Massive leaks and destruction

Hi all,

About a month ago I acquired a 1996 Airstream Cutter Motorhome. I paid vaguely below the lower end of book value. Before I bought it, I knocked and pounded on all the walls, looking for any soft spots. Everything seemed good.Here'st it looked like when I bought it:

This image has been resized. Click this bar to view the full image. The sized %1%2.

This image has been resized. Click this bar to view the full image. The sized %1%2.

daa1111
2 Rivet Member

1996 30' Cutter Bus
Lawrenceville , New Jersey
Join Date: Dec 2015
Posts: 25

This is what it looks like now:

After I got it home--it ran beautifully, by the way--I removed the sofa, intending to replace it, and there, behind the sofa, I was able to pull the wall apart with my fingers. I've now pulled out all of the wood and foam on the driver's side all the way back to the beginning of the kitchen. The rot continues beyond the edge of the kitchen.

When I knock on the wall, it still sounds solid. But the wood between the outer fiberglass skin and the styrofoam insulation is so rotted it falls

apart in my fingers, as you can see below.

For anyone who doesn't know, the wall consists of: the outer, fiberglass skin, a thin layer of plywood (possibly luan), the aluminum frame an inch and a half thick with styrofoam between the frames, another layer of thin plywood, and the thin vinyl wallpaper.

So I need to remove the windows. Actually, with the walls scooped out, the windows are only being held in by the caulk between the outer flange and the fiberglass. Removing most of the windows are pretty straight-forward: just remove the inner screws from the frames and the window should just pop out (except for removing the caulk, of course). The issue is the driver's side window. Airstream removed the inner flange of the window frame ...

... and I can't tell what is holding the window frame to the structural frame. Possibly some kind of adhesive? and/or screws that I can't see? Don't know. I'm hesitant to remove this as I'm not sure how to get it back together. Does anyone know?

The other issue is all of the leaks. It's been raining quite a bit here lately (New Jersey), on and off, and with the walls gone, it's been easy to see the water inside. I stopped most of it that was coming in from behind the molding strip between the two windows where the fiberglass from the cab joins the fiberglass from the body. There was nothing but a thin bead of caulk covering the joint. And as you can see, the joint isn't even entirely covered.

That seam is open and had never been closed properly (Criminal almost.). Probably leaking from day one. This is on both the driver and passenger sides. I covered this temporarily with tape. (The window frames are covered just as a precaution since I've disturbed them so much. They didn't seem to be leaking at all.)

Most of the water stopped, but that's not the only leak, it's still leaking a little; with the original leak, I actually had a small river coming in. This is only a little compared to what it was. (It's not leaking through the tape. I checked it, and it's stuck really well, and it's only been on for a couple of days.) See the below picture:

Behind the upper, horizontal, aluminum frame is the aluminum track that joins the fiberglass roof with the fiberglass side and supports the awning. This track is riveted down with fairly large rivets. They're not pop-rivets and would need a special tool to replace. And removing this--well, the whole fiberglass side would then probably be supported by nothing but the window frames since who knows how much of the wood is rotted.

Anyway, does anyone have any experience with this seam? Of course I could just replace the caulk at the top of the track, but that seems pretty solid. (Why are such important aspects of an RV built in such crappy ways? No need to answer.)

Anyway, so it comes down to two issues (for now):
1) the cut window frame and how it is attached
2) that horrible leaking seam.

Thanks,
David

Thanks Quote

12-28-2015, 10:01 AM #2

Keyair
Rivet Master

Supporting Member

1984 34.5' Airstream 345
Foothill Ranch , California
Join Date: Mar 2010
Posts: 3,465
Images: 1
Airstream Registry

David,
Sorry to see your issues. Repost this down in the relevant Cutter section of the motorhome forum... I think it's a common problem and there are people down there who will have experience and advice!

Thanks Quote

12-28-2015, 10:12 AM #3

Black7beard
2 Rivet Member

2004 25' Safari
High Springs , Florida
Join Date: Jul 2006
Posts: 80

Not to detract from your issues, just a little commiseration from a kindred soul. I bought a New Horizons fifth wheel with about the same amount of inspection and with about the same results. Since New Horizons were the best of the best in the fifth wheel world, and I did my type of inspection which has served me well over the years, I bought it. I put in a huge amount of time solving problems that would have never happened if the factory had only properly caulked some screw heads. But repair it I did and I had the trip of a lifetime in that old rig. I'd do it all again if given the chance. I hope your situation turns out as well.

Thanks Quote

12-28-2015, 10:54 AM #4

avionstream

Your problem is a perfect example of a po not doing

Rivet Master

Supporting Member

Vintage Kin Owner
Nowhere , Somewhere
Join Date: Jul 2005
Posts: 5,732

yearly maintenance and inspection. Unfortunately you are paying for his incompetence. Weather it be a trailer or mh, checking for leaks, etc even if none are readily apparent is important. They all leak, you need to find that leak. I hope you can resolve your situation as you prefer. Good luck.

_____
1984 Avion 30p 9.1 meter. 2006 Dodge 3500 cummins srw short bed crew cab.

Thanks · Quote

12-31-2015, 12:34 PM #5

update

Hi all,

I just thought I'd update this.

daa1111
2 Rivet Member

1996 30' Cutter Bus
Lawrenceville , New Jersey
Join Date: Dec 2015
Posts: 25

First, I found how the front driver's side window is attached. It's so obvious to me now that I feel a little dumb. There are three screws through the inside of the window frame going into the structural frame. The're not too hard to reach, but it's a good guess that they'll snap off. I'll see soon enough.

I need to remove both the overhead cabinets above the driver and passenger and the entire dashboard. The window frame can't be removed without removing these.

I drew a line on the wall half-way between the kitchen and the back-end of the window, just about where the red line is in the below pic.

The wall at this point was dry and near impossible to peel away from the fiberglass, so it's the right place to stop and will give me a good seam between the old wall and the new.

And I just want to point the following out; the below picture shows the way Airstream constructed this motorhome:

What you're looking at between the two red lines is the inner wall plywood (again, probably luan) sandwiched between the steel frame of the chassis and the aluminum frame of the wall. What you see there is a little more dry and more difficult to get out than most of the rest of it (this is very close to the kitchen). The wood between the frames goes down an inch and a half, the thickness of the aluminum frame. A six foot section took me about three hours to clean out with those two wheeny tools.

I won't put wood between these metal parts again. Probably just shove some kind of hard plastic stripping or aluminum in there as a filler.

Why anyone would put thin plywood between two metal frames--well, that's a structural issue. That's bizarre.

Yes, I am replacing all the rotten plywood with wood again. But ... the leaks will be closed off properly, and the plywood will be laminated to the fiberglass skin with epoxy and completely encapsulated with epoxy. The surface area really isn't that big. Lots of windows.

(I'm very familiar with working on fiberglass boats, so this just seems like the logical and correct way to go.)

One unexpected thing is that the thinnest plywood I can find is still too thick. Lowes and Home Depot don't have it and can't get it. I'll probably have to order it special from another local lumber yard.

Just to make it more clear, I had cut the edge of the floor back about two inches to make my present job easier to get at. Doesnt' matter since the entire living room floor needs replacement. So far, I see no fasteners at all. I think, but I'm not sure, that the wood was glued to the frames.

At least some of the foam below the floor will have to be replaced. Seems styrofoam does deteriorate when wet. That which was really wet just crumbles in my hand.

From what I can see (not in the pictures), there are gaps,

some at least a half inch, between the foam and the steel frame. I don't know if styrofoam shrinks in time or this is the way it was constructed. So much for insulation value. If I don't replace all the styrofoam, these gaps will be filled.

The rust isn't as bad as it looks. It's mostly surface rust and has already cleaned up quickly. When the floor comes up, all the metal will be cleaned up.

(One more thing. I did put a link to this into the Cutter Motorhome forum as suggested. Thanks.)

David

Thanks · Quote

01-12-2016, 10:32 PM #6

nensihart
1 Rivet Member

1995 36' Land Yacht
Shawnigan Lake , British Columbia
Join Date: May 2013
Posts: 13

I am so glad that you have posted. I saw your post and then lost it.
I have just about the same Cutter land Yacht but a 95.
I have had major leaks and have just about completely gutted the inside,
have taken out all of the overhead cupboards, all the benches etc.
My ceilings need to be re-done because the vinyl was coming away from the ceiling.

Most of my RV is in my living room, and I have just about given up....

We thought that we got all of the leaks, but the water still keeps coming in,
The walls on one side of the RV, the drivers side.... have all bubbled up and I have taken the wet boards off, I will be putting on new boards on the ceiling the walls and then will be re-papering the walls.

I am glad to have seen your post, it was a help...

signed..... Frustrated....

Thanks · Quote

01-14-2016, 07:36 PM #7

update

Hi all,

Thought I’d update this again—since work is moving slowly due to the cold weather. Epoxy and glue don’t work too well when it’s 20 degrees F. (Of course the RV is heated, but I’m working on an outside wall.)

Below you can see I removed the dashboard. As I said before, there was no other way to get the windows out. It took about two hours. Not too hard to take out, and I don’t foresee much issue with putting it back.

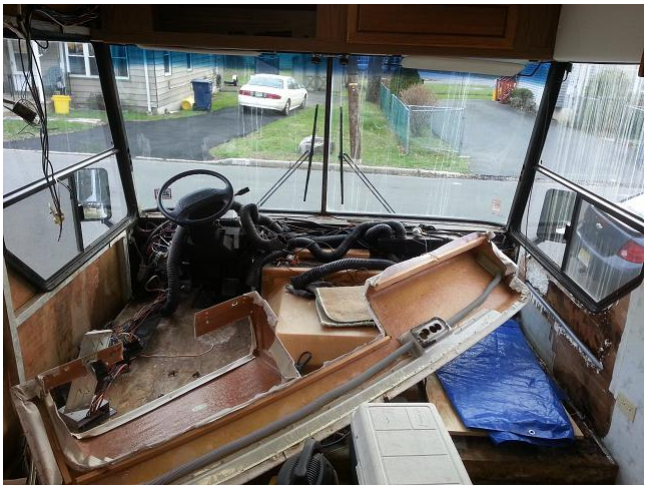
daa1111
2 Rivet Member

1996 30' Cutter Bus
Lawrenceville , New Jersey
Join Date: Dec 2015
Posts: 25

I got away with not having to remove the overhead cabinets, as I thought I might. That was a big relief. There was only one screw in the window frame that was behind the cabinet, and it wasn’t too difficult to remove. That was very welcome, because I couldn’t find a screw anywhere that’s holding up the cabinet, and so I just don’t know how it’s attached.

The windows themselves came out pretty easily. Just remove all the interior screws on the frame, and it pops right out. The caulk pulled easily off the fiberglass with very little coaxing. Getting it off the frame is taking days. It’s a gooey, rubbery mess.

In a previous post, I said I didn’t know how the driver and passenger windows were attached to the steel corner frame. Turns out there were three screws inside the tracks of the window frame going forward into the steel frame. Don’t know how I missed them; seems so obvious now. I was afraid they would be rusted and would just snap off, but they all came out cleanly.

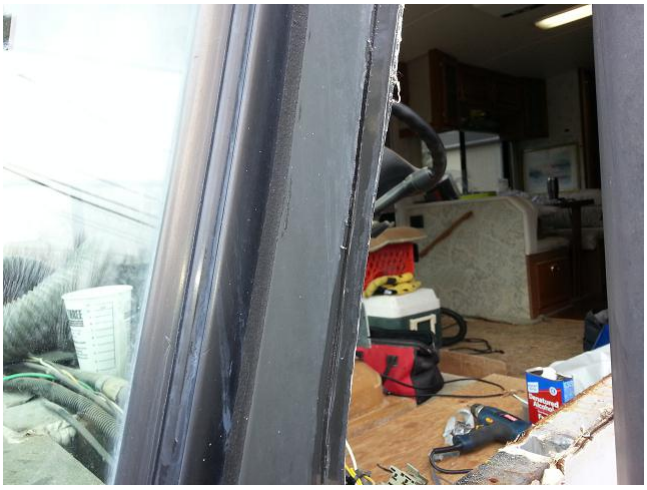


Here’s a picture just after having pulled out the side window. Look at that beautiful, clean cut made by Airstream. It looks like some drunk hacked it apart with a rusted saw. And yes, the window flange barely covered that mess. You can see the line.

Below is a picture after it’s been somewhat cleaned up.

And that jaggedness isn’t isolated. Look at the below picture. For some goofy reason, the sides and bottom were cut smoothly and correctly. The mess is just on the top. You know—where it’s most important…

The picture below is the leading edge of the driver-side window. You can see the narrow white line at the top-center where the caulk was. Can’t see it below that. This corner was leaking badly, and one morning, I had a puddle of water on the floor.



Below is just a picture of how I have it sealed up after taking out the windows. That’s six mil plastic; I think it will be fine.

In the picture below, the fiberglass on the left of the picture looks like wood. That’s because, I think, during construction, the plywood was laid into the wet polyester resin in order to bond it together. So even though I scraped it plenty, there’s fine pieces of wood still stuck on the fiberglass.

Behind the vertical frame is the joint between the main fiberglass side and the fiberglass of the cab (this is above the driver’s side window). I epoxied a strip of fiberglass tape over the entire joint. This, along with re-caulking the exterior joint, should stop the leaking.

The way I decided to rebuild may seem a little odd, but I’m doing the repair from the inside, so I need to work between the frames. I refuse to remove the entire exterior of the RV, even though that would be the proper way to do it. It’s just too big of a job and I’m not equipped for it.

Anyway, first I cut 1.5 inch strips of 1/8 inch plywood and encapsulated them in epoxy. Then, as seen below, each strip is being epoxied between the frame and the fiberglass siding. This bonds the siding back to the frame and the plywood acts as a spacer where the rotted plywood was scraped out.

It’s a little hard to see below, but what I’m also doing is—every ten inches or so—is I’m epoxying in S-shaped pieces of fiberglass tape—against the fiberglass skin, up the side of the aluminum frame, and then wrapped over the top of the frame. This will go a long way toward holding the skin onto the RV. This will be done along all frames.

These small tabs might not sound like enough. But remember, this RV’s wood was completely rotted out for years, meaning nothing was holding the skin on except the window frames and the rivets along the top edge (described in my first post), and nothing happened, meaning, the skin stayed attached to the RV. So no matter what I do is still far more than had been in place for years. It will be fine.

It would seem that I should be attaching plywood to all the fiberglass to put it back as it originally was, not just

the strips I’m using. But, first, again, getting epoxy to harden in this kind of weather is tough. Second, I’m not sure it’s necessary. I’m guessing Airstream put wood between the foam and outer fiberglass skin because it was easy and fast to construct. Meaning, they could set the plywood directly on the uncured polyester resin and glue the foam to the wood all at the same time. But you can’t put foam directly on the polyester; it would dissolve the foam. Also, setting flat sheets of anything against the fiberglass is going to take time because the fiberglass needs to be braced and pushed from the outside in order for the two sheets to seat flat against each other, and that’s a whole lot of work. I don’t want to have to do it first with the plywood, then with the foam. All in all, I think it’s best this way.

I’ll explain the next steps as I get to them. I have an idea of what I’m going to do, but I don’t have it fully worked out yet. Hopefully, I can test what I want to do this weekend.

I just wanted to point this out: Look at the amount of paper tape below put on by Airstream. I did not find this unusual; it was everywhere. The inner plywood wall was bonded to the foam and aluminum frames with some kind of glue. But since the glue is holding the plywood to the tape, we can literally say that this motorhome is being held together by tape—direct from the manufacturer (somewhat, anyway).

The wider metal at the top is galvanized steel. That surrounds all the windows, probably a stiffener.

And finally, for now, just a shot of the passenger side. Rot here too, though not as bad. I need to go higher up the wall; I don’t know how high yet. But both windows will definitely come out and be resealed.

The engine cover is all fiberglass and well made (the rug’s been stripped off). Reminds me of what I’d see on a boat. At least something is done right on this RV.

As I said before, I’m used to boats, specifically sailboats. This is my first RV. And coming to RVs is a real eye opener. “Most” sailboats are built tough: fiberglass, solid woods, and stainless steel. Even a 40 year old neglected boat can realistically be brought back to life. It’s a solid piece of machinery. While here I’m dealing with luan, tape, flakeboard and foam. And oh yeah, sh_tty workmanship. All for relatively the same price. Wow…

(Yes, I know RVs and boats are different animals.)

Thanks for reading,

David

Thanks Quote

01-14-2016, 10:27 PM #8

David

Just reading this thread makes me queasy, and this is coming from a fellow Airstreamer with water issues.

http://www.airforums.com/forums/f311...me-106269.html

Wishing you all the best, and better days ahead.

Cheers
Tony

_____

Per Mare, Per Terram and may all your campaigns be successful.

“It’s a recession when your neighbor loses his job; it’s a depression when you lose your own.” "Harry S Truman"

Isuzusweet
Dazed and Confused

Supporting Member

Currently Looking...
1983 31' Airstream310
Hillsburgh , Ontario
Join Date: Sep 2012
Posts: 1,667

Thanks Quote

01-19-2016, 06:43 PM #9

daa1111

another update

2 Rivet Member

1996 30' Cutter Bus
Lawrenceville , New Jersey
Join Date: Dec 2015
Posts: 25

Hi all,

Another short update.

The below picture is the seam between the fiberglass siding and the plastic fender. I removed some temporary duct tape and the gelcoat pulled right off, exposing unsaturated fiberglass threads. Another defect in workmanship. Not enough (or any) polyester resin during manufacture.

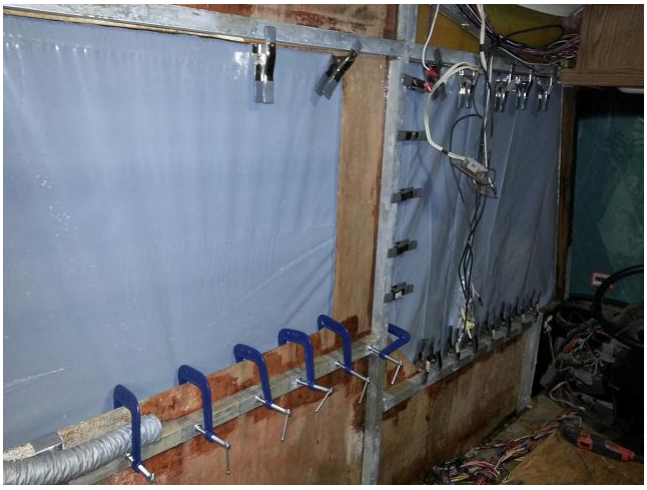
It’s not the only place. The below picture is only a couple of feet away.

Below you are looking at the bottom of the sidewall. Below that is the inside of a side storage compartment after removing the door. Do you know what that grey stuff is? Duct tape. I have no idea what its purpose was supposed to be, but I know its effect. When water gets

behind it—and it will—it is trapped, which allows it to wick up into the exposed end of the luan and rot the wood.

Below is a clearer picture of how I’ m reattaching the fiberglass wall to the framework. This is just before I put on more resin. If I don’ t put on more resin, I wind up with what Airstream did above.

The wall is almost completely reattached now. When done, in goes the foam insulation.



Below shows what I had to do to get some of the siding to lay flat against the aluminum frame before attaching it. This is just pushing against the siding.

I bought this motorhome “As-Is” from a dealer. I fully expected to have to do mechanical repairs and some cosmetics—like put in new floors. I didn’t know the walls were rotting out. If I did, I certainly wouldn’t have bought it.

The RV dealer describes themselves as “experts”. That means they knew the condition of this RV. And if they didn’t know the condition of this RV, they can’t describe themselves as experts.

I know legally they are not wrong. I also know that ethically, they are seriously wrong. They were looking for someone like me who didn’t know RVs.

I know now that the bubbling sides are distinct signs of delamination. I didn’t know it then. They did.

Anyway, my original plan was to buy a new utility trailer and build the interior myself. Instead, I bought this, thinking I’d see how I liked a motorhome, and if I did, I’d buy a better one later.

But now? Considering Airstream is supposed to be one of the better manufacturers, I guess there isn’t much hope. The moment I finish repairing this motorhome properly, it’s going up for sale. I’ll have lost some money and a lot of time. I’m going back to my original plan. I’ll build one myself.

The upside? I now have some ideas about what not to do when building. I now know that when I build, I build in a manner that will allow for accessibility if a leak develops. But I also know how much I need to guard against leaks in the first place.

I can’t help but wonder why, after decades of building RVs, manufacturers can’t seem to do any better.

As Tony above said, I’m queasy.

David

01-21-2016, 04:02 PM #10

65Streamer
2 Rivet Member

1965 30' Sovereign
1969 23' Safari
Redgranite , Wisconsin
Join Date: Jun 2007
Posts: 70

Wow, that's horrible. I'm not sure I'd have the patience to do what you are- good for you!
When you get to the plywood replacement are you familiar with alternatives like 3m reinforced Polyurethane, airex, iniboard, nylaboard or Coosaboard. I saw this fiber reinforced material in higher priced pontoon boats and contacted Coosa for a sample. It worked well in the rear 4' of my 65 Sovereign under the bath that had rotted. It doesn't hold the threads of screws when attaching cabinets but through bolting, blocking or riv nuts wil work. Stronger, lighter and no rot. It does cost more than marine grade though.
Good Luck To You!

_____

Lots to do. Getting there.

Thanks · Quote

01-22-2016, 08:18 PM #11

Isuzusweet
Dazed and Confused

Supporting Member

Currently Looking...
1983 31' Airstream310
Hillsburgh , Ontario
Join Date: Sep 2012
Posts: 1,667

Coosa is the bomb and I was very lucky to find it. It is fantastic stuff.

@David

As with anything, it really comes down to how it was cared for, BEFORE you buy it. As you probably well know; buying a used Honda or Toyota doesn't mean it will be a good reliable car and buying from any dealer these days, you're just buying someone elses nightmare.

That being said....don't give up on Airstream yet. The Classic motorhome, like what I own, are aluminum bodied; and while aluminum corrodes, they don't rot, except for the subfloor; which is, depending on the year, the only wood in the coach and can be fairly easily fixed, especially by a handy guy like yourself.

The great thing about a Classic is that you can find ones that have been babied in hangers all their lives and are in fantastic shape, or you can find basket cases, and everything in-between.

For someone of your expertise and ambition, owning a Classic would be very fulfilling and would appreciate in value over time. Plus we would love to have another skilled craftsman working on a Classic and posting helpful tips to everyone.

Our club of members is small, but devoted, very friendly and highly skilled like yourself. Introduce yourself and see what everyone sees in a Classic.

Cheers
Tony

_____
Per Mare, Per Terram and may all your campaigns be successful.

“It’s a recession when your neighbor loses his job;

it’ s a depression when you lose your own.” "Harry S Truman"

Thanks · Quote

01-22-2016, 08:55 PM #12

ijustlee
4 Rivet Member

1973 31' Sovereign
Middletown , California
Join Date: Oct 2015
Posts: 341

Gosh, after you finish fixing your Airstream you will have a well built motor home so it will be a good buy for the next owner! Maybe you should use it for a few years to amortize the effort and money you put into it? It is a shame how poorly almost all RV's are constructed. It seems that any that were well built were not economically competitive so the companies went out of business after a few years. At least that is how it looks to me. Keep up the good work anyway, I like to think that it builds karma for the planet and humans! Leland

Thanks · Quote

02-10-2016, 07:19 PM #13

daa1111
2 Rivet Member

1996 30' Cutter Bus
Lawrenceville , New Jersey
Join Date: Dec 2015
Posts: 25

Airstream's response

Hi all,

A while back I sent an email to Airstream asking them to look at this thread. That’ s all I said to them. I received a response about a week ago. The man who wrote it gave his name, but I don’ t think I should post it here. Anyway, here’ s Airstream’ s response:

> Hi David,
>
> Thank you for your email.
>
> I am sorry to hear about your issues with your recently purchased 1996 Cutter Motorhome. I have looked at your pictures and unfortunately, it looks as if the previous owner(s) severely neglected their yearly maintenance routine. We constructed the vehicle in a way that was very common for fiberglass walled motorhomes in that time period. While we pride ourselves in making a superior product, we can only guarantee the initial

quality of the motorhome against factory defects. After the owner takes possession of a vehicle, there is an expectation to maintain the vehicle. This includes yearly maintenance on the mechanical components, as well as inspection of sealant and resealing of seams, windows, and roof components. Even the most well-constructed vehicles and homes have to have yearly maintenance, if that isn't performed, especially over a number of years, you can see issues like the leaks and deterioration of materials you are experiencing with the '96 Cutter.

I would not simply dismiss this vehicle as "old", but I do believe maintenance had been neglected over the years. Again, I apologize for the issues you are experiencing and hope you the best in your restoration of the Cutter. Thank you again for your email.

Airstream Customer Relations

There are three things that led to the deterioration of my motorhome:

1. Some bad engineering
2. Some really bad construction
3. Lack of previous owner maintenance

I'm going to say right off that owner maintenance is the least that I feel concerned about. When someone buys a new motorhome for $150,000 or whatever, it is now his/hers. He can do with it what he wants. He owes nothing to anyone. Although, of course, I'd like to see any machine well-cared for, that's not really my business. If there had been leaks due "only" to lack of owner maintenance, the issue would be different.
And I can "almost" forgive bad engineering, because I can't say I really know the progression of RV construction techniques over the years, so maybe it was commonplace amongst RV manufacturers to put luan between steel and aluminum framing. I just don't know. But it's still an obvious flaw even twenty years ago. Even fifty years ago.

I also guess that the implication is that Airstream designs better than they used to. I hope so.

But the thing that Airstream avoided in their response is their sub-standard construction, like the lack of caulk in the seam between the fiberglass body pieces and around the front window. I understand, of course, that windows and seams need to be resealed periodically, but do they really think an owner ought to have to remove windows in order to repair what Airstream failed to do? And how is routine owner maintenance supposed to deal with fiberglass that was jaggedly cut beyond any reasonable repair? That's not routine maintenance. Basically that's saying that Airstream can build in any manner they like because it's ultimately the fault of the owner.

And so according to Airstream's letter, apparently, the things I uncovered don't count as "factory defects".

I'm not mad about any of this. I hope I'm not actually sounding that way. I'm just saying. I didn't expect this project, but I'm enjoying it now.

An update on the rebuild is coming soon. One wall is almost complete. And now that I've rebuilt one, the other wall will go much faster.

David

Thanks · Quote

02-10-2016, 07:58 PM #14

SteveSueMac
Rivet Master

Supporting Member

2012 27' Flying Cloud
W , New England

David - for me, as a guy with zero skills in DIY stuff (you clearly don't have that impediment) I really admire the work you've done to isolate and repair 20 years of damage to that motorhome.

Reading these threads, it's difficult to sense emotion - so when you say you're not angry - I'm just going to choose to believe you

If it were me, I'd be livid.

But I do have to say, outside of the original warranty

Join Date: Oct 2012
Posts: 4,899

period by the factory, I can't imagine them even choosing to respond on a 20 year old product just recently purchased - let alone looking back to their construction process from the 1990s.

It's possible those years were flawed - seems like every season has something with it - like the Beatrice years in the 70s with thinner frames that couldn't support the weight of the trailer (penny wise/pound foolish indeed).

But the responsibility to maintain does lie with the previous owner - and you'd hope s/he would have taken advantage of the warranty period and some regular maintenance - if not to avoid these problems, perhaps to catch them early enough that they could have been addressed properly. And at the very least, is it asking too much for the dealer to have been more transparent with you???

At the end of the day - you've done an amazing job reversing decades of damage (whether from neglect, design, construction or some combination of all the above). You say you're having fun now - and again, I'm going to choose to believe you

Good luck!
Steve

israndy
4 Rivet Member

Supporting Member

2005 39' Skydeck
Alameda , California

My Skydeck is almost as bad off as your Cutter and I too am not livid, more excited for the project (or is that breathing all the mold?)

I am happy that I am not the only one going thru this and I will NEVER do as complete a repair as you are doing. I will probably create an RV similar to how it came from the factory: "It works now, just don't let it get wet"

I was lamenting to my mechanic that there is an almost identical Skydeck for sale that had been garage kept for only $15K more than I paid. He reminded me that the

Join Date: May 2015
Posts: 348
Images: 2
Blog Entries: 1
Airstream Registry

construction was the same for both so at least I know where my problems are. That one (which has finally sold apparently) they will take out into the weather expecting no problems and then the damage begins. I can seal mine up and repair the mold and I am done and aware of the issue. And I have $15K saved.

-Randy

_____

2007 LTV Serenity beater 2005 Airstream SkyDeck
Also a 1999 Jeep Grand Cherokee, 2000 Honda Hybrid Insight, new 2013 Volvo C70 hardtop convertible
And all electric: a 2012 Mitsubishi i-Miev and two 2007 Vectrix VX1 motorcycles, waiting in line for the Model ☰

Thanks · Quote

02-11-2016, 09:41 AM #16

avionstream
Rivet Master
Supporting Member

Vintage Kin Owner
Nowhere , Somewhere
Join Date: Jul 2005
Posts: 5,732

Periodic maintenance at least once a year on all rv products is absolutely a necessity. Poor construction can be rectified by maintenance in most cases which would include modifications if possible. I twenty years at least one if the previous owners should have noticed the problem while doing yearly inspections. Too bad you are suffering for their negligence, I hope you get it fixed and are able to enjoy.

_____

1984 Avion 30p 9.1 meter. 2006 Dodge 3500 cummins srw short bed crew cab.

Thanks · Quote

02-15-2016, 06:27 PM #17

daa1111
2 Rivet Member

1996 30' Cutter Bus
Lawrenceville , New

update - moving along

Hi all,
The work is slowly progressing, though there's been interruptions. Like the recent snow in the northeast. See the size of the snow shovel below. Took me six hours to clear out the driveway.

Jersey
Join Date:
Dec 2015
Posts: 25

Then it took me time a few days later as I couldn’ t get myself away from these ice crystals on the top of my car.

But then Airstream interrupted as I uncovered this. They cut through two-thirds (maybe three fourths?) of a main support in order to push a wire through, crippling its strength. This support, by the way, is right next to the passenger seat.

They did this in order to get this plastic pipe through. But there’s several easy solutions:
1) Get a smaller pipe!
2) Find some other way to protect the wire.
3) Put the receptacle on the other side of the support so you don’t need a hole!

I also decided that the window frame needed more support than merely foam, as Airstream designed it. In the below picture, you can see where I attached 2x2’s (they’re actually planed to 1.5” x 1.5”) to the edge of the fiberglass. The wood is completely encapsulated in epoxy. Then I got to wondering why Airstream couldn’t have merely lifted that horizontal aluminum frame that’s only a couple of inches below a little higher? With only compressible foam to support the window, any movement in the wall is going to cause leaks. The wood now makes this very solid.

This is the bottom edge along the floor. I epoxied this 2x2 to the aluminum frame below and to the fiberglass wall. Of course it makes the bottom of the fiberglass wall far more solid, but I really put it in in order to have a solid backing to attach the final, interior wall.

In goes the foam. I used that standard pink foam from Home Depot. In order to get the foam to the proper thickness, I attached 1/8" plywood to the back side. I used Glidden's Gripper paint primer—which has turned out to be an excellent adhesive for foam, and also the least expensive. (You can see a great video on YouTube by a woman who did comparisons amongst many glues, many of them made for foam and much more expensive. Gripper was easily in first place.) I also covered the plywood with the primer to waterproof it.

I decided to attach the foam to the fiberglass by using nothing more than standard construction adhesive. It seemed better than a solid glue because with this adhesive I could use up and down, single lines of adhesive (I hope that's clear. Sorry, I didn't take a picture). That will allow for a slight airspace between the lines of adhesive giving a path for water. Meaning, if water ever gets into the wall again, it will run down straight to the bottom of the wall and exit though small holes I am leaving at the bottom.

Some of the foam below is white. It's supposed to be pink. That's because some of it got inadvertently painted by …

… my 80 year-old mother. She was painting something else for me, but got paint happy and painted everything. She can’ t get enough of this type of work.

When cutting the foam, I purposefully left a half-inch gap around all the edge so that I could fill them with spray-foam and get a really tight fit.

The almost completed wall is below. Between the two windows is a primed piece of Masonite (some people just call it hardboard). It seems a lot more solid and stable than thin plywood. It’s supposed to be 1/8” (that’s what the luan was), but I’m putting in 3/16”. I won’t know if it’s ok until I put in the windows. If it’s wrong, it’s all got to be cut again. But I think it will be fine.

Below shows how well the spray foam sealed everything. The white foam on the left is still the original foam; there was no rot under it, so I left it. The narrow strip of pink is just a filler. It’s just how it worked out since the pink foam isn’t that wide. Anyway, this has made for a really tight-fitting, sealed wall and I’m pretty pleased with it.

One more thing: After cutting off the excess foam, I uncovered a few pockets of uncured foam, and overnight, a couple of these obscene-looking things popped out:

While the masonite’s being painted in the basement (way too cold to paint in the RV), I started the floor under the driver. Just as I expected, the insulation is very sad here. I pulled out the foam next to the wall; you’re looking at steel. Under the driver’s feet there’s some kind of rubber glued over the foam. I’m not touching that.

Below you can see huge gaps between the foam and the steel framing. No consideration to actually doing the job right—just in getting the job done. With this much air space, the insulation is doing very little. I will be cutting all this existing foam to a half inch all around as I did the wall and filling with spray foam.

One more thing. Three indispensable tools, all by Dremel: The center saw was used to cut the wall covering in strips to pull it off. It saved lots of time. It’s a really easy saw to handle. And the saw on the right has a thousand uses. The two biggest time savers were in, sort of, peeling the wood from the fiberglass siding where it wasn’t fully rotten, and it works really well for cutting foam.

Thanks for reading. And thanks for everyone’s comments. I know I don’t answer them directly, but I love reading them.

One more thing: when I first started this thread, I had no intention of

continuing to update it. Don’ t know how that happened.

And I find myself starting to put time into this project as I finally feel like I’ m making headway.

David

Thanks Quote

02-16-2016, 10:05 AM #18

israndy
4 Rivet Member

Supporting Member

2005 39' Skydeck
Alameda , California
Join Date: May 2015
Posts: 348
Images: 2
Blog Entries: 1
Airstream Registry

Thanks for the great pics and keeping us updated, especially love the obscene things popping out

-Randy

_____

2007 LTV Serenity beater 2005 Airstream SkyDeck
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Thanks Quote

03-13-2016, 06:13 PM #19

daa1111
2 Rivet Member

1996 30' Cutter Bus
Lawrenceville , New Jersey
Join Date:

Yet another update

Hi all,

Time to update.

Below is the rusted steel under the driver’ s seat all cleaned up and painted.

Dec 2015
Posts: 25

The white foam needed to be weighted down or the spray foam would make if float up.

The inner wall is finally in. I used simple, exterior paint on this. I like the simplicity of it. The seams will be capped with molding. Also, the new subfloor. This wood, even with all the holes for the seat and the seat belts, was actually easy to measure and cut since the frame is perfectly square—not like a house.

I paid seven US dollars each for the suction cups below. They allowed me to set the window back in place from the inside by myself with very little effort.

In goes the upper cabinet.

This is above the driver’s seat. Airstream had put in no insulation at all here. I started with spray foam, but it’s so big it seemed ridiculous. So I finished with fiberglass. And while I was putting it in …

… I found this. I guess Airstream couldn’ t find any real insulation, so they stuffed the ceiling full of leftover carpeting.

Below is what I spoke about in an earlier post. Anyone who knows anything about RVs knows that this bulging is a sure sign of delamination.

I didn’t know this at the time. The dealer knew this. Again, they waited for someone ignorant like me to take this RV off their hands. By the way, that peeling dark red stripe: I found that that pulled off easily. So now, instead of that mess, it is an all gray stripe.

I talked about this before too. This is the outside cap over the driver’s seat between the cab and the side of the RV where the most water was coming in on the driver’s side. You can see how weeny the caulk is and how it isn’t completely sealed.

This is how I redid it. Lot’s on the RV itself, lots on the underside of the cap. So we end up with caulk oozing out everywhere after it is screwed on. It’s not going to leak. Take note Airstream: it’s not that hard.

Before I showed the driver’ s side window—how little sealant there was. This is now the passenger side. Again, practically nothing.

And here it is higher up. The yellow arrow is pointing to the caulk that was put on from the outside. The red arrow points to where the main sealant should be—but isn’t. That’s a full, two feet that completely bare.

To quote from Airstream’s email to me: “While we pride ourselves in making a superior product, we can only guarantee the initial quality of the motorhome against factory defects.”

Is this the superior product that Airstream is talking about? And isn’t this a factory defect?

The email said it is up to the owner to reseal the “seams, windows, and roof components.”

To reseal this window (or, I should say “seal”, not “reseal”, since it was never done at the factory), requires that the window be removed. And in order to remove the window, the dashboard must be removed. So this is yearly maintenance I suppose—removing the dashboard.

When I put the windows back in and sealed them, I used butyl tape. I didn’ t think a single strip was enough, so I slit the tape down the middle and put in an additional 50%. And so after tightening down the frame, the butyl oozed out as in the picture below. I am certain that window is not going to leak. Just a few dollars more and very little additional time BY THE MANUFACTURER could have saved this motorhome (yes, owner maintenance is still certainly necessary).

Just a shot of the new window framing as I also did on the driver’s side.

This is inexcusable. This is a bolt that holds the seat belt to the floor. Yes, it’s supposed to be straight like the others were.

Here’s the hole. I mean holes. The bolt went through the bottom left hole instead of going through the top right hole—which is the correct hole. Why there are two holes I, of course, don’t know. What I do know is that when I took out the bolt, there was no nut on the other end. I guess being at that angle made it too hard, so they just left it off—of a seatbelt. Also notice, again, the great insulation job—“workmanship”.

All cleaned up and painted.

The picture below is the floor in the living room after I removed the insulation. It’s a lot of rotten wood and rusted steel. In the red square below (it’s hard to make out), you’re looking at the top of the propane tank. Yes, the floor rusted clear through. Now I have another big job.

The sheet metal here is really weak. I made that hole with my bare hands. I think the only way to fix this is to screw some kind of small angle iron along the bottom edge all the way around to support whatever I decide to use to replace this mess.

This work goes really slowly. There are so many details to constantly deal with. For as much time as I have already put into this thing, I could have been well on my way to having built myself a new one, a better one than this.

OK, so I’ve been kind of holding on with this mess so far. But now it’s getting to be a little too much and I’m near ready to take this thing to the junk yard. It’s really discouraging.

David -- still working

Thanks · Quote

03-14-2016, 12:53 AM #20

rugjenkins
4 Rivet Member

1975 Argosy 28
Springville , Alabama
Join Date: Apr 2010
Posts: 328

Your doing a great job!

How do you eat an elephant? One bite at a time.

Windows, doors, floors and walls look awesome! Just keep focusing on one little thing at a time. Just think you'll have the best motor home on the road with no issues. Now that rocks! I really like how your tackling the project- outside of the box, but inside.

_____
Matt

Thanks Quote

03-14-2016, 09:03 AM #21

avionstream
Rivet Master
Supporting Member

Vintage Kin Owner
Nowhere , Somewhere
Join Date: Jul 2005
Posts: 5,732

Wow, you need to be commended for your hard work.

_____

1984 Avion 30p 9.1 meter. 2006 Dodge 3500 cummins srw short bed crew cab.

Thanks Quote

03-15-2016, 12:33 AM #22

israndy
4 Rivet Member

Supporting Member

2005 39' Skydeck
Alameda , California
Join Date: May 2015
Posts: 348
Images: 2
Blog Entries: 1
Airstream Registry

Quote:

> Originally Posted by **daa1111**
> *This is the outside cap over the driver’s seat between the cab and the side of the RV where the most water was coming in on the driver’s side. You can see how weeny the caulk is and how it isn’t completely sealed.*

This is how I redid it. Lot’s on the RV itself, lots on the underside of the cap. So we end up with caulk oozing out everywhere after it is screwed on. It’s not going to leak. Take note Airstream: it’s not that hard.

Very impressive, I fear I am going to be following you. The ceiling leaks have trashed at least one section of luan and both the drive and passenger sides of the cab have gotten water in the same area as you. The luan is separating from the fiberglass just outside the cup holders on the two walls. The fridge vents are also letting the fiberglass delaminate. I am thinking of doing one of those resin repairs where you mix

and inject and compress until the resin drys. This will encapsulate the affected wood so no rot should propagate to other areas.

Once It's back to flat I will do the caulk loading of the cap over the seam between front and side pieces. I drilled out the rivets on the piece on my RV and covered it with duct tape. I was thinking I should keep up the original attachments and learn to rivet. Not familiar with even how to judge if you can re-rivet the areas removed. I have seen pop rivet guns at the big box stores. Why did you choose to screw the sides back on instead?

-Randy

_____

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Thanks · Quote

03-15-2016, 02:53 PM #23

65Streamer
2 Rivet Member

1965 30' Sovereign
1969 23' Safari
Redgranite , Wisconsin
Join Date: Jun 2007
Posts: 70

Again, WOW. Thanks for the inspiration. I'm glad you keep posting. Very interesting the way you've tackled this project.
It puts the repairs I am doing on my 1965 Airstream trailer in perspective. I'm so glad I have an aluminum body and "only" a rotten floor, failed appliances, bad plumbing, questionable electrical and sagged out axles.
I hope others who are considering purchasing a motorhome or trailer of this type of construction will see your posts before buying. You are probably saving someone from great hardship and potential health and safety issues.
I guess they all need work. At least you'll know this unit inside and out when your done. Literally!
We feel your pain and applaud your accomplishments.
Thank you for posting!

_____

Lots to do. Getting there.

Thanks · Quote

03-16-2016, 09:16 AM #24

Hi Randy,

You have rivets holding this piece of molding? Mine was screwed on. Do you know if the rivets were original by Airstream, or did someone else possibly do it? Because checking the caulk under this critical piece seems to me to be part of periodic maintenance and so probably shouldn't be riveted. It should be easily removable by stainless screws.

Anyway, you have nothing to gain by using rivets. And in my opinion, they're more leak prone than screws. If they ever loosen up, you can't just tighten them; you have to replace them. And after replacing them once or twice, the holes will become larger and larger, and so you may have to drill new holes and patch the old ones. Or use larger rivets. Also, a normal pop-rivet, which is what you're talking about, has a hole right down the center which then needs to be caulked from the outside. Not the best way to go--in my opinion.

Rivets are for something that normally isn't meant to be taken apart.

About injecting epoxy: unfortunately, my RV was way beyond that kind of a fix. The wood was completely saturated and falling apart in my fingers, even on the inside. But as fate would have it, the inside issues were behind interior furniture that I couldn't see until I moved it (and after I bought the RV). And when I unfastened the outside fiberglass skin, large pieces of rotten wood just fell out. Even some of the Styrofoam fell apart in my fingers. I was just thankful to see aluminum framing instead of wood.

Strange thing about the website you have a link to is that they don't talk about surfaces being wet or how dry they need to be (at least I couldn't find it). Most epoxies won't stick to wet surfaces, but there are some epoxies that will, though they're pretty expensive. I can't tell if theirs will. You can find this kind of epoxy at marine suppliers for boats. I hope I'm not telling you anything you already know, but you just need to make sure you get an epoxy that is thin enough to go through the injection tubing. Epoxy won't hurt styrofoam, but most thinners/solvents will eat right through it. I'm thinking that denatured

daa1111
2 Rivet Member

1996 30' Cutter Bus
Lawrenceville , New Jersey
Join Date: Dec 2015
Posts: 25

alchohol is safe on styrofoam, but I'm not sure about that. (I use alchohol as a thinner. So much safer and more pleasant to work with than most solvents.)

Anyway, I think that kind of fix is excellent and the right way to go for simple delamination. I wish I could have done it that way.

Probably most of the work will be in figuring out a way to press the fiberglass flat against the RV while the epoxy cures. And probably no need to buy expensive clamps that that website sells. Just wood and wedges would work. I wish you luck with it.

David

Thanks · Quote

03-16-2016, 10:49 AM #25

israndy
4 Rivet Member

Supporting Member

2005 39' Skydeck
Alameda , California
Join Date: May 2015
Posts: 348
Images: 2
Blog Entries: 1
Airstream Registry

Thanks for the input. I see your point on screws. And I have no expertise on replacing rivets.

The rivets are original, the whole vehicle is riveted on the outside. The caps that cover the seams both between the front and side, and the back and side panels are then double-sided sticky taped and riveted before the full body paint. Then the outside is silicone caulked. It may be that they thought there was only the caulking needing maintenance everything else would hold. But all 4 caps in the 4 corners of my RV are missing rivets. My SkyDeck furniture is also missing rivets to the patio surround, even the awning rail that the surround is supported by is missing rivets at the front.

That is likely where all the leaking started. The rail got caught by a tree or just blew around in the airstream (pun intended). The leaks got the wood inside wet which swelled and popped the rivets lower down and more leaks. Fun! Can't wait until summer to fix the holes after the wood drys. In the mean time I have taped much of it off to prevent more leaks.

Looking at the early photos of my driving the RV from rainy Missouri to sunny California it looks like the swollen wood on the driver's seat area was not leaking yet. Something happened here and it's only been raining since maybe December.

-Randy

2007 LTV Serenity beater 2005 Airstream SkyDeck
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And all electric: a 2012 Mitsubishi i-Miev and two 2007 Vectrix VX1 motorcycles, waiting in line for the Model ☰

03-17-2016, 12:28 AM #26

imskedaddlin
New Member

Currently Looking...

Very impressive

I commend you on your effort and workmanship.
You have inspired those who can, to do.

Currently Looking...
bremerton , Washington
Join Date: Mar 2016
Posts: 1

Great Job.
Jim

Thanks · Quote

03-18-2016, 06:59 AM #27

Isuzusweet
Dazed and Confused

Supporting Mei

Currently Looking...
1983 31' Airstream310
Hillsburgh , Ontario
Join Date: Sep 2012
Posts: 1,667

Quote:

Originally Posted by **daa1111**
Hi all,

Time to update.

Below is what I spoke about in an earlier post. Anyone who knows anything about RVs knows that this bulging is a sure sign of delamination.

I didn’t know this at the time. The dealer knew this. Again, they waited for someone ignorant like me to take this RV off their hands.
By the way, that peeling dark red stripe: I found that that pulled off easily. So now, instead of that mess, it is an all gray stripe.

David -- still working

It's amazing what we miss when we go to purchase a vehicle costing thousands of dollars; but when your in the moment and there is so much to take in, especially with RV's and first time buyers, its best to take someone with no skin in the deal to have an objective view. I missed my whole sub floor debacle.

Oh well

With your next RV purchase you will be a pro and be able to detect anything.

Cheers
Tony

Per Mare, Per Terram and may all your campaigns be successful.

“It’s a recession when your neighbor loses his job; it’s a depression when you lose your own.” "Harry S Truman"

Thanks · Quote

03-26-2016, 10:10 AM #28

Another quick update

Hi all,

Short update:

See the picture. Nothing to salvage here. But easy access to the propane tank on the right and transmission on the left. Luckily, the actual framing is in good condition. Just surface rust.

The way this is built from bottom to top is:

1) Very thin sheet metal that had been pushed into a slot that is part of the underside of the steel framing—essentially sealing it tight.
2) Wood (luan) on top of the sheet metal. I have no idea why this is here.
3) The steel framing along with foam insulation.
4) OSB subfloor.

I'm sure Airstream thought they were building some kind of floor structure here. But what they really built was a water tank with a wood lining.

When water gets into the floor (and it WILL get in), it can't drain out. And so it's absorbed into the wood right next to the sheet metal, constantly keeping the metal wet. Now we have a guaranteed, easy recipe for rot and rust.

Simple, simple solution (for original construction): keep the sheet metal. Absolutely get rid of the wood. Drill several small holes in the sheet metal to allow for water drainage. Place a thin and light (aluminum or plastic or whatever) grating over the sheet metal so that if (when) water gets in, it doesn't get trapped between the foam and the sheet metal and can easily drain out of the holes we drilled. Then add foam and the subfloor. Problem solved. Simple. Cheap. Effective. It could have saved this floor.

The propane tank will be pulled out, cleaned up and painted. It looks pretty ugly at the moment, but again, it's mostly surface rust. Not a big job.

daa1111
2 Rivet Member

1996 30' Cutter Bus
Lawrenceville , New Jersey
Join Date: Dec 2015
Posts: 25

This is the sheet metal below the floor as I get closer to the kitchen. I’ m so happy about this! I didn’ t want to see rust and rot go under the kitchen cabinets. Now, I don’ t have to remove them.

Two sections cleaned up. Notice the bolt being pointed to. This is structural, holding the floor to the chassis.

In the yellow circle, the wood floor was between the bolt head and the steel frame. In the red circle, you guessed it: luan. Rotting luan. Again, this is all structural. Not much I can do with the luan, but I did put in a new bolt flat against the frame so that at least the wood of the subfloor is no longer a factor.

If you look again two pictures up, you can see that these are really big spaces between the frames. The center opening above the transmission is something like 26” x36” . It might have been ok when the RV was new and everything was laminated together, but now that it’ s all fallen apart, it needs more support.

So I bolted in these pieces …

⋯ to support this wood. This is pressure treated. It cuts the size of the hole in half.

The small hoist I used to lift out the propane tank.

Propane tank de-rusted and rustoleumed. It still needs another coat.

As for fixing the floor, I’ m probably going to be using sheet metal and bending the edges to create a pan, then screw this to the framing. That’ s probably the best thing to do.

David

Thanks Quote

Post Reply

israndy
4 Rivet Member

Supporting Member

Did you sand the tank? How did you de-rust it? I have only light surface rust, do you think it's from the leaking of the floor that you got all the rust on your tank?

2005 39' Skydeck
Alameda , California
Join Date: May 2015
Posts: 348
Images: 2
Blog Entries: 1
Airstream Registry

I was gonna wire brush it and Rustoleum it in place, mask off the rest of the area and let the paint fly. If I get some on the front of the basement area that might be good as it too is getting rusty. Probably use black on it through.

-Randy

_____

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Thanks Quote

03-27-2016, 12:54 PM #30

SeeMore
Rivet Puller

2004 28' Safari S/O
Marietta , Georgia
Join Date: Jul 2010
Posts: 1,099
Images: 3

My method for 'surface' rust -

Apply Naval Jelly, let sit for 5-10 minutes, wash off with water & nylon brush. If rust is still visible re-apply jelly and repeat. Once the rust is gone, prime and paint promptly - waiting a few hours will result in new rust almost immediately.

http://www.homedepot.com/p/Loctite-1...3472/203009241

_____

"Good judgement comes from experience. Experience comes from bad judgment."

Sirs Gawain & Galahad

Thanks Quote

03-28-2016, 02:23 AM #31

ijustlee
4 Rivet Member

1973 31' Sovereign
Middletown , California
Join Date: Oct 2015
Posts: 341

Wow, I really admire all you are going through to fix what the factory didn't do right. Just imagine what it would take if you hadn't bought a "quality" product! Maybe someday after you have some miles on your tight rig you could test drive a stock unit and compare how they feel going down the road. I'd bet your rebuilt camper will be noticeably quieter and feel more solid driving down the road. At least while sleeping through a rain storm in your motorhome you will know that it's not rotting out worse on the way home! I'm glad to see that I'm not the only person that can get obsessive about fixing something right! I'm sure at least a few others on this forum know what you are going through! Keep up the good work!

Thanks Quote

03-29-2016, 09:03 AM #32

daa1111
2 Rivet Member

1996 30' Cutter Bus
Lawrenceville , New Jersey
Join Date: Dec 2015
Posts: 25

Hi Randy,
I can't really pin down why the tank rusted. Yes, the floor was leaking, holes right above the tank. But the compartment is also open to the road below, open to tire and road spray. Maybe it wasn't painted well enough to begin with. Just don't know.
About getting the rust off: Years ago I had bad reactions to all things chemical, so I stay away as much as I can. I use alcohol instead of Acetone or any other solvent almost always. My point is that I'm sure there are many chemical rust removers that work quite well and are faster than the way I do it--but I want to stay away from the chemicals.
So I just used a wire brush. As bad as my tank was rusted, it only took a couple of hours to clean it. But what I found is that a softer, stainless steel brush instead of the normal, hard steel wire bushes with the wood handles works much better. I can brush the rust with the hard brush, and yes, a lot of rust comes off. But when I brush it with the soft brush, it almost all comes off.
Anyway, probably not the best way, but that's what I do.
And about removing the tank: it was an advantage that I

had to remove the floor--because pulling the tank up with a chain hoist was fairly easy. Getting it out any other way would be very hard, I think. My guess is that it weighs somewhere between 100-150 lbs. At least it felt that way given the awkward position. And I also found, at least on my RV, that if I lowered it to the ground (which would have been really hard to do if I didn't have access through the floor given that my bolts were behind the tank), it still wouldn't fit under the edge of the RV without jacking up the RV. So if you can do it in place, that, I think, would save you a lot of headache.
David

Thanks | Quote

03-29-2016, 10:21 AM #33

israndy
4 Rivet Member

Supporting Member

2005 39' Skydeck
Alameda , California
Join Date: May 2015
Posts: 348
Images: 2
Blog Entries: 1
Airstream Registry

All sage advice, thanks for it. I'll follow in your footsteps as I have the brushes already and a half used can of white. Hopefully that will be enough as I am mostly spot painting, but will get the overall at least a single coat.
Thanks

-Randy

2007 LTV Serenity beater 2005 Airstream SkyDeck
Also a 1999 Jeep Grand Cherokee, 2000 Honda Hybrid Insight, new 2013 Volvo C70 hardtop convertible
And all electric: a 2012 Mitsubishi i-Miev and two 2007 Vectrix VX1 motorcycles, waiting in line for the Model ☰

Thanks | Quote

04-04-2016, 12:15 PM #34

daa1111
2 Rivet Member

update

Hi all,

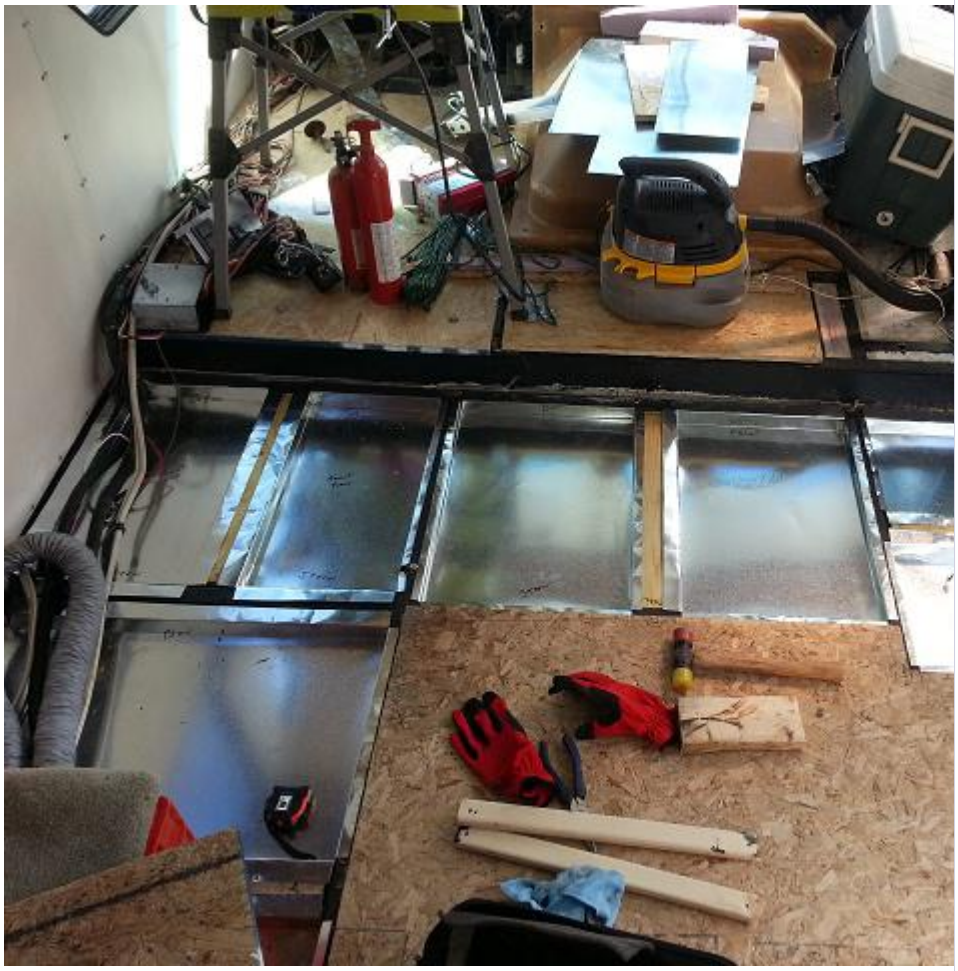
Another update.

1996 30' Cutter Bus
Lawrenceville , New Jersey
Join Date: Dec 2015
Posts: 25

First, it took a while for me to continue to work on the passenger side wall because I had a leak I couldn’t find. It was coming from up high, between the two windows, behind an aluminum frame. I didn’t think it was from the roof itself since it’s a fiberglass roof and looked pretty good. I thought it might be from the awning track, so I re-caulked the entire top edge of the track and re-caulked all of the rivets, but still the leak continued. I thought it might be the air-conditioner leaking with the water running down inside the ceiling (more on that below). Finally, after poking around, I realized that when someone installed the new awning and brackets, they used new holes and didn’t bother to seal the old ones. The open holes were under the new bracket, so I never saw them. Anyway, I caulked them temporarily and the leak stopped. I think this needs a more permanent fix, but that’s for later.

The awning, by the way, along with the refrigerator cowling on the roof, are the only things I found on the entire RV that aren’t original.

Below are the sheet metal pans I made for the floor. They fit very snug to minimize air movement.



And then the insulation. As in other places, it’s cut a half inch shy of all edges which will be filled with spray foam. The sheet metal will also be riveted to the frames. Yes, the wood beams I added are bare, but remember, they’re pressure treated and should be fine.

I had to replace the antennae crank below ($10 USD for what is probably a 25 cent plastic handle). Personally, I haven’t turned on a TV in almost five years and don’t even own one, but it sure looks better with a new handle.
But when I opened the cabinet door, I found it hits the handle. That might be why it broke. Airstream’s been designing RVs for decades, and they can’t figure out a better place for the antennae?

Now for the air conditioner. I removed the inner plastic housing. Below is one of four bolts securing it to the roof. So far, so good. But …

… uh oh. What happened? Run out of long bolts?

“Well, that’s OK. We’ll just put in a shorter one.”

“But it won’t be secured to the roof! Or compress the gasket to keep the air conditioner from leaking!”

“Sshh. Don’t say anything. Just leave it. No one will notice until the warranty runs out.”

Is this not beyond belief?

The passenger side wall going in. The plywood in the left window, by the way, is just to keep the plastic from flapping around in the wind.

In goes the window.

Um, well, that’ s a lot of space.

And another on the other side! (see below picture)

Well, yeah. Another screw-up by Airstream. And a lot more work for me. (I still keep thinking I can’t find more problems, but I keep finding them.)

A little background: This window was leaking badly. It is right above the propane tank. You know, where the floor was rotted out, where even the sheet metal was rusted through, where the propane tank was all rusted…
And this window is the only repair work attempted by a previous owner that I found. I say “attempted” because, of course, the window was still leaking. But it had been taken out and completely resealed by someone. But it couldn’t be done properly because the hole in the wall is JUST TOO BIG.

Here are the numbers:

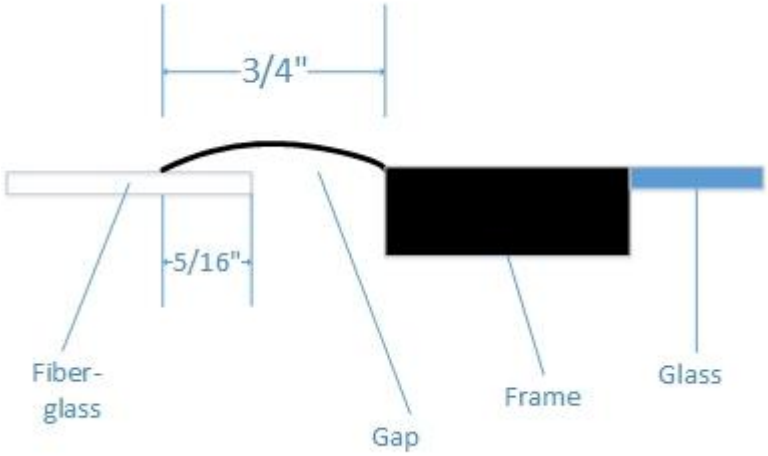
Window frame: 22 3/8” (56.83cm) wide; 30 3/4” (78.1cm) high.
Hole: 21 ¾ (55.24cm) wide; 30” (76.2cm) high.

To put that in perspective, that means the frame is only 5/8” (1.58cm) wider than the hole and 3/4” (1.9cm) longer than the hole.

To put that in greater perspective, that means the window frame will only overlap the fiberglass skin by 5/16” (0.79cm) top and bottom and 3/8” (0.95cm) on both sides. That’s not workable. That’s why it was leaking.

I tried to make it work, but ruined the butyl tape twice. Here’s why (see the diagram; the flange is the curved part). There’s just such a big gap that there’s nothing to hold the butyl tape in. And that’s assuming you can get the window perfectly centered in the hole, which is very difficult. I mean if the window is only 1/8” (0.31cm) off, then one edge of the window will have only a 3/16” (0.48cm) overlap. If you try to slide the window while trying to center it, the tape gets all fouled up. And even if you could place it correctly, how can anyone guarantee that this window will never move when the whole RV is rocking and rolling and twisting and shifting on down the road? They can’t. It doesn’t have to move much to develop a leak. It’s

hopeless. It’s wrong. It’s inexcusable. Nice going Airstream. Buy a ruler, hire a guy with a steady hand and do some quality control.

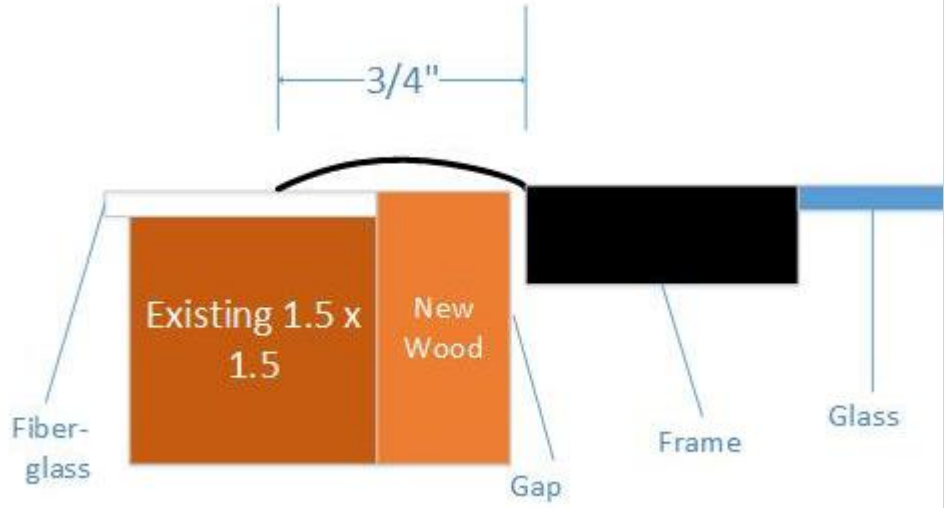


Here’s the bottom left of the window opening. The wood you see is wood that I had put in previously to better support the window. That’s going to help with trying to fix this.

(By the way, these are Hehr windows. I know nothing much about them, and I know nothing about other manufacturer’s windows. But it couldn’t hurt to put a much wider flange on the frames to give a lot more surface for caulk. My windows only have a 3/4” (1.9cm) flange. I mean, why not make it bigger? That could do nothing more than help solve a big problem area for RVs and the extra cost would be negligible.)

The below diagram shows what’s in my mind at this point. More epoxy coated wood, filling the gap, giving more surface area for the caulk. That, I think, will solve the problem (of course, the 1.5 x 1.5 wood is not to scale). I hope I only need to do this on two of the four window edges—where I have my existing 1.5 x 1.5s.

Doing this will, though, shift the window up and to the right. I may, then, need to make a new, inner wall panel. We’ll see.



I talked to RV dealers before I bought this one and I asked several of them why RVs fall apart and lose their value so quickly. They all seemed to tell me the same thing: because RVs are always driving down the road and bouncing around.

Really? I can’t imagine a boat manufacturer or dealer blaming the ocean for a boat falling apart.

Just a curiosity: does anyone know if Airstream actually built the Cutter Motorhome? Or did they outsource it and just slap their name on it?

And just for the hell of it: a picture of me. No rot. No rust. No leaks.

Well, maybe a little surface rust.

David

Thanks · Quote

04-04-2016, 12:47 PM #35

mayco
Rivet Master

Supporting Member

Your tenacity is amazing. Youre going to end up with a fine rig, keep calm and carry on.

1982 31' Airstream 310
champaign , Illinois
Join Date: Jun 2013
Posts: 2,096
Airstream Registry

Thanks Quote

04-04-2016, 01:23 PM #36

Gsmblue
Rivet Master

2015 25' Flying Cloud
Portland , Oregon
Join Date: Sep 2014
Posts: 512
Airstream Registry

Enjoying following your adventure here! Keep it up!

_____

http://britishairstream.blogspot.com
Mad Astrophysicist turned sales guy that works to fund his dirty snowbaording habbit, mwah-ha-ha . . .

Thanks Quote

06-01-2016, 11:32 AM #37

daa1111
2 Rivet Member

1996 30' Cutter Bus
Lawrenceville , New Jersey
Join Date: Dec 2015
Posts: 25

Late Update - more to come

Hi all,

It's been a while, and I'm just playing catchup here. I'm actually much further along than what I'm showing today.

This is what I did to make the window frame smaller. It doesn't look too pretty, but the wood is encapsulated in epoxy and it does what it was meant to do: made the opening smaller. Now there's more surface area for the window frame to catch.

The window is in and fitting tight. I have confidence in it now.

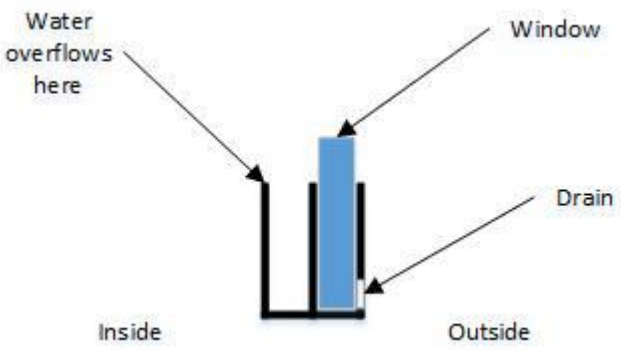
By the way. I found what seem like a good way to put in the butyl tape when reinstalling the windows. I let it hang over the edge by a small amount. It lets me know I have actually grabbed the edge of the frame as I meant to.

And finally, the front passenger window goes in. Now all the windows are back.

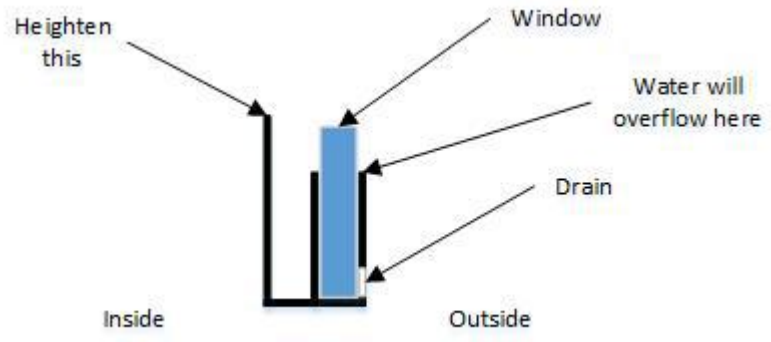
The day after I reinstalled the front window, it rained, and the frame was dripping. It was coming in right in through the joint itself. For now, I just taped it on the outside. I’ ll deal with it another day.

Two days later, we had a lot more rain, and water was now coming in through the bottom track. It was coming down both sides of the RV in a stream from the awning tracks, overflowing the tiny holes where the water should drain, and coming inside. I know the holes are clear on both sides because I had the tracks themselves out of the frame and cleaned everything weeks ago. The drain holes were simply being overwhelmed.

I have not looked at other window designs, but this is how my Hehr windows are designed (sort of):



And so I’ m thinking, couldn’ t they be designed as in the following diagram? With this, even broken seals will mean nothing. The window simply can’ t leak. This design would eliminate both of these leaks.



Next I started on the rest of the floors, and it was music to my eyes.

No rot! No moisture!

Just a little in the far left of the bedroom.

Which was quickly and easily replaced.

I later noticed the overhead above the dash sagging. I guess I never looked at it closely enough before. And so down it came. Full of rot and rust.

And so I replaced the wood and cleaned the rust and painted the steel. The vinyl was still in good condition and it looks good now.

This is under the bed. That ridiculous wire is common in this motorhome. Just hanging around. That wire should be cut to size, secured, and hidden as much as possible. It is now.

A mouse nest under the boxes built to hide the wires. Now that, Airstream, is how you insulate!

I’ m thinking about writing a movie entitled “Hack Job with a Drill Bit”, inspired by Airstream.

This receptacle was loose. I took it out to find out why. What a way to cut a hole--just hack it out with a drill bit.

The couple of times I lay down on the bed, it felt strangely uncomfortable, but I couldn’ t figure out why. Here’ s why. The bottom half of the bed is 3/4 of an inch higher than the top half. It’ s fixed now.

Under that platform below is the pass-through storage area. It’s half inch plywood and has absolutely no insulation on it. I put in an inch and a half of foam on the face. The top has added plywood (it was really weak), but there’s really no way to insulate better without raising the height of the entire bed.

Then, unfortunately, I found more water damage and so tore it apart. There was mold that I killed by spraying pure bleach. But it was actually not that wet. The foam under seemed dry and strong. The line you see under the window is where I’ m going to cover it with Masonite.

This is inside of the removed corner cabinet. As bad as this looks, it was easy to cut out and not really that wet (This was the same on both sides of the motorhome). This was leaking from the outside molding between the back, fiberglass cap and the fiberglass siding. I had fixed the caulking months ago.

The other side.

This dumb little picture is under a side closet. That spec of light is looking outside. It’s about ¾” in diameter. It’s where pipes for the water heater pass through. What it really is is a doorway for mice. It’s closed up now with spray foam.

This opening is under the bed. It’s either a passageway for cold and hot air to come in, or another door for mice. I haven’t decided.

This is an improperly taped solder joint. The wire that was soldered on isn’t being used, and was just sitting there with its ends also exposed. There are lots of unused wires just hanging around this motorhome. I guess they wire for all options even if they aren’t installed? Or do they use the same wiring harness for all models of motorhomes? Don’t know. In either case, so much of the wiring was a mess. It's fixed now.

This is the new wood I put on top of the pass-through storage box. The small L-shape on the left is just a night table of sorts I added on both sides. (Now that it's done, I realize I could have made them a little bigger. They're really useful. Pictures will come on the next update.)

In the corner is unpainted Masonite to line …

⋯ the cabinets. And notice I painted the walls. I read somewhere that you can prime using Glidden's Gripper, the same stuff I used to glue foam. It seems to work really well. Only time will tell. And I really like it. It's such a clean look without all the patterns. I wound up painting all the walls in the entire coach except for the kitchen area. Maybe later.

And like I said, I’ m much further along than this. Actually, I'm near completion. I’ ll update soon.

Thanks for reading,
David

Thanks · Quote

06-01-2016, 01:59 PM #38

Keyair
Rivet Master

Supporting Member

1984 34.5' Airstream
345

Nice work!

My opinion on your window frame...
We have the same issue on Classic motorhomes. Water flows down off the roof onto the sideglass, and if the drains are blocked, the water overflows to the inside and rots the floors.

My suggestion is to drill thru from the drain holes on the outside into that inner channel to allow water to flow between the two.

Foothill Ranch ,
California
Join Date: Mar 2010
Posts: 3,465
Images: 1
Airstream Registry

Thanks Quote

06-02-2016, 01:22 AM #39

ijustlee
4 Rivet Member

1973 31' Sovereign
Middletown , California
Join Date: Oct 2015
Posts: 341

Yes, it's amazing how a lot of RV things such as your windows are made. I can never be sure if it's scrimping on materials or just not understanding the job to be done. I'd like to add drains to the back window channel on my trailer. You will have a very good motor home when you are done I hope you get a lot of use from it!

Thanks Quote

06-02-2016, 12:02 PM #40

israndy
4 Rivet Member

Supporting Mem

2005 39' Skydeck
Alameda , California
Join Date: May 2015
Posts: 348
Images: 2
Blog Entries: 1
Airstream Registry

I am at the stage where I put new wood in over the floor. What did you do about those bolt head?

I was thinking I would just notch out the wood so it doesn't conflict with the old bolts as I cannot figure out how to remove them...

Oh and my tank is MUCH rustier after scraping it off. I'll have to do the navel jelly trick. I actually used rust reformer from Rust Oleum on the Onan generator that was my previously most rusty thing.

-Randy

2007 LTV Serenity beater 2005 Airstream SkyDeck
Also a 1999 Jeep Grand Cherokee, 2000 Honda Hybrid Insight, new 2013 Volvo C70 hardtop convertible
And all electric: a 2012 Mitsubishi i-Miev and two 2007 Vectrix VX1 motorcycles, waiting in line for the Model ☰

Thanks · Quote

06-02-2016, 12:29 PM #41

daa1111

bolts

2 Rivet Member

1996 30' Cutter Bus
Lawrenceville , New Jersey
Join Date: Dec 2015
Posts: 25

Hi Randy,
I cut those bolts off using an angle grinder. A dremel would work too. Then I replaced them with bolts that were lower profile, which means almost any bolt other than what is in the picture. Then I only had to cut out a small piece of wood to get the wood to seat properly.
If I had just notched around the existing bolts, they would still be above floor level, and since I put down tile, it could have been a problem. If you are to put down carpeting or even a finished wood floor (which can also be ground out a little), you should have no problem just keeping the existing bolts and just notching out the wood. But you would need to have a really tight fit, meaning the wood would want to go under the bolt to support it since it is a structural bolt.
David

Thanks · Quote

06-02-2016, 05:53 PM #42

Isuzusweet
Dazed and Confused

Supporting Member

Currently Looking...
1983 31' Airstream310
Hillsburgh , Ontario
Join Date: Sep 2012
Posts: 1,667

David

By now you maybe wondering why a few Classic motorhome owners have been watching your work. It's because we appreciate all the effort and know-how that you have expended to get your coach up to snuff. If you ever decide to buy and restore a vintage Classic motorhome or Argosy I know the boys would be very happy to have you in the club.

That being said, although you don't own a Classic, I'd, and others, would like meet and shake your hand. It is not often that you run into a man of your talents.

Always watching and learning.
Cheers
Tony

_____
Per Mare, Per Terram and may all your campaigns be successful.

“It’s a recession when your neighbor loses his job; it’s a depression when you lose your own.” "Harry S Truman"

Final

Hi all,

Probably the final update.
First, I don’t think I ever showed the final floor pieced together. Only the center is original. It’s now dry, insulated, sealed, and … done!
(You’re looking forward. The seats on the left are just being stored.)

daa1111
2 Rivet Member

1996 30' Cutter Bus
Lawrenceville , New Jersey
Join Date: Dec 2015
Posts: 25

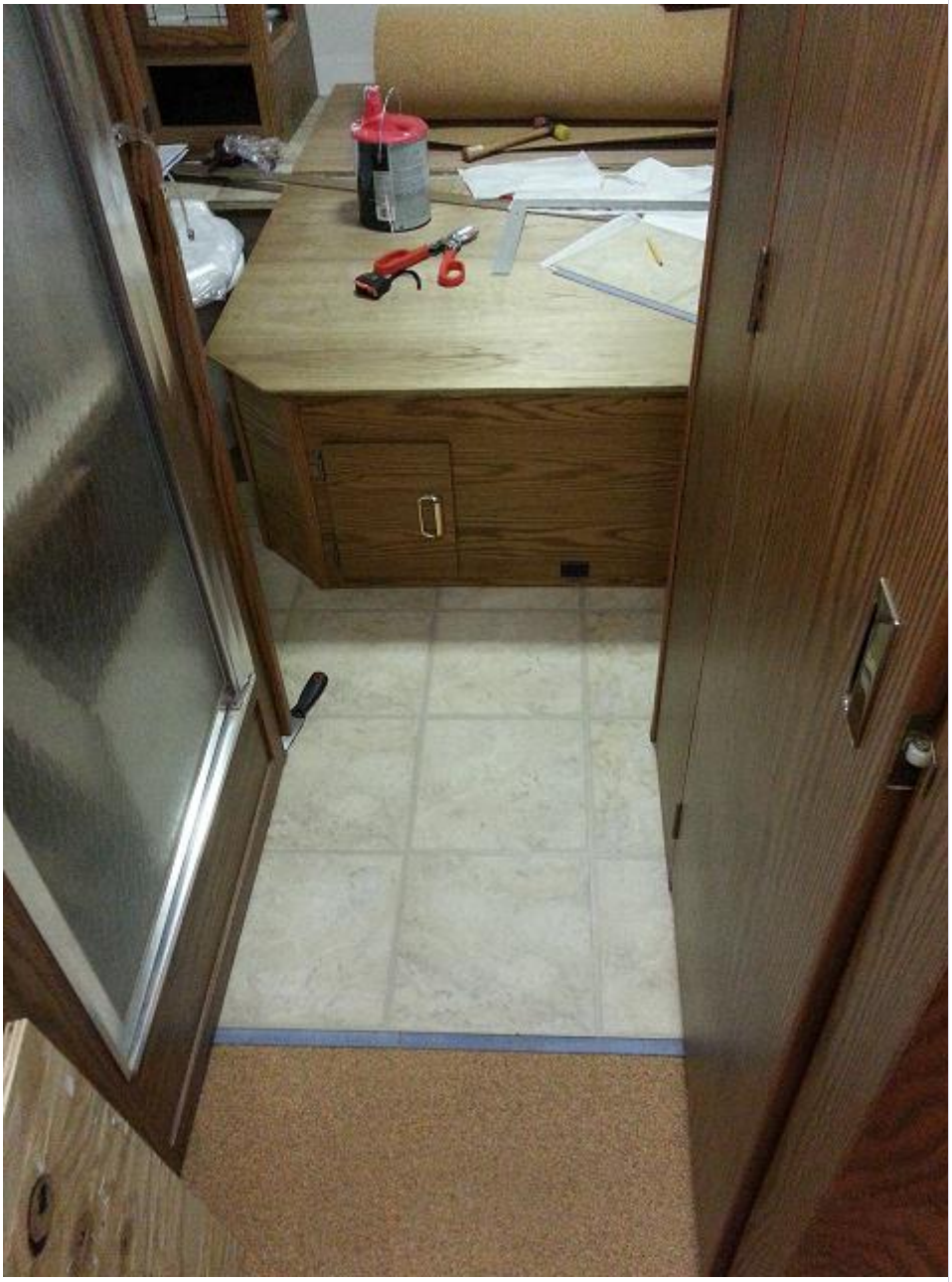
This is the electric panel on the upturned bed frame. This is Airstream’s placement: toward the top left and deep inside. When the bed is down, the only way to see anything is by getting on the floor. I moved the box toward the front, down, and to the right. Now it’s reasonable to access when sitting.

I put tile on the bedroom ledge where it used to be carpet. The little “L” on the right has become a little night table. It turned out to be incredibly useful, so now I realize I could/should have doubled the size.

The tile going in (Allure). I put a quarter inch of cork under the floor everywhere for added insulation and to even out the floor seams a bit (even though I did belt sand them all).

Not the best picture, but the bedroom is complete. Someday, I planned on replacing the fabric around all the windows. Not shown is the newly covered headboard just below the mirror. White leather. I mean vinyl. I mean pleather.

The floor in the hall. The wall to the right (to get back to RV design) is sort of a floating wall. During manufacture, they lay down the carpeting and then put in the walls on top of the carpet. Bizarre in my mind. The walls were then screwed in diagonally at the base. “Were” screwed in, because every single screw had been sheared off from stress. I put in small blocks in the bathroom, screwed them to the floor, then screwed the walls to the blocks. Sorry, no picture.



New porcelain toilet. Same floor throughout. I had actually planned on putting a wood floor down, but when trying to remove the existing wood floor in the kitchen, I found it was glued to the subfloor. It would have been impossible to pull it off without destroying the subfloor. And if I did this, I probably would have had to pull out the base cabinets in the kitchen. No thanks. And I just didn’t think that wood in the rest of the RV, different from the kitchen, would look very good. So I tiled everywhere.

New carpet in the cab.

Both captains chairs are in excellent condition. Leather.

Starting to look like a motorhome again.

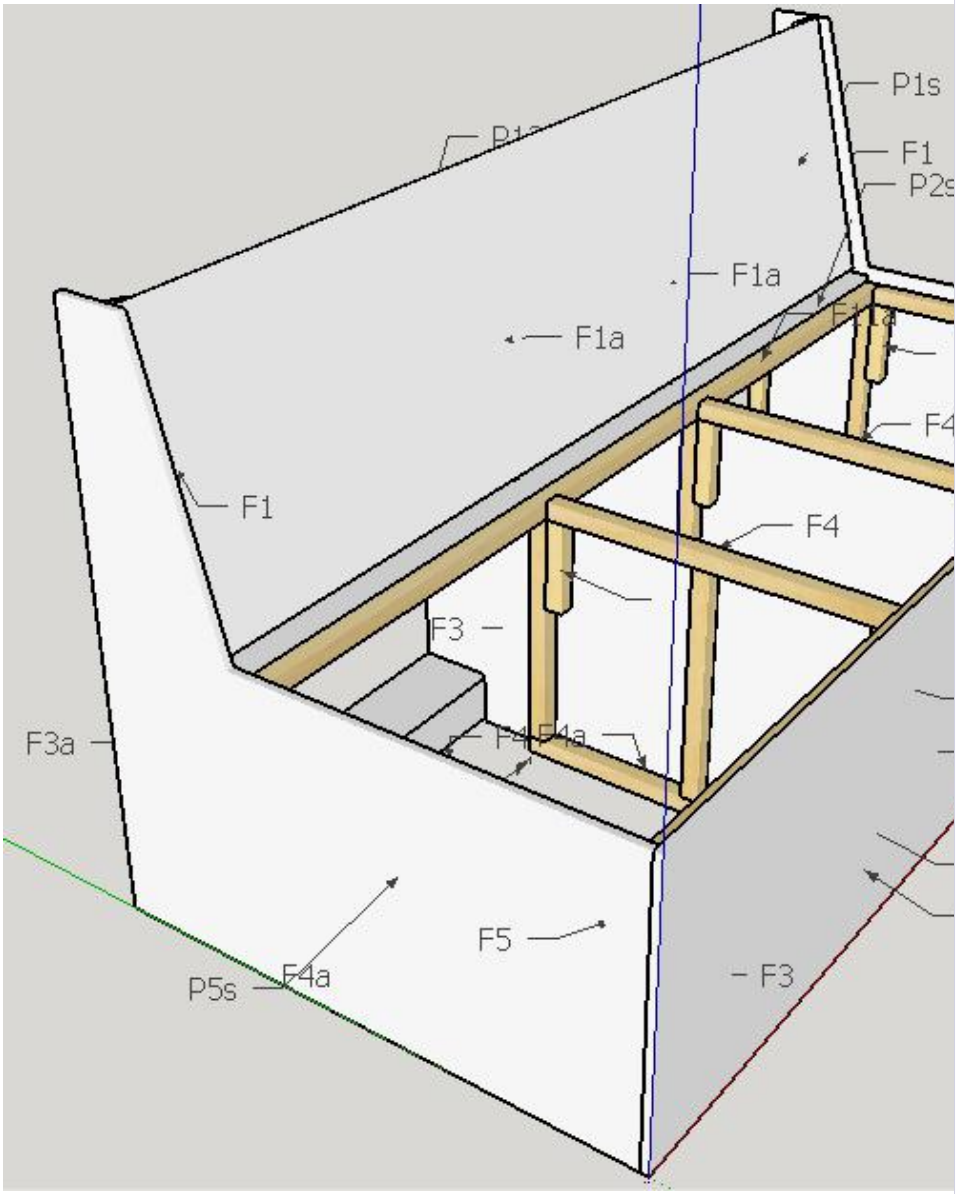
The frame for the television was plastic, cracked beyond repair, and ugly. So I put this together.

Decent joints, I think.

The old and the new. I covered the hole with Masonite because the television was ancient, broken, and thus removed. And since I haven’t watched television in more than five years, I had no reason to replace it.

Tile going in the living room.

The existing sofa was, of course, old, dirty, damaged, and I wasn’t going to sit on it. The chair was the same. And no matter how much I thought about it, I just couldn’t justify spending $1500-$2000 on an RV this old to replace them. So I came up with this little design. First time I ever designed anything on the computer, then built it. It was worth it. It saved lots of time measuring, re-measuring, figuring, changing my mind and rebuilding, etc. It’s not beautiful, but it works.



Here’s is the storage under the old sofa.

Here’s the storage under the new one. That’s its biggest asset. Including the chair, it’s about 3-4 times as much storage. That small ledge in the back corner of the cabinet is covering electric wires. It’s removable.

The chair just starting.

The sofa’s skeleton. As I said before, I came from sailboats to RVs, so this design is much closer to what you’d find in a boat. In a boat, it’s almost a sin to waste space. This wastes nothing.

The cushions were really hard to find and decide on. And I needed to find them before I designed the sofa. Getting them custom built would have cost as much as a new sofa and chair.
These are outdoor cushions from Ikea. They’ re nice because the covers are removable and washable--unlike most RV sofas that I have seen. And they’ re standard cushions—so are easily replaced.

As you may have seen, the center piece is removable. And unlike the original sofa which was only 68”, this is about 77”. I’m 75” (6’3”), and I can easily lay on this.

I really built this console just to make it all fit. But it’s worked out really well. There’s a cubby hole in the front and the back lifts off for storage. Again, this is not the best design, but for an old RV … I’m pleased. And it’s still so much better than what was there.

And the console moves so you can do this. Actually, this now gives a really convenient table where there was none before. Before, no place to even put a cup of coffee.

My table. Home Sweet MotorHome.
(Can you tell my girlfriend was involved?)

And here’s the really big news:
Now that I’m done (or almost. Like a boat, I guess an RV is never really done), it’s FOR SALE! I’ve put months a work into it and almost as much money as I paid for it. I bought it at the low end of book value, and I’m selling it at the high end of book value.
Many reasons. First, for anyone whose read through my posts, you know I’m new to the RV world and really disappointed in the lack of quality, design, materials and engineering. And if I ever decide on something like this again (I’m sure I will), I’ll be building my own. Sort of a cross between an RV and what’s called a “tiny house on wheels”, if any of you are familiar with that concept. I want something solid and realistically insulated. But all this aside, what has really nudged my decision to sell is that …
… I have a new job in Phoenix. And all in all, it just doesn’t work out for me to take it with me. It would inconvenience everything. So it’s for sale. Located in Lawrenceville, NJ.
It will be on Craigslist soon. I’ll post a link.
David

08-30-2016, 06:02 PM #44

daa1111
2 Rivet Member

1996 30' Cutter Bus
Lawrenceville , New Jersey
Join Date: Dec 2015
Posts: 25

for sale

Craigslist ad:
http://cnj.craigslist.org/rvs/5756576601.html

Thanks Quote

08-30-2016, 06:15 PM #45

OTRA15
Rivet Master
Supporting Member

2014 20' Flying Cloud
Long Island , New York
Join Date: Jun 2015
Posts: 3,322

The photos look great! An earlier comment suggested also posting this in the Motorhome Cutter sub-forum, which seems like a good idea IMO:

http://www.airforums.com/forums/f313/

Best of luck on the sale and your move.

Peter

> Quote:
>
> Originally Posted by **daa1111**
> *Craigslist ad:*
> *http://cnj.craigslist.org/rvs/5756576601.html*

Thanks Quote

08-30-2016, 06:26 PM #46

Isuzusweet
Dazed and Confused

Supporting Member

David

Please tell me you at least used it once?

Seriously dude, you need to get an Argosy or Airstream Classic moho. Yes, there maybe work needed to the subfloor, but compared to the effort you put into this Cutter, a walk in the park for you, but significantly better return on your investment. There is actually a 360 turbo

Currently Looking...
1983 31' Airstream310
Hillsburgh , Ontario
Join Date: Sep 2012
Posts: 1,667

diesel for sale that needs some love. Only 25 ever made.

You in four pages have done more work than most people with 50+ pages.

Whatever you decide, don't go far away.

Thanks for confirming that there are still Americans, that with grit, determination and smarts, can accomplish anything they set their minds to. RESPECT!

Cheers
Tony

_____
Per Mare, Per Terram and may all your campaigns be successful.

“It’s a recession when your neighbor loses his job; it’s a depression when you lose your own.” "Harry S Truman"