

LOOSE DOOR HINGE BOLTS

Question: One of the trailers on our caravan has a problem with door hinges. The bolts which fasten the hinges to the trailer have become loose and they can't be tightened. They just spin around and the nuts will not pull tight enough to hold the hinges in place.

As I recall, these hinges are fastened to the main coach body before the inside skin is installed and the nuts which retain the bolts are then inaccessible when the interior skin is installed. True or False? As I also recall, the only way to fix this problem is to cut or drill access holes in the interior skin directly behind or to the side of where the bolt comes through the door frame and then tighten the bolts by using an open end wrench on the nut. If this is the correct procedure, the question arises... is the doorway frame a U-Channel which is open toward the inner trailer wall?...if so then the access hole needs to be cut somewhat offset from where the position of the bolt is...that's the question. If this is correct, how much of an offset should this access opening be?

Please advise if you have information.

Answer: You are correct and this problem is quite common for both trailers and motorhomes. If uncorrected the hinges will severely wear over time, the doors can rattle and will not seal correctly. Ultimately the hinges will require complete replacement. There are several ways to correct this situation and get to the back of the bolts and tighten the nuts. All of them require drilling holes from the inside or actually removing the door channel surrounds and interior plates. I have tried both approaches and found that removing rivets and interior panels is a lot of work (hours), but it leaves the inside looking neat and finished. Drilling inside and using nut drivers works, but leaves four large holes that have to be covered.

The best approach I have found is to remove the existing bolts by pulling the bolt so the nuts are not moving and simply unscrewing it completely and letting the nut fall into the inside wall. Just do the top bolt first. Drill all the way through the entire frame (using the hinge as a template) so the drill comes out inside using a bit that just fits the hinge hole. You are drilling thin sheet metal so you don't need much force, just a sharp bit. Of course, get two stainless steel bolts that will go all the way through and are long enough for a stainless lock washer, nut, inside plate and cap nut. Also get a 1/8 inch stainless steel plate about the size of the outside hinge base plate and use it as a backing plate. For a quickie on-the-road repair, you could use an aluminum plate or a large fender washer and change to stainless steel when you get home.

Drill a matching hole in the plate, assemble and loosely tighten the top bolt to the backing plate. After removing the bottom bolt align the backing plate vertically, tighten the top bolt and drill the bottom hole all the way through. Assemble and do a final tighten of both bolts, cover the threads with the cap nut and move to the bottom hinge. You will end up with two nice looking inside stainless steel plates that will eliminate the door hinge problem forever.

I ran into this approach over 15 years ago watching an old timer at Airstream fix a droopy Classic motorhome door.