COSWORTH T VEGA

MAGAZZINIE

PUBLISHED QUARTERLY #82/83

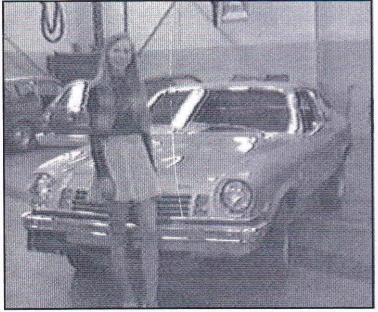
3rd + 4th QUARTERS 2002

THE "FIRST" COSWORTH PILOT AT STE. THÉRÈSE, QUEBEC, CANADA

by John Hinckley
GMAD-Lordstown Vega Launch Coordinator

During early 1973, Cosworth development was proceeding on schedule (relatively speaking) at Engineering, and production of Pilot units had been scheduled for some time to take place at Lordstown in April, 1973, with production launch scheduled for August (later re-scheduled for May, 1974, and this date soon became a moving target due to continuing development and emission certification issues).

At any rate, the early Pilot was "on" regardless of the wavering going on at the Tech Center, as Engineering needed the cars for further development. Shortly before the Pilot build was to gear up at Lordstown, the adjacent Fisher Body Stamping Plant went on strike, shutting down Lordstown assembly; a lot of tap-dancing by all of us resulted in the Pilot being moved to Ste. Therese, Quebec at



One completed Neutral Silver Cosworth Vega Pilot car.

CONTINUED ON PAGE 4



The fervent Round Up Planning and Review by Art Treta

It all started easy, lap n lunch set up, auto cross set up, hotel set up. I contacted Watkins Glen to see what the possibility of going on the track would be. There was two options, first was renting the track for a weekend at a cost of seventy-five hundred dollars and there were only two weekends left available in 2002. The problem with that is obvious it just was not in the budget. Option two the Lap-n-Lunch where you buy lunch and get paced three paced laps. The draw back to the paced laps were they were going to be fifty-five miles per hour so the lap-n-lunch was the only choice. I then contacted the local SCCA to set up the autocross. They put me in touch with the National Health care where they hold their autocross. They agreed to let us use their lot for our autocross I just needed to submit a request in writing and they would send me the forms I would need to fill out. In talking with Dale he told me to find a hotel that we could get a block of thirty rooms. I started from Watkins Glen and worked away.

Looking for a hotel big enough to be able to accommodate us. That was a little task because as you saw there is not much in the way of hotels in Watkins Glen. There is a lot of camping, small hotels and bed & breakfasts but *no* large hotels. The closest were either Corning or Horseheads, which was a little closer to the track. Being optimistic I blocked forty rooms. Which turned out not to be

CONTINUED ON PAGE 13

COSWORTH VEGA OWNERS ASSOCIATION QUARTERLY MAGAZINE

PRESIDENT

Dale Malin 403 N. Canyonwood Dr. Dripping Springs, TX 78620 (512) 858-0391 Email: dlmalin@juno.com

MEMBERSHIP/VP MAGAZINE EDITOR

Michael Rupert 147 Hiram Street Pittsburgh, PA 15209 (412) 821-8429 Email: CVOAINC@aol.com

MERCHANDISE/VP

Chris Wheaton 2009 Raymer Ave Fullerton, CA 92833 (714) 449-2800 Fax (714) 449-1212 Email: Cswrth1@aol.com

REGISTAR

Steve Larson 164 North Clark Drive Palatine, IL 60067 (847) 934-3672 Fax (847) 934-4023

Email: steve@larsonpage.com
Any car info that was not supplied with
your membership / renewal application,
send to above for CVOA records.
Steve Larson's Web Site:

www.larsonpage.com/cv

TECHNICAL ADVISORS

Listed on page 11

SIDEBAR TO THE "COSWORTH PILOT" ARTICLE ON PAGE 1

The following excerpt is from an article in the Spring 1988 Issue of the Cosworth Vega Magazine written by Paul Wicker and Dick Baumhauer. It further describes the cars that were to be built, starting with the pilots at Ste. Therese, Canada.

"In a March 30, 1973 presentation to senior Chevrolet management, Lloyd Reuss spoke about the Cosworth Vega 16 Valve vehicle program. His presentation identified the vehicle's new unique exterior color as Neutral Silver, the exterior trim included bright headlamp bezels, hood header moldings, bright lower belt moldings, and a optional black or white vinyl roof covering. The vehicle would have unique "Cosworth Vega 16 Valve" identification on the front fenders only. The interior trim would be the current "GT" option but would be limited to four black interior options. Black vinyl and trim and black vinyl with red welting and red carpet were two options.

The cloth choices were solid black as one choice and black and white check as the other, both with black carpet. In this presentation we see for the first time, the addition of a consecutive number plate on the vehicle dash panel. It is reported by the engineer who had design responsibility for the instrument panel that this plate was Reuss's idea to uniquely identify this limited edition of the Vega. The authors believe this was the first use of a numbered identification plate by General Motors. It has since been used on the Cadillac Eldorado, the Chevrolet Corvette, and most recently on the 1987 Buick GNX.

Also at this presentation, we first heard about the Cosworth's exclusive six inch wide aluminum wheels which were to become part of the vehicle package. This is believed to be the first use of pressure cast aluminum wheels on a General Motors automobile. Current engine information included in this presentation identified a single port throttle body inlet with a cast iron exhaust manifold. The pistons were the early style chamfered edge, dished sump type. Also listed is the intent to magnaflux each of the engine connecting rods and to shot peen the rods at the rod nut and bolt seats."

COSWORTH VIEGA 16 VAILVIE

The above "front fender" lettering was used on the 1974 silver CV pilot cars built at Ste. Therese and on the two 1973 white CV development cars.

It is notably larger than the production lettering.

The Cosworth Vega Magazine is published quarterly by the Cosworth Vega Owners Association Inc., P.O. Box 5864, Pittsburgh, PA 15209. Subscription rate of \$30 per year or \$75 for three is 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 CVOA be liable for incidental or consequential damages from reading this publication. Send all correspondence to CVOA, P.O. Box 5864, Pittsburgh, PA 15209. Submission of articles / letters gives right to edit and publish. You may also email to: cvoainc@aol.com

TWIN CAM TALK BY DALE MALIN

December 2002

Greetings fellow Cosworth enthusiasts,

It's been a busy summer around the Malin household again. We're finally settling into central Texas and coming to grips with some of the idiosyncrasies of our new home. Things like fire ants, scorpions, and white tail deer so plentiful they're grazing down the landscaping are just a few of the things we've been adapting to. And I've had to rebuild the driveway where I park the trailer twice in 9 months thanks to Texas' torrential rains.

During the last year I've managed to actually spend some quality time with the Cosworth and related activities. In February we had the Region 12 Dyno Day, Pizza Party, and Regional Meet. In July David and I were off to Watkins Glen for a long but all too short weekend. We left on Wednesday morning and made a banzai run in #0711 from Austin to Pittsburgh where we hooked up with Mike & Kevin Rupert for the short jaunt up to New York on Friday morning. I'll leave the highlights of the superb weekend to the accompanying article elsewhere in the magazine. After our short weekend we made our way home in #0711, arriving home on Wednesday afternoon. All together, we put on 3,850 miles in 8 days, averaged 21 miles to the gallon (low of 15 for the laps on Watkins Glen and the Auto Cross, high of 24 across Indiana), used 5 quarts of oil, and one each dead side marker and tail light bulbs. Next, it was on to the September 21-22 Super Chevy Show in Houston with #0123. After meeting up with the Morgans on Saturday morning we headed out to Houston Raceway Park with Tim's #3275 and #3466 (entered by 15 year old daughter Ashley) to stake our claim to a piece of real estate in the Open Class (i.e. not a Corvette or Camaro or Chevelle or Nova or 55-57, or Impala). On Sunday Dan Newman joined us with #3089, making 3 low

mileage Cosworths in attendance. And the good news is the Cosworths made a clean sweep of the Open Class! #0123 was Open Stock runner up to #3466 Open Stock Champion, In the Open Street class #3089 was runner up to #3275 Open Street Champion. Oh yeah, and Sue Morgan walked away with class honors in the SUV class with her 2002 Trail Blazer. And last, in November we had our 2nd regional meet for Dyno Day 2 on Saturday and autocrossing with the Austin Spokes autocross club on Sunday. Dyno Day 2 was to be pretty eventful in that there were rumors of several skunk-works motors in the works as some of the Region 12 members tried their hand at one-upsmanship. I'll took #0711 again to test out some additional minor modifications. Let's just say I wasn't low HP this time!

I've been collecting more parts for upcoming Cosworth rebuild and restoration projects. In doing this I have found a number of parts hitting the discontinued lists. For instance, the lower radiator hoses are no longer available from Goodyear. And the Vega/Monza steering drag links and idler arms have been discontinued by Moog. If you are contemplating rebuilding a Cosworth in the future, I would suggest you start looking for some of these parts sooner than later as there is probably still some obsolete stock sitting on shelves around the country.

Last, we, Region 12 that is, are hosting the 2003 Roundup in beautiful central Texas on June 27-29, 2003. Please see the insert in this issue of the Cosworth Vega Magazine for more details on the Roundup, the headquarters hotel, and for those of you looking to extend your weekend into a vacation, some of the many activities there are to enjoy within an hour's drive of the Roundup. I hope to see you all there in 2003.

Until next time, Happy Cosworthing,

EDITOR'S NOTES BY MICHAEL RUPERT

Hello,

- ~ The Hood pad response was amazing. We had 146 prepaid orders, far exceeding the goal. Work has begun on the aluminum press mold. We can expect shipping late in February. I knew this project would take off as it was such an obvious need.
- ~ OK, it has been awhile. Sorry but there is always too much going on. My list of excuses: Playing in two bands this fall, as opposed to just being in one, our Sunday Unite Band at church; The commute to/from work has gotten longer for no apparent reason, anyone who has driven in Pittsburgh will understand that traffic mystery; I have caught the Genealogy bug; Working out details and gathering Hood pad orders/ monies. I did not even set up trains this Christmas. Can you believe that? ~ Some of you have sent in articles and tid bits of info for the CV Mag. if you don't see it in here it will be in a later issue. Thanks for sending works in, I've noticed more member involvement than ever!

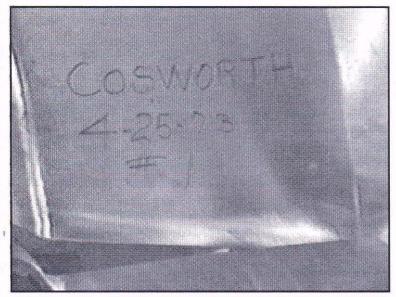


~ The above WW2 era, AT6 Texan was at the National Warplane Museum, very close to last year's Round Up. Of course a group of CVers wound up there on Monday after the weekend. You could get a half hour, thrill of your life, ride for \$225. No, I did not fly, but it was up for serious consideration. Something to keep in mind if you go to the Finger Lakes.

Take Care.

Mit

the last minute. Ste. Therese was building Vegas on one shift at 30 per hour at the time, and was preparing to add their second shift, so they had additional training manpower available that could be dedicated to organizing and executing the Cosworth Pilot along with Lordstown personnel.



Cosworth Vega Piolt car number 1

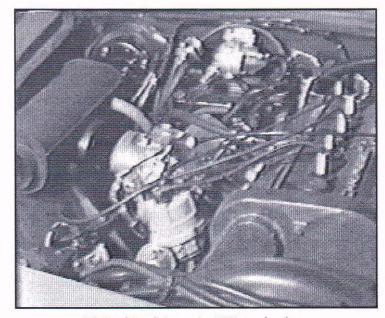
My Body, Paint, Trim, Chassis, and Final assembly staff, along with Material & Production Control and Quality & Reliability staff relocated to Ste. Therese for about 10 days, where we were joined by a number of engineers and specifications people from Chevrolet Engineering and Bendix. The staff at Ste. Therese was extremely accommodating, and we got everything we needed; they were quite excited about being part of the "race car" program.

Seven silver Cosworths were built, with the planned "offline" final assembly operations done in their final repair area by several veteran Ste. Therese repairmen they dedicated to our program. One of our tooling engineers brought the Lordstown video camera (they were pretty bulky in those days), and videotaped all the Cosworthunique on-line and off-line assembly operations. We later used the edited tape for many employee training sessions at Lordstown, as we had no Cosworth Pilot car of our own at the plant to use for training. I don't know where the tape finally went, but it was in my office when I left Lordstown in July, 1975 to return to the Tech Center. Editor's Note: CVOA did have some VHS copies (of the Training tape) available in the late 80s/early 90s. Problem was the large amount of roll and mistracking going from the reel to VHS. The photos in this article are directly from the training tape. As you see, still images from old video is very poor, however if you hold at arms length it can give you a fair idea of the subject.

Being in French-Canadian bi-lingual Quebec, we had some interesting times. For the first two days after the first car came off the line and was on the repair hoist for final assembly, our tool engineer doing the videotaping had a terrible time communicating with the repairman doing the work; the repairman spoke only French and indicated that

he neither spoke nor understood English. Finally, on the third day, the joke had run its course, and the repairman opened up to our engineer in perfect English, telling him "You guys are OK after all!", and communication was reestablished! We sampled the best restaurants each night as a group, based on recommendations from the plant folks. One night we walked into a VERY nice restaurant in Dorval, near the airport, and our group of 8 or 10 was seated at a large round table (we wore coats and ties in those days - remember that?). We sat for about 15 minutes with no water, no waiter, no wine steward, no attention at all; I finally got up and went over to the Maitre'd and asked if we could have some service, and he asked me where we were from. I told him we were visiting Ste. Therese from the U.S., and his face brightened right up - he said they thought we were "WASPS" from Ontario, and said "Welcome to Quebec"; he snapped his fingers, and we were immediately surrounded by the help, and had a terrific meal and great service for the rest of the evening, with after-dinner drinks "on the house". That really brought home to us the depth of the division between "Quebecers" and the rest of English-speaking Canada at the time, which, of course, is even deeper today.

We got all the cars built and shipped on schedule, thanks to the Chevrolet and Bendix engineers who sorted out some of the mis-matched components that had been released and got the cars running properly, and returned to Lordstown. We had no idea at the time that almost two more years would elapse before the first production Cosworth would come down the line at Lordstown, with significant differences from the cars we built at Ste. Therese.

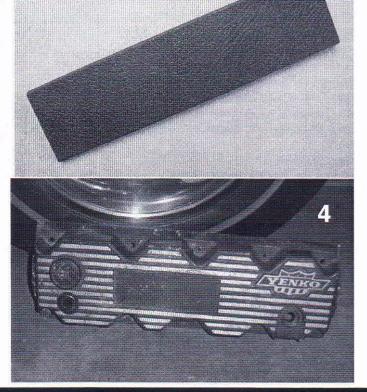


Right side of the early 1973 engine bay.

Note the single port intake (bootie is yet to be installed), large air filter inlet, no Pulse Air system and no HEI.







COOL AND UNUSUAL "VEGA STUFF" SEEN ON eBay

Photo 1 shows a NOS pair of 76-77 Vega tail lamp assemblies. Very nice and somewhat hard to find, which the going price showed at \$176.50.

Photo 2 is the coolant recovery kit GM came out with to help keep the early Vegas from overheating, which had tiny radiators and no reservoir. Went for \$60, which I thought was high as there are lots of them around.

Photo 3 is a cover plate GM used when no radio was ordered with the car. Went for \$21.01

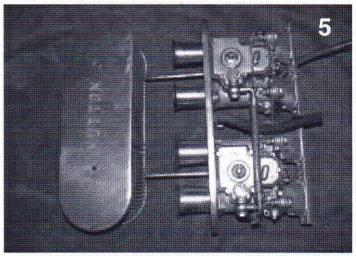
Photo 4 is the insane sell for this page. A Yenko Chevrolet special made aluminum 140 Vega Cam Cover. Although is a rare and cool item, \$252.45, was way over my interest.

Photo 5 shows a nice CV Weber carb set up that went for a fair \$705.95

Last we have a NOS pair of black front floor mats. Selling price was low at \$51.00. With all the black CVs and the difficulty in finding a NOS pair, around \$100 would be my guess.

~ Mike Rupert





DYNO MADNESS IN THE LONE STAR STATE BY DOUG WALLINGFORD

A Dyno, Six vehicles and a Learning Experience

The region 4 and 12 chapter of the CVOA hosted a regional roundup and Dyno run on February 23, 2002. A happy group of Cosworth owners met early at Colvin Automotive, 2715 Hancock Drive (512-452-4236) in Austin for coffee, tall tales and some serious horsepressure. And plenty of horsepressure there was.

The staff at Colvin's is accustomed to hosting large dyno runs, and welcomed the group with smiles and friendly questions about the cars. They utilize a Dynojet "Rolling Road" style dynamometer. They are very accurate as they use accelerometers and a known mass to "excite". They quote accuracy within one tenth of a foot pound or torque.

The following CVOA members made the trek to Austin for the Dyno passes and a day of bench racing and food after wards.

- ~ Clark and Patty Kirby, Dallas
- ~ Dale Malin, Dripping Springs
- ~ Tim and Sue and Ashley Morgan, Houston
- ~ Dan Newman And Judy Abbs , Spring
- Fred Blomquist and his wonderful Ashlynn

The Cars

A nice collection of vehicles made the trip. This gave us a fair chance to take a near stock car and benchmark it against the modified. Lets look at the cars starting with mild and move to the wild and how they are prepared.

Dale Malin: The always ready, "Ever-Ready"
2 liter (Stock)\8.5 to 1 Stock pistons\Stock cams
DCOE Weber 42's (old design)\No porting\Stock valves
Stock ignition\Stock (75) Exhaust, no CAT\Stock fan

Tim Morgan's "Great White Hope"

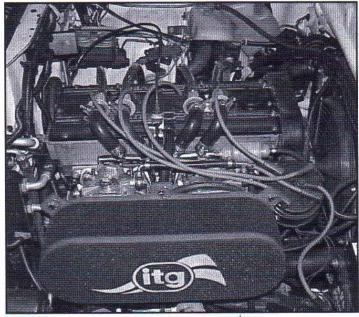
2+ liter\30 over set of my-t-fine 10 to 1 J&E forged pistons gapless rings (Total Seal)\Stock, but custom reground cams; Lift .371,Duration 264\Stock head, with modern stainless valves (No lip)\DCOE Webers 45 with 32 MM chokes's (New 80's style)\Stock ignition\Pulse-air installed 2.25 exhaust with a modern cat and muffler\Electric fan Air conditioning Compressor

Fred Blomauist

2.3 liter\30 over set of my-t-fine 9.7 to 1 J&E forged pistons Standard 2.3 Vega crank\Stock rods, bushed, floated with aftermarket bolts\BD3 cams\ported head (mild) Modern stainless steel valves (No lip)\DCOE 42 Webers's (New 80's style)\Original HEI distributor with MSD box and coil\custom 2.5 exhaust, no CAT with high flow muffler Stock fan

Clark Kirby

2.+ liter\20 over 8.5 to 1 stock pistons\Stock cams
Hutton porting (Mild) and assembling\Modern stainless
steel valves (No lip)\Head milled .0050\Block decked
Stock EFI, with a tuned MAP\Stock ignition, but lighter
springs\Stock 1975 exhaust with CAT\Pulse-air installed
Stock fan



Tim Morgan's engine bay.

1975 Cosworth XXXX

2+liter\30 over set of my-t-fine 8.? to 1 J&E forged pistons, thick headgasket\Total Seal gapless rings\Head owner ported, milled .0050\Stock valves (with lip)\BD3 cams DCOE Webers 42's (old design)\Stock ignition Modified exhaust, no CAT with muffler\Electric fan Note: This vehicle did not run on this day, but at an earlier date. The runs were made on this very dyno, and the earlier results pulled and correlated with the rest.

The Numbers

We imagine the fellow at Colvin's has a little game he likes to play. I figure he calls it "the day of reckoning". As he is setting up the cars for the dyno run, he quietly asks the owners "So, how much power you makin'" I can remember my 1st run.. "Oh, the seat of my pants tells me around 200 at the crank, 180 at the wheels.... Yup, like shooting fish in a barrel..... Well.. Leave your pants at home brother....the dyno does not lie.

Well, we all know the Cosworth Vega is not known for "big" numbers so some of us were surprised, and some not. So, here are the figures.

Top recorded numbers were split between two cars:

Top torque: 130 horses @ 5250 RPM \ 144 foot pounds of torque @ 4000 RPM

Top Horse power: 134 horses @ 5800 RPM \ 132.8 foot pounds of torque @ 4550 RPM

Let's compare

To take the data we have gathered and correlate it to the modifications that have been made, it 1st makes sense to group the cars by modification. Fortunately we have one mostly stock, one with very mild modifications and the rest a bit wilder. It is sad that we only had one stroker in the bunch. (But it did turn a big torque number)

The numbers for the two "most stock" cars are as follows:

Dale Malin; 94 horses @ 5000 \ 109 foot pounds of torque @ 3300

Clark Kirby; 101 horses @ 5800 \ 100 foot pounds of torque @3500

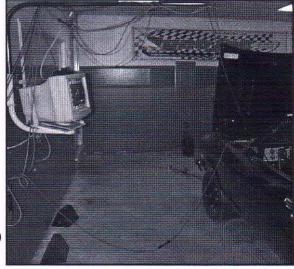
The next two "matched" cars:

Tim Morgan; 119 horses @ 5650 \ 118 foot pounds of torque @ 4900

1975 XXXX; 134 horses @ 5610 \ 132.8 foot pounds of torque @ 4500

Only stroker in the bunch turned the big torque number:

Fred Blomquist; 130 horses @ 5250 \ 144 foot pounds of torque @ 4000

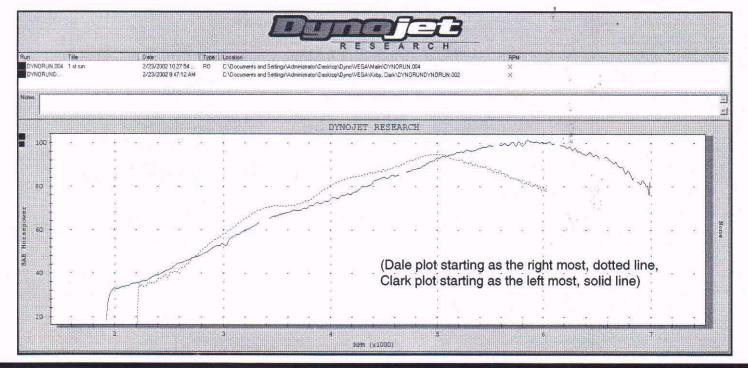


Comparing Data

We are not automotive power-plant Engineers, but we play one at work. Any observations are merely that; observations. We used logic and our knowledge of these cars to extrapolate the causes for a gain; and losses of power. We simply suggest that this data is considered when building your next power plant. We will start by grouping the cars by modifications, and go from there.

Stock, HP readings. . . So, what did we see? Let's start with the "stock" cars.

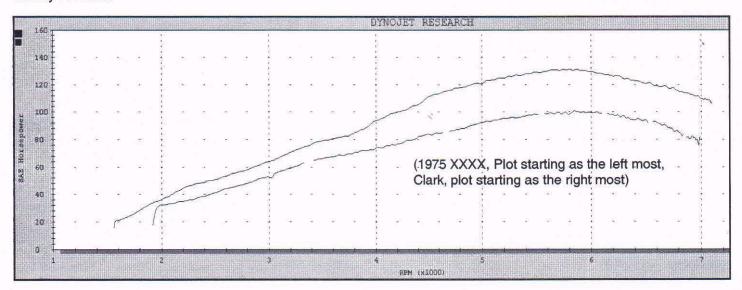
Dale Malin; 94 horses @ 5000 \ 109 foot pounds of torque @ 3300 Clark Kirby; 101 horses @ 5800 \ 100 foot pounds of torque @ 3500



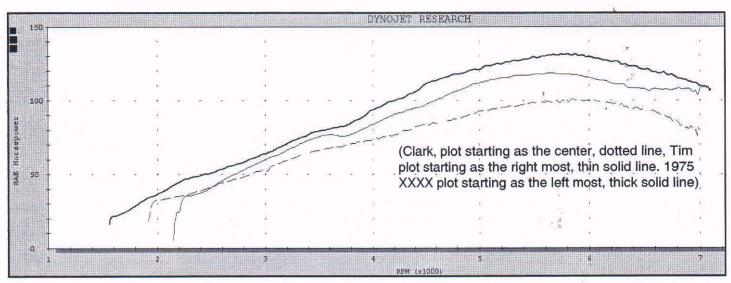
Looking at the plots, the Weber equipped car drops off 1000 RPM before the FI car. 1st knee-jerk is that the Webers are more restrictive; or with a longer intake tract of the Hutton kit, are tuned only for mid range RPM. Let's look at this closer as we may find the "difference" may be.

It appears we are comparing a non ported head to mild ported one. If we look at the curve for the ported head, we see that is has a large bearing on top end power. (NOTE, both "stock-like" cars have the same compression, stock 75 exhaust, cats and cams. The FI on Clark's car has been enriched, so they are probably at parity in the fuel department.) Now, let's compare the horsepower curve to another ported head curve, one that has a different induction setup. Let's compare Clark's car to the 1975 XXXX

The curves are almost identical, except for the quicker power build on 1975 XXXX from 3800 to 5500. Clark's car runs the factory FI, with tuning mods, 1975 XXXX runs Weber 42's. The HP curve shows that the longer total intake tract of the Weber equipped car does not automatically dictate that the HP curve peaks at a lower rpm, but may be at parity with the factory FI curve.



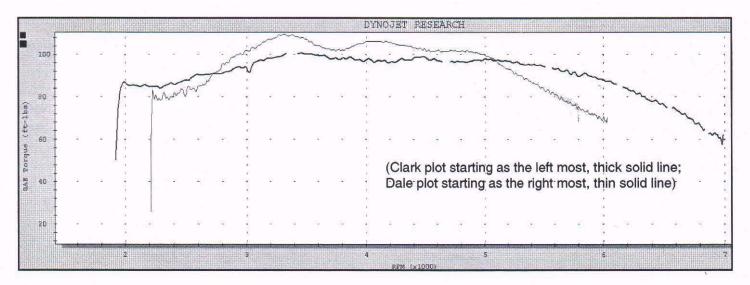
Now, let's look at the curve for all ported 2 liter cars.



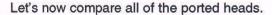
The HP curves are almost identical, where Tim and 1975 XXXX are running Webers, and Clark is using FI. So, we may see a correlation on a ported verses a non ported head. Now, Tim is running a long overlap, higher lift cam than all three cars.1975 XXXX is running a lower lift than stock, slightly longer duration can. We will see this come in later.

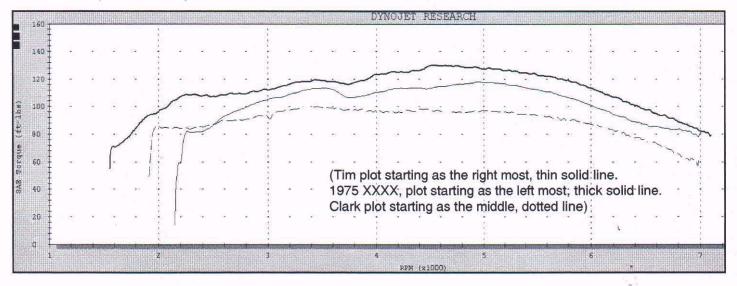
Stock, Torque Readings

The peak torque comes in with a few hundred RPM for both.



We can see the torque curve is almost identical, but the non ported head drops off almost 2000 RPM sooner. In this case, you could say the Webers are the reason for the early peak. Let's see.

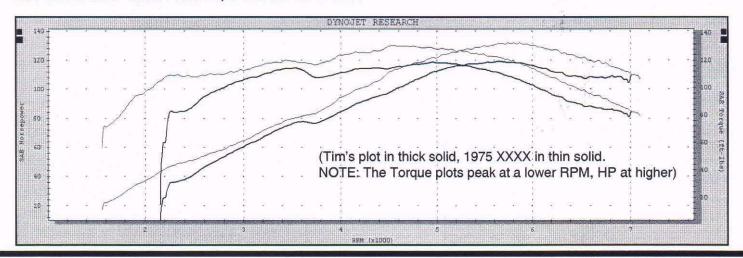




We can see quite a bit of difference, and they all have a peak at 3500; but we can now see where the improved exhaust makes a big difference from 4000 and higher. Clark is running the stock 75 exhaust with CAT, Tim has a aftermarket high flow converted and 1975 XXXX has a custom exhaust. All cars used mufflers. The biggest differences are the cams in Tim's car. We can see a dip after the 3500 peak and how his taller cam really comes in at higher RPM! If Tim had higher compression, and an open exhaust we may see that the cam could make appreciable power over 7000 RPM.

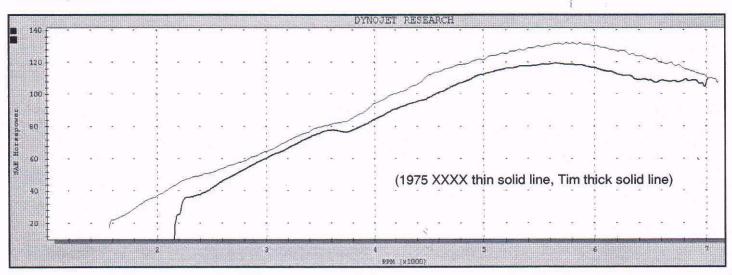
Modified Cars

Let's look at Tim's "Great White Hope" and the 1975 XXXX

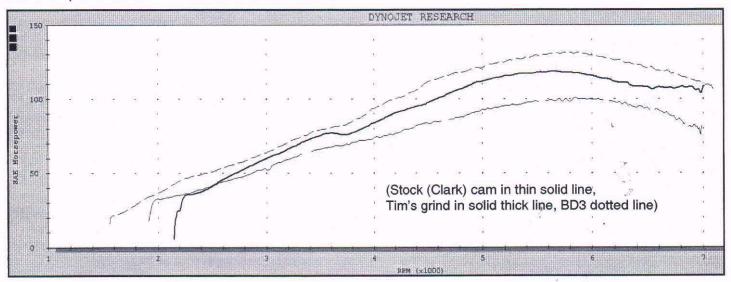


Both cars seem to make good torque and power thanks to the ported head and Webers. Tim's car actually runs a modern low restriction cat. Both cars have low restriction exhaust, mufflers, re-curved distributors, and Webers. Tim's car has higher compression and DCOE 45's.

Modified, Horse Power



The 1st thing to note is that when the BD3 cams are "done", Tim's more aggressive grind is staying flat. We are not sure if the drop of power is from the lower cam lift of the BD3, smaller carb size or lack of compression. Also without flow testing these heads, we can only speculate if we are hitting a wall at 7000 plus because of head design. Let's go back and look at the horse power curve from the three different cams.

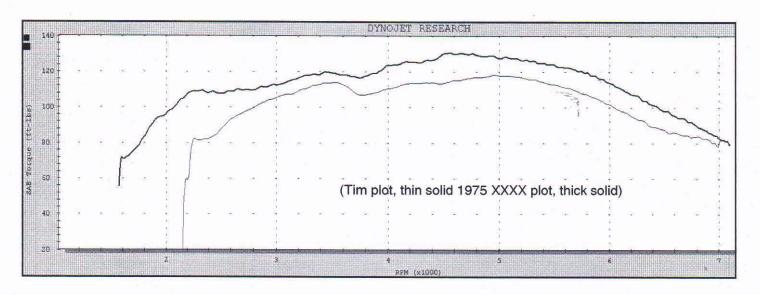


If the profiles are overlaid, the stock cam and the BD3 are very close. The BD3 has lower lift, but a bit more overlap than the stock cams. You can see that from 2000 to 3600, they pull the same. At 3700 the BD3 gains steadily until 5800, when it begins to drop. At this point the lower lift may cause the drop compared to the stock cam. Tim's grind really comes in around 3000, dips at 3500 and makes power up to 7000. Once again Tim's car has larger 45's.

Modified, Torque

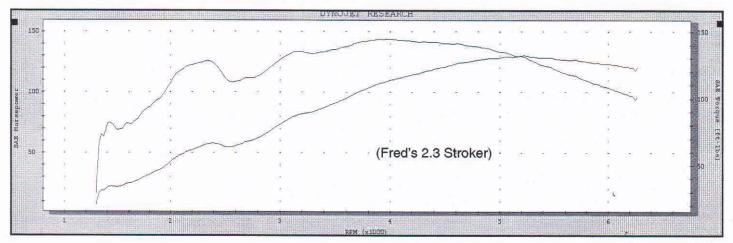
Looking at Tim's and 1975 XXXX, (top of next page)

We can see the difference in the response of the two cams. Tim's cam levels out at 3500, and takes the typical dip, and peaks torque at 5000. The BD3 cam in 1975 XXXX takes a dip at 3500 and peaks torque at 4500. The aggressive grind in Tim's moves the torque and power curve up a bit. Notice again how Tim's grind starts to flatten out at the top end, not dropping as the other grinds did.



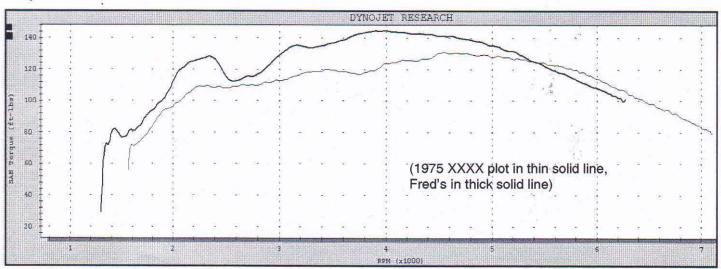
The Stroker motor

We were lucky to have Fred's stroker strapped to the dyno. It has most of the modifications as Tim's and 1975 XXXX, plus a custom low restriction exhaust, 2.3 crank and MSD ignition. Fred is running the same sized Webers as 1965 XXXX (DCOE 42's) The longer stroke has predictable result.



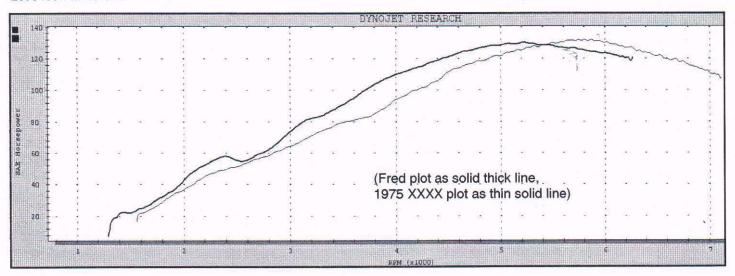
We can see the "typical" dip has moved down 1000 RPM. Fred is running the BD3 cam. Bill and Karl mentioned the BD3 will have a "soft spot" around 3500 or so unless the head was ported. Let's compare the two BD3 cam equipped motors.

Torque:



We can estimate that if the strokers head was ported a bit more, we would be looking at 127 plus pounds of torque at 2250 through 3100 stock, and then rising to a peak of 144+ at 3950. The big number for the day.

Let's look at horses.



The BD3 still shows the dip at 3500 on the stroker motor. Power builds quicker thanx to the larger displacement, but it is all over by 5200 RPM. The 2 liter BD3 still builds power up to 5800.

Observations:

Misfiring

Every car, save one misfired under the extreme load and RPM. Fred's MSD ignition did handle the stress with no dropped cylinders. You could hear, and to a lesser amount see this on the dyno data plots. When the fellow at Colvin's disabled the "smoothing" on the printouts, you could see the plot line went from smooth to very jagged. Dynojet has seen this as misfiring. The HEI is good, but apparently there is room for improvement.

- No stock cam gained power over 5500
- No stock cam with a mild ported head gained power over 5500
- All cars, save Tim's custom grind started to lose power at 6000 and did not recover

Conclusions:

Well, we as a region learned a lot. We will let the data speak for it's self, but here are three observations.

- It appears that Hutton's BD3 cam works quite well for low end power, with Tim's custom grind show promise at the top end.
- Mild porting does help quite a bit
- ~ None of these cars made their runs with open exhaust, but ran in street trim
- The stock cam will not make power gains above 5500

We do have one car that has made 6 runs on the dyno, staring with a baseline and making small modifications between each. The data is filed away for a future story, so stay tuned; you may see one soon! Editor's Note: Next Issue guys!

I closing, we want to suggest to all Cosworth owners to contemplate some dyno time. We are also looking for a pure bone stock 1975 and a 1976 to do "baseline" runs to help us create a tuning database to guide the club. If you have made dyno runs in the past, and can locate your printed or electronic run data, please send it to our club president (Dale Malin) to add to our growing database. Every little bit will help!

TEXAS DYNO II RESULTS COMING SOON!

enough and I had to push the block to forty-five rooms. That was almost half the hotel. Next, I contacted Rallye productions for the shirts and awards. After deciding on what the artwork would be this year. I contacted Keith Meiswinkel about the two gentlemen he had at Rhinebeck to be our Guest Speakers. Originally they both agreed to be at our Round up. Russell Urtel the original foreman of the Tonawanda engine plant was going to be with us all weekend, Karl Koolen was going to be at the banquet.

Now with all major components in place I could start fine-tuning the details. After what I thought was a fair amount of time to receive the paper work from the National Health Care I tried to contact them again by phone but no answer just a recording I left a massage but days passed and no response. I called again and the same thing. I contacted both the SCCA and the Schulver Chamber of Commerce they both said the National Health Care went out of business. I asked both if they knew anywhere we could hold the autocross. The SCCA did not the chamber started looking and giving me places to try and also gave me the owners of the National Health care building but they did not want to be bothered. I also found a small micro rod oval/road course. I contacted them. The person I talked to though it would fit in with what they wanted to do with their facility. They voted but it was turned down. The places the chamber tried different places but one by one they did not work out for one reason or another. While this was going on both speakers contacted me with problems, Karl could not make it at all Russell thought that he would have to leave Sunday and did not know if he would be able to make it back for the banquet.

I was almost back to square one, I only had the Lap-n-Lunch and maybe one speaker who had to leave before the banquet. The chamber kept checking for possible autocross locations. They were a great help they asked of we were all set on a hotel or if there was anything else we needed. One of the places said we could use their lot it was one of the wineries but it was a small lot very small and it was not paved. Finally one of the places I contacted said we could use one of their lots. It was the Watkins Glen school district they preferred that we use the bus garage lot now all we need is insurance and cones. Insurance was no problem but the cones were. I contacted the SCCA to see if we could use their cones. Their reply was that the cones were in a storage facility someone would have to go unload the storage locker, the cones are first in and everything has to be removed replaced and when we return the same thing. So basically they did not want to loan out their cones at any price. They did give me the name and phone number of a place to rent them though. I did contact them and we were suppose be able to pick them up in Cortland. Russell Urtel called and said he was able to change his plans and could attend! Whew!

With just over a week to go I call to confirm picking up the cones some how I get connected to Buffalo when I tell them what I wanted and that I was picking up on Friday in Cortland I find out that that location was being remodeled and the closest place would be Avon near Rochester. In the mean time I get an e-mail from Dale Malin about Door prize stuff, which is due soon. Soon turns into Thursday the 25 but the problem is I am leaving on Wednesday the

24 and the "stuff" is on a pallet and weighs 300 lbs. Dale emails me the tracking number I call the trucking company and the confirm it to be at my house Thursday and they will have it Wednesday so I ask is there any way to intercept it there or have it dropped off to my work. My boss said if necessary he would bring it to WG.

Wednesday arrives, I take little Art to school than go home to pack. I load the Cosworth with as much as I can then put it in the driveway then start loading the gold mini van. Kathie goes to pick Arthur and our niece Amanda with the white conversion van then comes back. In the mean the shirts arrive they are loaded in the mini van. I get a call from work there are about 20 boxes but no pallet I ask if they will fit in the white van not realizing that we had 5 people going my boss said they will fit and there should be enough room for the three of us. So now we are taking both the mini van and the conversion van towing the Cosworth behind the second vehicle. Thursday we checked out the area to see what was near by and pick up some more door prizes. Early bird check in started at 4:00 PM ended at 6:00 PM. It was nice to see everyone start showing up. Friday I headed out to Avon to get the U-haul trailer and the cones and something else I did not intend to get, a yellow piece of paper from the guy with the red lights on the roof. I returned about 1:00 PM Kathie had started registration Joe Phillips was there and he went to Taco Bell and brought back lunch for us and his group. He also set our free talk talkies to the same channel as theirs so the kids could talk to each other. I think there were four families on the same frequency.

While out side with members and their cars Jim Blunden asked where we were going out to dinner I said I saw an Outback Steak house and would like to go there because I never been to one. So the Outback was our choice. Brian Pecenco asked someone where dinner was and he was told "outback", he told me he thought that we were cooking out back by the cars. About 5:45 PM the hotel desk called the Outback for us, they were very accommodating they made room for better than 50 people, with less than an hour notice and the food was excellent. Friday was finished up with the Directors Meeting.

Saturday came quickly we did a Paint demonstration thanks to Mark Rock we sanded and polished his freshly painted hatch on his green car. We lined up to caravan to Watkins Glen International for our Lap-n-Lunch we arrived at 11:50 AM had a short wait before we went on the track for the 55-mile per hour-paced laps. If anyone did 55 will you tell me? I had trouble keeping up to the pace car. We then stopped at the souvenir shop for something to remember our laps at the Glen. We finished up at the Glen Club for the lunch they had an unbelievable buffet set up and it was just excellent. After the lunch we went to the state park for the Concours event and to take a look at the natural splendor of the gorge. The judging teams did an excellent job considering we arrived an hour and a half later than I intended, sorry about that Mike. The cars look great all lined up and we even had spectators from the park looking at the cars. My family headed back to the hotel in shifts, the little ones went back with the Wetrich family to go swimming. I am not sure what everyone did for dinner Saturday. We had pizza delivered, so we could be

ready for the trip back to the state park for the laser light show in the gorge. I finished the night off in the hotel lounge talking with friends.

Sunday morning started with rain but that did not stop the Road Rally. The morning moved on so did the rain and we had a great afternoon for the autocross which Mark Rock did an excellent job. As most know when we finish the autocross we are in the home stretch heading to the Banquet and the end of another Round Up. It never fails the weekend goes by so fast and you have only a short time to be with such a great bunch of people. With the end of the Banquet it was back to the hotel lounge for almost the last good bye. Monday we met in the hotel restaurant for the "After the Round Up breakfast" and final good byes until next year.

Special Thanks to:

Collinite Meguiars Auto Custom Carpets Dale Malin / Charles Malin

And everyone who donated door prizes every time I went to my room there seemed to be more and more donations for the Banquet it was just amazing how much everybody donated, our thanks to all!

INCOME	
Registration fees	7,755.00
CVOA Grant	500.00
Shirt Orders	1,330.00
50/50 Raffle	213.00
Guest Speaker/Wife, CVOA	426.29
Donation, Art Treta	243.87
	10,468.16
EXPENSES	
Holiday Inn Meals	4,506.38
Awards/Plaques/Artwork	891.80
T-shirts/Polo shirts	1,096.61
Special Pencils	49.00
Lap & Lunch	1,805.91
Insurance	750.00
Highway cones	128.40
U-Haul Trailer	95.09
Refund, could not attend	85.00
Door Prizes	348.07
Fuel & Tolls	135.50
Office Supplies	91.65
Postage/Shipping	85.00
Phone	75.00
Timing Equipment	75.00
Hotel Room/Guest Speaker	249.75
	10,468.16

Harriett's CVOA Memories

We received the following note from Harriett. I thought it would be nice to read it by the original pen.

Dear CVOA friends

What a beautiful sur
Price! The jacket fits fine
Price ! The jacket with pride.

Som and I never dreamed

our little black car " would

bring us so many friends

and memories that I was

has done just that I was

has done just that, go

haping to be able to go

hope to see everyone

hope to see everyone

to Deras.

Stronger leach day

Thanks

The all!

Harriett Marr

1000



Check out all the Cosworths pretending to race on the famous Watkins Glen Racetrack.

Photo: Brian Pecenco who was hanging out the window of one of those screamin' cars.

CVOA 2002 Director's Meeting July 26, 2002 Horseheads, NY

Officials Present:

Dale Malin, President
Mike Rupert, Membership/Treasurer VP & CV Mag Editor
Chris Wheaton, Merchandise/Promotions VP
Art Treta, Region 2 Director
Dan McNally, Region 3 Director
Brian Wetrich, Region 7 Director
John Cowall, Region 8 Director
Brad Stone, Region 11 Co-Director
Roy Linenberger, Region 11 Co-Director
Dan Newman, Region 12 Co-Director
Steve Mayefske, Region 17 Proxy for Bruce Jahnke,
Director

Absent:

Bill Addison, Region 5 Director Phil Rust, Region 10 Director, Proxy submitted Jim Rigg, Region 14 Director, Proxy submitted

Meeting called to order at 8:48PM by Dale Malin

- * Review of event schedule by Art Treta
- * Review of Financial report by Mike Rupert. Large balance on hand (10K) in the Stripe fund. Discussion on how to utilize and a suggestion to place into an interest bearing account (if not used by Hood Pad Program). Motion to approve Financial report as submitted (Mayefske), seconded (McNally), carried unanimous.
- * Review of Merchandise reports by Chris Wheaton. Motion to approve report as submitted (Chieppa) seconded (McNally) carried unanimous. CVOA Reproduction stripe kits from original tooling are sold out and tooling at 3M has been destroyed. New laser cut stripes are available through the club.(Thanks to the incredible work of Chris Wheaton) New stripes reproduce the original '75 and '76 die-cut stripes with black back die-cut back ground behind the letters.
- * Review of Membership Report by Mike Rupert. Motion to approve report as submitted (Shea), seconded (Wheaton), carried unanimous.
- * Review of Regional News Letters by Director by Dale Malin. Expectation is 4 newsletters per year. Suggestion by Chris Wheaton to e-mail newsletters, but lacks addresses. Reardon volunteered to pull addresses from old registration forms. No concensus on any action to change Director Newsletter procedure.

Old Business

There was no old business from the last meeting.

New Business

Review of hood blanket program by Dan Newman. There are four options available. half inch die cut, 1 inch die cut, molded OEM style, and molded to fit specifics of the Cosworth Vega engine compartment. A *lengthy* discussion

followed on which option to go for, how to fund and the project estimated "break even" point in time. Motion (Cowall) to utilize funds from the "Stripe Kit Fund" and 5K from the general fund, along with pre-orders from members to fund a molded OEM style hood blanket. Initial pricing would be \$100 each delivered for pre-orders. 250 Hood pads need to be made on initial run for reasonable pricing. Club (CVOA) will own and have all rights to the aluminum mold dies. Inventory would be sold for a higher price and may be open to non-members also. Pre-orders would need to be received by a deadline (date TBD) in next CV Magazine. Program contingent on receiving sufficient pre-orders to make finances work. Motion seconded (Stone), and passed with 2 dissents.

Review of CVOA Officer nominations by Dale Malin. All current officers consented to serve an additional year and no new nominations were received. Motion to accept current officers (Stone), seconded (Shea), carried unanimous.

Mark Rock, Jerry Smith, and Gerry Cross presented a new web site for the Cosworth Vega at www.cosworthvega.com and offered the site to the CVOA. The site contains many enhanced features that will help attract additional members to the CVOA. Rock, Smith, and Cross have asked to be appointed web masters for the new site and to have some minimal expenses reimbursed. Malin asked for an itemized list of expenditures be submitted to the executive committee for consideration. No action was taken at this time.

Malin reviewed future Roundup plans:

2003 - Texas (Austin/San Antonio) June 27-29, 2002

2004 - West Coast (Wheaton)

2005 - Milwaukee (Jahnke)

Motion to adjourn at 12:15AM (Malin), seconded(McNally), carried unanimous.

Respectfully submitted, John F. Cowall



The finest Unrestored CV at Watkins Glen, Tom Lippert #3449, Dark green metallic with Buckskin vinyl inteior. Some things you just have to see in person!

Autocross Results, Roundup 23

Best time only listed

Stock

60.870 Mark Rock 61.905 Brian Wetrich 62.034 Brad Stone 65.798 Tom Lippert

Modified

64.090 Dale Malin 64.207 Tim Foy 65.154 Lou Marr Jr. 66.385 Greg Gibson 67.218 Steve Mayefske 69.247 David Renaud 122.792 Lou Marr Sr.

Competition

57.810 Jim Reardon 59.154 Dan Rock 60.777 Ken Rock

Unlimited

53.596 John F. Cowall FTD 57.763 John J. Cowall

Ladies

65.434 Linda Linenberger

Open - Non Cosworth

60.399 Jim Shea 62.333 Dan McNally 63.144 John Williams 65.798 Clark Kirby 74.953 Gerry Cross

BOLD denotes Trophy



Little Art Treta wondoring if he is ever going to get to drive on Watkins Glen.



Tip from one of the youngest CV Heirs, AJ Rock: Ok, you guys, this is how to "squeege dry" your fenders!



A "seasoned" group of CVers.

L to R

Jim Shea, Clark Kirby, Dale

Malin, Meredith Persson, June

Eroskey, Brian Pecenco and

Patty Kirby. Notice Brian is with
the three ladies.



Bill and Marianne Clark ready to go on the track in a fabulous Cosworth Wagon.

Concours Results, Roundup 23

Note: Scoring in Custom and Unlimited is relative

Unrestored

387 Tom Lippert #3449 375 Ron Orbin #3434 363 Mark Rock #3387 342 Brian Wetrich #1620 330 Brad Stone #1199 294 Robert Black #294 234 Brian Pecenco #0953

Unrestored - Modified

343 Tim Foy #2656

Restored

368 Steve Mayefske #1951 367 James Ruby #2482 351 Keith Meiswinkel #0334 306 Eleanor Clevenstine #1609 302 Michael Rupert #3324 244 Brad Fyfe #1087 N/J Bob Chin #2987 N/J Art Treta #1105

Restored - Modified

386 David Dempsey #2995 380 Gerry Cross #2551 364 Gregg Gibson #0900 342 James Blunden #1953 339 Dean Farmer #0958

Custom

350 Lou/Harriett Marr #1000 325 Jack Middleton #0331 295 Dan Rock #0259 290 John J. Cowall #0803 280 James Reardon #2364 225 David Renaud #0980

Unlimited

320 Bill Clark #3360 Cosworth Wagon 280 John F. Cowall #3136 Race CV 100 Dale Malin #0711 Battery Powered

Open Vega Class

310 Dick Bradach, 72 Vega SW



A classic view of the 2002 CVOA Concours. Wow!



Unrestored Judge
Team
L to R
Brad Stone
David Dempsey
Dan Newman
Dale Malin



Restored Judge Team
L to R
Glen Long
Maurice Schechter
Chris Wheaton
Chris Long



Custom - Unlimited
Judge Team.
L to R
Tim Morgan
Brian Pecenco
Roy Linenberger

Take Your Spouse To The Roundup! by Jerry Smith

With the turn of events surrounding this years' Round up I felt compelled to write this little note.

I have been the owner of #2474 since 1980. My exposure to the Cosworth Vega began in 1980 when I went to work for a computer company in northern Virginia. I was in North Carolina at the time and periodically traveled to Tysons Corner, Va. One of my co-workers there had a 1975 and upon returning to NC, I found my car in the local want ads for \$2500. I called the guy asking if it was worth it and he said yes he was interested. I bought it instead, I don't think he ever forgave me. In 1981 the company moved its office to Rockville, Maryland and asked me to move from NC so I relocated to Frederick Maryland and used the Cosworth to commute between Frederick and Rockville. Within a year my wife and I split up and she moved back to NC. I drove the Cosworth back to NC quite a few times during the next 5 years. For some strange reason I had it repainted a dark red in 1982. My starter went out and I found out from my co-worker that DJ Martin of a Chevrolet dealer in Manassas Virginia could fix it. He introduced me to Gene Von Gutton who prompted me to join the CVOA.

In 1986 my son, who was in North Carolina, was begging for the car, so I drove it to NC and titled it to him. He and his 16 year old friends drove the crap out of it and eventually spun a bearing, messed up a rod, etc. However, one of his buddies was already tearing down and rebuilding engines so they wanted to fix it. I put them in contact with Bill Hutton who supplied the parts and they rebuilt the engine but then they could not get it started. So it sat...for a year in NC.

In the mean time, in 1987 I remarried and transferred from the Maryland office to Florida. Upon my son's high school graduation he wanted to come to FL to go to a technical school. Barbara and I rented a tow dolly and moved him along with the car to my current home in Deltona Florida. We got the car started but shortly there was a bang! and blue smoke. I killed the engine. It sat for a number of months and I found a guy in town that said he could fix it so it was

towed to his house. After he got it torn down, one of the shims had broken in half and ground up the cam. I called Bill Hutton and ordered a used cam, shim, etc to get the engine fixed. After over nine months he finally got around to getting it back together and running, but with a severe oil leak around the distributor/return tube. This guy had taken so long to repair the car I decided to look for someone else. About a year went buy when I finally learned that a mechanic at a local Corvette showroom loved the Cosworth. The gas had turned to varnish, filters gummed up, etc. but he soon had it running like a charm. I drove the car periodically for about six months.

In 1995, I got involved in a startup Internet Service Provider business and for the next five years was literally consumed by work. Old #2474 sat underneath a carport, tires dry rotted, the battery tray rusted out and consumed the framerail, and the paint faded. I think around 1997, I let my CVOA dues expire(sigh). In 1999 two guys who had just received their income tax refunds came to my house and begged me to sell them the car but I refused, stating that one day I was going to get time to work on it again. Well, as we all know the Internet DOT COM bubble burst and the company was in trouble. I threw in the towel, quit the company, and went to work for Oracle. I finally had my life back and decided to get the Cosworth running again. In late 2001, I began searching for help and found the YAHOO Cosworth site and renewed my membership. With help from other members I was able to get the car started and drove it around the block. I then shut it down and ordered new belts, sent the water pump to Superior for rebuild, sent the radiator out for recore, and then the WebCrew was formed...

Remember that all during this time, in my wife Barbara's mind, the Cosworth was, in her words "a piece of junk". She watched the website evolve and supported me 110%. When we decided to present it at the Roundup, I told her that since it was in Watkins Glen and we would have to drive right by Frederick, MD we could spend a few days with her mother. She really liked that idea so we made reservations for my FIRST EVER Roundup.

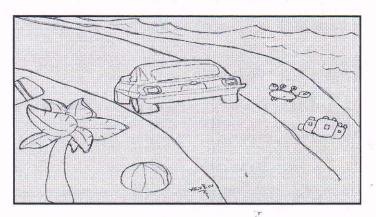
We left Deltona, Florida on Friday the 19th of July and drove to Greensboro, NC and stayed with my mother till late Sunday afternoon. We then drove to Frederick, MD and stayed Tuesday thru Thursday with her mother. On Friday morning we headed to Watkins Glen for the Roundup. Barbara was immediately impressed with what a Cosworth was supposed to look like. She also said that all the people were very nice. We finally got to meet Mark and Gerry face to face for the first time. As the weekend progressed, Barbara really got into this. She particularly liked the autocross. The Sunday night banquet was excellent, in fact this was the best "banquet meal" ever, including weddings. We really enjoyed the guest speaker.

We had decided to leave immediately after the banquet and drive to NC and spend the night with my brother so we left at 10:30PM and arrived at my brother's (just outside Roseboro, NC) at about 11:30AM. After some shut-eye, we spent the day and evening visiting but went to bed early. We left on Tuesday morning and headed back to Florida. During the drive we talked about how much fun we had had. I told her that Ron had said there was a Cosworth for sale somewhere in Florida in the CVOA Magazine. She remarked that "why don't we just find a better Cosworth and use the old one for parts". When we got home I grabbed the magazine and found #3241 ORANGE in Interlachen. Florida. I called the owner and made arrangements to go see it on Saturday.

We drove up there (110 miles) and it was really back in the sticks! But when we saw the car Barbara said "I really like that color!" The Cosworth had been purchased from an owner in Port Ritchie who had done a pretty good job maintaining it. In fact he showed me papers where it had been garaged in a storage facility. When he purchased it there was severe oil leaks, but he had got a second car ('75) with a good tight engine with 61K original miles with a Hutton weber kit. He swapped engines, replacing upper end gaskets. In negotiating the deal with him I got not only the car, but the spare engine, all the EFI stuff, headers, starter, alternator, brake rotors / drums, a positraction rear end (that we took out of the chicken coop!), two cosworth

wheels, two sets of new timing/dist belts, repair books (1 like new) and all the previous owner paperwork. I even found the Tonawanda sticker in an envelope along with an old rectangular CVOA Patch!

We gave him a deposit, loaded up the spare motor and parts in Barbara's KIA Sportage, and made arrangements to pick up the car Monday. I took off work early and we drove back up there on Monday. I must admit I was white knuckled driving it home, knowing that he had less that 100 miles on the engine, and having to drive through the Ocala National Forest. I knew if it broke down there would be no way to get it home... I forgot to bring a tow rope. But, I relaxed after we got back into civilization. I did stop and buy a pair of cheap gloves...does anyone have a solution for a "gummy" steering wheel?



So, we are now owners of TWO Cosworths, we are planning on still getting #2474 back together and running but will most likely not spend a lot of money on the body. We have even joked about hitting the local cruise nite at Denny's with His and Her Cosworths. There are some little things that I have to do to #3241, you will likely hear from me on the Forum at the CVOA Website.

Barbara is already making plans for next years roundup in Austin and says that 'Linda will have some competetion in the autocross!". She is HOOKED.

The CVOA really is a "family" and we are now BOTH proud to be part of it.

Jerry and Barbara Smith #2474 #3241

CVOA Merchandise, PRINTED ITEMS AND OTHER STUFF

Cosworth Vega Shop Manual - Supplement to the 1974 Vega Shop Manual. Helm Inc. has made this available in reproduction (copy form). Check their web site at: www.helminc.com NO LONGER AVAILABLE FROM CVOA.

Fuel Injection Diagnostic Manual - Comb bound photocopy of manual written by Phil Good, one of the Bendix Engineers who developed the Cosworth Vega EFI. **\$15.00 each.**

Duke Williams - Twin Cam Times Portfolio - Complete set of Duke's work on the Cosworth while Director for Region 16. Stapled issues with an index. **\$30.00 per set**

Tech Bulletin Set - CVOA Technical Bulletins have been published in the magazine. They cover many important topics. Last update 12-94. Spiral bound copies **\$20.00**

Five-speed Service Manual - From Borg-Warner, 12 pages. Spiral bound. \$7.00

Cosworth Vega Magazine Back Issues - All back issues of the Cosworth Vega Magazine are available. Some issues are only available as photocopies. \$120.00 per set, \$4.00 for individual issues.

Phone Directory - Complete listing of the latest roster of CVOA members. Great to have when you are traveling in your Cosworth on long road trips. **\$2.00 each.** NEW UPDATE 12/2002

New Key Rings - "Spanish Gold" Alloy casting of horn emblem, enameled blue/black logo. Large diameter 1.75in. **\$8.00 each.**

Kan Koolers - Foam thing to keep a can cool. Yellow w\ 20th Anniversary logo \$3.00 each

Window Decal - New design, static cling type, to affix to inside of window. \$2.00 each

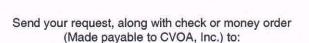
Cosworth Vega Owners Association Concours Rules - free to current members.

Cosworth Vega Assembly Manuals:

1975 or 1976- looseleaf copies, will need a binder to put in. \$35.00 each Engine Assembly \$10.00 each

Jacket Patch #1 - The club patch . . . new design. 3" Round. \$3.00 each



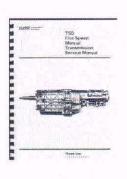


ON ASSO

CVOA Merchandise/Chris Wheaton 2009 Raymer Ave Fullerton CA 92833

Please allow four weeks for delivery







The "parts" currently available from CVOA Merchandise

Sold to current members only

GASKETS:

Upper end gasket set \$30.00, includes cam cover, cam carrier, intake and exhaust Head gasket (FELPRO) with instructions for making the oil restrictor. \$20.00 Lower end set \$27.50 includes oil pan set, oil pump set, rear main set, w/pump gasket

SEALS:

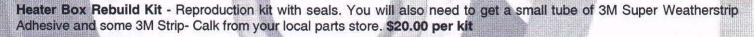
Camshaft/Distributor drive seals \$20.00 (set of three) \$7.50 (each)
Distributor housing to head "o" rings \$3.00

TIMING BELTS:

Camshaft drive belt \$55.00 Distributor drive belt \$10.00

WATERPUMPS: SEND CORE WITH ORDER!

Remanufactured Waterpumps, w/ superior front bearing \$65.00



GM RC-36 Radiator Caps - Genuine GM replacement. Type slightly different from original. \$7.50

3M "27" Tape - The special white insulating tape used on the left engine wiring harness, enough to do one car, 75 or 76. Limited supply \$10.00 per 7ft roll

Fuel Injector "O" Ring Kit - Kit includes (4) fuel rail grommets, (4) injector manifold seals, (8) injector to rail seals and instructions. \$8.00 per kit

Reproduction Speedo Cable - As original, with insulation and grommet. \$60.00

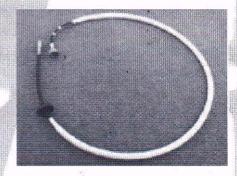
Reproduction Complete Stripe Kits - Excellent quality done on computer controlled equipment. Lettering is gold with die-cut black background as found on 95% of the cars. \$170.00 per set

ITEMS SOLD TO CURRENT MEMBERS ONLY

MAIL CHECK OR MONEY ORDER. (PAYABLE CVOA INC) TO:

CVOA MERCHANDISE / Chris Wheaton 2009 Raymer Ave Fullerton, CA 92833

PRICES INCLUDE SHIPPING, NO P.O. BOXES



Limited supply of New Valve Shims for Cosworth Engine

These were VW machined to fit our Cosworth engines. *Please use a* micrometer on your old shims in order determine the need! The number (if readable) may not be accurate on your old shim. The following sizes available:

.138 .140 .142

.144 .1455 .1475

Price: \$9.00 each

www.vegamods.com

PLEASE NOTE: All items on this page are NOT part of CVOA Merchandise.

Do not combine orders for CVOA and other parties.

Chris Wheaton, Region 16 Director has the following items available on a special order basis. Please email / write for details. Shipping included.

Reproduction fibreglas Timing cover \$85

High Gloss Carbon fibre Timing cover \$175

High Gloss Carbon fibre Dash Bezel \$150 (shown) (Available with or without dash "pocket" cover)

NOTE: Timing covers and Dash Bezels are also available in "Kevlar colors" of red, green, blue and yellow.

Custom Three piece decal set:(white/silver/black/gold)

Note that the standard "die-cut background" stripes are available thorough CVOA only.

One color \$60; Two colors \$80; Full set (Non-stock)\$??? Email or write

One piece fibreglas rear spoiler \$150 (shown)

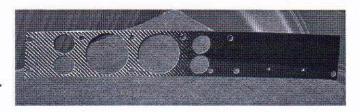
Styled after the GM "one piece" made for Vega Hatchback. Drill two holes for mounting.

Rear Valance Panel \$90 (shown)

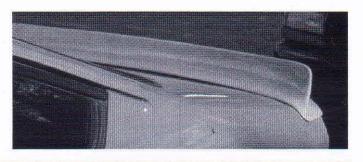
Email:Cswrth1@aol.com
Chris Wheaton, 2009 Raymer Ave, Fullerton, CA 92833
Writing or email is preferred please

Vega Mods High Performance and Restoration Parts for the Chevy Vega and Cosworth Vega www.vegamods.com

COSWORTH TWIN CAM COSWORTH TWIN CAM COSWORTH TWIN CAM







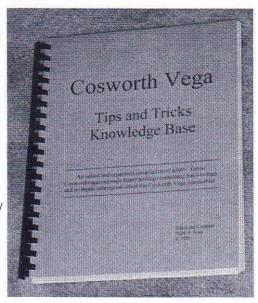
FOR SALE:

Cosworth Tips and Tricks Knowledge Base Edited and Compiled by Mark A. Rock

A huge (344 pages of 10 point type) comb bound compendium of Cosworth Vega information and knowledge. Edited and compiled almost exclusively from Yahoo Cosworth Vegas message board postings through message 6331, this "book" collects and organizes in a readable and entertaining format a wealth of knowledge about the Cosworth Vega automobile. \$60 shipping included.

View the table of contents at http:// ourworld.compuserve.com/ homepages/markrock/cosworth/ index.html

E-mail orders/inquiries to markrock@compuserve.com; (440) 236-9669

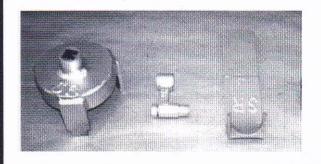


Available from Sonny Rossi's Back Yard Shop!

Cosworth Vega Engine Tools:

Cam Holder/Turner, Belt Tension Tool and Valve Shim Adjustment Tool \$175 for the set plus \$10 S&H

Contact: Sonny Rossi, (210) 688-3711



CVOA VENDOR LISTING

Vega Parts - New/Used, Repro Front Air Deflector DAVE'S VEGA VILLAGE, Anmore, B.C. Canada, (604) 469-9979 Monday-Saturday 1pm to 6pm PST

CV Rebuilding/Repairs - Total or Partial HME, Clarksville, TN (931) 648-1119 Performance Dynamics, Sacramento, CA (916) 488-3114

Carpets - Molded Floor, Rear Cargo & Material Auto Custom Carpets Inc., Anniston, AL 1-800-633-2358

Reproduction Dash Bezel
HME, Clarksville, TN (931) 648-1119, NOTE: two piece design

Reproduction Labels
Jim Osborne Reproductions, Lawrenceville, GA (770) 962-7556
Their catalog has a small Cosworth and Vega section

Reproduction Window Price Stickers
Triple A Enterprises, P.O. Box 50522, Indianapolis, In 46250
http://www.window-sticker.com

Computer Repair
Bob Stallwitz, Pekin, IL (309) 353-2450
Email: rstallwitz@grics.net

Seat Upholstery - Material
Original Auto Interiors, St. Clair, MI (810) 727-2486
SMS Auto Fabrics, Portland, OR (503) 234-1175

High Pressure Pump Rebuilding
Brett Instrument, 1233 S. Wright St., Santa Ana, CA 92705
(714) 835-4064 Contact is *Don Burnhart*, call for pricing. Money order or cashier's check only.
(Note also rebuilds MAP sensor/Fuel injectors)

Fuel Injector cleaning & testing
(Send them your injectors, they clean 'em test 'em and return 'em
with a report. \$100 set of four, includes return shipping)
Contact is is Joe Jill Sr.
Superior Automotive
2675 W. Woodland Dr., Anaheim, Ca 92801

Seat Belts - Repair/Remanufacturer Ssnake-Oyl Products, Seat belt Restoration and Sales Route 2 Box 269-6, Hawkins, Texas 75765 1-800-284-7777

Remanufactured Vega Steering Boxes
Contact Earl at:
Lares Corporation- Remanufactured Steering Components
13517 HWY 66 NE, Ham Lake, MN 55304 (612) 754-2853

Weatherstrip for your Cosworth.

Contact Metro Moulded Parts at 1-800-878-2237

Item Part #

Hatchback Doors LM 13

Wagon and Sedan Door LM 13-A

Hatchback Hatch - Sold by the foot LP 46-C (Need 20 Feet)

If you out there have first hand experience with any vendor or service garage that you feel should be added to CVOA Vendor list please contact Mike Rupert

CVOA Technical Advisors

Have a CV problem? Need advice?

Please, all calls on your dime.

Karl Bell of Hutton Motor Engineering, TN (931) 648-1119 8-3 CST, Tues-Fri Only *Engine and EFI related issues

Bob Chin, Bloomington, IN (812) 339-0838 4PM-9PM EST *Restoration & Mechanical

Keith Meiswinkel, Wallkill, NY
(914) 895-3027 7:30PM-9PM EST Everyday
*15 years experience, Mechanicals, Parts
Availability, Restoration and Detailing

Tim Morgan, Houston, TX (281) 589-0449 9PM-10:30PM CST M-F *EFI, Webers, Engines, Performance Parts, Suspension, Body and Interior

Sean Nierenhausen, Redondo Beach, CA (310) 372-5143 4PM-9PM PST Mon-Sat *Engines of all types, gas/diesel/LPG, alter nate fuel & gas turbines, etc., hydraulics, fuel systems, electrical. Custom engines & turbo- charging

David Quarterman, Anmore, BC, Canada (604) 469-9979 1-6PM PST, Mon-Sat * Dave's Vega Village. All H-body types, V6 + V8 Conversions, 20 years of study

Maurice Schechter, Williston Park, NY (516) 294-4416 9-11PM EST M-F
*Troubleshooting Fuel, Electrical and Drivetrains a Speciality. Working on Cosworths since 1979

Duke Williams, Redondo Beach, CA
(310) 372-5527 6PM-10PM PST & Weekends
*Maintenance, Engine, 5 speed Trans,
Brakes, Suspension, Fuel, Electrical
System, General Technology and History

Neal Williams, Bellflower, CA (562) 920-7168 After 5PM PST *EFI, Webers, Engine Assy., Electronic analysis. 30+ years performance OHC experience. 16 years CV port/polish, etc, etc.

Cosworth Vega Classifieds

BOX INDICATES NEW OR UPDATED AD

Cars for sale, Cosworths

75-0644 Black/White interior, Rear window Defogger, AM/FM Stereo Radio, Rear Speaker, Aux Lighting Package, Windshield Antenna, Swing out windows, New Batt, alternator,cam belt and muffler. Runs well, smog equipment removed. Jack Oliver Cherry Hill, NJ (856) 667-2858 \$3750.

75-0657. Original owner. Black, black vinyl. 102,000 miles. A new sleeved, completely overhauled engine just installed, including bronze valve guides. Converted to Webers aprox. 18 years ago. Have all orig. FI parts and was running when rebuilt and painted @ 80,000 miles. Garaged in OR for last 27 years. I am now retired and looking to other interests. Very motivated to sell. \$3,900 OBO! I would consider delivering for cost only for right deal. Please contact me for more specifics on this very excellent running CV. Jerry McKnight jmck@teleport.com. or call (503) 645-5642. 4/02

75-0800. Black/white vinyl. Rear defogger, swingouts, AM/FM radio, windshield antenna, doo edge guards, rear speaker. New battery, alternator and timing belts. This car was stored many years by a collector in NJ and is in excellent condition. Asking \$5,200. Anthony Tucci, Middle Island, NY (631) 205-0823

75-1057 24,400mi no rust, stored much of its life by two prior owners,clothe interior, swingouts, AM/FM-tape, Rrdefogger, wheels repainted, new tires and Flowmaster exhaust, K&N filters, new belts, new upper engine gaskets(no leaks), 4.10 posi installed by previous owner, 5sp conversion and sunroof available if you want. \$4,250. Phil Rust, 317-253-4408, daysor wkend.

75-1274. Black, white vinyl interior. AM/FM Stereo, Rear Defroster, Swing-out Windows. Odometer reads 17,000 Miles. Everything looks like New. Someone spent major time and money on this car. If you are looking for a Cosworth, THIS IS IT. \$6,500.00 OBO. Mike Acerra, Allentown, Pa. (610) 437-1508 or E-mail: flamer55@msn.com

75-1399. Tinted glass. positraction, swing-out windows, rear speaker, AM/FM Stero radio, door edge guards. Stored since '87. 1V77E5U253914 50,789 miles. Asking \$4,500. Robert Olbeter, New Kensington, PA 15068 (724) 337-8574 8/02x

75-1520. 45k miles, Excellent condition, new tires and paint, interior excellent, new carpet, asking \$6800.00 or best offer.Buyer pays shipping. Bill Addison, Jacksonville, Florida (904) 641-8812

75-1761. It's all original in excellent condition. Garage kept. Also lots of extra parts such as: 2 engines-with 6K/28K, 4 wheels, body parts, books, pamplets, owners manual, too many extras to list. \$7,500 firm. Call for more info. Mary Jo or Fred, after 5:30PM (540) 228-3529 Wytheville, VA

75-1953. Black, Black vinyl, 95K miles, Positraction, Tinted glass, Auxilary lighting, Door edge guards, Rear defogger, Rear speaker, AM/FM radio, GM floor mats, Hurstshifter, Milodon 7 quart oil pan, Rear window louvers, Weber carbs, Free flow exhaust. Hutton built engine with BD-3 cams. 10:1 compression, COE pistons, Ported head with stainless steel valves. Steel sleeved block. Goodvear Gatorback tires, Cover, Solid body(originally from Virginia), Excellent paint and interior, Drive anywhere, \$6500.00, Might consider a package deal with 25 year collection of CV and Vega Parts, Tools, Literature etc. etc. Jim Blunden, 334-7259 address: Norwich, NY (607)e-mail icblunden@webtv.net 12/01

76-2465. Black on black. Swing out windows, 5 speed. New paint, new interior. This car has been completely gone over. New parts too much to list. Runs good. To many project cars. Priced to sell \$4500 or make offer. MUST GO! This car has the engine out of #2690. 62K actual miles. This car was wrecked in 1988, hit in front end, but wasn't hurt. Has been checked on front-end machine and is OK. This car is all there except engine and I even have a front-end for it. This car for sale also for \$1000. Dean Farmer, (336) 667-2339, Millers Creek, NC E-mail: Scarlette112@aol.com

76-2725. Black on black. 94K, Good condition inside and out. No rust or dents. Equipped with Hutton Weber package. \$2,900. Also have extra engine and numerous other parts. Contact: Steven Richards, Gulfport, MS (228) 539-2230 8/02

76-2860. Black/black cloth, 34k. Garaged since 1983. Body & interior good, gold wheels. Traded for car, I am not a collector. Priced to sell, \$3,500. Ronald Rhodes, Hendersonville, NC (828) 891-4446

76-2911. Black/white vinyl. 5 speed, Posi, AM radio, 28.3K, Everything works, runs and drives good. Call 5-9:30 PM PST weeknights. Stuart Colburn, Marysville, WA (360) 657-0309 Email: colburn@precor.com 12/02x

76-3017. Firethorn, buckskin vinyl. 1V77O6U21452x, 57,515 original miles. Overall condition: Mechanically excellent, all original; good interior; some rust. Price \$2,500 OBO. Robert Greene, Pacific Palisades, CA (310) 459-1174 Email greene@math.ucla.edu 1/02x

76-3086. Medium Orange/Buckskin vinyl. 3,600 original miles, garaged, exterior excellent, interior showroom. AM/FM tape, new tires, 5 speed, driven fast several times per week. Includes all papers-window sticker, original bill of sale, etc. Also extra gaskets, filters,misc parts, GM engine analyzer, shop manuals. Asking \$9,500. Scott Mason, Birmingham, AL (205) 369-8473/(205) 967-2151

76-3293. Original firethorn red, white int. 5-spd. Body straight/clean, needs paint & interior. \$1370 OBO. Don Duerr, (307) 367-7776, CV3298@hotmail.com, Laramie, WY. Will sell car w/all CV parts listed in my other 2 ads for \$2970.

76-3321. Medium Orange with all vinyl buckskin interior, competition gated 5 speed. Options include Skytrends moon roof, swing out quarter windows, door edge guards, floor mats & rear window de-fogger. Includes lots of original and historical stuff (e.g. original dealer invoice and owner's manual), CVOA (way) back issues, some tech info and full set of decals. Just over 100k miles, with pulse air intact. Interior and exterior fair to good; five new 60 series tires on original wheels. \$3900 OBO Greg Kennedy, Elk Grove, CA (916) 683-6797; GSSKen@worldnet.att.net

Cars for sale, non-Cosworth

1971 Chevy Vega Hatchback. Powerglide automatic. Some rust, good running condition. Asking \$950. Nick DiFeo, Hilton, NY (585) 392-6955 Other vega parts available also.

1976 Chevy Vega. High performance Buick 231 V6. Offy intake, Isky cam, TRW pistons. Keystone wheels on Dunlop radials. Paint is firethorn red and in good condition as is the body. \$2,500. Contact Bob Young, San Carlos, CA (650) 593-0795 robert.young11@worldnet.att.net

1976 Chevy Vega Hatchback. Orange exterior/Buckskin interior. 140 4 cyl., 2bll, 3 speed automatic with A/C. Purchased from original owner, 57k actual miles. Runs good, doesn't smoke. All original. \$2,795 or best offer. Contact: Dean Farmer, Millers Creek, NC (336) 667-2339

1972 Chevy Vega Wagon Kammback. Red with black interior. 140, 2bar. 2 speed automatic with A/C. 50k on sleeved rebuilt engine. Runs good - doesn't use oil. Need driver's seat reupholstered and carpet. \$1,895. Contact: Dean Farmer, Millers Creek, NC (336) 667-2339

Parts for Sale

Cosworth Racing head. Complete with valves&springs. Has been ported and has plugged core holes and O ring grooves. With two sets of gas O rings. \$1,000 or best offer. 5 new Vega Arias forged lightweight 12.5 racing pistons-3.5 bore-1.0-1x2x2. 8 rings, grooved \$350. Vega Cyl. head-ported. Larger stainless valves, P.C. seals, Crane valve springs and retainers, Crane cam F240/470-8 racing part#120971, lifters new cam bearings/cam seal/sprockets. All new ready to race-\$900.Sonny Rossi, San Antonio, TX. (210) 688-3711

Sway bars and rear coil springs for a CV. Rear bar is 7/8" the front is 1 1/8". The coil springs are yellow. (Moog?) I will sell all as a package for \$100.00 plus shipping. Mel Creamer, Winter Garden, Florida. (407) 654-4124.

CV engine (from CV#0041) complete w/head, cam carrier, fuel injection,computer, and exhaust header. From CV #0041. Approx. 30,000 miles. \$680 OBO. Don 307-367-7776, CV3298@hotmail.com, Laramie, WY

CV parts: head/cam assembly w/HP cams-\$450; 2 sets CV mags-\$190/set; CV exhaust header-\$130; CV#0041 dash bezel-\$50; 76 CV injection/intake assembly w/computer-\$200; box misc. parts: ignition, distributer, starter, alternator-\$50; fiberglass rear spoiler-\$50. Don 307-367-7776, CV3298@hotmail.com. Laramie, WY

1976 Cosworth parts car. Will sell all or parts. Call: (717) 469-1880. Paul Cernek, Grantville, PA 2/02

Door black upholstery panels (pair) - \$70 (shipping \$20) Jim Rigg, Boise, ID (208) 367-1004 after 6 PM 12/02

Partial stripe kit. Four wheel opening stripes, GM# 1657530-1-4-5. Hood stripe GM#1657536 and front fender stripes. Make offer. Bob Fihe, Westerville, OH (614) 899-2581

NOS GM Parts for sale:

74-75 tail panel \$300.00,74-75 headlamp bezels \$60.00 ea, 76 showroom literature \$10.00, dk aqua rear floor mats \$40.00, front bumper \$150.00, left rear guarter panel \$350/450, black ashtay \$20.00, motor mounts \$90.00 pair, crankshaft sprocket \$225.00. Ih headlamp housing \$40.00. door edge guards \$40.00, brake caliper pistons \$25.00 ea, hood cables \$40.00, #1700895 rear vega emblem \$35.00, SPAX racing shocks (4) \$350.00, fuel tank (painted black) \$275.00, 3 row custom radiator \$200.00, harmonic balancer \$125.00, front bumper impact strip \$75.00, wheel center caps \$40.00 ea, Monza fuel pump \$45.00, Vega fuel pump \$45.00, lh door \$325.00, #339075 parking brake handle cover/tray \$60.00, #994725 black rear floor mats \$65.00, hp fuel pump mounts \$60.00 pair, reproduction fuel filter (CVOA) \$75.00, #830532 distributor shaft assm. \$110.00, Hutton 2 piece dash bezel \$65.00, 9833916/917 swing out window upper trim, \$125.00 pair, hatch weather strip (GM!!) \$120.00, batt tray(75) \$125.00

CV Good used:

hood \$225.00, hatch \$225.00, 16:1 quick ratio steering box (dealeraccessory only) \$350.00, pulsair system-very good \$350.00, CV service manual supplement \$40.00, fast idle valve \$75.00, radiators \$50 and up, EFI aircleaners \$50.00, GM parts books \$35 and up, CV long block assm. \$500.00, CV short block assm. \$250.00, waterpumps for cores/spares \$40.00, 71-75 rear brake strut tools \$25.00 (new), 2.3 liter short block assm. \$175, wheel center caps \$100 set 4, am/fm stereo radio \$125. RAM Engineering "super cable" clutch cable \$65.00

Vega 140 Misc. :

71-72 speedometer cables \$10.00, 71-73 upper and lower radiator hoses(12" radiator) \$10.00 ea, 73 hatchback fuel tank \$50.00, Monza inner fender assm. \$30.00, new GM water pump 71-75 \$40.00, Also; the remains of a 77 GT hatchback and a 75 hatchback Jim Blunden Norwich,NY 607-334-7259 e-mail address: jcblunden@webtv.net

Parts Wanted

One exhaust cam core. Cosworth-Crane cams 16-#366205. Sonny Rossi, San Antonio, TX. (210) 688-3711

Tappet Holding Tool J-24705. I'm only needing three to make my set. If someone would have any extra ones around? I would be interested in one or three. Email: dempsey2995@cs.com (765)286-7285 David Dempsey

Need a five speed tranny. Contact: Dave Metcalf, 2593 West Line St., Bishop, CA. (760) 872-2842 Email: Dave@MammothBaloonAdventures.com

(1) GM# 9631835 moulding, left front wheel opening (NOS); (1) GM# 8704087 moulding left rear wheel opening (NOS); (3) GM# 397811 Trim rings (NOS)

Wanted: 1974 Vega express panel wagon. Close to 100% complete. Factory A/C, 4 speed, does not have to be running. Very close to rust free. Will travel far for the right car. Have cash will travel. No wrecks please. Larry & Gloria McLoud, 312 N.E. Teak Trail, Pinetta, Fl. 32350 (850) 929-2438 email: thechevystore@digitalexp.com

Buckskin interior parts most all of the hard plastic parts or any color if very nice. 1976 orange front valance panel and air deflector. Art Treta, Forestport, NY (315) 831-8457 or C1451@aol.com

Miscellaneous

Car wanted: a 76 5-speed Cosworth Vega. Must have very low miles and be in excellent condition. Will pay top dollar. Pete Katz, San Diego, CA (858) 945-5710

ORIGINAL COSWORTH VEGA LITERATURE! 1975 Cosworth only color catalog, \$20; 1976 Vega & Cosworth color catalog, \$10. Add \$3.50 shipping. Specify year. I also have lists for all cars / trucks / motorcycles / worldwide. Walter Miller 6710 Brooklawn Pkwy, Syracuse New York, 13211. (315) 432-8282 . Fax (313) 432-8256 , www.autolit.com

PLEASE NOTE THE FOLLOWING:

Let us know if something changes in your ads. If you need to place an ad or submit something you can do it in the following ways:

*The good of Postal Service.

*Phone, you can leave messages but this way is the most costly to the club if we need to call back.

*Fax, you may fax to Mike Rupert's work at (412) 831-6448. It is on 24 HRS. Please note when sending that it is for "CVOA/Mike Rupert".

*E-mail, Preferred. Mike Rupert's address is:

CVOAINC@aol.com

(Do not use space between CVOA and INC)

ONCE IN A LIFETIME SALE

The largest collection of NOS parts and Kent Moore tools for the Cosworth Vega are being offered for sale.

Over 10 years of purchasing since 1979, totals the collection over 3400 parts, many very rare.

If you have been to Round Up 23 (New York), you have seen my list, otherwise call or email and I will send you one.

Offers are being accepted. Will sell for below market value.

Whether you want to be set for life with parts or want to make money, this is a once in a lifetime offer.

Maurice Schechter 590 Willis Ave. Williston Park, NY 11596 H-516-294-4416 W-212-757-4580x675 mauricsch@cs.com

1st QUARTER '03 COSWORTH VEGA MAGAZINE DEADLINE

Deadlines for articles and advertisements in the 1st Quarter issue of the Cosworth Vega Magazine is **March 1, 2003**Articles or advertisements submitted after this date may not appear in the 1st Quarter issue

CVOA ADVERTISING POLICY

Business Advertisements

1/4 page - \$10 1/2 page - \$25

Full page - \$50

Full page inserts - \$60 if inserts provided, \$110 if not (All above are priced per issue)

Member/Non-member ads

CVOA members are entitled to one free ad per issue.

Additional member ads \$5 each

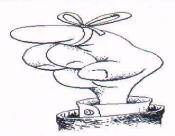
Non-member ads are charged \$15.00 for an advertisement in two consecutive issues. Cosworth data (dash #, VIN, color combination, options) must be included.

Photo charge \$10 each

(Sorry, black & white only. We can use any photo, color or B+W, as long as it is a clear picture.)

Please mail all advertisements / articles to: CVOA Magazine P. O. Box 5864 Pittsburgh, PA 15209

CVOA is not responsible for any advertised claims, products or services from independent or commercail vendors. However, reoccurance of complaints may result in denial of advertising space and reference to members in future issues



REMEMBER: SEND ADDRESS CHANGES TO CVOA!

You may email address updates to cvoainc@aol.com

P.S. WHEN WAS THE LAST TIME YOU CHECKED YOUR MAIL LABEL FOR EXPIRATION?

CVOA REGIONAL DIRECTORS

REGION 1 - MA, RI, NH, ME, VT, CT Presently merged with **Region 2**

REGION 2 - NJ, NY Art Treta, 107 Deer Run Rd Forestport, NY 13338 315-831-8457 c1451@aol.com

REGION 3 - PA, DE, DC, MD, VA, WV Dan McNally, 7248 Shannon Road Verona, PA 15147 412-793-6652 joemcnal@bellatlantic.net

REGION 4 - NC, SC, GA, TN, MS, AL Presently merged with **Region 12**

REGION 5 - FL, PR, VI Bill Addison, 7561 Glen Abby Place Jacksonville, FL 32256 904-641-8812 billaddison@usa.com

REGION 6 - CO, WY Presently merged with **Region 14**

REGION 7 - OH Brian Wetrich, 4619 7th Street NW Canton, OH 44708 330-478-5138 bwetrich@neo.rr.com REGION 8 - MI John Cowall, 9677 Fox Allen Park, MI 48101 313-388-1026 jcowall@hotmail.com

REGION 9 - IA, KS, NE Presently merged with **Region 11**

REGION 10 - IN, KY Phil Rust, 5840 Norwaldo Ave Indianapolis, IN 46220 317- 253-4408 prustindy@aol.com

REGION 11 - IL, MO Roy Linenberger and Brad Stone P.O. Box 173 Cortland, IL 60112 815-756-1025 b86stone@juno.com

REGION 12 - TX, OK, LA, AR Dan Newman 25014 Butterwick Drive Spring, TX 77389 281-351-6187 Dan.Newman2@GTE.net REGION 13 - AZ, NV, NM Presently merged with **Region 16**

REGION 14 - OR, WA, ID, MT, AK, UT & Hawaii Jim Rigg, 2865 S. Portside Ave Boise, ID 83706 208-367-1004 bigrigg@mindspring.com

REGION 16 - All of California Chris Wheaton, 2009 Raymer Ave Fullerton, CA 92833 714-449-2800 cswrth1@aol.com

REGION 17 - ND, SD, MN, WI Bruce Jahnke, 5423 South 200th Street New Berlin, WI 53146 262-679-0550 Darwar80@aol.com

SERIOUS, PUNCTUAL, INTERESTED DIRECTORS WANTED:
If you would like to be a director in a region that has merged into another, please contact **Dale Malin**.

CVOA Roundup 24 June 27-29 2003 Austin, Texas

Roundup Hosts:

Dale & Lori Malin (512)-858-0391

Email: dlmalin@juno.com

Roundup Assistants – The Texas 5
Clark Kirby, Tim Morgan, Dan Newman, Doug
Wallingford, & Mark Blomquist

Two full days of Cosworth Activities!

- , Lone Star Autocross
- , Hill Country Concours
- , Capital of Texas Road Rally
- , Republic of Texas Dyno Runs

Roundup Registration Fees:

Adults (Age 16 & Up) - \$95 per person Children Age 11 to 15 - \$65 per person Children Age 6 to 10 - \$40 per person Children 5 and under - Free

> Holiday Inn Austin-South 3401 South I-35 Austin, TX 78741 1-800-HOLIDAY or 1-512-448-2444

Room Rate is \$65 per night. You must ask for the Special Cosworth Vega Owners Association rate when you book your reservations. Rate good while rooms available. Reserve ASAP!

Austin Area Attractions

- , Austin's 6TH Street, Live Music Capital of the World
- Austin's Famous Congress Street Bridge and Mexican Free Tail Bats
- , Camp Mabry's Texas State Military Museum
- , Visit one of eight local wineries
- . Inner Space Caverns
- , University of Texas Campus & the UT Tower
- , LBJ Library & Musem
- , Ladybird Johnson Wildflower Center
- , Texas State History Musem
- Authentic 1880's Texas Pioneer Farm

Other Central Texas Attractions San Antonio – 65 Miles South

- * The Historic Alamo
- * The River Walk
- * The Mission Trail

·Fredericksburg – 60 miles West

- * Chester Nemitz War Museum of the Pacific
- * Famous Fredericksburg Peach Orchards
- * Antique Capital of Texas

New Braunfels – 30 Miles South

- * Schlitterbahn Water Park, rated #1 in the US by the Travel Channel
- * Natural Bridge Caverns



P. O. Box 5864 PITTSBURGH, PA 15209 "USA...USA...USA!"

ADDRESS SERVICE REQUESTED

FIRST CLASS MAIL

FIRST CLASS U.S. POSTAGE PAID PITTSBURGH, PA PERMIT #4532