GMCW esternStates

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Technical Information from Frank Condos



Frank Condos SEMINARS

Manny Trovao conducted an interesting show and tell of original Kent Moore tools that he has collected, mostly from E-Bay sales. One unusual one was an engine support tool for the Olds Tornado when removing the transmission. Not useful for the GMC but a similar function to the support shown in the maintenance manual. Of course, Manny could not escape the podium without lots of transmission and engine questions.

William. "Grandpa Billy" Scott helped Jim Kanomata cover the advantages of the MSD knock sensor and variable timing control. Grandpa Billy gave a humorous but accurate talk on the origin and evolution of spark ignition systems leading up to the current MSD technology.

Larry Wiedner provided a fully illustrated seminar with excellent pictures on the installation of a Cad 500 engine in the motorhome. While an excellent high torque performer, this is not exactly a drop-in, even with the correct front motor mount. Contact Larry for all the information if you want to go this way.

Bubble, bubble toil and trouble, is your coach leaking? Chuck Aulgar conducted coach leak tests using a blower to pressurize the coach while using a soap solution to find small nagging rain leaks. Of course if you have really big leaks, the bubbles won't form but maybe one can hear them. Thanks for a great demonstration.

Donna Prishmont conducted an excellent (and well attended both by the men and ladies) seminar on the "ins and outs" of dry camping. Donna provided a view on how to locate interesting and scenic camp sites using the Government web sites for BLM, Corps of Engineers, Forest Service as well as the NPS. Many of these are in little used but interesting locations if one is willing to dry camp. At home preparations covered batteries, full tanks of propane and water and engine fuel tanks near full. The discussions included meal planning, water conservation, use of water catching devices to minimize drain water while showering, and power conservation. There were lively discussions exchanging approaches and experiences. Experiences of long term dry camping ranged from 2 weeks to one month at government campgrounds.

As an aside to dry camping, Jerry Work provided an enlightening explanation about battery capacity, the use of battery power, and of the capabilities and limitations of solar cells to recharge batteries. Jerry's explanation was convincing that the use of solar panels for dry camping had little advantage beyond a trickle charge for long term storage. For most of us the best use of solar power is to make sun tea.

Chuck Botts along with Jim Kanomata presented the results of a Pacific Cruisers rally in September at the DynoShop facility in Santee, CA. Mark MacNiel, the owner, set up a Saturday session where 19 coaches were tested on a chassis dynamometer. Each vehicle was run at maximum

GMC Western States - Tech Center Number 48 - November 1, 2006

load under first, highway speeds to check air/fuel ratios under varying load conditions. The second run was a maximum load max speed until the peak torque was passed.

The detailed results are contained on the GMCWS web site (gmcws.org)

The Dyno runs indicated tuning problems on 7 of the 19 which limited their runs.

Two had no secondary operation

One had a failed TVS that prevented the vacuum advance

Two had no mechanical advance

One ran lean, indicating a possible vacuum leak One used the Jeep air horn with a remote cool air intake without an adequate spacer that affected air flow to the extent that the engine would not run over 3100 rpm. This was corrected with a spacer

Jim K discussed the value of increasing (numerically) the final drive ratio to allow the engine to operate at a higher rpm while cruising, resulting in higher vacuum and potentially better fuel mileage. Jim also discussed the 455 engine available through Jasper Racing. When installed by authorized shops the engine comes with a very strong warranty.

The test results as presented provided for a lively discussion. Additionally, detailed study of the results and normalization to engine rpm will also yield some interesting comparisons. It is also clear that there is great value in dyno tuning whether for maximum economy or maximum performance.

Chuck Garton led a discussion on roadside repairs beginning with preventative maintenance. Next he covered the failure of his right side drive axel support bearing failure on his coach. The symptoms were: right front wheel feels badly out of balance when engine is working hard (vacuum less than 12"). The intermediate drive axel will "walk" out of final drive on long down grades with engine braking. (Editor's note: He probably could have crawled under coach and shoved the intermediate drive axel back into final drive and made it home instead of paying for tow. That led to a general

discussion about being towed, and the way tow services work. It was suggested to call local garages and ask if they can fix problem (almost all garages will say they can fix it even if they can't). The tow service will only tow to a local facility that says it can fix the problem.

"You've Got to Live in it, Babe" presentation by

Jerry Work

Jerry provided an enjoyable and comprehensive discussion on improvements to living quality that can be made to the coaches. His criteria used size, weight, cost, and power consumption as the selection criteria. The top improvements would drive each of these toward a minimum while maximizing livability. Before presenting his top improvements, the audience was asked to write their top three. This audience participation was collected and summarized by Sharon Work

His top selections along with a detailed explanation were:

- 1. Macerator
- 2. China toilet
- 3. Variable speed water pump
- 4. Fantastic fan
- 5. Modern power converter
- 6. Dash radio that one can see and hear preferable with a front side auxiliary input
- 7. Modern microwave
- 8. Flat panel TV
- 9. I pod for audio visual inputs
- 10. Large batteries and Inverter for dry camping
- 11. Stylish lighting, halogen pucks preferred.
- 12 Self starting generator on low battery voltage
- 13 Windows that open
- 14 Full extension drawer slides
- 15 Holding tank Chemicals that work (enzyme type)

GMC Western States - Tech Center Number 48 - November 1, 2006

Sharon analyzed the cards as collected from the audience with these results:

While there was a wide variation in how similar items were described, they were lumped into categories with the following results:

- 1. The livability item mentioned the most was how to get a comfortable bed within the space constraints of a GMC coach. Many different suggestions were offered. The next 3 items listed most often also dealt with comfort with a broad array of solutions:
 - 2. Chairs seating lounging couches
- 3. Use of living space configuration of space
- 4. Kitchen rearrangement and improvements sinks, countertops, dining tables, storage
- 5. Storage deserves its own listing while it was often mentioned in conjunction with changes in any of the above
- 6. Also, an item that determines comfort was the importance of temperature control -hot & cool, better ventilation, use of screen door, Fantastic Fans
- 7. Shower and bathroom improvements, such as changing to quiet water pumps, and a "biggie" changing the plastic toilet to the modern taller type made of china.
- 8. Things electrical such as increasing the battery capacity, improving generator function, improving lighting brightening interiors (even changing interior wood panels or using paints or mirror), increasing ease of use of TV and internet, having good reading lamps
 - 9. Window coverings ease of use
- 10. New appliances microwave, refrigerator, instant hot water
 - 11. Macerator
- 12. Gauges that work, updated instrument panel
- 13. Flooring changes to vinyl, wood, carpet, use of improved carpet cleaners
- 14. Improved awnings and their functioning

15. Specific suggestions about very individual needs such as where to sleep and feed pets, installation of cat doors, dog crates built in, use of GPS, where to place garbage, computers, medicine, laundry

Afterwards many commented that important improvements were overlooked as they compiled their lists since often significant changes (such as installing a macerator) were made immediately upon acquiring the coach and then forgotten when compiling that above list.

Occasionally someone asks about finding or returning a coach to original. The results of the survey would ask "but why?"

Note: Technical seminars and other technical articles printed in this newsletter are provided for information only. What you do to your coach and how you do it is your responsibility.

Please send your comments and ideas for the Tech Center to:

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