

SUPER BEE ENGINE INSTRUCTIONS

STARTING AND RUNNING YOUR ENGINE

Always use spring starter otherwise engine will likely start backwards.

1. Starting procedure must be carried through without delay, otherwise the engine will flood out and refuse to start quickly. Familiarize yourself with the procedure before actually trying to start engine. If delays occur after the tank is filled the needle valve should be closed to prevent flooding.
2. Close needle valve (do not force or tighten).
3. Fill through filler tube on top of tank till fuel runs out other tube. Use neoprene or plastic hose for this purpose. Fill with Thimble Drome racing fuel. The filler hose is connected to the can by means of a pump or Thimble Drome filler cap made especially for the purpose. The other end of the hose slips over the tank filler tube. The Thimble Drome filler cap is especially recommended as it has a fine stainless steel strainer to keep foreign matter from entering the tank and clogging up the fuel jet. On this engine this is extremely important because the jet is so tiny.
4. Connect 1 1/2 volt battery to glow head; one terminal to center post, one to any part on the engine. Or slip regular glow plug clip on glow plug. It is necessary that the battery be the large 1 1/2 volt battery generally referred to as a door bell battery. If you use a glow plug clip, an insulated wire 18" long should be connected to each terminal of the clip and it is desirable that the connections be soldered and taped. The other ends of the wires connect to the battery.
5. Open needle valve 2 1/2 turns.
6. Squirt a few drops of fuel into cylinder exhaust ports.
7. Pick up the plane and turn it on its side or nearly upside down.
8. Hook the spring starter over a blade of the propeller. Take hold of a blade tip (between the thumb and first finger) and pull it around one complete turn, keeping the rest of your hand clear. When one turn is made, allow the prop to slip from the fingers as you pull them out of the way. Do not wind spring more than one turn. If you do the spring will be twisted out of shape.
9. After the engine starts close needle valve slowly till maximum speed is reached, then disconnect battery. After engine warms up a bit, open the needle valve a little. Best running is attained when the needle valve is opened until the engine barely begins to cough, but this adjustment must be made after the engine warms up.

TIPS

1. The inside fuel pickup hose should be on the side of the tank toward the outside of the circle of travel and up from the bottom about 45°. Fuel is always thrown to one side of the tank because of centrifugal force. If the hose picks up fuel from the wrong position all the fuel will not be used and the engine will stop prematurely. Fuel should be picked up from the bottom of the tank only for straight away running or free flight. This does not apply to the P-40 as it will not fly free.

2. If engine starts with lots of pep and quits, prime it again with a few drops of fuel in the ports before cranking again. If it starts and slowly comes to a stop with excess liquid at the ports, close the needle valve and crank until it starts up and burns excess fuel. Then start over.

3. Always use fuel through a Thimble Drome filler cap with stainless steel strainer to prevent stopped up carburetor jet.

4. Never use pliers on the cylinder. Doing so will ruin the cylinder. Buy a wrench No. 1530 for use on cylinder.

TROUBLE SHOOTING

1. ENGINE REFUSES TO FIRE: (a) Weak or dead battery. (b) Bad Wire connections. (c) Burned out glow plug- plug should glow red. Glow plugs are not guaranteed. Buy replacements from your dealer. Also buy a wrench to change them, catalog No. 1530 at \$0.25. Do not overtighten plug, just snug it up.
2. Engine starts, slows down, stops, excess fuel at ports -too rich. Close needle valve. Flip propeller till engine starts and burns out excess fuel. Open needle valve and restart. Holding an inverted engine side- ways helps prevent flooding when priming and starting.
3. Engine starts with lots of power and dies-too lean, not getting fuel. Open needle valve another 1/2 turn. If trouble persists, disassemble tank and check for clog- ged fuel passages. Probe a fine wire through passages to dislodge foreign particles. Wash parts in fuel or sol- vent. Use care to prevent crossthreading needle valve.
4. Engine pops and fires repeatedly will not run. Dirt under reed. Disassemble tank. Carefully unsnap reed retainer wire. Remove reed. Wash all parts in fuel or solvent. Replace reed with same side out. When properly assembled, reed is free to turn underneath retainer wire.

SUPER BEE ENGINE CAT. NO. 100

ENGINE PARTS LIST

351	Crankcase.....	\$1.25
302-1	Glow Head.....	.65
303	Piston and Rod Assembly.....	1.50
304-1	Cylinder.....	1.50
365	Crankshaft.....	1.50
363	Reed Retainer.....	.15
364	Reed Valve.....	.25
309	Needle Valve and Spring.....	.60
352	Prop Drive Plate.....	.15
358	Tank Back.....	.75
368	Tank w/Reed Assembly.....	.75
354	Gasket Set.....	.10
369	Screw Set.....	.20
393	Prop Screw and Washer.....	.15



Send \$1.00 in with engine for ANY service. For charge in excess of \$1.00 you will be notified. Complete overhaul, new performance guaran- teed, \$2.50.

L.M. COX Manufacturing Co., Inc.

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