

The Thimble-Drome "SPACE-BUG"

32 Questions and Answers about this revolutionary engine

1. Do you have to use the tank that comes with the engine?

Ordinarily, yes. Some users with proper skill and tools have carved the tank away from the carburetor, but such things are not recommended by the factory.

2. How much fuel does the tank hold?

9 grams or almost 1/3 ounce.

3. How long will a tank of fuel last?

3 to 4 1/2 minutes.

4. Why is the needle valve where it is?

The carburetor is at the rear of the crankcase because of the different kind of valving. It is inside the fuel tank. This is very good because the needle is farther from the propeller and hot exhaust gases.

5. What is the screen for at rear of tank?

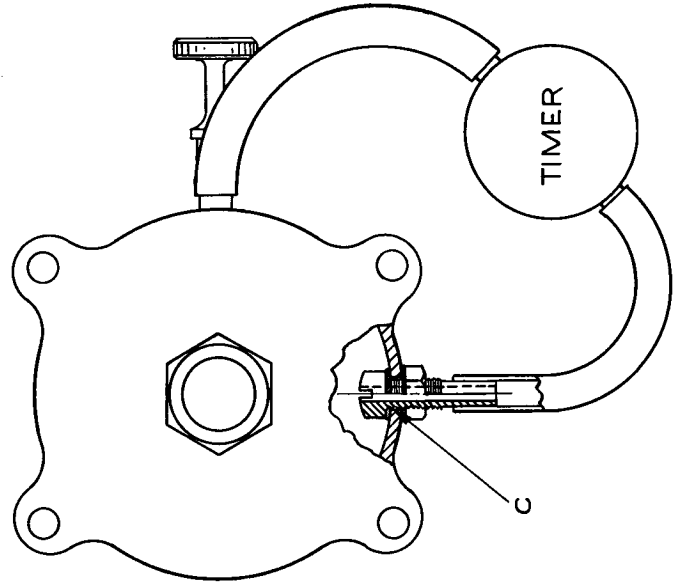
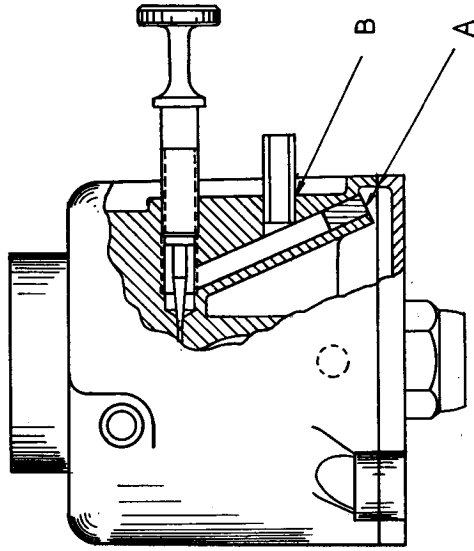
This prevents dirt and specks of balsa and other foreign matter from being sucked into the engine or lodging in the valve.

6. How can a timer be used for free flight?

The Space-Bug is designed primarily for control line flying and no provisions have been made for free flight. The factory has a free flight version of this engine under way to be released in March, but in the meantime free flight users are on their own.

Some users have worked out various means to time the engine the best of which we describe here briefly:

Plug fuel pickup passage at A. Drill from outside of tank to fuel pickup passage at B. Either press a piece of metal tubing in this hole or thread the hole and screw a piece in. Next drill a hole in the tank at the desired fuel pickup point C. This hole should be a tight fit for a piece of hose. Better yet, install a hose connector at this point, such as a screw with a hole drilled through it. Run a hose from each of these points to the timer. The tank holds plenty of fuel for a good warm up and proper tuning before release.



7. How do you choke the engine when the fuselage is closed since the intake opens to the inside of the fuselage?

Choking is not often required. Priming at the exhaust port is better for starting. If choking is considered necessary to pull fuel through to the jet, or suck out thick castor oil left from previous running, then access must be provided for the purpose. Any product, if better, must be different. When things are different, new techniques must be applied.

8. If the fuselage is covered, how does the intake get air?

Very few fuselages are tight enough to prevent air getting to the carburetor in sufficient amounts. If it is tight, a hole will have to be provided.

9. What kind of intake valve is used in this engine?

Reed type valving is used. This valving has been proven in larger engines and developed for these tiny engines by the Thimble-Drome Manufacturers.

10. Can the engine be mounted upside down?

Yes — the tank should be mounted right side-up so the fuel pickup will be to the outside of circle but the 4 screws holding the tank to the crankcase can be removed to turn the crankcase and cylinder to any desired position.

11. Will the engine fly upside down?

Yes — the tank is a stunt tank and will feed fuel properly through a full stunt pattern.

12. Why was the engine not made to use standard glow plugs?

The reasons for this are highly technical, and at present are a trade secret. Suffice to say that the engineers at the Thimble-Drome factory consider the one piece plug to be better.

13. What R.P.M. will the engine develop?

RPM—subject to fuel and weather conditions. The following readings taken from Electronic Stroboscope manufactured by Communications Measurements Laboratory: Engine—picked at random—1 hour running time—Fuel, Thimble-Drome. Weather—Cloudy, overcast. Temperature—68, Humidity—58, Barometric Pressure 1012.5 Millibars, Dew Point—61, Elevation 200 ft. above sea level. Test—Static, Propellers—Tornado Plasticote, trimmed and balanced.

Engine	Propeller Size	Pitch	RPM
Standard Engine	6"	3	over 16,000
"	6"	2	over 17,500
"	5"	3	over 20,000
Equipped with racing combination	6"	3	over 17,500
"	6"	2	over 20,200
"	5"	3	over 21,000
"	Using flywheel		approx. 30,000

Static Thrust using a racing combination and 6" - 3 pitch propeller—17¼ ounces.

14. Why does the instruction sheet say not to use plastic propellers?

The instruction sheet says to not use them unless the manufacturer of the plastic prop specifically recommends it for use on the Space-Bug engine. Use of most plastic propellers on the Space-Bug is highly dangerous because of the high R.P.M. This is especially so when the engine is hopped up for extra high R.P.M.

15. Can this engine be hopped up for extra high R.P.M.?

Yes. To make this easier and remove the guess work the factory puts out a "Hop-Up" kit which will hop up the engine with only 5 minutes work. Cost is only \$3.50. With a 6" - 3 pitch propeller, the engine will develop from 1,000 to 1,500 more R.P.M. with this kit.

16. If the "Hop-Up" Kit is applied to this engine how will starting be affected?

Starting will not be quite as easy as standard but is still very easy as compared to conventional engines.

17. Why does not the factory put out the Space-Bug already equipped for extra high speeds . . . already hopped up?

The hopped-up job is too hot for many planes. The beginner will have better luck with the standard model and also the factory does not recommend the extra speed and power until the

engine has had some running . . . at least ½ hour. The beginner needs starting practice with a standard engine because the hopped-up job fires with terrific power and is extremely hard on slow or clumsy fingers.

18. What propeller will develop the most pull and give best all around results in team racing, stunt and sport flying?

Tornado Plasticote — 6" - 3 pitch.

19. What propeller would be best for speed?

This depends upon the plane. For very tiny high speed jobs the factory recommends a 4¼" or 4½" - 7 pitch propeller for a starting point. Further experiment may prove a different prop to be better. Such propellers will probably have to be cut down from 5" props of the desired pitch.

20. How large a plane will the engine fly?

It will fly planes recommended for engines up to .099 cu. inch. It will fly most of these as well or better than with the recommended engine.

21. Is this engine broken-in at the factory?

No. You are the first to fire it up. A look at the piston will tell you it has never been run.

22. How can I be sure it will run if it has never been run?

The factory has a system of checks and tests on all parts, assemblies, and on the finished engine. These assure more accurate results than does the usual factory starting which is invariably done by a power starter and does not mean you can start it by finger flipping.

23. How long do I have to run it to break it in before it is ready to fly?

From ½ minute to 1 minute. Very accurate fitting and fine micro finishes eliminate the usual break-in period.

24. Will this engine really start easy the first time?

Yes . . . this engine actually does start easily and quickly the first time. It also starts easy any time, whether hot or cold.

25. Will the crankshaft break like those of many other engines?

No, the shaft is not drilled but is solid steel. The threaded part might break if the prop nut is tightened too tight. The entire shaft is case-hardened.

26. Does this engine have rings?

No. Rings in an engine of this size are not practical.

27. What kind of bearing does it have?

Bronze.

28. What is the rod made of?

Machined aluminum.

29. What is the piston made of?

Case hardened steel.

30. Is this engine easy to take apart and put back together?

Yes. The Space-Bug was designed particularly for easy care and maintenance. It can be completely dismantled and reassembled in 3 or 4 minutes.

31. Is the Space-Bug guaranteed?

Yes, but only if the guarantee card is mailed in at time of purchase. The guarantee covers defective materials and workmanship only for a period of 30 days.

32. The Thimble-Drome people never made airplane engines before. How come you recommend their engine when some companies have made airplane engines for years?

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