

HOT INTERIOR ON GMC

Date: Sat, 11 Oct 1997 19:16:09 +0000
From: John Szalay <john.szalay#postoffice.worldnet.att.net>
Subject: Re: GMC: New coach

>> solved the "trapped heat" with two electric radiator
>> fans mounted close behind the front wheel wells ducted down and out,
>>

The fans work great, I run them anytime the engine is on and almost always when we park, to help cool down the engine compartment. I mounted mine one on each side of the engine access cover opening they do not get in the way of any engine service, such as changing sparkplugs, the fans are aimed on an angle down and out, we made ducts that end just level with the bottom of the coach sides, so nothing shows from the outside, the only way one knows something is there, is the slight sound of the fans and the airflow around your feet. I thought about the stainless air vents that are made for the side of the coach, but I really hate putting holes in our rig. It took me weeks to finally decide to cut the 14' opening in the roof to mount the second roof air conditioner. I added a 7,000 btu unit to the rear of the rig, that way the generator could handle both running at once. It's a little strain to handle 2 12.5 btu units up there, but it handles a 12.5 and a 7 just fine.

We decided a second roof air was needed along with DARK tinted windows everywhere except the windshield, after a long trip thru Texas and Okla. several years ago.

John & Brenda Szalay
Louisville Ky.

Date: Mon, 10 Aug 1998 11:38:16 -0600
From: Robert M Fukumoto <fukf19#IDT.NET>
Subject: GMC: Thermostat/maiden voyage from hell

Heinz Wittenbecher wrote:

When my GMC is cruising/loafing the temperature is approx 208 degrees. It'll go up with terrain as well as with traffic jams. In stop'n go traffic of a few hours it is not uncommon to see 225-230 and then the fan clutch kicks in to bring it back down. Same for going up long hills, i.e. the Grapevine into LA or I10 out of LA, etc.

I just returned from my maiden voyage (from hell) of my 76 Palm Beach. I put on 2,700 miles from Denver thru Las Vegas, to Yosemite, Monterey and back home via Las Vegas. With a new analog water temp gauge, I ran mostly between 190 and 200 degrees except when climbing long hills such as up to Eisenhower tunnel and Vail Pass on I-70 where I ran 220. On a steep grade on I-70 in Utah in the hot sun I ran the hottest: 230.

I ran the generator and the roof air conditioner the whole trip. Going thru the desert (it was 98 degrees at midnight in Baker CA) the a/c was bearly adequate. During the day in the hot sun, the roof a/c couldn't keep up with the heat. Fresno, Las Vegas, Oakhurst CA were all over 100 degrees. What are other's experiences? Are the new roof units much more effective than my 22 year old unit? My unit seems to throw out adequate could air in 85 - 90 heat but just can't handle the higher temps. My dash a/c unit is next to useless in this kind of heat.

Thanks
Bob Fukumoto
76 Palm Beach

Date: Mon, 10 Aug 1998 14:50:56 -0400
From: "Bartz, Paul" <s9d3452@mail.drms.dla.mil>
Subject: RE: GMC: Thermostat/maiden voyage from hell

Bob:

I have several thoughts for you to ponder:

- a. Are your side windows (including the sliders and above) and rear window tinted? If not, you are getting a tremendous heat gain through them. You should consider installing a dark, REFLECTIVE, I repeat reflective type, tinting film installed on them to reject the solar heat gain and lower the workload on your roof A/C unit.
- b. Do you have a ball valve in your coolant hoses going to the heater core? If not, at the ambient air temperatures you talk about, you'll definitely have some additional heat gain to deal with.
- c. Although you don't mention specifically what bothers your wife while riding in the passenger seat, if it's being blinded by the sun, I know of one coach owner who has installed a band of tinting film along the top of the windshield. It has an arc shape to the bottom edge of the tinting film on each windshield glass corresponding to that traced by the travel of the top of the wiper blade as it sweeps across the glass.
- d. Perhaps your radiator cooling fins are starting to deteriorate (rot away), they actually corrode and disintegrate, or the radiator tubes need to be rodded out. Look at the bottom of the back side of the radiator to verify if there is deterioration. If so, you should expect to gradually with time notice the temperature gauge getting hotter and hotter.
- e. Although I didn't see you mention it, was your thermostatic fan clutch working? Generally, as cooling temperatures rise, the fan clutch senses that and engages. The engine sounds like it all of a sudden speeded up in rpm's, however it hasn't. It's just that the radiator cooling fan instead of freewheeling is engaged directly, which then results in it temporarily pulling more ambient air through the radiator until the coolant temperature drops sufficiently. My clutch generally engages whenever the gauge reads 200 deg F or so.
- f. If you don't have a 50/50 mixture of anti-freeze for your coolant, you're likely to run hotter than normal, also.
- g. Of course the obvious concern is if you have the correct type coolant thermostat.

Paul Bartz

Date: Thu, 13 Aug 1998 23:07:51 +0100
From: "Donald W. Miller" <millerdw@vaix2.net>
Subject: Re: GMC: redoing interior

We are now redoing our interior. I suggest reading that excellent article regarding insulation at <http://www.gmcws.org>. With your interior stripped it is easy to improve the insulation which reduces the load on your A/C units and makes your coach more comfortable in summer and winter.

It is interesting how infra red radiation passes through white gel coat, fiberglass, balsa and plywood cores, etc. Yet a thin layer of aluminum foil seems to reflect it back. The GMC end caps are plastic as are the skins

below the waist so radiation will be coming through the skin and foam in those areas.

On our GMC, I foamed those areas the GM workers missed. Between the aluminum stringers and frames I added a layer of Reflectix Insulation purchased at Lowes Hardware. This is bubble wrap with aluminum coatings on each side and has a high R value considering it is only about 3/4" thick.

We glued a layer of aluminum foil to the top surface of our original ceiling panels. We glued a layer of 1/8" thermal insulation cloth to the bottom surface. (This is the stuff women use inside quilts I think.) Next we glued a layer of off white cotton velour cloth which has a fuzzy surface like the headliners in many cars. My wife bought these items at a sewing goods store. This headliner treatment adds insulation and soaks up noise to make the interior quieter.

I varnished the existing subfloor to help prevent any future water damage to the plywood.

Next I put down a layer of aluminum foil with shiny side down, then a layer of Armstrong 1/16" foam vapor barrier that is used under hardwood floors, next a layer of aluminum foil with shiny side up.

This same 3 layer insulation system continued up the sides but there it is over top a layer of reflexic insulation.

We prefer hardwood to carpet flooring, so I used 1/4" marine teak plywood with holly strips. The floor insulation helps reduce radiant energy from hot asphalt, exhaust pipes and engine air in summer and helps keep the floor warmer in winter.

A good window tint is 3m Scotchtint Plus All Season. Amber (LE35AMARL) is advertised to reduce summer heat gain by 73% and winter heat loss by 30%. It is a construction material rather than automotive.

Our boat got a similar insulation treatment several years ago and became much more comfortable in both summer and winter. In that instance the improvement was easily worth the time and effort as we cruise in all seasons.

Our Flexsteel furniture was replaced with home built plywood. Custom foam cushions are being made by a local upholstery shop. Make sure all furniture is well anchored in case of an accident. Some of our flex steel was held down by lag screws. Certainly not up to aviation standards. Through bolts with large heavy washers are better.

Don

Date: Mon, 28 Dec 1998 01:22:53 EST
From: Adohen@aol.com
Subject: GMC: INSULATION MATERIAL

In a message dated 12/27/98 11:50:45 PM Eastern Standard Time, hbeeck@yahoo.com writes:

> Eugene
> I must have missed something. What type of insulation are you referring

> to, "I just received the insulation pad. I was quite surprised how
> thick the metal part was and how thin the insulation was. I liked the look
of it"
>
> Herm

Hello Gmcer's,

In a previous post, I mentioned that about a month ago, I spent two weeks trying to find alternative suppliers of parts. One of these projects included an insulation material to apply to the engine compartment as a fire barrier, since I want to do something before I slide my frame under my coach. HEINZ NEHODAS BACK YARD . I contacted numerous insulation suppliers and had them send me samples. Out of the 13 samples I rec'd, there was one which I liked very much and I sent out samples to Al, Heinz, Arch, Zak, Henry, and Gene to get their input. This was all done behind the scenes with private e-mails and letters. Gene happened to post it to the GMCnet.

Now that it is out of the bag, I will attempt to explain what it is. The product is similar to the one advertised in the GMCMM Magazine. It is a ceramic fiber material that is covered with an aluminum skin and has a high temperature self sticking adhesive on the other side. (Like peel and stick) The material was tested by applying it to truck mudflaps for a period of 100,000 miles in the NE through all kinds of weather including winter. It stood up very well. All the other aspects of testing as to for fireproofing were inherant in the product already. My main concern was to find a product that retards fire, provides some soundproofing, was durable, did not have a lot of bulk, and the cost was within my budget. Al Chernoff has the unfaced ceramic fiber material in his coach and likes it very much. I did find a supplier of Al's material in Cleveland at a very very reasonable price; however, I was told by the salesman that he would not recommend using that material in an exposed area subjected to water. He suggested that I find a manufacturer who had a faced product or have a facing material laminated to it. From my quest to find what I want to put in my motorhome, I found a good product that possibly some of you would like to put in your motorhome. This is still in its infancy though. Prices for the product lessen with the amount bought. Cost has not been firmed up yet but it will be between \$2.00 to 3.50/ sq.ft.. The manufacturer was very receptive to this new application of their product. It is very nice product compared to the other samples. I will talk to the manufacturer tomorrow to see if they firmed up the price and post it after.

If you are interested in looking at the material up close and personal send me a self addressed regular letter envelope with .64\$ attached and I'll send you a sample.

Scott Nehoda
1270 Lear-Nagle Rd.
Avon, Ohio 44011

My plan is to make templates of my engine compartment and install it in my motorhome and in my gen. compartment.
What happens after that is up to you and discussion.

Scott Adohen@aol.com

Scott
I just received the insulation pad. I was quite surprised how thick the metal part was and how thin the insulation was. I liked the look of it also

and I am going to show it to Al Chernoff when he is here next week. He has the ceramic paper listed in the Marketplace. I want to see what he thinks. I wonder if this pad has the same insulation prop. as the other ceramic paper? I like the sticky back, I think it would aid the screws to hold it in place but I am sure the screws would still be needed.

Gene

Hi Gene,

I also sent the samples to Heinz, Zak, Henry, Arch and Al. I have rec'd responses from Al, Zak and Henry. > I wonder if this pad has the same insulation >prop. as the other ceramic paper? Yes, it has the same properties except that it has the aluminum protective facing and the sticky back. I do think that screws would be also necessary for a better mechanical attachment.

Oh no! I wanted to keep this thing behind the scenes until I got the responses returned and there was some input before it was made available to the masses but I can see you have put this on the GMCnet. Oh, well I will have to post something explaining what has been going on. Hope nobody gets upset.

Scott Adohen@aol.com

Date: Sat, 09 Jan 1999 16:57:54 -0800
From: Gary Miller <grizzly@harborside.com>
Subject: GMC: Insulation

Scott--

I received your sample of the aluminum faced insulation. It sure looks like it would make a clean and durable liner for the engine and generator compartments. I did test it with a propane torch. With the inner tip right on the aluminum (say 1500 deergees??) it took about 5 seconds to burn through, then the whole works burned quite readily. But when holding the torch back (say 400 degrees???) it took about 2 minutes before I could feel significant heat transfer to the other side and there was no combustion of the product. It certainly would be a vast improvement over the wood in the engine compartment or the fiberglass/foam in the generator compartment. What are the details on the product, ie, price, sizes, availability, etc????

Gary

'77 Kingsley
North Bend, Oregon Coast

Date: Sat, 9 Jan 1999 20:17:17 EST
From: Jrwheeler7@aol.com
Subject: Re: GMC: Insulation

Gary,

Thanks for doing that test. It was just 2 hours ago I looked at the sample again and thought I'd put the torch to it tomorrow. Scott, I also would be interested in obtaining enough of this to do the engine compartment.

JR 77T NC

Date: Sat, 09 Jan 1999 21:09:59 -0800
From: Chuck Will <willa@impulse.net>
Subject: GMC: Heat from Engine

Here are a few things that you can do if you really want too!

1. Put on the one piece Copper Gasket prior to installing the headers or manifold. Yes, they are pricey and Yes, they will act as a heat sink.
 2. How many of you have BLACK engines? Yes, Black paint will help reduce heat in your compartment.
 3. You can also add RAM AIR flow. Not too costly either, and it will assist your engine compartment heat. No, I did not do the air scoop thing but I have seen it on more than one GMC and it seems to do a great job with the air vents on the sides.
 4. Change your Spark Plugs at 5 or 6 thousand miles. Spark Plugs! Yes. These will also help reduce your temperature in the engine compartment, if they are replaced regularly and gapped properly. Why. I haven't a clue! It just works. ALSO, what is your GAP on the plugs? 80 thousandths or 65 thousandths. The book says 80, try 65 see how you like them at that. All of these will help to reduce your engine compartment heat.
 5. Don't sit there and idle for a long time trying to park your coach or back it up three or four times this is all very hard on your heat dissipation.
 6. Drive the GMC as it was designed to be driven. Sensibly!
- Chuck in Lompoc

Date: Mon, 8 Feb 1999 21:01:45 -0800
From: "Heinz Wittenbecher" <heinz@bytedesigns.com>
Subject: GMC: Q re Sound / fire proofing material for engine & gen area

This message was transferred with a trial version of CommuniGate(tm) Pro
In preparation of redoing the GenSet I'm reviewing what might be available to line the compartment with.

Scott: The stuff you were evaluating, fire retarding only or sound proofing qualities as well?

I currently have some heavy foam material that has foil on one side. It's about 3/8 to 1/2 in thick and real heavy in weight.

I used some on my trap door and it glued pretty well as I was able to keep weight on it while glue was drying. In the Gen compartment I wasn't that successful as the sheer weight of it is loosening the stuff off the ceiling so a redo will be necessary.

While I could probably fasten it with screws and large washers, I'm wondering on how much soundproofing quality would be lost by sound being transferred via such 'attachment screws'.

Any thought on that?

This is getting really scary... I'm planning ahead. See what this net is making me do? [g] Love it !

Heinz

'76 Transmode in rainy/windy British Columbia.

Date: Tue, 9 Feb 1999 01:21:26 EST
From: Gcbr@aol.com
Subject: Re: GMC: Q re Sound / fire proofing material for engine & gen area

Heinz

Check this out

http://www.rvamerica.com/rvnews/feb1997/new_product.htm

Nice stuff.

Take Care
Arch

Date: Mon, 8 Feb 1999 22:41:26 -0800
From: "Heinz Wittenbecher" <heinz@bytedesigns.com>
Subject: Re: GMC: Q re Sound / fire proofing material for engine & gen area

This message was transferred with a trial version of CommuniGate(tm) Pro
Thanks Arch.

Looks real interesting. Guess I'll call them to see who sells it (if they do). The review was dated Feb 97 so I would think they're either in full bloom or hopefully still trying.

Heinz

Date: Tue, 9 Feb 1999 14:43:47 EST
From: HLBF@aol.com
Subject: Re: GMC: Q re Sound / fire proofing material for engine & gen area

In a message dated 2/8/99 11:07:19 PM Central Standard Time,
heinz@bytedesigns.com writes:

<< While I could probably fasten it with screws and large washers, I'm wondering on how much soundproofing quality would be lost by sound being transferred via such 'attachment screws'.
>>

I used sheet metal with large washers and screws to hold mine up - no loss of performance and added fire protection.

Lanier