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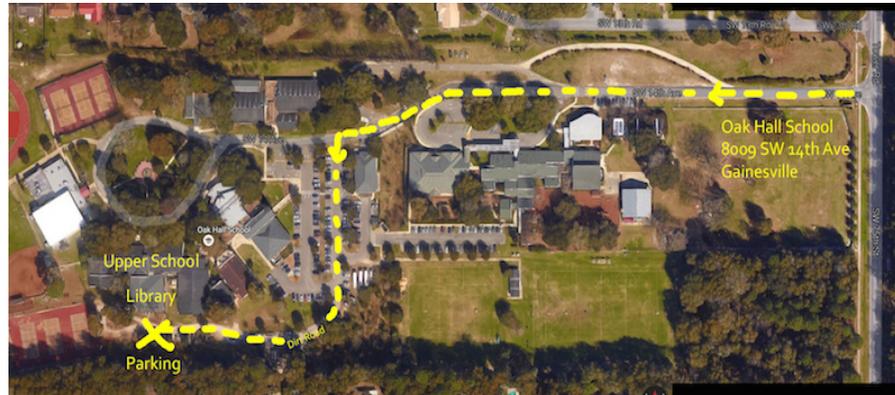
Gator Modelers on the move in February!

Next meeting:

6:00 PM, January 17th
HOBBY LOBBY
6111 W. Newberry Rd.
Gainesville, FL 32605

Gator Modeler Officers:

President: Jack Mugan
Vice President: Tracy Palmer
Secretary: Frank Ahern
Treasurer: Bill Winter
Historian: Bruce Doyle
Photographer: Paul Bennett



In an effort to ease overcrowding and time restrictions on our monthly meetings, club members voted to move our meeting, beginning in **February**, to Oak Hall School. More info will be forthcoming at the January meeting.

The Prez says...



HAPPY NEW YEAR EVERYONE. I can't help but wonder what the new year will bring us in new kits, tools and other modeling supplies. Will 3D printed kits become more available at a reasonable price? What new aftermarket products will we see? Our hobby continues to grow and the products just keep getting better.

Once again the arrival of the New Year affords us the opportunity to resolve to complete some projects on our bucket list. Maybe complete some of those models in the stash, or maybe just thin out the inventory. It is not too early to plan ahead for the annual club auction. This could be the year you did an article for the newsletter or put together a presentation for a club meeting.

Our club continues to grow, so we are moving our meeting place to much bigger space at Oak Hall starting with the February meeting. This space is big enough to meet our space requirements into the distant future. We can thank Mike and his employer for this fantastic opportunity. You will see the details elsewhere in this

newsletter.

Another major milestone for the coming year will be the launching of the new club website. Over a year in the making and a lot of work for Mike, but now at last we will be exposed on the Internet, and hopefully it will attract some new members. Mike will be our Webmaster and continue to keep the site fresh and interesting. Mike says it will be up and running by the January meeting.

Last month we enjoyed another Christmas Party at the “Condo Club House” thanks in large part to our hosts Bill and Nancy. My hat is off to Tony and Ann for the fabulous tasting turkey, as well as all those great side dishes everyone brought. A diet is definitely on the agenda for the coming year. The gift exchange was a hit, but not much stealing went on this year.

As is our custom, the new club officers were introduced at the party. Our annual awards were also given out, with the Club Member of the Year going to Mike and the Golden Knives going to Ed and Mike for their excellent service as club officers. Ed was also recognized for his eight years as Newsletter editor with a special plaque.

I saw no model stuff from Santa this year. Instead, we now have an Echo, a Dot and a Blue Tooth speaker so we can sit around and ask it questions. I even got a new router for the computer as well as a solid state Drive and a bunch of memory, so the old Mac is humming right along.

Last month’s meeting was surprisingly well attended considering it was held just three days after the Christmas Party. Frank gave a great presentation on the Douglas DC-3, which was very informative as usual.

Something I notice a lot of clubs do is establish themes for each meeting. We have not done this in the past, as we did not have the luxury of time to cover everything within the limited time allowed for our meetings. However, now that we will be able to spend more time sharing, I would like to know if this is something we want to start this year. It would be an interesting addition to our Show and Tell portion of the meeting. This way, if you do not have a newly built model for show and tell, then possibly you can bring a model, books or photos that fits the theme.

I hope to see you all at our final meeting at Hobby Lobby.

Christmas Party Highlights

The annual club Christmas party always ends the year on a high note. This one was no exception. We have photographic evidence:

Our hostess with the mostess – Nancy Hardt



Bill & Nancy: the dynamic duo in the kitchen





Plenty of gifts to exchange, and a high-tech fire



Lots of good food



Mike Martinez receives the Modeler of the Year Award from President Jack Mugan.



Ed Ingersoll is recognized for his 8 years of service as Newsletter editor.



Everybody (especially Blane Alt) went home happy!

Gator Modelers December Meeting Hi-lights

13 club members attended the Gator Modelers Club meeting on December 20th. President Jack Mugan opened with recognition of two guests, long-time former member Ryan Harden and new visitor Nick Guarcello. Mugan then led a discussion of a proposal made by former President Mike Martinez, that the monthly club meetings be moved to Oak Hall school, where he works. The advantages would be more space and no time restriction on the meeting. After the discussion a vote was taken and members unanimously approved that, beginning in February, club meetings will be held at Oak Hall. Martinez also said that progress is being made on construction of the club's new website. It is hoped that the new site will be operational before the next meeting. Mugan thanked those who attended the club Christmas party last Saturday, especially hosts Bill Winter and his wife Nancy, who have graciously made their condo available for club events.

Historian Bruce Doyle mentioned that he installed the club display of early jets in the downtown library. The display will remain there through January. Also coming in January is the annual Collectors Day at the Florida Museum on Saturday, January 21st. Doyle is making his table available to the club for a display of the Blue Angels models which club members have made.

The floor was opened for show and tell presentations by those modelers who brought something to the meeting. The door prize raffle was then held – results are listed below.

Finally, Frank Ahern did a presentation on the design, development and legacy of the DC-3, "The Plane that Changed the World".

Library Display – Early Jets

Bruce Doyle's well-traveled club build project is now installed at the downtown library in Gainesville where it will remain through January.



Gator Modeler Meeting Raffle Update

Aaron Alt was once again the winner of the completed model raffle. He selected a P-400 Airacobra kit from the club stash. The attendance raffle was held next and was won by Bob Lundeen. He chose the Monte Carlo car model kit for his prize.

Raffle Rules: You must be a Gator Modeler “Member-in-good-standing” in order to participate. If you attend the meeting you receive one raffle ticket and if you bring in a new completed model for show and tell you will receive one raffle ticket. The completed model should have been completed within the past year. **The maximum number of tickets you can receive per meeting is limited to 2.**

Gator Modeler December meeting models:



Jack Muga's Panther



Bill Winters '50 Chevy pickup



A.J. Kwan's 3D-printed Star Trek "Me"



Ed Ingersoll's "tiny" Sherman

Gator Modeler December meeting models: cont'd



Chuck Lassiter's Airacobra



Bruce Doyle's X-1 w/Chuck Yeager autograph!



Bruce Doyle's Panther



Frank Ahern's (tail-sitting) B-25



Tracy Palmer's (in-process) Sherman



Jack Muga's (in-process) Coronado

Gator Modelers Club Build of all the Blue Angels Aircraft-Update

The Blue Angels club build will be on display for the first time at Collectors Day on Saturday, Jan. 21 at the Florida Museum of Natural History. Those listed below, who have completed their model, should bring it to the January club meeting, boxed and ready to transport to the museum.

An updated list of aircraft and commits to build are listed below

U.S. Navy Blue Angels					
	Built	Scale		In Work	Scale
Demonstration Aircraft					
F6F-5 Hellcat	Ed	1/48			
SNJ Texan Beetle Bomb				Dan	1/48
SNJ Texan Beetle Bomb#2				Ed	1/48
F7U Cutlass	Jack	1/48			
F8F-1 Bearcat	Jack	1/48			
F8F-1 Bearcat Beetle Bomb	Jack	1/48			
F9F-2 Panther				Aaron	1/48?
F9F-5 Panther					
F9F-8 Cougar					
F11F-1 Tiger	Paul	1/48			
F-4J Phantom II	Mike	1/48			
A-4F Skyhawk	Paul	1/48			
F/A-18A/B					
F/A-18C/D Hornet	Paul	1/48			
Support Aircraft					
R4D Skytrain					
R5C Commando					
R5D Skymaster	Frank	1/144			
C-121 Super Constellation	Frank	1/144			
C-130 Hercules "Fat Albert"				Paul	1/72
C-130 Hercules "Bert"	Paul	1/144			
C-130 Hercules "Ernie"	Paul	1/144			
Additional Aircraft					
T-33 Shooting Star	Frank	1/48			
F-8U Crusader				Mike	1/48

Modeling Tip

From The "Just Glue It" Newsletter
Dave Henk IPMS Jax

Here's a Hobby Tip for dealing with Chrome removal.

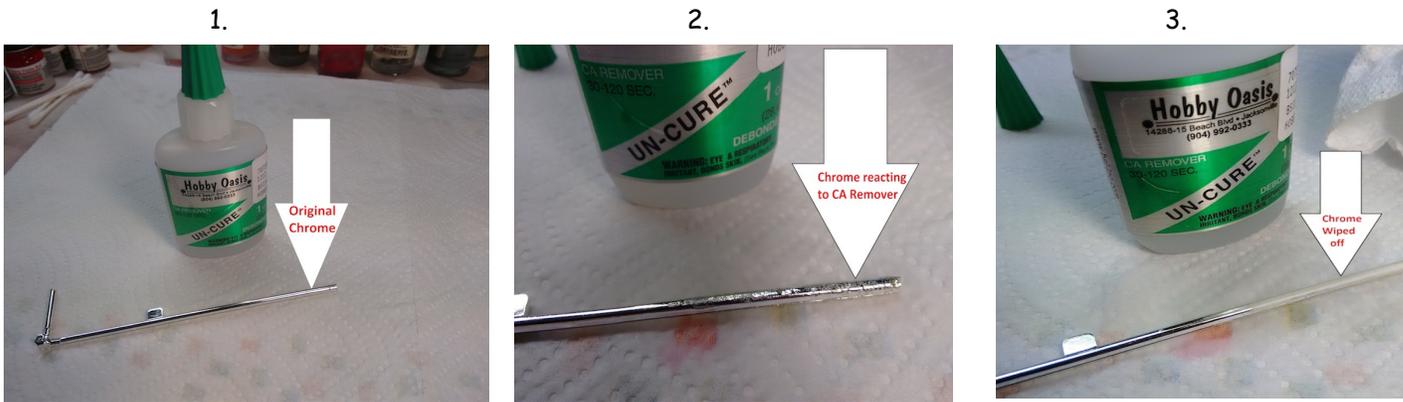
Do you hate the way Chromed Plastic looks? Would you rather do it with AlClad or Bare Metal Foil? If so, you have to remove the offending coating. I originally did this years ago by accident. I was gluing rubber tires on a RC Truck and dripped CA Glue on the Chrome Rim. No problem I'll just wipe it off fast with some CA remover. Wrong!! The CA Remover instantly stripped the plating off the rim where I wiped at the glue.

Here's a quick way to strip Chrome off plated plastic.

Step 1. Brush or drip some remover on the part.

Step 2. Wait a few seconds and you'll see the plating crinkling.

Step 3. Wipe off with a paper towel dampened with CA Remover.



Bill Likes...

By Bill Winter



This column will be quite a departure from previous columns because I would like to discuss top fuel (formerly, I believe, the AA/FD class) engines and funny car engines (which presently are essentially identical as far as I know). I became interested in this subject when I was building a "gasser" a family friend received the AMT 1:25 scale 1950 Chevrolet 3100 Pickup from an estate and passed it on to me. I was totally surprised by this gift in late November and set about building the model immediately (with due haste).

Back in the 1960's I built almost exclusively hot rods, specifically, gassers and a few "rail jobs." Back then the typical racing engine (of my dreams) had a blower (a.k.a. – supercharger), fuel injection and an air scope. I never wired my engines (and I didn't wire an engine until about 3 years ago!) and I never added fuel lines. In my current zeal to improve my modeling, I wanted to focus on putting a "modern" racing engine in this Chevy pickup. The kit provided a straight six; I replaced this with a 383 hemi from a 1941 Willys' gasser kit. I made my own fuel injector on top of the blower and added an after-market resin air scope (a.k.a. "bug catcher"). I'll talk more about the specifics of this build in a later column. This column will focus on REAL engines.



My primary sources for this article are 2 reviews that I found online. One review was from Hot Rod magazine (<http://www.hotrod.com/articles/hrdp-0805-funny-car-426-hemi-engine/>) (posted May of 2008) and the other review was from Popular Mechanics (<http://www.popularmechanics.com/cars/a12596/anatomy-of-a-top-fuel-dragster/>) (posted Jan 2011). I note the dates of these posts as the facts and figures quoted below may be slightly out of date.

With a supercharged, fuel injected 383 CID or 426 CID (cubic inch displacement) Chrysler "hemi" engine burning nitromethane, the 1960's top fuel dragsters produced ~1500 horsepower (HP). Today's top fuel and funny car engines can develop ~10,000 HP (see: <https://www.youtube.com/watch?v=t5tptWVwzOA>) ! How is this possible?

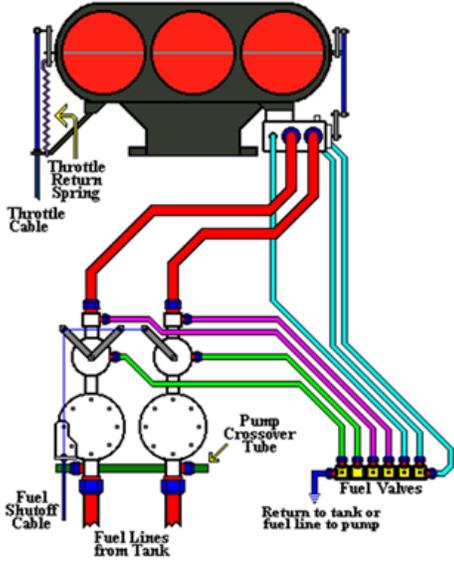
As I read the articles cited above, it would appear that the advances have been in the following categories (at least!):

- [1] Improved very-high-volume-pumping fuel pumps. These run off of the crankshaft so they can be very powerful.
- [2] Improved ignitions (more power to the spark plugs).
- [3] Double spark plugs (2 per cylinder!),
- [4] Increased engine displacement [NHRA now limits the maximum CID to 500 CID],
- [5] Increased number of fuel injectors; and
- [6] Engines specifically built for racing.

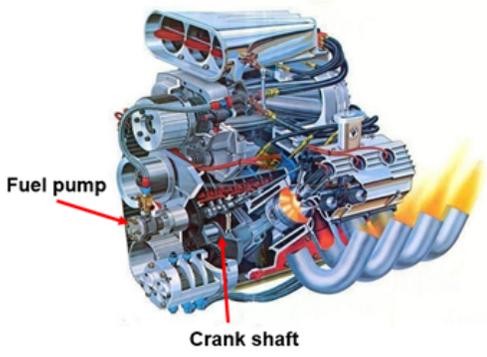
Let's look at some of these developments.

[1] **Fuel pumps:** Below is a cartoon of a fuel system using 2 fuel pumps. You should note that there are "return lines." During a top fuel or funny car run of ~4 seconds, fuel will be burned at =>1 gallon per second! The fuel tanks for these racing cars typically carry 18 gallons of fuel and about 14 gallons are used: ~4 gallons for the run and ~10 gallons leading up to and immediately after the run (nitromethane costs ~\$30/gallon). Present day fuel pumps can pump up at a maximum of ~90 gallons a minute! If the pump is running at 90 gallons per minute, it is pumping about 1.5 gallons per second. Therefore, even during the run the pump is pumping more fuel (1.5 gallons/second) that is burned (1 gallon/second; note: a 747 burns 1 gallon of aviation fuel per second). So where does the extra *unburned* fuel go? There is a system to return unburned fuel (the "return lines"). You see this in the lower right portion of the diagram.

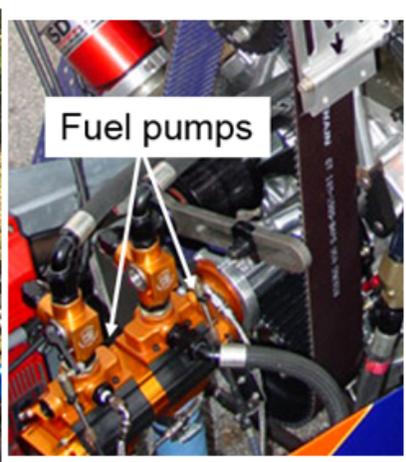
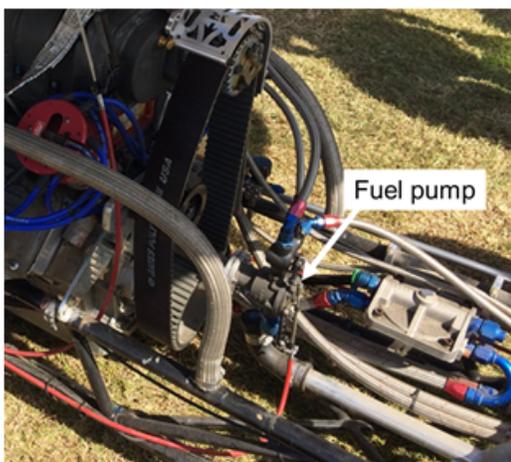
Twin Fuel Pump Schematic



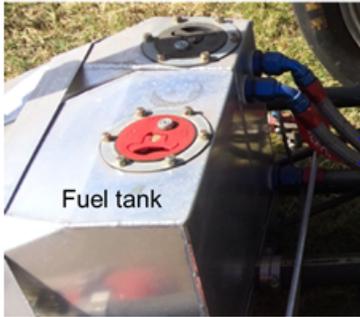
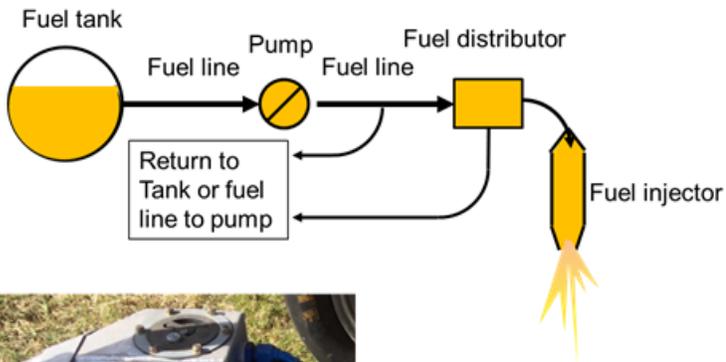
The diagram below shows the fuel pump connected to the crankshaft for lots of power!



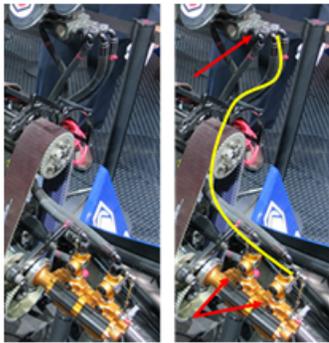
I believe that currently such drag engines use only 1 fuel pump (see below, left). This photo is from a Mopar show that Jack Muga and I attended in Ocala outside of the Garlits' museum. There are other photos (on the web) of engines with twin pumps (also see below, right).



The basic plumbing of the engine (in terms of fuel is as follows):



This photo shows 2 lines each going to a separate fuel pump (the model above only has 1 pump which is the current practice).



This image shows the double fuel pump arrangement (red arrows) with a line from each fuel pump (yellow) going to the fuel distributor (red line)

The next photo shows the fuel distributor box connected to fuel injectors (left panel). Below on the right is an individual fuel distributor block.



Fuel lines from fuel distributor to fuel injectors.

Fuel distributor



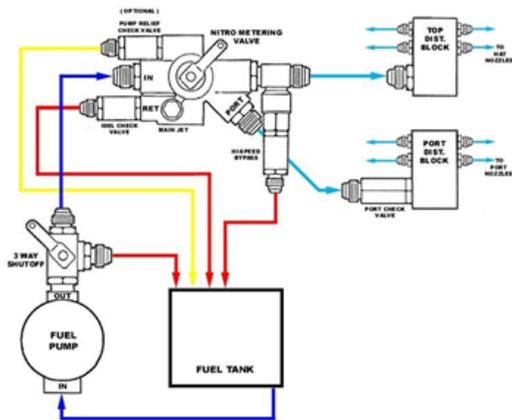
Below is an excellent photo of the fuel distributor block arrangement supplying multiple injectors.



Fuel lines from fuel distributor to fuel injectors.

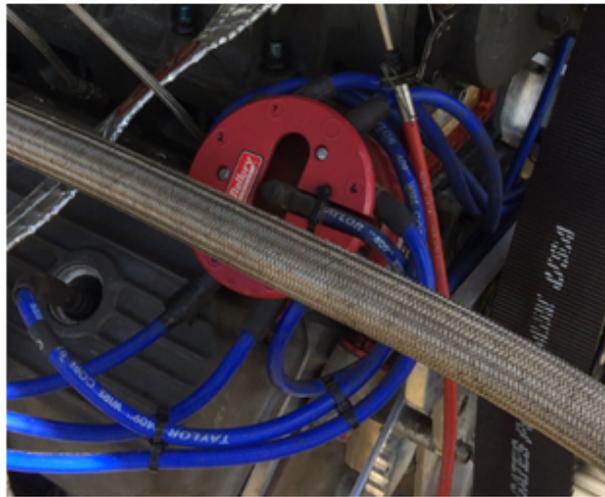
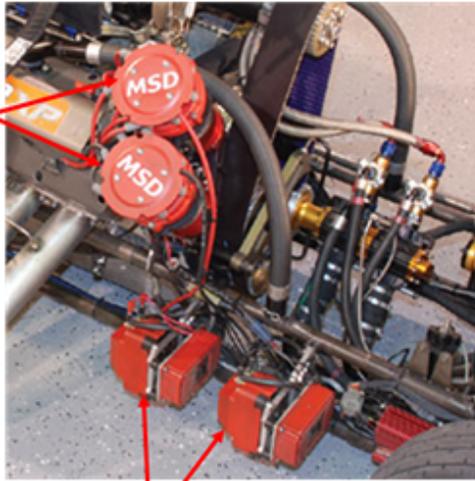
Fuel distributors

Lastly concerning fuel systems please see the diagram below that shows a single pump system (source: <https://www.alkydigger.net/technicalinfo.php>). As a side note, the fuel entering the supercharger is very important for lubricating the supercharger when it is running. As another aside, it can take 700 to 1000 HP just to run the supercharger! WOW!



[2] **Improved ignitions** (more power to the spark plugs): Presently single magnetos are used. However, this photo (on the left below) of an older top fuel dragster shows 2 magnetos (serving the function of distributors that used to run off of the cam shaft requiring points; all of this now electronic). On the right below is the present day single magneto setup.

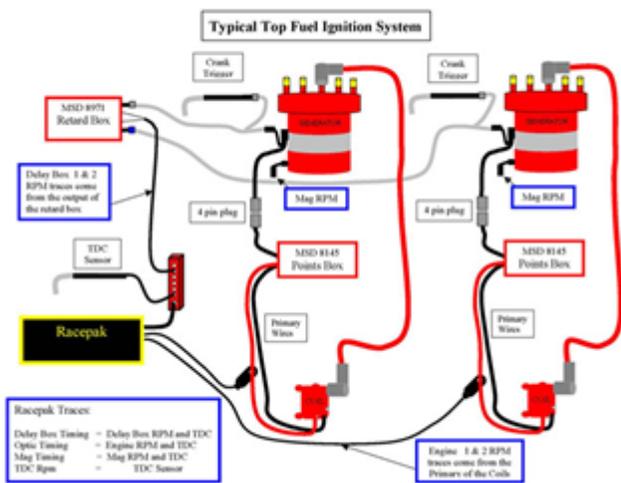
Twin MSD Magnetos



Coils And Amplifiers

Taken verbatim from the Hot Rod website: “The popular MSD Super 44 magnetos are so powerful that they deliver 1.2 amps of electrical energy across the spark plug gap each time a plug fires. This is **four times** the electrical energy delivered by a hot street ignition system at 300 milliamps (0.3 amp). Think of those MSD magnetos as the equivalent of an engine-driven arc welder and you get the idea.”

I’m not very knowledgeable about electronics other than to turn the house break switch off if I am working on the electricity at home, etc. Below is one diagram that I found.



[3] **Double spark plugs** (2 per cylinder!): This was really NEW to me when I became interested again in top fuelers: two (2) spark plugs per cylinder! WOW!



The photo above shows one of the 2 sets of plug wires attached.

[4] **Increased engine displacement** [NHRA now limits the maximum CID to 500 CID].

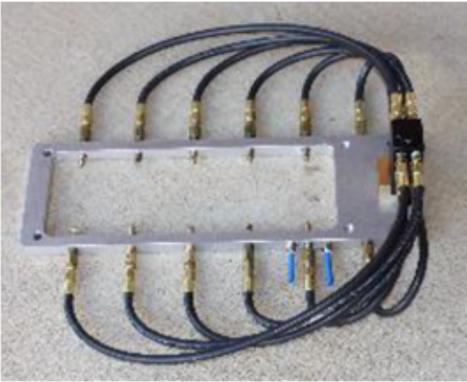
More CID equals more power. The photo below is of a piston used in a modern hemi engine.



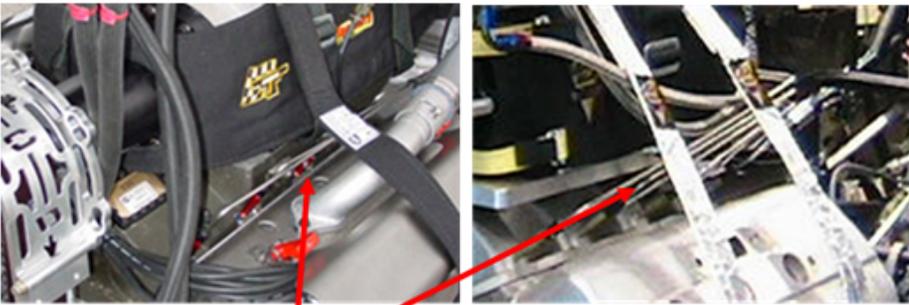
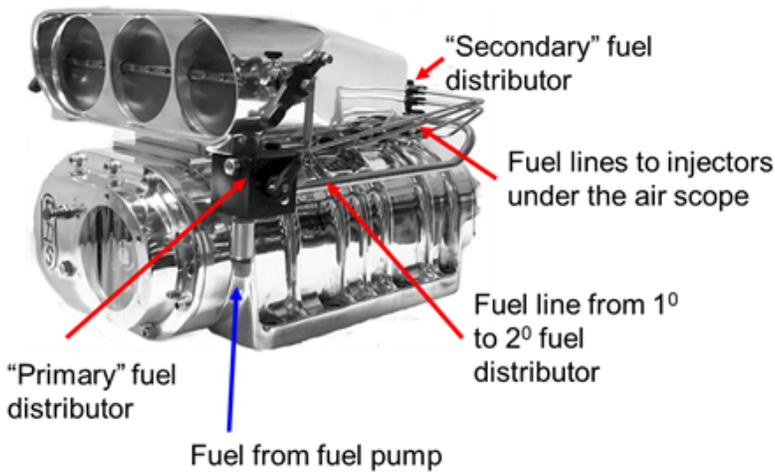
[5] **Increased number of fuel injectors**

This is a bizarre topic. For a typical V8 engine with fuel injection, the engine has 8 fuel injectors. Top fuel/funny car engines can have up to 42 injectors. As a kid, I only knew about fuel injectors on top of the blower (a.k.a. – supercharger). Probably starting with Don Garlits in the 1970's, fuel injectors have been added to the intake manifolds and even the cylinders!

Below is a “hat adaptor” containing 12 (!) fuel injectors. The term “hat” probably refers to the air scope which is sometimes called a “bird catcher” or “bug catcher.”



Below is a good photo of the air scope, fuel injection system and the blower.



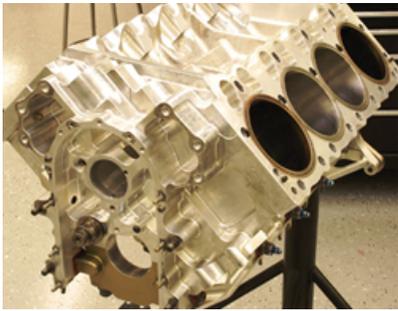
Fuel lines to the intake manifold fuel injectors.

Above are photos of fuel lines going into fuel injectors in the intake manifold. The photo below shows the 2 fuel injectors per cylinder. By the way, NHRA limits the top RPM to ~8250!



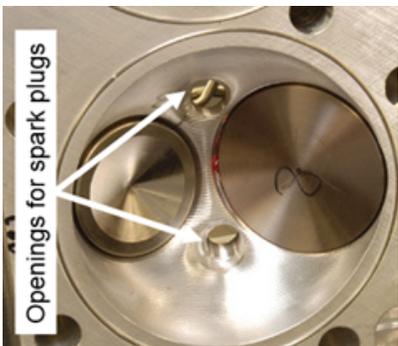
Taken verbatim from one source: *“To deliver all that fuel, a total of 42 fuel-injector nozzles are deployed throughout the engine’s intake system. There are 10 in the blower hat, 16 in the intake manifold (8 of which are tunable helper nozzles), and 16 more in the cylinder heads, spraying directly into the humongous intake ports. The lower, or “down” nozzles provide the majority of the fuel delivery.”*

[6] **Engines specifically built for drag racing:** While current top fuel racing engines are based on the design of the 426 CID hemi’s, the top fuel/funny car engines (see below) are produced strictly for racing and are not bored out (enlarged) stock engines. The engine block alone costs more than \$7000.



The most common features are the hemispherical cylinders (a.k.a. the “hemi”). These heads are built to accept 2 spark plugs per cylinder. As well, fuel can be injected directly into the intake port of the block.

The image below shows the side of the cylinder head that mounts to the block. The intake valve is titanium (like the “skin” covering of the SR71!) whereas the valve for the exhaust port is “inconel” (a family of austenitic nickel-chromium-based super alloys) to resist the heat of combustion. For what it’s worth, austenitic is a “face centered cubic crystal” (and I don’t know what it means either – it just sounds special). The intake valve is the larger of the 2 valves at ~2.5” diameter with the exhaust valve diameter being ~1.9” in diameter. For comparison the valve diameters for a 5.7 L Chevy engine are 1.9” for the intake valve and 1.5” for the exhaust valve. Please let me know if you have corrections or comments. Thanks for reading



‘Nough for now! – Bill



More Fiddly Bits

By Stretch Sprueman - IPMS#1724835

(Fun facts & trivia from club historian Bruce Doyle)

Modeling & Cinematic Anachronisms

One of the more rewarding aspects of our hobby is the knowledge gained about our modeling subjects, some to the n-th degree. One day at the Orlando IPMS convention I mentioned to our friend Larry Bayer that on that day, in that building, at that time and place was the greatest collection of knowledge about various modeling subjects in the world. Subjects ranging from Bf-109 camo schemes to drive-sprocket lightening holes on T-34/76 tanks built in the People's factory, Ural branch, fabricated on the second Friday in May. A slight exaggeration, but you get the point.

It therefore pains me to see something out of place, i.e. anachronistic, in so many films and documentaries. From the somewhat understandable Cheyenne tail turret on a B-17 in the film "*Tora! Tora! Tora!*", to the fingernails-on-a-blackboard egregious shot of Skyraiders attacking Omaha Beach in "*The Longest Day*". How many documentaries have we seen depicting Corsairs and Hellcats taking off to attack the Japanese fleet at Midway? Even our greatest director - Steven Spielberg - has been guilty of gaffes like this:

In "*Saving Private Ryan*" - one of the two or three greatest war films, in my opinion, did you spot which of the following mistakes/anachronisms? (*Answer at the end of article*)

1. Postwar landing craft used in the beach assault scene.
2. Improper ammo magazines on paratroopers Thompson machine guns.
3. Postwar M-60 machine guns used at the radar site battle scene.
4. Wrong carriage for the towed 2cm gun.
5. P-51's used as "tank busters".
6. None of the above.

Bonus Questions: to be answered in next month's newsletter. No fair using Google - I'll have V. Putin check to keep you honest

1. What B-list Hollywood actor was a WW2 fighter ace? (Hint: he played a French soldier in Kubrick's *Paths of Glory*, and was Julie London's husband in the 1949 film *Task Force*.)
2. Who in the "*Wide Wide World of Sports*" was Jack Pinnick?
(Hint: think John Ford/John Wayne and "Ampersand".)

Answer: #5.

The P-51 was never known as a “tank buster”. If any American plane earned that title it was the P-47. The Allied plane most commonly referred to that way was the rocket firing Hawker Typhoon. Additionally, slow down your DVD as I have, and check the markings on the P-51 that flies over Tom Hanks and Matt Damon. They are black & white checkerboards emblematic of aircraft belonging to the 78th Fighter Group of the 8th AF. The problem is that the 78th didn’t receive P-51s until December 1944; they were flying P-47’s during the D-day invasion. Oops! In the future Steve, check with Gator Modelers to get things right on your next war movie. How about a movie showing B-25’s flying in the CBI with the 341st Bomb Group – the unit both our fathers served in???



UPCOMING EVENTS

This list contains modeling events with the **IPMS Region-11 Events listings** in bold.

Jan. 21	Collectors Day	Florida Museum
Feb. 11	Jaxcon	Jacksonville, FL
Feb. 17-19	Atlanta Figure & AMPS show	Atlanta, GA
Mar. 4	Flight 19, Modelfest VI	Pompano Beach
Mar. 25	Wings, Wheels & Keels,	Venice, FL
Apr. 20-22	AMPS International Show	Danbury, CT
May 6	Blue Angel Fest	Pensacola, FL
May 20-21	Pelicon '17 2017 Region-11 Contest	Largo, FL
Jul. 26-29	IPMS USA 2017 National Contest	La Vista, NE (Omaha)

WILD PAINT

By Jack Mugan



If you have a modeling tip you would like to share with your fellow modelers, please send us a copy so we can put it in the newsletter.

We need articles for the Newsletter and the Web Site!

If you just opened up that new kit and want to give a box or build review, write it up and we'll put it in the newsletter and put it on the Web Site. Just read a good book, tell us about it! Got a great tip, share it with your fellow club members. This is your Newsletter and your Web Site and they're only going to be as good as YOU make them so contribute something to the cause. Don't be afraid to ask for assistance if you have something you want to share, we'll be happy to assist you in making it happen!

Don't forget to support your local hobby shop; they support us in many ways.

Gainesville HobbyTown

Miguel Miranda: Proprietor

7420 W. Newberry Road (next to Sports Authority)

Gainesville, FL 32606 www.gainesvillefl.hobbytown.com Mon.-Fri.: 10 AM to 7PM

Sat.: 10AM to 5PM

Sun: 12PM to 4PM

Rob's Hobby World

Rob Stevely: Proprietor 8585 SW Hwy 200 unit 14

Ocala, FL 34474 www.robshobbyworld@MSN.com Mon.-Fri.: 10 AM to 5:30PM

Sat.: 9AM to 4PM

Sun: Closed

Please check out WWW.IPMSUSA.ORG for the latest information from IPMS National Headquarters and for information about joining IPMS.

Please use one of the links below or go to the IPMS Membership page for more information about joining IPMS USA.

http://www.ipmsusa3.org/uploads/ipms_application_form_2016.pdf

<http://www.shopipmsusa.org/product-p/adult-membership.htm>

<http://www.shopipmsusa.org/product-p/family-membership.htm>

Frank Ahern, – Secretary – Newsletter Editor ahernf@gmail.com
Home: (352) 375-3723; Cell: (352) 226-6785

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