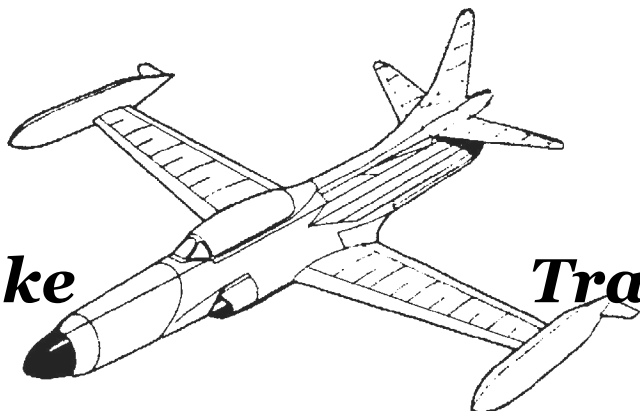


**Smoke**

**Trails 26**



**Roger Simmonds; 8 Orchard Way, Offord Darcy,  
PE19 5RE; rsimmo@globalnet.co.uk**

### **Jetex Jim's guide to eBay**

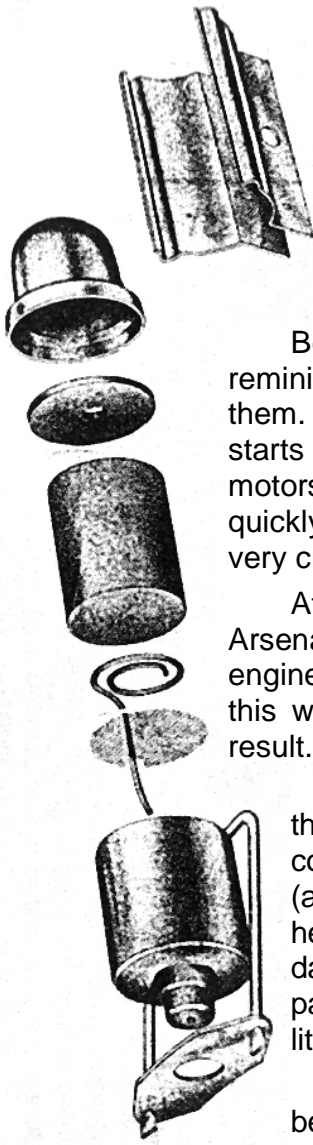
Bereft of Rapiers, not a few SAM rocketeers, still enamoured of 'Small Jet Planes', are looking for other motors to propel their creations. Inevitably, (desperate times call for desperate measures), this leads to a somewhat despondent trawling of the murky waters of the modern Global Marketplace that is eBay. Now, for this impecunious columnist, eBay is more a place for historical research (see later) than somewhere to buy what might well turn out to be 'Jetex Junk', but there is some good stuff out there (at a price) which, with a bit of luck (and the good advice to be found in this column), will lead to success on the flying field. A certain amount of pain and suffering are only to be expected in losing one's eBay virginity of course, but, for the true jet (ex) jockey, the elegant flight pattern of a Skyleada Skyray with a PAA Loader, or the ballistic cavortings of a Sharky with a genuine Jetex 50C 'on song', are ample recompense. So, what can be bought on eBay with confidence, or even hope? Readers will know of my preference for steel bodied PAA Loader and 50C motors over an aluminium alloy bodied Jetmaster or 50Bs, but what about the strange examples below?



**Top:** These interesting Jetex 50B/50C chimeras appeared on eBay just before Christmas. **Below:** The all-American PSST 50 and 'Double' PSST 50.

A number (sixteen and counting) of these '50Bs' (top photo) were for sale. According to the seller, they are "New 'old stock' motors in gorgeous [NIB] condition, part of a small but sweet 1950s Southern California Hobby Store recently found in storage". What puzzled me was that the body is anodised steel, but the end cap/nozzle is alloy. I therefore consulted Andy Blackwell, who wrote, "I didn't know these had been marketed. Soon after Sebel introduced their hotter burning fuel, conversion kits were available so that original end caps could be retained by mating them to the new mild steel bodies. It was a stopgap so that users could keep their old 50Bs and Jetmasters running without the expense of total replacement with a complete 50C or PAA Loader". Given the above, I could reassure a potential purchaser, concerned the alloy nozzle was incompatible with Sebel fuel, that there should be no problem.

Other rare 'Jetex' items for sale that have puzzled folk on eBay are the several varieties of 'PSST' motors which can appear either on their own or as part of a vintage, and very desirable, Berkeley kit.



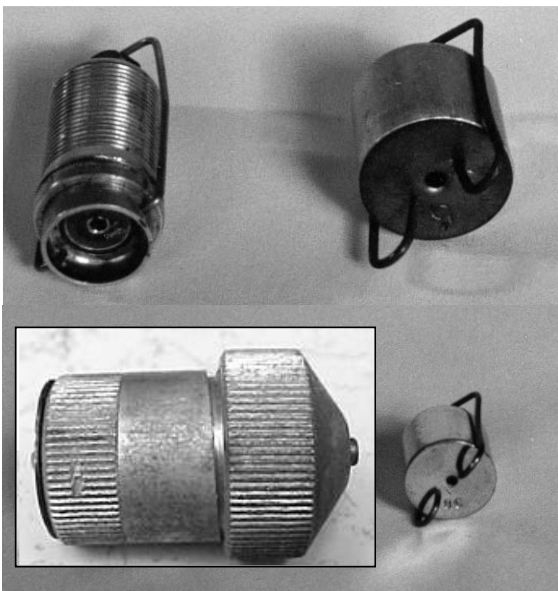
I was surprised at how little is known about PSST motors, which were made by South Shore Metal Product and distributed by Berkeley in the mid-fifties. As one can see, they sail as close to the Jetex Patents as possible. Being aluminium alloy, they are incompatible with Sebel fuel. Bruce Ogden, who has actually fired them up, comments: "The 50 could have been excellent with a little more attention, but the Double 50, which took two [ICI] pellets for an extended run time, was hopeless – too heavy, horrible to load and with repeated ignition failures that usually ended up breaking the seal".

Bert Judge, who also has first-hand experience of PSST motors, reminisces: "When I was at Sebel, and asked to provide an 'Expert Report' on them. They were very dangerous. With a Jetex motor, you see, once the fuel starts burning, if you've got too much pressure, the end cap will lift. PSST motors are lit from the other end, and if that [the pellet] started burning up too quickly, you are not going to lift the end cap off so it will explode. It was a very critical report.

At that time, I was due to go to America with a chap from Woolwich Arsenal who was responsible for giving us clearance for our own form of 'jet engine'. The Americans were trying to say that a Jetex motor [It may be that this was a PSST motor] had exploded and a youngster lost his eye as a result. We were going as expert witnesses to disprove this.

The case was cancelled before it was due in court, but not before threatening letters had arrived at Sebel! The only way Jetex motors could explode was if you sealed the end cap. Once, during a lunch hour (and when Joe Mansour was about!), one of the Lads at Sebel thought he'd be clever. There was this massive explosion in the yard and we all dashed out to see what had happened. He had got some steel tube, packed it with pellets and fixed the end so it wouldn't come off. Then he lit the fuse and ran away".

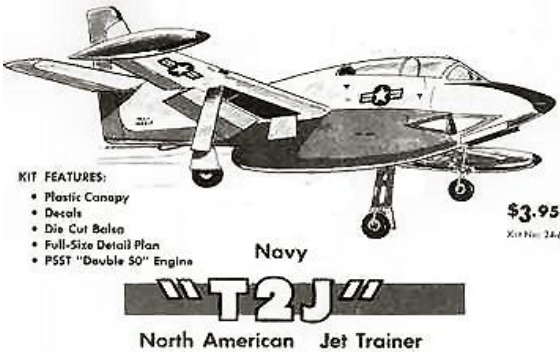
Later PSST 50s were of a more sensible design (see next page), but be warned, motors with inadequate safety valves, or none at all (like the 'Motox 12' or 'Nova Jet') are best kept for display purposes only!



**Above:** The two varieties of Synjet compared with a nice example of a sixty year old Jetex 50. **Insert:** the German Nova Jet

According to Ben Nead, Synjet motors (*Smoke Trails 15*) have appeared on eBay, though I have only seen one as part of a very rare 'Delfin' kit (*Smoke Trails 13*). Synjets are steel cased, and are therefore less prone to damage than alloy types, but I do not know the situation with regards to fuel or accessories. They are very nice though, and when cleaned up would, like the Powermax Jet-X motors (which are quite common on eBay), look great on any modeller's mantelpiece.

And what of the archetype of all tiny metal-bodied rocket motors, the original Jetex 50 itself? These are not too uncommon on eBay, and for anyone interested in Jetex history, they are 'nice to have'. But, not unexpectedly for a motor now entitled to a bus pass, they are usually quite corroded and in too bad a state to be used. Andy has usable examples, but mine need more restoration – for example careful regrinding the edges of the body – than I am capable of.



**Top:** Comparison of a Jetex 50B with a later PSST 50 motor. Note this now sports a sprung cap in the right place, i.e. adjacent to the burning surface.  
**Middle:** For a short period some Berkeley kits came complete with PSST motors; the X-16 with a 50, the T2J with the dubious Double 50.  
**Bottom:** common varieties of '50' pellets on eBay; L to R: ICI, Sebel; Powermax.

Problems with wick have been comprehensively, nay tediously, covered in previous articles. However, more needs to be said about fuel, as I have been somewhat surprised at just what punters think they can get away with – plastic boxes filled with broken pellets (a snip at £23.50), and stuff of unknown origin retrieved from lofts and sheds – whether ICI, Sebel, V-Max, Powermax or Pressed Beef, nobody, least of all the seller, seems to know. Such 'job lots' need to be treated with extreme caution! Experts like Andy can usually tell the provenance of fuel by the smell and feel: "An interesting bouquet with a hint of DNR, nice texture, just an intimation of dichromate ... hmmm ... I would say an early Sebel 50C, circa 1957, stored in tin, not plastic". But, for us lesser mortals, the few simple observations and experiments below may be useful in sorting out the wheat from the chaff:

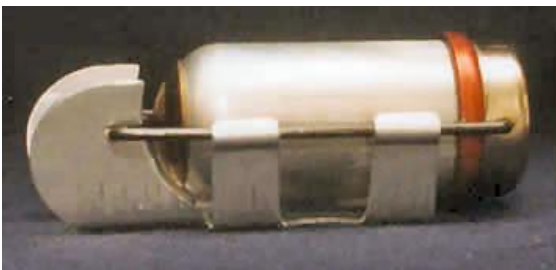
1. First, remember that a pellet's colour is dependent not only on the maker, but also on age and storage conditions. 'Red Spot' is usually unmistakably purple (not red); standard ICI pellets can be anything from dark brown to orangey brown. Sebel pellets are usually of lighter hue; those for the '50' are a little over half the length of ICI pellets, as are V-max pellets. These though are dark gray brown, but show white where scraped. Powermax pellets are thinnest of all and also very dark, but have a hole in the centre.

2. Does the pellet actually ignite? Some only melt and fizzle feebly, or appear completely incombustible. At this stage Powermax pellets should be discarded. Others should be tried again after a few days in a hot dry place. ICI pellets burn completely and leave a skeleton of light grey friable ash. V-max pellets also keep their form, but this is white and alkaline (see later). Sebel and Powermax fuels fizz when burning, looking like a small volcanic eruption. Sebel pellets leave a dark residue ash with a tinge of yellow/green from Chromium oxide.

3. A residue that feels soapy and fizzes with vinegar contains potassium carbonate: this confirms V-Max or Powermax pellets.

Is any of the above important to the average punter? Well, (a) you don't want to buy pellets at a premium rate if they are V-Max or (more probably) Powermax; (b) alloy motors can be sold as a package with unsuitable (and potentially dangerous) Sebel pellets. The bottom line is of course, 'Caveat Emptor' – and be prepared to ask the seller probing questions!





**Above:** These well-crafted motors were made by Tiger Manufacturing Inc. Otaku and distributed by 'Aero-Flyte'. The 'A' and 'B' were equivalent to Jetex '50' and '100'. Note the pellets have a central hole. (Photos by Bill Henderson)

If the original Jetex 50 is the archetype of all reloadable micro rockets, then those manufactured by Tiger Rocketry are the epitome of the ectype. Examples have appeared on eBay, either with Japanese labels, or re-boxed for the English-speaking world by Aero-Flyte Products under the (confusing) moniker 'Jet-X'. Ben Nead writes:

"Mine [a Tiger A] was originally purchased at a local hobby shop by a US serviceman stationed in Australia in the late 60s/early 70s. He fired it once, but didn't clean it afterwards [all too common, I'm afraid]. I cleaned it up with the help of a jeweller. The aft closure cap was completely covered in black soot and rust, which soon gave way to pitted brass. A mint example would have this area finished with an electroplating of dark brown or bright red copper based material. The level of workmanship is really extraordinary and during disassembly the small dark copper disc comes off the end of the aluminium casing. The nozzle is supposed to have this copper plating on it as well. The Type B featured a sophisticated mounting clip which kept the motor firmly in place and made thrust adjustments very easy. Both the A and B came with a light aluminium tubular heat shield and cored pellets".

Tiger motors, then, are very desirable objects (I hope the above doesn't inflate prices on eBay) and I have been trying to persuade Andy (who has both motors and fuel) to put his precious examples to good use on the flying field. I'm sure his Comet would go splendidly with a Tiger B!

It will be remembered that Sebel, in order to circumvent ICI patents, based its fuel on the Tiger formulation. Sebel fuel, (and presumably Tiger fuel) burned so hot that Sebel introduced steel cases to replace the alloy Jetmaster and 50B. So it has always been a bit of a puzzle to me that Tiger motors, equivalent as they are to the Jetex 50 and '100', are alloy, not steel, cased. John Emmet comments: "Tiger fuel was the dichromate -Guanidine nitrate predecessor of Bert Judge's Sebel fuel. Alloy motors need to be just thick enough to keep below 300-350C by the end of burn, and the Jetmaster grew a thickened front main case during production for this reason and could safely handle Red Spot fuel. So one Sebel pellet would probably be OK in a 50B, but don't quote me on that!" ... Erm, sorry John ... I just have! Because the Atom 35 and Scorpion both took a single pellet with a very short burn time, no modification of their alloy bodies was required.



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**Top:** Sten's beautiful Skyleada Hunter  
**Below:** Little by little, eBay is adding to our collective knowledge of just what 'Jetex' kits were available in times past. The advert for this very nice Comet kit, for internal Jetmaster, appeared only recently; the kit itself was for sale a couple of years ago.

I have yet to see any Rapiers offered on eBay: given the problems we've had these last three years, I would advise folk to be very chary of buying them, even if, like Sten Persson, they are down to their last boxes. Sten, doyen of the Swedish Chapter of SAM, writes: "I'm happy to find that you're carrying on writing the "Smoke Trials" for SAM 35 *Speaks* in spite of the Rapier supply problems. My own stock is down now to a few packets, so I've started counting my Jetex 50 and 150 pellets – I probably have enough fuel for a couple of seasons, but I doubt the wick is usable!

I enclose a photo of my latest model, a Skyleada Hawker Hunter finished in Swedish colours. It was designated J 34 in the Swedish Air Force, and a very popular stop gap fighter pending the arrival of the supersonic SAAB Draken in the late fifties.

This year, I planned to enter three Rapier models in our annual F/F scale contest, but a disastrous trimming session a couple of evenings before the event reduced the to one only. My venerable J 29 Tunnan made a beautiful flight and landing, but before I could reach it flames erupted and destroyed it in seconds. A realistic but sad end to this model, possibly caused by remaining cellulose [dope] fumes from a recent repair in the fuselage. My A 32 Lansen then landed prematurely after a careless launch with its L3 still belching smoke. Before I reached it the Rapier blew away the end cap of the mounting tube and shot into the front part of the fuselage. Damage wasn't extensive, but it wasn't easy to extricate the Rapier from the shattered bulkheads!

I was now down to my last model - the Hunter. As it had some test flights behind it, I (wisely?) saved it for the contest. At 24g, it still needs a good L2HP to perform properly. This surprises me, as it isn't a draggy model. Perhaps my (old) Rapiers are less powerful than stated on the boxes. Anyway, I was relieved it behaved well at the contest although I nearly lost it in the late evening dusk.

I guess that my Rapier experiences so far should make any sensible person [or Persson!] start looking for a new hobby, but it only makes me more determined to succeed next time!"



Thank you Sten – does modesty forbid you to say how you did in the contest? My own Hunter, a little heavier than yours, flew well with a '140mN' L2, so I suspect your 'HPs' were, as was common last year, more than a little substandard.



As I said earlier, eBay is for me a profitable place to research Jetex history. For example, we now know that Solido, Wilmot Mansour's French importers, also made Jetex ARTFs (see last month). We also saw a Solido *Helicoptère* (left) this year, but whether this was of indigenous manufacture or a rebadged Jeticopter, I don't know.



The young Brian Howell with his Jeticopter, circa 1955

Coincidentally, I received an email from Brian Howell: "I found an old Box Brownie photo of myself proudly holding my 'Jeticopter'. This was a fairly successful model I remember, powered by two Jetex 50 motors affixed to a crosspiece of thin ply at right angles to the hinged rotor blades. This worked OK, but one had to ensure both motors were carefully loaded and the wick inserted correctly to avoid problems of one motor failing to ignite. Flight realism was slightly spoilt by the torque from the rotor blades tending to cause the fuselage to slowly turn in the opposite direction! I had a lot of fun with it and once persuaded my mum to watch a flight in the village field where most of my early aviation adventures took place. Quite a good flight, the Jeticopter gaining a good height but, unfortunately, descending into the branches of a tree. As we know, there only has to be one tree!

I also experimented with a Jetex 50 flying saucer but with little success [ . . . ] I don't recall seeing anything about these in my favourite magazine". Thank you Brian; I did write about flying saucers in *Smoke Trails 3*. Can I suggest the time is ripe to have another go?

Finally, we have good photographic evidence that Wilmot Mansour had an example of the Comet F-94. It would have made an interesting comparison to their larger Tailored models, though neither Bert Judge nor Mike Ingram can remember anything about it. An example on eBay was, alas, out of my league. But the advert was recently pimped (I think that is the barbaric term) for \$ 9.95. Fortunately, the seller foolishly provided a high-resolution photo of his wares (previous page), which, for our research purposes, is all we need!

