yet drawn fuel through the fuel hose. Repeat the starting procedure several times.
8. If engine still refuses to run more than a short burst, open the needle valve 1/2 turn. Further hints for starting may be found in the troubleshooting section.
9. When the engine starts it should be running rich (this is called four-cycle running). Let it run at this setting for 1 minute with the glow head battery attached. After the first minute of run, begin to screw the needle valve in until the engine starts to break into a faster run cycle (called two cycling). Set the needle so that the engine is only "two cycling" part of the time, and remove the glow clip. Allow the engine to run out the rest of the tank this way.
10. During break-in allow the engine to cool down between runs, and slowly increasing the speed of running until the engine will hold peak RPM through a complete tank. This should occur after about 10 minutes of run. At that point, switch to the intended setup for the engine (see the section on tuning), and the intended prop and fuel for long runs. Run at least 5 more minutes, again starting somewhat rich and working up to peak RPM.

Engine Tuning:
The Venom is set up at the factory with a high compression head and four head gaskets. The extra gaskets let you tune your Venom to work with larger or smaller props, and high or low nitro content fuels.
Basically, for small engines in the 5" x 3" or smaller region, use only one or two head gaskets depending on the nitro content and weather. For 6" x 3" or larger props, use two or more head gaskets.
The compression ratio of the engine is set by the use of the head gaskets. In general, higher nitro and/or hotter days require low compression, low nitro and cold days need higher compression. It is better to err on the side of low compression to avoid overheating, hard starting, and potential damage to the head gaskets. Ultimately, the only way to set the optimum performance of any engine is to compare different setups while measuring the RPM with a tachometer. The human ear can only detect large differences in RPM. Set up the engine as needed for your application, and then, with too many head gaskets, run the engine and compare the RPM as you remove gaskets. When you find the maximum setup, add one gasket back as insurance.

Operating Tips:
Never put the engine away with fuel in it or the tank. Run it dry, wipe it clean, and store it with a good quality light oil (3-in-1, Marvel Mystery, WD-40, etc.)
If the engine gets dirty, completely disassemble the backplate, cylinder, and piston from the engine. Use a toothbrush and Q-tips to clean the parts in fresh model fuel, Alcohol or Xerocene. Dry thoroughly and reassemble with one of the light weight oils.
If the engine has been running well but gets tight, it is not "frozen up." Do not send it to the factory. A new engine will sometimes tighten up a few times due to accumulation of a "varnish" deposit inside the cylinder walls. Do not run it tight. Disassemble the head and cylinder from the engine. Look at the bore and see if there is a dark brown deposit inside. Scour the deposit away with very fine (000 grade) steel wool, then wash, oil and reassemble the engine.

Operating Tips (cont):
The engine should again turn over freely and run properly. Never use sandpaper, emery cloth, or abrasives of any kind, or scrapers. Such methods will ruin the cylinder and void your warranty.
If the engine is working in humid, hot weather and over large props will tend to make an engine vibrate more frequently. A tight, new engine will also vibrate more readily than a well run-in one.
Do not tighten the head too firmly. Set it up just snug. Before removing the head allow it to cool so it will loosen more easily.
Use both wrenches when removing the lower head. Use of pliers will distort the cylinder. To remove the glow head from a hot engine, slowly pour a bit of fuel on the head to chill it. The temperature difference between the head and cylinder should loosen it up easily.

WARNING
USE OF THE FOLLOWING EQUIPMENT CAN DAMAGE YOUR ENGINE AND WILL VOID YOUR WARRANTY!
- DIESEL CONVERSION KITS
- SHAVED OR EXTREMELY HIGH COMPRESSION HEADS
- FUELS CONTAINING 100% SYNTHETIC OILS
- FUELS WITH NITROMETHANE CONTENT IN EXCESS OF 50%

WARRANTY
Your Cox engine is fully warranted against factory defect for 90 days from the date of purchase. GLOW HEADS ARE NOT WARRANTED since they normally require periodic replacement. Should your engine require warranty service, you may contact Cox at the address given below.

FACTORY REPAIR SERVICE
Minor repair, examination, or adjustments - $5.00 plus parts. Complete overhaul, new engine performance guaranteed - $16.65. This price includes parts.

CUSTOMER SERVICE
For any questions or service regarding any Cox product, please contact your Customer Service Department at 745 North Sheridan Street, Costa, CA 92120 1-800-461-0239. Customer Service hours are from 8:00 AM to 5:00 PM Pacific Time Monday through Friday. Prices and Design Subject To Change Without Notice.

REPLACEMENT PARTS
We have listed those items which are most likely to require replacement during the life of this product.

ACCESSORIES
1716 Propeller Spindles & Screws
1750 Wrench
1766 Piston/Rod Reseal Tool & Holder

RECOMMENDED PROPELLERS
966 5" x 3P (127 x 76mm)
244 6" x 3P (152 x 76 mm)
APC 6.5" x 2P (140 x 51mm) (not available oct 2000)

Prices subject to change without notice.