



Points of Interest:

- President's Report.
- Vale Harold Stevenson.
- New Concours D'Elegance trophy for SAM Champs at Canowindra.
- R/C Oldtimer Glider
- Orange Oldtimer Weekend Report/Results.
- Electric Oldtimer motor mounts.
- Various articles and information.
- The Back Page.

BULLETIN

No. 174

January-February

2012

WORTH NOTING: The 2012 SAM USA Champs is scheduled for Sunday 9th September through Friday 14th September at the AMA Muncie Indiana Flying Site. See <http://www.antiquemodeler.org/> for more info. The advertised SAM 1788 Cricket Cap is in fact a wide-brimmed white "Cricket" sun hat with the SAM 1788 Logo.

Society of Antique Modellers of Australia SAM CHAPTER 1788

30th Anniversary Oldtimer Championships

at Bogwood

CANOWINDRA

EASTER

5th-9th April, 2012

**** ENTRIES CLOSE 30th MARCH 2012 ****

Entry Form is with this Duration Times



DURATION TIMES



**WYONG RIVER MAC.
3rd Oldtimer
Weekend**
17-18 March, 2012.

Program

Saturday 19th

- 9am - R/C Tomboy
- 10am - 2cc Oldtimer
- 12 noon - Lunch
- 1pm - Burford Event

Sunday 20th

- 9am - R/C Tomboy
- 10am - 1/2A Texaco
- 12 noon - Lunch
- 1pm - Texaco

Note: Due to the close proximity of a residential area, vintage spark ignition engines used in Texaco must be fitted with a muffler

**For further information
Contact: Basil Healy
02 4341-7292**

Duration Times is the official Bulletin of SAM 1788

SOCIETY OF ANTIQUE MODELLERS OF AUSTRALIA 1788 Inc.

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Committee Members: Grant Manwaring Ian Connell

Email for Duration Times - iwa@internode.on.net

Provisional Oldtimer Events for 2012.

March	10-11	Electric Oldtimer Weekend	Goulburn	Peter Pine	02 6676-1437.
March	17-18	Wyong River Oldtimer Weekend	Wyong	Basil Healy	02 4341-7292.
April	5-10	SAM 1788 Championships	Canowindra	Basil Healy	02 4341-7292.
April	28-29	Veterans Gathering	Muswellbrook	Simon Bishop	0429 453 286 .
May	13-14	Belconnen/Yass Oldtimer Weekend	Yass	Grant Manwaring	02 6241-1320.
June	16-17	New England Gas Champs	Tamworth	Basil Healy	02 4341-7292.
July	21-22	Golden West Oldtimer Competition	Parkes	Peter J. Smith	0423 452 879.
August	25-26	Oily Hand Diesel Weekend	Cowra	Andy Lockett	02 6342 3054.
September	29-30	Eastern States Gas Champs	Wangaratta	Peter J. Smith	0423 452 879.
October	20-21	Oldtimer Weekend - Coota Cup	Cootamundra	Basil Healy	02 4341-7292.
November	10-11	Muswellbrook Oldtimer Weekend	Muswellbrook	Simon Bishop	02 6543-5170.



From the President: Well, Canowindra and the SAM Champs are not far off. I hope you have all your models well tested and ready to go.

We need old photo's of previous contests please - NOW. These to be included on CD given free to each entrant. Please don't tell us afterwards that you have a load of old pictures, loan them and they will be shared with everyone. Any photographs will be handled with care and returned ASAP.

More offers required from people to act as Contest Directors. please, especially Duration, Texaco, 2cc and 1/2A. We also need helpers with the gliders as we are expecting a great entry and need able bodied guys to return the tow lines after each launch. To make the contest work, some smart work with keeping the winches working is essential. Speak to Grant Manwaring.

Remember - offer your assistance, don't wait to be asked.

Help with control line is sought as this is going to be bigger than ever. We are going to get a few fun-fliers as well, which has been lacking in the last couple of events. Join in and bring a stunter or combat model, or a class B team racer. That is, if you can find room in the car!!

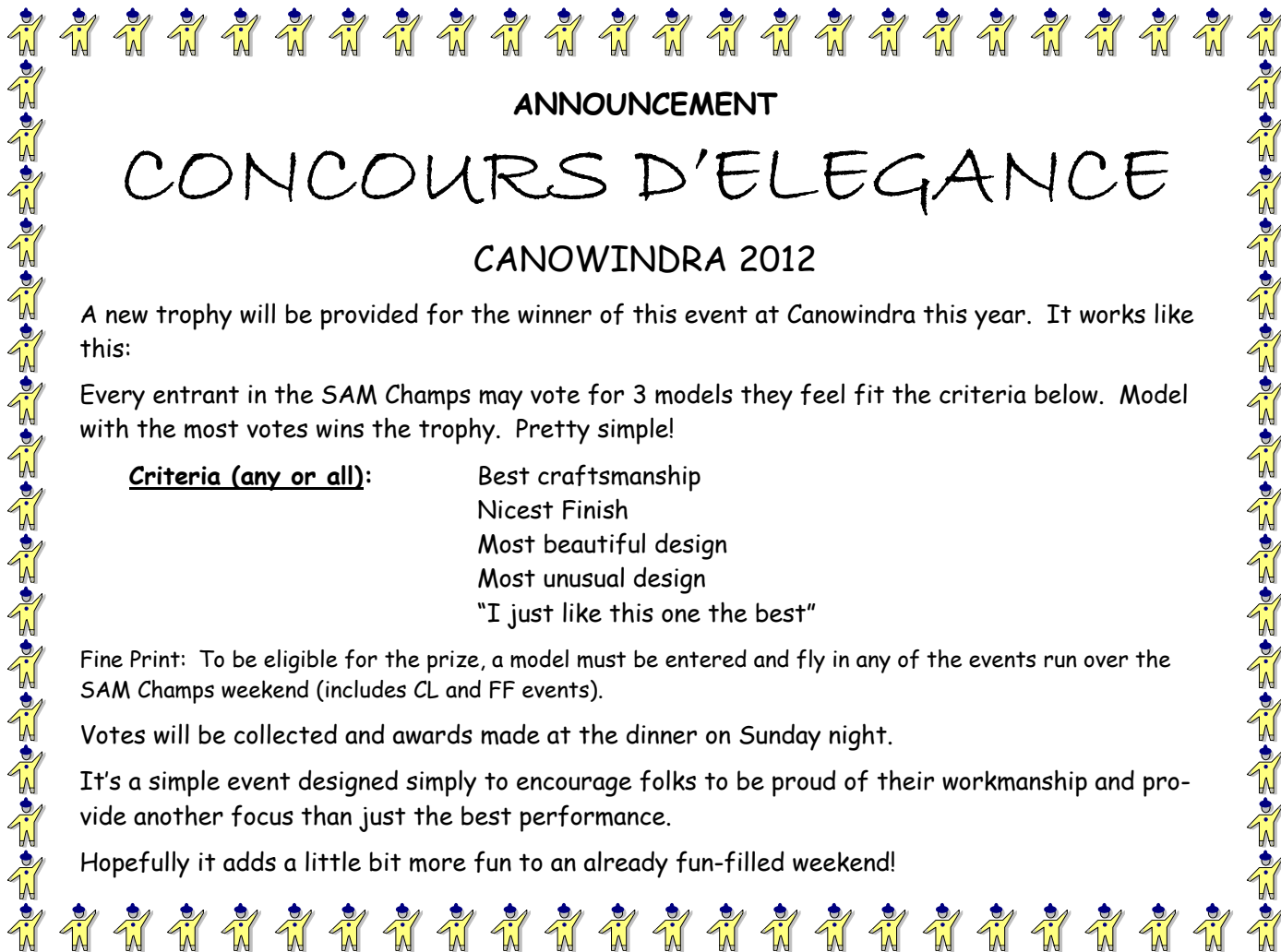
The Annual General Meeting has suffered from lack of attendance in the recent past. The members of the committee put in the effort for the club and so the least you can do is attend this meeting. There is a lucky door prize of a model engine. Could be a Dooling yellow jacket - who knows?! It will be a runner though.

I have been asked how the Top Gun point score system works. Well, it's simple, fly well - do well and you stand a chance. If you wish to know more, ask Brownny. He does it.

I have also to tell you that Harold Stevenson has passed away. He has been missed by all since age and sickness have taken him from us. A great enthusiast for the spark motor in SAM competitions. I try to emulate him and run sparkies wherever possible. Thanks Harold.

Don't forget the Free Flight event, first up on the Thursday. We start early to try and avoid windy weather. Vintage Power and Tomboy/Cardinal. We are not exactly sure where we will be flying due to wind direction, state of the fields and whether Paul Farthing can find us a better paddock on a neighbour's farm. I hope that he will be running a retrieval service as in the past (please Paul). So, the first part of the contest is to find the flying site.

Good luck, see you there. Peter Scott.



ANNOUNCEMENT

CONCOURS D'ELEGANCE

CANOWINDRA 2012

A new trophy will be provided for the winner of this event at Canowindra this year. It works like this:

Every entrant in the SAM Champs may vote for 3 models they feel fit the criteria below. Model with the most votes wins the trophy. Pretty simple!

Criteria (any or all):

- Best craftsmanship
- Nicest Finish
- Most beautiful design
- Most unusual design
- "I just like this one the best"

Fine Print: To be eligible for the prize, a model must be entered and fly in any of the events run over the SAM Champs weekend (includes CL and FF events).

Votes will be collected and awards made at the dinner on Sunday night.

It's a simple event designed simply to encourage folks to be proud of their workmanship and provide another focus than just the best performance.

Hopefully it adds a little bit more fun to an already fun-filled weekend!

**VALE HAROLD STEVENSON**

For those who have not yet heard, Harold passed away on 14th February, 2012, at the nursing home where he had been a resident for the past three years.

Up until December, 2011, he had been reasonably active going out with his son Phil to watch model flying or sailing a couple of times a week.

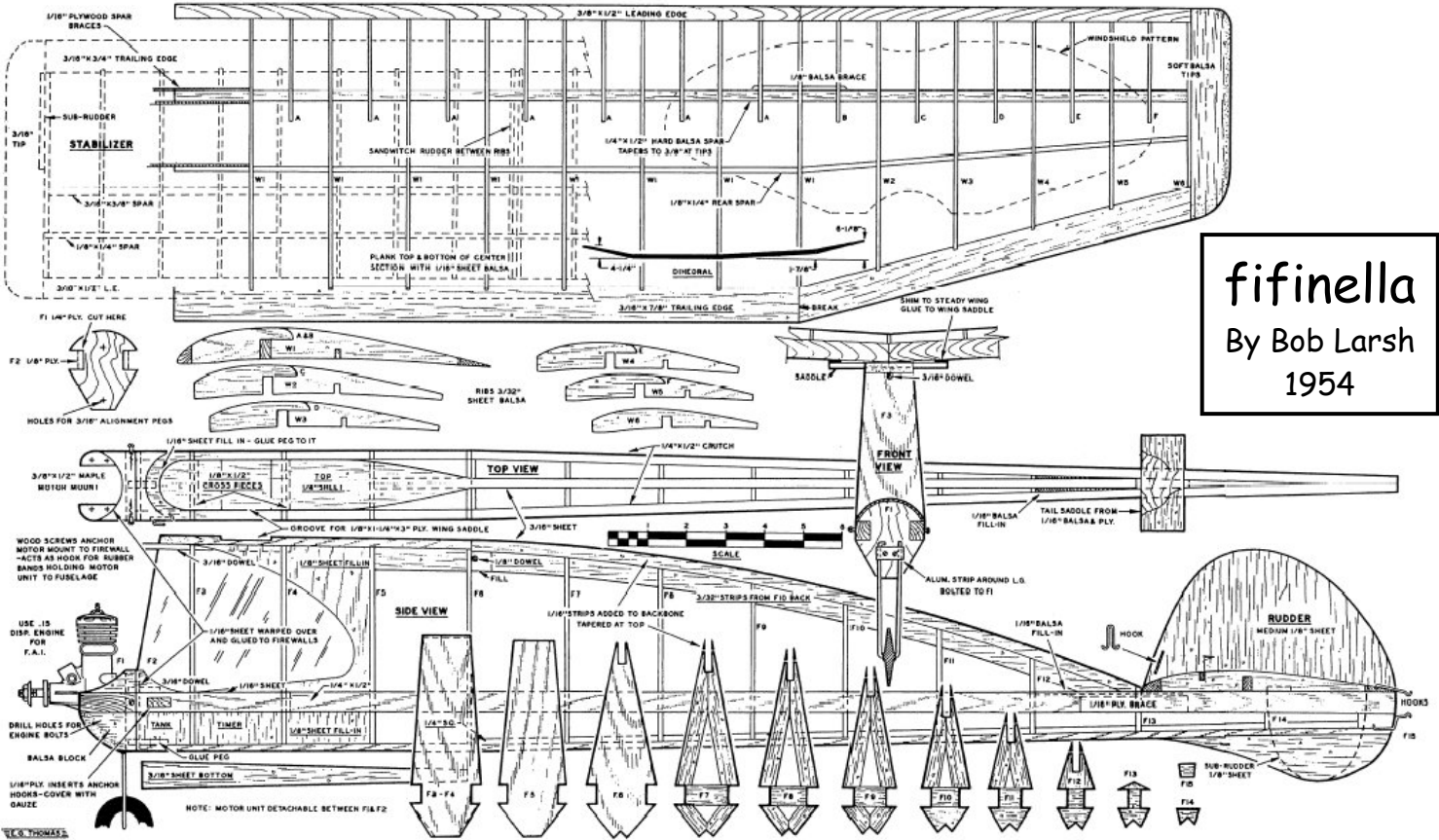
Unfortunately, just before Christmas, he suffered a stroke which initially only took away his ability to talk and walk. It progressed quickly over the ensuing six weeks and he died peacefully.

Harold was a member of SAM 1788 since its inception some thirty years ago and was a keen builder and flier of his own designed and manufactured spark ignition engines, the most notable being the MS29.

He joined his beloved wife Dawn, who died last September, on Valentine Day.

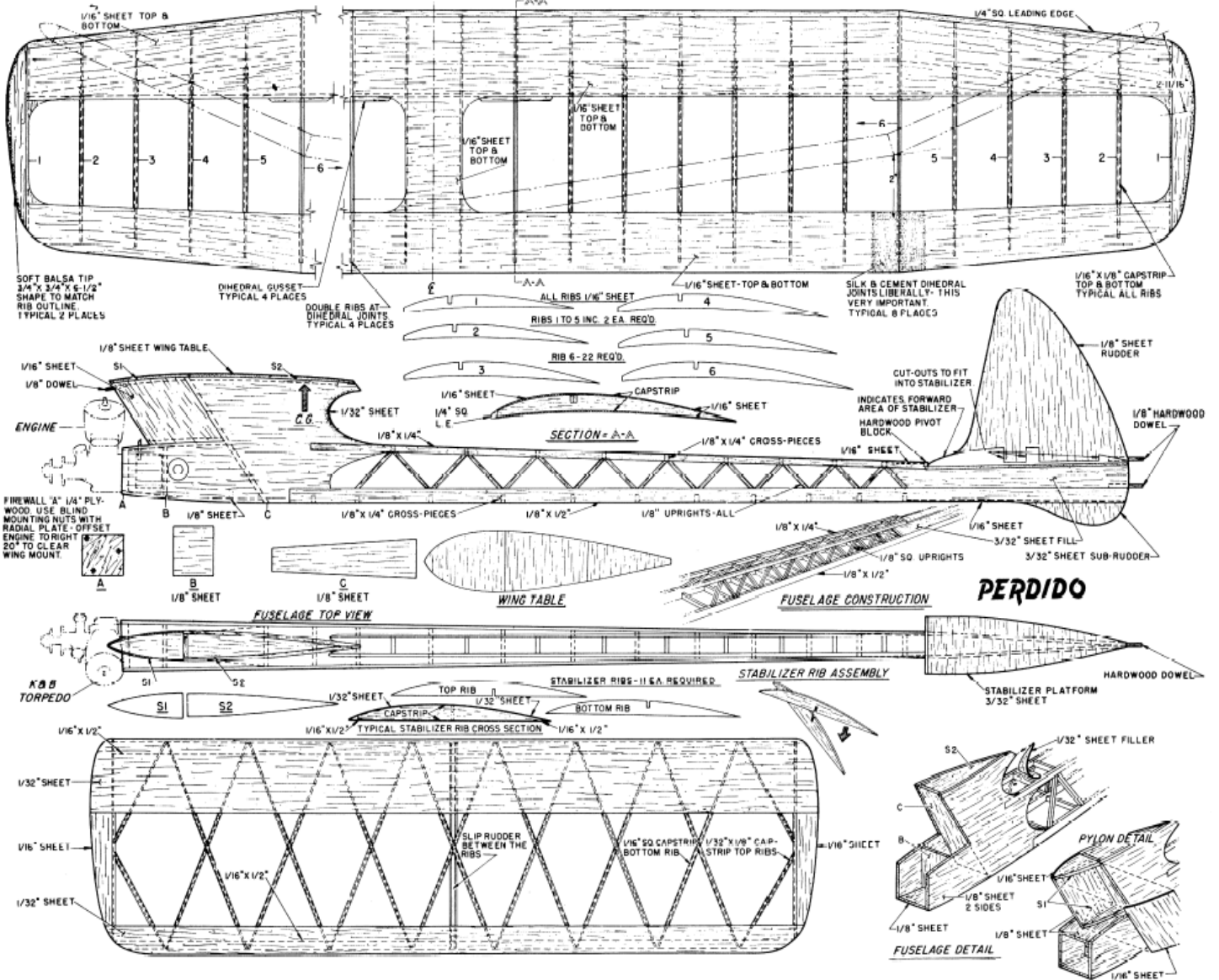
SAM 1788 was represented at Harold's memorial service by the SAM President, SAM Secretary and a number of other SAM 1788 members and members of Harold's Club, The Heathcote Soaring League.





fifinella
By Bob Larsh
1954

MODEL AIRPLANE NEWS • April, 1955



R/C Old Timer Glider

From Grant Manwaring

As advised in the last issue of Duration Times, the Old Timer Glider Test Day was held at Goulburn on the 18 February. Weather conditions were perfect, light winds and good lift. The day was well attended with seven gliders on hand for test flights and trimming. The photo of the windsock shows that this was the best weather we have at Goulburn in quite a while.

Geoff Potter brought along a new 200% Frog Prince which performed well. Jim Rae had the Fugitive on hand, a change to the tow hook position had it flying well. Don Southwell had the Thunderking and two full size Thermalists by David Beake and myself made their maiden flights. Both are good performers and look really good in the air. Allan Laycock was on hand trying his hand with the 150% size Archangel. Ian Harman was unfortunate to have wing failure on the DG67 on tow, but it will be repaired for Canowindra at Easter.

With lift conditions good on the day, Jim Rae with the Fugitive, Dave Brown flying the Prince and the Thermalists recorded some long flight times, well in excess of the six minute max required. It was quite a sight to see the gliders winch up and then climb away to record flight times of 25 minutes plus. The day also showed the performance of these models, it could be long fly-off at Canowindra.

All flyers agreed it was a very worthwhile day, these models are now trimmed and ready for the 30th SAM Champs at Easter. It was also good to have the time to help and assist each other in getting the models trimmed.

I am looking forward to the Old Timer Glider event at Canowindra, and seeing the other models that have been built. I am hoping for 15 -18 entries this year, time will tell.

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Telephone: 02 6355-7298

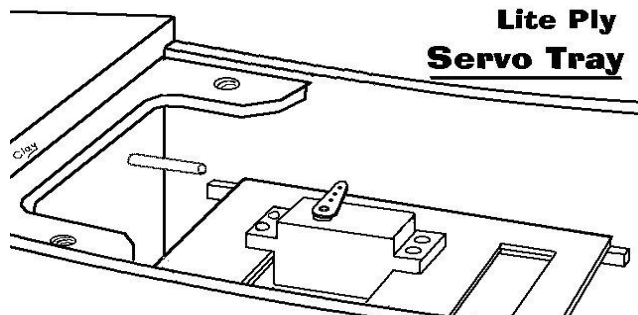
Right Below: Yes this is the windsock at Goulburn, it was like this all day long. A contrast to some of our previous visits to Goulburn.



Flyers at Goulburn. Grant Manwaring, Thermalist, Allan Laycock, Archangel, Jim Rae Fugitive, David Beake, Thermalist, Geoff Potter Frog Prince, Don Southwell, Thunderking and Ian Harman with the DG67 in front.

Light and Strong Servo Mounting

The servo trays that come with the radios require a 6 point mounting, they NEVER fit right in your plane, and they allow the servos to flop around too much under stress. A lot of kits include hardwood servo rails - these are heavy, require reinforcement on the typical fuselage side, and are a pain to get to fit right. Try making your own mount, of lite ply - it becomes a strengthening part of your plane, is very light yet rigid, and you can set up your servos in the configuration you desire for the particular installation. Glue in a couple of light scrap balsa rails to the sides of the fuselage, for guidance and to increase gluing area. Cut the lite ply to fit the sides of the fuselage snugly, and cut appropriate holes for the servos. Add an extra small piece of lite ply underneath where the servo mounting screws will go, and you're set.



ORANGE OLDTIMER WEEKEND and Alan Brown Perpetual Memorial Texaco Shield. 4-5 February, 2012.

Report from Peter Scott.

Well, at last, perfect weather at Orange! A good turn up of fliers, with some locals to boost our numbers.

First event on Saturday was 1/2A with ten fliers. Most got into the fly-off as usual. I made the mistake of lending a motor to Craig who used it to win the event - then he wanted to buy it! What cheek!! I managed to tie with Tim Wright, most models came down together as you can see by the flight times. Sarah Wright beat her brother which pleased her immensely.

Burford Duration saw only three in the fly-off - Jim has fitted a ballrace engine to his Amazoom and found height and lift. Tim came second and Condo had a short engine run and damaged the model. His model has a terrific glide though.

Condo won the Duration event with his usual stunning climb. Only four made the fly-off. I continued my run of landing out. The top places were very close time wise.

Sunday - another perfect day. The wind was up though. I made the fly-off but the engine fell off after landing at completion of third max. Plastic engine mounts were just not strong enough.

Again, four in the fly off. The crowd pleaser was a contest for 1st and 2nd between Tim Wright and Grant Manwaring. It was very close right to the end, when Tim found a bit more lift low down and won the contest. We were all a bit concerned that he might land out after such a great flight - he had a couple of times over the weekend - but it turned out well for him. Well done Tim!

Lunch and prize giving were held before we all headed for home. Thanks to the Orange club members who put on the event and did the catering. Also thanks to Brownie for doing a great job as C.D.

Photos on next page from top left to bottom right:

1. David Beake, assisted by Paul Farthing, preparing Cumulus for Duration, McCoy 60 on spark, suffered engine problems and did not score. 2. Sarah Wright with her Schmaedig Stick in 1/2A Texaco, was pleased to beat her brother. 3. Tim Wright, winner of the Alan Brown Perpetual Memorial Texaco Shield for 2012, receives his winner's plaque. 4. Grant Manwaring receiving his 2nd Place plaque for Texaco. 5. Jim Rae with his Taipan BB powered Amazoom. 6.

Results - Orange Oldtimer Weekend.

1/2a Texaco

Craig	THORNTON	Playboy	1080	739
David	BEAKE	Stardust Spl	1080	549
Jim	RAE	Pine Needle	1080	512
Sarah	WRIGHT *	Schmeadig Stick	1080	450
Basil	HEALY	Atomiser	1080	447
Tim	WRIGHT *	Atomiser	1080	443
Peter	SCOTT	Lil Diamond	1080	443
Grant	MANWARING	Lil Diamond	1080	393
Darren	LIDFORD	Playboy	925	
John	DIDUSZKO	MG2	527	

Gordon Burford

Jim	RAE	Amazoom	BB	900	480
Tim	WRIGHT *	Spacer	PB	900	399
Peter J.	SMITH	Spoofem	PB	900	154
Grant	MANWARING	Eliminator	PB	899	
John	DIDUSZKO	Eliminator	PB	858	
Basil	HEALY	Dixielander	PB	653	
Peter	SCOTT	Zoot Suit	PB	600	

Duration

Peter J.	SMITH	Playboy 106%	Proffi 40	1260	698
Grant	MANWARING	85% Bomber	Saito 62 4/	1260	665
Basil	HEALY	Megow Chief	YS 53 4/	1260	623
Darren	LIDFORD	Playboy	OS 56 4/	1260	585
Sarah	WRIGHT *	Sunduster	Saito 62 4/	1247	
Jonathon	WHALAN	Playboy	OS 52 4/	1125	
Craig	THORNTON	Playboy	OS 56 4/	1118	
Tim	WRIGHT *	Playboy	S/Tiger 40 2/	1026	
Peter	SCOTT	170% S'dust Spl	Saito 62 4/	413	

Texaco

Tim	WRIGHT *	Bomber 87%	OS 40 4/	1800	1570
Grant	MANWARING	Bomber	OS 60 4/	1800	1475
David	BEAKE	Bomber	OS 60 4/	1800	958
Dave	BROWN	Flamingo	O&R 60	1800	545
Peter	SCOTT	Bomber 85%	Irvine 40 d	1800	
John	DIDUSZKO	Bomber	Enya 40 4/	1739	
Craig	THORNTON	Lanzo Bomber	OS 60 4/	1615	
Michael	WRIGHT	Lanzo Stick 60%	Irvine 20 d	600	
Steve	WHITE	Lanzo Stick	OS 40 4/	409	
Basil	HEALY	75% Dallaire	ASP 32 d	L/O	

* Junior.

Making Gasket Paper.

From Roy Bourke roybourke@yahoo.com

Model Airplane New, Feb. 2001 has an article on making high-temperature gaskets using RTV.

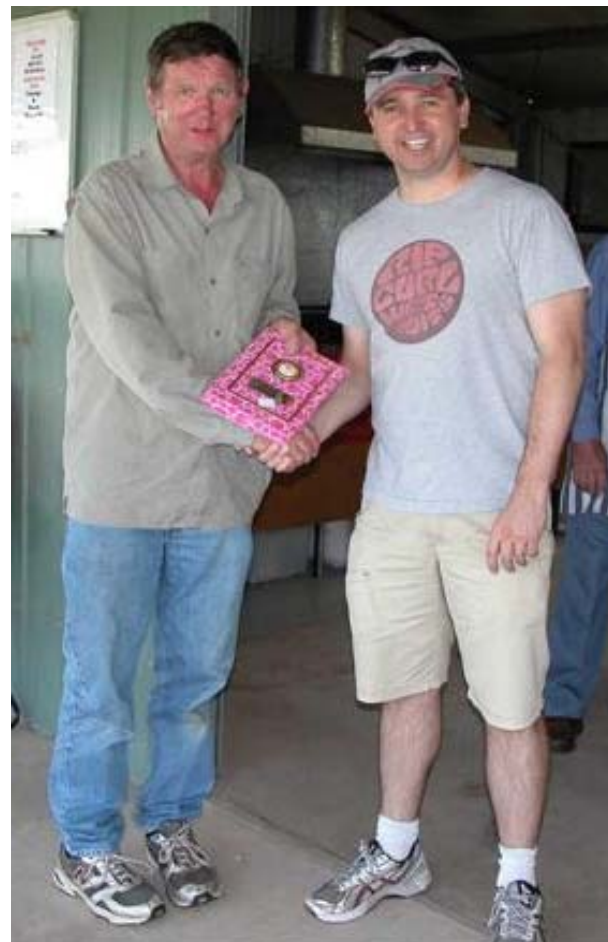
Here is what you need:

Wax paper, Coffee filter paper, Permatex Hi-Temp Silicon, plastic squeegee, roller (wooden dowel), and piece of plate glass.

Here is what you do.

Place wax paper on the glass. Squeegee thin film of RTV on both sides of coffee filter and place on wax paper. Cover with another piece of wax paper and use roller the roll it smooth (this forces the RTV into the filter). After it cures remove the wax paper and cut to shape. For thicker gasket use two layers of coffee filter. Safe to use on gas or glow engines for crankcase backplates, mufflers and carburetors. These gaskets are supposed to last a long time and be very strong.

FOR SALE Ignition coil assemblies with transistor - ready to go. \$70 **FOR SALE**
Peter Scott (02) 9624 1262. qualmag@optusnet.com.au



ENGINE MOUNTS to E-MOUNTS for SAM

Roy Bourke MAAC 204L roybourke@yahoo.com

Most SAM flyers are very familiar with the moulded engine mounts commonly used to mount engines to a firewall. The engines are bolted to the beams of the mount, and the mount itself is fastened to the firewall by its mounting ring with 4 screws and T-nuts on the rear of the firewall. These mounts come in quite a variety of types and materials, but I have always used the Dave Brown series of glass-filled nylon mounts. They are the lightest I have found, and they come in a large range of sizes and bearer lengths.

For sizes, refer to their website at http://www.dbproducts.com/downloads/pdf/cfmm_header.pdf

These same mounts can easily be used for mounting electric motors to aircraft that have the same firewall configurations as engine-powered aircraft. This is particularly handy when converting an aircraft from engine power to electric power because only minimal modifications to the firewall are needed. The new E-mount will use the same bolt spacing, and the only firewall modification needed will be to make a hole for wires to pass through to the fuselage. The moulded mounts are light and strong enough for almost any size of electric motor, and the resultant motor assembly can be very quickly installed on, or removed from an aircraft, using only 4 screws. This makes it quick and easy to remove a motor for maintenance, switch motors in an aircraft, or transfer a complete motor assembly from aircraft to aircraft.

The application consists of cutting the nylon bearers to an appropriate length to suit the motor and the firewall location in the aircraft, and mounting a motor plate on the front of the bearers. The motor can be an in-runner or an out-runner type, with or without gearbox, and could be mounted on the front or the back of the mounting plate as appropriate. Refer to the diagrams at right.

The nylon bearers are cut to length, and drilled and tapped for 4-40 screws to hold a motor mounting plate (Fig. 1). If the motor is an out-runner, to be mounted either in front of or behind the motor plate, a hole for a flat-head 2-56 screw is drilled and countersunk at the top of the mounting ring to fasten a reinforcing strut for the motor plate. Also the bearers can be chamfered with a file as needed to provide clearance for the rotor of an out-runner to spin, or to provide a cradle for mounting an in-runner or brushed motor.

The motor plate (aluminum or plywood) is attached with two 4-40 screws to the nylon bearers (Fig. 2). If required, a strut can be mounted between the upper part of the mounting ring and the motor plate, to make the plate more rigid. I usually use 3/16" dia. aluminum rod for the strut, drilled and tapped 2-56 in each end. Wooden dowel (1/4 in) also could be used, fastened with wood screws.

Down-thrust can easily be built-in to the mount by making the strut a little longer, and side-thrust can be added by making one bearer shorter than the other. This works best if an out-runner motor is mounted in front of the mounting plate (Fig. 3). However, it could create a clearance problem for a motor mounted behind the plate. (I usually mount the motor straight, and trim the aircraft for motor-on climb and flight with transmitter mixing of the rudder and elevator with throttle.)

Typical
Dave Brown Mounts

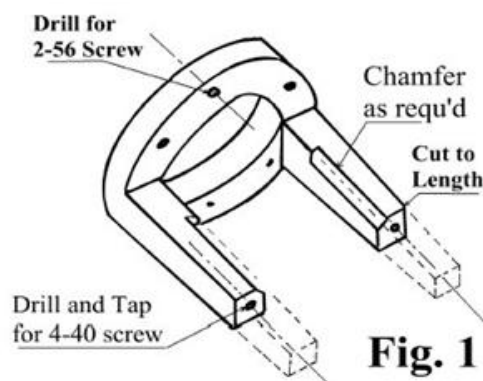


Fig. 1

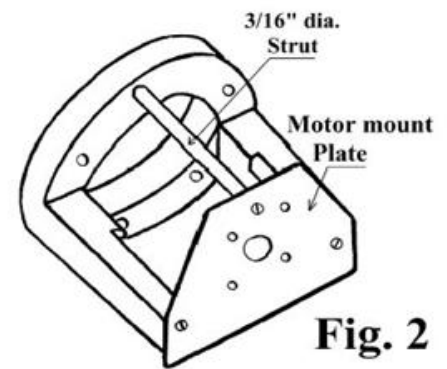


Fig. 2

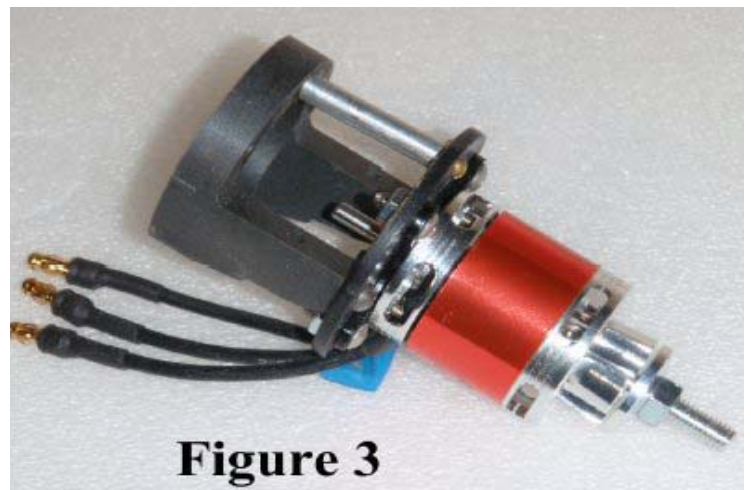


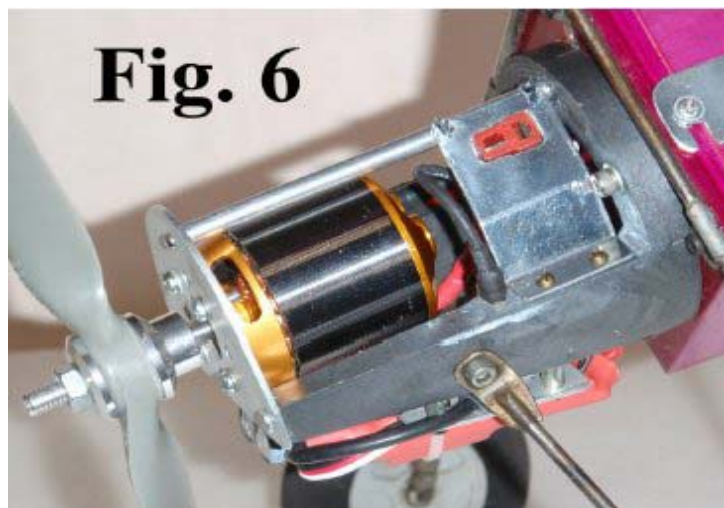
Figure 3



Figure 4

For in-runners and brushed motors, the overhead strut is not needed. Instead, a cradle can be formed on the bearers, and a strap installed over the motor to hold it down to the cradle. If the motor has a gearbox, I usually mount it with the mounting plate between the motor and the gearbox (Fig. 4).

Figures 5 and 6 show a large out-runner installation behind the motor plate. This motor and mount assembly includes a 60A speed controller mounted below the bearers, and an arming switch (Deans) mounted on the overhead strut. The entire motor-ESC-switch assembly can be transferred very quickly to another aircraft..... One thing to watch for though! With all the components mounted, make sure you still have driver access to the heads of the screws that hold the mounting ring to the firewall.



Forster 99 Woes. How do you measure the straightness (?) of a crank?

From Dave Harding. davejean1@comcast.net

I have finally removed the Forster 99 that made a vertical arrival onto El Dorado dry lake in the Giant at the past SAM Champs. I believe I can salvage the piston/cylinder assembly but the crankcase is bent and I am not sure about the crank but I expect it is bent too. The timer looks Ok.

From David Owen: Remove the timer assembly and the prop-drive components from the front half of the case. Leave the shaft and bearing in the case, but wash thoroughly with clean gasoline. Now see if the shaft turns freely in the case.

If it doesn't and there is a periodic bind, throw it away. You cannot straighten the shaft journal.

If it does turn freely, that's OK. Check for and remove any burrs which might have been raised on the front of the shaft journal by the propdriver. Remove the shaft from the case by pushing it through the bush and ballrace. Heat the case and bang it down on a piece of wood. The race should pop out. Discard the case; keep the race for reference.

Now mount the shaft in the protected jaws of a lathe, so that the threaded end is exposed. Check for run-out and bend the shaft until the end runs true to say ± 0.005 ". That will be good enough if you can't get it better than that. Replace the ballrace and crankcase and you should be fine.

The shaft can only bend inside the case if the case (bearing) itself bent in the crash. This is not likely. If the shaft journal is straight, then a small bend on the threaded portion can usually be corrected.

From Dave Harding: As you can see the case is bent! I have removed the shaft which did not turn freely! Haven't checked it for true in the lathe yet though.

The piston seems to move freely in the cylinder after disassembly. The "ears" on the lower mounting are pulled down with the crankcase distortion but I wonder if the cylinder/piston might be made usable again if I true the mounting surface with a minimum removal of material and a somewhat thicker gasket. This raises the question of compression ratio and piston clearance with cylinder/crankcase tolerances.



More on Fuselage Jigs from Bob Holman BHPLANS@aol.com

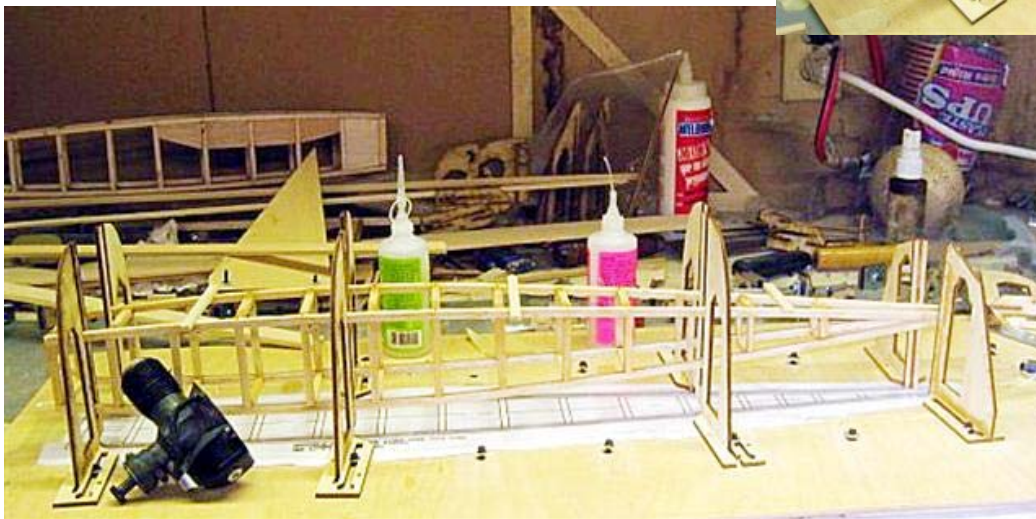
The fuselage is a 330 sq inch Lanzo Bomber. Will probably use the Arden .19 for power. It is light, has the built in fuel tank and I can get the coil right up on the firewall.

The original jig had 11 uprights that just slid in and were locked against the fuselage. The next version had the extra uprights that slid down over the sides and were locked in place.

This version has the slots reversed. Not as many uprights are required and they are slid in to the top view of the plan which is taped to the jig. The center line of the plan is lined up with the center line on the jig.

After the uprights are locked the sides are slid down in the slots. They will slide down .75" above the plans.

All the cross pieces are glued in place. I CA'd a few temporary pieces on the bottom. Pulled the fuselage out and put it back in the jig and added the bottom cross pieces.

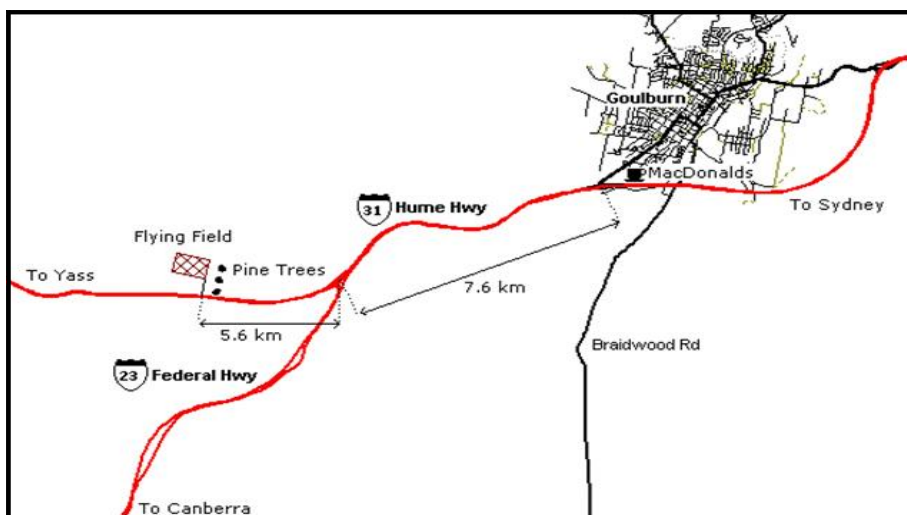


The new uprights will work with the old base or you can make your own. The uprights can be just pinned in place. The uprights can be trimmed at the top to fit the fuselage you are building. Extra uprights will be .50 each.

Will have uprights with 1/8", 3/32" and 1/4" slots.

I am thinking of pricing the base and the up rights separate. Let me know if interested and any comments.

Australian Electric Flight Association Goulburn Electric Oldtimer Weekend 10-11 March, 2012. Swan Field - Goulburn Mulwaree Sport Flyers. Hume Highway, Bredalbane. (14Klms south of Goulburn)



Events to be flown:-

- * Duration,
- * Texaco,
- * 1/2 A Texaco
- * Height Limited Oldtimer.

For further information

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*AEFA Electric Oldtimer Rules

(http://www.aefa.dreamhosters.com/files/Electric_Old_Timer_Rules_2011.pdf)

2012.01.10. From RC Universe. Vintage Crystals. Jaymen, all day dan, fizzwater2

Hello to all.

I want to report that after some exhaustive troubleshooting, and testing I found out something we all need to be aware of, and that is frequency drift of old crystals. A particular Controilaire was off frequency by about 2 KHz, and replacing the crystal did not correct the problem, or so I wrongly assumed. After trying several different crystals of the same frequency (yellow) I tried an orange and found that the frequency was within 200 Hz, almost perfect! This then led me to testing all of my crystals, and guesses what? 95% of the older ones were off by 1.5 to 2.5 KHz, which is unacceptable and problematic. Thus, I had to toss my sizable and coveted collection of 27 MHz band Tx and Rx crystals; only the new ones (under 15 years old) were any good. The thing is, I had checked them all in the past, and they were good then, but that was years ago. I also had to toss some nice NOS wire lead Xtals I just got off Fleabay as well.

I can say with certainty that if you have a 1950s to 1980s radio, there is a very good chance the crystals have drifted out of tolerance and need replacement. The funny thing is that they drift up in frequency, so most times the radio will tune right up to the transmitter, you just will not get the full range and performance from the system. The other thing is that on pulse, and digital systems, you cannot check frequency of the Tx without turning the modulation off somehow, which is not usually practical for the owner to do, so the easiest thing is to remove the crystal and test it on a Xtal checker.

They drift up in frequency, both the Tx and Rx crystals. I confirmed with some of my fellow HAM radio operators about this and they said it is quite common for crystals to drift up in frequency that is normal. Aging is the root cause, not usage, or damage. The quality of the plating on electrodes on the crystal, and its internal stresses contribute to this. Funny thing is, even new old stock one drift too, so it's not due to usage, they go bad on the shelf.

I did take the cover off of one, and there was no apparent defects that you could see visually.

In the past, I have been lucky enough that the Tx and Rx crystals have sometimes both drifted by about the same amount, so they will work together, but many times you change just one crystal, like when making up a spare receiver for a second airborne. This is where you can get into trouble because if the Tx Xtal is off the new receiver Xtal will be on frequency and cause tuning problems. If you change the Tx Xtal, then you need to change the old Xtal in the other receivers as well that were used with that Tx, and re-tune.

From now on, I'm changing them out as a set to avoid any problems, and advising people to put new Xtals in any other receivers they have that they use with that particular transmitter.

Typically, if a crystal is good for 10PPM drift at its fundamental frequency, it should only be out by less than 300 Hz at 27MHz.

I visited a crystal manufacturer once, walked through the whole process of making crystals with them.

If a crystal drifts down in frequency, I was told that it's because minor impurities inside the can or housing for the crystal eventually settle on the crystal blank itself, dragging the frequency down.

Upward usually meant the crystal was losing mass, typically by overdriving a crystal so that plating atoms were dislodged from the surface of the blank.

We were talking about crystals in TXCO's, etc, which were quite a bit more stable than the typical RC transmitter / receiver crystals. Some were even in glass packages because the environment around the blank was more inert, reduced drift of the crystal.

It was an interesting trip.



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Tissue Lettering on Polyspan etc.

From Roy Bourke. roybourke@yahoo.com

1. I usually use black Litespan for lettering on silk, Litespan or Polyspan covering. (On tissue covering I would probably use black or dark coloured tissue)
2. I spray or paint on either Balsaloc or Weldbond glue on the back of the sheet and let it dry before cutting out the lettering. Both are heat activated so the final lettering can be ironed on.
3. For lettering I have a book of sample Letraset fonts, or I look at fonts on the computer (Microsoft Word, etc.) When I find the font I like, I select the characters I need, then blow them up on the computer to the required size and print them out on bond paper. Then I mount the pre-glued Litespan or tissue sheet behind the bond paper printout and over a cutting mat, and cut out the letters with a pointed razor blade.
4. Finally I iron the letters onto the model using a trim iron, then cover over with clear dope.

This technique also works well for any graphics in silhouette form.

From Al Lidberg. AALmps@aol.com

That works for me. I tape the tissue down to a green cutting board - the ones that you can use an Xacto blade on. Stiff cardboard like that found on a pad of lined paper works well too.

For AMA numbers I've used a graphics program's fonts to produce a variety of mostly straight lined numbers and letters. For larger numbers, I've used Turbo-cad to make military type font.

With black or other darker-than-the-base coloured tissue, I tape [masking tape] down the tissue just a bit bigger than the numbers. Over the top goes a printed or hand drawn template. Using a small steel straight edge and a new #11 blade, I cut out all the inside parts first [holes in '6's or zeroes, etc], the angled corners, then all verticals, and finally all horizontals. It's wise to cut a tiny bit beyond any corner to make sure of a complete cut and you can't see that in the final product.

It's certainly possible but very frustrating to cut curved letters this way. A small cutting board is a real advantage here as you can twist it around so the blade is always in a comfortable holding and viewing place. Curved edge fonts usually have narrow 'stroke' widths so the product is going to be kind of fragile

Attaching tissue numbers is done with a brush and acetone. Locate the numbers one at a time using spars and ribs for reference lines or points. A spot of acetone in the middle of the number holds it down and then more acetone is brushed on the letter. Don't flood things - use a small brush that's fairly dry. Another coat or 2 of thinned nitrate goes over that when dry.

Practice, practice, practice.....

From Norm Furutani norgin@earthlink.net

Here's my tip: I lay out the numbers (computer or by hand) on a piece of bond(copy) paper. Place that over the tissue and cover it with wax paper. Thumb tack or tape the stack to a vinyl cutting board.

SAVE the cut bond paper. Gently tape this to the covering. When you are happy with the position, drop the tissue letters in the cavities and secure the letter with some dope thinner. Remove the template and continue doping. Letters end up straight and properly spaced.

A basic guide to Electric Flight

An under-powered model is a disaster waiting to happen. Here is a rough guide to choosing the electric power train needed for various model types. Bear in mind that over-powering is fine but the penalty is additional weight. A good model is one that is balanced in terms of power, flying weight and build quality. This guide is as the title says, a ROUGH guide and offers a basis from which to choose a power train for your model. It is not intended to be a definitive guide but will help to get you into the air with performance that will make your introduction to electric flight enjoyable and reliable.

MOTOR POWER CHOICE (base on recommended AUW, or Flying Weight of model choice):

Vintage types and many non-aerobatic indoor flyers - 50w~70w per 1lb

Trainers, gliders and high wing scale - 70w~100w per 1lb

Sport flyer with general aerobatic performance - 100w per 1lb

Warbirds - 120w~150w per 1lb

Multi-engined models - 100w per 1lb (thrust from Multiple props gives in effect, more than 100w per 1lb performance)

EDF Jets - 150w~200w per 1lb

3D, F3A and high performance Models - 150w~200w per 1lb

LIPOLY VOLTAGE CHOICE

Based on the above, we now need to work out what voltage we are going to need to use. Generally, to keep LiPo's in good order, try and keep max amps to around 50~60% of the capacity/C rating of the Lipoly Pack. For example, if you purchase a 2200mAh

20c pack, then it is rated for 44A constant discharge. So keep the max amps at around 20A~25A if possible, it isn't always! Choose the capacity of pack based on recommendation for the model by model manufacturer and in conjunction with the size/weight data published with all our advertised Lipoly packs. For low powered models, choose 20c packs. For general flying choose 20c~25c packs. For high performance models 30c + packs:

Up to 50w: 1s~2s

up to 100w: 2s~3s

100w Up to 500w: 3s (This is the practical upper limit for 3s Lipo's, so basically, models of 5lb AUW)

500w up to 800w: 4s (This is the 0.40~0.46 glow equivalent range favoured by many club flyers)

800w up to 1000w: 5s

900w up to 1500w: 6s (this is the 0.60~0.90 ic equivalent range)

8s~10s packs are for very large and generally specialised models.

MOTOR CHOICE - KV or RPM per volt

Which actually means, what prop size! If you are used to IC, the simple analogy is to treat low kv motors as 4 stroke engine equivalents and mid-high kv motors as 2 stroke engine equivalents. If you are not used to IC then we can give you some examples of the approach to take. This is an important choice as you can literally choose how your model flies. However, there are practical considerations. The most obvious is ground clearance. Please refer to motors such as the NTM range, which give you prop data as well as power, dimension and weight data.

Example 1: Trainer/Sport Model, 1lb AUW, we want 100w motor (3s 20c Lipoly) mid kv for general flying, probably around 1200kv~1400kv, so around 8" prop

Example 2: 3D/F3A Model, 1lb AUW, we want 150w motor (3s 20c~30c Lipoly) low kv, 1000kv or under, spinning 10~11" prop, highly efficient at low throttle openings giving lot's of prop wash over control surfaces at all times, high thrust for low rpm and low amps draw at higher throttle openings.

Example 3: Warbird/Scale Model, 1lb AUW 120w motor, kv choice, either of the above, it is personal choice

Example 4: High Speed Delta type model, 1lb AUW, 200w motor (3s 25c~30c Lipoly) 2200kv~3200kv motor, 5"~6" Prop, high speed/low torque, low thrust at low throttle openings, high speed from high rpm at full throttle.

FINALLY, ESC CHOICE

You have decided on your motor, so look at the MAX AMPS figure given by the motor manufacturer in the data section and generally add 25% headroom. So, if a motor is rated to 15A, then choose at least an 18A ESC, better still a 20A and so on. Next make sure that the ESC voltage is compatible, in other words, if you are using a 4s LiPo, that the ESC is rated for 4s voltage. Next, check if it has functions you desire. If you are flying a glider for instance, you will want a brake facility so that the prop stops when soaring un-powered, allowing the prop to fold by not wind-milling. We strongly advise purchasing a programmer card to make programming the ESC easier. Also look at the BEC rating. The BEC supplies radio receiver power for servo's without the need for a separate receiver battery, however, this can be limited in the number of servo's they are capable of powering. If the servo count is over 4, as it is on many models these days, then consider purchasing an ESC with a high AMP rated SBEC, or a separate UBEC. OPTO type ESC's (they have no BEC, keeping the ESC separate from RX supply) are recommended for large models that require a separate receiver power supply. They are also safer in high powered, large models as they will not arm until the RX is switched on.

BROWN JR TOOL

I recently needed to unscrew the cylinder from a Brown Jr. Over time I've simplified the removal tool, so I'll call this one the MK III model. MK I was a hardwood vise-held cylinder clamp that I'd made years ago. It worked. MK II was just a pair of short pieces of 1/8" music wire clamped in a vise and used as a spanner while turning the case to loosen it. That seemed quicker and easier, but it was tricky to get the two wires spaced just right.

This time, it occurred to me that a simple spanner tool could be made by bending a piece of 1/8" music wire as shown below. If I were doing it again, I'd make the two legs a little longer, which would allow a little more springiness and wouldn't require as much tweaking to get the final spacing just right to fit the holes. It's a snug fit.

The U shaped spanner tool is placed in a vise with just a short section of the two legs protruding. The cylinder holes are placed over the pins and the case is then spun loose by hand.

Other simple spanners could be made using this same idea, using various wire sizes. You'd need to file or grind flat spots on the two leg ends in some cases, so as not to mar the back plate or whatever else you needed to remove.

Incidentally that alcohol and gasoline proof fuel bowl is just an old plastic 35mm film canister, which happens to fit inside the original Brown tank ring. I'm still searching for the ideal epoxy or other adhesive, which doesn't eventually break down from the alcohol.



From Bob Angel. samrcflier@verizon.net.

I finally found the article on George Tallents' technique for replacing O&R gaskets. Keep in mind that this was written in 1994, and George has since passed away.

I later found that there were sometimes problems in the procedure. The fit in the lower cylinder sometimes got squished a little fore and aft, resulting in a tightened piston/cylinder fit that needed either more breaking in, or lapping. I've talked to more than one person who had this happen. This could have happened during the spot welding process, or when he stamped circles into those cosmetic aluminum bosses after placing them over the steel slugs. Possibly a snug fitting false piston could be inserted into the cylinders during that latter process to prevent crushing things fore and aft.

O&R TUNING TIP #17 - George Tallent's case seal replacement method.

By Bob Angel. samrcflier@verizon.net.

George had machinery to do almost anything, and if he didn't have it, he'd make or buy it. He had developed the best process I've seen for replacing the O&R cylinder to case gaskets. His method came as close as any to the original O&R factory procedure. The good news was he'd do this job for SAM fliers, and at a very reasonable price.

Before disassembly, George measured the depth to which the cylinder is seated in the case, so he could duplicate that at reassembly. For this he used a depth gauge inserted through the spark plug hole, and measured down to the inside bottom of the case. He then milled out the old front and rear bosses, which released the cylinder from the case.

After any needed cleanup of parts, reassembly began by putting a new gasket in place, then clamping the cylinder/case assembly together in a special fixture. He then re-measured the seating depth and clamped the cylinder down to the proper depth. Actually, he first removed the ridge inside the top of the cylinder; then set the cylinder about .003" deeper than original, which slightly increased compression.

He had made up small steel discs which matched the diameter of the end mill used to mill out the original case bosses. George had found four different mill/disc diameters needed on various O&R's. One of these discs is placed into each of the two case holes, and spot welded to the cylinder wall with special "C" shaped electrodes in his electric spot welder.

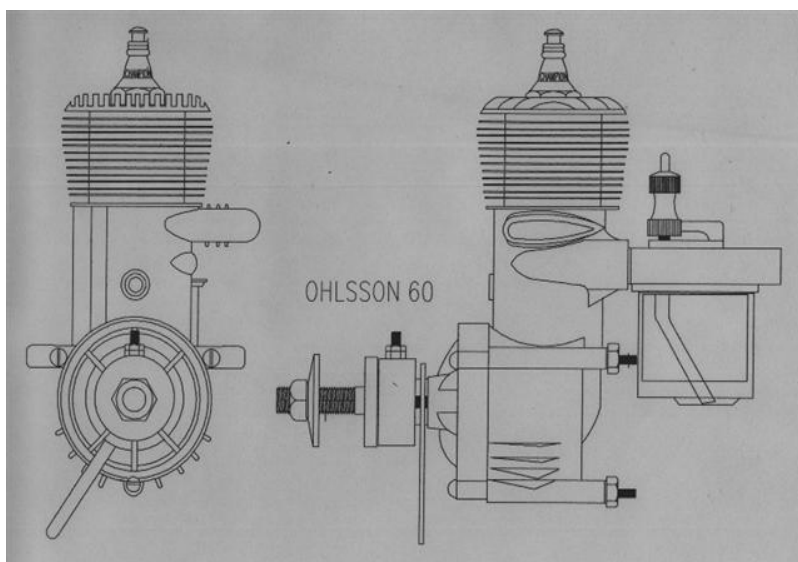
With the cylinder securely back in place, he finished the job by placing a second aluminum disc over each of the welded discs, then used a tool he made to press a concentric circular boss design, similar to the originals.

Before reassembly of the front plate, George would also true the front plate on a lathe, so the mounting surface was at right angles to the main crankshaft bushing. Many of these are not true on O&R's as was described by Bill Schmidt in SAM Speaks issue #116, Pg. 19. Incidentally, Bill has contributed some of the best material used in our O&R tips series, and I've designated that particular contribution as tip #16, even though we never printed it in the SAM 26 newsletter. I don't like to waste space duplicating stuff that will, or can be read elsewhere by most of our members.

Now we get down to the bottom line. Would George do this service for you? The answer was not only yes, but he'd do it at a

**NOTE: THIS ARTICLE IS OBSOLETE
INFORMATION AS OF 2012.
GEORGE IS NO LONGER WITH US.**

most reasonable price. Just \$35 + \$3 shipping for the service described above. And if you wanted an O&R 60 crankshaft balanced using red brass counterweight inserts, \$20 was added for that service. George would run the engine, and often found and corrected other minor things as part of the service. He was doing this primarily for fliers, not collectors.



From Dave Harding davejean1@comcast.net As most of you know the venerable Ohlsson 60 is a fixed head engine that is assembled to the crankcase by spot welding after compressing a sealing gasket (the best kind!). You also know this gasket frequently leaks after ~ 60 years of use/storage. Further, most of you know that the late George Talent developed the tooling to repair these gems by replacing the gasket.

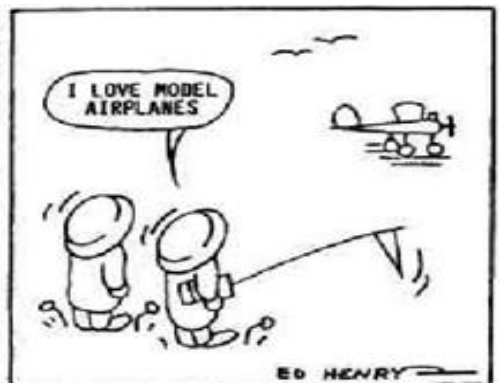
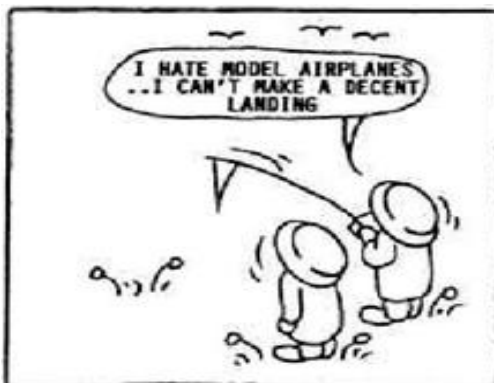
Sadly nobody took up George's offer to sell the tooling and learn the process so now we are back in the dark ages.

At this year's Eloy contest Bob Angus asked me to make an appeal to the chemists and mechanics of the forum to see if materials have been developed to make an in-situ repair. Perhaps there is now a material that could be inserted into the gap once the old gasket material has been removed. Of course it must withstand the temperature environment that might reach 400 + degrees F and pressures associated with sealing the crankcase pumping action.

Let the search begin.... Dave for Bob Angus and the whole SAM community.

Vintagents Contest Calendar 2012 - SAM 84 QUEENSLAND

	Duration	Texaco	Antique	B Duration	Nostalgia	Standard 40	1/2A	A Texaco	Burford	2cc Dur/ Combined	A Duration	Location	Trophy	CD	
January	01														
	08														
	15														
	22														
	29	Fun Fly Toowoomba													
February	05														
	12	1							2			Calvert		Jim Hardy	
	19														
	26														
March	04		1			2						N'th Side	Terry Jack	Peter Doolan	
	11														
	18														
	25	1						2				N'th Side	Toby Low	Des Slattery	
April	01														
	08	CANOWINDRA			(EASTER)				DUR						
	15														
	22														
	29						2				1	N'th Side		Richard Hart	
May	06	Labour Day													
	13														
	20			1		2						N'th Side	O'o'B'ds Antique	Mick Walsh	
	27														
June	03														
	10	2	3	5	QUEEN'S B'DAY		4		1			DALBY	SAM Champs		
	17														
	24														
July	01					2				COM		N'th Side		Tony Hart	
	08														
	15	1	2								3	Redbank	Arthur Gorrie	Paul N'gale	
	22														
	29														
August	05			1	2							N'th Side		Peter Doolan	
	12														
	19														
	26					2		1				N'th Side		Arnold	
September	02														
	09				2			1				Calvert	Ehling	Greg Martin	
	16														
	23														
30	Toowoomba										TARMAC	State Champs	Shared		
October	07														
	14					1			2			N'th Side	Col Somers	Des Slattery	
	21														
	28	combined									2	Calvert		Jim Hardy	
November	04														
	11														
	18		1		2							N'th Side	O'o'B'ds Texaco	Mick Walsh	
	25														
December	02														
	09	RUN WHAT YOU BRUNG											Calvert	Breakup Day	Jim Hardy
	16														
	23														



~~ THE BACK PAGE ~~

From Grant Carson wmgcarson@sbcglobal.net

In the photo below (my den) are some of my 15 models ready for contest. That doesn't count six hand launch and catapult gliders. You may note that I've run out of space to hang them from the ceiling, so I've started to hang them on the walls as well.

I gave away some to my grandson, for example a rubber scale Stinson 105, a rubber scale Dumas PZL, a Comet Phantom Fury, a Megow Chieftain (small, low wing rubber sport plane featured in SAM Speaks), and a Jimmie Allen Blue Flash (what a dog!). I've offered to give more, but I've been discouraged because my grandson's ceiling is getting filled up.

I'm starting to build a Scatterbrain, 30" rubber job, 1940, from Easy Built, just because I like it. The competition category it fits is Commercial Rubber. I already have, ready for contest, a Korda Victory, a Stahl Hurricane and a Megow Contest Commercial.

Eureka! I have an unique approach to my problem. I'm not going to put a dethermalizer on the Scatterbrain. Why should I? I have three back-ups!

"It's the most fun you can have standing up with your pants on!" --Paul Herbst Grant.



From Free Fight Hank in Omaha hsperez@cox.net

I had an O&R FRV 60 tied to the front of a Playboy SR that I was teaching to fly at Muncie. Everything was going according to plan when the engine refused to start. Out came the electric starter and the darn thing still wouldn't start or run. On close examination I found a crack in the crankcase.

I attempted to repair the crack with JB Weld, vain hope. The JB Weld held for a short burst and failed. While at Toledo Expo last week I was looking over the swap shop trying to find a "Bones" O&R 60. The idea was to find one with a good crankcase for an O&R 60 and I'd send both engines to George and he could make a good one out of the two. The one I have has excellent compression and the front bushing is good so George could just swap the top end from the engine with the cracked crankcase to the new one. While talking with Bob Edelstein he suggested that I try to weld the crack with the aluminum rod that a guy was selling just down the way. I went and listened and watched the "pitch" and I ask questions.

When I got home I tried my hand at welding. My first attempt didn't look too bad. I cranked her up and my nice looking weld failed! Falling back and regrouping I remembered the old soldering motto; The Bigger the Glob the better the Job. Works fine, no leak, and the weld seems to be holding. Hank Sperzel.

