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**Newsletter
No. 190
September-October
2014**

Notice: I have it on good authority that the power in NSW will go out on 15/7/2015. - Condo.



Joint winners of the Cootamundra Cup for 2014.
Dave Paton from Queensland and Peter (Condo) Smith from where-else but Condobolin, NSW.

DURATION TIMES

BELCONNEN & YASS MODEL AERO CLUBS

Old Timer Class Competition 15-16 November, 2014.

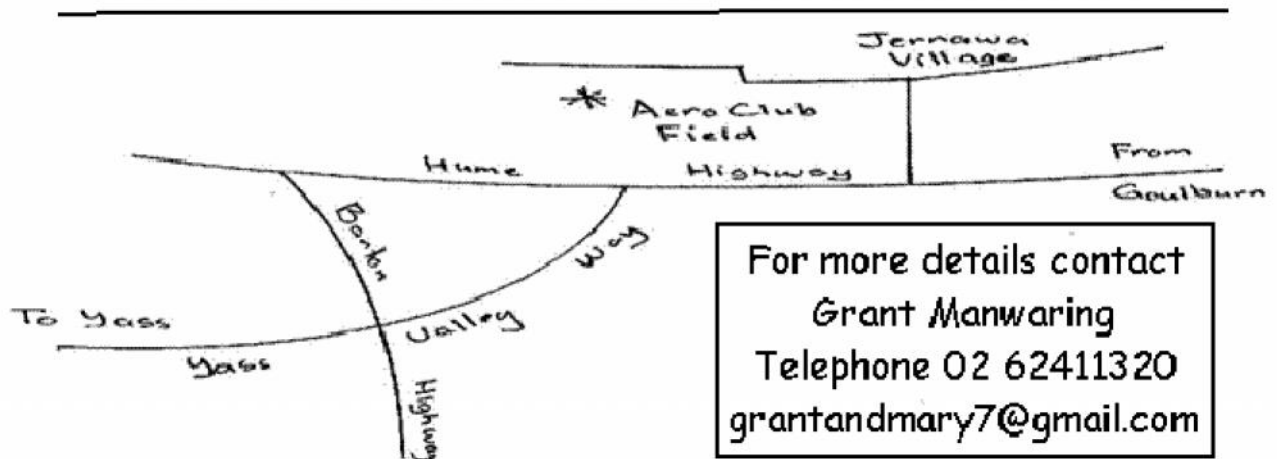
At Yass Model Aero Club Field - Jerrawa via Yass

SATURDAY 10.00am - Burford Event SUNDAY 9.30am - ½ A Texaco
1.30pm - Duration 12.30pm - Texaco

*** 30 Minute Scramble Sport Event, on Saturday ***

Motel accommodation at the Yass Motel, telephone 02 62261055, reasonable rates.

Dinner on Saturday night at the Yass Motel, all welcome.



For more details contact
Grant Manwaring
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Please Note

There will not be any Electric Oldtimer Events run at this competition.

Duration Times is the official Bulletin of SAM 1788
SOCIETY OF ANTIQUE MODELLERS OF AUSTRALIA 1788 Inc.

President:	Peter Scott	44 Ravel Street, Seven Hills. NSW. 2147.	02 9624-1262.
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Secretary:	Grant Manwaring	7 Arthaldo Court, Nicholls. ACT. 2913.	02 6241-1320.
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Committee Members: Basil Healy, Ian Connell.

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Oldtimer Events for 2014

Nov	15 - 16	Belconnen / Yass Old Timer	Yass	Grant Manwaring	02 6241 1320.
Dec	14	SAM-v-NSWFFS Vintage FF Contest	Richmond (7am)	Peter Scott	02 9624 1262.

Proposed Oldtimer Events for 2015

February	7 - 8	Alan Brown Memorial Shield	Orange	Dave Brown	02 6355 7298.
March	6 - 7	Hunter Valley Championships	Muswellbrook	Grant Manwaring	02 6241 1320.
April	2 - 6	SAM 1788 Championships	Canowindra	Grant Manwaring	02 6241 1320.
May	2 - 3	Veterans Gathering	Muswellbrook		
May	16 - 17	Old Timer Weekend	Wyong	Bob Marshall	02 4363 2818.
June	6 - 7	Vintagents Old Timer Meeting	Gratton Field	Dave Paton	07 3245 5991.
June	13 - 14	New England Gas Champs	Tamworth	Basil Healy	02 4341 7292.
July	19 - 20	Golden West Old Timer	Parkes	Peter Smith	0423 452 879.
August	(TBA)	Oily Hand Weekend	Cowra	Andy Luckett	
Sept	5 - 6	Coota Cup	Cootamundra	Grant Manwaring	02 6241 1320.
October	3 - 4	Eastern States Gas Champs	West Wyalong	Grant Manwaring	02 6241 1320.
Nov	14 - 15	Belconnen / NAAS Old Timer	NAAS, Canberra	Grant Manwaring	02 6241 1320.

Notes: These are tentative dates, I will need to confirm with the relevant clubs to finalize dates.
 The Belconnen event will held be at the NAAS field in the lower part of the ACT, south of Tharwa Village.



From the President: Impossible as it seems, we are coming to the end of yet another year with only one more contest before Christmas.

There is also the SAM vs NSW Free Flight Society vintage Free Flight contest on 14 December at Richmond. Start time is 7am. The event is followed by the FF Society Christmas party. A good day out and if anyone would like to come but needs a model, get in touch as I will lend one.

We went to Wangaratta for the Eastern States Gas Champs and the weather was calm most of the time. Slight breeze for $\frac{1}{2}$ A and very little for Texaco on the Sunday. Jim Rae landed in the top of "the big tree" which upset him almost as much as the cost, \$80, for a tree professional to rescue it. The model suffered a few tissue tears.

The downside of the comp was two guys not getting their way with the C.D. in $\frac{1}{2}$ A as to the take-off due to the direction of the breeze. They took their models and went home in a huff. The C.D. makes the decisions. The contest went well, all a bit childish really.

I hope there will be a good turn-out for the Yass competition, as it will be the last time we run at the Dalton field. Next year it will be held at the N.A.A.S field at Tharwa near Canberra. The Yass field is tricky as it is surrounded by hills and is very turbulent when windy. In calmer weather it is good for slope-soaring off the hills.

The Nationals for Queensland will be just after Easter - see the bulletin. Bit of a challenge, to confront Walshy on his home turf!! It is a good flying site but we may have a problem with noise.

All the best for Christmas and I wish you a Happy and Healthy New Year. Peter Scott.

From Peter (Condo) Smith. Here's a couple pictures from the recent Wangaratta Eastern States Gas Champs. They are fairly self-explanatory. Please welcome JIM RAE to the Tree Huggers Club. Regards, Condo



Perfect day. Tree's BIG Brother contemplates what might happen today, after all they are Oldtimer fliers. I've met them before.



The picture of the big tree - "I am Tree's BIG Brother"



Jim contemplates his dilemma with moral support from the Scotts.

RESULTS COOTAMUNDRA CUP

12th-14th September, 2014.

Gordon Burford Event

Dave	PATON	Stardust Spl	PB	900	1492
Peter J.	SMITH	Commando	PB (T)	900	1320
Peter	SCOTT	Eureka	PB	900	404
Grant	MANWARING	Dixielander	PB (T)	900	393
Basil	HEALY	Dixielander	PB	900	362
Geoff	POTTER	Spacer	PB	900	
Bob	MARSHALL	Playboy	PB	848	
Peter	Van de Waterbeemd	Stomper	BB	828	

Duration

Peter J.	SMITH	Playboy 112%	McCoy 60	1260	685
Peter	SCOTT	Playboy	Saito 62 4/	1260	555
Peter	Van de Waterbeemd	Bomber	McCoy 60	1260	496
Dave	PATON	Playboy 105%	YS 63 4/	1260	432
Paul	NIGHTINGALE	Megow Ranger	OS 37H	1260	415
Grant	MANWARING	Bomber 85%	Saito 62 4/	1260	399
Bob	MARSHALL	Playboy 92%	Saito 56 4/	1260	
Geoff	POTTER	Playboy 105%	Nelson 40 2/	1169	
Basil	HEALY	Megow Chief	YS 53 4/	1034	

1/2a Texaco

Peter J.	SMITH	Lil Diamond	1260	469
Basil	HEALY	Starsust Spl	1260	354
Dave	PATON	Stardust Spl	1260	327
Peter	SCOTT	Baby Burd	1260	284
Peter	Van de Waterbeemd	Lil Diamond	1181	
Bob	MARSHALL	Stardust Spl	1038	
Grant	MANWARING	Lil Diamond	640	

Texaco

Grant	MANWARING	Bomber	OS 60 4/	1800
Basil	HEALY	Lanzo Stick	Enya 60 4/	1773
Geoff	POTTER	Bomber	O.S. 61 4/	1733
Dave	PATON	Bomber 85%	Irvine 40 d	1669
Peter	Van de Waterbeemd	Bomber	Saito 65 4/	1630
Paul	NIGHTINGALE	Gas Bird	Saito 50 4/	1594
Peter	SCOTT	Record Breaker	Anderson 60spk	600

Sport Cabin Scramble

Peter Van de Waterbeemd	1457	(Holds Trophy)
Peter Scott	1457	(Equal First)
Grant Manwaring	1439	
Condo Smith	1386	
Basil Healy	1218	
Bob Marshall	999	
Geoff Potter	965	

Coota Cup 2014 Results

Dave Paton, Condo Smith	24 points
Peter Scott	20 points

The Coota Cup 2014

Report from Grant Manwaring

This year's Coota Cup was held over the weekend of 13 - 14 September 2014 at the State Field at Cootamundra. This site is a great venue offering on-site facilities for campers and caravans, excellent ground preparation on-site food catering by the local Cootamundra club.

Entries were down on previous years, however Paul Nightingale and Dave Paton with wife's made the trip from Queensland to participate in this year's event. Excellent weather conditions all weekend.

First event on Saturday was Burford with eight entries. Some new models presented, Peter Scott with a Eureka, Condo Smith with a Commando and myself with a new Dixielander. Six flyers made the fly off with Dave Paton and Condo Smith in a twenty four minute fly off. Dave Paton first place, Condo Smith second with Peter Scott in third place.

Duration next with nine entries, five of them Playboy's with a variety of engines. Seven flyers through to a fairly short fly off. An all Peter result, Condo Smith first place with a Playboy, second Peter Scott another Playboy with Peter Van de Waterbeemd in third place flying a Lanzo Bomber with McCoy 60 on spark.

Sunday morning first event was thirty minute Sport Cabin Scramble with seven entries, models were mainly Tomboy's. This event was flown in really ideal conditions and well received by flyers. Interesting result, after thirty minutes a tied score. Peter Van de Waterbeemd and Peter Scott each had 1457 each and myself with 1439. Peter Van de Waterbeemd was awarded the trophy.

Next event 1/2A Texaco, seven flyers presented, a mix of Stardust Special's and Lil Diamond's designs. Four flyers made the fly off with very average fly off scores. Condo Smith first, Basil Healy second with Dave Paton in third place.

After lunch Texaco was the final event with eight flyers. A variety of engines including an Irvine diesel and all but one Lanzo designs. Weather conditions still ideal but with patchy lift saw myself as the only flyer to record three

maximum scores, no fly off required. Basil Healy in second place, Geoff Potter in third place.

And now for the overall Coota Cup winner, this year was tie between Dave Paton and Condo Smith with twenty four points, runner up was Peter Scott with twenty points. Both joint winners will be added to the trophy with Dave Paton to hold the trophy till next year as requested by Condo Smith. Congratulations to both flyers for a great result.

Altogether a great weekend of old timer model flying, a superb venue and good weather. Thanks to the Cootamundra Model Aero Club for their assistance in running the event.



MASNSW State Flying Field, Cootamundra.



Burford Event 3,1,2

Dave Paton from Queensland and Peter (Condo) Smith, joint winners of the Cootamundra Cup for 2014. Peter Van de Waterbeemd and Peter Scott, joint winners in the Sport Cabin Scramble.



Duration Event
3,1,2



Sports Cabin Scramble.



Geoff Potter - Sports Cabin Scramble.



Peter Scott - Sports Cabin Scramble.



1/2 A Texaco
3,1,2



Texaco
3,1,2



Texaco Group



**RESULTS - EASTERN STATES GAS CHAMPS - WANGARATTA
4th-5th October, 2014,**
Antique

Grant	MANWARING	RC1	Burford 5cc d	1800	1504
Kevin	FRYER	Cumulus	Forster 99	1800	1360
Peter	SCOTT	RC1	GB 5cc D	1800	589
Peter	Van de WATERBEEMD	Long Cabin	GB 5cc D	1800	
Dave	PATON	Baby	GB 5cc D	1726	
Steven	GULLOCK	Polly	GB 5cc diesel	1700	
Jim	RAE	Rambler	Forster 29	1678	

Gordon Burford Event

Grant	MANWARING	Dixielander	PB (T)	900	543
Jim	RAE	Amazoom	BB	900	402
Peter	SCOTT	Eureka	PB	900	352
Peter J.	SMITH	Commando	PB (T)	900	344
Peter R.	SMITH	Ollie	PB	900	343
Steven	GULLOCK	Stardust Spl	PB	889	
Dave	PATON	Stardust Spl	PB	877	
Peter	Van de WATERBEEMD	Stomper	BB	856	
Kevin	FRYER	Atomiser	PB	838	

Duration

Peter J.	SMITH	Playboy 112%	McCoy 60	1260	889
Peter	Van De WATERBEEMD	Bomber	McCoy 60	1260	751
Kevin	FRYER	Cumulus 92%	McCoy 60 spk	1260	712
Grant	MANWARING	Playboy	YS53 4/	1260	601
Steven	GULLOCK	Playboy	Saito 56 4/	1260	555
Jim	RAE	Lion Cub 130%	Saito 56 4/	1260	549
Dave	PATON	Playboy 105%	YS 63 4/	1260	531
Graeme	GULBIN	Playboy	OS 35 4/	1260	479
Brian	DOWIE	Playboy	OS 40 2/	1260	433
Peter	SCOTT	Playboy	Saito 62 4/	1260	433
Greg	MITCHELL	Playboy	ASP 61 4/	1215	
Peter R.	SMITH	Lil Diamond	Saito 56 4/	1189	

1/2a Texaco

Jim	RAE	Pine Needle	1260	399
Dave	PATON	Stardust Spl	1260	334
Peter	Van de WATERBEEMD	Lil Diamond	1260	142
Peter	SCOTT	Baby Burd	1260	35
Grant	MANWARING	Lil Diamond	1260	0
Brian	DOWIE	Playboy	446	0
Peter J.	SMITH	Lil Diamond	253	0

Texaco

Steven	GULLOCK	Bomber 85%	Enya 53 4/	1800	1037
Grant	MANWARING	Bomber	OS 60 4/	1800	896
Dave	PATON	Bomber 85%	Irvine 40 d	1800	436
Peter J.	SMITH	Bomber	Sup Cyclone	1800	
Peter	Van de WATERBEEMD	Bomber	Saito 65 4/	1680	
Greg	MITCHELL	Bomber	TS diesel	1387	
Peter	SCOTT	Bomber	Cunningham 64	944	
Graeme	GULBIN	Bomber	OR 60 spk	600	
Jim	RAE	Krupp	O&R 60 spk	219	

tries. A variety of engines including spark ignition types. Excellent weather conditions but only four flyers in the fly-off. Local flyer Steve Gullock 1st place, Lanzo Bomber OS60FS, Grant Manwaring 2nd flying a Lanzo Bomber, OS60FS with Dave Paton from QLD in 3rd flying a Lanzo Bomber, Irvine 40 diesel. Fly-off times were around fifteen minutes.

Overall pointscore winner for the 2014 Eastern States Gas Champs was Grant Manwaring with 38 points, runner up was Peter Van de Waterbeemd with 29 points followed by Dave Paton with 27 points.

An enjoyable weekend of old timer model flying, dinner Saturday night at the Pinsent Hotel. Thanks to the Wangaratta Aeromodeller's Club, especially Russell Clough for their assistance over the weekend.



'38 Antique
2,1,3

**Eastern States Gas Champs
Wangaratta**
4-5 October 2014
Report from Grant Manwaring

This year's event marked the nineteenth year of the championships, the inaugural event being held at Wangaratta Airport in 1995. Entry numbers were again down on previous events, but for those who did attend it was two days of excellent old timer flying. Good to welcome Graeme Gulbin and Greg Mitchell to our old timer competition events.

First event of the weekend was '38 Antique with eight entries. Preferred engine was the GB5 diesel for five flyers, the rest spark ignition types. Good weather conditions saw four flyers through to the fly-off, some twenty five minutes in all. Grant Manwaring 1st, GB5 Lanzo RC1, Kevin Fryer 2nd, Foster 99 spark, Cumulus and Peter Scott 3rd with a GB5 Lanzo RC1. Peter Van de Waterbeemd, 4th place flew a very good flight of twenty two minutes plus but landed out, a disappointment for Peter.

Next event Burford with nine entries. A mix of Tairan PB, BB and T2 engines with five flyers making it through to the fly-off. Results Grant Manwaring 1st Dixielander, Jim Rae 2nd with an Amazoom and Peter Scott 3rd flying a Eurika.

Duration event after lunch Saturday with twelve starters. Good conditions saw ten flyers in the fly-off, and a lack of timers. Results of the fly-off Condo Smith 1st McCoy 60 Playboy, Peter Van de Waterbeemd 2nd McCoy 60 Lanzo Bomber with Kevin Fryer 3rd, McCoy 60 in a Cumulus. The next placings were taken by a variety of four stroke engines.

First event on Sunday was Cabin Scramble with four entries. Peter Van de Waterbeemd took this out achieving 25 minutes plus in 30 minute timeslot. Condo Smith recorded 24 minutes and Grant Manwaring 23 minutes.

1/2A Texaco next with eight entries, five flyers in the fly-off. Jim Rae 1st, Pine Needle, Dave Paton 2nd with a Stardust Special and Peter Van de Waterbeemd 3rd, Lil Diamond, all with fairly shorts flights.

Final event for the weekend was Texaco with ten en-



'Burford Event
3,1,2



Brian Dowie (Vic) and Duration Playboy



Duration 3,1,2



Sport Cabin Scramble



Sport Cabin Scramble



1/2 A Texaco 3,1,2



Texaco Flightline, with the tree visitor in the foreground



Texaco 3,1,2

R/C Old Timer Glider From Grant Manwaring

On the Friday afternoon preceding the Coota Cup events we were able to fly gliders at the State Field at Cootamundra. Six gliders in all, great weather conditions made for an enjoyable afternoon of glider flying.

Col Collyer from Victoria was on hand with the Satyr glider, equipped with a vario and altitude downlink system. Col flew several long flights, including one of an hour with the help of this gear.

Peter Scott flew the Gamma Gull, Geoff Potter brought along the Frog Prince for some good flights. Basil Healy had some good flights with the Nibbio, including one of fifteen minutes. Grant Manwaring had the Thermalist and Archangel on hand for some good flights as well. In good conditions these models perform very well.

For this issue John Quigley has provided an article on the research and plan preparation for the Balestruccio. This is a sister design to the Nibbio currently flown by Basil Healy. Basil is currently building a Balestruccio from John's plan and reckons it's better than the Nibbio. Thanks John for putting this article together and preparing the plan.

SAM1788 committee has been requested by a member to advise on the use of ailerons on a glider if the ailerons are shown as operational on the original plan. The Committee has examined the original full size plan and the ailerons are clearly shown hinged and noted as used for trimming the model.

Committee has agreed to allow the model to be flown in SAM1788 competitions, with only aileron, elevator and towhook as the operational controls. The model must be processed and meet all other requirements for this class.

The committee noted that in making this decision there has been a previous precedent set in allowing a similar model in competition. It is our intention to submit a suitable amendment at the next rule change round to cover this situation.

Contact Details: Grant Manwaring 7 Arthaldo Court Nicholls ACT 2913 Email: grantandmary7@gmail.com	Basil Healy 4 Casuarina Close Umina NSW 2257 Email: basnpat@tac.com.au	Dave Brown - Model Draughting Services 2 Carey Street Wallerawang NSW 2645 Email: daveb@ix.net.au
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I-21 Mace Balestruccio Vintage Glider 1941 - Designed by Silvano Macera

John Quigley's research journey and drawing.

My story starts when I was VP of SAM 1788 and an Italian named Roberto Marzoli contacted me, (Duration Times does get around) wanting a gliding book. I sent one to him and thought no more of it until one day I arrived home to find a large very heavy cardboard box on our front veranda. Opening the box it was full of Italian OT model plans, rubber, Wakefield and vintage Italian gliders. An OT modellers Aladdin's cave.

About this time SAM1788 had formulated the rules for Vintage glider and there was interest in what was available. Models built were mainly English but Basil Healy built a Ghibli, one of the plans from my box. Later Basil built the MF7 again from my box.

During 1990 I was on an extended training trip with my employer and I was able to visit Robert Marzoli at an O/T contest in Gorizia Italia. This town is on the Adriatic side of Italia north of Venezia.

Taking many photos and a chat with the folks I think I learnt more about Italian modelling than computers. I saw this great looking glider the DG-42 with Roberto as an interpreter I had a chat with Dorio Giulio. To my eye it was a practical simple design that I would have time to build and after some discussion I was able to bring back a plan. There were other gliders there, beautifully sculptured, but complicated in construction.

Another plan that looked good was the DG-67 (same designer) which Coop, Basil and I built for John Pond to fly on one of his trips to the SAM 1788 Champs. He took it back to the 'States and not liking silk recovered it in plastic.

I met many friendly folks on that trip and probably met Silvano Macera the designer of this glider.

Duration Times 167 had a fuzzy picture of a good looking glider that I thought would be my next glider if only I could get a plan.

Quite some time later Basil asked if I could do some digging so August 2013 I sent off some emails and a drawing arrived. A follow up email in Feb 2014 sourced some photos and a sketch. This is where the research became interesting as by now I had three drawings and some photos - all different.

At one point there were some confusing emails. It was revealed there are two Italian OT gliders using the "Balestruccio" name. Quite an appropriate name for any 3metre glider, as it is Italian for a small swallow that builds its nest around buildings.

Italian folk law suggested that there may be a plan but it was not known who had it. In the mean time I started a CAD drawing. I was then told the glider in question had been drawn on mortadella paper. That famous digital encyclopaedia told me mortadella is an Italian sausage. That is when I did become confused - I had to ask the question: What is mortadella paper? The answer came back: when a drawing is used to build a model and the plan is then destroyed in the process, it is said to have been "drawn on mortadella paper". Dry Italian humour.

Two A4 drawings I had looked the same but were different. I worked out a scale and started to draw the model. Finding mistakes in my drawing and with it "just not looking right", I thought I was losing my skills. I started to look at the sketches and found that the two main sketches were to different scales. This can happen depending on the scanner and/or the photocopier or paper used. Not only were the two drawings of slightly different scales, the plan view and the side view were to different scales on the same drawing. Fortunately the span and fuse length were documented. There were discrepancies in my wing drawing and I found a variation in the front elevation of the sketch I was using as my master reference. Many hours wasted.

The first fuselage cross section I drew was an ellipse with the minor diameter out of centre. It was difficult to determine the shape from the sketch as it was fuzzy. My assumption was based on various drawings I have and other Italian sketches illustrating how to draw these sculptured fuselages. A little time consuming but easy in CAD.

Emails could not clarify the fuselage shape.

A chance discussion with Grant Manwaring informed me that Allan Laycock had a partial kit. A call to Allan confirmed he had a kit. He has kindly lent me all the parts and documentation he has collected.

The fuselage turned out to be an out of centre octagon. Allan also had a table of station coordinates for the bulkheads. The

problem with the table is that the stations are not even and looked strange. When I drew the fuselage using this data it had a hollow in it. The error was not great but combined with the irregular station location dimensions I decided to draw the fuselage as the plan is presented.

This is no reflection on the Italian effort as I understand it is a part time cottage industry.

There is an example of this model with a "D" tube tail but Basil decided and I agree that there is more evidence to define the model as an open wing and the tail as drawn. Allan has seen this design flying in Europe and has advised us that they build these models very light and use a light bungee. The drawing has a stronger construction than what is the practice in Europe.

It is clear from all the evidence that the tail, when converted to RC, is an all flying tail. Some of the models have aerodynamic balancing on the fin and rudder. My experiments suggest this feature is a waste of time hence it is not drawn on the plan though available as an option under SAM 1788 rules if a builder has a preference for a balanced rudder.

I have various documents stating the wing profile is NACA6409 while the fin and stabiliser is NACA0009. I was surprised to find the kit wing profile is NACA4409 and not in keeping with SAM1788 rules. The plan is drawn as documented.

Unrelated information for other models: I-22 Mace Ciclone, a larger Balestruccio, at 3.5M, has the same surface profiles; Nibbio wing profile is Eiffel 389 and NACA009 for the fin and stab; Turbine, a larger Nibbio, wing profile uses a Cyr58. Both profiles are available in Profilli software.

I have an email that clearly states the designer's registration is I-22 Mace. This is contra to most information.

At the time of writing (early October) Basil is building a Balestruccio from an early revision plan and with fresh eyes has found some omissions and minor errors. My excuse is it is can be difficult to see errors on a piece of paper that is 2.6M long when displayed on a small computer screen. Even the best authors have editors. When finished it should be one of the most accurate plans available.

The main sheet is 2.6M while the two supplementary drawings are A0. These two drawings have all the ribs and bulkheads etc., so that is not necessary to chop up the main plan.

Considering all the variations in the sketches that I have seen it is quite possible that other modellers could find errors. Due to the errors outlined above I drew from one specific sketch and email correspondence from Italians.

Once all the glitches are resolved I will release the final drawings as a PDF for printing.

I would like to thank, in no particular order of contribution, the following folks who have help me re-create a drawing for this model.

Paolo Rossi; Ivan Poloni; Bruno Charanti; Pino Carbini; Marcello Zunica; Marcello Mauro; Basil Healy and Allan Laycock. If I have missed anyone please forgive me.

Some interesting links: http://claudel.dopp.free.fr/Les_planeurs/Aeromodeles_antiques/Planeurs-antiques.htm

<http://www.gruppofalchi.com/home.html>

Cheers John Quigley

Année : 1941

Concepteur : Silvano MACERA

Pays : Italie

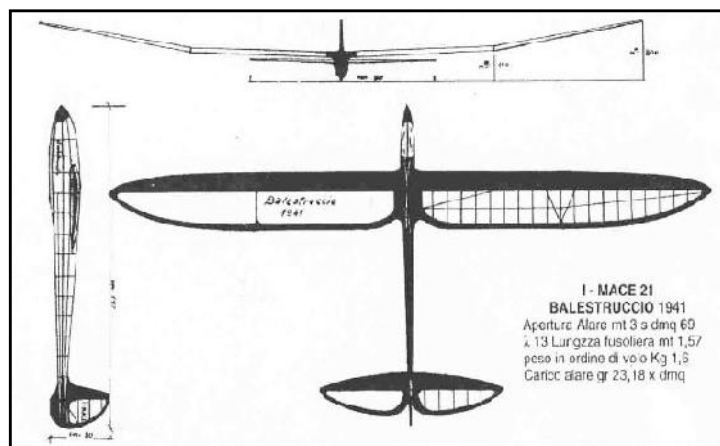
Catégorie : FAI

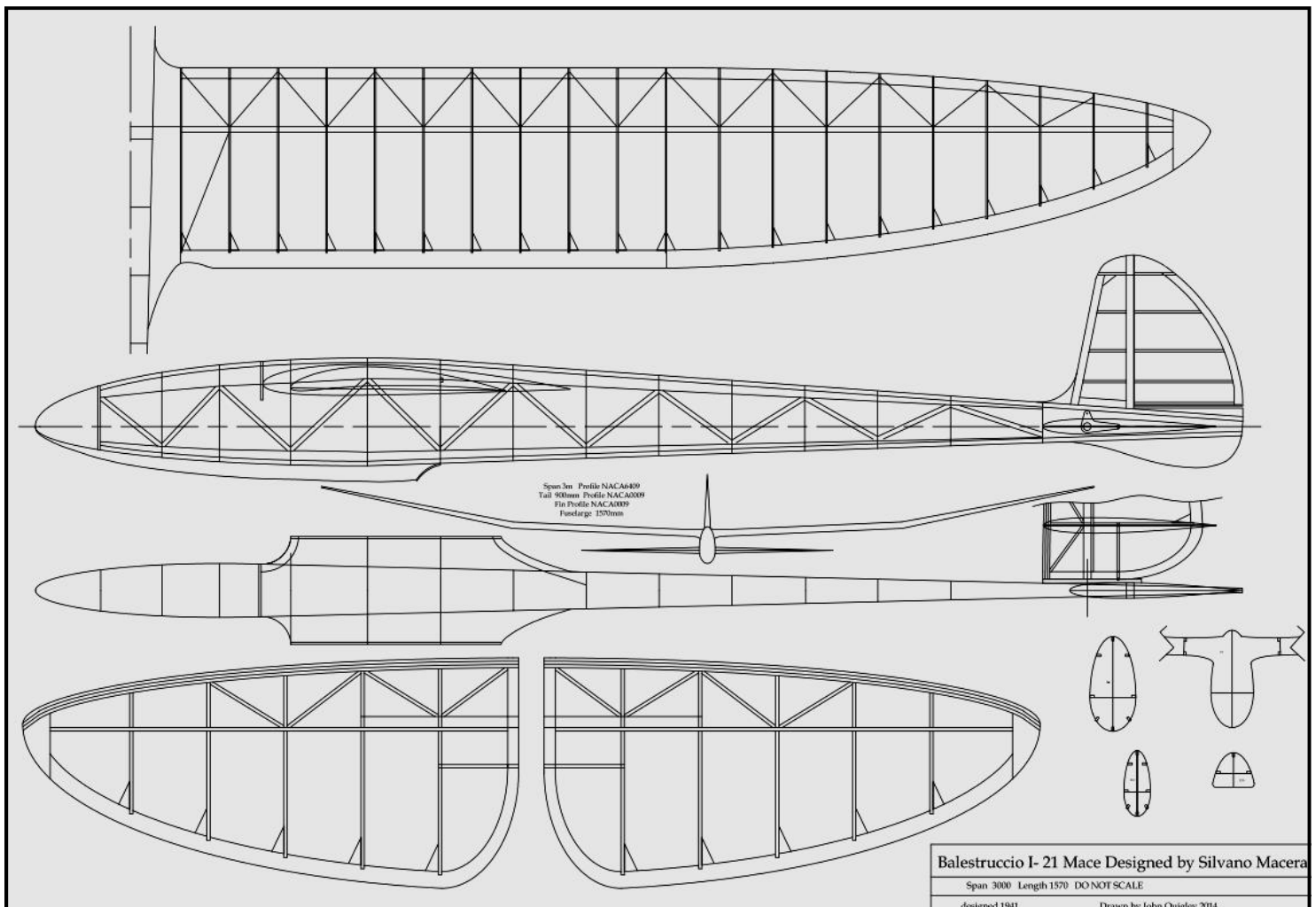
Envergure : 3000 mm

Longueur : 1570 mm

Plan en téléchargement Plan : Construction de Leopold Valka (CZ)

Plan 3 vues (Informační Listy SAM 95 Bohemia n° 87, 2005-5 p6)





Development drawing of the Balestruccio I-21 Mace by John Quigley

A MATTER OF DATES.

By Don Howie.

In July-August 2014 Duration Times (# 189), there is mention of the 37 inch wingspan "Baby Burd" model advertised in August 1940 Model Airplane News magazine, which is the year when the "Bomber" was flown with the Ohlsson 60 Custom, introduced in March, 1940. The photo published shows the brass eagle at front of engine.

If you go back to Lanzo's RC One design, claimed to be 1934, the model with Chet Lanzo in front of his home was published in the first issue of Model Aircraft Builder, April 1936. The model had a single spar wing and slightly smaller tail than his design drawn in the nineteen eighties. It is mentioned in the report that he hopes to fit radio to this model.

Lanzo won the first radio event in 1937 with his "RC Stick" (108 inch span) and this was published in Air Trails, December, 1937. His other published design, the "Record Breaker" (96 inch span) was published in August, 1939, in Model Airplane News. Chet mentions, "During a recent gas duration contest with a motor run of 21 seconds, the plane remained aloft for 25 minutes. Upon returning to the field the ship was sent up again with a motor run of 25 seconds. This produced a flight of two hours covering a distance of 25 miles, and incidentally established a new world record".

This is quite amazing as the Brown Junior may have got to 300 feet on the engine runs, also it does not make the model from 1938 as one assumes from the article the model was flown in 1939.

The "Airborn" (114 inch span), was a glider flown at the 1939 U.S. Nats in the R/C event, but crashed on launch. This is claimed to be 1938 by Lanzo.

Next we come to another famous designer, Harold De Bolt who claimed in his article that his 60 inch span "Blitzkrieg" was flown in 1938, when the design was published in the nineteen seventies (about). It was mentioned that he used a Forster 29 engine (introduced in 1940) and the word "Blitzkrieg" was not known to the world before 1939, when Hitler invaded Poland etc.

It seems we all want to be first and even Alex J Barter from South Australia is in fantasyland. He is shown on the cover of the "Pioneers of Model Aviation in Australia" compiled by the late John Marquette. He claims in the book that Ted Milford flew the first petrol model with a Brown Junior on 5th February, 1934. Next paragraph, "A few weeks after this event my Cyclone powered biplane was flying too". It seems he made a 2 year error in the article as nothing seems to tie up - as the Brown Junior had not got into production in February, 1934, and the Baby Cyclone was not released until December, 1935 in the U.S.A. so he received his about March, 1936.

If this is of interest to the readers I will write further of some of the CONS in model engine designs.

DRH.

P.S. I note the Free Flight boys only accept published designs or kits at the date they are published or advertised and the date relates to date of the magazine (plan) article or kit advertisement.



ATWOOD "GLO-DEVIL" TYPE D.R.,

Mention of this engine in the August issue prompted me to give an account of my experiences with it. As stated, this is the final big Atwood and not to be confused with the "Super Champion". I bought my first version early in 1950. It carried the inscription "JH" and had the short low-level intake and came with a short-arm contact breaker. It cost me £10 which was a hell of a lot of money (two weeks' wages for a skilled fitter).

It is difficult to describe just what a complete revelation this engine represented. We had FROG 500s and Elfins, etc., but the big Atwood was something else, the sheer power was awesome and it went straight into the 60 x 13 in. stunter that became "Old Sarum". The first time I flew it on 100 ft. lines, I was hooked. I still am.

The second version, identical to the first, was given to me just before John Perry "discovered" "Old Sarum", and, of course went straight into the replica that I still fly. The third version I acquired from Don Burgess to serve as a spare for the one in use. This one came with the inscription "GD", had the long "smoke stack" intake, and a long-arm contact breaker (car type, I think, and not really suitable for a plain bearing motor, as the inevitable play in the shaft affects the points gap). I can't vouch for this latter version as it could be a "bitsa", although I doubt this, as it was unused when I got it.

I think there is only one basic version as all my bits are interchangeable, port timing, etc., is identical, etc. I suspect that the JH, DR, GD, etc., are just that particular configuration, for example, the "Super Champion" described by Chinn in, I think, "Radio Modeller", was also JH and was similar to mine, with the short intake and aircraft C/B. This engine, in either short intake or smoke-stack form, has one serious drawback for C/L stunt, and that is tank position relative to the bearers. It needs a big tank, 170 ml, and there is nowhere to put it. I suspect that this must have severely limited its popularity.

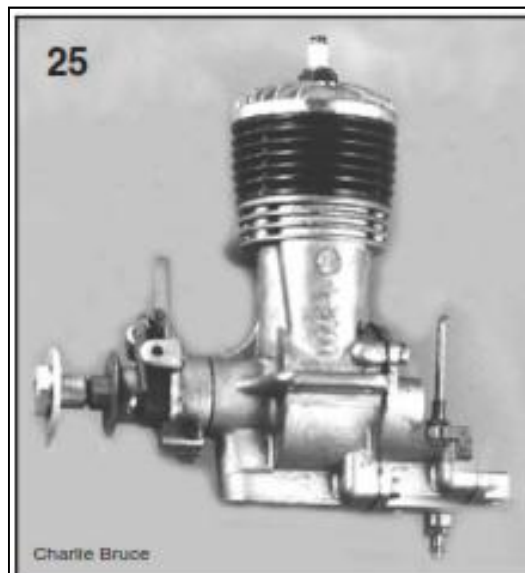
As for performance, I believe, and so did George Aldrich, that, it is head and shoulders above all the opposition (apart from the McCoys, etc). Most of the good spark ignition 60s, e.g. Super Cyclone, Orwick, Super Champion, Bunch, Contestor, etc., produced about 0.65 bhp. I'm not sure about the Anderson Spitfire and would love to see a test of an original motor. Most replicas are "improved" and wouldn't prove much. I use a 70% methanol, 25% castor, and 5% nitro mix, and there is no difference in performance between spark or glow. It will run quite happily on petrol/castor mix, with a slight loss of power (no nitro!), but I prefer the cooling effect of methanol.

As flown, it is turning a 12 x 7 Airflow wood prop at 9,000 rpm static, which gives me a comfortable 6 seconds lap time on 90 ft. lines. For comparative purposes, it turns a 12 x 6 Master at 10,300 rpm static. As far as the actual design is concerned, I think the top half is excellent, the steel-finned cylinder is light and stays fairly circular, the porting is good and the C.R. is O.K. I'm less happy with the bottom half, it is overly complicated and makes installation difficult. The plain-bearing crank is fine but I am not convinced about the twin intakes. The shaft is fine in terms of strength and wear but not large enough to allow a decent intake tract, hence the additional drum valve. In my opinion it would have been better to use just the drum but with a slightly larger diameter, with a simple downdraft intake above the drum.

This would: a) avoid spoiling the main bearing with the intake hole; b) allow a normal tank set-up on top of the bearers; and c) make it possible to prime the engine properly and give much easier starting. If I ever find the time I would like to make just such a drum conversion to see how it went - maybe someday. The real secret of the twin valve set-up is that it breathes well enough to allow a venture of 7 x 7.4mm which, with a 3.4mm spray bar, gives a very respectable 26½ sq. mm of intake area. Given the good porting etc., of the cylinder, this is where the power come from, and even with this area there is still plenty of suck. All in all, it's a cracking good motor. I love it!

BOB ARNOLD (Worcester)

P.S. On reading through the above I find my comment about spoiling the main bearings to be a bit rich. I have only been flying mine for about 13 years and it ain't worn our yet!



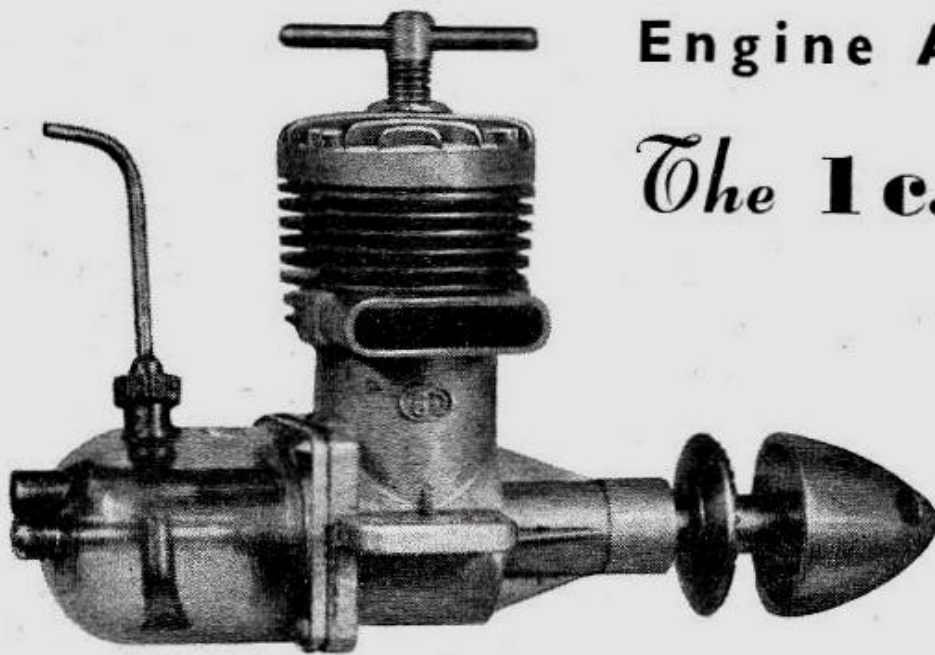
25 - ATWOOD CHAMPION Model "DR" - 1948 - .625 in³ spark. Similar to Glo-Devil, but with increased bypass and exhaust areas. "DR" on bypass. Stub intake straight out back. No vertical stack.



AERO
MODELLER

490

September, 1955



Engine Analysis No. 13

The 1 c.c. E. D. Bee

SERIES 2

Reviewed by

R. H. WARRING

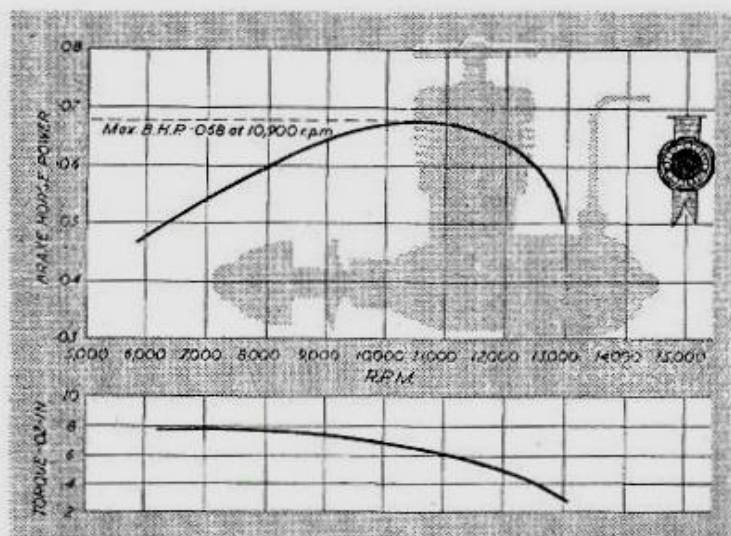
LATEST VERSION of the popular 1 c.c. "Bee" represents, essentially, a thorough "clean up" of the original model. Bore and stroke remain the same (the measured bore actually being a few thou greater on the latest model) but the overall appearance is markedly changed at the expense of an increase in weight of $\frac{1}{2}$ oz. Thus in spite of certain common features, the latest "Bee" is essentially a new model.

External appearance is vastly improved. With all due respects to the original "B", it was a rather crude looking production with the cylinder unit cast integral with the crankcase. In the new "Bee" the crankcase casting is extended only to exhaust level, the cylinder being an integral unit machined from steel complete with its cooling fins. It is secured by three screws through a cast finned head in light alloy, the screws locating in the finned flange at the top of the crankcase casting. The cylinder itself beds down on a narrow flange formed inside this casting against an extremely narrow gasket and is an entirely new design with

machined by-pass grooves on the inside opposite the exhaust ports.

The crankcase itself is very much neater, terminating in a square flange at the rear end. The back cover is also square and attached with four screws, instead of screwing in as on the original "Bee". A similar rotor disc and metal intake tube are employed, but it is no longer possible to alter the port timing by rotating the backplate as on the old Bee. The same needle valve and spray bar assembly is used.

The .218 in. diameter hardened and ground steel crankshaft has a .008 in. (total) taper at the front, to which is fitted the bossed propeller driving disc. Boss diameter is $\frac{1}{4}$ in., calling for this size of propeller hole. An aluminium spinner screws on to the threaded end of the crankshaft, closing up sufficiently to the drive plate to accommodate 4 in. or greater propeller pitches. Finer pitch propellers require either a spacing washer or a trimming of the drive plate boss length for proper grip. There is a generous allowance of metal around the threaded portion of the spinner and so the possibility of stripping this thread is remote,



E-D "BEE"

Displacement: .99 c.c. (.0605 cu. in.)
 Bore: .438 in.
 Stroke: .40 in.
 Bore/stroke ratio: 1.095
 Bare weight: $3\frac{1}{2}$ oz.
 Max. B.H.P.: .068 at 10,900 r.p.m.
 Max. torque: 8 oz.-in at 7,000 r.p.m.
 Power rating: .07 B.H.P. per c.c.
 Power/weight ratio: .021 B.H.P. per oz.

Specification

Crankcase: pressure die-cast light alloy
 Cylinder: case hardened steel
 Piston: cast iron
 Crankshaft: ground and hardened steel
 Con. rod: case-hardened steel.

Manufacturers

Electronic Developments (Surrey) Ltd.,
 Villiers Road, Kingston-on-Thames
 Retail Price: £2. 15. 0.

September, 1955

491

with normal usage (often a failing with this type of alloy propeller nut).

The crankshaft web is a pure disc .110 in. thick with an integrally machined crank pin .140 in. diameter. The cast iron piston has quite thick walls and the connecting rod is case-hardened steel. Rotational unbalance, therefore, is on the high side, but since the stroke is short, vibration is not excessive at normal operating speeds. This is undoubtedly one of those engines which will give its smoothest performance with a slightly unbalanced propeller, the heaviest blade being set opposite to the piston at top dead centre. We had a certain amount of vibration trouble during the test runs, both with the eddy current dynamometer and a sensitive reaction rig and it would appear that fairly generous bearer sizes are required for rigid mounting, particularly as the integral tank gives a considerable overhang.

We found the new "Bee" very easy to start and adjust. Priming through the exhaust produced rather easier starting than finger choking, although this operation is made a little difficult by the presence of the exhaust stack. Two generous size exhaust ports are cut in a groove machined in the cylinder proper, facing the exhaust stack cast in with the main casting and ejecting on the right hand side of the engine. The tendency is to overprime, but the engine will normally fire straight away, although indicate that it is overcompressed. Slackening off, re-flicking and taking up the compression again as the engine gets running, is best procedure in such cases.

With finger choking we found it necessary sometimes to increase compression slightly to start, re-adjusting almost at once. A particular virtue is that the "Bee" will start over quite a wide range of compression settings according to whether the engine is over or under primed and can then readily be adjusted to consistent running.

Yet it can be stopped quite easily by slackening off the compression one quarter to one half turn.

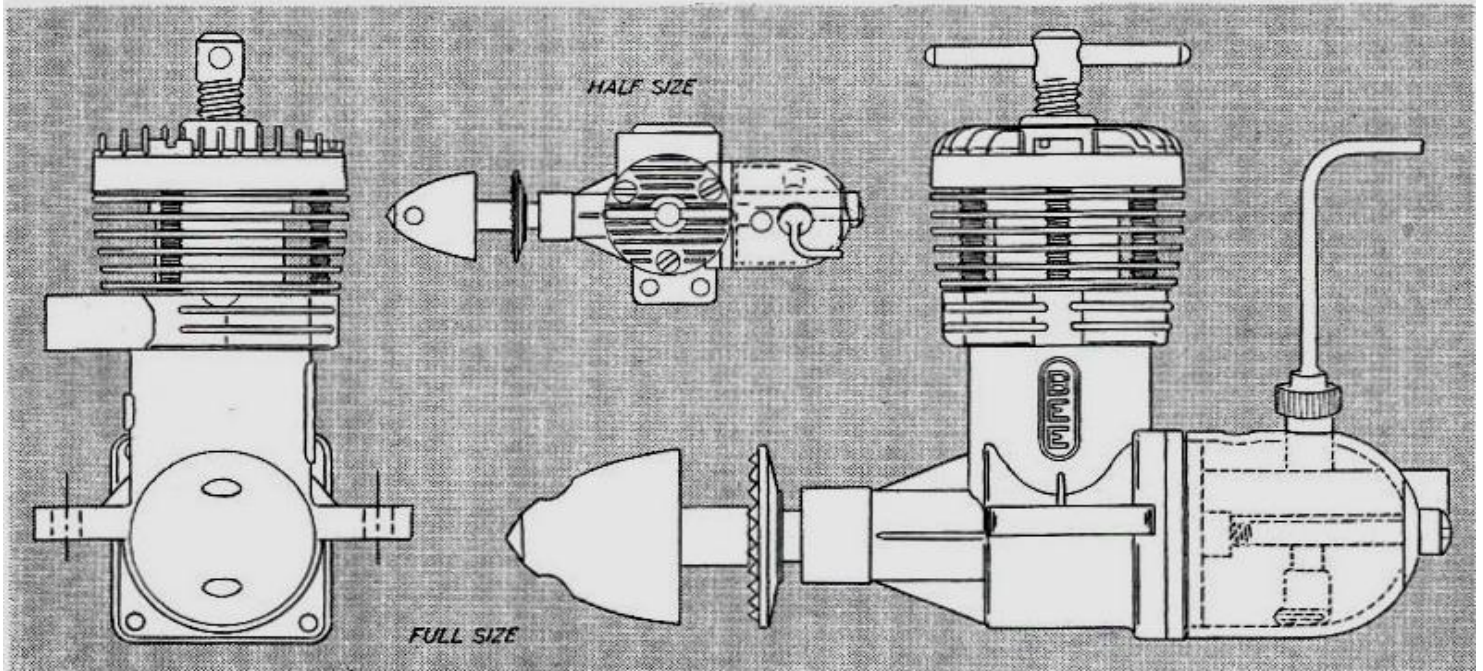
The needle valve control is quite responsive. The recommended setting was one turn open, but we found for small propeller loads that the needle had to be closed right down for optimum "lean" mixture. With all loads, however, opening up the needle valve produced a definite throttling effect, the engine speed dropping slowly and progressively with increasing rich mixture and with steady running maintained all the time. It is quite easy to run this engine too rich without realising it when a further closing of the needle valve could increase speed appreciably. For sports flying, in particular, it would probably be an advantage to run slightly rich rather than lean.

With smaller propeller loads, we found a tendency for the "Bee" to run a little erratically, but this was traced to the head having worked loose. If the head screws are checked after the initial runs and tightened down when hot, this trouble is unlikely to occur. But check this point if the engine does not hold a consistent speed with a particular propeller load. At very high speeds we found it impossible to adjust the compression to eliminate missing, using normal commercial fuels. This effect is more pronounced on some fuels than on others. It could undoubtedly be cured by increasing the nitrate content of the fuel but essentially the "Bee" appears to be a moderate speed engine.

PROPELLER-R.P.M. FIGURES

Propeller dia. x pitch	r.p.m.
8 x 4 (Stant)	7,900
7 x 4 (Stant)	9,500
6 x 4 (Stant)	10,750
6 x 4 (E-D plastic)	11,800
6 x 3 (constant g.m.p.)	12,200
7 x 5	9,600

Figures approx. common to E-D, Mercury No. 8 & Allbon fuels.



Oily Hand Weekend, Cowra 29 - 31 August 2014

Report from Grant Manwaring

This is the first time I have attended this event held Cowra Model Aero Club. This event has been running for some six years and the attendance grows each year. The weather was great all weekend and the surrounding countryside an absolute picture.

Friday was a general flying day, ideal for the free flight models and getting models trimmed. On Saturday the model of the meet Hearn's Sportster Concur's D'Elegance judging, fourteen models were presented, some of excellent standard. Control line Plank racing also and other general flying as you wanted to.

Sunday saw the Hearn's Sportster fly-off challenge, Single channel, rudder only, ROG with timed flight time and spot landing. This is the way we used to fly. SAM1788 member Peter Van de Waterbeemd had an entry for the event. Dave Bailey from Canberra also had a nicely silk covered Sportster, rudder control by torque rod and an ED Racer.

Overall a very enjoyable weekend and I will attend again. Plenty of aeromodeling discussions, lots of interesting models, catching up with people, car boot sales and demonstration of some very interesting twin configuration diesels.



Mike Minty's Sportster and Flying Penguin Novel.



Vintage Freddo and crew from Coffs Harbour. Hearn's Hobbies Sportster



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SAM POINTSCORE 2014/2015

Note: Committee members Healy, Marshall, Manwaring, Rae and Scott are not eligible to win the big money.

Name	Parke	Cootamundra	Wangaratta	Belconnen/Yass	Orange	Muswellbrook	Canowindra	Wyong	Tamworth	Total
Peter Scott	10	8	9							27
Peter Van de Waterbeemd	10	8	9							27
Jim Rae	10	-	9							19
Basil Healy	9	8	-							17
Grant Manwaring	-	8	9							17
Dave Paton	-	8	9							17
Peter J (Condo) Smith	-	7	8							15
Peter R. (Canberra) Smith	8	-	6							14
Bob Marshall	5	7	-							12
David Beake	9	-	-							9
Alan Brady	9	-	-							9
Darren Lydford	8	-	-							8
Dave Brown	7	-	-							7
Geoff Potter	-	7	-							7
Craig Thornton	7	-	-							7
Ian Connell	6	-	-							6
Brian Dowie	-	-	6							6
Paul Nightingale	-	6	-							6
John Bradburn	5	-	-							5
Grahame Mitchell	5	-	-							5
Gary Whitten	5	-	-							5

The Engineer

The engineer sat at his desk in despair,
 Slide rules and spread sheets were scattered everywhere,
 It was enough to drive him to despair,
 He knew his trusted spreadsheet, he could trust,
 Yet his model lay in tatters in the dust.
 Model aeroplanes were his passion,
 So why had this one ended in such an un-godly fashion!
 The weight was light and the C of G was where it should be,
 So why did it fly like a bumble bee?
 The decalage was right along with the trim,
 Just where the spread sheet said it should be.
 Murphy sat at his desk in despair!!!!!!!

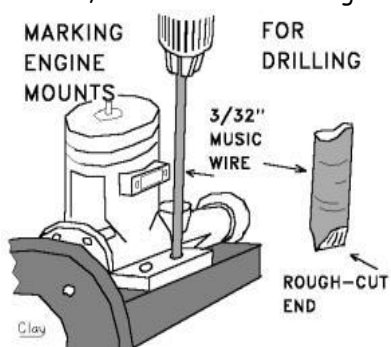
condo 21/10/14

Drilling Engine Mounts

When using those black plastic engine mounts, it's difficult to mark where the holes go to drill for the engine mounting bolts/screws, and still have all the holes aligned, and the engine right where you want it.

One good way to do this is to have the engine on the mount, in the plane, aligned just how you want it. Then chuck a piece of music wire, 3/32" or so, about 4-5 inches long in your drill, with a rough cut end out, and use this to mark your holes.

With just a little pressure, the rough end of the wire will make a visible mark, and even chew a small depression in the plastic, giving you "center punched" marks ensuring proper alignment for drilling.



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 for latest price list



Whilst at the Eastern States Gas Champs Peter Van de Waterbeemd took the opportunity to fly his Ringmaster and take part in the 7th Annual Worldwide Ringmaster Fly-A-Thon which was held over the weekend of Oct. 4-5, 2014.

This year a new record was achieved for this event:
 Grand Total Flights: 2,603
 Total Number of Pilots: 444
 Congratulations Peter.

THE BACK PAGE

From AL Lidberg: aalmps@aol.com
(Via SAMTalk)

Got an email last week from Tony Stillman at the AMA about a found model. He didn't describe it or its condition much and I decided it must be a Tomboy that I lost at the 2006 SAM Champs.

A package showed up this morning and sure enough, it was the Tomboy. This model was covered with polyspan and sprayed with floral spray and is in remarkable condition considering how long it's been gone. However, thinking about the very limited lifespan of rubber bands, I believe this one has been in someone's closet or garage for much of its 'vacation' - there's no other explanation for all 3 pieces staying together. Curiously, the AMA address sticker is unreadable as the ink has faded away. The AMA crew traced me thru my AMA license number!

So, boys and girls - put your name, address, phone number and AMA (MAAA in our case - Ed) number on your airplane as, sometimes, they do come home!

BTW: This model carried an original Mills .045 engine - subsequent Tomboys from my shop have carried Indian or Russian replicas.



From SAMTalk - Korda Powerhouse

Oh boy, do I remember that Korda Powerhouse! It was my first gassie completely finished by myself. Bought it at Frank Ehling and Jack Florenzie's favourite hobby shop (Austin's hobby shop) in Jersey City NJ. It was for a .29 but I somehow wound up putting an Atwood Triumph .49 in it!!! I was 15 years old, 1948.

Took it out to a nearby open field next to Teaneck Airport, all by myself, on a bus. Cranked it up, no idea what I was doing. Giant hi speed loops. Got two flights out of it. I have no idea what happened on the second flight. I don't remember if I even came back with the plane or engine. For all I know it might have gone off and away and I never found it. Thanks for the memories! Going to try for the Nats again this year with my Satellite 450.

Thermals, see you downwind! Dick Bertrand in Guatemala
rbertrand@searchlatinamerica.com

Dick, I also built a Powerhouse but, unlike you, I haven't had the courage to let it go. It has a McCoy 49 ignition in it rebuilt and chromed by the late Don Blackburn. From Al Pardue. awpardue@att.net

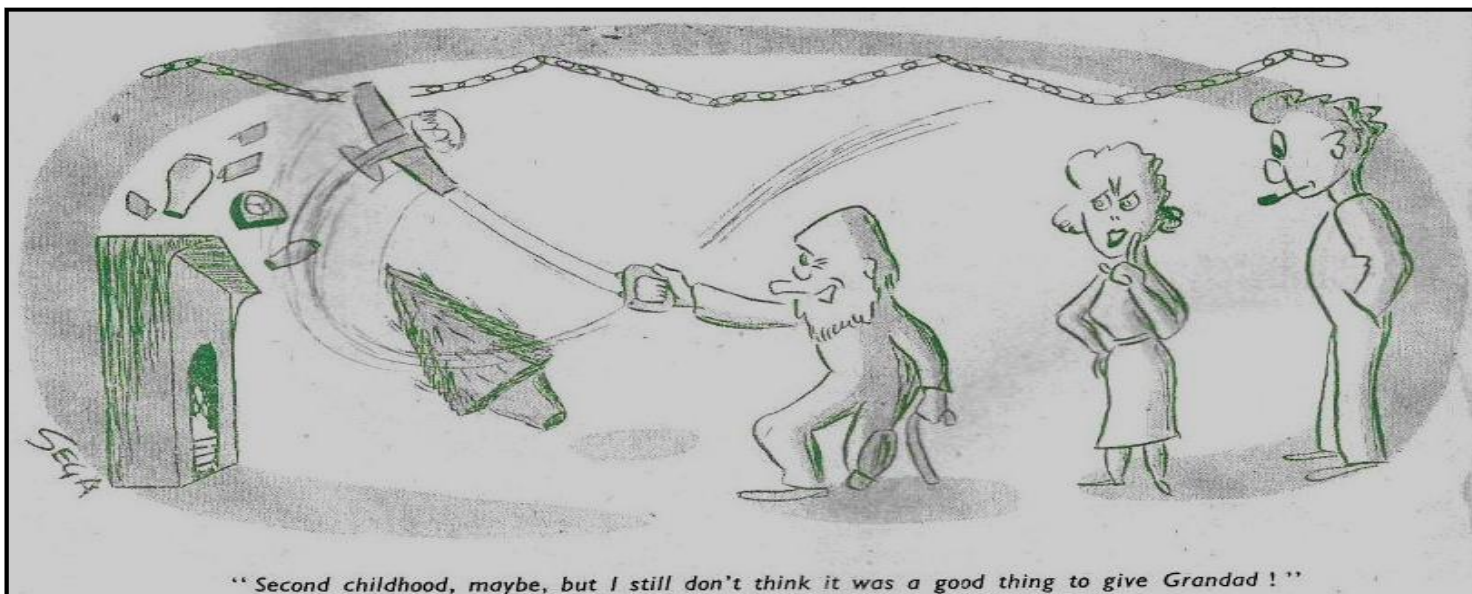
Old phrase..... (slightly reworded) Let it go. If it returns-it is yours, if it doesn't, then it never was (meant to be)
Mark Venter mventer@extra.co.nz

Well back in the day in beautiful Berserkeley California we used to say, "Let it go. If it (she - he - whatever) returns she - he - it - whatever loves you. If it doesn't return, hunt it down and kill it."

I have to say we had a better class of hippy on the street in Berkeley in the late 60's. Mike Myers mikemyersgln@charter.net



Al Pardue's Korda Powerhouse.



"Second childhood, maybe, but I still don't think it was a good thing to give Grandad!"