

Torque Roll

National Control Line Racing Association

November, 2001

F2C Report

Presidents Corner

Dave McDonald

Can you believe it, the 2002 Nationals planning meeting has already happened? It seems that one Nationals just ends, and about 45 days later we are planning the next one.

Mouse II, guys in the last newsletter we asked for comments regarding Mouse II and should it be an official event? I am disappointed that when I last talked to Bob Whitney only 2 people bothered to comment? If you don't come forward and express your opinions how are we to know what you want? There has been a lot of talk about the way decisions are made. Well, the simple fact is this, if you have an opinion let Bob Whitney or John McCollum know. Otherwise when the decision is made don't complain that you did not have any input. I know that may sound harsh but that is just the way it has to be. We have to make decisions, and we will make them. So let them know your thoughts. I have added their address in this edition for your convenience.

I want to thank Sandy Frank AMA Dist. 8 VP and Bill Lee for their help in getting the Control Line Contest Board changed. For several years I have felt it important that all the areas of control line have their own contest boards, that has now happened. I have been contacted by a couple of AMA VP's requesting input. We have also been in contact with some members asking if they would like to be considered for the board from their area. The response has been very good to date, in the newsletter we have included a list of names for various districts that we would like to submit, if you would like to be considered, or have comments about any name listed please contact Dick Lambert or myself ASAP. This needs to be done by the end of the month.

Also a recent World Championship organizational meeting was held, with Bill Lee who is spearheading the effort. The officers of this organization have pledged their support, providing the AMA upgrades the facilities. If the AMA does not upgrade the facilities to adequately handle both the Nationals, and WC's then as I have told Bill we will withdraw our support. I hope that the facility issue will be resolved in a satisfactory manner for all concerned. If and when that does, we will need help in running the World Champs. The time frame is scheduled for the week prior to the 2004 Nationals. So pitch in and help, I think you will be impressed with the level of racing and the good time you will actually have.

Dave

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AN NCLRA "PLAIN MOUSE" EVENT?

John Bruman

HYPOTHESIS:

That the current MOUSE II event is a high performance, moderate to highly technical event, and that having two such .049 events is redundant and counter-productive to encouraging interest and participation in our sport. That the current state of MOUSE I competition restricts competitive participation to those with the technical abilities to either hand-fit and custom tune the Cox Killer Bee, or to design and hand-build customized, high performance

versions of the Cox reed valve engine.

A viable alternative to the current state of affairs, can be attained by restricting the MOUSE I event to plain bearing engines only, and abandoning one or more highly prescriptive current engine rules.

APPROACH:

To survey the .049 displacement plain bearing engines currently being used in AMA Mouse I competition (1 engine), as well as potential engines that may be suited for entry level racing, with minor rules changes.

To examine the known data on available engines, and roughly categorize them in potential performance level(s) and price/availability classes.

RESULTS: (SEE ATTACHED TABLE)

Two types of engines are currently used due to the prescriptive characteristics of current rules, and the current competition level of the sport.

The most widely used engine is a moderate to highly modified version of the Cox Killer Bee. Typical modifications can include head and cylinder replacements and shimming, crankshaft, venturi, and tank modifications, re-balancing, etc.

A second type of competitive MOUSE I engine, is the semi or total custom-built reed valve engine that usually includes ball bearing crank, multiple transfers, specialized metallurgy etc.

Four other currently available, inexpensive engines could be used with relaxation of the "reed valve" intake rule.

An additional four engines could be utilized with the abandonment of the requirement for "integral tank".

All of these eight engines could be successful in a relatively stock state of tune.

- With the exception of the Cox Tee Dee, any of these eight engines can be readily purchased for less than \$50.
- The current, highly modified reed valve engines could likely compete with several of the eight non-reed valve engines, and need not become "obsolete" by the relaxation of either or both of the subject rules.

Restricting this event to plain bearing engines, and relaxing the requirements for reed valve induction and an integral tank, can lower the technological and complexity demands for the beginning or intermediate racer, while maintaining an enjoyable and exciting level of performance

Editors note. Please send your comments to John Bruman 1833 E Granada Rd., Phoenix, AZ 85006

.049 Plain Bearing	Condition	Tank	Induction	Bypasses	Est. Retail	Sale Price	Perf. Level	Availability
Cox Babe Bee	Stock	Integral	Reed	Single	36	30	3	Current
Cox Black Widow	Stock	Integral	Reed	Single	40	35	2	Current
Cox Killer Bee	Stock	Added Opt.	Reed	Mult.	40	35(+10)	1.5	Current
Cox Tee Dee	Stock	Remote	Shaft	Mult.	70	55	1	Current
Cox Venom	Factory Mod.	Integral	Reed	Mult.	150/180	150/180	1	Out Of Prod.
Modified Killer Bee	Modified	Integral	Reed	Mult.	N/A	60-100	1	Limited
CS .049 Sport	Stock	Integral	Shaft	Mult.	N/A	35	1.5	Current
Norvel AME	Stock	Remote	Shaft	Mult.	45	35	1	Current
Norvel Big Mig	Stock	Remote	Shaft	Mult.	43	30	2	Current
Norvel Startup	Stock	Integral	Shaft	Mult.	45	30	2	Current
VA	Stock	Remote	Shaft	Mult.	49	49	1	Current
OK Cub	Stock	Integral	Shaft	Mult.	45	45	3	Current
Atwood Repro	Stock	Integral	Shaft	Mult.	65	45	1.5	Current (R/L)
Holland Hornet	Stock	Integral	Shaft	Mult.	70	60-80 (Repro)	1.5	Future Project (R/L)

Nelson

Competition Engines



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USA-FAI-F2C TEAM TRIALS

By Douglas Mayer

This year's FAI-F2C Team trials were scheduled in Los Angeles for the weekend of September 22 & 23. Months of planning for sanctions, park permits, peoples' schedules and the entire event were almost cancelled at the last minute due to the terrorist attack on America on September 11th. The airlines were barely back on schedule several days before the event and Bill Lee; the chairman for the event for the AMA had a tough choice to make. He contacted all the teams and consulted with the AMA, and at the last minute he decided to continue with the event. In the world of control line racing, a lot was at stake, and I know the months of planning on every ones behalf was also at stake. Because of all the turmoil with the airlines, several teams decided to drive all the way to California instead of flying.

The flying site at Whittier Narrows in El Monte California (Los Angeles) is a fantastic facility. There are 3 painted blacktop circles, 2 grass circles and a RC area. The event was held inside the speed cage which has a permanent 15'-0" chain link fence with a big gate at the pits. The other 2 blacktop circles were used all weekend for practice and to get motor settings before heats. A permanent steel structure serves as the jury booth, elevating the judges 10'-0" above the action. This proved to be quite a challenge as fellow racers had to hoist Tom Knoppi and his wheelchair up to the platform, and back down at the end of the day. That jury stand is definitely not ADA accessible. Outside of the gate to the speed cage, 3 alleys are painted on the ground for the pits and processing area.

The cooperative effort to make this event possible was a living tribute to our American way. John McCollum brought his generator, the Aschers brought a PA system, Bill Lee brought penalty flags and vests and the local clubs brought general racing equipment, (clocks, lap counters, line pull scales, scoreboard) and most important of all, PEOPLE!! That's right!! We had a huge crowd of volunteers who spent their weekend timing and officiating this contest. All the local clubs helped with the racing efforts, (stunt, scale, speed, carrier, combat and of course racing). What a way to show support, so next time one of your local clubs needs your support, help them out!!

Friday was practice and tech inspection day. Only eight of the ten USA teams showed up in Los Angeles for the weekend. Rookie teams Rolley/Rolley from

Denver and Land/Jackson from San Jose did not show up. The other 8 teams were on hand for the final tech inspection Friday evening. The weather was beautiful and the jury decided to do the tech inspections on a picnic table at the park instead of returning to the hotel and smelling up the room with stinky diesel fuel. Smart move guys. Finally the teams drew numbers and a matrix was developed for the Saturday and Sunday heats.

The flying site was bustling with activity on Saturday morning. For those of you who think that Los Angeles is always sunny, guess what? It's not true. A thick morning coastal fog was looming over the flying site at 8 AM. However: this kind of fog burns off by 11:00 or Noon, which can really screw around with your motor settings. It's fair to say that your motor setting from one hour to the next will not be any good, and the teams realized that fact by constantly running practice heats in the extra circles prior to their races. A pilots meeting and a timers meeting kicked off the events for Saturday. Head Jury member, John McCollum required that 2 of the rookie teams, Kerger/Kruse & Wallick/Wallick fly a demonstration flight with veteran team Ascher/Ascher. The demonstration flight ended at 33 laps when one team blew a pit, the next team crashed into the errant plane, and the veteran team over-flew the whole mess and came in for a clean pit stop. John stopped the race and called all the teams to the jury booth for a private meeting. It was determined that the pilots showed adequate flight proficiency to continue with the event and the first heat began. The flying on Saturday was somewhat erratic with teams missing pits, pilots flying too high, pilots getting way behind their planes, and just some general bad racing including crashes. The first heat ended with a DQ of team Kerger Kruse and a crash of Braun Kusik. The whole heat was stopped and Braun/Kusik and Wallick/Wallick got a "re-fly" for the heat. Intermixed with some poor racing, were several good heats and several good posted times. In heat 2, Fluker/Lambert posted the time to beat at 3:21:66 with perfect pitting by Dick Lambert, while Willoughby/Oge were tight on their heels at 3:31:09. Holland/Lee got a DQ for being behind the airplane. In Heat 3, Ascher/Ascher were consistent and their times were just off the mark with a 3:34:80, while Braun/Kusik had an unfortunate day racing and crashed their #2 airplane. Ryan/Whitney looked strong but Whitney complained about his own pitting, they logged a 3:39:64. In heat 4

Fluker/Lambert repeated their strong performance with the second best time of the day at 3:29:33, Holland/Lee had a tough break at 67 laps while Ascher/Ascher posted a 3:51:63. Heat 5, the rookie teams of Wallick/Wallick and Kerger/Kruse both had a tough time in the air and on the ground. The settings were tough to get, the restarts were tough to get right, and neither of these pilots have ever competed 3-up, so keeping pace in the pilots circle was a whole new challenge. Nothing can prepare pilots for 3-up racing, other than getting out there and doing it. Heat 6, Ascher/Ascher posted a strong 3:33:95, Braun/Kusik came in at 3:54:90 and Willoughby/Oge came up short at 94 laps. Heat 7, Willoughby/Oge made up for heat 6 by putting in a good time of 3:32:14, Holland/Lee were at the 4-minute mark and Kerger/Kruse at 4:40. Heat 8 was the last scheduled heat of the day with Fluker/Lambert smashing the competition with yet the second best time of the day at 3:23:36, Ryan/Whitney in at 3:54:96 and Wallick/Wallick worked on their motor setting and logged an 8:06. The day ended with the only re-fly of the weekend, Braun/Kusik posting a 3:51:63 and Wallick/Wallick coming up short at 62 laps. By the end of Saturday Fluker/Lambert owned the three best times of the weekend, Ascher/Ascher looked strong with 2 times in the 3:30's and Ryan/Whitney had 2 times in the 3:40's. The remaining teams did not have 3 posted times. The challenge was set for Sunday because it will take some good racing and some good times to finish out this weekend.

Sunday morning started out with record setting fog. Our cars were soaking wet from the fog, the visibility had to be less than 2 or 3 hundred yards and even the RC guys were not flying at 8 AM which is really unusual, (of course they would have crashed anyway), but alas, fog doesn't stop control line racers, it just totally screws up your diesel motor settings. Braun/Kusik dropped out because of the loss of their #1 and #2 planes and Wallick/Wallick dropped out because they just couldn't get their motors to run at a competitive pace. This left 6 teams left for the final glory. On a final note on the weather, the fog did finally burn off, but Saturday turned out to be a much clearer day. The final times posted on Saturday were noticeably faster than the best times on Sunday which turned out to be a really hazy day. I judge the haze by looking at the San Gabriel Mountains in the distance. They were there Saturday, but they were notably absent beyond the haze on Sunday. Moments before the two minute warning of the first heat, Kerger/Kruse withdrew stating that they just didn't feel strong enough to be competitive. This left 5 teams left for the final blowout, (and a bit of confusion as I had to re-align all the heats and the matrix one last time). With only 5 teams in the final, Ryan/Whitney were faced with three nasty back to back heats and an extra 15 minutes was inserted between heats to give Todd and Bob a fair chance to catch their breath. With several teams only posting two times on Saturday the final outcome of the

team trials was teeter-tottering on the last one or two heats of the day. Anything was possible, but Fluker/Lambert put the nails in the coffin on Saturday with performances that guaranteed their first place finish. Willoughby/Oge never let up and their persistence and performance also made their success evident with a convincing second place. Ascher/Ascher needed a solid performance to keep Ryan/Whitney at bay. All eyes were on the master scoreboard as the times were posted heat by heat. In the end, Ryan/Whitney were a bit behind and would have needed a stellar performance to catch up, unless Ascher/Ascher dropped the ball. Ultimately, Ascher/Ascher turned in a third time in the 3:30's, placing them in a well-deserved third place. Ryan and Whitney were next in line at fourth place. Holland/Lee had a tough time on Sunday with some more DQ's and slipped into fifth place. The remaining three teams didn't post 3 times but fell into place as follows, Braun/Kusik – 6th, Kerger/Kruse – 7th, and Wallick/Wallick – 8th.

I would like to thank the following people (beside the race teams) for making this event possible. Howard Doering-[Contest Director] for his relentless pursuit for the park permits, AMA sanctions and his diligence as Contest Director. Joe Brownlee-[Tech inspector], Field Jury-[John McCollum, Tom Knoppi, Ken Mogi], Protest Jury-[Tom Fluker, SR, Doc Jackson, Chuck Rudner], Mike McCarthy-[MC-mix master Mike], and finally all the guys who came out and timed all the races with yours truly as pit boss, and editor [Doug Mayer].

On a final note: the participants of this event expressed a very important opinion. New teams are very important, and strongly encouraged to participate. This means next year, and the year after. It's a tough job to compete with these well-practiced veteran teams, as it should be. Those teams have earned their spot at the top, but those teams are encouraging the newer teams to hang in there, work hard, and most of all, don't go home discouraged. Go home with firm determination to be the best, and return next year to win. This sport needs new teams to continue to come out and work their butts off. That's what it takes to be successful at team race and this sport needs you on the race circle. If you don't currently compete at this event, you too should consider FAI team race. As with all of control line racing, young blood is necessary to keep our sport alive and well. GO USA!!!!!!! GOOD LUCK GUYS at the world championships, MAKE US PROUD!!!!

Editors Note, Thanks Doug for the write up, and congratulations to the teams.

Quickie Rat Venturi rules.

Bill Lee

I recently received and E mail regarding the use of the split sleeves that hold the KB carburetor in place and its use when making a Venturi for Quickie rat engines. I forwarded it to Bill, and he has sent the following information.

Quickie Rat is one of the most popular racing events in the United States. That is so because the rules are fairly well written to ensure that the event is and remains easily entered for a newcomer, and the performance of the models is sufficient to really RACE while still being slow enough to allow the less-than-great pilots to safely and competitively fly the models.

Please review the rules at your leisure: they can be found on the NCLRA web site at

<http://members.aol.com/DMcD143/quickrat.htm>

Periodically, I will write a brief note concerning pieces of the rules, hopefully to make everyone aware of the details of the rules and to explain the intent if it is not perfectly clear.

Venturis:

As we all remember, several models at the NATs were ruled illegal after the competition since the shape of the venturi was not in conformance with the way the rules were written. The rules as they then existed were quite clear and unambiguous, but obviously had not been read by some. After the NATs, while reviewing the problems that arose, it became obvious that the way the rules were then written, while quite clear, were very difficult to accurately enforce. They required a very small straight section of the venturi to exist below the needle valve, a section whose length was measured in just a few tens of thousandths. The change that was made to the rule was done to allow eye-ball checking of that aspect of the venturi specification. Yes, diameter of the venturi and the needle valve body still needs to be measured, but it is visually obvious if the straight section extends below the body, and easily measured with a set of calipers. The rule change did NOT impact the event in any way other than to make it easier to comply with and enforce the rule.

Another aspect of the QR rules is Paragraph 4.4:

"The engine must be of the front intake configuration. All air for the combustion process must come through the crankshaft.

Altering nominal sub-port induction, timed holes in the case and sleeve or other techniques to circumvent the requirement

that all air come through the specified venturi opening are not allowed."

This rule is also quite clear: ALL air into the engine MUST come THROUGH the venturi. No other means of air induction is allowed. As mentioned, this includes sub-port induction and other techniques. Caution is advised: if you use a venturi that is held in place with a split sleeve, the split in the sleeve MUST be blocked since it is an additional path where air may enter the engine. Many K&Bs came with a carburetor that used a split sleeve and a set screw where we put the needle valve. These ALSO used an O-ring between the carburetor

and the sleeve that sealed the base of the carburetor to the front-end case. If you use a split sleeve, you must use the O-ring, too, or some other sealing mechanism to seal the split in the sleeve. Best is to use a venturi machined to not need the split sleeve.

2002 B Team Race

Bob Whitney

The B TR event will again be held on Wed of the Nationals, the 100MPH speed limit restriction is being remove. All other rules remain the same. Contact me if you have any questions.

Bob Whitney

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Tuning Team Racing Engines

Submitted by Tom Wilk.

By E. C. MARTIN:

From Model Airplane News, March 1954

The advanced flier can improve his engine for ideal results in this highly demanding category. The qualities particularly desirable in a special team-racing engine may be summed up as follows:

1. High bhp output at moderate rpm and high torque throughout the speed range, in order to obtain high flying speeds; brisk take-off acceleration; and swing coarse pitch props to produce high airspeed at the lowest compatible rpm.
2. Instant starting, both hot and cold, without needle valve alteration from the optimum performance setting, when mounted inverted.
3. Exceptional fuel economy.
4. Low rate of wear, and ability to withstand severe abuse.
5. Ducted-exhaust system for cowling convenience, and general configuration and mounting method suited to a racing application.
6. Air intake easily accessible for choking, clear of hot cylinder and exhaust, and located to promote efficiency fuel feed from a conveniently placed fuel tank.

While various .29 engines can be used in team racing, the McCoy Redhead 29 most closely fulfils these requirements. To satisfy Point 1, a little modification is necessary. Point 2 is met satisfactorily. Point 3 requires modification. Points 4, 5 and 6 are "natural and the Mac lends itself easily to the required alterations. The writer can

recommend the following modifications from first hand experience. Let us first deal with the problem of torque. It is reasonably true to say that if the number of power strokes in a given time is reduced, then fuel consumption will also be reduced, but it also follows that the amount of energy produced in a given time will likewise decrease, with a consequent loss of power. However, if it is possible to increase the pressure acting on the piston during each power stroke, and the Engine is capable of conveying this pressure to the crankshaft in the form of torque, and then there will be an increase in available power for the given number of strokes.

Taking it a stage farther, if the increased pressure can be derived from the same quantity of fuel, which it can, then we will get more power from the quantity. Accordingly will be able, with a suitable prop, to move a given load a greater distance with the same fuel consumption. Hence the value of high torque.

The McCoy .29 is a racing engine and consequently has fairly advanced port timing to permit the high rpm necessary to very high bhp. As a result, the still expanding exhaust gases are allowed to escape rather early in the cycle in order to make room for the incoming low-pressure charge from the bypass ports. As we require increased torque at somewhat lower rpm, we can tolerate a slightly lower volumetric efficiency and may therefore retard the port timing. As a result, the exhaust port will open slightly later in the cycle and we shall extract a little more useful work from each power stroke.

The timing may be easily retarded in the McCoy .29 by simply lowering the location of the cylinder liner in the block as shown in Fig. 1. (See the FIGURES) As a result of experiment with three different engines, it was found that between .020 in. and .025 in. gave the desired results, and, since the effective stroke increased (that is the stroke of the piston the point where all ports are closed), the compression ratio is also increased slightly. A further increase in compression ratio accrues from facing the top of the block to enable the head to clamp the liner-flange in part. The result of raising compression, explained earlier in this series, is increased maximum cylinder pressure. The Mac is able, owing to ball bearings and high structural strength, to convert this pressure torque, but suffers an rpm and bhp loss on nitro methane and nitro propane fuels to detonation as a result. However suppose we accept this for the moment and use a prop of coarse pitch that holds the static rpm down to about 12,000. It will be found that this figure is appreciably higher than is obtained on the same prop before the modifications were carried out. You have, in fact, more power in the lower speed range and, with suitable props, will therefore get more miles per gallon.

The execution of this alteration is not difficult, and a lathe not essential. However is necessary to make a simple boring bar that is a good slip fit in the bore of the block, thus providing a pilot. The cylinder must, of course, first be removed by the block above a gas flame or in the electric oven, and withdrawing the liner with a wire hook.

The tool bit is first set in the boring bar as shown in Fig.

2 and the flange recess increased in depth by .020-.025 in. This may be checked with a steel rule, .015 in equivalent to 1/64 in. Finally, the tool bit is set so that the cylinder head seating is faced off by the same amount, and the flange therefore restored to its original depth. This cut may be executed progressively by increasing the tool bit cutting radius in steps in order to reduce the cutting effort. It is, of course, vital that the faces remain at right angles to the axis of the bore, and piloting is the only sure way of guaranteeing they do.

One undesirable result of lowering the liner is that the effective port area is reduced, and another is that the piston skirt uncovers larger area of the exhaust ports at top dead center. The latter occurrence does not have any noticeable effect on carburetion, although it must inevitably reduce suction. The former snag may be offset by increasing the lateral dimension of the liner ports by carefully the port bars down to a width of .030-.025 in. Care must be taken to insure that this dimension is maintained on the inside edges. The outer edges may be chamfered slightly all round the ports to assist gas flow. The port areas will be slightly larger than stock as a result of this measure.

The piston crown should now be reworked to improve its efficiency, and a little careful filing in conjunction with Fig. 3 will make the exhaust ports open simultaneously. Only the edges of the baffle should be touched as the interior of the piston is cored out to conform with the external contours.

Because we propose operating at lower rpm, the stock rotary inlet timing will be too advanced for maximum efficiency. The result is that blowback through the carburetor will occur with consequent wastage of valuable fuel. It is therefore advisable to reduce the angular dwell of the port opening after TDC from 44° to 30°.

There is no straightforward way of modifying the existing rotor and the simplest way is the construction of a new one. A glance at Fig. 4A will indicate how this can be done without too much trouble. If a piece of 3/16 in. duralumin sheet with a smooth surface is used and care taken not to damage it while filing, it will be found that good valve seal can be obtained by lapping on a flat surface with metal polish. The balancing holes can be supplemented by smaller holes in the appropriate places until perfect static balance is achieved.

The preferred, though rather tedious, alternative is carefully to make and fit an aluminum plug that will block off a 14 deg. segment of the stock rotor, and pin it in position as illustrated in Fig. 4B. This plug should not come in contact with the backplate face but should clear it by .033-.055 in. Again, small holes should be drilled 1/8 in. deep in the appropriate places to restore balance. An obvious advantage of the above is that the electro-chromed stock rotor may be used in conjunction with the steel backplate facing, with less

wear and friction than likely with the hand-made version.

A last refinement concerns carburetion. It is important that only fresh air go through the carb., and to this end, it is worth making long intake which is bent at right angles to project slightly from the fuselage. This also facilitates choking and creates the opportunity to relocate the jet assembly in a position most conducive to efficient fuel feed.

The jet should not be more than 1 1/2 in. from the backplate, or starting will become uncertain. A 1/4 in. bore x 3/8 in. Outside dia. soft aluminum tube may be used and threaded 3/8-32 to fit the backplate.

A 9/64 in. dia. hole drilled through.

The tube will take a McCoy .19 type spraybar assembly and give improved fuel suction to offset the suction loss occasioned by the liner modification. Volumetric efficiency will not be impaired, as more air than normal will be induced under the piston.

The final product is an engine, which is somewhat, detuned by speed model standards. It is capable of flying 20% farther on similar fuel, and in the writer's models only dropped 5 mph in comparison with a stock engine, but stayed invariably right on the bit through the entire tank. This frequently meant an unaltered average

speed and enabled the elimination of one, and occasionally two, pit stops in a 10-mile race.

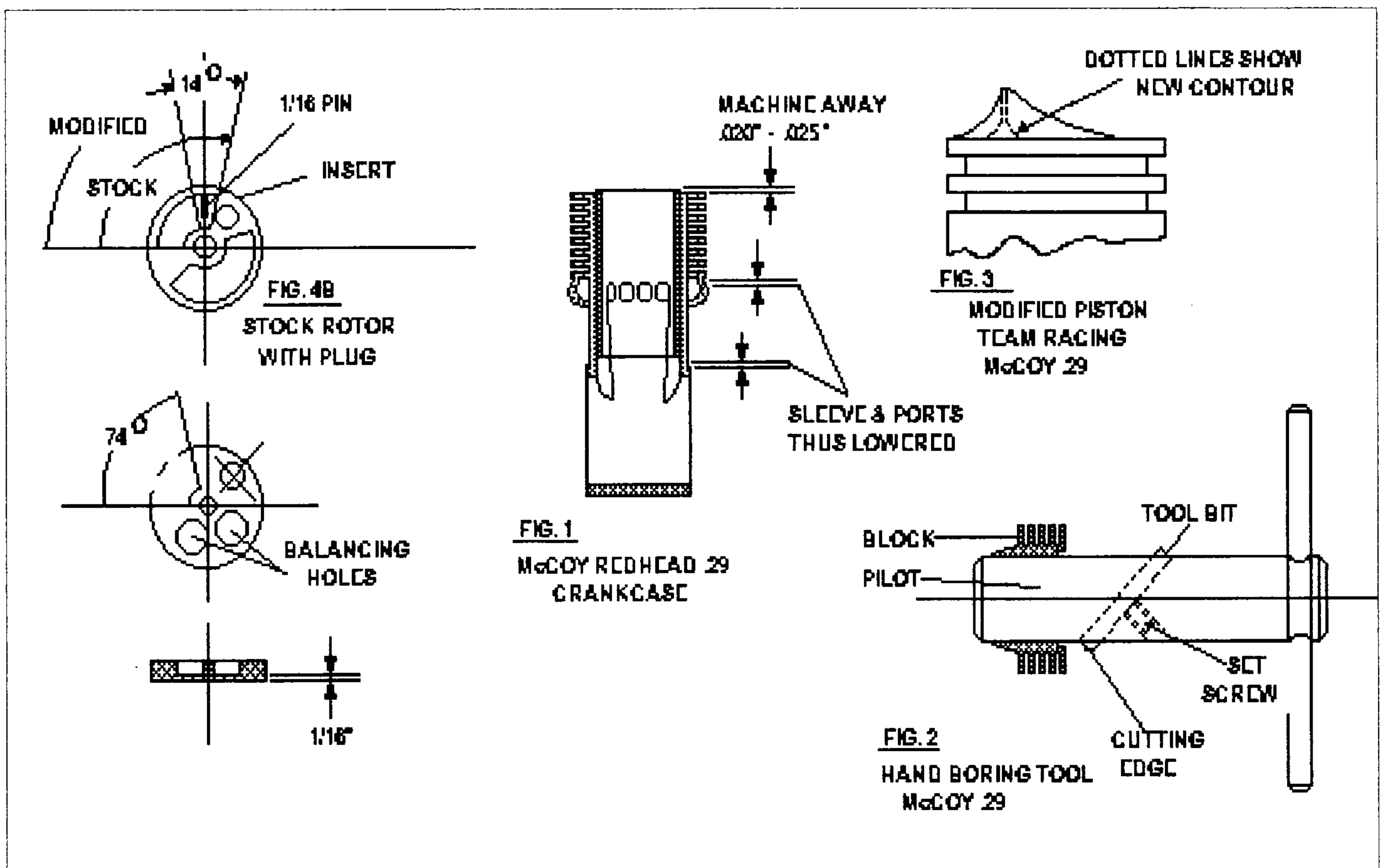
The high compression ratio built into the engine calls for a little fuel tailoring, and detonation will occur on nitro propane fuels.

However, the addition of 5 per cent of nitro benzene to the normal gasoline/nitro propane/SAE 50 mixture will usually cure it. If not, a .005 in. aluminum decompression gasket must be fitted under the head.

The addition of a further amount of nitrobenzene is inadvisable as it reduces the potential range per tank of fuel. Experiments should be carried out with compression and fuel for optimum performance along the lines suggested in an earlier article in this series, and checked in flight rather than on the bench. A medium heat long life plug should be used to reduce the risk of plug failure.

Finally, to get the greatest efficiency from your engine, the mechanical features should receive detailed attention and this aspect will be covered in a subsequent article dealing with speed tuning.

Note this is intended for information only, the use of Nitrobenzene is not recommended due to health concerns.



Mouse II

Guys should Mouse II be an official event? Don't sit on the sidelines, let your thoughts be known, if you really want to contribute, and not just complain about what happens then let John McCollum, and or Bob Whitney know your thoughts.

Also the suggestion has been made to mandate 10% contest supplied fuel for Mouse II? Let Bob and John know your thoughts on this also.

Bob Whitney 456 Garvey Rd. SW Palm Bay, FL 32908 321-676-0554	John McCollum 300 VanZandt County Rd.4717 Ben Wheeler, TX 75754 903-852-3033
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NCLRA Membership

It is time for memberships to be renewed. **THE NAMES LISTED BELOW ARE PAID. THE FOLLOWING PEOPLE ARE CURRENT FOR 2002.**

AGAIN THESE ARE THE CURRENT PAID MEMBERS!

Steve Eichenberg	James Gall
Don Adriano	George Lieb
Roger McIntyre	Harold Hadley
Bob Oge	Brian Silversmith
Jerry Meyer	Ron Duly
Doc Jackson	Adrian Land
Santiago Rodriquez	

If your name does not appear, you need to renew for 2002. If you have paid and your name does not appear, please contact Dick Lambert.

Dues are \$10 US, \$12 outside.

Dick Lambert
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Introducing the VA .049, MkII

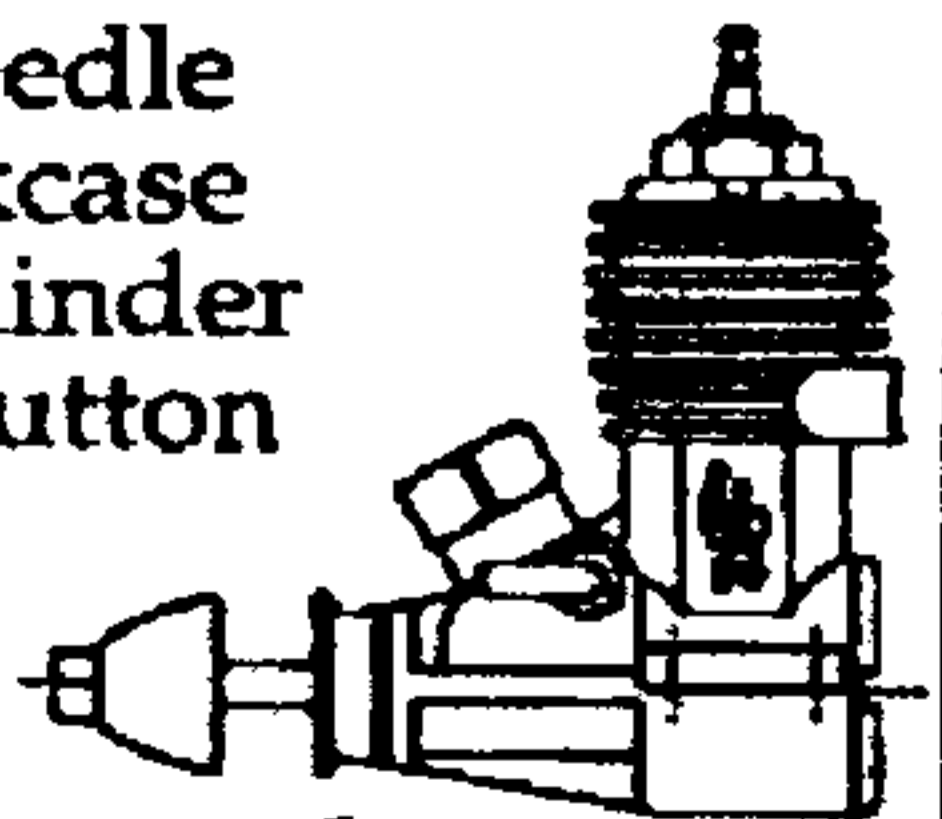
- Fine thread needle
- One piece crankcase
- ABC piston / cylinder
- Nelson plug head button

\$69.95

Shipping & Handling - \$5

Kitting It Together

6806 Third Street • Lubbock, TX 79416
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How About NCLRA Class 2 Goodyear?

Jim Holland

This is something that I am sure has happened to all of us - There's this contest coming up that's a six hour drive away from your home. You would like to go, but you and your buddy will need to fly at in at least 3 classes to make the trip worthwhile. So you look at the calendar listing and see a couple of classes you have planes for plus a couple of local rules events. You call and find out your local rules planes are not legal for their local rules classes and end up staying home that weekend.

Now don't get me wrong, I like local rules classes. They are the grass roots of racing. Arguably the most popular local rules event is 'Sport Goodyear'. To the best of my knowledge, Sport Goodyear events are flown under local rules in the following regions or states: the Northwest, New Jersey, Kansas/Colorado, Texas, and California/Arizona. My experience is that these events are quite popular. At the last race in Los Angeles, the Phoenix/SCAR Goodyear event had 6 entries, with more on the sidelines.

One thing I can say about these local Goodyear classes is that they don't share much common ground. A plane that is legal and competitive for one set of rules is probably going to be illegal and/or uncompetitive for the next set of rules. This is not a problem if you never travel anywhere to race and like racing against the same bunch of people all the time - but what if you don't? Right now, if you live in the west, you will need to own 2 and possibly 3 different planes to be competitive. This is why I believe there is room for a national set of Class 2 Goodyear rules. - A National Class 2 Goodyear could be the event that helps people to decide to go to that long distance contest, as well as providing an entry level class for racing .15's (I believe that a real need exists here).

So what will be the most important features of a successful NCLRA Class 2 Goodyear event? I think a lot can be learned from the NCLRA Texas Quickie rules, and have borrowed some of the following ideas from that event:

Models being kept simple so kit planes (like the Sig Shoestring or Buster) can be competitive with only basic modifications.

Engines being limited by price and availability rather than through an arbitrary list.

Allowable modifications to engines being carefully limited.

Race format and/or fuel capacity rules that allow Diesel and Glow engines an equal chance of success.

Three up races.

Let me know what you think. Send your thoughts to me via e-mail at jgmholland1959@yahoo.com or by snail mail care of the NCLRA.

ELIMINATOR PROPS
Steve Wilk
3257 Welcome Ave S
Crystal, MN 55422
763-531-0604
bwilk@uswest.net

Quickie Rat Engines

Now in stock K&B Quickie Rat engines, all have been gone through, and have the crankshafts timed up. New Rear Bearings in the engines that did not meet my standards. All engines have been test run. All work guaranteed for one year from the date of purchase.
 Bob Oge
 Model Engine Specialties
 815-286-3969
 boge@thestix.net

Articles

Thanks to all that have contributed articles to the Newsletter, it makes my job much easier. I appreciate it, and strongly encourage everyone to send in information. For the Newsletter electronic pictures are easy to import, so why not send some in today?

Control Line Racing Contest Board

The AMA has restructured the AMA contest boards, all control line events now have their own contest boards. I think this is a very good thing to get the rules being voted on by those that actually fly the events. The appointment of the persons to serve on the new board is up to the district VP's, but the NCLRA is making some suggestions for their consideration. A couple of VP's have already contacted me regarding people from their districts. I have contacted some of you on the list to ask if you are interested in serving on the board. Please look at the list from your district, and if you have comments regarding the person, or if you would like to be considered then you must contact Dick Lambert or myself ASAP as we will be putting together a final list by the end of the month.

Dist 1	None
Dist 2	None
Dist 3	Doc Jackson
Dist 4	D. Washington
Dist 5	Dick Lambert
Dist 6	Already appointed
Dist 7	Larry Dziak, Steve Wilk
Dist 8	John McCollum, Tom Fluker, Bill Lee
Dist 9	Jim Ricketts
Dist 10	Doug Mayer, Mike McCarthy
Dist 11	Todd Ryan

If you would like to be on the list for your district, or would like to be taken off the list please contact Dick or myself.

Dick Lambert	Dave McDonald
RLamb10769@aol.com	DMcD143@aol.com

Support those that support C/L Racing
Eliminator Props
Fox Mfg.
Muncie Model & Hobby
Nelson Competition Engines
Sig Mfg.



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