John Butcher showed me the article in a recent Airborne magazine written by their engine guru on the use of Shellite as a substitute for ether in model diesel 2 strokes. I decided to try it out. I found a couple of old DC engines (blue top 1cc and red top 1.5cc) and an old DC engine stand. I shopped around and found "Fuelite" in Mitre 10 mega store which is the same as Shellite and Pegasol and differs from White Spirits. Fuelite is sold as a paint solvent and a fuel for a certain type of camping stove. It has very low octane rating and ignites on compression, ie it would cause pre-ignition "pinking" in a modern high compression petrol engine.

I mixed 2 parts kerosene, 2 parts degummed castor oil (Benol brand), 1 part ether and 1 part Fuelite then added 2% Amsol Cetane Boost (so this was about 16% ether and 16% Fuelite). This brew worked well each of the DC engines started easily with a couple of chokes and a swift flick or two. Compression and needle valve settings were adjusted for optimum revs. The fuel economy seemed very good and the engines did not over heat and were easy to restart. I later tried it in my Bodo Mills .75 which is not yet fully run in and it started and ran well and if anything seemed better than my standard brew which uses 30% ether. I will mix a brew with 1 part kero, 1 part castor oil,and 1 part Fuelite then add 2 % Cetane boost and try that and see how it compares for ease of starting. I have not bothered to check engine revs as most of us are interested in economy and convenience rather than all out power.

Charles Warren

The latest aeromodeller has an article on ether-less fuels by Brian Winch, although he makes an error in suggesting using conventional diesel in one of his brews (actually attributed to Bay Lennox), but this will not work. The correct mixture is 3 parts kero, 1 part ‘Fuelite’, and two parts oil. I can’t get caster to mix well with this combo but it seems to work if I give it all a good shake up before using. I find 2% of ignition improver settles the engine down just the same as for ether. Could this be the way of the future? Certainly cheap enough.

Allan Baker

Brian Winch's Fuel Mix Experiments

	Fuel Mix	Result/RPM
1	1:1:1 - oil, ether, kerosene	7,820
2	3 parts kerosene 1 part Shellite 2 parts oil	7,820
3	2 parts kerosene 1 part nitro methane 1 part Shellite 2 parts oil	8,431
4	1 part kerosene 1 part nitro methane 2 parts ether 2 parts oil	7,898
5	1 part kerosene 1 part nitro methane 1 part ether 1 part Shellite 2 parts oil	7,982

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