



# VETTE GAZETTE

Volume 2 Issue 4

December 2004

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## Chairman's Corner with Larry Linder

It has been a very good year and the chapter has achieved a great number of goals we had set for ourselves. We have successfully grown again this year in number of members with a large percentage renewing their membership. The chapter has sponsored a charity and conducted judging schools, a chapter judging meet, several tours (group outings), venter visits and a cruise in.

As we look back we can count the number of successful activities. A special thanks to all who participated, and volunteered their time to make it happen.

The coming year will even be better – we would like to add a second road tour, expand the judging meet, hold more judging schools, continue to sponsor a charity, a social type of event and get our top flight

chapter award. To accomplish all of this we need more volunteers to help out with our activities, organization, planning, serve as Day Chairman for an event.

One of the most ambitious plans is to bid on having a National Meet in 2008. It would be a tremendous undertaking and we would need a lot of volunteers to organize and plan the event. It might be feasible if we can get the Columbus (Heart of Ohio) and Cincinnati (Queen City) chapters to co sponsor it.

Marry Christmas and Happy new year to you all

Regards  
Larry



See Feature Article

**For calendar/upcoming events  
and for sale items/parts wanted  
items see the chapter web site:**

[www.ncrs.org/mvc](http://www.ncrs.org/mvc)

## Feature Article

### What to do with 400+ horses by Terry Brim

The first thing I noticed about Gary Tolliver when I interviewed him for this article was that he was always smiling. All during the interview smile smile smile. It was only afterward when he so graciously offered to let me drive his new C6 that I understood why. WHAT A CAR! 400+ horses with a 6 speed to transfer all that power to the rear wheels. As an added bonus, his baby has every option available on the C6. No wonder Gary was always smiling!

The first thing I noticed about Gary Tolliver when I interviewed him for this article was that he was always smiling. All during the interview smile smile smile

He does love to drive his car.

When I asked Gary what he does with all those horses, he just smiled again, mumbled something about doing 100 before he could get it out of 3rd.....:) He is indeed one lucky guy.



Gary first got interested in cars at a very early age while riding around with his father. Seems as how his father did a lot of driving and Gary would sit on his lap (of course one could get arrested now days for doing that) and they would name the different cars they saw on the road.

Gary's interest in cars was further peaked by the boyfriend of the girl who lived behind him when he was attending junior high in Chillicothe, Ohio. Seems as how the guy had a black over red 58 corvette with silver coves. Gary still keeps a model of this car in office and hopes to own one someday.

Back in the 60's, the muscle car era as Gary puts it, there were no cruise-ins as we know them

today. Instead, the local hamburger drive through provided the show case venue. So it was in Chillicothe, SumBurger's was the place to be seen.

According to Gary, on Friday and Saturday night, cars from such exotic places as Waverly, Portsmouth, and Lancaster, would

converge on SumBurgers in Chillicothe to see and be seen..... sound familiar?

Gary's first corvette was a 73 red/black L48 4-speed which he ultimately gave to his son to drive to high school (wonder if I'm to old for adoption?). His next vette was a 65 black/silver 396 Big Block w/side pipes which Jeff Bernhardt helped him restore.



on Friday and Saturday night, cars from such exotic places as Waverly, Portsmouth, and Lancaster, would converge on SumBurgers to see and be seen

Gary's first new corvette was a 98 silver convertible. He drove this car to his daughters wedding in Las Vegas in 1999. His route took him along the old route 66 all the way to California.



Continued on page 3

Continued from page 2

His next corvette was a new fully loaded 2001 metallic red automatic convertible.....I think he's getting the hang of it now!!

After about a year, Gary sold the 2001 to a local dealer. He then ran across a 2002 black on black Z06 on ebay with only 2500 miles. The only problem was the car was in New York City and Gary didn't want to drive it back to Ohio. Apparently getting the car out of NYC on a flat bed was not an option. As luck would have it however, a friend of Gary's recommended a guy in Cincinnati would bought cars for dealers. For years, this guy would locate cars for dealers, fly to wherever they were and drive them back to dealers. (not a bad way to make a living).

After talking to the guy, Gary bought him a one way air ticket to NYC, ask him to check out the car and call him before he "sealed the deal" As it turned out, the car, according to Gary, was the "real deal" so Gary gave him the green light to drive the car back to Ohio.

After seeing the new C6's, Gary knew he wanted one, but he is a convertible guy at heart and the 2005 convertibles wouldn't be out until next spring....what's a guy to do?

Well he didn't want to but a 2005 model half way through the year so he had all but decided to wait and order a 2006 convertible. That way, he could get it at the beginning of

the model year.

Again, Gary was on the internet and this time he spotted a yellow 2005 with all the options he wanted including a 6 speed, this time somewhere in Wisconsin. The only problem was that it wasn't a convertible.....guess he would have to wait a while longer for his convertible. While Gary was debating about the car in Wisconsin, he decided to check around some local dealers to see what kind of 2005s they had on hand. The one thing Gary found out was that 6 speeds were gone as soon as they got off the truck!



Obviously, that pushed him over the edge.....the car in Wisconsin had all the options plus a 6 speed and he liked the color.

Gary rationalized that if he didn't like the car after driving it for awhile, he could always trade it in on a 2006 convertible!



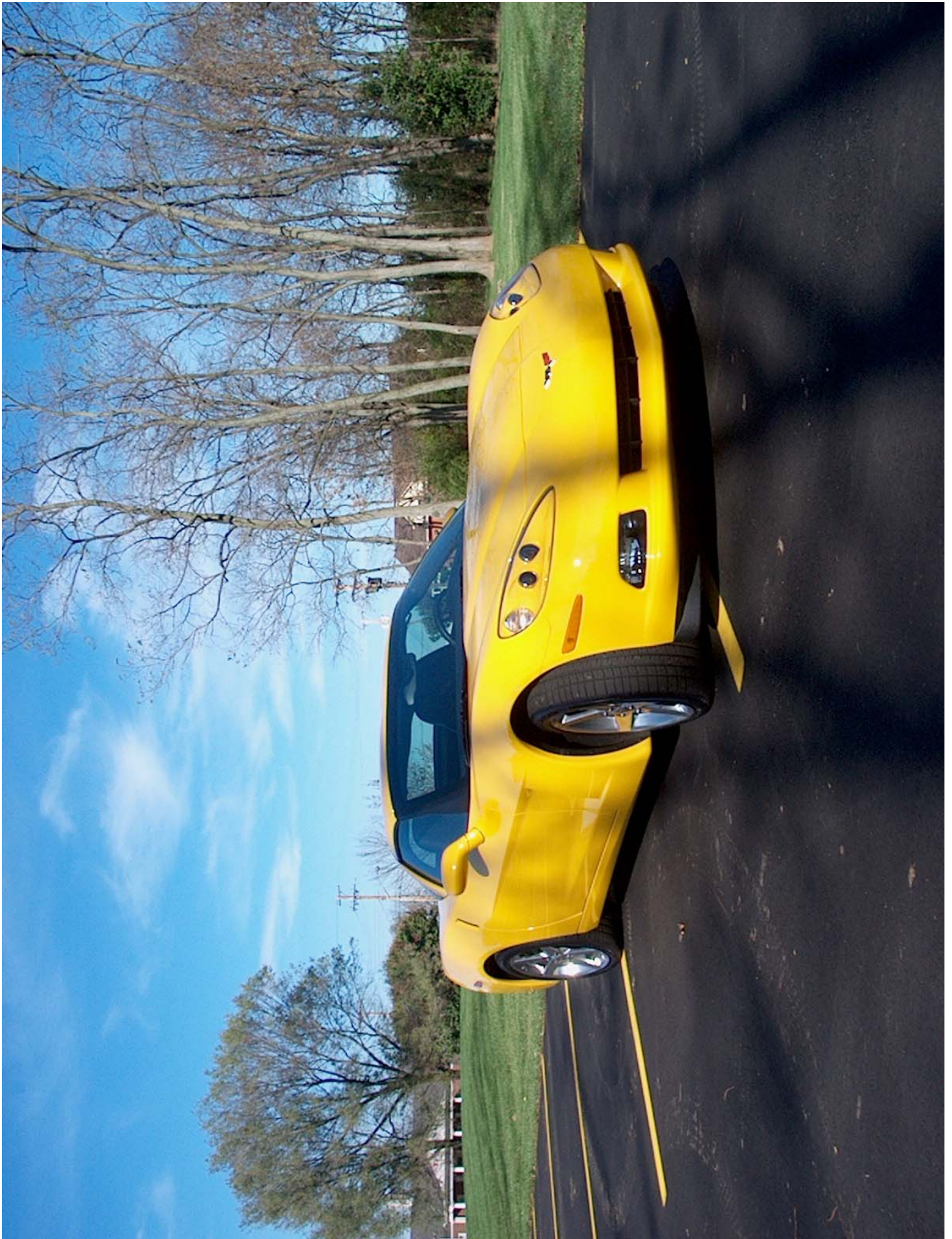
Judging by the smile on his face when I saw him, I wouldn't bet on seeing Gary in a convertible very soon unless it would be his

first real love when he finds her!



Judging by the smile on his face when I saw him, I wouldn't bet on seeing Gary in a convertible very soon unless it would be his first real love when he finds her!





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## **BODY RIVETS Part I By Larry Linder**

Body Bracket Replacement.

In restoring my 65 coupe most of the body brackets, several body mounts, wire conduit cover clips, accelerator pedal nut plate, splash shield rear attachment brackets and the luggage retainer panel needed to be replaced. All of the parts are riveted to the body using solid aluminum rivets.

The vent doors, and the heater plenum were restored but using 1/8 inch nickel plated brass rivets.

Rivets are easy to replace - the only problem is there were no hand tools available and no procedures to replace these rivets.

Intimidating - That is the reason behind this article, to show you that riveting can be easy and save you a lot of time and money during a repair and make the restoration project structurally sound, look as good or better than the original.

### **Types of Rivets Used:**

There are several types of rivets used in the Corvette to attach panels, body mounts and brackets to the fiberglass body:

3/16 inch body diameter.

1/2 inch length - 1/2 inch diameter head

3/8 inch length - 1/2 inch diameter head

3/8 inch length - 3/8 inch diameter head

5/8 inch length - 3/8 inch round head - when squeezed it looks like a pan head but with rounded edges.

3/8 inch flat head - used to mount bonding strips to metal structure.

1/8 inch body diameter.

Hollow brass rivet (nickel flashed) used on the heater plenum, and fresh air doors.

### **Other types of Rivets Available:**

Why then don't we just use Pop rivets? They are cheap and available, and easy to use. There are three good reasons not to use of pop rivets in a fiberglass body. One, if the rivets are aluminum they don't have the required strength that a solid rivet will have. Secondly, if we use a steel or stainless steel pop rivet then the fiberglass panel may be crushed when the rivets are set, destroying the fiberglass structure. Third, the appearance will not look original. The factory used pop rivets in several places but limited the use to where two metal panels are joined and spot welds were not possible, or where the back side of rivet is inaccessible, such as found on the 63 - 67 dash mounting.

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## *Kettering Holiday at home*      *By Terry Brim*

It wasn't as good as last year, but it was still fun. Most of the cars were relegated to the parking lot north of the main thoroughfare. Notwithstanding however, a few hard core car nuts braved the hot sunny parking lot to exhibit their cars.

Those in our club were Mike Ammer's 62, Les Ashmore's 60, Terry Brim's 70, Terry Buchanan's 68, Larry Linder's 66, Tony Ninotti's 54, Jerry Michaels' 68 Chevelle (WHAT!), and Tom Van Leeuwen's 71,



## Types of Rivet Joints:

Three of the types of rivet joints used in the 63 to 67 body are illustrated.

1. The rivet of a bracket to the fiberglass body where the bracket is the back up for the set rivet. Examples of these are the seat belt brackets, and seat reinforcement / threaded nut plates, body mounts, dimmer switch mounting plate, accelerator mounting plate. See figure 1 below.

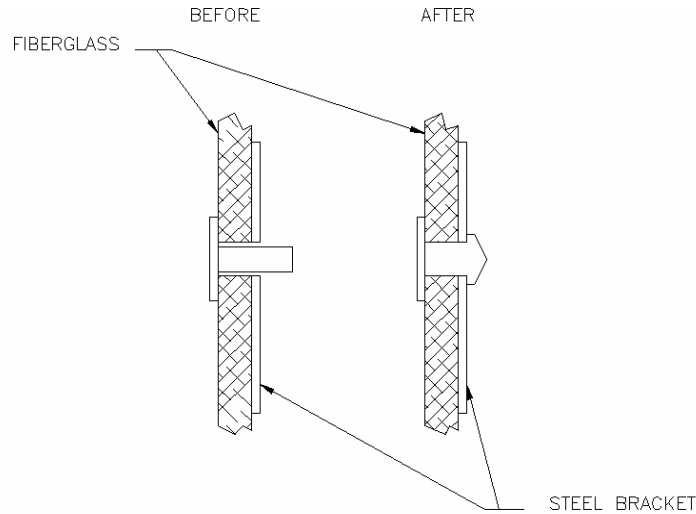


FIGURE 1

2. Rivet of a panel to fiberglass where the panel has the large rivet against the panel, the stem is through the fiberglass body and a # 10 aluminum washer is used as backup for the set rivet. Examples of these are the luggage retainer panel behind the seats. See figure 2 below.

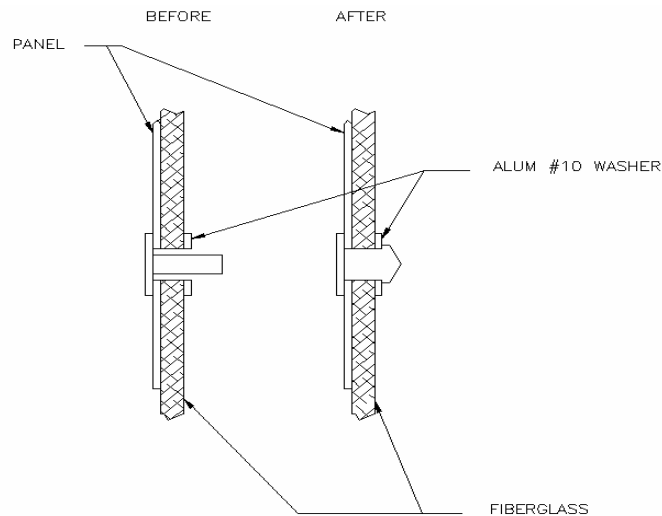
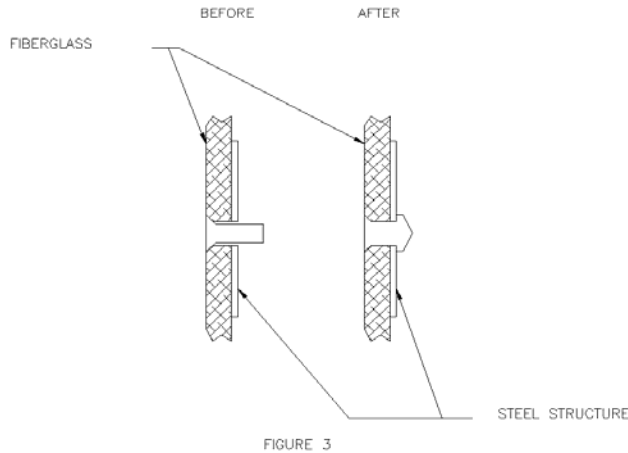


FIGURE 2

Continued on Page 8

- The flat head rivet is used to hold some bonding strips to the steel reinforcement and is under a bonded fiberglass panel. The fiberglass is counter sunk and the rivet head is flush with the surrounding surface. Examples are the headlight attachment plates bonded to the front end fenders. See figure 3 below.



### Simple Rivet Rules:

The riveting of brackets and panels all follow some very simple rules, when these rules are followed the riveted joint will be tight and look professional.

**Rivet length:** The rivet length should have between 1 to 1.5 times the rivet diameter protruding through the part assembly before the rivet is set. If it is too short there will be too little material to form a tight head and it will be structurally weak and if it is too long it will tend to bend over, be structurally weak and not form a good rivet head. Don't be afraid of cutting off a little material from a rivet that is too long. Discard rivets that are too short or use them in another application.

**Bucking bar:** A bucking bar should be of sufficient mass as not to react to the blow but concentrate all of the energy into forming the rivet.

**Rivet anvil:** This tool determines the final rivet set shape and controls the depth of the set rivet. This is important because a rivet set that is too shallow (too thin) will not have the proper strength.

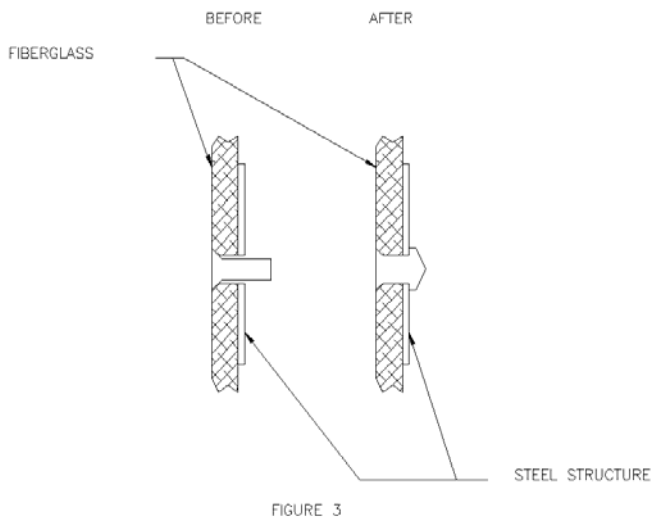


Figure 4 Correct Rivet Set Form.

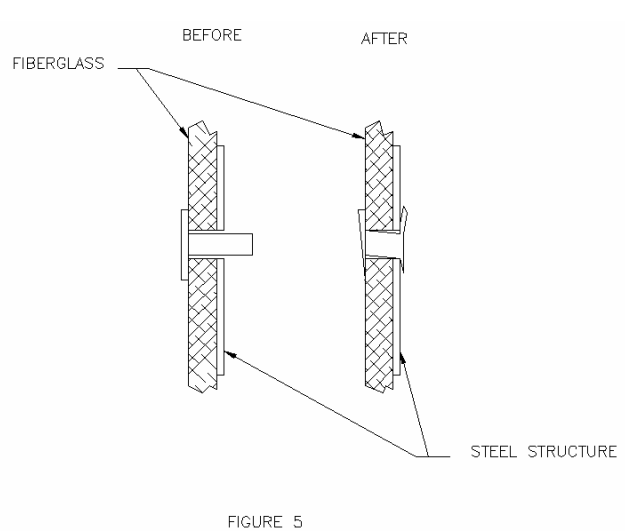


Figure 5 Poor Rivet Set Form - Structurally Deficient.

Continued on Page 9



### **Body Rivet Information:**

When you remove your first rivet from the fiberglass body you will notice that the rivet looks like it was beat with a hammer - and that is because a rivet gun (air hammer ) was used to set the rivets. When you measure the rivet hole you will notice that the rivet hole in the body is 3/16 in diameter, the rivet hole in the nut plate or reinforcement is slightly larger in diameter and that the rivets and the rivets are 1/8 in diameter. This is done to allow complex parts like a body mount to aligned properly and all holes will easily accept a rivets. This also reduces the stress on the fiberglass by allowing the rivet to expand. The rivet of correct length is required to make sure that the rivet will have adequate metal to flow and form the rivet. A rivet with too little set thickness will be structurally unsound and too long a rivet will make forming a uniform head hard to accomplish, both are undesirable.

Rivets are cheap \$0.10 each and a few practice tries are recommended.

### **Tools Required:**

- small hammer ( 6 oz.) approx.
- center punch
- 1/16 and 3/16 drills
- electric or Air drill motor
- small blunt chisel
- small drift punch
- large hammer (3 lb)
- body rivet tools set - see Figure 6.

### **Why do I need a Rivet Tool set:**

A skilled body man may not need a rivet tool set if he does rivets all the time. But when you are only installing a few rivets and do not plan to install any more, then the tool set will make your rivet job look better than the professional.

- The bucking bar has two recesses, one to hold the ½ inch pan head rivet in place and keep you from squashing the rivet head. The corner recess is for the rivets in the corner of the seat belt bracket. If the rivet head is deformed then all of the rivet joints strength is lost.
- The rivet set tool is used to keep the rivet head in alignment and to form the rivet head into the desired shape.

There are two rivet tool sets available:

One is for the 1/2 and 3/8 inch pan head rivet. The anvil of this tool can also be use to set the round head rivet. The other is for the 1/8 hollow core brass rivet.

### **Removal of Rivets:**

To remove rivets you must drill them out. Do not attempt to drive them out or to grind off the heads.

- Locate rivets to be removed, mark them with a black marker so only the necessary rivets are removed.
- Look on the back side of the riveted panel and make sure there is clearance. We don't want to drill into anything else
- Center punch the rivet as close to the center as you can get.
- Drill through the rivet with a 1/16 inch drill as a pilot.
- Change drills to a 3/16 drill and drill through the rivet, this should remove the rivet stem.
- If you are removing a plate that has multiple rivets drill all of them out.
- Once the rivets are drilled out use the chisel to remove the rivet heads by placing the chisel against the rivet head and tapping with the small hammer. The rivet head will shear away neatly. - do this for all rivets.
- Next use the punch and hammer to drive the rivet out, once you have driven out one or two rivets the rest pop out.
- Use a 3/16 inch drill and check the hole diameters before installing the new plate. If the holes are too large then you may want to use an epoxy / fiberglass mix to fill the hole and drill it to its proper diameter. What they sell at Wall Mart is polyester, it is not an epoxy resin and will shrink. The fiberglass body gets its strength from the fibers of glass and not the resin, so just don't fill the holes with resin.

Next - putting it all back together.....Body Rivets Part II

### **Internet:**

More articles and tools are available on the WEB @

<http://www.micro-contols.com>

### **Where To Buy:**

The rivet tools, rivets brackets and other Corvette parts are available from:

Volunteer Vette Products

3102 E Gov. John Sevier Hwy.

Knoxville, Tn 37914

PH: 1 865 521 9100

FAX 1 865 522 0080

<http://www.volvete.com>

**The opinions expressed and advice given are the personal opinions of the author.**

# Remember the "I've got a Secret" Article

By Terry Brim

How many of you remember the feature article in the March 2004 Issue of our Vette Gazette, that's Volume 2 Issue 1 for those of you who keep track of that sort of thing.

Title of that feature article was "I've got a Secret" In this article, we featured Don Groves 66 Corvette roadster located somewhere in the Dayton area. If you're old like yours truly, you may need a memory refresher about Don's car. Don was the one who has had two mid years stolen out from underneath him. Hence, he wanted to keep the location of this baby a secret.

Looks as if seeing all those neatly restored mid-years in our NCRS chapter has finally got to Don. Yes, he has set about to do a body off restoration of his baby!

When I last saw Don, he had the body off the frame and was diligently working on removing everything from the frame and chassis.



Note the AC ducts on this Big Block Mid Year.

When Don got the car, someone had removed the original BB and was running a small block in it. Don has located a BB to put back in the car although it is not a matching numbers block.

Don essentially had everything from the frame disassembled from the cross member forward. He was hard at work removing the rear suspension the day I took these

pictures.



The other thing you may not remember about Don's 66 is that it's a Big Block roadster with only 28K miles. It comes well equipped with 2 tops, AC, PB, PS, Telescopic steering wheel that hasn't seen the light of day for more than 30 years!



Don is not one to be denied as evidenced by all the hammers lying around inside the cockpit of the 66...ouch! I hope he uses them wisely.



Don intends for this beauty to be a driver when finished and who can blame him.

Time table for Don to complete his baby is sometime in 2005. We'll be watching Don....should be a sight to behold!

**WELCOME NEW MEMBERS!**

Craig Egbert      Ron Lambdin  
Matt Stansbury

## Members Corner    By Nick Kammer

In an effort for us to get to know each other a little better we will feature brief bio's of our fellow members. If you haven't submitted your member profile I would encourage you to do so. You can give as much or as little info as you want.

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**Events Chairman:**

Tom Sliemers (16327)  
937-429-0596

Looking for that special Christmas present? See the Merchandise and Apparel items on our Chapter home page

[www.ncrs.org/mvc](http://www.ncrs.org/mvc)

See next page for Members profile form. Fill out and return to Nick Kammer to get your profile published in the next issue of our Vette Gazette



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# Miami Valley Chapter

National Corvette Restorers Society

## Member Profile

*In an effort for us to get to know each other better we will include in our quarterly newsletter 'Vette Gazette' our members profiles. Whatever facts you wish to share with the rest of us are welcome. If you wish to submit a member profile just complete the profile below and send it to the web address listed below. Input on how we can improve our Chapter is also encouraged. If you would like for me to take your information over the phone just call me at 937-297-3611. Otherwise send the profile as an attachment to your return e-mail back to me (see bottom of page).*

### Name:

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Significant others name: \_\_\_\_\_

Date/place of birth: \_\_\_\_\_

NCRS # \_\_\_\_\_ (we have this on file but other members may find this an interesting tidbit of information.)

*Place of employment or occupation and brief description of what you do*

\_\_\_\_\_

*What other interests/hobbies do you have?* \_\_\_\_\_

*Under the heading 'Complaints take a number, solutions come on in', what do you like about our Chapter and what could be done to improve what we do?* \_\_\_\_\_

\_\_\_\_\_

*First car ever owned* \_\_\_\_\_.

*First Corvette owned* \_\_\_\_\_.

*Present Corvette(s), classic cars owned* \_\_\_\_\_

*Thanks for your input and information.*

*Forward this profile to Nick Kammer, Membership Chairman*

[www.nick.kammer@ncmc.com](mailto:www.nick.kammer@ncmc.com)