Introduction

In parallel with my articles on making your own replacement bolster covers I have decided to produce a little diy guide to repairing the foam bolsters.

The Peugeot 205 Gti's are fitted with Recaro style seats for driver and passenger, upholstered with a black, foam backed needle cord material
fitted over a foam backrest and separate foam seat base. The base and the backrest having attached foam wings (bolsters) to improve seating side support of the occupant.

On my own car the passenger outboard thigh bolster had cracked, and the driver outboard thigh and backrest wing bolster has all gone, with material fraying on the driver's side. So things were in a pretty poor state all round.

Seat removal – if required , is fairly straightforward needing the 5 torx head screws (T40) to be removed and the seat lifted out. The only problems that may be encountered is corrosion of the screw threads where they protrude through the floor pan. Therefore you are advised to soak the threads well in easing oil first.

Fig 1 shows my own seat and fig 2 shows a set of seat foam removed from the frame and covers taken off.

Figure 1 My own driver seat

Figure 1 Typical set of foams

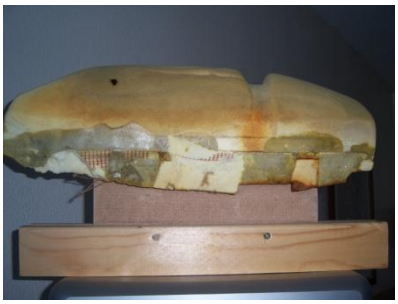
Figure 2 Typical Ebay bought pair

I have added a snap of the pair of Ebay purchased bolsters as a reminder that you can still get them ,to just pop in place. I hope that after reading this guide however, you will be encouraged to repair (where possible) your own bolsters.

A few simple tools are required, along with glue and foam rubber for repairs.
as shown below

The density of the foam is important to maintain the quality and durability of the repair and I have found that 40 kilo foam is the best for this particular application (40kgs per cubic metre foam). Spray adhesive and also brushable are needed along with duck tape, cocktails sticks, my trusty cheese knife and some wooden spatulas (ice-lolly sticks). Where foam inserts need to be sculpted a little I have used an old Moulinex electric carving knife. Final finishing of foam is done with a drum sander (with 80 grit sleeves) mounted in a electric drill used to "linish" the foam. These are freely available and cost about a fiver.


For my own part, as I hope to be repairing quite a few bolsters in my role as seat re-upholstery specialist I have made up a couple of locating jigs to assist me in my repair work , and I show them here but they aren't strictly necessary.




So let's now begin at the beginning….

<u>Initial assessment</u>

These notes all work on the basis that the seat is out of the car. For my own operations this is required, but I leave the choice to you ultimately.

With the seat cover unfixed where applicable, to assess the damage; you must make a judgment as to whether or not the bolster is repairable. During the course of my own work on this the final determining factor has been how badly crumbed is the foam as this determines repaired strength. At this point you must also determine if you can repair in-situ. This is a significant decision as it will determine if you have to cut out the damaged bolster completely to effect a repair.

So you must look at the bolster, is the foam badly crumbed? Are there large sections missing? If the answer to both these questions is No and if the cracks or splits are not the too big then it should be possible to glue it up in place using adhesive, cocktail sticks and duck tape. This is the best case scenario and a speedy repair and refit is possible.(case 1)

The next few shots are of typical bolster damage which I have repaired.


We are now at the stage where we have cut the bolster out and now have it in front of us. Note: when cutting down the seat side make your cut on the inside face of seat squab so as to leave a complete edge for re-gluing it back in place. When you come to do this you will see what I'm getting at as there are holes in the foam to permit the chain fixings to pass through the seat side to secure the cover and you should cut inboard of these; see what I mean here.

Figure 3 cut line for bolster removal

Case 2:

where we have large sections of foam missing due to crumb damage or it's just dropped off and got lost, we can with judicious cutting create a regular slot to insert a new piece of foam.

Do your best to keep things square and level (that why I made some jigs up) and then cut your replacement section. The only fiddly bit here is the slot you must cut in the new section to fit over the canvas reinforcing section (which you can see in the shot below).Glue it all up – both pieces and pin it in place.

This adhesive is reckoned to be cure dry in a couple of hours but I always leave it as long as I can before starting to trim it and make up the contour.(see next picture)

 Further fine finishing with the drum sanding sleeves get us to the point where we can cover the repair in duck tape to support it. Job done.

Case 3

there is an intermediate state where the bolster is cracked/split and crumb damage has left us with large(ish) splits and tears. I use a combination of finely ground up foam and adhesive mixed together (quickly!) and then I use the wooden spatulas to get it into the splits. This may take two or even three applications – but it does make for a strong repair. Once you have built up a slightly protruding top layer – let it cure completely and use the fine contour methods to finish it off, apply duck tape – job done.

In all cases, there will probably be small tears, split etc, which should glued and pinned prior to the main repair being carried out. Particular attention should be paid to maintaining the attachment of the canvas insert to the foam as this provides internal strengthening and rigidity to the bolster.
With a little patience you build up the layers until we have something like this (4th layer of repair)

This will be allowed to cure and then gently linished down using the sleeve sanders.

We should finish up with our bolster repaired and reinforced with the duck tape strapping -

like this:

The bolster is then fitted back in place with adhesive along the previously cut edge.(and a few cocktail sticks to hold it until the glue cures)

Hope this helps you get over the initial few steps – especially when you can't find any sound replacement bolsters.
regards
Dave

Sundries:
I got my foam and spray adhesive from here:
Jordans of Leamington Spa : Jordans Foam
Brushable adhesive I got from here : Woolies trim
Other kit I just bought off Ebay as I needed it, or from my local hardware shop.
D

Thursday 8th August 2010 – Case 4
I have reviewed my repair strategy and have now decided that a moulded replacement section is a viable solution. I have created a glove moulding system which I will use to cold cast foam sections which can be used to repair the busted bolster we all know and love.
This has been at the back of my mind for while now but I've only just found time to exercise the idea fully. Using the the frame and positioning jig seen earlier I decided

on a optimum cut line for **all** bolsters and then I proceeded to manufacture a moulding system that would accurately reproduce the top section that had been removed. Here's a few pictures to show what I mean.

Figure 4 candidate bolster in jig

The cut line was decided upon and then I cut off the broken top section like so.

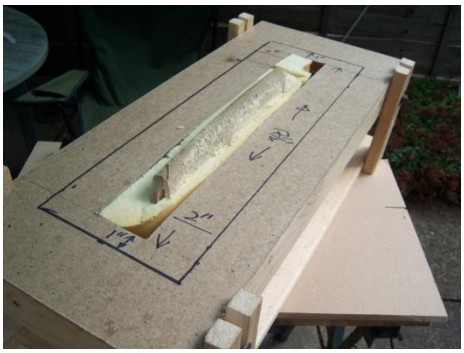


Figure 5 damaged foam removed to cut line

I will now make the mould boxes, the glove moulds, and mother moulds which will enable me to cast new replacement foam sections – these can easily be glued into place and will hopefully be as strong, if not stronger, than the originals!
Here's a picture of the mould boxes:

Figure 6 the bare mould boxes