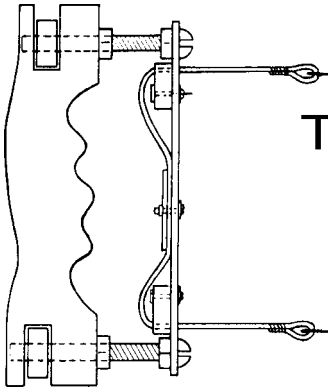

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THE VOICE OF CONTROL LINE AEROMODELLERS FROM AROUND AUSTRALIA

Number 134

Produced by the Victorian Control Line Advisory Committee

July 2009

INSIDE THIS ISSUE

Copy Deadline for next issue is:
Wednesday July 22nd 2009

PRODUCTION SPECIFICATIONS

Please remember when submitting copy that if you have access to a PC, or suitable typewriter you can save me retyping by giving me your items pre typed, and please use
a good black ribbon for best reproduction.
Best of all is to send a CD or use Email

Contest results should be tab delimited, ie use a single tab between each column of results, if submitted by disk or email. This makes formatting much easier on the editor.

Email address:- hbbailey@optusnet.com.au

COMING EVENTS

VICTORIAN CONTROL LINE CONTEST CALENDAR

Jul-5	CLAC Club Flying Day	Moe
Jul-12	**Speed,** Balloon Burst, Limbo, **2.5cc Rat Race (Riverside Trophy)**	CLAMF
Jul-26	Club Day and annual general meeting.	KMAC
Aug-2	CLAC Club Flying Day,Carrier Deck	Knox
Aug-9	**Speed,** Classic Stunt, Simple Rat, Simple Goodyear	CLAMF
Aug-23	Fun Fly & up to 2.5cc Day	KMAC
Aug-30	CLAC Club Flying Day (September meeting)	Moe
Sep-13	**Speed,** Navy Carrier, Vintage Combat	CLAMF
Sep-27	Club Day	KMAC
Oct-4th	CLAC Club Flying Day	Moe
Oct-18	**Speed,** 1/2A Combat, **F2F T/R,**	CLAMF
Oct-25	Fun Fly & up to 2.5cc Day, Classic B, Vintage A	KMAC
Nov-1	CLAC Club Flying Day Vintage Stunt/Vintage combat	Knox
Nov-8	**Speed,** Simple Rat, Aussie A, Triathalon	CLAMF
Nov-22	Monty Tyrrell Classic Stunt	KMAC
Dec-6	CLAC Club Flying Day	Moe
Dec-6	**Goodyear, Mini Goodyear,** Nationals Practice	CLAMF
Dec-13	**Speed, F2C Team Race,** Nationals Practice	CLAMF
Dec-20	Club day and Nationals practice.	KMAC

Dec-28 - Jan-5 2010

63rd Australian National ChampionshipsALBURY NSW

Events will be flown in order of printing.
Events in **Bold type** will be flown over hard surface.

CLAMF Frankston Flying Field, Old Wells Rd, Seaford (Melway 97J10), 10.00am start
Contact :- G. Wilson (03) 9786 8153,
H. Bailey (03) 9543 2259
Email :- CLAMF@ozemail.com.au
Web site :- http://clamf.aerosports.net.au/

KMAC Stud Rd . Knoxfield (opposite Caribbean Gardens) (Melway 72 K9) 10.00am start
Contact :- Ken Taylor (03) 97380525
John Goodge 0439 972 006
Email :- johnnogo@bigpond.com.au

CLAG Contact :- Graham Keene
Email :- gkeene@wideband.net.au
Details of venues can be found on web site www.clagonline.org.au

Brimbank Falcons Stadium Drive, Keilor Park Recreation Reserve, Keilor. (Melways ref 15 C 5). Regular flying day 3rd Sunday of each month 10.30am.
BFCLMAC club secretary is Mathew Shears.
Email: "Mathew Shears" matshears@aapt.net.au
Ph home 03 5472 3881 Mobile 0432 491 794
Club president is Alan Mattheison-Harrison
email: adharrison5@bigpond.com

COMING EVENTS

C.L.A.S. CONTEST CALENDAR 2009

***** Events which form part of Team Selection for 2010 World C/L Championships.***

DATE	CLUB	EVENT
Sun 5 Jul	KMFC	AGM, 2.5 Stunt and Club Racing.
Sun12 Jul	Doonside	event to be held at **SSME** F2B Aerobatics
Sun 19 Jul	KMFC	1.6 and Slow Combat
Sat 1 Aug	KMFC	CLUB STUNT (Novice)
Sun 9 Aug	KMFC	F2B Aerobatics and Novice F2B.
Sun 16 Aug	KMFC	Diesel Goodyear, Sabre Trainer Racing & 2.5 Diesel Speed.
29-30 Aug	COWRA MAC.	4th OILY Hand Diesel Day. (Contact Ian Cole 0427 015 792) Details TBA.
Sun 30 Aug	SSME	Slow Combat (Bonus points for WW2 Style model).
Sun 13 Sep	KMFC	Classic Stunt,Vintage Stunt & Palmer event. Details TBA
Sun 20 Sep	KMFC	Club Racing & Slow Combat
Sun 27 Sep	SSME	F2B Aerobatics
3-5 Oct	**NSW. Venue Twin Cities, Albury**	**CLAS.NSW C/L STATE CHAMPIONSHIPS. ** (F2A and F2C)**
3-5 Oct	**CLAS at Kelso Park**	City of Sydney Championships
Sun 11 Oct	KMFC	*Gordon Burford Day.* Stunt - using G B engines in any of the Australian planes selected for previousVeterans gatherings at Muswellbrook. Sabre Trainer fly past. Speed - any G B engine up to 0.19cu.in. Special event- simultanious flying of G B engined planes. Concours G B engined planes of any kind. Swap meet
Sun 18 Oct	KMFC	Club Racing and Diesel Goodyear
Sun 25 Oct	SSME	Phantom, Vintage A, Bendix T/R, Vintage 1/2A
Sat 31 Oct	KMFC	CLUB STUNT (Novice)
Sun 1 Nov	SAT (Kelso Park)	F2B Aerobatics
Sun 15 Nov	KMFC	Slow Combat and 1.6cc
Sun 22 Nov	NACA (Gateshead H.S.)	Classic Stunt & Cardinal Stunt. (I.Smith Ph:024975 2292)
Sun 22 Nov	KMFC	Vintage T/R, 1/2A, A (2 divisions)and Vintage B.
Sun 29 Nov	KMFC	KMFC Christmas Party and Fun Fly
Sun 6 Dec	Doonside. **To be held at SSME**	F2B Aerobatics
Dec 28th - 5th Jan. 2010	***63rd MAAA Nationals*****	

63rd NATIONALS. Albury NSW **(hosted by Victoria)

KMFC - (Ku-ring-gai Model Flying Club) - St. Ives Showground, Mona Vale Rd, St. Ives.
NACA - (Northern Area Contest Aeromodellers) - Gateshead H.S.,Pacific Hwy, Gateshead.
SAT- (Sydney Aeromodelling Team) - Kelso Park North, Henry Lawson Dr. Panania.
SSME - (Sydney Society of Model Engineers) - Model Park, Luddenham Rd, Luddenham.
MDMAS - (Muswellbrook District Model Aero Sports Inc.) - Mitchell Hill Field, New England Hwy, Muswellbrook
DOONSIDE- **(**to be held at SSME) Luddenham.

Adelaide Aeromodellers Club

2009 Events Calendar

3. Grass Rat Race – July 4th
4. Whyalla Show Classic Stunt, Slow Combat & Grass Rat – August 15 & 16th
   (dates and events to be confirmed by Whyalla MAC)
5. Triathlon – September 5th
6. Peacemaker / FliteStreak Stunt - October 10th
7. Vintage Combat #2 - November 7th
8. Novice and F2B Stunt – December 5th

Notes:

1. All AAC events at Unley Rd are on Saturdays, dates are provisional
2. Start time of all competitions is 11.00 am. Practice from 9.00am
3. All AAC events to be held at the AAC field, Unley Rd City opposite BMX Park
4. All entrants must be MASA members and with valid FAI licence
5. Safety straps required on all handles in all events.
6. Mufflers mandatory on all glow motors 2.5cc and above

For more info contact Peter Anglberger, Tel 8264 4516

CONTROL LINE AIRCRAFT MODELLERS OF FRANKSTON C.L.A.M.F.

The CLAMF Website continues to be updated at regular intervals and has plenty of pictures to view of events club members have been involved in.

It is also a mine of useful information on contest rules and recently had a “plans” section added.

They can be viewed at the CLAMF Aerosports website

http://clamf.aerosports.net.au/

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If you have just finished reading somebody else's copy of Australian Control Line News why not get in now and order your own copy. Australia and New Zealand residents cost $20A and other countries $30A. For this annual amount you will receive eleven issues of this newsletter, and be up to date on Control Line both in Australia and elsewhere. Please make payments payable to "Control Line Advisory Committee"

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Fax	(03) 9540 0609
Address	42 Carinish Road, Oakleigh South VIC 3167
Email	enquiries@bechborge.com

Engine Reconditioning Specialists

These businesses assisted CLAMF when the Toro Mower was in need of serious repair.

Subscribers are reminded that they can receive Australian Control line News by email at no extra cost. This option would allow you to view the pictures in colour as soon as it is ready to be sent to the printers for publication.

If you would like to use this option just make a request to the Editor by email.

Results from the NSW State Championships

EXPERT	Saturday Rd 1	Rd 2	Sunday RD 3	Total Rd 4	Total of Best Three
1Murray Howell					
Yatsenko Acrobat / Retro 60	1006.10	1045.25	1034.95	1037.60	3117.80
2 Brian Eather					
Firecracker / Stalker 61	965.45	1013.95	1020.15	1037.30	3071.40
3 Reg Towell					
Sea Fury / Saito 72	935.75	971.75	975.45	1003.35	2950.55
4 Frank Battam					
Yatsenko Acrobat / Retro 60	942.25	957.15	964.50	978.55	2900.20
5 Tony Bonello					
Enigma III / Saito 56	875.75	917.90	915.00	932.00	2764.90
6 Bruce Hoffman					
Firecracker / Saito 56	918.15	922.35	898.80	890.80	2739.30
7 Paul Turner					
Wind Wonder / Stalker 61	912.90	849.25	970.70	697.20	2732.85
8 Jeff Reeves					
Fanfare / RO-Jett 61	750.90	843.25	828.05	38.20	2422.20
9 John Quinlan					
ARF Nobler / Brodak 40	763.75	725.55	813.60	794.15	2371.50
Judges: Dave Simons; Joan McIntyre					

ADVANCED	Rd 1	Rd 2	RD 3	Rd 4	Total of Best Three
1 Andrew Heath					
Enigma / ST 46	**792.50**	**790.75**	**791.50**	DNF	**2374.75**
2 Paul Kenny					
Caudron / ST 46	748.90	**796.80**	**756.25**	**750.55**	**2303.60**
3 Robert Graham					
Genesis / ST 60	415.85	**736.15**	**786.00**	**702.60**	**2284.75**
4 Greg Frail					
Firecracker / OS 56 FS 4 stroke	**747.25**	**733.45**	**762.25**	728.85	**2242.95**
5 Michael Smith-Frail (Junior)					
Sukhoi / ST 46	**706.85**	**707.85**	**720.40**	DNF	**2135.10**
6 Warren Leadbeatter					
Pathfinder / ST 46	628.55	**689.25**	**734.25**	**654.90**	**2078.40**
7 Don Keyssecker					
Saturn / ST 51	**653.60**	**650.20**	**681.00**	644.85	**1984.80**
8 Les Spaltham					
Legacy / OS 46 LA	**644.55**	597.00	**658.85**	**652.45**	**1955.85**
9 John Anderson					
Vector 40 / OS 46 LA	00.00	**640.30**	**675.55**	**635.70**	**1951.55**
10 Denver Harvison					
Caudron Aigon / ST 51	**606.50**	**598.90**	**629.70**	575.60	**1835.10**
Judges:					

NOVICE	Rd 1	Rd 2	RD 3	Rd 4	Total of Best Three
1 John Anderson					
Vector 40 / OS 46 LA	293.75	**307.75**	**304.75**	**326.50**	**939.00**
2 Michael Smith-Frail					
Sukhoi / ST 46	**302.50**	**318.50**	**308.50**	290.25	**929.50**

CLASSIC STUNT	Rd 1	Rd 2	Best
1 Reg Towell Thunderbird / ST 46	**559.0**	503.0	**559.0**
2 Robert Graham Shark 45 / ST 46	509.0	**552.5**	**552.5**
3 Warren Leadbeatter Nobler / Fox 35	458.5	**524.0**	**524.0**
4 Greg Frail Coy Lady / ST 46	465.0	**504.5**	**504.5**
5 Don Keyssecker Kismet / OS 35 FP	395.0	**503.5**	**503.5**

VINTAGE STUNT	Static	Rd 1	Rd 2	Total
1 Paul Turner Wombat / Sabre 29	**125.5**	**292.50**	237.85	**418.00**
2 Frank Battam Hot Rock / Fox 35	**118.0**	267.25	**279.25**	**397.25**
3 Don Keyssecker Zilch / K&B 29	**120.0**	**269.00**	268.50	**389.00**
4 Peter Barclay Zilch / Fox 29	**124.5**	239.50	**249.50**	**374.00**
5 Denver Harvison				DNF
6 Paul Kenny				DNF

Newsletter Editor
Harry Bailey.
37 Thompson Street
Clayton 3168
Victoria
Tel (03) 9543 2259

John Quinlan's "ARF Nobler" / Brodak 40

Tony Bonello's "Enigma III" / Saito 56

Warren Leadbeatter's "57 Nobler" / Fox 35

Greg Frail's "Firecracker" / OS 56 FS 4 stroke

Paul Turner's "Wombat" / Sabre 29

Robert Graham's "Shark 45" / ST 46

Pit area

Photos courtesy of Warren Leadbeatter and Murray Howell

Murray Howell - "Yatsenko Acrobat" / Retro 60

F2B Expert: Reg Towell - 3rd : Murray Howell - 1st : Brian Eather - 2nd

Vintage Stunt. Frank Battam -2nd : Paul Turner - 1st : Don Keyssecker - 3rd

2009 NSW Control Line State Championships Team Race Results

Final Results - Bendix (160 laps)

Pilot	Pitman	Final Time	Placing
Justic	Owen/Norrie	7:22:29	1st
Bonello	Heath	08:22.3	2nd
Rothwell	Nolan/Bolliger	9:08:00	3rd

Combined Speed

Entrant	Class	Time 1	Time2	%
Blomberry	5	16.6	15.2	92
Justic	2	11.82	10.99	90.09
Heath	2	20.48	20.76	
Blomberry	2	12.31	11.6	

Diesel Goodyear

Pilot	Pitman	Heat 1	Heat 2	Best Heat	Final
Justic	Kerr	05:05.7	05:01.1	05:01.1	10:30.12
Bolliger	Goodwin	05:27.9	05:31.6	05:27.9	11:37.7
Ardill	Fairall	05:35.0	05:23.4	05:23.4	12:24.1
Bonello	Nolan	07:51.0	05:45.2	05:45.2	
Owen	Norrie	06:36.7	05:52.0	05:52.0	
Rothwell	Scully	06:55.8	07:28.3	06:55.8	

2009 NSW Control Line State Championships Combat results.

F2D

		1	2	3	4	5	f/o
1.	Murray Wilson	W	W	B	W	W	
2.	Tom Linwood	W	L	W	B	L	W
3.	Graeme Wilson	W	W	L	L		L
5=.	Michael Comiskey Snr	L	L				
5=.	Michael Comiskey Jnr	L	L				

Shutoffs were used by all competitors as per F2D rules.

Vintage

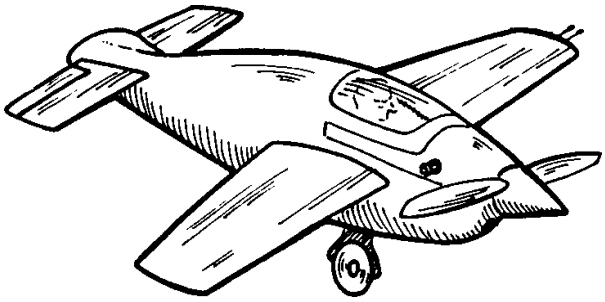
		1	rep	2	3	4	
1.	Graeme Wilson	W		B	W	W	Ironmonger/Andural, G20D,G15G
2.	Steve Rothwell	W		B	W	L	Andural, R250
3.	Tom Linwood	W		W	L	W	Andural, R250
4.	Robert Owen	W		W	L	L	Andural, Norvel Glow
6=.	Michael Comiskey Snr	L	W	L			Andural, G15Glow
6=.	Murray Wilson	L	W	L			Andural, CS Oliver
8=.	Walter Bolliger	L	L				Warlord,
8=.	Michael Comiskey Jnr	L	L				Andural, G15 Glow

1/2A

		1	2	3	4	5
1.	Graeme Wilson	W	W	W	B	W
2.	Robert Owen	W	W	L	W	L
3.	Peter Norrie	W	L	W	L	
4.	Bob Fisher	L	W	L		
6=.	Walter Bolliger	L	L			
6=.	Murray Wilson	L	L			

2.5cc Slow

	1	2	3	4	5	6
1.Graeme Wilson	W	W	W	W	W	W
2.Michael Comiskey Snr	W	W	L	W	B	L
3.Bob Fisher						
4.Peter Kenny						
5.Murray Wilson						
6.Robert Owen						
7.Peter Norrie						
9=.Robert						
9=.Neil Holden	L	L				



Results from the Western Australia State Championships

EVENT 13/14 JUNE 2009

F2C Team Race

TEAM NAME	HEAT 1	HEAT 2	HEAT 3	HEAT 4	FINAL	PLACING
M.Wilson / Poschens	4:04:13	3:16:94	4:08:75	DQ	7:02:67	1 st
Letchford / Walton	3:42:84	3:30:46	3:22:16	DNF 0	7:26:32	2 nd
R.Leknys / Morrow	3:44:99	3:51:57	3:45:44	3:34:59	DNF 28	3 rd
Bellis / Gannon	3:42:84	3:40:03	3:48:14	DNF 28		4 th
Hoogenkamp / C.Leknys	DNF 96	7:03:16	DQ	3:53:51		5 th
G.Wilson / S.Leknys	5:13:78	5:02:32	-	-		6 th

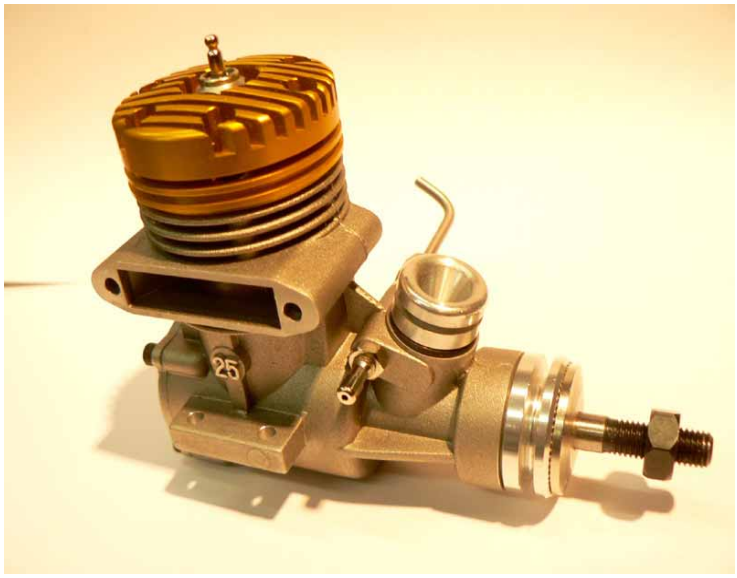
EVENT 13/14 JUNE 2009

F2F Team Race

TEAM NAME	HEAT 1	HEAT 2	HEAT 3	HEAT 4	FINAL	PLACING
R.Leknys / Morrow	4:06:85	97 DNF	3:59:88	-	8:19:62	1 st
Letchford / Walton	4:06:34	-	4:22:47	-	8:35:01	2 nd
M.Wilson / Poschens	4:10:65	DNF	3:53:38	-	9:48:38	3 rd
Bellis / Gannon	4:23:47	4:08:44	4:22:03	4:16:97		4 th
R.Fry / Kirton	5:13:97	4:16:75	4:18:21	4:21:37		5 th
G.Wilson / C.Leknys	4:31:53	4:27:03	4:19:94	-		6 th
Sherburn / Dyson	-	5:20:13	5:19:47	-		7 th
B.Fry / S.Leknys	DQ	-	-	-		8 th

Pictures by Jim Stivey

GMS 2000 Series 25 ABC Engine for Classic B

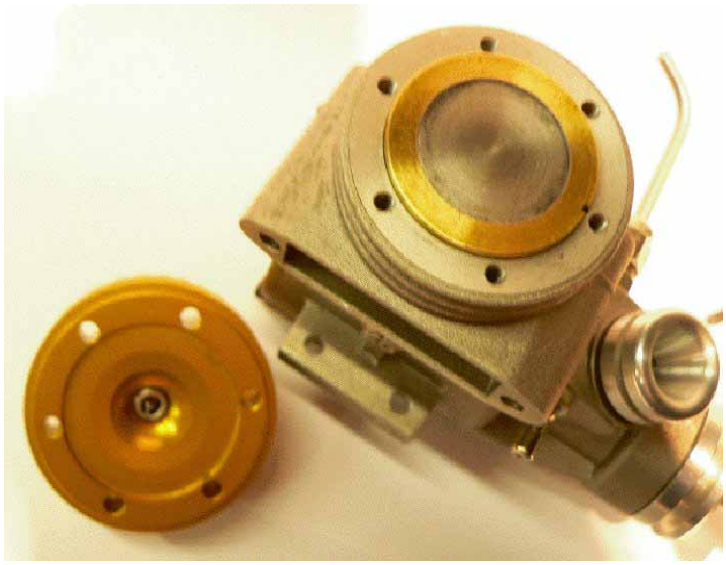


Now that the Australian Classic B rules allow us to chose a 0.25ci twin ball race engine to power our models many of us have been looking at the possible list candidates for the best platform. What we have to realize is that all of the current allowed engines are basically designed as sports type R/C engines and they are designed to produce optimum power throughout a range of RPM and they are definitely not designed as out-and-out racing engines. Materials and design are therefore quite a compromise. Some of the engines have been quite lightly built to meet the demand for budget costing, and engine inlet, exhaust and transfer timings are usually quite mild leading to fuel economy (laps) rather than speed in their standard form.

North American racers already have some considerable experience with twin ball race engines as they can use any single bypass .29, or any engine up to, and including 28's. Engines such as Webra Speed 25's, MDS and MVVS 28's and OS 25 FX's have been used with varying degrees of success

For the choice of the GMS 25 we turned to Les Akre, a well known exponent of B team race in North America, this is what Les has to say about the GMS 25:

"After much thought, and careful evaluation of the available choices, I chose the GMS 2000 series, .25 ABC engine. The GMS had everything I was looking for in a race engine, and more. First off, the P/L is a true ABC set, with chrome in place of the nickel that seems to be prevalent in the liners of today's engines. The generous timing windows, in conjunction with the liners above average thickness, provides an extremely stable platform for maintaining roundness, and providing excellent power.



The piston is well machined, and incorporates a machined taper at the topside of the piston crown. This taper (found on most good racing engines) prevents the top edge of the piston from the susceptibility of catching on the edges of the timing ports in the liner. The P/L fit is extremely tight when new, so tight that it squeaks when you turn it over. This was very unexpected, yet welcome, as most R/C engines are set up rather loosely.

Having found this, I expected that this engine with its tight P/L fit would restart rather well, I was not disappointed!

The liner is of the flush style, in that the piston at TDC is flush with the liner top. This type of P/L system was first used by Super Tigre on the second variation of their front rotor X-15 series. The head, machined from solid bar stock, also fits flush on top of the liner, and uses the typical bubble chamber with tapered squish band. The connecting rod (bushed both ends) is retained within the piston by Teflon discs which fit into machined grooves on either side of the wrist pin. To me, this method appears better than the Teflon pads used on some engine makes, that rub on the liner.

The crankshaft is well made for a sport engine of this type, and incorporates a fillet at the front of the timing window, same as you would find on the expensive racing engines such as the Irvine .15 etc. The crankshaft is precision ground and fits well to the bearings.

The crankcase is the typical one piece style, and is quite robust, but not overly so. The overall machining of the parts for the GMS engines is more typical of what would be found on the top end O.S. MAX engines. It really is that good! The bearings supplied, while not bad, are not among the best either, and while I've not had any trouble with mine, they are a bit rougher than I like. The price ($100 AU) is lower than some competitor's plain bushing engines, making this engine a truly excellent buy."

Sadly, there is no control line version available, so one must supply, or find someone to supply a venturi for this use. I used an old Rossi .15 spraybar, with a Super Tigre needle valve, and a home-made peripheral jet venturi choke size of .210" or 5.3 mm. There are many other options available, limited only by ones imagination. There is a provision (a flat section cast into the sides of the intake boss) for a hole to be drilled right through the middle of the intake boss, for those of you that prefer the conventional spray bar through the middle of the venturi.

How did it run? I bench ran the engine, running a couple tanks through to do a bit of a break-in, then commenced testing. The engine was run completely stock, minus one head shim. This set the head clearance at .008" which is where I left it.

A 7x7 APC sport prop was used for all testing and flying. I obtained 18,400 rpm on the 7x7 APC and 10% nitro fuel, using the aforementioned .210", (5.3mm) dia venturi. My range fuel mix, consisting of xylene and isopropyl alcohol in addition the regular components, was within 300 rpm. Flying tests were done shortly before the first competition, and the results were promising. On .015x60' lines the new airplane and GMS .25 did a solid 16.5/7 and 42 laps on 10% nitro fuel. Later testing, showed the range fuel giving a solid 16.5/7 as well, but with 54 laps! A solid 12 lap gain with no decrease in airspeed. Restarts....well, all I can say is SUPERB! One or two flicks every time, credit the wonderful P/L fit!

In closing, I can certainly recommend this engine for any racing event where the rules allow its use. It is inexpensive, well made, runs strong right out of the box, and restarts like a dream! What more could one want?

As for other mods... I tried a timing change on a spare crank then bench ran the engine with both within 10 minutes of each other. No difference in rpm was noted on the bench run. It was a bit more difficult to needle though. The modded crank had the timing delayed on closing only (60 deg), as the opening time (35) was fine.

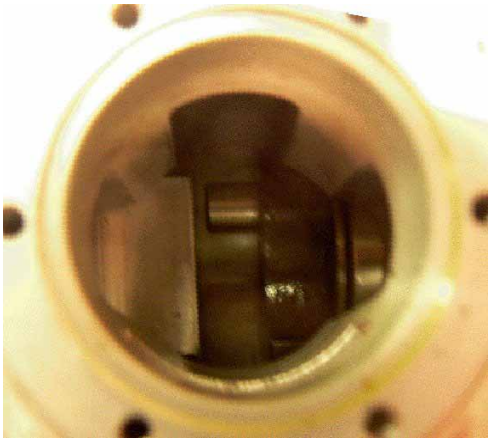
Props used were the std. 7x7 APC sport flying prop, and a 7X6 APC sport. The 7x6 was tried with the thinking that maybe the timing difference would be noticeable in a higher rpm range. It was not. So at least for me, the timing change did nothing to improve the engines performance. It would seem it is optimized fairly well right out of the box! Even Tim Gillott was impressed when he tore the engine down to have a look.

My belief is that the place to get power in this engine is through choke size and compression. Although mine ran 16.3/7 with the .210" carb. I did make a larger carb to try...a .250" with a fuel finger in it. It definitely was faster, although range suffered accordingly. A good range mix should help.

The only other thing I can think of at the moment is to lighten the engine as much as you can. It is quite the beast compared with the FP's, LA's, and especially the Brodak's."

Thanks for those valued comments Les.

Authors Comments:



The only fault I can find with this engine is the excessive clearance between the crank pin and the backplate. My engine as supplied has a massive 1.5mm clearance see the photo! This problem could be solved by manufacturing another backplate with the clearance taken back to 012-008" or the fitting of a thin steel plate to the back of the backplate. There is a rather tasty cast- in-place alloy boss dead center at the back of the plate which would make an exceptionally good mounting point for a countersunk steel screw to attach the proposed steel plate.

I checked the timing and compression ratio of the engine I had received from Peter Coles at Model Aeroproducts in Sydney and the results are as follows:

Exhaust opens for 150 deg

Boost and Transfer are the same at 107 deg

Inlet timing is: opens 141 BTDC and closes 52 deg ATDC (total 194 deg opening).

Compression ratio: 11.8/1 without any shims (.007" and .009" brass shims supplied).

Head clearance without shims is 0.010 thou. I could probably get it down to .008-006" by lapping down the head and also bedding down the liner a fraction.

Les suggested the piston was level with the liner at TDC but mine is 010 short of the top at TDC, and the head is flat, so either the liner goes down or the head will have to have a grove cut in it to go further down into the liner so I can get my 008-006"

In summary the following is a list of what you get when you purchase a GMS .25 engine. Aluminum Brass Chrome piston/ sleeve construction. Gold anodized heat sink head. Ball bearing-supported crankshaft. One piece crankcase with a bead-blasted finish and 2 year warranty on all GMS engines.

INCLUDES: One .25 cid (4.07cc) airplane engine, one bolt-through muffler, one R/C carburetor, one muffler gasket, one glow plug, two allen key tools, two muffler screws and one manual and parts list.

REQUIRES: fitting C/L venturi, manufacturer suggests 5-15% nitro fuel and 8x4 propeller for break-in.

Specifications: Displacement:	0.25 cid (4.07cc)
Bore:	18mm
Stroke:	16mm
Output:	0.85 BHP at 18,000 RPM
Practical range:	2,400 - 19,000 RPM
Weight: (without muffler)	9.6 oz (270g)

Fitting Dimensions:

Center distance width across mounting holes:	1.5"	(38mm)
Distance between mounting holes same side:	0.59"	(15mm)
Length from front of crankcase to backplate screws:	3.0"	(77.7mm)
Width across mounting flanges:	1.8"	(45mm)
Total height of engine:	2.92"	(74.2mm)
Length from center of head to front of crankcase:	2.2"	(55mm)
Widest width of crankcase neglecting mounting flanges:	1.8"	(45mm)
Length from front of crankcase to center distance of front mounting hole:	1.87"	(47.5mm)
Height from crankshaft center to top of head:	2.3"	(59.2mm)
Crankshaft thread size:	1/4-28	

Lance Smith AUS 62894

CLASSIC B RULES UPDATE

Word has come through from our hard working 'rules rep' Reeve Marsh that the Classic B engine rules have now been officially updated.
Also, we are now on the FAI length of 15.92 m (or 52' 3") for Vintage A. What a great reason to toss those tired old 46' 8" lines away and make up some fresh 52's. Most flyers have a set or three of old lines that should have been retired years ago!
The decision to give Vintage parity with the FAI line length is based on practicality rather than nostalgia. Like it or not, we now regularly fly competition and practice Vintage A on hard surfaces with painted lines in places like Albury, Monarto, Whiteman Park and Frankston. The drought has ensured team race enthusiasts cannot always find or fly on a suitable grass surface.

At club events on grass, the circle will often be marked out for other events that use the FAI line length, so convenience is another factor. Imagine marking out another circle about 3 1/2 inches bigger. Confusion would reign supreme!

For pilots and pitmen to be able to use these set markings in the way they were intended, it is important to fly on a precise length that matches the already painted lines.

Now for the new Classic B. engine list:
Allowable engines: Any engine (max. .30 cid) manufactured for commercial sales prior to January 1, 1961. Any "modern" (max. .30 cid) plain bearing engine.
Any of the following modern ball race engines are allowed:
OS FX .25 GMS .25 Enya SS.25 BB (diesel or glow) Thunder Tiger PRO 25 BB Rothwell R320BR Irvine .25 ASP .25
Glow plug engines in the above list of modern ball race engines must use a 1/4" x 32TPI standard thread glow plug. No Nelson plugs, Turbo plugs or button heads are permitted in the modern ball race glow plug engines listed above.
Everything else remains the same. The existing OS LA & FP, Brodak, Enya, Thunder Tiger and other .25 PB engines can continue to be used.
As ball raced .25's are widely used overseas, these new engine rules will hopefully encourage Class B T/R enthusiasts from other countries like the USA, Canada & UK to come over and fly. There is already interest from a top USA team to compete at the next Albury Nats.
To date we have been working on OS 25 FX's along with the Irvine, GMS and ASP 25's. The FX has been first in the air. The engine is completely stock and is now into the low 16's/7, or just over 110 mph, with over 50 laps. Finding another 5 mph should be relatively easy. The supplied R/C carby has been replaced by an 8 mm venturi and a 3.5 mm OS spraybar. This gives an effective area of 23.18 sq. mm, which is probably as big as is practicable. The only other mod. has been to change the head shim from the supplied .008 to one that measures .002.
The FX and GMS are rated at .84 & .85 bhp at 18,000 rpm. Standard FP's and LA's are only rated at .60 at 15,000. So it can be clearly seen that the BR engines have a definite power advantage. The GMS is a true ABC engine while the OS features a dual layer 'Bi -Metallic' liner. This process uses a double layer of plating material rather than one thicker layer. OS claim that this plating process is more consistent, giving a more precise fit between piston and liner with better compression and longer life. So far so good with the Rocket test aircraft.

One of the main advantages is that the B/R engines will definitely last longer due to their more robust construction, particularly in the piston and liner area. They are designed to rev harder. A constant problem with the plain bearing engines was getting a liner to last a reasonable time. It was not uncommon to lose compression this way after just a small number of flights. So far the experience with the stock FX and a purpose built Rocket has been extremely favourable. The new engine has sounded very strong in the air with excellent starting and laps to burn.
Bottom line is that an FX can be easily bought at most model shops or from online places like Tower Hobbies from US $94.99 with big discounts available for multiple purchases. A GMS can be sourced in Oz for less than $100 or US $59.99 online. The GMS.25 is a popular choice for racing by U.S. flyers. Lance Smith will no doubt give up to date reports on his engine's progress.
It would be a good idea to get your flying mates together, chose an engine or two and save with a bulk order. You can then be racing in the Classic B circle for a relatively small outlay. And you don't have to find a good engine modifier to be on the pace. The performance is already there, straight out of the box!

John Hallowell AUS 1984

CONTEST RESULTS

2009 VMAA Control Line State Championships Results.

Flown at Frankston 21/6/09

Midge Speed		1	2	3	Best	km/h
1.	Ken Hunting	n/t	10.02	9.92	9.92	145.70
2.	John Hunting	11.875	11.15	11.545	11.15	129.63
3.	Murray Wilson	11.73	11.60	11.155	11.155	129.57
4.	Colin Ray	11.88	11.58	11.815	11.58	124.81
5.	Noel Wake	n/t	13.205	n/t	13.205	109.45

The Huntings prepare for Midge Speed

P Stein 1/2A

K Hunting 1/2A

1/2A Team Race		final
1.	C.Ray/P.Stein	7:23.81
2.	J.Hunting/K.Hunting	8:34.16
3.	M.Wilson/A.Lumsden	9:44.59

The three entrants elected to fly a straight up final. The Ray/Stein team were using a CTAH engine and the re-starts and pitting were terrific.

Alan Lumsden starts up the Oliver in 1/2A

Simple Rat Race	100 Laps Heat 1	Heat 2	200 Laps Final
1.C.Ray/J.Ray	109	dns	212
2.J.Hunting/K.Hunting	109	89	209
3.G.Wilson/M.Wilson	107	106	199
4.H.Bailey/P.Roberts	102	105	
5.G.Pretty/M.Poschkens	93	96	
6.B.Young/K.Maier	84	62 nps	

Close racing is typical for this event and the results show that the day's racing was no exception. Young/Maier had the speed to do better but re-starts were difficult to acheive. Pretty/Poschkens were over from S.A. to attend Murray Wilsons 21st birthday celebrations and joined in the fun with a borrowed model

Mini Goodyear ended the days activities.

Mini Goodyear		Rd. 1	Rd. 2	final
1.	G.Wilson/M.Ellins	5:03.07	3:33.75	7:29.91
2.	M.Wilson/P.Stein	3:45.16	dns	7:31.69
3.	C.Ray/J.Ray	4:34.34	4:24.29	8:49.47
4.	H.Bailey/P.Roberts	5:16.09	4:29.75	
#	J.Hunting/K.Hunting			
#	J.Hallowell/L.Smith			

= Withdrew from comp a/c damage during practice before event.

After 200 screaming laps the Wilson/Ellins team pipped the Wilson/Stein team by 2 seconds. The use of a hot thumb by Wilson/Stein would have made the results have a position reversal.

All entrants were using OS CZ 11PS engines.

John Hallowell broke a down line (single strand) when operating the shut-off in practice and the Dream Team snapped off the needle valve so could not compete.

CONTEST RESULTS

"Speed Competition 14th June at Frankston"

A reasonable amount turned up for our winter comp today, the forecast was for 13 degrees and 10-20 knot winds, but the weather turned out to be great.
We have been lucky with most of our speed comps over the years; I think GOD must have been a speed flyer.
I flew my 2 line .21 Nova Rossi in Class 2; it is a big and heavy FAI type with pipe. After detonating the piston previously on 30 nitro I decided to start off with low nitro 6% stunt fuel as I had made a new piston and wanted to gently build up to slightly higher nitro. (30% is really high nitro on a pipe and is a bit tricky) It did 273kph for 94%.
Noel flew 3 flights with his Nova 12 Class 1 but it was slow at 84%, maybe wrong prop as I tachoed one flight and it was only doing 30,000 rpm in the air. It should be around 34,000. He also flew his mono-line OS 30 Class 2, first flight was a bit lean, and then next time it did its usual 11 second run.
Lances Vintage Proto model had a loose prop that was slipping, and as it had no cut-out it shaft ran for 10-20 laps. The centre of the prop got so hot it melted and the hole in prop shifted about 3 mm sideways.
He flew again next flight [with new prop] and seemed ok.
Andrew had 3 consistent flights with his budget Nova Rossi 12, first 2 flights on 30% nitro, then he tipped the can and upped it to 40%, each flight was better.
He could not use his good prop which was faster, because a few weeks ago it threw a counter weight and damaged the model, so he used his old airframe, but with same power "package."

This model has done low 14 seconds with some real fuel i.e. 60%, but sometimes blows a plug, and being a budget team he uses 30% weedkiller, but wait till the Nats and to hell with the budget. Father Christmas is bringing some Nelson plugs!!!.
I had a flight of my number 2 Novarossi 12 to try a mini-pipe, I was happy with result as it did 99.5 of record, it has been a bit slow lately, maybe got the sulks as my number 1 N/R, did 13.64 at State Champs, but this record has not been ratified yet.
I tried a few things with my Profi FAI, A 4 mm shorter pipe was used to get the rpm in the 41,000 rpm range, and normally it won't go over 39900, even on lower pitch props the speed just drops.
I managed to get it to 41,000, but have to get the correct prop, to go faster forward at that rpm.
Perky only had 2 entrants so it is a bit hard to average 2 times for a result. This week I used my OS 15 diesel, I had heard they were useless and it lived up to its reputation.
Andrew was running in an S/T G20 15D he has built up for use in Classic Team Race in his Perky.
The Perky Class started off OK and now has died. It is a problem when people start these classes, then abandon them and we are left to pick up the pieces.
As usual we had Ron Savage timing, but soon he will be busy at the pylon flying his "Perky" which is 1/2 finished.
It is a good thing that we have people like Ron helping as the speed guys usually supply their own contest gear and are required to run the event themselves.
Our next comp is at Frankston on JULY 12th.

Andrew Nugent with his Class 1 model

ROBIN...

Pos	Name		Engine	Flight 1	Flight 2	Flight 3	Fastest	Km/h	%
1	R Hiern	Class 1	Nova Rossi 12	13.93	D.N.S.	D.N.S.	13.93	258.44	99.50%
2	R Hiern	FAI	Profi	N.E.L.	12.92	D.N.F.	12.92	278.64	95.51%
3	R Hiern	Class 2	Novarossi 21	N.E.L.	10.92	10.58	10.58	273.80	94.52%
4	A.Nugent	Class 1	Nova Rossi 12	15.68	15.50	15.35	15.35	234.53	90.29%
5	N Wake	Class 2	OS 30 VG	12.33	11.39	D.N.S.	11.39	254.33	87.80%
6	L Smith	Vintage Proto	Brodak 25 mk4	36.94	35.85	D.N.S.	35.85	161.61	85.80%
7	N Wake	Class 1	Nova Rossi 12	16.73	17.69	16.32	16.32	220.59	84.93%
8	N Wake	Proto	FORCE 21	D.N.F.	31.50	D.N.F.	31.50	183.93	76.59%

PERKY

R Hiern	Perky	OS 15 D	63.50	66.00	gave up	63.50	91.24	
A.Nugent	Perky	ST,G20-15D	ATT	ATT	51.91	51.91	111.61	

Left:- Ron Savages Perky nears completion. Engine is an OS Max11 .15

Right:- Line up of speed models.

63rd MAAA NATIONALS PROGRAM OF EVENTS

UPDATED May 12th - **DRAFT**

DATE	STADIUM	C/L GRASS FIELD	C/LINE HARD SURFACE FIELD	SPRINGHURST FREE FLIGHT FIELD	GLIDER FIELD	RADIO TWIN CITIES CLUB	TABLE TOP RESERVE	RADIO IBIS CLUB	SOCIAL EVENTS	DATE
Mon 28	REGISTRATION & PROCESSING PYLON & C/L & O/T	REGISTRATION	REGISTRATION	REGISTRATION	REGISTRATION	REGISTRATION PYLON SETUP	REGISTRATION	CLOSED	NIL	Mon 28
TUE 29	5PM - 10PM INDOOR HLG (F1N)	F2B AERO ADV & EXP	F2C TEAM RACE F2F TEAM RACE	F1C OPEN RUBBER	F3K R/C HLG, OPEN THERMAL	QUICKIE 500, 1/4 MIDGET	1/2A TEXACO, STANDARD DURATION	RADIO CONTROL FLYING PRACTICE DAYS	NIL	TUE 29
WED 30	6PM - 10PM INDOOR NIGHT, R/C SCALE STATIC PROCESSING (AM)	F2B AERO ADV & EXP	F2C TEAM RACE, CLASS 2 T/RACE, 1/2A TEAM RACE	F1A, F/F SCALE	F3K R/C HLG, OPEN THERMAL	F400, FA1	DURATION		SWAP MEET 7PM - 9PM STADIUM	WED 30
THUR 31	VINTAGE STUNT STATIC JUDGING	JNR COMBAT, F2D COMBAT	COMBINED & JET SPEED	F1G, OZ DIESEL, DAY SCRAMBLE	F3B GLIDER	F4C SCALE ARF SCALE LARGE SCALE	TEXACO		NIL	THUR 31
FRI 1	NO EVENTS	F2B AERO ADV & EXP, JNR 2.5cc R/RACE	OPEN RAT RACE, SNR 2.5cc R/RACE	P30, HLG/ CLG F1J	F3B GLIDER	F4C SCALE ARF SCALE LARGE SCALE	GORDON BURFORD, NOSTALGIA		NIGHT SCRAMBLE F/F FIELD	FRI 1
SAT 2	1PM - 6PM F1D, F1L (Practice allowed before event)	F2B AERO ADV & EXP, VINTAGE "A" T/RACE, BURFORD T/RACE	F2A SPEED	F1H	OPEN ELECTRIC GLIDER	F3A PATTERN, EXPERT, ADVANCED, SPORTSMAN	'38 ANTIQUE, 2cc		GET TOGETHER DINNER	SAT 2
SUN 3	5PM - 10PM PEANUT SCALE, OPEN RUBBER SCALE	VINTAGE STUNT, OPEN COMBAT	GOODYEAR, MINI GOODYEAR	F1B OPEN POWER	L.E.G ELECTRIC GLIDER	F3A PATTERN, EXPERT, ADVANCED, SPORTSMAN	HELICOPTER F3C INTERMEDIATE NOVICE		NIL	SUN 3
MON 4	5PM - 10PM INDOOR CLG HANGAR RAT, H/RAT SCRAMBLE	CLASSIC STUNT, CLASSIC "B" T/R, BENDIX, 1/2 A COMBAT	F4B SCALE, SOS SCALE	VINTAGE RUBBER	F5B ELECTRIC GLIDER	SCALE AERO	HELICOPTER F3C INTERMEDIATE NOVICE		NIL	MON 4
TUE 5	6PM - 10PM R/C INDOOR NIGHT	VINTAGE COMBAT	NO EVENTS	VINTAGE POWER VINTAGE GLIDER	GLIDER SPARE DAY	SCALE AERO	"TENTATIVE" SOCIAL EVENT SEA PLANES TBA	CLOSED	STADIUM	TUE 5
WED 6	CLOSED	NO EVENTS	NO EVENTS	NO EVENTS	NO EVENTS	NO EVENTS	NO EVENTS	CLOSED	NIL	WED 6

PRE-ENTRY COMPETITORS CAN REGISTER THE DAY BEFORE THE EVENT.

Demo Event to be decided upon

Scale ARF

Electric Assist Slope Soaring

Electric Old Timer

WANTED

Pressure nipple for OS 15

Brian Burke. 2-24 Apaloosa Court, Munruben, QLD 4125
Tel 07 3200 1308
brian.burke6@bigpond.com

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