

# **COSWORTH VEGA**

## **OWNERS ASSOCIATION**

CVOA INC., P.O. BOX 5864, PITTSBURGH, PA 15209

(313)618-1821 CVOAPRESIDENT@HOTMAIL.COM

December 2022

4TH QUARTER ISSUE 147

### 2022 National Roundup Phoenix, AZ Recap



Jim McIntosh Sun Visor Bracket  
Replacements For Sale

GM Fisher Body Vega  
Development Article

2023 National Roundup Syracuse  
NY Hotel Info and Dates

Member Spotlight  
Gary Cohen and  
CV #0856

# CVOA Executive Committee

**CVOA PRESIDENT - John J. Cowall**  
12372 Devoe St. Southgate, MI 48195  
313-618-1821 cvoapresident@hotmail.com

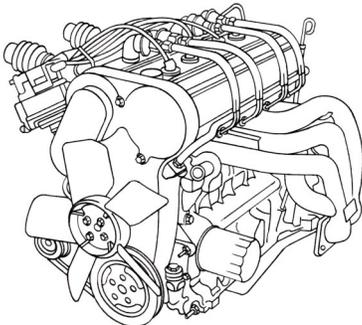
**CVOA VP of Membership and Finance**  
Mike Rupert  
147 Hiram St Pittsburgh, PA 15209  
412- 821-8429 cvoainc@aol.com

**CVOA VP of Merchandise - Shawn Parsons**  
4571 County Street 2750 Marlow, OK 73055  
580-641-2130 cos0046@yahoo.com

**Deadline for Submissions for 2023 Q1 Magazine is 1/10/2023. The Q1 Magazine is tentatively due out about 2/05/2023. Please submit all articles, ads, etc. to**  
**cvoapresident@hotmail.com**  
**Thank You,**  
**John J. Cowall**  
**CVOA National Magazine Editor (and President)**

# Table of Contents

- Table of Contents (Page 2)
- President’s Note (Page 3)
- CVOA Call For Help (Page 4)
- Precision Radio Delco Radio Repair Vendor (Page 5)
- GM Fisher Body Vega Development Article (Page 6)
- CVOA Web Corner (Page 7)
- Gary Cohen and CV #0856 (Pages 8-11)
- Jim McIntosh and Sun Visor Bracket Replacements (Pages 12-17)
- 2022 National Roundup Phoenix, AZ Recap (Pages 18-25)
- 2023 National Roundup Announcements/ Hotel Information (Pages 26-27)
- CVs For Sale (Pages 28-29)
- CVOA Merchandise Listings (Page 30-31)
- CVOA Regional Directors Contact info (Page 32)
- Tech Advisors Contact List (Page 33)
- Vendor Classifieds (Page 34-35)
- Back Cover (Page 36)



The Cosworth Vega Magazine is published quarterly by the Cosworth Vega Owners Association Inc., P.O. Box 5864, Pittsburgh, PA 15209. The subscription rate of \$50 per year or \$100 for 3 years paid through membership dues. The CVOA is a Delaware not-for-profit corporation. Opinions and comments made in columns in this publication do not necessarily reflect official positions of the CVOA, Officers, or Directors. In no event shall the CVOA be liable for incidental or consequential damages from reading this publication. CVOA is not responsible for any advertised product and or service. However, recurrence of complaints may result in denial of advertising space to individuals or entities. Send all correspondence to CVOA, P.O. Box 5864, Pittsburgh, PA 15209. Submissions of articles or letters grants the right to edit and publish. You may also e-mail to: cvoainc@aol.com

# CVOA President's Notes

Happy Thanksgiving!

I hope Everyone was able to spend time with family and friends across Cosworthland! It was a fun Thanksgiving weekend here in Michigan, JC and my Mom were back in town, and the whole Cowall Family spent a nice afternoon/ Evening together watching the Detroit Lions lose (again...) and enjoying a nice roasted Turkey (thank you Mom!). And, the weekend was amazing too, as I watched the U of M Wolverines beat the Ohio State Buckeyes! (Sorry OSU fans, its been a loooong time since that happened down in Columbus! So, I am going to enjoy it! LOL) I didn't waste the entire weekend on my couch watching football, I did have to replace the water pump on my truck, to try and keep that thing alive for a little while longer. So, Happy Thanksgiving!

As the year winds down, quite few CV (and H-Body!) owners have tucked their toys in for a long winter nap. I have #3136 tucked away, we put JC's #0803 up for the winter. I just have #1000 available to get her back road-worthy again. (as you might recall, I have been mentioning it got painted this year. There was quite a bit of disassembly that goes into getting a car painted.) this winter's project, with my trusty Garage Heater, I will get #1000 back together again to start using and showing her off again. Her last National Roundup that she attended was Virginia! (will I get her to Syracuse, not sure. Still a long ways before I have to get a car on a trailer for that road trip to upstate NY!)

And that leads me to next year! 2023 the CVOA will have its National Roundup in Syracuse, NY, in conjunction with the Syracuse Nationals Car Show! Mark and Frank Nizer will be our hosts. The Dates for the Roundup are in this Magazine, and so is the Hotel Information. I have conversed back and forth with Mark. It is really important to book your hotel rooms early! This Show is big! We are a little further away then some hotels to the Event. This is due to the pricing for rooms going sky high as you get closer proximity to the Event! So, book soon. (I already Booked a room for JC and me!). I hope to see plenty of you there in 2023!

Which reminds me of 2022. Jim Rigg put on a terrific Roundup in Phoenix a few weeks ago! (I'll be getting the photos up to the website, give me some time! LOL). From all the participants that went, the weather was great, the cars were gleaming, and there was a ton of laughter! This was a really unique National Roundup, held in a part of the Country we do not get to often, and in a different time frame from the usual Summer time. It was great to hear so many Members from the State actually brought their cars out to show off, and be a part of the Weekend. Many thanks need to go to Jim Rigg and Bryan Pridmore for setting this Event up! Unfortunately, I could not attend in person. But, I did text with a few Members while the Roundup was happening. As a matter of fact, that Saturday, I was shoveling snow while everyone was enjoying the Sun!

For those of you on the fence for attending A National Roundup. Go! You will not be sorry that you did. Even if you cannot bring your CV out, come out and meet the other Members in your Club! But, if you CAN bring your CV, definitely do so! Showing off your CV to other CV Afficianados is well worth the experience. And, to those of you with V-8 Vegas, Stock Vegas, Monzas, Skyhawks, and other H-Body brethren, bring those out! For every CVOA National Roundup that I can recall, we have had at least 1 non Cosworth Powered H-Body in attendance. As a matter of Fact, at least two National Roundups, the People's Choice Award winner was a Non Cosworth Powered H-Body! This shows we appreciate all H-bodies, not just our fun Cosworth Vegas. So, please come out, bring your Car, and let's have a Great time.

Oh, and by the way MERRY CHRISTMAS!!!!!!!

John J. Cowall

CVOA President

Proud Owner CV #1000, #3136

## **CVOA Call For Help**

**Do You want to share your Cosworth Vega Story?**

**Do You have parts you want sell?**

**Do You need parts and need a place to find them?**

**Do You want to assist in any projects that the CVOA or Regional Directors are planning?**

**Do You want to help input data, pictures, and or help in continuing to modify and keep up to date the CVOA Website?**

**Do You want to be Regional Director or on the Executive Council for the CVOA, to meet, interact, and Lead the CVOA for in the upcoming years?**

**Are you Interested in being the story teller for the CVOA (Editor for the CVOA Magazine)?**

**Please send your story to me, John J. Cowall, at [cvoapresident@hotmail.com](mailto:cvoapresident@hotmail.com)**

**Please send all requests to assist with the CVOA to me, John J. Cowall, at [cvoapresident@hotmail.com](mailto:cvoapresident@hotmail.com)**

**You will be surprised at the enjoyment and the people you meet in the CVOA as you help with this great Organization!**

# GM Factory AC Delco Radio Repair Vendor

I found a pretty good vendor that repairs the factory GM radios. This guy he used to do all of GM's warranty work for GM. I'm sure they had more than one guy but he did warranty work. I sent him a GM 8-track radio to get repaired and he had it fixed 2 days after he received it got it back real quickly. I just sent him another radio AC Delco AM FM cassette and he got it fixed the very next day after receiving it. Very good work and very fast turnaround time. Got both radios repaired just under \$100 for each one very reasonable price and quick turnaround time. If this is something you think would be good for the magazine under vendors.

Sent to the CVOA By David Dempsey



## Delco Radio Repairs are our Specialty

**35 years experience in Radio repair**

**25 years experience on GM warranty repair**

At our repair facilities, we care about quality and fairness. If you send us a radio, we won't charge you for non-existent repairs. If there is nothing wrong, we will tell you. We stock remanufactured CD mechanisms for many models, so many times we can ship your repaired radio out the next day. Take a look below for some of the items we repair. Our prices are very competitive, give us a try.

Give us a call at 210-979-0905 or [E-mail us](#)

**Repairs** (from 1965 & up)

Delco Electronics

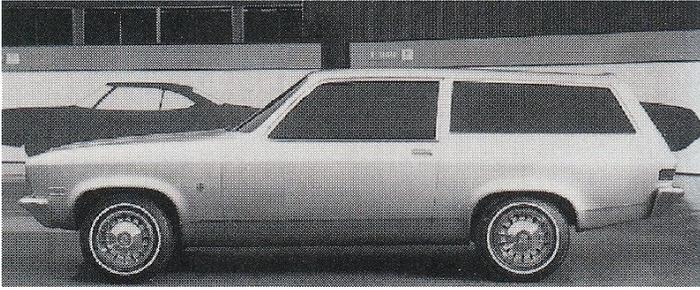
Bose Speakers and Amplifiers

VDO Speedometers

Power Antennas

©2001, 2002 Precision Radio  
12134 Colwick  
San Antonio, TX 78216  
210-979-0905

# GM Fisher Body Vega Development



## Fisher Body

XP-887 Wagon, September 1968

Jerry L Brockstein, assistant to Henry Haga, head of the Camaro/Corvette studio where the Vega prototype was restyled, recalls finalizing the Vega bodies. Brockstein said: "Chevrolet was trying to build this car as cheaply as possible and wanted us to take a lot of money out of it. At first the metal was so thin on the Kammback wagon that in the test facility it kept buckling under its own weight. Fisher Body had to come back and put stiffening ribs in the roof. Note, though, that Fisher often under-engineered prototype bodies because it was easier and more economical to reinforce a weak body than to shave one that had more strength than needed. Chevrolet, in a January 1971 Vega engineering report stated early difficulties were experienced at the front and rear suspension attaching points. Using scaled suspension members to impose static loads, stress evaluations were conducted. It was determined that addition of reinforcements, metal gauge increases, and some redesign of the pieces would give desired structure.

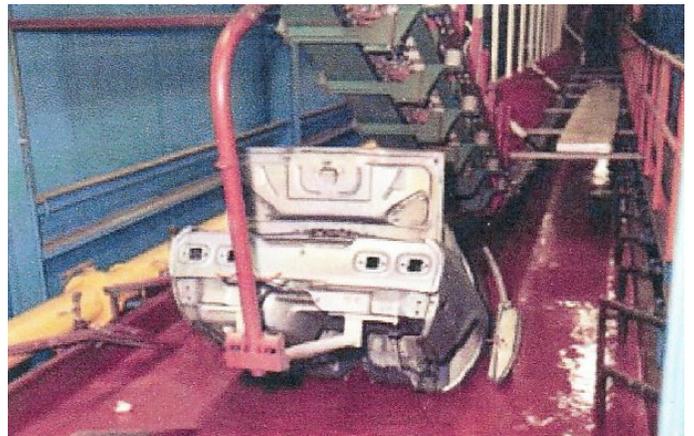
## Fisher Body Vega Elpo Dip

Fisher Body Division was very proud of its Elpo priming process, which should have prevented rust, but didn't. The Elpo process pioneered by Fisher followed a seven stage zinc phosphate initial treatment and itself involved submerging the assembled Vega body in a vat containing reddish-brown paint-primer particles in 65,000 gallons of water. The metal body received a positive electrical charge, the primer particles carried a negative charge, and by leaving the body in the vat for two minutes even the most remote recesses get coated, theoretically. The body was then dried, wet-sanded, sealer-coated and finally sprayed with acrylic lacquer and baked in a 300 °F degree oven. In practice however, the Elpo dip did not flow to every recess or reach every surface. Vega expert Gary Darian said, "The design of the front end caused air to be trapped at the tops of the fenders, so they never got coated. Early cars had no inner fender liners, so the tops of the front fenders got

blasted by sand and salt thrown up by the tires, and they quickly rusted." Derion pointed out, too, that a rust-prone gap existed between the front fenders and the cowl vent. "Moist debris and salt would pack into this area rusting through the metal in a few years." Chevrolet installed stopgap plastic deflectors in late 1973 and full plastic inner fenders in 1974.

The original design provided for the full inner fender liners from the beginning. But at a cost review meeting the finance department cancelled the liners, as they would have added \$1.14 per side, or \$2.28 per car to the product cost. One of the program objectives was to produce a 2,000-pound car to sell for \$2,000.00, and every penny was watched. Five years later, after GM had spent millions to replace thousands of sets of rusted-out Vega fenders in the field, the plastic fender liners were reinstated as a mid-model change during the 1974 model year. But rust damage also affected the rocker panels, the door bottoms, the area beneath the windshield, and the primary body structure above the rockers. Darian added. "The front suspension cam bolts would sometimes rust solidly in place, which prevented alignment adjustments. To remove the cam bolts required lots of careful work with a cutting torch and all new parts." Starting in 1976, extensive anti-rust improvements on the Vega's body included galvanized steel fenders and rocker panels and "four layer" fender protection with zinc coated and primed inner fenders and wheelwell protective mastic, zinc-rich pre-prime coating on inner doors, expandable sealer installed between rear quarter panel and wheel housing panel, and corrosion resistant header panel, grill and headlamp housings.

Submitted by  
Jim McIntosh





# Gary Cohen and CV #0856

Gary Cohen and CV #856, CV #1428, and CV #1488  
#0856



#856 is running well. Earlier this year I removed had the gas tank coated inside and replaced the sending unit and the two fuel pumps. It was amazing the car ran at all prior to replacing the sending unit, because two of the metal lines on the sending unit were rusted completely through with a 1 - 2" gap. I had some sporadic hesitation during acceleration for the last few years and didn't realize this was the cause. Ultimately it caught up with me and the car had to be towed. But it's running very nicely now, and the fuel gauge works for the first time since I bought the car seven or eight years ago.



When I bought the car it had only 750 original miles on it. The first two owners didn't use it much. Fortunately it was stored well so there's no rust at all on the car and

overall it is in very nice condition. It's not a show car, but is entirely original except for the muffler (and someone removed the catalytic converter along the way). The original lacquer paint actually looks very nice considering how poor GM's paint quality was in the mid-70's. It is checked on the hood and if you look closely also on the passenger's door, though it has a very nice shine (I had it ceramic coated five years or so ago) and the flaws are only noticeable if someone is specifically looking for them. When I first bought the car it still had a strong new car smell inside, the interior was (and still is) very 'fresh'.



Though rather than keeping it as a sub-1000 mile car, I decided I wasn't going to save it for the next owner, rather, the two prior owners saved it for me. I put about 300 or so miles per year on the car on average. It now has about 3200 on the odometer. I could drive it this way for the rest of my life and it still will have under 10,000 miles.

This is my third Cosworth. I bought the first one, #1428, on July 6, 1976 (I had turned 17 that day and it was my first car). I purchased it at Malcom Konner Chevrolet, which was known as a performance oriented Chevy dealer. Unfortunately that one was wrecked the following year. I had it repaired but it was a botch job

## Gary Cohen and CV #0856 Continued

and I don't see any record of the car still existing today. The second one was #1488, which I bought from David Dempsey. It ran well but needed more bodywork than I was ready to put into it. It is now in a museum in Israel (with bodywork completed but to a so-so quality level).

#1488



Regarding #1488, the story is as follows. During the time I owned that car I 'found' #856 while doing some routine searching on ebay. The fact that this Cosworth didn't need any work, and had only 750 original miles, was naturally appealing to me. The opening bid price was \$6000 and there were no bids on it yet. I contacted the seller and asked what he would sell the car to me for, and he said \$8000. At that point the deal on #856 was done. A practically new car from 1975 for



\$8000! It's the best deal for a car that I've ever done.

Then the question was what to do with #1488. I didn't intend to keep two Cosworth Vegas. Around that time a the owner of a company I did business with in Israel, and I would also consider him to be a personal friend, was visiting New York. I told him about the Cosworth Vega I purchased and the fact that I intended to sell the other one. His immediate response was "sell it to me." I sold it to him for a bit less than I paid for it. I also had a large cache of Cosworth Vega parts, including many he would need to improve upon his car. So I sold him about half of the parts as well. I folded the rear seat of #1488 and packed all the parts in the car. He arranged for a flatbed to pick up the car and bring it to the dock for shipment. I have a photo someplace of the car on the flatbed (if you would like to have it I'll find it and send it to you). The man who bought it is a very successful businessman and he was building up a car collection for a small private museum he established. More recently, he was chair of a project to set up a large open to the public car museum in Israel. Though I don't think he plans to display his Cosworth in the large museum.



I found the other photos very fast! The first two are #1488 on the flatbed, ready to go to the port for transport to Israel. You can see all the parts packed in the second photo. And the third photo is #1488 in the private museum. Note the Israeli license plate. I'm sure this is the only Cosworth Vega in Israel, and maybe in the entire Middle East. Also note the chrome headlight

## Gary Cohen and CV #0856 Continued

bezels, those aren't original, he must have sourced them while refurbishing the car.

#1428

one last story...

To save up the money to purchase the first Cosworth I owned, #1428, I worked starting at age 11. My first job was as a dog walker, then I started working in Manhattan at age 12/13, commuting by subway to a family company on 23rd street. I worked there every summer until I was 18 (except one summer when I worked as a lifeguard). I also worked weekends during high school in a real estate office. All this enabled me to save close to \$6000. I had been counting the days for obtaining my driver's license since I was about 12. Back then you could get a learner's permit in NJ on your 17th birthday, and take the drivers test about two weeks later.

\$6000 was a lot of money for a car in 1976. My father had drummed into me to only buy a new car (had I bought used, I could have had my pick of the litter of 1960's muscle cars, or even a Ferrari for \$6000!). I narrowed it down to about five cars; a Datsun 240Z (it may have been a 260Z by then), a Lancia Beta Coupe (good that I didn't buy that one), a Renault 17 Gordini (good that I didn't buy that one!), a BMW 2002 (would have been a good car to buy, but was about \$500 more than I had), and of course the Cosworth. We were a Chevy family, and I ultimately chose the Cosworth.

I took delivery of #1428 on my 17th birthday. I had actually 'bought' the car six months earlier (I was overanxious), and Malcom Konner kept it on their lot for me. That was a momentous day when I picked up the car.

That was in July 1976. I totaled the car in June 1977. Another momentous day, in a negative sense. The accident wasn't at all my fault. I was driving up the NY State Thruway, at about 11pm (completely sober I will add), and there was a car literally parked sideways blocking the left lane and center lane of the highway. I assume it was a drunk driver who made a left turn onto the Thruway, rather than entering properly from the on ramp. I was headed straight towards his driver's door at about 70mph when I saw his car. I veered hard to the right, putting the car into oversteer, and then hard to the left, at which point the car

went out of control. I literally went around the other car, from the left lane to the right lane, and then spun back towards the left lane and smashed into the center guard rail. Fortunately, the car was spinning when I hit the guard rail, and centrifugal force prevented my brother and I from injury (neither of us were wearing the seat belt).

The driver who caused the accident backed up and drove away, his car was untouched.

I was heartbroken to lose the car that I saved five years to purchase. So I decided to have it repaired. That was a bad decision. A Chevrolet dealer in central NJ said he would have no problem fixing the car. Then a GM parts strike hit. I went the full summer with no car, and then back to college, still with no car. Finally in late September 1977 I got the car back, and it was in simply terrible condition. The dealer cut many corners in repairing the car. The chassis was still bent, and it ran terribly. I knew I would have to give it up. I went back to Malcom Konner Chevrolet, where I had originally purchased the car, and traded it in. I scraped up every penny I could get my hands on and ordered a 1978 Nova with a 305V8, four speed, posi rear, F41 sport suspension, and special instrumentation (no other options). I would have ordered the 350V8 but it was only available with an automatic transmission that year (to this day I've only purchased cars with manual transmissions). I had to give up my Cosworth on the day in September that I put the order in for the Nova. It was wholesaled by Malcom Konner to Ray Catena, who later became owner of many dealerships in NJ. I got \$1500 for the car. I had paid \$5800 for it about 15 months earlier.

The Nova didn't come in until mid December 1977. I believe because of the way I spec'd the car it was produced in a special run. I didn't have high expectations for that car, compared with the Cosworth, but from the



# Gary Cohen and CV #0856 Continued

day I took delivery, I knew the Nova was special. I still have that Nova, and am enclosing two photos. It's been an outstanding car, I can outrun just about anything on curvy roads. I have resisted the temptation to put a crate motor in it, preferring to keep it stock.

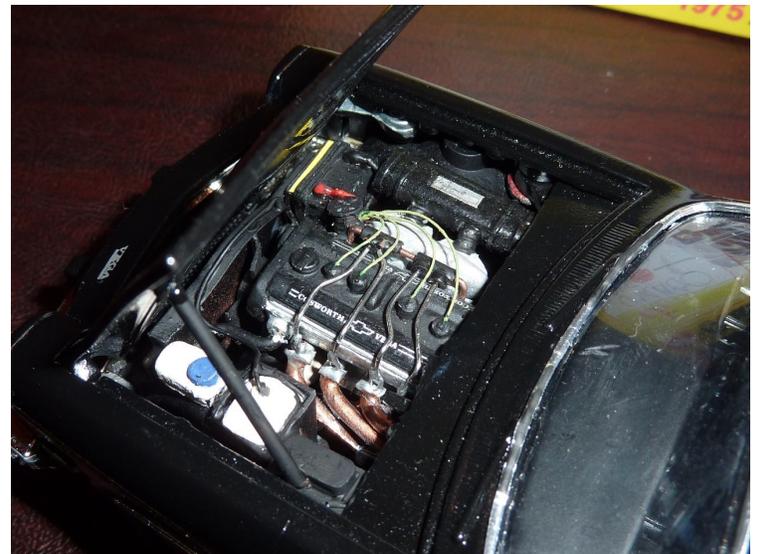


One last item of interest. Around the time the Cosworth Vega was launched, someone took the initiative to set up a registry of owners. My guess is you're familiar with it. A few years after the internet started, I did a web search, and lo and behold, I found that registry online. And there I was, listed as the owner of #1428.

Respectfully Submitted by Gary Cohen

Here are three photos of the model. The model maker also makes exceptional original-looking boxes. He did this one in the style of 1960's Corgi Toys (even though it's a 1970's car). I collect diecast models produced from 1911 to the 1970's. 99% of these are original, though the ones I have made by this model maker are particularly interesting and exceptional, such as a recreation of the Furka Pass scene in James Bond Goldfinger, done up with 1/43 scale diecast cars and custom made figures.

You can see the engine detail in the third photo



# Jim McIntosh Sun Visor Bracket Replacements

## Cosworth Vega: Sun-Visor Replacement Brackets



Replaces Molded Visor Retainer



Finished Side Contour



Back Side Contour

Contact Email: [leapertech@gmail.com](mailto:leapertech@gmail.com)

Attn. Jim McIntosh

Order: \$37.50 per Pair or quantity of 2 (less shipping); Personal or Bank Check to Jim McIntosh

Part Specification: 3D Printed with Nylon (Black) infused Carbon Fiber Material ([Markforged Pro](#))

## 3D Printing – Tooling for Car Restorations

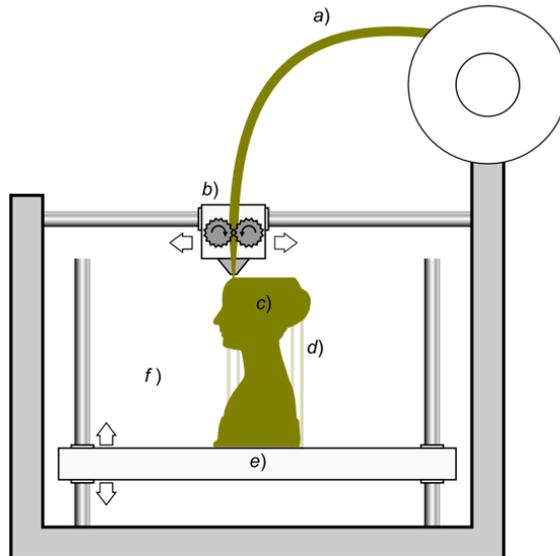
By Jim McIntosh

As both a car enthusiast as well as a 3D printer enthusiast, presenting this article to bring awareness to fellow Cosworth Vega owners, on an alternative path for part replacements including the potential of personalizing your CV. 3D printing has been advancing for the last 20 years and like any other technology, it can seem complex and expensive if you are unaware of what it's all about. Thankfully, the recent advancements have made it more accessible (from a cost perspective) and easier to adopt (from a user-friendly perspective).

The most familiar processes or traditional methods that come to mind to reverse the production of car parts are: milling, turning, drilling and/or grinding. In other words, removing material to develop the desired shape or geometry. Personally, over the last 50 years, these were the basic processes for fabrication and traditional manufacturing. With the arrival of 3D printing, also referred to as Additive Manufacturing, producing or reproducing parts has significantly changed. The process of Additive Manufacturing is fundamentally applying strips of material, layer by layer in a defined pattern. One common and practical 3D printer technology is FDM or Fused Filament Modeling (overview below) that correlates to a weld bead application. Think of it as assembling 'Legos' toy building blocks, one piece on top of the other. There are seven (7) types of differing printer technologies but for the sake of this article, we'll continue to

# Jim McIntosh Sun Visor Bracket Replacements Cont.

talk about Fused Deposition Modeling (FDM).



Filament (continuous thermoplastic material in a form of a strand or thread coiled on a spool)

Extruder – Nozzle (metered material feeder with heated nozzle tip as the means of Dispensing material) with controlled movement in the X – Y Plane or 2-dimensional pattern

## Cont; 3D Printing – Tooling for Car Restorations

Printed Part or Object (Layer by Layer advancing vertically or rising formation)

Vertical Supports for any overhangs to hold position of unsupported ledges (Breakaway at completion of the Printing Process)

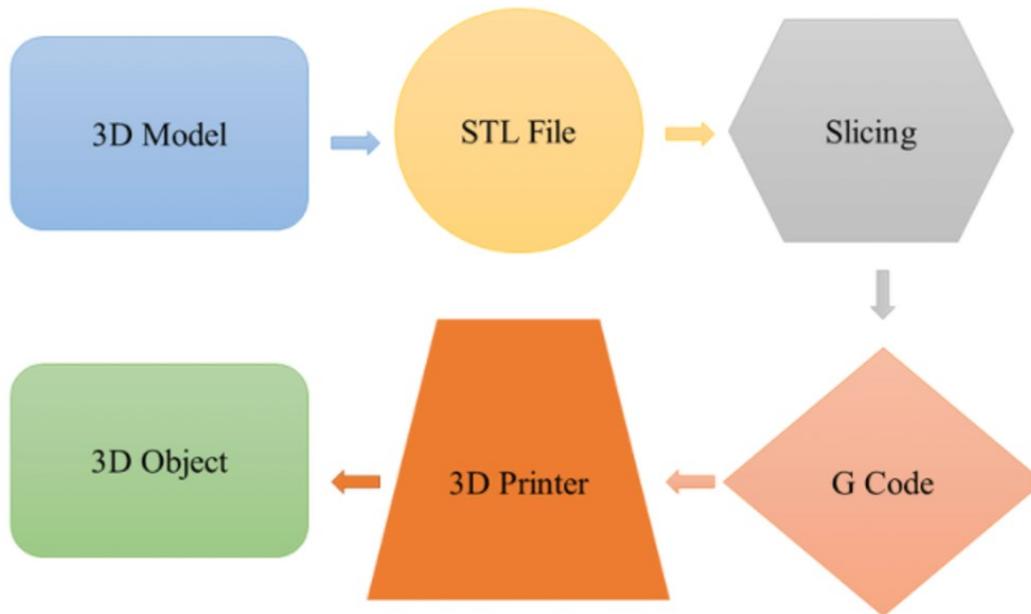
Build Plate with vertical movement to create the 3-dimensional effect (typically lowers as the layers are applied)

Build Chamber (Interior 3D Space and varies in sizes from various suppliers of 3D Printers)

With that said, as an introduction of 3D printing, the challenge going forward is applying and/or developing the computer files within a systematic step formation required to load the desired part configuration into the 3D printer. The process from start to finish is as follows;

# Jim McIntosh Sun Visor Bracket Replacements Cont.

## 3D Printing Process Progressive Flow Diagram



No worries, with a few sessions on YouTube and conversing with 3D printing sources, your creation and/or reproduction will be in hand! Let's demonstrate the said process with a common Chevy Vega replacement part, the sun-visor bracket.

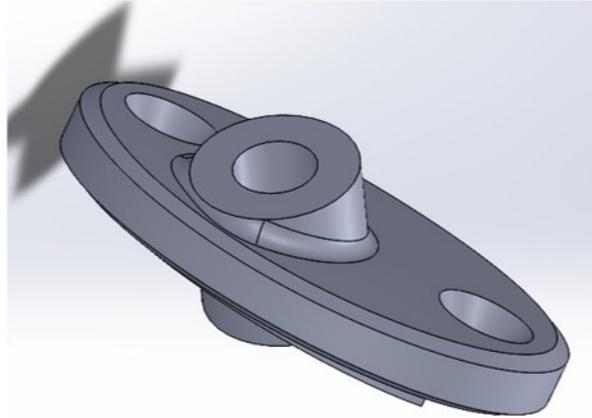
### Cont; 3D Printing – Tooling for Car Restorations



# Jim McIntosh Sun Visor Bracket Replacements Cont.

Create the 3D model or CAD (Computer Aided Design) as an STL formatted file (3D modeling services and/or 3D Printing available per contact at end of this article)

Cosworth Vega Sun Visor Mounting Bracket  
Solidworks 3D Model Reversed Engr'd



## Cont; 3D Printing – Tooling for Car Restorations

Convert to G Code (typical conversion to machine language and likewise applicable for 3D Printers). Each 3D Printer or OEM (original equipment manufacturer) requires proprietary G Code conversion or slicer program that comes with the Printer.

## Additive Manufacturing: `Slicer` Software or `G` Code



Converts the 3D solid design model into thin slices that provides X & Y Coordinates including the

# Jim McIntosh Sun Visor Bracket Replacements Cont.

Z height thickness per layer defining the Toolpath or Print Head movement while applying strips of molten material.

End Resultant 3D Print; approximately four hour print time with either a Fusion3 Printer or a Mark-forged Desktop Printer for a **pair** (x 2) Sun-Visor Mounts.



## Cont; 3D Printing – Tooling for Car Restorations

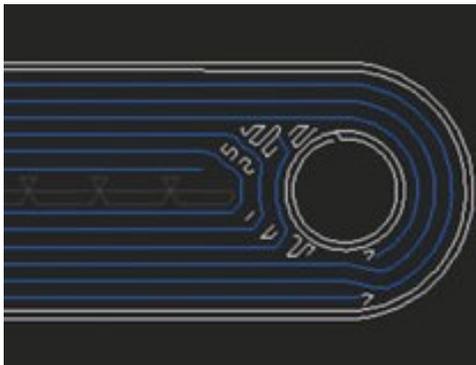
Final assembly for reference (Note, utilized sheet metal nut pressed fitted)



Carrying this review of 3D printing for added background, 3D Printing also offers opportunities to introduce

## Jim McIntosh Sun Visor Bracket Replacements Cont.

a wide range of various materials that are available with the FDM Process. The basic material starts with what's described universally as PLA (Polylactic Acid), it's a flexible plastic polymer that is usually used to prototype parts. This is due to the fact that though flexible, it is not as resilient when it comes to strength, thermal exposures and/or impacts. But offering a low cost and accurate trial part configuration to validate fit and appearance. With the sun-visor bracket, better suited materials are ABS (Acrylonitrile Butadiene Styrene) with added carbon fiber, or nylon with carbon reinforcement to handle the environment of thermal exposure and suitable for the load bearing applications. As an added reinforcement component, the Markforged printers allow for fiberglass or carbon fiber continuous filament. The reinforcement is embedded into the material, adding further strength to the final prod-



**Reinforcement (similar to concrete impeded steel re-bar) with continuous fiber (shown in blue) between printed layers strategical located (Included with the G Code Slicer Program)**

uct.

### Cont; 3D Printing – Tooling for Car Restorations

3D printing is also available in metal, although it will require a different type of 3D printing machine which is definitely an added investment. Innovation with 3D printing and the mixture of materials, i.e. nylon with fiber reinforcement, closely simulates aluminium metal strength characteristics. Also worth noting, pending on the desired 3D print, many CAD models are available on websites at no cost. For any hobbyists and self guided 3D printing enthusiasts, this is a great resource. Speaking of resources, huge shout out to Hawk Ridge Systems. Hawk Ridge Systems is an end-to-end solution provider which specializes in additive manufacturing among other solutions for engineers and manufacturers. Hawk Ridge offers both online and open house seminars with 3D Printing as well as demonstrations to meet specific individual interests and goals. Thanks to Hawk Ridge Specialists, for personal 3D Printing Skill Enhancements and better acquaintance with 3D Printing Technology! Thus, 3D Printing allows for quick, low cost and dimensionally accurate fitted restoration parts without mentioning potential improved design opportunities while entertaining unique or complex geometry, i.e. trial new concepts and self innovation opportunities.

# CVOA National Roundup Phoenix, AZ 2022 Attendees

## 2022 Phoenix Roundup XLIII Attendees

Frank Sloan Arizona cosworthfrank@gmail.com Speaker Lake Racer - Great Salt Lake and El Mirage Lake

Dave Bloch Iowa daveb@electricpump.com 2196

Tim and Sue Morgan Texas cosworthtwincams@gmail.com 3062 (Former Bob Maloy Award Winner)

Gelasio Olvera and Ashley Morgan-Olvera Texas

Estelle Olvera Texas

Mary and Jim Pittelko Minnesota jimpittelko06@gmail.com 0060

Silver Heritage Award for # 0060

Mark Rock Ohio markarock@gmail.com 0971

Bob Maloy Award Hall of Fame Award

Ken Rock Virginia the1rockken@gmail.com 0259

Tom and Laura Cross Connecticut lcross1@comcast.net 2699

Dick and Marilyn Bradach Ohio dmlbradach@aol.com '72 Vega

Jim Rigg and Michelle Reesman Arizona jwrigg@msn.com 2607

Bryan and Carol Pridmore California cos5speed@gmail.com 2796 & 3204

Western Region Director

Alan Healey Arizona am\_healey@yahoo.com 0198

Kelly McKendrick Arizona mckelly@mstar.net 0321

Bob Nieto Arizona bob.nieto@comcast.net 1990

Cliff Westerlin California elcrash@aol.com 2911

Jose and Janaan Garcia California avojose@yahoo.com 0735

# CVOA National Roundup Phoenix, AZ 2022 Attendees

Jay Hovick Iowa jay.hovick@gmail.com 1797

Jack Hovick Nebraska jack.big24fan@gmail.com 1951

2020 Heritage Award for # 1951 H-body Director

Bryon Burnham Nebraska bbcowboy45@yahoo.com 0756

Cliff Permberton Arizona camarocliff@aol.com 0818



# CVOA National Roundup Phoenix, AZ 2022 Recap

## 2022 CVOA Roundup



I picked up Mark Rock at the airport on Thursday about noon. Around 5 PM I circled back to the airport and picked up Dick and Marilyn Bradach. They were the only folks to fly in. Registration began at noon on Friday. Two cars and a few people arrived late Thursday. Two cars with Bryan Pridmore, Mark Rock, Jose Garcia, and Cliff Westerlin, I believe, left early on Friday morning to tour the old town of Goldfield and see what was left of the mining operation. The revived tourist town is about forty minutes away. I understand some folks made to the mining town of Globe and some to the Penske Racing Museum. Alan Healey and Kelly McKendrick arrived at noon to help with registration and meeting all the new arrivals. We had 27 people attend the Roundup. Four cars were trailer in from California and Texas. Three cars were from the Phoenix area. My best guess was that we had perhaps 9 Cosworth and H-body people in the greater Phoenix area. The

Roundup was able to bring in 40% of the local cars and about 80% of the local owners. I was very pleased with the local turnout.

Attendees were:

Tim and Sue Morgan - Mahogany # 3062 with Gelasio Olvera and Ashley Morgan-Olvera with baby Estelle Olvera TX

Dave Block IA

Mark Rock OH

Ken Rock VA

Mary and Jim Pittelko MN

Tom and Laura Cross CT

Dick and Marilyn Bradach OH

Jim Rigg and Michelle Reesman - #2607 AZ

Bryan and Carol Pridmore - # 2796 CA

Jose and Janaan Garcia - #0735 CA

Kelly McKendrick - # 0321 AZ

Bob Nieto AZ

Cliff Westerlin - # 2911 CA

Jay Hovick IA

Jack Hovick NB

Byron Burnham NB

Cliff Pemberton - #0810 AZ

Alan Healey AZ

Frank Sloan – Cosworth Lake Racer from Wickenburg, AZ was our Speaker

(Thanks to Bryan Pridmore for finding him in my state and telling me )

The theme for this year's roundup was to honor the builders of the engines. This year is 50 years since GM asked Cosworth of England to design a 2 liter engine for the Vega. There were only a small number of GM workers who assembled each engine, then signed their engine. Some of us know who built the engine in their car. Most of the nameplates have long worn off. We had a list of engine builders and the most current list where we can attribute a particular car to one individual.

## CVOA National Roundup Phoenix, AZ 2022 Recap Continued

By Friday evening just about everyone had arrived. We had 7 cars for the concours portion of the Roundup at the Hotel; three 1975 models and four 1976 models. Phoenix residents, Cliff Pemberton, Jim Rigg and Kelly McKendrick, drove to the show. Cliff brought his '75 #0818 with a 350 V-8 engine and Kelly brought his '75 Cosworth which was almost completely original. As luck would have it, Kelly McKendrick's '75 Cosworth # 0321 engine label was readable enough to assign another car to Carl Kookken. Two of the AZ cars were not road ready for the event and did not come, but the owners were happy to attend.

Friday evening did not come soon enough for those who flew in from back east or drove a long ways. The Hotel was located in downtown Chandler and there were several nice restaurants to choose from. Four or more groups headed out for dinner.

I noticed a couple of cats that patrolled the Hotel parking lot and surrounds on Friday. When I came out early on a cool Saturday morning, I noticed that one car had cat paw prints on the hood where it paused to survey the environs. Saturday was our big day for concours judging, meeting new and old friends and catching up on things in general. Chelly Reesman took Carol Pridmore along with Dick and Marilyn Bradach to the Phoenix Botanical Garden. It has a huge variety of cactus and succulents from around the world.

Judging for our 3 classes began at noon and went pretty fast thanks to Jay and Jack Hovick. Cliff and Kelly both had obligations for Sunday so we gave



out their scores and trophies in the late afternoon. We managed to get one or two large groups together in the evening and go across the street to a great Mexican restaurant. I did not think it possible to get the groups in,



but we did.

Sunday was the reason for having the Roundup so late in the year. Last year, I took # 2607 and Alan Healey took his Grand National to the Good-Guys show as a test run. I was the only H-body car there. There was a Vega body on a flatbed for sale but I did not count that. I was surprised that I received a good number of comments and people stopping by to really look. The Good-Guys Show began on Thursday and ran to Sunday. By Sunday the show was beginning to wind down and was the day we would take our 5 cars to the big car show. This time we had 5 cars and a banner on the fence to attract as much attention as possible. I left early in the morning to make sure there was smooth sailing to the show and find our supposed display area. We all arrived and got in line. It turned out we were parked just like everyone else, but we did get to be together as we planned. Alan Healey brought his Grand National. Mary and Jim Pittelko are snowbirds in Arizona and brought their Corvette to display while their Cosworth was back home. I recall one person looking and talking to Tim Morgan about his Mahogany car. He was so surprised to see one Cosworth. Then he turned around and saw another one. He was just shocked to see one, then two and finally all five. It was like that all afternoon. We met another Phoenix, AZ Cosworth owner. Mike Messner has Cosworth # 1501. I hope he will stay in contact with the club.

# CVOA National Roundup Phoenix, AZ 2022 Recap Cont.

The Roundup Dinner was great. Everyone had selected an entrée and it turned out that everyone selected steak or salmon. We had so much food that many folks had some of each with lots left over. The engine builders theme was the perfect introduction to the 2022 Hall of Fame Inductee. In 2005, JD “Jerry” Smith, and a few other folks worked on bringing Cosworthvega.com to life. In 2017 the site was further improved with his skill. JD, a main Builder of Cosworthvega.com, and the inductee for the 2022 Hall of Fame Award. A well deserved position. Congratulations JD.

I forgot to mention our speaker:

Frank Sloan is a Lake Bed Racer. There is probably a better term. Frank used to live in California but moved to Wickenburg, AZ a few years ago. He has worked with a few engines but seems to be focusing on Cosworth Vega engines. His goal is to get the most power out of the engine, and push a car as fast as possible on dry lake beds such as the Great Salt Lake and El Mirage. For his efforts he has a few records that stood for some time. His talk was pretty technical regarding the various blocks he used, the pistons, valves, and all the efforts to add extra strength to hold the entire assembly together. I gather he is running a car shape and not a streamliner. He has hit a point where air resistance is preventing the wheels from keeping contact with the ground. Apparently the wheels are spinning faster than the car is going. Frank has a huge knowledge base on what he does which is over my head. I sat Frank next to Mark Rock for the dinner and that was my best move of the night!

Submitted by Jim Rigg



# CVOA National Roundup Phoenix, AZ 2022 Recap Cont.



# CVOA National Roundup Phoenix, AZ 2022 Recap Cont.



# CVOA National Roundup Phoenix, AZ 2022 Concours

## 2022 Phoenix Concours Results

### CV Stock

1st Place	Jose Garcia	#0735	192.5 pts
2nd Place	Tim Morgan	#3062	182.5 pts
3rd Place	Cliff Westerlin	#2911	175.5 pts
4th Place	Bryan Pridmore	#2796	172.5 pts



### CV Modified

1st Place	Kelly McKendrick	#0321	173 pts
2nd Place	Jim Riggs	#2607	147 pts

### H-Body/CV V8

1st Place	Cliff Pemberton	#0818	184 pts (V-8 powered Cosworth Vega)
-----------	-----------------	-------	-------------------------------------

Judges "Best of Roundup" Cliff Pemberton #0818



# 2023 CVOA National Roundup Syracuse, NY

The CVOA National Roundup for 2023 will be held in Syracuse, NY! Mark and Frank Nizer will be our hosts for this Event. During our National Roundup, we have secured a Spot at the Syracuse Nationals Car Show. Mark is diligently working out the details for us at this Event. This is a great way for the CVOA to Showcase our Cars and People to the Car Culture World!

The Dates for the National Roundup are July 14<sup>th</sup>- 16<sup>th</sup>. So, mark it on your calendars! Let's hope the Northeast Members of the CVOA Show Up and Show Out their CVs!

More details such as Roundup Registration, and an Itinerary for the Weekend will be out at a later date. So, check the CVOA Website in the next few Months for more information as we nail down the details for the Event!

If you plan to attend, it is a great idea to contact

Mark Nizer at [nizerm@yahoo.com](mailto:nizerm@yahoo.com) or

Frank Nizer at [fncars@aol.com](mailto:fncars@aol.com)

If you are interested in submitting your Car for the CVOA Heritage Gold Award Judging, please contact

John J. Cowall at [buddyleejc2@hotmail.com](mailto:buddyleejc2@hotmail.com) or [cvoapresident@hotmail.com](mailto:cvoapresident@hotmail.com)

Hope Many of you can make it!

For details on the Syracuse Nationals Car Show, go to [www.syracusenationals.com](http://www.syracusenationals.com)



# JULY 14-16 2023



## LARGEST CAR SHOW IN THE NORTHEAST!

# 2023 CVOA National Roundup Syracuse, NY

## Hotel Information / BOOK FAST ROOMS WILL SELL OUT

### HOLIDAY INN EXPRESS & SUITES SYRACUSE NORTH - AIRPORT AREA

**5860 CARMENICA DRIVE, Cicero, NY 13039 United States**

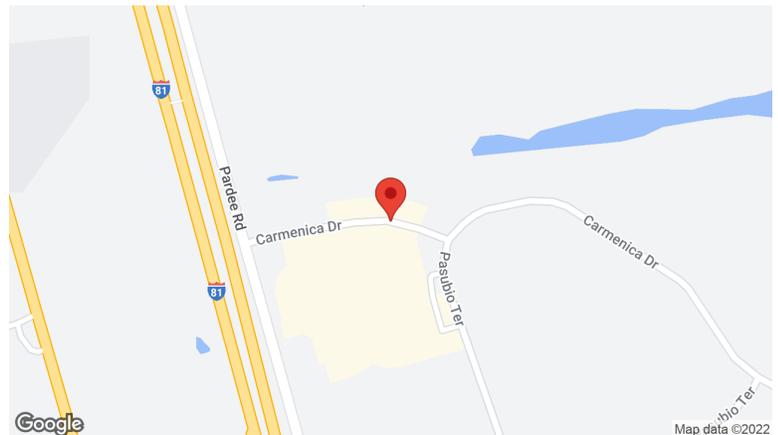
**Email: [hiecicero@suitehm.com](mailto:hiecicero@suitehm.com)**

**Front Desk: 1-315-288-5700**

**Reservation: 1-888-Holiday**

**[www.ihg.com](http://www.ihg.com) Type in Cicero, NY**

**The Code for booking online Code is CVA. Calling direct, make sure to mention you are with the Cosworth Vega Owners Association. We have a block of 20 room reserved for us. Room rates vary depending on length of stay, but will be around \$170-\$200 a night depending on bed count and head count per room. Book early, this is a large show, and hotels book fast in this area due to the Car Show Weekend.**



# CV #3365 For Sale Jerry Tomlinson, TN

CV # 3365 For Sale. Asking \$4500.00/ OBO (or Interesting trades? ATV, Etc.)

Car is in Bethpage, TN. Ask for Jerry Tomlinson, Phone #419-707-0048 (or text)

Mahogany Exterior/ Tan vinyl Interior, 5 speed transmission

Car has 124,000 miles. Has not run in 30 years. Some rust around front fenders, doors. See pics for details. Good Restoration Candidate!

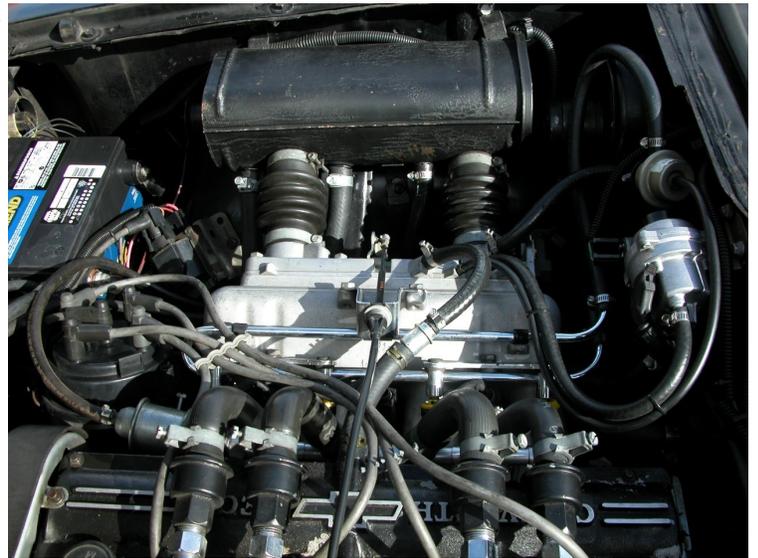


# Jim Rigg's CV # 2607 For Sale!

For Sale: 1976 Cosworth # 2607

One owner, 120K miles, original engine and drive train, all papers, no build sheet. Astre taillights added, Astre 3-piece spoiler, recovered front seats, re-indexed cams, power brakes added and more. It is just time to sell. I was a Regional director for 25 years and CVOA member since '81, lots of literature. Car has lots of spare parts ( ask for list ). Tow bar/frame for flat towing ( you need a 2" receiver and female Pollak electrical plug ) and lights using a Pollak 7 pin cylindrical male plug. It will be at the Phoenix 2022 Roundup.

\$9000.00      Jim Rigg      [jwrigg@msn.com](mailto:jwrigg@msn.com)  
208 297 8959



## CVOA Official Merchandise

**(Price subject to change without notice, see CVOA Website for real time pricing)**

<p>CVOA-PT-19 Neoprene Rear Main Seal           \$30.00</p>	<p>CVOA-PT-05                                 \$28.00 Camshaft/Distributor drive seals. Set of three.</p>
<p>CVOA-PT-20                                 \$45.00 Gates reproduction lower radiator hose</p>	<p>CVOA-PT-06                                 \$5.00 Distributor O-Ring Set - 3 Rings</p>
<p>CVOA-PT-21                                 \$8.00 Front brake hardware set. One set required per front caliper.</p>	<p>CVOA-PT-07                                 \$25.00 Distributor drive belt.</p>
<p>CVOA-ACC-2                                 \$ 4.00 Kan Coolers - Foam sleeve to keep a can cool. Yellow with 20th anniversary logo.</p>	<p>CVOA-PT-08                                 \$135.00 Cam drive belt Fel-Pro Water Pump Gasket - No Charge with Belt Set Only</p>
<p>CVOA-ACC-3                                 \$ 3.00 Window decal - New design, static cling type. Affixes to inside of window. White background.</p>	<p>CVOA-PT-09                                 \$225.00 Water Pump with updated bearing set. Water pump purchase requires core to be returned. Gasket included. CORE CHARGE is \$100.00 *will be refunded when core is received</p>
<p>CVOA-ACC-4                                 \$ 4.00 CVOA Jacket Patch . Older design 3" round, WHITE background.</p>	<p>CVOA-PT-10                                 \$22.00 Heater box rebuild kit. Reproduction kit with seals. You will also need to get a small tube of 3M Super Weatherstrip Adhesive and some 3M Strip Caulk from your local parts store.</p>
<p>CVOA-PT-01                                 \$50.00 Upper End gasket set. Includes cam cover, cam carrier, intake and exhaust.</p>	<p>CVOA-PT-12                                 \$ 11.00 3M "27" Tape - The special white insulating tape used on the left engine wiring harness. 7ft. roll (enough to do one car) '75 or '76. LIMITED SUPPLY.</p>
<p>CVOA-PT-02M Molina Cosworth Vega Head Gasket   \$235.00</p>	<p>CVOA-PT-13                                 \$ 11.00 Fuel Injector "O" Ring Kit - Includes (4) fuel rail grommets, (4) injector manifold seals, (8) injector to rail seals, and instructions.</p>
<p>CVOA-PT-02C                                 \$75.00 Head Gasket Core-Tec with instructions for making the oil restrictor.</p>	<p>HME-1-2 2 Piece Dash Bezel           \$125.00 (Machined Turned, Gold Tinted)</p>
<p>CVOA-PT-03                                 \$75.00 Lower end gasket set. Includes oil pan set, oil pump set, rear main set (rope seal), and water pump gasket.</p>	

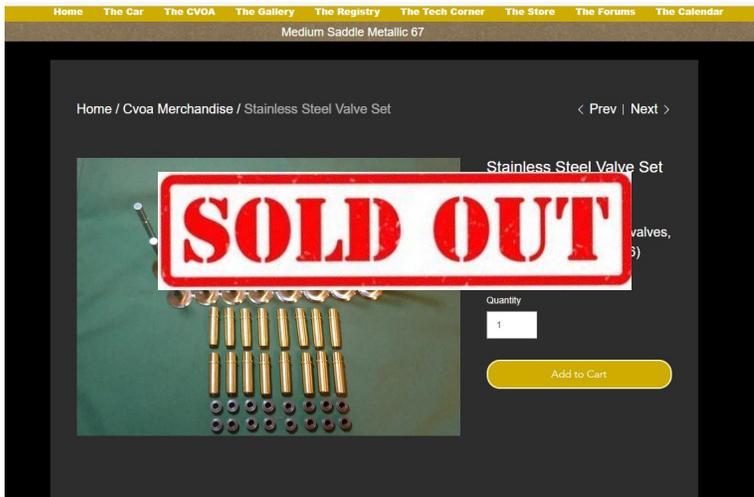
## CVOA Official Merchandise

(Price subject to change without notice, see CVOA Website for real time pricing)

Valve Shims - **Limited Supply** \$10.00

\*\*Please note, we have limited availability on shim sizes! \*\*

\*\*Please Email Shawn Parsons with the Shim sizes you need. He will email you back with what is available, and how to proceed with payment\*\*



**\*All items sold to current CVOA Members only\***

**Order online at [www.cosworthvega.com](http://www.cosworthvega.com)**

**Click on "The On-Line Store" link along the header bar towards the right of the home page and use PayPal**

**OR:**

**Contact : Shawn Parsons**

**[cos0046@yahoo.com](mailto:cos0046@yahoo.com)**

**580-641-2130**

**Lower 48 states only (no PO Boxes)**

**Contact Merch VP for shipping to AK, HI, or other countries**

## CVOA Acquired Hutton Motor Engineering Parts Collection

Hello Ladies and Gentlemen,

Please check the CVOA Website for the Parts Store. The CVOA has acquired the collection of CV parts that Hutton Motor Engineering had when they closed their doors. This is a once in a lifetime chance to get some hard to find parts!. Our VP Of Merchandise is slowly working through the Parts Collection and listing them for sale through the Club Parts Program. There are some large items, small items, and some non-existent items like two piece dash bezels! Once these parts are gone, they are gone for good. Make sure to check out the collection, even if you are not sure you need anything. As Shawn Parsons works through and sorting the items, they will be listed. So check back from time to time, you never know, the part you may need is right there waiting for you!

# CVOA REGIONAL DIRECTORS

## WESTERN REGION

**Bryan Pridmore– West Region Director**  
925-642-0368  
cos5speed@gmail.com



## MIDWEST REGION

**Dave Bloch– Midwest Region Director**  
515-707-6032  
daveb@electricpump.com



## NORTHEAST REGION

**Mark Nizer**  
Northeast Region  
Director  
518-269-9084  
nizerm@yahoo.com



## SOUTHERN REGION

**Tim Coughlin**  
Southern Region  
Director  
225-278-7128  
Coughlin94@gmail.com



## H-BODY REGION

**Jack Hovick**  
H-Body Region  
402-416-0153  
Jack.big24fan@gmail.com



## CVOA VENDORS

### **Carpets - Molded Floor, Rear Cargo and Material**

Auto Custom Carpets Inc. (<http://www.accmats.com>)  
1429 Noble Street, Anniston, AL 36202  
(800) 352-8216

\***Note:** 1976 carpet is longer than the 1975. CVOA discount.

### **Reproduction Labels**

Jim Osborne Reproductions (<http://www.osborn-reproduction.com>)  
101 Ridgecrest Drive, Lawrenceville, GA 30045  
(770) 962-7556

### **Computer Repair**

Bob Stallwitz, Pekin, IL  
(309) 824-5940 Email: [rstallwitz22@gmail.com](mailto:rstallwitz22@gmail.com)

### **SMS Auto Fabrics**

(<http://www.smsautofabrics.com>)  
350 South Redwood Street, Canby, OR 97013  
(503) 263-3535

### **Seat Belts- Repair and Restoration**

Ssnake-Oyl Products (<http://www.ssnake-oyl.com>)  
114 N Glenwood Blvd., Tyler, TX 75702  
(800) 284-7777

### **Remanufactured Vega Steering Boxes**

Lares Corp. (<http://www.larescorp.com>)  
855 South Cleveland, Cambridge, MN 55008  
(800) 555-0767

### **Weatherstrip for your Cosworth**

Metro Molded Parts (<http://www.metrommp.com>)  
11610 Jay Street NW, Minneapolis, MN 55448  
(800) 878-2237

### **Cosworth Vega Professional Wheel Refinishing**

Wheel Medic  
2971 Silver Drive  
Columbus, OH 43224  
(614) 299-9866

## CVOA TECH ADVISORS

### **\*Restoration and Mechanical**

Bob Chin, Bloomington, IN  
812- 318-4604  
4pm-9pm EST  
[BobC997615@yahoo.com](mailto:BobC997615@yahoo.com)

\*

### **\*EFI, Webers, Engines, Performance Parts, Suspension, Body and Interior**

Tim Morgan, Houston, TX  
(281) 589- 0449  
9pm-10:30pm CST M-F  
[Twincams@aol.com](mailto:Twincams@aol.com)

### **\*Editor, Cosworth Vega Tips and Tricks**

**Knowledge Base Volumes I, II, III**  
Mark A. Rock, Columbia Station, OH  
(216) 789-3480  
After 7 PM  
[markarock@gmail.com](mailto:markarock@gmail.com)

### **\*Troubleshooting Fuel, Electrical and Drivetrains**

#### **a Specialty. Working on Cosworths since 1979**

Maurice Schecter, Williston Park, NY  
(516) 294-4416  
9-11pm EST M-F  
[Mauricsch@cs.com](mailto:Mauricsch@cs.com)

### **\*Maintenance, Engine, 5 Speed Trans, Brakes, Fuel, Electrical System, General Technology and History**

Duke Williams, Redondo Beach, CA  
(310) 372-5527  
6pm-10pm PST & weekends  
[Dukewilliams@netzero.net](mailto:Dukewilliams@netzero.net)

### **\*EFI, Webers, Engine Assy, Electronic analysis, 30+ Years performance OHC Experience. 16 Years CV port/polish, etc.**

Neil Williams, Bellflower, CA  
(562) 920-7168  
After 5PM PST

### **\*Mechanical, Electrical, Suspension**

Michael Young  
831-917-1070  
[youngsspeed@hotmail.com](mailto:youngsspeed@hotmail.com)

Fuel Injection Corporation  
 Www.fuelinjectioncorp.com

Mark Rock's FIV Parts  
 Repair Service



**About FIC...**  
**Fuel Injection Corporation** began as a one-man business that started in Bob White's home in 1987. FIC is still family ran and is located in Tracy California. For more than 30 years FIC has offered access to the finest rebuilt fuel injection components in the industry. FIC offers several product lines that are exclusive to Fuel Injection Corporation.

Always striving to improve, **FIC** is dedicated to providing customers with quality workmanship, and superior Customer Service. We continually strive to increase our quality with a heavy focus on warranty rate reduction. **FIC enjoys a 97%+ success rate on every part sold.**

Of the many products remanufactured by **FIC**, we have specialized skills in automotive electronic computers, utilizing our own in-house reverse engineered ECM testing units. We also test, clean and rebuild electronic fuel injectors. FIC is one of the very few companies that actually REBUILD fuel injectors. Every single air flow and vane type meter, air mass sensor, fuel distributor, warm-up regulator, fuel pump, pressure sensor, and auxiliary air valve rebuilt by **FIC** is 100% dismantled and rebuilt from the component level.

Simply stated, FIC is the place for your Vintage Import Fuel Injection needs.

209-830-6551  
**FUEL INJECTION CORPORATION**  
 2246 N. MacArthur Dr.  
 Tracy, CA 95376

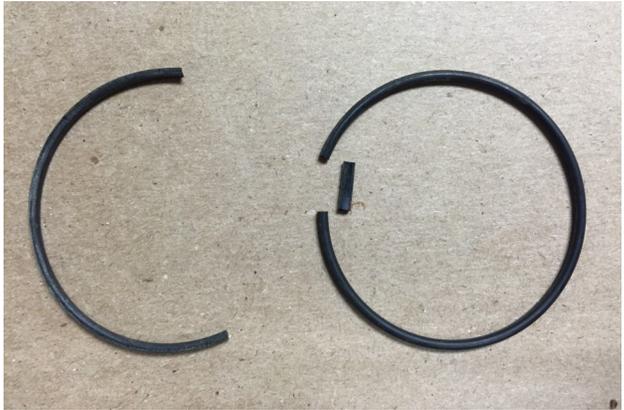
**FIV REPAIR**

Does your CV race to 3000 or 3500 rpm on cold starts? Your Fast Idle Valve O-rings, brittle from heat and age, have undoubtedly broken.

Restore your FIV to like-new performance with premium Viton oil and grease resistant parts. DIY Rebuild Kit \$24 (incl. S&H)

Rebuilt FIV	\$75 exchange* (plus \$6 S&H)
Rebuilt FIV	\$175 outright (plus \$6 S&H)

[markarock@gmail.com](mailto:markarock@gmail.com) 216-789-3480 cell  
 \*Refundable \$100 core charge



**Steele RUBBER PRODUCTS**

**Chevrolet Vega Rubber!**  
 1971-1977  
 DOOR & HATCHBACK SEALS  
 BUMPERS, PLUGS & MORE!

800-352-0068

[YouTube](https://www.youtube.com) [f](https://www.facebook.com) [Twitter](https://www.twitter.com)

[www.steelerubber.com](http://www.steelerubber.com)

Over 12,000 parts available for most American vehicles!

# Jay Hovick's

## Sending Unit Rehab Service

**Sending unit rebuild service being offered. \$140 flat rate, plus actual parts cost and return shipping.**

I will de-rust your unit, coat all the internal pieces with POR15 tank liner, install LP or Fiero pump, replace connector pins and replace resistor can if needed. Current prices on parts (10-31-2022)

- New electrical connection pins- \$25
- Fiero HP in-tank pump- \$60 LP pump- \$27
- Resistor can- \$55
- New shrink tubing- \$5
- New electrical straps- \$5 each
- Sock- \$10

Turn around time should be around 1-3 weeks, unless I get slammed. Also is subject to parts availability.

[jay.hovick@gmail.com](mailto:jay.hovick@gmail.com)  
515-203-628 3



# Mark Rock's Re-indexed Cam

## Sprocket Program

### Re-Indexed Cosworth Vega Camshaft Sprockets

Want more torque, more horsepower, lower and smoother idle, higher vacuum, lower under hood temperatures, better throttle response and greater fuel economy while remaining emissions legal? Get a set of re-indexed camshaft sprockets precision machined by Roy Linenberger.

**Only \$200 + \$15 shipping and handling.**  
**Requires the exchange of your old camshaft sprockets.**

Contact: Mark Rock  
[markarock@gmail.com](mailto:markarock@gmail.com)

(216)789-3480



PHOENIX GRAPHIX BEST PRICE GUARANTEE

800.941.4550

HOME | GENERAL MOTORS | MOPAR | FORD | AMC | JEEP |

1975-76 COSWORTH VEGA

Kit Contents:  
• 2 "Cosworth Vega" fender emblems

Part #7576CV (plus color code)



CV #0818 at the 2022 CVOA National Roundup! Owner Cliff Pemberton