

How to remove a torsion bar all by yourself (each step illustrated as a reply below).

Credit To Bill Robertson for this explanation of torsion bar adjustment on a Gurnman and then a Byrne bar. Caveat is that Bill explains that his garage and spare DeLorean are a mess, but these pictures should suffice until somebody with a better car can take better pics:

Remove the louvers and T panel. Pop the gas strut off the door (you can leave it dangling on the body stud). Prop the door open past vertical -- basically parallel to the opposite door.



ONE AT A TIME replace the retaining bracket bolts with long 8mm bolts. This will ensure the retaining bracket can't rotate and hit the back window, no matter how much torque is on the bar (if the bar is torqued normally, there should be virtually no torque with the door propped past vertical).



Slide the retaining bracket back onto the long bolts. In some cases you may need to use a puller.



Bracket off the bar. At this point there is absolutely no torque on the torsion bar.



On the driver side the torsion bar should slide right out. On the passenger side it may well be cockeyed and stuck in the hinge. If the bar is cockeyed and stuck in the hinge, break it free by rotating it towards the driver's side of the car. It will make the worst sound you ever heard when it lets go -- sounds just like the bar breaking in two.



I assure you: the bar didn't break -- that's just the sound it makes when letting go of the hinge.



The following comment was made by a well know DeLorean owner

I did the same thing the first year I owned my car. At a tech session no one could get bracket off

the bar to adjust. When I got home once the tension was off the bar (door past vertical) the bracket slid right off with no effort.

Another owner said :- Bill - you know that I'm following this with a keen interest. I know we've discussed this, but as a means of confirming for people reading this thread

... the door now has no torsion bar

... you've removed it per the instructions above.

The replacement is merely the reverse

... the door is still braced open and you simply slide in the new one

... do up the retaining bracket

... re attach the strut

... and now when the door closes it loads the torsion bar with the correct amount of torque ---

otherwise repeat the process by propping the door open

... mark the torsion bar and plate

... then slide plate back so you can turn the torsion bar (easily as it's under no load) with a basic handtool (no scaffold bar) until you allow for one more spline adjustment

... re attach plate which cannot spin and smash the windscreen ... and jobs a good un!

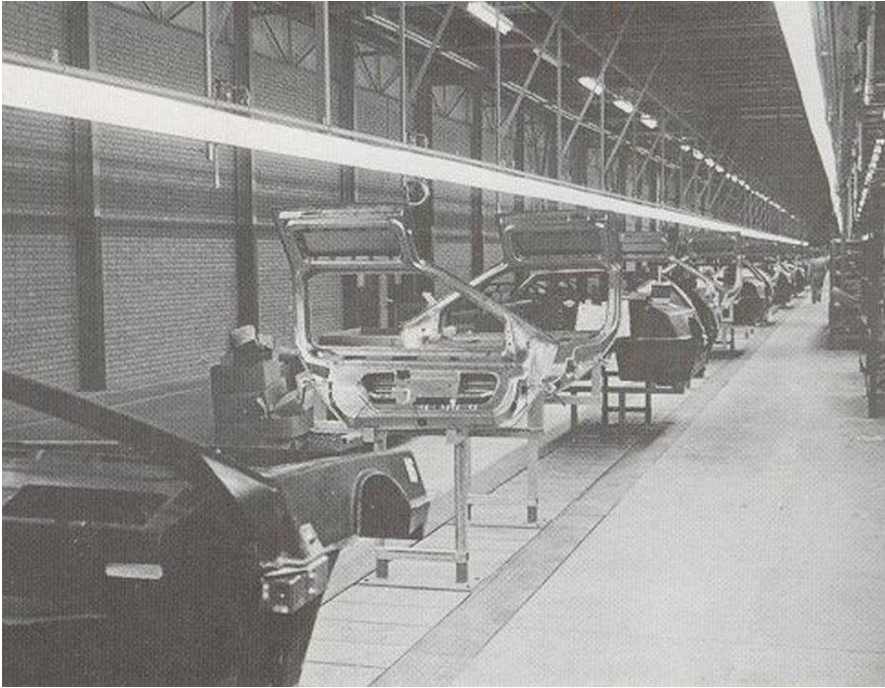
- it's a doddle really?

One owner said :

I remember discussing this with another owner years ago, assuming that this was how they would install them at the factory. Before installing the t-panel, just open the door past vertical,

install the bar, close the door, and they're set to go. Worst case is a spline adjustment in either direction, but no big breaker bars, jigs, or anything like that.

Bill explains



Pages 254-267 of "Celebrating the Impossible" clearly illustrate that doors were attached to body tubs and adjusted/torsioned, to "proper operation" on a separate sub-assembly line. They were then transferred, by overhead crane, to a Tellus carrier for the remainder of the assembly process (body panels and most of the interior were installed *AFTER* the doors were working properly). Also visible in this pic. All we're doing is replicating the original factory torsion bar process.

How to install a torsion bar all by yourself. In this illustration a Byrne bar is used - the main difference is that a Grumman bar is inserted from the back, Byrne bars go in from the front. Once the bar is in place the procedure is the same.

Remember how the Grumman bar was all twisted in the hinge during removal .

In this Byrne Bar process, you can minimize that by making some bushing clips to help keep the bar in place.

The Passenger side really is a terrible design -- driver side bar doesn't do that.

Personally I think DMC would have been better off using sharp 90 degree corners rather than rounding them over.

Be very VERY *VERY* careful inserting these clips. If you scratch the bar, you will need to pull it back out and repaint it.

.... Actually that is a a joke, people!

Byrne bars are made of steel. You don't have to handle them with velvet gloves like **Grumman** bars.

I'd like to add the example of a previous owner, who torqued the shit out of the torsion bars, closed the doors, then walked away for 20 years.

In this instance the roof cage was bolted down in the accepted manner during restoration.

I would add that the retaining brackets within the cage itself and around them was slightly bent, but are firmly attached to the fiberglass . The doors work normally -- so the conclusion of this nexample is that retaining brackets don't have to be in any particular position, just stationary and still.