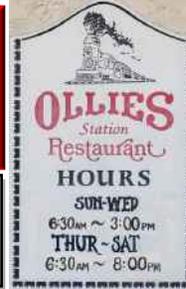


MONTHLY MEETING — 1ST SATURDAY MONTHLY

Ollie's Station Restaurant, 4070 Southwest Blvd, Tulsa, OK 74107
7:30 AM to 08:00 AM—Parking Lot Gathering; 08:30 AM meeting starts indoors!

Dues Reminder—Your 2022 Chapter Dues are due in January 2022. You Can bring them to the next meeting or mail them to the chapter. (See Page 9)



**March
2022
Newsletter**

BOARD MEMBER'S REPORT

President's Comments—Our next meeting is **Saturday, March 5th, 2022** at our usual place.

ARE CLASSIC CARS DOOMED (AND WILL THEY BECOME WORTH LESS?)

Since we last met, Russia has invaded the Ukraine, Western Allies are instituting sanctions on Russia, stock market has declined almost 3,000 points and the pandemic is lingering on although those numbers are looking better. What are we to do with our investment dollar some of which is probably invested in our classic cars? Main thing I can recommend is don't panic! Might think about panicking if you see a bright flash followed by a huge mushroom cloud. Really don't want to make light of that situation with the leadership there is among our world leaders.

Recently there was an article in "The Car Investor" that I want to share. Classic cars have long been a popular investment strategy for investors wishing to diversify their portfolio, and those who love the classic car market in general.

There have been concerns in recent years that the classic car market could be doomed due to the upcoming regulation changes around internal combustion engines, and the lack of interest from the younger generation. Are classic cars doomed?

Classic cars are not doomed, and the market will adapt to the upcoming emissions regulations. Classic cars remain extremely popular, and the global classic car industry is worth billions of dollars. Classic cars will not disappear, regardless of regulations.

No, classic cars are not doomed. But what happens once the emissions regulations are enforced, and is it smart to buy a classic car?

IS THE CLASSIC CAR MARKET DYING?

The classic car market is not dying, and Hagerty reports that optimism among market experts is at its highest level since 2015. Valuations of affordable classics, in particular, are on the rise.

Despite car sales taking a hit during the pandemic, as with most industries, things are now looking positive. Private sales continued strongly throughout and continue to do so.

See you Saturday for another educational and informative meeting.

**NCRS OK Chapter President
Bud Jessee (55611)**

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BOARD MEMBER'S REPORT (CONTINUED)

(Continued from page 1)

Membership Chairman's Comments—Our current membership roster sits at **95** members with only **64 of those having paid their 2022 dues**. We are currently at a 67% renewal rate. I will be accepting your 2022 dues at the next meeting or by mail.

NCRS Oklahoma Chapter Membership Chairman
Michael Aichele (11685)

Judging Chairman's Comments—The registration (<https://www.ncrs.org/services/coming-events.php>) is open for the Oklahoma Chapter Judging Meet in April. Please register so I can setup the judging teams. The event was set in Tulsa so the majority of our chapter members would not have to travel out of town. We already have entrants from Texas and Kansas. It is easy to register if I can do it. Go to NCRS.org, login with your NCRS number (example :Gene Holtz (10606) set up your password if you haven't already done it, find coming events in the dropdown list and then event registration. Find the Oklahoma Chapter event in April and fill it out . If you need help let me know. There is no charge to judge or attend the event, just a charge for the meals Friday night / Saturday lunch at \$30.00 per person payable at registration. I just need a head count for the Friday night catered BBQ meal. If you can only attend and judge 1 day that is fine, just let me know.

After March 22nd you can email or text or call me if you want to judge as the online registration will be closed.

The Oklahoma Chapter Spring Judging Meet is set for Friday April 22nd and Saturday April 23rd at 8515 East Skelly Drive Tulsa Oklahoma. The online registration starts on Monday February 7th ends March 22nd on the NCRS website under coming events. After that date only judges will be accepted. Car entrants will be contacted for registration information and payment, all others will need to pay for meals the day of event, as we do not have an electronic payment option at this time. I need a head count for the Friday night BBQ Dinner no later than the club meeting on April the 2nd.

Here is a proposed schedule of events and approximate times to allow travel time for entrants coming from out of town, and this can make it a 5-point weekend if you judge both days. We have a Courtesy Room Block with the Renaissance Tulsa Hotel & Convention Center located at 6808 South 107th East Avenue Tulsa Oklahoma 74133. The rate is \$127.00 + taxes and fees.(It is a short 7.9-mile drive on 64 / 169 (Mingo Valley Expressway) to I- 44 (Skelly Drive) Phone 1 918-307-2600 or 1-800-264-0165. I also have an email link I will send to our out-of-town entrants.

Friday the 22nd.

11:00 am	Judged cars placed outside to allow for a cold start cool down
1:00 pm	Registration and check in followed by Judges and owners meeting
1:30 pm	Flight Judging Operations outside and stage cars inside
2:30 - 4:30 pm	Flight Judging, at least 1 section
4:30 - 5:30 pm	Judging School / Seminar
6:00 - 7:30 pm	Catered BBQ Dinner <i>(The dinner will be an Oklahoma Chapter event with all Chapter Members, wife's and prospective members invited to attend.)</i>

Saturday the 23rd

8:00 am	Registration with Doughnuts & drinks
8:30 - 9:30 am	Judging School
9:30 - 12:00 pm	Flight Judging
12:00 - 12:30 pm	Lunch <i>(Mazzio's Pizza)</i>
12:30 - 1:30 pm	Finish up judging and tabulation
1:30 -2:00 pm	Awards

Thanks to Dominic White, we will be using 8515 East Skelly Drive for the Judging location.

Scott Pfuehler will be helping to get the event floor ready and with inside placement of cars.

The Judged Cars need to be limited to 4 to allow for a thorough inspection. I have 2 spots available currently, so contact me ASAP if you want a spot.

NCRS Oklahoma Chapter Judging Chairman

Gene Holtz (10606)

email blue65L84@aol.com text or phone 405-317-3919

Treasurer's Comments: We still got money in the bank!

NCRS Oklahoma Chapter Treasurer

Scott Pfuehler (20940)

The '66 Corvette Challenge'—Part 5; "Roger to the Rescue..."

Story By Pat Cavanagh (NCRS #57907)

In Part 4 of The '66 Corvette Challenge, my engine had been rebuilt and dyno'ed, but it would not fit in the frame. Kelly Bolton, Scott Pfuehler and I tried everything, but we could not install the engine and transmission in the frame without making significant modifications to the engine mounts, which was not a safe option.

It became obvious that the engine mounts were misaligned so the transmission would not mate with the cross member. When I originally removed the engine, I noticed that the driver's side engine mount was modified with elongated holes. Looking back, I should have known there was a problem. I am sure this was done to allow the engine and transmission to fit in the frame. It was obvious at this point that the frame had a problem.

When I purchased the car, fiberglass repair work had been done to the front inter fenders but, I did not realize the frame had also been damaged. The car had C3 spindles and steering components, which were also an indicator of damage to the front end.

Jon McCaskell, a friend of Scott Pfuehler, with significant frame repair experience came over to my workshop and looked at the frame. He was confident the car had been in a front-end accident on the driver's side. He thought the car might have been hit on the driver's side front wheel. That would explain the C3 spindles.

Jon showed us the witness marks on the frame from it being pulled and straightened near the driver's side spring pocket. There was also some minor damage to the number 2 body mount. John said that is typically when the corner of the front frame is damaged it also effects the alignment of the engine mounts. It is then very hard to get both the frame and engine mounts to line up again.

Unfortunately, a small amount of misalignment of the engine mounts results in a much larger misalignment of the transmission tail shaft and cross member. My transmission tail shaft mount was several inches out of alignment.

With all my refurbished suspension and performance components, a stock original frame was my only consideration. This left me with two options, fix the original frame or buy a new/used frame. Both had downsides. I was uncomfortable with the idea of putting a new (reproduction) or a used frame under the car



because of the issues surrounding the VIN number on the frame.

I preferred to fix the existing frame but it was not going to be an easy fix. If I was going to autocross or race this car, it had to be safe, correct and

strong.

Regardless of which approach I took, the frame had to be removed from the body. With the help of Scott, Kelly and Charles Buxton we set up Scott's A-frame gantry in my workshop and pulled the body off the frame.

With the engine, transmission, gas tank, steering column and body mounts removed, the body came off in an afternoon.

After we stripped the frame, I made calls to several frame shops in Tulsa. The shops confirmed they did not have laser alignment data for C2 Corvettes. It would be a trial and error process (my words) to bring the frame data points back to the original dimensions. That made me uncomfortable.



I considered reproduction frames from Vette Products of Michigan which makes complete GM licensed reproduction frames for C2 Corvettes. I also looked at used frames. I happened to see several beautifully restored frames from Roger's Frame Restoration on Amazon



(www.rogersframerestoration.com) which led me to call Roger and discuss possible options.

While Roger had several beautifully restored C2 frames available for sale, I decided to have mine restored, preserving my VIN numbers and saving me future title and ownership headaches. I was particularly impressed with the C2 frame jig in his shop that insured a straight and true frame.



Roger and I had several conversations. I emailed him multiple pictures of my frame from different angles. His analysis after studying the pictures was very similar to Jon's. The car was hit on the driver's side front suspension and they tried to pull the front corner of the frame back into alignment, with the body still on the frame. Roger said that with the body on the frame, it is very difficult to get the body, suspension and engine mounts all back into alignment. He thought it was also likely that the driver's side frame rail was low and moved towards the center of the car. Fortunately, the rest of my frame was a rust free and in excellent condition.

We decided the best approach to restore my frame was to splice a undamaged C2 front end on my frame. Roger has proprietary C2

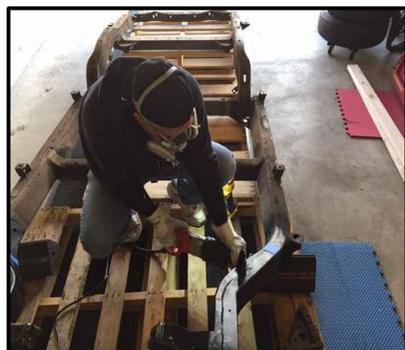
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jigs and fixtures to insure the frame is dimensionally correct in three axis's. You will see pictures of the repair process in Part 6.

Fortunately, Roger had a '66 Corvette frame from California that had been in a rear end collision, which would provide the donor front end for my frame. This approach left my VIN numbers on the driver's side intact.

Roger had me cut the front end off my frame, 6 inches in front of the firewall body mounts. At that point, Kelly, his son Travis and



I mounted the shortened frame on a large pallet we built and trailered it over to the trucking company for shipment to Roger's shop in Ada, Michigan.

Stay tuned to Part 6 where you will see the process of restoring my frame to like new condition or as Roger keeps saying, "Like it never happened". As always if you have any

questions please send me a note at pcavanagh2012@gmail.com.



"BEATING THE CLOCK WITH AN INTER-COMPANY SIMULTANEOUS ENGINEERING TEAM ON THE LT-5 PROJECT"

Story By Gary Cline (NCRS #51651)

I wrote this article about 30+ years ago. Some of the procedures, equipment and techniques used back then were cutting edge developments. Today these processes are common place in most companies today and some are obsolete.

The LT-5 Corvette engine is, in a way, a miracle considering it was just four years ago the first designs were put on paper at Lotus Engineering. It usually takes six years, or longer, to get an engine from initial design into production. The basis for the miracle falls into three areas: 1) the timing, 2) the players and 3) the product.

Timing

It is very important to hit all of the project milestones as well as continually striving for the highest quality product at the earliest possible production start date.

Major Players

Includes Chevrolet Headquarters and Engineering located in Detroit Mi.; Lotus Engineering in Hethel England; and Mercruiser in Stillwater, Ok. These three groups working with a myriad of GM Allied and Mercruiser component and tooling suppliers make up the heart of the project.

Product

The LT-5 engine, the powerplant for the ZR-1 Chevrolet Corvette, is not "your run of the mill" car engine. The inspiration

to design and manufacture this product was easy. The teamwork, which became a partnership, of the three major companies is what put the design of the Lt-5 on paper and the finished product on the streets.

Because of the success of the LT-5 project, these three companies now believe in a philosophy called "Simultaneous" or "Concurrent Engineering".



Simultaneous engineering is a team approach to project management both within the individual companies and in their relations with each other. For example, the LT-5 engine was designed by Lotus Engineering in Hethel England with input from Chevrolet Engineering in Detroit. At the same time several GM allied divisions such as AC Rochester, Delco Electronics, and many others were also supplying input. Chevrolet Engineering worked closely with Lotus providing them with the specifications they wanted to achieve throughout the project. In the earliest

design stages, Mercruiser was brought into the program to start development of the production manufacturing processes. The product design and the manufacturing process were developed concurrently to produce the engine now being manufactured under contract by Mercruiser.

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There were key individuals in the simultaneous communications of the program. These individuals were team leaders at their respective companies. The information interchanged between these individuals coordinated the evolution of the LT-5 design. As stated earlier, there were three major players in the development of the LT-5 engine. There was also a great deal of minor players who were just as essential to the success of the program. The GM Allied Divisions alone constituted a major effort in engineering coordination.

Engine component suppliers, other than General Motors, along with capital and tooling suppliers for the in-house Mercruiser manufacturing process were kept in the same simultaneous engineering communication loop adopted by the three main companies. The number of LT-5 engine component suppliers alone constituted ninety-one companies. Open communications between these firms and product design were cultivated. Good communication was essential to success considering the component supplier companies are located throughout the United States, Europe and the Far East.

In order to establish and keep open communications, the three major companies would visit each supplier for complete review of the component or components they were to supply. This interface really established a partnership around suppliers, engineering, manufacturing, and the customer. Drawing and design issues were discussed up front. Quality concerns and criteria were also reviewed at this time. It should be noted that the quality requirements would be very thorough and it was important to establish this mandatory goal at the beginning. The result of this approach proved beneficial from the supplier's point of view, because they were brought into these philosophies at the beginning rather than the end.

The Lotus/Mercruiser/Chevrolet collaboration would have been unlikely just a few years ago: however, it makes perfect sense for today's niche-filled automotive market, Chevrolet wanted to develop the best engine possible to power its 1990 ZR-1 Corvette. The goal was to achieve the highest quality and best performance, yet still meet emission and gas guzzler objectives in the shortest lead time and, of course, accomplish this at the lowest possible cost. The result is the LT-5 engine, a 5.7-liter fuel injected V-8 engine. The engine features four valves per cylinder which can develop nearly 400 horsepower. It is the first all-aluminum production engine of its kind to be produced in the United States. This engine package plays a large role in making

COMPETITIVE VEHICLES (1990)

VEHICLE MAKE & MODEL	ENGINE TYPE	BORE/STROKE	LITRES/CID	HP/@RPM	TORQUE @RPM
<u>Corvette-LT-5</u>	V-8	3.90/3.66	5.7/350	370 @6000	390 @4800
<u>Corvette-L98</u>	V-8	4.00/3.48	5.7/350	245 @4300	340 @3200
<u>Ferrari-328</u>	V-8	3.3/2.9	3.2/195	270 @7000	231 @5500
<u>Mondial/Cabriolet</u>	V-8	3.3/3.0	3.4/208	300 @7200	238 @4200
<u>Testarossa</u>	V-12	3.22/3.07	4.9/300	422 @6750	362 @5500
<u>Porsche 928 S4</u>	V-8	3.94/3.11	5.0/302	316 @6000	317 @3000

the ZR-1 Corvette the leader in production sports cars the world over.

Simultaneous engineering made it possible for the LT-5 to evolve from concept to first running prototype in twenty-three months, to the first engine built by Mercruiser in just thirty-five months. There were a significant number of engineering changes. The flexible manufacturing process allowed for the product design changes to be incorporated quickly and cost effectively. In one year alone there were over 2000 engineering changes done on the fly.

Total expenditures for manufacturing the LT-5 are fraction of a conventionally produced automotive engine due to the design of the manufacturing process. The machining process was to be "CNC" (Computer Numerical Control) machining centers. The process was designed with product development in mind.

The advantages are reduced change over cost and durability testing the product from the production process rather than a model from a prototype shop.

Why Simultaneous Engineering Worked

Setting mandatory goals in the early stages and having all the companies adhere to those goals was essential to making simultaneous engineering work. In this case, the entire project was based on small multi-functional groups targeting the following basic goals:

- Build an engine with world class quality.
- Maintain quality and achieve unmatched performance.
- Meet established deadlines/milestones in order to assure prompt completion of the project. (Beat the competition to the marketplace)
- Maintain a flexible teamwork environment at all costs throughout the completion of the project.

Because of simultaneous engineering, the project required fewer managers, buyers, and engineers than a traditional engine design and development project. It was noted many times throughout the program by Chevrolet representatives that it would have taken significantly more personnel for manufacturing alone had GM taken on this project themselves.

A multifunctional team was pulled together as soon as possible, and because of the fewer number of personnel, each individual assigned to the project at Mercruiser had to take on broader responsibilities than usual. The advantage to this was a reduction in the levels of approval required to make decisions. This factor helped cultivate the teamwork environment. During the development of the engine, one of the objectives was to incorporate product design changes as quickly as possible. It was not uncommon to receive a faxed drawing in the morning and have a complete change in the manufacturing process by noon.

Major changes which adversely affected the function of the manufacturing equipment and tooling did take a little longer, but were still handled in record time. The ability to move quickly was a direct result in the confidence and trust management placed in their teams.

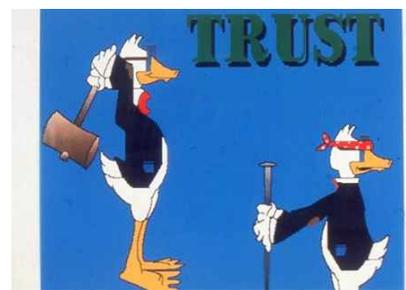
- Select competent team leaders
- Insist on good communications
- Provide the necessary financial resources

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- Omit multi-level approval structures
- Provide clear goals
- Make room for flexibility

To meet established deadlines, Mercruiser and Lotus had to be flexible and get creative in the way they handled product development design changes. One example of this was the creation of a specification update sheet. This document could be submitted by either company (via fax) to address required changes. This method of addressing engineering changes was simple, informal and successful. After a short period of time, it was nick named "SPUD" (Spec Update). Updated master drawings would always follow in a short period of time. The absence of the latest formal engineering drawings on site at Mercruiser did not slow down the product or the process development.



Trust was essential! Trust in the ability and intentions of the team members, especially at Chevrolet and Lotus, was probably the most important element of this program. One example of the trust relationship is the fact

that, when required, the authority to approve sample inspection reports (S.I.R.'s) was given to the Mercruiser project engineer. In traditional project launch hierarchies, the manufacturer submits the "S.I.R." to product design for approval. This would have added time, especially if lengthy reports had to go to England for approval, considering there were over 400 individual part numbers in the LT-5 engine. Trust is also essential in the product design development stages of the project where manufacturing process capability and minimum product requirements are concerned. Each group must trust the talents and intentions of the other for effective product and process growth to occur. This isn't to say there were never disagreements, there were! However, you fall back on the other goals to keep the project moving forward.

Also, using resources like the facsimile machine and the telephone to communicate between companies helped support the project by providing information for decision making as timely as possible. Sometimes obvious resources are not utilized to their fullest. These two resources were recognized immediately and utilized thoroughly.

Simultaneous engineering played a role in the engine assembly and test process just as it did in each step leading to final production. Mercruiser, visited Lotus very early in the design stages of the product. They worked with Lotus's top management to set up a schedule of engineering design reviews that were attended by the Mercruiser project manager, Project engineer and the Project purchasing agent. These early meetings set-up the team work philosophy that exists today between the two companies. Before the manufacturing process was actually set up at Mercruiser, the assembly production foreman and the Industrial engineer spent four weeks at Lotus Engineering in England to study the Lotus build techniques, documenting the

prototype build process and to build engines themselves.

In most cases, the production foreman isn't hired until engineering is complete. In this case, the project wasn't even out of the prototype stage. We sent the foreman to Lotus to work directly with the technicians and engineers.

Using this knowledge, the foreman assisted the team in the design and configuration of the LT-5 assembly process. The result is an ownership for the product and the manufacturing process essential to an extremely fast paced program like the LT-5.

The Industrial engineer was directly involved with Lotus early in the design development and worked with the Lotus technicians, at Lotus, while the prototypes were being built. The challenge for our Industrial engineer, was to convey the Lotus "Formula One" racing engine build method into a production type manufacturing system. Lotus would assign two men to an engine and take as much as 200-man hours to build a single LT-5. The goal at Mercruiser was to achieve 18-20 engines per day with 20-25 people in a production mode, at approximately 10 hours per engine. Working closely with Lotus engineering, the team developed a plan to achieve this.

Simultaneous engineering did not stop with the engineers, purchasing and managers. During the prototype builds, Lotus technicians and engineers were assigned to Mercruiser and worked closely with the assembly line personnel to further improve the product for manufacturing. The shared knowledge gained by both Lotus and Mercruiser benefitted both companies and is still paying dividends years later. A momentous occasion was the first LT-5 to be built in one day. The resident Lotus technician, could not believe you could completely assemble an LT-5 engine from start to finish in one day. Another LT-5 first.

WORLD CLASS ENGINE BUILD INSTRUCTIONS

This type of information is commonly known as process sheets or "op" sheets in most companies. The key to consistent quality build levels is simple, complete and up to date instructional information in the hands of the operator. Mercruiser, working with CPC and Lotus decided to take over the creation and generation of the LT-5 build instructions.

The initial direction was to follow traditional operation instructions with hand drawn graphics and text. We soon realized that from a cost stand point alone this was totally unrealistic. We started using 35mm photographs (a picture tells a thousand words) and that developed into our first-generation system.

Our Industrial engineer, then set out on a one-year development program to quickly and efficiently turn super VHS video images into computer generated pictures merged with text, this program is called "M.I.S." (Manufacturing Information System). Mercruiser believes that this approach to shop floor build instructions was an industry first.

The photos originate as VHS video tape shots. The desired picture frame is captured on the monitor of a modified computer using store bought software for image management, and a Mercruiser program to integrate the text, the sheet selected is generated on a printer and plays out as a 300 dot per inch, Polaroid like photograph on an 8 1/2 x 11" white paper. The complete system for hardware and purchase software cost between \$30,000 and \$40,000 and has been in use since August

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of 1988. The estimated cost of developing the initial hand drawn graphics art version of the manual was over \$100,000.

Every assembler is put through many hours of hands-on training, and usually performs his or her assigned task by memory. The "M.I.S." hasn't speeded assembly of the LT-5, but that was not the intent. The main purpose was to document and



maintain a process and to ensure that the capability of the process is recorded. This would ensure any new assembly people would be following the same procedure of the task.



World class quality was achieved through the use of the projects number one asset, "People".

Machining processes would have to be put together with quality targets in mind. Engineers and machine operators must work with the machine tool builders to establish machinery that will achieve the desired quality capability. Machine tool run offs are required to document that the quality capability has been achieved.



Second, the engineers, operators, and assembly people must work with their suppliers to achieve the quality level required. For example, if castings are used, the machining operators should visit the casting supplier's facility to understand the casting process and to work with their operators on the required quality standards required for machining. Conversely the casting operators should visit the machining facility to better understand their process and the rationale for the quality level expected. Assembly personnel should work with component suppliers for a thorough understanding of each other's requirement also. This type of approach will build a partnership between all parties to achieve the quality objectives.

Third, ownership of the process and the responsibility for quality can be achieved at the production level if the people are brought into the planning stages as soon as possible. A considerable amount of time and money will be saved by using these people

ideas before production starts, as opposed to after production has begun. These philosophies will require major cultural changes and paradigm shifts for the people.

Effective communication training is essential to getting engineering, manufacturing, production, and suppliers talking to each other at all levels. This type of training will also be very effective in breaking down barriers between the various groups. If the production people are going to be endowed with all of these responsibilities, they must be able to effectively communicate at all levels.

SIMULTANEOUS ENGINEERING IN SUMMARY

Simultaneous engineering is a viable means of achieving design to production release in a minimum amount of time. The key to making simultaneous engineering work is:

1. Setting mandatory goals and objectives
2. Establish a team environment
3. Reduce the levels of decision making to a minimum
4. Get manufacturing involved as early as possible
5. Rely and insist on trust
6. Build systems that are simple and flexible

Suggestions for Corporate Executives that are considering the use of simultaneous engineering would be to:

1. Pick the product
2. Put together a capable team
3. Set up goals and objectives
4. Provide the resources
5. Then move out of the way



UPCOMING EVENTS

OKLAHOMA NCRS CHAPTER EVENTS:

- *April 22-23, 2022—Chapter Judging Event, Tulsa, OK*

NCRS NATIONAL EVENTS:

- *April 7-10, 2022 NCRS Louisiana Regional, Kenner, LA (Not to far to drive.)*
- *April 28-30, 2022 NCRS Indiana Regional, Auburn, IN (Just a quick jaunt down the road.)*
- *May 19-21, 2022 NCRS Carolina Regional, Greenville, SC (A little far to drive, but worth the trip.)*
- *July 23-28, 2022 NCRS National Convention, Mobile, AL - Register begins February 1, 2022—Celebrating the 1972 Corvette (Not to far for a nice little road trip.)*
- *August 18-20, 2022 NCRS Northwest Regional, Redmond, OR (A little far to drive, but could be a nice trip.)*
- *October 27-29, 2022 NCRS Texas Regional, Frisco, TX (Just a quick jaunt down the road.)*

OKLAHOMA HALLETT MOTOR RACING CIRCUIT: (<https://www.hallettracing.net/>)

- *March 25-27, 2022—Competition Motorsports Association road racing (COMMA) Round 1.*
- *April 1-3, 2022—Central Motorcycle Roadracing Association (CMRA) Round 2.*
- *April 9, 2022—Karters of America Racing.*
- *April 23-24, 2022—SCCA Supper Hoosier Tour.*
- *April 29-May 1, 2022—Competition Motorsports Association road racing (COMMA) Round 2.*

CAR SHOWS AND SWAP MEETS: (*Stuff for Car Guy's and Gal's*)

- *Every Tuesday Night, 7846 E 51st St, Tulsa (till Oct) @ ("Steak Suffers")*
- *Last Saturday each month, Cars and Coffee, Stillwater OK, 3100 N Husband St, Stillwater 8:30AM-12:00PM*
- *May 27-29, 2022—39th Annual Mid-America Street Rod Nationals, Springfield, MO—Ozark Empire Fairgrounds*
- *June 15-19, 2022—48th Mid America Ford & Shelby Nationals, Tulsa, OK (<https://www.midamericafordmeet.com/>)*
- *July 8-10, 2022—39th Annual Southwest Street Rod Nationals, Oklahoma City, OK—State Fair Park*

OKLAHOMA CITY HAPPENINGS

ATTITUDE ADJUSTMENT NIGHT OKLAHOMA CITY—Tuesday March 22nd will be this months Attitude Adjustment Night at RUDY'S BBQ. Located at 3437 W Memorial Rd. Oklahoma City. Arrival time is 5:30 with dinner at 6:00. Hope to see you there.

If I've missed an event that you would like to see posted, please e-mail me directly and I'll get the word out. Contact Mike Aichele @ 918-804-3105 or mjikelee@gmail.com.

LT6
Z06
Flat-Plane-Crank
V8



MEMBERS CLASSIFIED PAGE *(Wanted, For Sale or Service)*

Got something for sale or a service you can provide to other Chapter Members? Give me a call and I'll put it in the newsletter!!!!!!
Mike Aichele (918) 804-3105

FOR FREE—After market C5 Corvette, Right front fender, still in the box, never used. [Contact Ed Brett at 918-671-1490](#)

FOR SALE—2002 C5 Corvette, both tops, mag wheels, immaculate interior, Magnetic Red Metallic paint. Very clean, 90K miles, oil changed every 3,000 miles. Most dependable car I've ever owned. MAKE OFFER! [Contact Ed Brett at 918-671-1490](#)

FOR SALE—1973 Corvette Coupe L82 project car. 4 speed, P/S, P/B, NO A/C car. White with black deluxe interior. Bought in 2015 and driven for a while then decided to do a restoration. Car is taken apart. Engine and Trans are out and all interior is removed. The engine is NOT the original engine. 4 speed gearbox rebuilt and ready to go. Also have a few new parts to go with car. \$5,500 OBO. Car is in OKC. [Contact Johnathan Taylor at 405-863-1441](#) or [Gene Holtz at 405-317-3919](#).

AVAILABLE SOON—Corvette Body Dolly located in Wichita, Kansas. [Contact Dallas Keller at 316-200-4125](#)

FOR FREE-If anyone wants a past edition of the Judging Reference Manual or a Technical Information and Judging Guide let me know. I have Judging Reference Manuals and Technical Information and Judging Guides for 58-60, 63-64, 66, 68-69, 70-72, 73-74, 75-77, 80-82, and 90-91. [Contact Scott Pfuehler at 918-437-5292](#).

**National Corvette Restorers Society - Oklahoma Chapter Contact Information**

<u>Role</u>	<u>Name</u>	<u>Phone</u>	<u>eMail</u>
Chairman	Bud Jessee	(918) 625-8531	budjessee@gmail.com
Vice-Chairman	Phil Gray	(918) 492-2519	philipgray@earthlink.net
Judging Chairman	Gene Holtz	(405) 317-3919	blue65184@aol.com
Judging Administrator	Gene Holtz	(405) 317-3919	blue65184@aol.com
Secretary	Verle Randolph	(918) 520-7862	verle@pobox.com
Membership Manager	Michael Aichele	(918) 804-3105	mjikelee@gmail.com
Membership Administrator	Michael Aichele	(918) 804-3105	mjikelee@gmail.com
Newsletter Editor Michael	Aichele	(918) 804-3105	mjikelee@gmail.com
Treasurer	Scott Pfuehler	(918) 437-5292	fogaley@sbcglobal.net
Activities Chairman	Ed Brett	(918) 671-1490	ebrett666@gmail.com
Contact Person	Bud Jesse	(918) 625-8531	budjessee@gmail.com
Webmaster	Mike Partridge	(512) 579-8593	lostnaustin@sbcglobal.net

Don't forget to visit our website for some up-to-date information about what is going on in the Chapter.

<https://www.ncrs.org/ok>

NATIONAL MEMBERSHIP INFORMATION

National Corvette Restorers Society

E-Mail: info@ncrs.org

Phone: (513)760-6277

Fax: (513) 201-8875

<https://www.ncrs.org/join/ncrs-benefits.php>



The Good, the Bad and the Merely Insane

Story By A Consortium of Local Ladies

You can spot me from any distance. Perhaps it is those extra gray hairs normally associated with having one too many adolescents in the house. Perhaps it is the fire in my eyes that at any given moment could be either love or hate. It might be the familiar words poised on my lips: "You bought what?!!" Personally, I think it is that tiny smile of secret pride when the old rat-trap reborn to a sleek beauty is loaded onto the trailer headed for a National Meet.

The laws of physics don't apply to me. There might not be a penny to re-carpet the living room but should that once-in-a-lifetime, low mileage, all original you-know-what come along (again), the walls will suddenly ooze forth the necessary funds.

Most people know a "Chinese fire drill" as an activity of youth. Not a Saturday night goes by that somewhere people are not piling out of a car at a stoplight and shuffling positions. For me, however, not so youthful any more. The term describes completely emptying a three bay garage on a 100 degree summer day and reorganizing it so that it can hold four cars and an entire swap meet.

Never mind that three of the cars are perpendicular to the door and one of those is also tilted up on its side, mounted to gizmos mother never told me about. OK! OK! I admit that it was my idea. At least the one that is fully assembled is facing the right way to pull out.

I know that I am not alone. Fess up now. One or more of the following describes you to a "T".

- ◆ You have a bumper, trunk lid and/or hood in your guest room closet and other mysterious items lurking under the bed.
- ◆ You have your own closet full of more Joplin, Cypress Gardens or Waco t-shirts than you can possibly wear in your remaining lifetime.
- ◆ You have a death-grip on your pocketbook, but somehow your signature has appeared on checks written to Corvette Central.
- ◆ You have been heard to declare that you are not going to spend an entire day baking in the sun at a car show, all the while slathering on sunscreen.
- ◆ You get up early on Saturday morning a month when you don't have to, and you enjoy it.

Let me tell you. I gave up worrying about these things. I don't even ask to understand them. They come with a package that I chose willingly, with full knowledge---one that I wouldn't trade for anything. No defense is needed, not explanations or excuses and certainly no therapy.

All I ask is that he takes me for the ride of my life in a cool car. I am...an Oklahoma NCRS wife.

Merc-Powered Corvette ZR-1

Production 1990 thru 1995

Small Block 350 had dual overhead cams and 32 valves.



CHAPTER MEMBERSHIP APPLICATION

OKLAHOMA CHAPTER NCRS, INC. MEMBERSHIP APPLICATION



Date: _____

Name: _____ Spouse: _____

Address: _____

City: _____ State: _____ Zip: _____

Home Phone: (____) _____ Work Phone: (____) _____

Cell Phone: (____) _____ eMail: _____

How did you hear about Oklahoma Chapter NCRS? _____

What are your special areas of interest? _____

NCRS National Membership #: _____ Expiration Date: _____

Signature: _____

Corvette Information (Optional)

Year	Model	Color	Engine/HP
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Annual Dues are \$30.00 with membership expiring on December 31st. You must be an active member of the National Corvette Restorers Society before you can be a member of the Oklahoma Chapter N.C.R.S., Inc. Make checks payable to **Oklahoma Chapter NCRS, Inc.**

Mail to: Michael J. Aichele, Membership Chairman
Oklahoma Chapter NCRS, Inc.
16225 E 81st Ct N
Owasso, OK 74055