

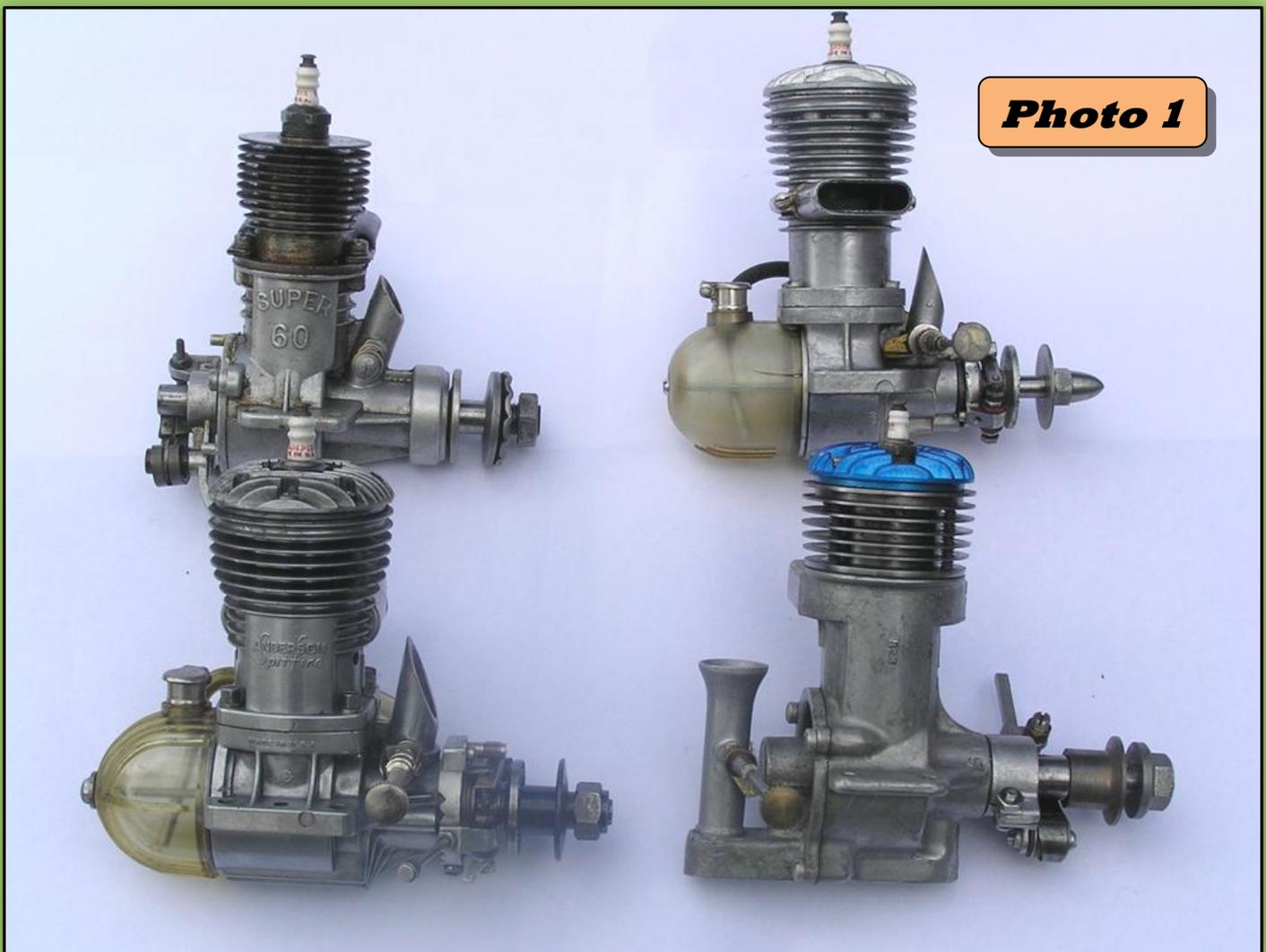
# SPARKIES FOR STUNT?

*Andrew Tinsley reckons 'Sparkies' could be a good option for stunt.*

Sparkies for stunt, well why not? That's how it used to be back in the late 40s! Most of you will have heard how difficult it is to fly sparkies and all that extra weight to carry around too. Extra weight, yes, but difficult to use.....no! A good spark ignition engine can be set up how you like it, steady two or four-two-four, it's your choice. Do I hear you say engines are expensive? They can be, but one of the better engines for stunt is available at low prices, how does \$70-\$80 sound to you? That's the price range I pay for OK Super 60 engines.

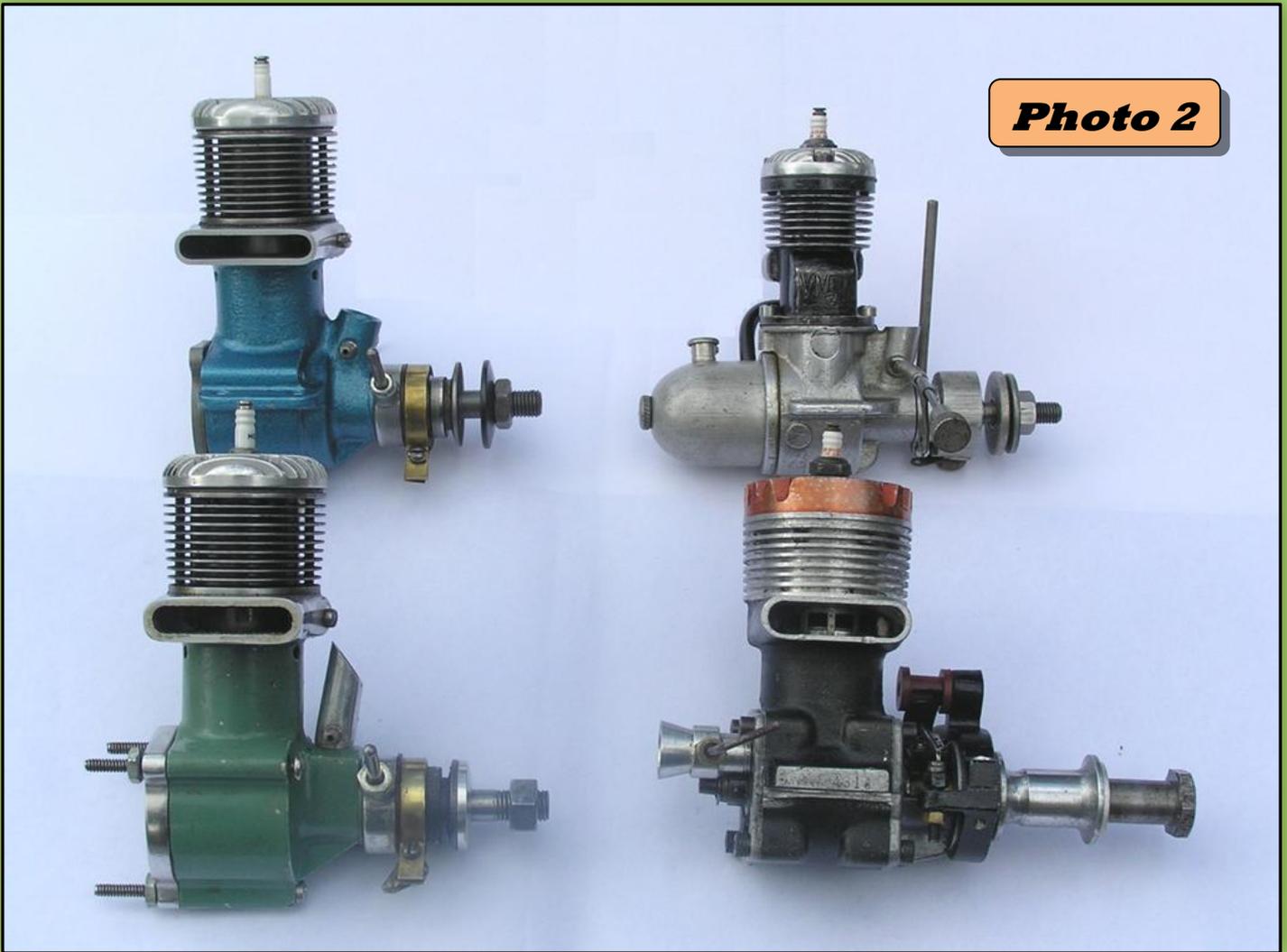
Sparkies require batteries, coil, condenser and switch, so the total engine weight will be higher than a similar glow system. Period sparkies are not as powerful as modern stunt engines, assume a 60 is equivalent to a modern 35 or 40 glow and you will be about right. The weight of the ignition system is the same, irrespective of the engine size. It therefore makes a lot of sense to build a larger model to carry the extra weight. Hence we are looking at the larger capacity sparkies, the 60 or 49 size is the best.

There is a wide range of engines to choose from, depending on the depth of your pocket! Photo 1 below (from top left and anticlockwise), shows an OK super 60, a Super Cyclone, an Atwood Champion and an Anderson Spitfire.



Similarly Photo 2 (top of next page) depicts a Cunningham 65, a Madewell 49, a McCoy 49 and an Orwick 64. The Orwick is the Rolls Royce and the Super 60 is the Ford and not very popular in the US. A word of warning, don't buy an Ohlson 60. They wear rapidly in control line use and even the front rotary version isn't very strong. If you build light and minimize the ignition systems weight, Ian Russell's Frog 500 on spark can be had brand new for £100. Run it in well and it will last for years, much better than the original!

**Photo 2**



The OK Super 60 is a very under rated engine and can give a super stunt run. Bob Zambelli has just won the King Orange old time stunt competition with an OK 60 powered Viking. Bob is a very helpful chap and has published his recipe for success with spark engines. With his permission I can do no better than to quote his words.

- 1/ Use only castor oil and unleaded gasoline.
- 2/ Use heavy gauge wiring, well soldered and a high current on/off switch.
- 3/ When the fuel gets low, fly high and have a lean period before stopping.
- 4/ Use AC or modern plugs, not Champion.
- 5/ Pot your coil using epoxy!

The above isn't the only way to run sparkies, but at least it has simplicity on its side. How do you start in this fascinating ignition world? Well, buy an engine first! EBay and the classified sections of Stuka Stunt and Stunthanger have been my sources. The cheapest buy is the OK Super 60. You should be able to get a good one for less than \$100, mine were cheap because of lack of bidders! They come up regularly, so don't go mad, limit your bid and you will eventually get a good one for the right price. Super Cyclones and Anderson Spitfires go for more, maybe \$180. An Orwick is an arm and a leg and the collectors push the prices through the roof.....you have been warned!

Coils can be got from the same sources. Prices vary wildly from \$30 each to a job lot of ten for \$65. The better coils include Smith, Aerospark and Wilco. In the UK, Pauline at Flitehook (flitehook@talktalk.net) has just received her very last batch of ignition coils priced at £28.50, but when they are gone they are gone!

If you want a lightweight coil, they can be had new, from Larry Davidson in the US for around \$30. Note that some people have had difficulty in using them with transistorised ignition. You will also need a switch, condenser and battery. Any automotive 0.1 micro Farad condenser will do, buy from your local motor factors. For batteries I use those intended for telephones. These are made up from 3 AAA rechargeable Ni Cad cells, my local "Wilko" sell them for 3 or 4 pounds. A good 5 amp, minimum, on/off switch from Maplin, completes the set-up. Photo 3 (top of next page) shows various coils, condensers, HT leads, spark plugs and some Alpha Romeo points!



**Photo 3**

Right, you are all set up for running a sparky and it didn't break the bank now did it? Let us assume that you have gone down the cheap Super 60 route, what do you need to know about the engine? Well it has one bad habit and that is vibration! It is probably the reason for its unpopularity in the US. If you use a heavier prop (say a Bolly) you can actually get through the vibration period and it smooths out at higher revs. Unfortunately at these revs it can self destruct! Use say a 13 x 7 at around 6000 to 7000 revs and accept the vibration. These larger props are efficient and you get plenty of thrust! One advantage of the Super 60 is the fact that it uses a set of car ignition points (e.g. 1967 Alpha Romeo or some old Nissan trucks), they can be had from any motor factors for 2 or 3 pounds. The points are also at the rear of the engine and they don't get oiled up, like front mounted points. By the way, make sure that the spiky looking mounts for the points are on the back of the engine when you buy it!

Sometimes the engine comes with a plug, usually this is an old Champion, and these can be prone to seal failures. Old AC plugs are good, but rare. New Rimfire plugs are available from Roland Morrison in the US. They are expensive at \$20, but worth it.

There is one last decision, do you run on petrol / oil mix, or straight glow fuel? The usual petrol oil mix is 70% unleaded petrol to 30% SAE 70 oil. Most motor cycle shops can supply 50 SAE oil (without detergent) and this is good enough. Or go the Zambelli route and use castor. Otherwise straight FAI glow fuel is fine. Unleaded petrol is economical, you don't use a lot, but the motor does run hot! Running FAI mix, means you use more fuel, but the engine runs much cooler and that helps with using a silencer. I run glow fuel simply because sparks and petrol cause fires, a small extinguisher would be a good thing to have in the flight box, enough said!

Our esteemed editor may let me go into more detail of how you connect everything up and run the beasts, maybe even including transistorised ignition in a later article. If anyone needs further help or information, don't hesitate to contact me, my postal address is on page 2 in the committee section of Claptrap and my email is tin.lizzie@tiscali.co.uk and phone number is 01780 720352.