

# *GMC Western States*

## *Tech Center Number 39 – February 10, 2003*

**From our Technical Vice President**  
Gene Fisher

### **GMC RESOURCES ON THE INTERNET** (How to get wired)

Your GMCWS Web Page (GMCWS.org) now provides you access to the most complete technical resource for the GMC Motor Home that has ever been available.

- 1) [Bdub's Place](#) has almost every OEM manual (Original Equipment Manufacture) for every appliance and device in your GMC motor home and they are available to read or print .
- 2) [The Black List](#) is a list of GMC owners that have volunteered to help you if you break down in their area.
- 3) [GMC Photo Archive](#) is a FREE photo site just for GMC Motor Homes. You can store, show and view pictures and projects for our coaches.
- 4) [GMCnet](#) If you have a question or need an answer to a GMC problem, you can get at least one answer in minutes. Usually you will get many opinions during a day.
- 5) [GMCmart](#) and other lists of sources for almost every component in the GMC, with names and phone numbers provided.
- 6) Rebuild costs, parts list, and vendors are listed for major or minor projects.
- 7) The newest gadgets, parts, safety items, and information are current as of today's date.

None of this list was possible three years ago. We were using paper documentation that was about three feet tall and five to twenty years old. Many myths were perpetuated because it is impossible to go back and correct an error in paper archives. New tools and procedures are being developed every day that we can use on our GMC Coaches. If you are

not a part of this information base, here is how to start using this resource.

### THE INTERNET

The Internet makes this possible. If using computers is as foreign to you as piloting an airplane, the easy way to see this information is at your local Public Library. Go to the front desk of the Library and ask them to show you how to enter this address on the Internet:

[GMCWS.ORG](http://GMCWS.ORG)

Once you have the GMCWS web page on the screen of the computer, click the mouse on:

[LINKS](#)

You are there. A few minutes clicking with the mouse on the various information sites, is going to show you information you never knew existed. You will spend a lot of time looking at things because you are interested. You can even do this while you are on the road. If you have a problem go to the local Library and find an answer.

You will soon find using the Library is slowing you down and you need to get a computer of your own and start surfing the Internet from home. Now you need a friend or classes at your local adult education provider that can help you get and use a computer to access this powerful resource.

## GMCWS TIRE SAFETY SEMINAR

Tire pressure and selection are a continuing topic with GMC owners. It seems that GMCs' are not the only motor homes that work on these decisions.

"Airstream has announced that it will recall and arrange for replacement of the front tires on its 390, 395, and 396 motor homes for years 2000, 2001, and 2002. This decision was made after in-house weighing of a number of these motor homes showed that their front axles could become overloaded in some situations by exceeding the load-carrying capacity of the front tires.

Determining maximum axle tire loads is used to establish minimum recommended tire pressures. It can also be used to indicate the need of transfer of loads from a heavy side to better balance the motorhome.

### TEMECULA TIRE SAFETY SEMINAR

By  
Chuck Botts  
3882 Mt. Albertine Ave  
San Diego Ca. 92111-3237

Steve Malysiak, Michelin America's Truck Tires Field Engineer, will present a seminar specifically aimed at the GMC Motorhome's wheel and tire safety. The information will cover:

- 1) the original 16.5" bias and radial tire combinations
- 2) the common replacement 16" Alcoa Classic wheels with LT225/75R16 tires
- 3) load range D and E and different tire constructions of tread and sidewall materials of fabric and/or steel.
- 4) how to get the most from your tires, what to inspect for, criteria to use to determine when tires should be replaced

5) information for you to use in selecting replacement tires.

6) driving safety tips including how to best correct for rapid pressure loss (blowout) and the resulting changes in steering forces

7) major changes and improvements in tire technology over the last 30 years as they pertain to the GMC Motorhome

Individual tire loads (weighing) will be conducted during rally registration on both Sunday, for those who come a day early, and on Monday the 28th. It is free and optional. It will be a drive through method so those with tows do not need to disconnect and may also weigh their tow. For those who want to be weighed, come in full travel weight for the best maximum weight measurements. All sites have full hook ups so full liquid tanks can be dumped after hook up.

[A tire information sheet](#) has been added to the newsletter. We are requesting that this sheet be filled out and mailed to the address shown above, by every GMC owner, not just those attending the rally. This will provide the largest database of questions for Steve to answer at the rally. **After the rally, the results of the seminar, questions, and answers will be published in the GMCWS Newsletter. It will also be placed on the GMCWS Technical Information web page for future new GMC owners to access.**

Keeping the tire information on one sheet of paper required that subjects be abbreviated. The abbreviation explanations are expanded here:

- 1) wheel placement is either on the Driver's side (D) or Passenger's side (P)
- 2) wheel placement along the coach with Front (F), Middle (M), and Rear (R).

As an example, Driver's side Front wheel becomes DF while the Passenger's side Middle wheel becomes PM.

We are requesting data for each tire position for this safety seminar. The spare was not included because it is usually a temporary wheel/tire combination.

**Wheel:** All GMC's were delivered with 16.5" steel wheels and 8.75 16.5 bias ply tire from 1971 through 1975. Starting in 1976, 8.75R 16.5 radial tires with radial steel wheels were a major option, but some vehicles were still delivered with the bias ply tire and wheel combination. Steel wheels for radial tires are all stamped "RADIAL" on the outer rim and were designed to resist the larger wheel loads created by the radial tires. Radial tires mounted on non-radial approved rims can cause wheel cracking resulting in slow or even rapid pressure loss. This is a major safety issue. We are requesting each owner to inspect and record each steel/aluminum wheel to assure that it matches the tires on the vehicle. The 16" Alcoa Classic is approved for all E load rated radials.

**Tires:** Brand name/style is molded in raised letters on the sidewall. Size and Load range molded on the sidewall. For standard size tires, this will be either 8.75 16.5 D load range, 8.75R 16.5 D or E load range, or the LT225/75R16 D or E load range.

**DOT #:** The last group of digits molded on the sidewall is the tire manufacture date. There are changes in the meaning of the digits over the years. 1980 and 1990 used the last three digits and starting in 2000, four digit were used.

In the 1980's the first two digits determined the week of the year it was made and the last digit determined the year (198X). If it has 019, the tire was made in the first week of the year 1989 and the tire is more than 14 years old.

In the 1990's, the same code was used plus there was a small triangle to the right of the three digits. A tire with 019 <| was made in the first week in the year 1999. That tire is now more than 4 years old.

Starting in 2000, the first two digits remained the week of the year manufactured but the last two digits are the year. A tire with 0101 was

manufactured in the first week of 2001. As of the 4/29/2003 rally, that tire would be 2 years and 17 weeks old.

**F/S or S/S:** Tire construction with the number of plies and material is molded on the sidewall for both tread and sidewall.

**Tread plies:** Some tires have a combination of tread plies such as X plies fabric (F) + X plies steel (S). This should be recorded as F+S/. Some will only list Steel and be recorded as S/. Slash (/) separates tread from sidewall.

**Sidewall plies:** X plies fabric (F) or X plies steel (S). This should be recorded as F or S.

A radial tire with steel tread and sidewalls would be recorded on the sheet as S/S while a radial with steel tread or combination of fabric and steel with fabric sidewalls would be recorded as F+S/F.

**Press:** List your current tire pressures (psi).

**Truck ruts sensitivity:** This is a subjective value with 10 meaning highly sensitive and 0 meaning not bothered by truck ruts. People who are dissatisfied with their coach's handling often bring their suspension wear and alignment up to snuff first. If truck rut sensitivity is still high, some owners modify the suspension. Tire selection and pressures also seem to impact sensitivity. The idea is to have each owner rate their coach's truck rut sensitivity and list what suspension modifications have been made. This data will be used to relate tire selection, pressures, and suspension changes to truck rut sensitivity values. Collecting data from as many owners as possible will make the truck rut sensitivity correlation more accurate.

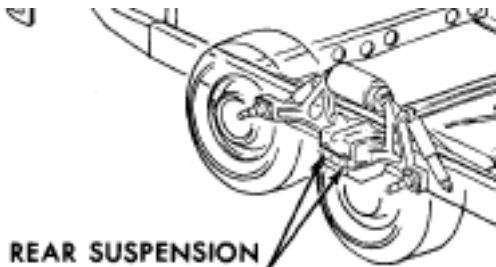
**Suspension modification:** List any known changes from the original design.

Questions for the Michelin Tire Engineer will be collated, grouped, and answered at the seminar. Here is your chance to ask the tire expert any question that applies to the GMC Motorhome.

## BOGIE GREASING PIN TOOL FOR 1975-1978 GMCS

Contributed by Emery Stora, Santa Fe, NM

One of the problems that we GMCers have is greasing the rear swing arms (bogie arms). There are two grease zerk fittings at each side of the motorhome.



REAR SUSPENSION  
(2 FITTINGS RIGHT  
AND LEFT) SIDE  
OF VEHICLE

The maintenance instructions for our motorhomes call for greasing these every 1000 miles but few people do. The swing arms have bushings rather than bearings and if they are not greased properly they can quickly wear and cause loose bogie arms and resultant poor alignment and handling of the GMC. Sway when driving and abnormal tire wear can result.

When you try to grease these zerks the grease comes from around the front bushing of the pin but the backside bushing often doesn't get enough grease. It has been recommended in the past that you jack up the rear side when greasing and move the wheel up and down with a shovel or a metal bar while trying to put in grease in order to get it into the bushings. This often doesn't help and the bushings wear from the lack of grease. I had new pins and bushings put in back in 1995 and I now have wear on them and am in the process of putting in new pins and having new bushings pressed into the arms. The scoring and wear on the pins is

primarily on the rear section where it is difficult to get the grease to flow.

Now a GMC motorhome owner in Michigan, Dick Serreyn, has invented a tool to help us grease the bogies properly. Pre-1975 motorhomes came with a 1-1/4" diameter pin and these only had one grease hole in the pin to provide grease for both the front and rear bushings. Beginning in 1975 GM used a 1-1/2" diameter pin which had two grease holes – one at the front bushing and one at the rear bushing. When you put grease into the zerk fitting it flows down through the center of the pin and then out the grease holes to the bushings. Often the grease will harden at the back and grease will then flow out of the area of least resistance, which is the front hole, and you cannot build up enough pressure to grease the rear hole.



To use the new tool you first remove the zerk fitting from the end of the pin. Then you remove the old grease from the hole going down through the center of the pin by using an ordinary soda drinking straw. The straw should be 5/16" in diameter and about 9" inches or so long. The ones from Arby's are just the right size. McDonald's straws are the right diameter but too short.

The straw should penetrate a minimum of 8" into the pin. Twist it several times. Remove straw. All grease in the center bore of the pin should come out inside the straw. You squeeze the straw and draw it through your fingers to remove the grease from the straw. Then use the same straw to remove the grease from your other three bogie pins. This is rare, but if the straw does not penetrate any more than 2" there may be a burr at the grease hole of the pin. If so, use a 21/64" drill bit which is extended at least 3-1/2" from the chuck and drill out the hole. The rear hole is located 7-3/4" from the front of the pin.

If the straw won't go past the rear hole it would be necessary to use a long drill or weld an extension rod onto a drill bit to clear the rear hole. This straw trick will work to remove the grease from all models of GMCs, 1973 through 1978 but the greasing tool described here only works for 1975 through 1978 models.

Once you have the old grease out of the center of the pins you screw the tool into the zerk fitting threads and pump grease into the tool until you see grease being extruded from the rear area of the bogie arm pin. Remove the tool and replace the zerk fitting. Then you pump grease into the zerk fitting and you should see it come out around the front bushing of the bogie arm pin. You repeat this process for the three remaining pins.

The tool works because it has an "O" ring near the back which seals the grease passage through the center of the bogie pin so that the pressure of the grease gun cannot force grease to the front hole in the bogie pin and it must therefore go out through the rear hole and into the rear bushing.

You could build your own and the instructions are below; however, Dick Serreyn will ship you one, postage included, for \$10.00. Contact Dick Serreyn, 1820 Jackson, St. Clair, MI 48079. 810-329-2845.

If you should want to make your own, the materials needed are:

- 1 – piece of 5/16" steel brake tubing, 7" long
- 1 – piece of 1/4" steel brake tubing, 1-1/2" long
- 1 – 3/8" Zerk fitting
- 1 – 3/16" ID O ring,

Drill inside bottom of Zerk fitting to 1/4" diameter. Sweat 1/4" brake tubing into Zerk (approx. 3/16") using silver solder. Sweat the remaining 1/4" tube into the 5/16" x 7" tube. (Be sure to drill out the 5/16" tube with a 1/4" drill to remove burring from cutting the tube).

At this point a groove should be pressed (not cut or filed) into the 5/16" tubing about 1/4" from the bottom so that the outside diameter of the O ring is 21/64"

#### TEMECULA EARLY VENDOR REGISTRATIONS

Darren Paget's TZE+ company, has signed up for Temecula. Darren makes custom aluminum and stainless products for our GMC coaches that are truly unique and unavailable for any other brand of motor home. He has a new bearing tool that he will be showing at the Rally so be sure to go see him on Vendor Row. If you are interested in one of his products, you should call him early and he may be able to save you the freight cost. Visit his web page

<http://www.tzeplus.com/>

or call him at 403-807-1136

[Duane Simmons](#) - "Mr. Onan" IC Board Repair, Electronic Cruise Control, Holding Tanks 714-633-4731.

Duane will be doing the Onan Preventive Maintenance demonstration and be sure to talk to him about the other products you can buy from him.

[Allen's Classic Service](#) Denny Allen, Proprieter  
1745 Pritchard Road, RR #1  
Cowichan Bay, British Columbia  
250-746-7381

Denny is going to demonstrate an installation of his Macerator kit at the rally. Be sure to ask him all of your questions about the GMC Motorhome.

Please send your comments and ideas for the Tech Center to:  
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925-447-8079, [mr.erf@escapees.com](mailto:mr.erf@escapees.com)