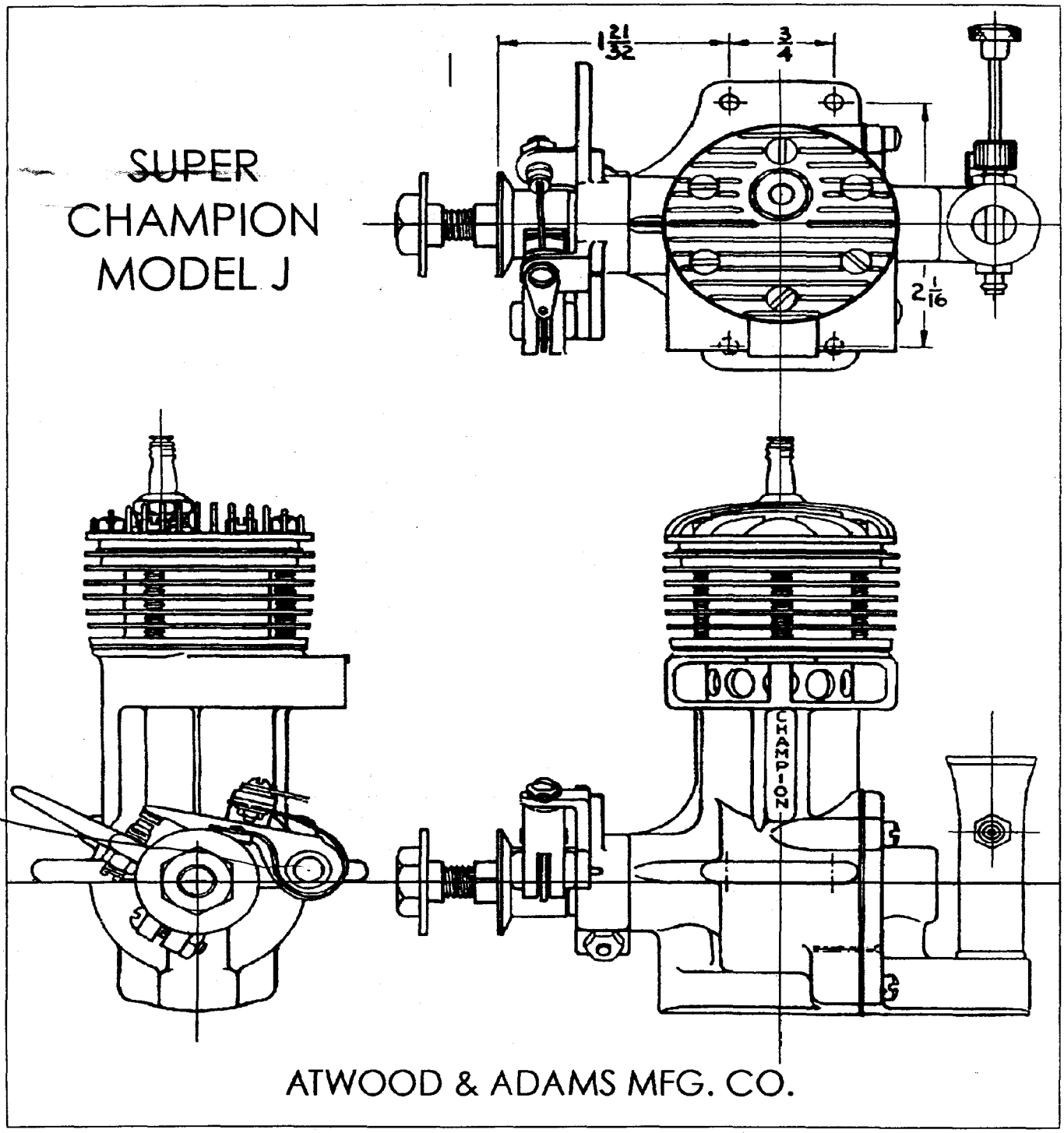
SAM 600 Inc.

VOTA VICTORIAN R/C OLD TIMER ASSOCIATION

http://www.sympac.com.au/ftboundy The voice of Old Timers from Victoria, Australia ✈✈✈✈✈✈✈✈✈✈✈✈# 54



Bore	**= 0.940 in**	**Compression Ratio**	**= 8 to 1**
Stroke	**= 0.900 in**	**Bare Weight less coil & tank**	**= 12 oz**
HP 0.6 @ 12,500 RPM		**Displacement**	**= 0.6254 in cub.**

NEXT MEETING

Is on Thursday, March 26, 1998, 7:30 PM at Saturn Hobbies located, 17 Ardena Court Bentleigh East (Melway 68 J-12) off East Boundary Road (which is opposite the Moorabbin Memorial Swimming Pool) Saturn Hobbies will be open prior to 7:30 PM.

✈

On most Sunday afternoons and Thursdays there is casual flying at the SWAMPS club on a private property at Lang Lang, (conditions permitting) by courtesy of Fred Chigwidden's son David. Members are welcome especially those new to flying are welcomed to the SWAMPS field. Model and pilot training sessions are conducted by Peter Donovan and others. Location and local field rules can be obtained from Fred Chigwidden at home on 03 59975 675.

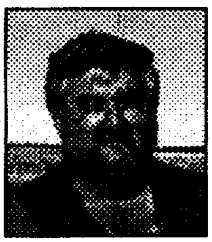
✈

TREASURER'S REPORT

A warm welcome to two new members namely Rex Patkin from East Bentleigh and David Foster from Balgowlah NSW.
Preparations are well under way for the Swan Hill Easter fly in so please fill in those entry forms and return them to me as soon as possible
Sec/Treas. F.J.C.

✈

PRESIDENT'S REPORT



Greetings fellow members, don't forget we have organised for Peter Cossin's to have your radio's certified, at a very low cost plus the club will pay 50% of that cost, that's a bargain.

Also a quick discussion on rules, past and present.

At the SA State Champs fun was had by all. Weather was sunny but a bit windy on Saturday, Peter Bennett managed to stop his diesel engine in Texaco, with one finger, ouch!

On Sunday less wind, until lunch time (they have a daily sea breeze). Peter White had a terrific flight in Half A Texaco of 41 minutes plus.

See you at the next meeting, don't forget your radios.

Happy landings. Chris Lawson.

EDITORIAL COMMENT

The 1998 SA State Champs are over and the results are publisher here, verbal reports have one Ron Adamson featuring prominently in the winning circle.

It's rumored that 1788 may be testing the water regarding a set of rules for contests other than the MAAA run Nationals and that it will involve input from all states, more at the meeting.

I have two more newletters to publish before my retirement, and as yet I have no anxious would be editors beating on my door.

It is confirmed that Tx certification will be carried out at the next club meeting at a cost of $5.00 for the first set and $2.50 thereafter, these low costs are a result of SAM 600 is subsidising to the tune of 50%.

I will not be available for re-election as editor at the next AGM. Therefore anyone wanting to do this job could approach me, through the committee of course, to promote an orderly handover at the AGM, or prior to the AGM at meeting # 56 on the 30th of July this year.
Trevor Boundy.

CHAMPION - FUELS FOR GENERAL AND HIGH SPEED RUNNING

From the original Super Champion Instruction Manual for the Model J.

←

3 parts gasoline to 1 part # 70 motor oil.
3 parts gasoline t 1 part caster oil & ½ oz of either / pint
2 ½ parts alcohol to 1 part caster oil & 1 oz either / pint
Power Mist 'Blue Blaze'with 15% Power Mist 'Fortified' Oil
It is wise to strain all fuels through a piece of silk stocking or fine mesh strainer in order to gain most consistent engine performance. Needle valve will not clog up so readily and adjustment can be maintained more easily when this is done.→

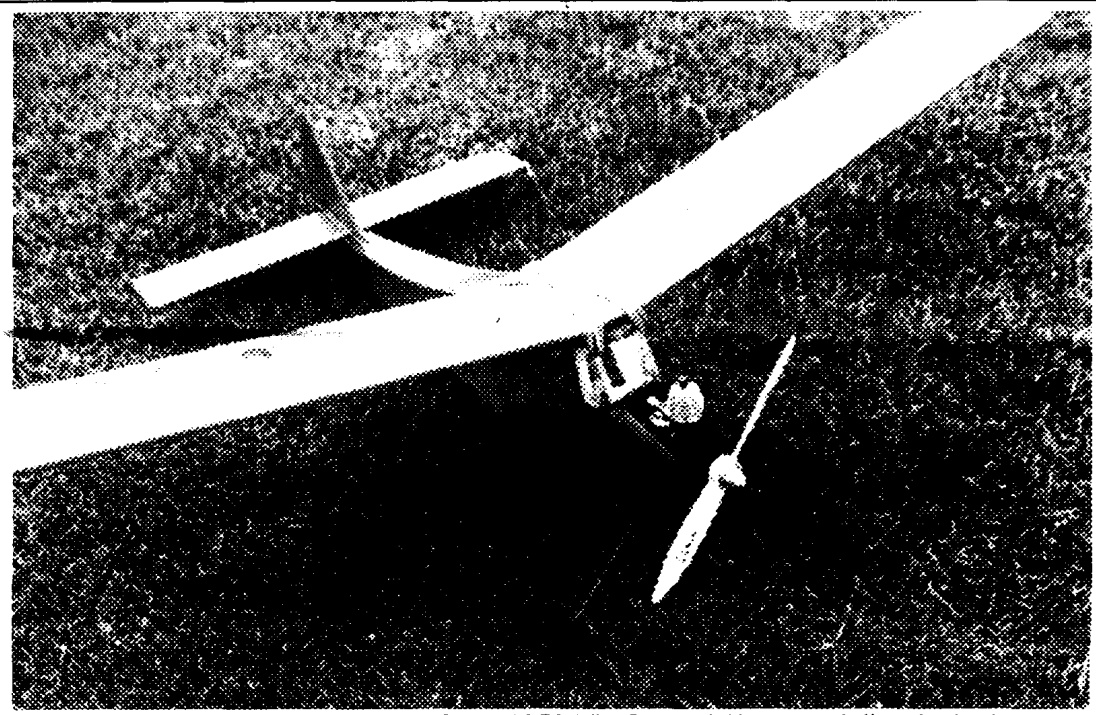
AUSTRALIAN SAM PRESIDENTIAL CONTACTS

SAM 1788 NSW Basil Healy Pres. 043 417 292
SAM 84 Qld Col Sommers Pres. 07 3284 4775
SAM 83 ACT Allan Laycock Pres. 06 254 3076
SAM 600 VIC Chris Lawson Pres. 03 5275 8482
SAM 1993 SA Ian Promnitz Pres. 08 8261 9518

SOME OLD AND SOME NEW

By Don Howie

It is amazing how we reflect on the good old days of control line and free flight. Actually, as far as free flight was concerned; the number of good days when it was calm enough to fly, I expect could be counted on the fingers of the hand. In the early fifties, for good sport flying you needed a Mills 075 and a Vic Smeed designed model.



Don Howie's 36" span Tom Boy, 1950 Vic Smeed (Aeromodeller design), Irvine Mills 0.75 cc, 7 x 5 prop, 2 channel, 12.5 oz, Airspan covering,

With above in mind, I recently finished a 36 inch span Tomboy, powered by an Irvine Mills .75cc, covered in orange and blue Airspan.

Compared with tissue, this English iron-on covering is fantastic, but not as strong as normal iron on coverings.

The Irvine Mills .75, now nearly 10 years old, is still like new and looks as if it will go forever. The tanks screws in, not like the original Mills tabs that eventually broke.

One important thing with the Irvine and the original Mills, use a wooden propellor or soft plastic prop. The glass filled props, such as Master Airscrews, are too strong, in a crash or hard landing, the end of the shaft will break and not the prop.

Getting to something new; I fitted 2 Premium Naro BB servos. These micro micro servos at between 8 and 12 grams, selling at Model Flight for $33 each, must be the greatest advance in the last year or so. I tend to be very critical of the cheaper servos, but these are ahead of any previously seen. The pins on the connector are gold plated and very high quality. Several flyers are using them in 1/2A Texaco models and they work well.

Only time will tell if they last, however, they kept the weight of the finished model down to 12 ozs or so.

Out to the flying field to test fly. It was quite windy, the sort of weather when you sat in the car all day, if you were a free flight modeller.

Having radio control on rudder and elevator. I simply cranked in a bit more down trim on elevator and tuned up the Irvine Mills .75 to get it going at maximum revs. Launch the small size Tomboy, 36 inch into the wind, and away she went climbing well. I was quite impressed the way it handled the conditions getting to a good height before the motor stopped. I had several other flights on the day, each time getting higher as I set the elevator trim correctly.

Thinking back to the old days of free flight and flying similar (but refined) models with radio; we have it all today with an enormous variety of models to fly. I expect though, free flights kept us fit, when we eventually got to fly them.

D.H.

→

FOR SALE

The RC Engine
Volumes 3 and 4
By Clarence Lee
(Vol. 3 includes OT engines)
Contact
Darryl Cope
on 03 9703 1338

TO THE NEW EDITOR

by the out going Editor.

The new editor can expect to receive reciprocal copies from the following newsletters, to keep up to date with "Aero Mod" matters.

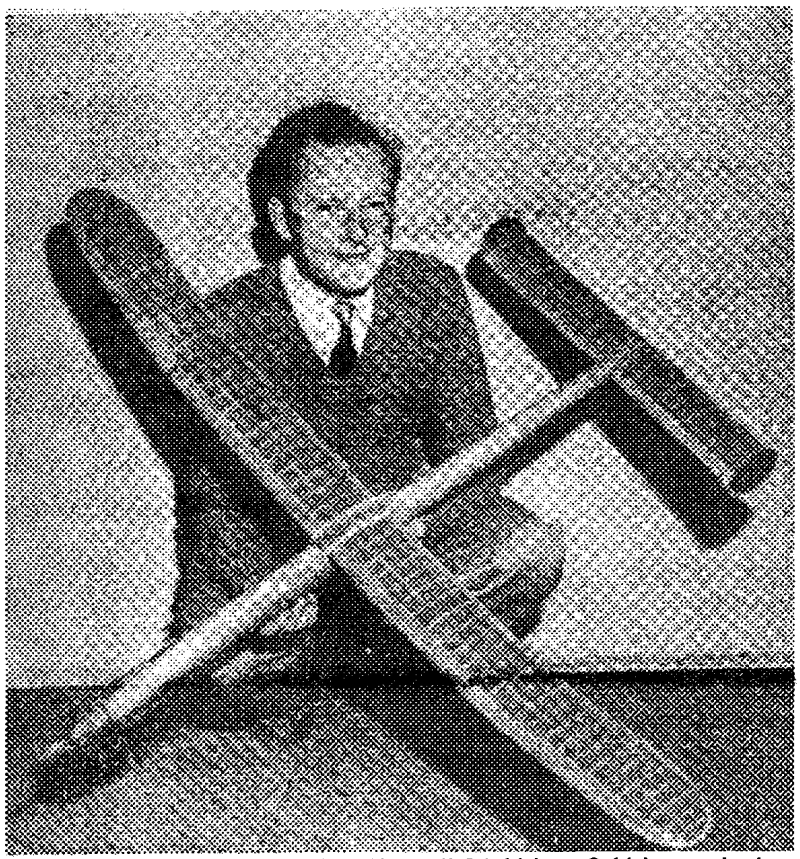
Duration Times SAM 1788
The Vintagency SAM 84
The clipper SAM 21
Antique Flyer SAM 27
SWAMPS Newsletter
Australian Control Line News

THE ALAN KING STORY

From Aero Modeller August 1955

Photos show Alan's 1955 designs which incorporate a wealth of "know how" gained in his travels. A folding 20in x 24in. prop is double hinged to slide forward and compensate weight change on the;

Everyone with an interest in contest models, and in particular the Wakefield Trophy, will be familiar with the name of Australian Alan King. Alan was three times Australian National Champion and a regular winner of power and rubber contests in his own country. He went to the World Championships in Long Island, N.Y., last year as sole representative for Australia, and emerged winner of the coveted Wakefield Trophy and holder of fifth place in the closely contested World Power Championships.



Wakefield overall length is 41in. tail 21 ½ in x 3 ½ in. and wing 51 in. x 4 ½ in. Power is 13 strands of ¼ in Pirelli.

Exactly how Alan came to travel halfway around the world to take part if these events is quite a story in itself. It began late in 1953 when he decided that by all the means within his power he would try to gain a place in the 1954 International teams, and was prepared to pay his own way to the U.S.A..... regardless. Announcement that selection of an Australian representative to compete in U.S.A. was to be made at the end of the year at the December 1954 Nationals stirred Alan to work with a keenness that resulted in a whole fleet of models ready for the Eliminations.

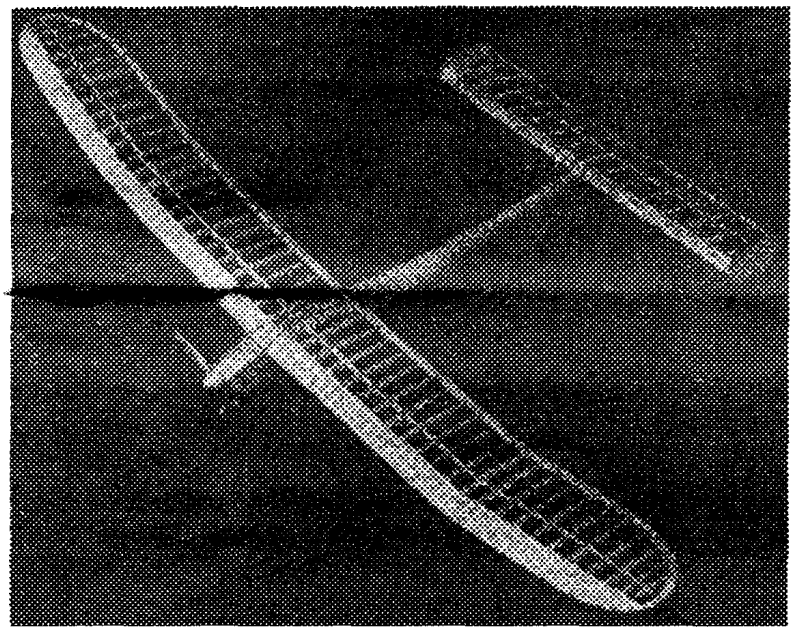
Perhaps by trying too hard and attempting radical changes in his designs Alan did not succeed in making either team, although he collected firsts in 1.5 cc. Power and C/L cargo and a third in 3.5 cc. Power. Such was his reputation that he was nevertheless unanimously elected to represent the country, and a fund was started by the MAAA. to raise the money for his fare. With five hectic months left before departure, Alan set about retracing his steps in design of his Wakefield's. Previously the nose moment had been shortened and the tailplane made smaller. In view of the disappointing results, he now increased the length of the nose more than ever before and pushed the tail up to 74 sq. in. Result was the model which eventually won the Wakefield Trophy, and which has subsequently been copied in all countries where models are flown.

In the meantime the fund was hard pushed to raise his fare money, and though well supported by the modellers of his home city, Melbourne, who organised Social functions, it never reached the amount hoped for and Alan made up the balance out of his own pocket.

A peaceful cruise after the intense preparations gave him a break before reaching San Francisco. Met by the local fliers, and made to feel really welcome the instant he set foot in the USA, he soon had the pleasure and attending several US. West Coast Eliminations, and at this stage Alan felt sure he would have to fly eventually against either Joe Foster or Joe Bilgri in the finals. As it turned out, their fabulous mid-air collision eliminated both, and the ultimate winner, Dick Baxter, came to the fore front with the unusual approach. (which we described in June issue) Alan was rather staggered by the tremendous rate of climb of the power models, and he realised that he would have to improve design to stand any chance in that event. When he moved from California to Salt Lake City in Utah he stayed with Barney Taft, one of the leading modellers there, and a protagonist of high thrust line power models. A few demonstrations in the absolute dead early morning air over the Salt Lake soon convinced Alan that this was the new type of design he wanted to follow for power.

Moving to Illinois, Alan stayed with Jimmy Tangney, the prominent Wakefield exponent, who did so well in British contests during his stay here with the U.S. Navy, and then from Illinois he travelled to Washington. DC. and AMA. Headquarters. Going out test flying with Carl Wheeley on a number of occasions and seeing the consistency of his flying, Alan was impressed with the performance of this leading American flier and it was no surprise to him that Carl should eventually win the FNA. (FOM.) Trophy. The rest of the story we know quite well, for Alan overcame a mild attack of "contest nerves" in the Long Island power event to place 5th. He lost his

No. 1 Wakefield model on a test flight and having it recovered from the bush after a mass search, went on to manage five consecutive maximum flights using both of his models. Alan reports that as the contest progressed he could hardly believe the success he was having, and we know that this feeling is shared on every occasion by all the leading fliers.



Power model above is a scaled down version of a 60 in. Oliver Tiger model for the F.A.E power event. Note the similarity in surface outline and construction with that of the Wakefield model.

We know that if he is able to visit Europe his progress will be very closely followed by all enthusiasts and his influence on model design will lead to more twin fins, high aspect ratio tail planes and long noses for Wakefields.

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PROPELLER BALANCING.

by John Benson, editor TCRC Flare Out, from VCLN May 1996.

Reducing engine vibration is the prime consideration when precision balancing a propeller, but there is a controversy as to whether it is worth the time and effort. The greatest single factor in producing vibration is the design of the two stroke engine. All single cylinder engines are unbalanced because the piston and connecting rod is heavier than the counter balance on the crankshaft.

According to Chris Machin, manufacturer of REV-UP props, the whole thing about "balancing" props has been overdone and suggests a simple solution.

First, of course, you put your prop on a balancer to determine which blade is the heaviest. Mark this heavy blade in some identifiable manner. To mount the prop so that the heavy blade is on the counter-balance side of the crankshaft, use the following rule: Crank your engine with the prop blade at the three o'clock position coming up on compression. The blade you crank should be the light blade. This procedure positions the heavy blade on the counter-balance side of the shaft and fools the engine into thinking it now has a balanced crankshaft thus reducing the overall vibration of the engine.

Precision propeller balancing will not eliminate vibration, but will produce a known amount that in most cases is tolerable. If an unbalanced propeller is installed haphazardly, it can increase the amount of vibration and cause numerous unwanted problems such as bubbles and foaming in the fuel system which in turn may results in the possibility of a lean run. Vibration has been known to cause receiver problems along with excessive stress and strain on the aircraft structure.

Most prop manufacturers drill the shaft hole for matching an engine with a small shaft and they generally will not fit until they have been enlarged.

The shaft hole should be enlarged .002 to .003 inch larger than the shaft. This makes for an easy slip-fit and gives a snug fit when the prop nut is tightened. To enlarge the shaft hole, a hand reamer will work well, but will cause the hole to be tapered. An excellent four step hand reamer manufactured by Fox is designed to size the hole in a prop or spinner without tapering the hole. With a drill press, a counter-bore of the diameter wanted with a pilot the size of the stock prop shaft hole will give the most precision bore.

A handy and inexpensive prop balancer is manufactured by Prather and is small and quite accurate. It has two tapered cones that centers the prop and has tapered ends for hand balancing. Some propellers require very little balancing and others require some material removed. Removal of material is best accomplished with a razor blade scraping the top of the prop near the trailing edge and then using sandpaper to smooth it out. The extremely sharp edges of a Master Airscrew prop can cause a serious cut and the flashing should be removed on the leading and trailing edges before they put into use.

✈

FROM LEAD TO IRON A TEAM RACING FUEL DEVELOPMENT

by Göran Olsson, Stockholm, October, 1996
Email < olsson@plasma.kth.se>
Home page <
http://www.plasma.kth.se/~olsson/cl.html>
Updated November 1997

A replacement for TEL (tetraethyl lead) has been found which is considerably less toxic and offers improved running characteristics.

does not evaporate during storage, or the solution will become more concentrated. Use a tightly sealed bottle and make a level mark after each use.

A few curious asides:

- TEL was developed as a fuel additive in the early 1920:s by one Thomas Midgley, Jr. The very same person later developed FREON for refrigerators. An Antichrist to the environmentally concerned!
- Ferrocene is a molecule of some beauty: A sandwich of two hydrocarbon pentagons with an iron atom in between:
- Ferrocene was first synthesized as late as 1951. Its discovery has led to a new field of science, studying related compounds, which was awarded with a Nobel prize (Fisher & Wilkinson, 1974). (I later learned that Wilkinson passed away just a few days before I published this.)

More on ferrocene. Here are safety data. (US lawyers involved here, not just toxicologists.)

If you test ferrocene, good luck. I would be grateful if you send me a note with your findings, or any developments of your own in this area.

I must underline that, as with TEL, there is no point in using ferrocene for other uses of model diesel engines than team racing. A modern T/R engine with integrally finned AAC cylinder & piston can handle the increased compression and heat load, while a typical 'sports' diesel or diesel converted glow plug engine can't.

✈

Leon Shulman in 1940 with his Polk's-sponsored, O&R 60 powered, six footer.

LEON SHULMAN

by himself
from Sam speaks #'s 138.

I've been reading articles about Irwin Ohlsson and his background-we lost a real good man. Fortunately for me our paths met many times during his lifetime. Not only did I use his engines in many of the models I designed and flew, but in his later years I worked with his company as a sales representative on the East Coast.

In 1940 Irwin Ohlsson airmailed one of his first Ohlsson 60s to the Polk Brothers since they were his East Coast distributors. Polk'- gave me one of the first 60s if I would fly it in one of my new designs, I did. and the enclosed photo was first published in Model Air News in June 1940. The engine had a very low serial number, two digits I believe.

The Model was an updated Skyrocket / Skyscraper which I designed and built for this engine, actually I never did give it a name. The writing on the side on the fuse said "The First Ohlsson 60 in the East" and "Polk's For Power Plants." It was an excellent flier as designed. but at that time, most of the modellers in the area followed my lead and designed their own models. They were quite similar Rocketeer, Hornet, Sunduster (Brofman) plus several others which were published shortly thereafter-since this was the typical design at the time. At that point I went off on the Wedgy Zomby designs since I didn't want to be part of the pack, and there were other areas to investigate.

It was approx. 60" span, polyhedral wing. typical airfoils of the day, although I experimented with different airfoils. These were mostly under cambered but I tried several different thicknesses even down to a very flat foil with 1" thickness, which didn't work well. In fact the model would glide quite fast, although flat, and out climbed the other ships. The problem was at the apex of its climb with the nose-up attitude. The engine would cut-off, and quite often the model dropped its nose and the dip was quite prolonged. The dives were steep and long, and several of the group (Skyscrapers) called the model 9G, after one of the aviation movies at that time.

It was not kitted, and I don't have plans for it, but basically it was a scaled up Skyrocket for a 60. With center section of the wing cut away to make the fuse look longer, yet balance the model with this heavier engine.

from Sam speaks #'s 139.

The model in the last issue was built for the first O&R 60 in the East. It was sent to me by Irwin Ohlsson via Polk's so they could promote it. It was actually an updated Skyrocket/Skyscraper which I designed for this engine. I never did give it an official name. The writing on the side on the fuse said "The First Ohlsson 60 in the East" and "Polk's For Power Plants."

It was an excellent flier as designed, but at that time, most of the modellers in the area designed their own

models. They were quite similar-Rocketeer, Hornet, Sunduster (Brofman) plus several others which were published shortly thereafter-since this was the typical design at the time. At that point 1 went off on the Wedgy-Zomby designs since I didn't want to be part of the pack, and there were other areas to investigate.
It was approx. 60" span, typical airfoils of the day, although 1 experimented with different airfoils. These were mostly under cambered but I tried different thicknesses even down to a very flat foil with 1" thickness, which didn't work well. In fact the model would glide quite fast, although flat, and out-climbed the other ships.
The problem was at the apex of its climb with a nose high attitude. At engine cut off quite often the model would drop its nose to regain speed. The dives were steep and long, and several of the group (Sky Scrapers) called the model 9C, after one of the aviation movies at that time. Not kitted, and 1 don't have plans for it, but basically it was a scaled up Skyrocket for a 60 size. With center section of the wing cut away to make the fuse look longer, yet balance the model with this heavier engine.
The picture was taken at Creedmore during the winter of 1938-39. 1 was wearing the bright red Jacket that the Skyscraper members wore in this cold weather. I remember it had a hood with drawstrings which always ended up a catch-all for pebbles, pieces of crashed model, dirt, snow and mud.
The foto was taken by Flarold Kulick who did a lot of work for MAN.
By the by - your latest editorial on "change" was excellent. I love your frame of thought.
Leon Shulman, 173 Essex Ave, Metuclien NJ 08848.
<leori.pilot@worldnet.att.net>

SAM

MODELNAME	DESIGNER	DATE	SPAN
SKYROCKET	SHULMAN	42/05	46
SKYROCKET B (& SUPER)	SHULMAN	42/05	51
SKYSCRAPER (TAMBE)	SHULMAN	38/11	54
SUPER ZOMBY 33,44,62	SHULMAN	42/04	72
WEDGY	SHULMAN	40/11	42

NOST

MODELNAME	DESIGNER	DATE	SPAN
Zoomer	Shulman?	46/00	60
Banshee	Shulman	45/10	50

✈

MINATURE ENGINE FUELS

from Aeromodeller March, 1950.
by F. C. B. Marshall, PhD, DIC, BSc, FRIC.

F C B Marshall has been Technical and Managing Director of Barron Industries (Chesterfield) Ltd. since its formation in 1947. Prior to that he was for some years senior research chemist to the British Diesel Oil and Petrol Co. Ltd. During the War was engaged in research on rocket design with the Ministry of Supply, before which he was a senior research chemist both at the Paint Research Station and in industry.

Fuel technology is a modest, riot very highly publicised, branch of knowledge, with the result that the average Aeromodeller probably knows less about the fuels he uses than about any other aspect of his craft. This is greatly to be regretted since engine performance-and engine life depends not only on engine design and workmanship but also on the characteristics of the fuels used in them. These notes have been prepared for the guidance of modellers who like to experiment with fuel mixtures of their own-to help them to experiment intelligently without undue waste of time and materials and to assist them in judging the suitability of commercial brands of fuel for whatever purpose they may have in mind. No attempt has been made to write a "Formulary" or to review existing commercial fuels. What has been attempted is a concise and simplified account of the properties and functions of the major fuel ingrediants, and an outline of the basic scientific principles to be followed in working out the design of a fuel for any particular purpose.

Before it is possible to proceed to the formulation of a satisfactory "Diesel" or "Glo" fuel it is necessary to be familiar with certain fundamental properties of fuel components, such as "*Flash Point*", "*Heat of Combustion*", "*SIT*", etc., and a short explanation of the more important of these terms, is given below.

EXPLOSIVE LIMITS. When the vapours of an inflammable, liquid is mixed with air the mixture will only burn if the concentration of vapour lies between certain limits known as the "*Explosive Limits*". These limits vary. considerably for different liquids, as shown in TABLE 1.

TABLE 1.-Explosive Limits.

	% of vapour in the air.	
	LOWER	UPPER
BENZENE	1.35	8.0
ACETONE	3.0	13.0
METHYL ALCOHOL (METHANOL)	5.5	21.0
ETHYL ALCOHOL (ORDINARY ALCOHOL)	2.8	9.5
ETHYL ETHER	1.7	48.0
PARAFFIN HYDROCARBONS	about 1.0	about 3.5

Taking Methanol as an example it can be seen that if the concentration of methanol vapour in the air is less than 5½ % the mixture will be too weak to fire, whilst if it exceeds 21% the mixture will be, too rich.

Continued on page 11

1998 SA STATE CHAMPIONSHIPS

The SA 1998 State Championships were held over the week end of Feb. 2nd - Mar. 1st.at the Constellation field according to the score sheets the Champion of Champions was Ron Adamson.
I have been told the facilities at the Constellation field are absolutely magnificent, shown below are the competition details.

name	model	motor	place
38 Antique			
Ron Adamson	RC-1	OK Super 60 spk	1800
Don Howie	Miss Fortune x	Forster 29 2s spk	1797
Peter White	Cloud Cruiser	OK Super 60 spk	1706
Peter Bennett	Flamingo	Atwood Champ 60 2s	1609
Bill Britcher	Pioneer	OK Super 60 spk	1486
Rex Brown	Mercury	O&R 60 2s spk	1418
Chris Lawson	Kingburd	Amco 3.5 diesel	1410
I McLeay	Flamingo	Atwood Champ 60 2s	1357
Don Cameron	Scorpion Major	Amco 3.5 diesel	667
D Markwell	Flamingo	Atwood Champ 60 2s	600
Duration			
Ron Adamson	Bomber 76.5"	Nelson 40 2s	745
Bill Britcher	Kerswap	Saito 65 4s	583
Stan Gurr	Bomber 76.5"	Webra 40 diesel	552
I McLeay	Playboy	OS 61 4s	545
Peter White	Kerswap	ST 40 2s	508
Peter Bennett	RC-1	Saito 65 4s	496
Kym Stringer	Kerswap	DubJet 40 2s	471
Rex Brown	Folly	Fox 40 2s	466
Chris Lawson	RC-1	Saito 65 4s	0
Peter Hosking	Playboy	OS 61 4s	0
Half A			
Peter White	Bomber	Cox 049 2s	2474
Bill Britcher	Atomiser	Cox 049 2s	2349
D Markwell	Playboy Cabin	Cox 049 2s	1739
Ron Adamson	Fox	Cox 049 2s	797
Rex Brown	Anderson Pylon	Cox 049 2s	681
Ian Stacey	Dallaire	Cox 049 2s	413
Ian Promnitz	Playboy	Cox 049 2s	381
Peter Hosking	Record Breaker	Cox 049 2s	380
Chris Lawson	RC-1	Cox 049 2s	372
Rod Spurrier	Playboy Cabin	Cox 049 2s	366
Kym Stringer	Fox	Cox 049 2s	354
Don Cameron	Flamingo	Cox 049 2s	175
Stan Gurr	Fox	Cox 049 2s	70
B Watson	Atomiser	Cox 049 2s	0
Don Howie	Atomiser	Cox 049 2s	0
Peter Bennett	Anderson Pylon	Cox 049 2s	0
Nostalgia			
Ron Adamson	Hyphen	ST 60 2s	766
Don Howie	Hyphen	OS 40 2s	713
Peter White	Hyphen	K&B 40 2s	668
Kym Stringer	Hyphen	K&B 40 2s	434
Bill Britcher	Hyphen	K&B 40 2s	0
Rex Brown	Stomper	Enya 40 2s	0
Standard			
D Markwell	Bomber 76.5"	Webra 40 2s	3
Chris Lawson	Rambler	Enya 40 2s	7
B Watson	Kerswap	K&B 40 2s	8
Ron Adamson	Bomber	K&B 40 2s	5
Bill Britcher	Interceptor	OS 40 2s	4
Kym Stringer	Bomber 76.5"	K&B 40 2s	1
Don Howie	Bomber 76.5"	K&B 40 2s	9
Stan Gurr	Bomber 76.5"	Webra 40 2s	2
Rex Brown	Folly	OS 40 2s	6
Texaco			
Ron Adamson	Bomber	Enya 53 4s	3672
Rex Brown	Anderson Pylon	Enya 60 4s	3632
Chris Lawson	Record Breaker	OS 61 4s	3615
Peter Hosking	Record Breaker	Saito 65 4s	3271
B Watson	Gas Bird	OS 26 4s	3135
Stan Gurr	Bomber	Enya 41 4s	3127
Peter White	Flamingo	OS 61 4s	3047
Bill Britcher	Anderson Pylon	OS 60 4s	3033
Rod Spurrier	Bomber	Enya 53 4s	2941
Kim Stringer	Bomber	Enya 41 4s	2919
Don Howie	Bomber	Enya 41 4s	2400
Peter Bennett	Bomber	Irvine 40 diesel	2112
Ian Promnitz	Flamingo	OS 61 4s	2085
D Shacklford	Record Breaker	PAW 40 diesel	2014
I McLeay	Dallaire	Enya 53 4s	2007
Mark Robinson	Flamingo	OS 60 4s	1800
D Markwell	Flamingo	Enya 60 4s	1662
I Stacey	Dallaire	Saito 65 4s	1032
Don Cameron	Bomber	OS 61 4s	829

BOSTICK 1768

from Allan Laycock

Some experience with the sagging of coverings applied with brushable iron on adhesives in the hotter climates has led to the discovery of the above-mentioned adhesive.
Description
Bostik 1768 is a brushable grade synthetic rubber adhesive. The thin dried film is nearly colourless and provides a strong bond with good chemical and temperature resistance. It is especially suitable for sticking flexible unsupported PVC and many other plastic materials such as fibre glass and ABS to wood. metal, concrete, cardboard, leather and fabric / textiles materials.

Apply an even film to of adhesive to both surfaces.
Allow to dry for approx. 5 minutes.
Join the surfaces, (taking care not to entrap air) with as much pressure as possible.

Bostik Vic. 03 9279 9333
June 1998
Issue 2

O/T NATIONALS 1998.

from the 51st Nationals Committee

These will be held at LOXTON, SA from Friday April 10th (check in and practice day) until Tuesday 14th April 1998

The following events will be flown on the 11th to the 14th April:
TEXACO
OPEN DURATION
STANDARD DURATION
1/2A TEXACO
2.c.c.
ANTIQUE
NOSTALGIA
GLIDER

All events will be run to the current MAAA O/T Rules.

There will be a trophy [plus a new JR X-388.Radio] for the CHAMPION OF CHAMPIONS for O/T. Substantial sponsorship has been obtained for other events.

ACCOMODATION is available at:-
Loxton Hotel/Motel 08 8584 7266
Loxton River front Caravan Park 08 8584 7862
The Motel has been block-booked, but please make your own booking, referring to the Nationals.

The event will be flown at the Loxton Club field, which was used for the Nationals in 1976. It is grassed and irrigated, has covers over the pit area, two club houses and toilets/washroom.

An Old-Timer's PRESENTATION DINNER will be held at the Loxton Hotel/ Motel on Tuesday the 14th April at 7.00 p.m.

The remainder of the NATIONALS will commence on Wednesday the 15th April with check-in and practice at WAIKERIE (a 40 minute drive from LOXTON), THERMAL DURATION will commence on Thursday the 16th April.

This is an opportunity to attend the biggest O.T. event ever held in Australia, to compare notes with the O/T's from the other states and see all the latest developments. Come along and enjoy yourself.

The 51st Nationals Committee.
OT contact Rex Brown 08 8293 2214

1998 COHUNA FLY IN

Contact = John Jakab CMFC
Home 03 54564118
No petrol motors.

May 23rd Saturday tbc
Half A 10am CD ?
Texaco CD ?

May 24th Sunday tbc
2CC 10am CD ?
~~Duration CD ?~~

All MAAA rules, no circle
Canteen open

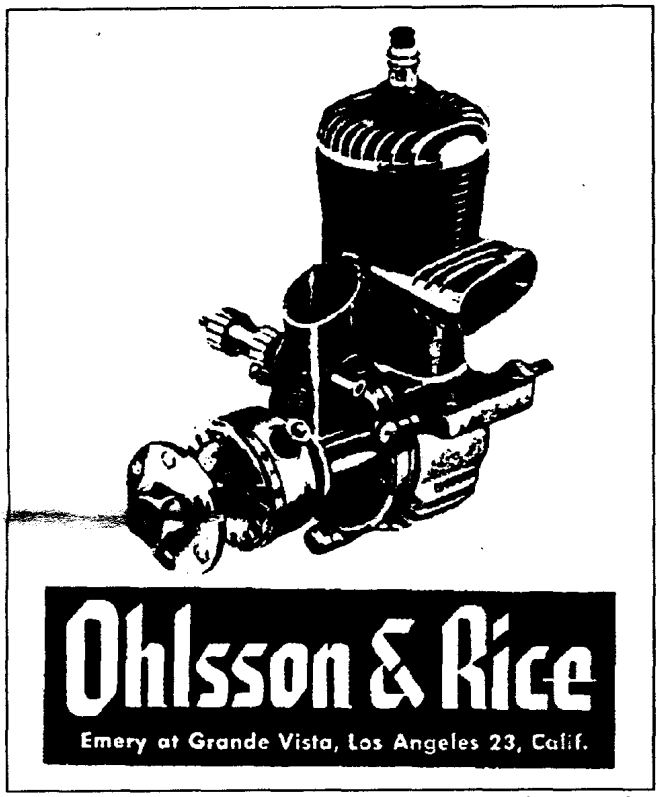
THE CASE FOR THE USE OF METHANOL FULES IN 38 ANTIQUE

by Don Howie

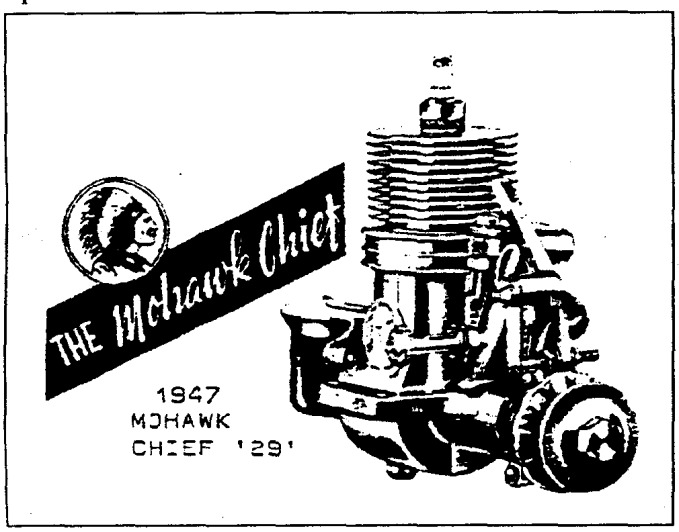
The current 38 Antique rules only allows for the use of petrol in spark ignition engines produced before the 31st December 1950. This would be logical if the cut off date was 31st December 1947. At the end of 1947, the glow plug was introduced by Ray Arden; to be used with alcohol based fuels.

During 1948, most modellers in the USA tried the glow plug in their motors. Not all improved in performance. The racing types and motors with higher compression performed well with the glow plugs. Most manufacturers saw the simplicity and case of the glow plug and began to modify their motors or produce new models. One example is the Atwood Super Champion. Bill Atwood ~~raised the compression ratio from 6 to 8.0 on the~~ motor. the transfer ports were increased by 30% and the exhaust was increased by 25%. This was the model DR, designed to run on alcohol fuels, as either a glow plug or spark ignition motor. This motor was introduced about 1948, with the Glo-Devil model GD being the last model. Another example is the small OR. FRV motors from about 1948. These were produced in 19, 23, 29 and 33 sizes. By 1949/50 the compression had increased so much, it is impossible to screw a V2 Champion spark plug into the motor; the element hits the top of the piston. The motors were sold as glow plugs, but the crankshaft had a flat at the front, so the adjust-a-matic timer could be fitted. Motors from about 1949 in the USA were designed as glow plugs with methanol fuels. Many still offered ignition versions if desired, so that it could be converted to ignition or ignition to glow. running on alcohol fuels.

The result today, many modellers in the USA have glo engines that can be converted to spark plug operation.



The new industry is turning these glo motors into spark ignition motors. I have a Mohawk Chief glow 29 produced from 1948 by OK engines. The same basic motor was produced in 1947 as a spark motor. The glow motor sold possibly ten times the numbers that the short-lived ignition motor sold. However, the spark version is the collectable model and more desirable, so I am sending away for a replica timer assembly, to make it into a sparkie.



The USA allows methanol fuels in spark ignition motors. It is stupid to force modellers to use petrol in motors designed to run on alcohol fuels. At present, the racing motors; McCoy's, Dooling's, Edco's etc. are not competitive in '38 Antique, running on petrol. It is not suggested that modellers change from petrol, the older low compression motors are perfectly happy as they were designed to run on a petrol oil mix.

In the summer time, the higher compression glow motors from about 1949, now converted back to spark ignition, in many cases, run better on the fuel for which they were designed. Racing motors, such as the ignition McCoy 29; released July 1947, advised a mix of 2 1/2 parts of methanol to one part of castor oil (Bakers AA) was "the best, coolest running, and easiest to get a good needle setting". D.H.

✈

Minature Engine Fuels *Continued from page 8*

FLASH POINT. "*Flash Point*" is a measure of the inflammabilitv of a liquid. If a little inflammable liquid is placed in the bottom of a small metal cup it will give off vapour into tlie air spacc above it. If this concentration reaches the lower explosive, limit the mixture of air and vapour will "flash" if a small flame or spark is brought above the cup. If the liquid does not vaporise readily, (paraffin oil for example) it may be necessary to warm it until a certain critical temperature is reached at which enough vapour is given off to form the explosive mixture. This temperature, below which ignition will not take place, is known as the "*Flash Point*", and varies widely for different liquids, as shown in TABLE 11.

TABLE 11.-Flash Points.

LIQUID	FLASH POINT Deg.C
Ethyl Ether	-41.0
Benzene	-21.0
Acetone	-17.0
Toluene	-2.0
Methanol	0
Butyl Acetate	+25.0
Paraffin and Diesel Oil	about +65.0

SPONTANEOUS IGNITION TEMPERATURE.

Also known as "*Self Ignition Temperature*", "*Auto Ignition Temperature*", and "SIT" for short. This is the temperature at which a mixture of inflammable vapour and air will ignite without the application of a flame or spark. SIT. is totally unrelated to the Flash Point, and should not be confused with it. TABLE III gives some typical values.

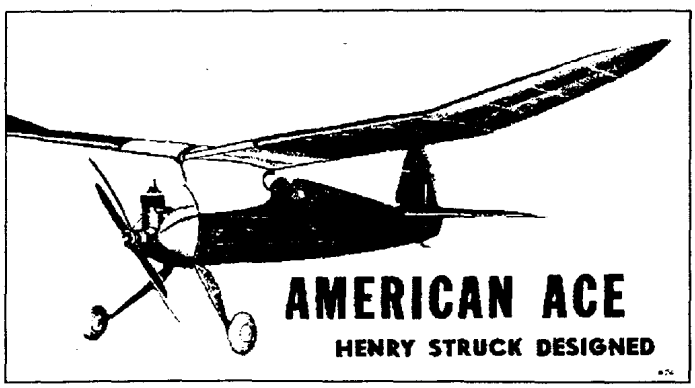
TABLE 111.-Spontaneous Ignition Temperatures.

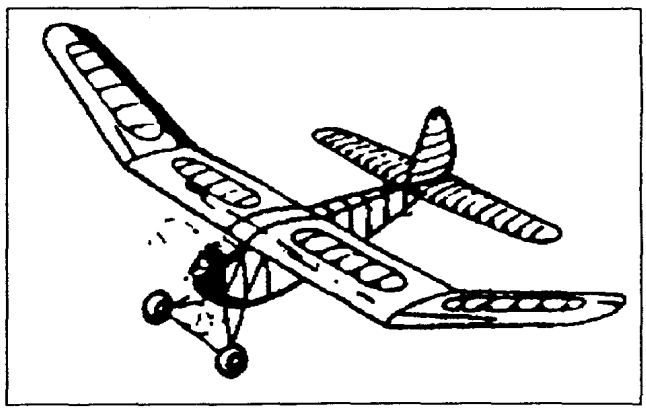
SUBSTANCE	SELF IGNITION TEMPERATURE Deg C
Acetone	630
Benzene	580
Toluene	553
Ethyl Acetate	484
Methanol	475
Ethyl Alcohol	421
Amyl Acetate	379
* Petrol	280
Coml. Diesel Oil	240 to 260
Paraffin	about 250
High Cetane Val. Gas oil	220 to 240
Ethyl Ether	188

continued page 13

THE VICE PRESIDENT'S CONTEST CALENDAR. (Up-dated 26 February, 1998)

WHEN	WHAT	WHERE
March 26th Thursday	Meeting # 54, 7:30pm	SATURN
April 10th Friday April 11th Saturday April 12th Sunday April 13th Monday	**SAM 600 Easter** **Half A** 12:45pm **2CC** 3:45pm **Texaco** 9:15am **Duration** 12:45pm **Hanger Rat** 7:30 pm **Presentation dinner**, from 6:30 venue to be decided when numbers estimated. **38 Antique** 9:15am **Standard 40** Duration 12:45pm **Nostalgia** 9:30am 1997 MAAA rules, no circle, canteen open, entry forms have been posted to all members.	SHMAC
April 11th to 14th	**Aust. O/T Nationals, Loxton SA** Contact Rex Brown h 08 8293 2214	SA
May 3rd Sunday	**13th Roy Robertson Memorial Trophy second day Re-run.** **Texaco**10am CD Trevor Boundy round one as already flown! To be flown round 2 (15 min) and round 3 (20 min) followed by:- **Duration** CD Peter Hosking. 1997 MAAA rules and no landing circle.	P&DARCS
May 23rd Saturday tbc May 24th Sunday tbc	**Cohuna Fly In** Contact John Jakab CMFC Home.03 54564118, no petrol motors. **Half A** 10am CD ??? **Texaco** CD ? **2CC** 10am CD ? **Duration** CD ? 1997 MAAA, rules no circle, canteen open.	CMFC
May 28th Thursday	Meeting # 55, 7:30pm	SATURN
June 6th Saturday June 7th Sunday	**Bendigo Fly In** Newbridge Road Morong Contact Graeme Sinclair 03 54478 590 **Half A Texaco** 10am followed by **Texaco** **38 Antique** 10am followed by **Duration**. 1997 MAAA rules, no circle, canteen open.	BRCAC
June 21 Sunday	Old Timer Fly day Willunga from MASA Calendar.	WVMAC
July 5th Sunday	Old Timer Fly day Constellation from MASA Calendar	SAOTA
July 30th Thursday	Meeting # 56, 7:30pm ***AGM*** My last newsletter.	SATURN
August 30 Sunday	Old Timer Fly day Monarto from MASA Calendar	SAOTA





from page 11

* This refers to a straight-run petroleum fraction of low Octane Value, before " leading " or admixture with benzene, etc.
A good commercial petrol will be higher than 280 Deg C, and an aviation spirit higher still.

It can be seen that paraffinic hydrocarbons (paraffin, diesel oil etc. are mixtures of these), and ethers, have low SIT's whilst "aromatic" hydrocarbons from coal tar like benzene, and toluene, and the alcohol's, have very, high values.

HEAT OF COMBUSTION. The Heat of Combustion also known as the "*Calorific Value*" is the total amount of heat liberated when a given quantity of a substance is completely burned. It is, therefore, a direct measure of the, total intrinsic energy, and hence of the available power, of a fuel. Some approximate values are recorded in TABLE IV, from which it can be seen why, for example, an alcohol fuel requires larger carburettor jets than petrol; more fuel must be flooded into the cylinders per stroke in order to give a comparable power output. The figures also it clear why alcohol's run "cooler" than hydrocarbon fuels, and are therefore favoured for racing engines.

OCTANE VALUE. Pure ISO-Octane is a very good antiknock fuel for spark ignition engines, since it has a high SIT, whilst Pentane, with a very low SIT is a bad fuel. Other fuels are compared as regards, performance with mixtures of ISO-octane and pentane and thereby given an "Octane" rating. If the fuel is as good as ISO-octane its Octane Value is 100, whilst if it is only as good a. a mixture of equal parts ISO-octane and pentane its Octane Value, is 50.

CETANE VALUE. This is a method of assessing the values of diesel fuels by comparing their performance in a test engine with mixtures of different proportions of the excellent diesel fuel Cetane and the very poor diesel fuel methyl-naphthalene. Cetane and Cetane Values may also be calculated indirectly from the specific gravity and Aniline Point of the fuel, but this method is not applicable if "dopes" are present. A high Cetane Value means a low Octane Value, and *vice versa.*

IGNITION LAG. When a mixture of a diesel fuel vapour and air is raised to the Self Ignition Temperature, there may be a considerable delay before the explosion actually takes place. This time interval is known as the "Ignition Lag" and for smooth running should be small. The running characteristics of a poor fuel may be enormously improved by reducing the ignition lag by making small additions of certain "dopes". This must not be overdone since too short an ignition lag causes detonation, etc.

TABLE IV -Calorific Values.

SUBSTANCE	HEAT OF COMBUSTION (calories)	
HYDROCARBONS:	Paraffin Oil	11,000
	Diesel Oil	10,900
	Petrol	10,000
	Benzene	9,960
ETHERS	Ethyl Ether	8,800
	Methylal	7,900
KETONES:	Acetone	7,300
ESTERS.	Ethyl Acetate	6,100
ALCOHOLS:	Ethyl Alcohol	7,080
	Methanol	5,330
NITRO HYDROCARBONS:	Nitrobenzene	6,030
	Nitromethane	5,370
	Nitroethane	4,300
	Nitropropane	2,790
ETHYL NITRITE	x	4,450
ETHYL NITRATE	x	3,560

To be continued in the next newsletter.

COVER WATCH

ED further information welcome.

NAME	SUPPLIER	TYPE	gm/sq ft	FIXING
Airspan	Solar Film	Polyester	2.2	balsarite
Lightspan	Solar Film	Polyester	2.7	balsarite
Micafilm (¾ oz)	Coverite		2.0	balsarite
Profilm	Model Engines	Polyester	3.5	iron on
Fibafilm			3.9	
SamSpan	SAM 21 - USA		2.4	dope
Solarkote		Polyester		iron on
Ozcover 35	Saturn Hobbies	Mylar	3.5	iron on
Ozcover 50 micron	Saturn Hobbies	Mylar	5.0	iron on
Super Coverite		Synthetic	7.5	iron on
MonoKote	Top Flite			iron on
SolarFilm	Solarfilm			iron on
Polyfilm	Powermax		4.7	iron on
Solartex	Solarfilm	Fabric		iron on
Chinese Silk	Niddrie Models		?	dope
SilkSpan Med GM	K&S	Tissue	?	dope
SilkSpan Lite GM	K&S	Tissue	?	dope
SilkSpan Xtra Lite	K&S	Tissue	?	dope

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Complementary copies of our newsletter are currently sent to the following persons, to promote the gathering of material for SAM 600 for the benefit of it's members.

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Ian	AVERY	SAM 1788 Editor reciprocal newsletter
Paul	BAARTZ	WA rep.
Don	BEKINS	SAM 27 reciprocal newsletter
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The **SAM 600 Newsletter.**
Is the official publication of
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(The Victorian O/T Association)
formerly
NOTAM
(Nagambie O/T Aero Modellers)
formerly
SAM 1788 Southern Region

SAM 600 Newsletter

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