

## How to

Fraser's just spotted the lottery ticket he lost months ago



### HOW LONG?

Six hours



### HOW MUCH?

• Defender Bulkhead Removal Kit, DA1810, £140 (britpart.com)

### HOW HARD?



# Fit a Defender bulkhead removal kit

Enjoy much better comfort without sacrificing structural rigidity. Fraser Barsby shows you how

**T**he bulkhead behind the front seats in the Land Rover Defender is the thing that stops you reclining the seats enough to be comfy and acts as a black hole for all sorts of goodies like wallets, iPods and mobile phones.

Removing the bulkhead, while retaining the strength it brings, is a popular modification for Defender owners. Enter the bulkhead removal kit.

The kit we're fitting here is Britpart's version of Land Rover's Special Vehicle Options lower roll cage, fitted to the 90SV,

but without the brace that sits under the floor. When fitted, it retains the rigidity of the side panels with the bulkhead panel removed and allows you to recline your seats as far as you want.

Cutting large sections out of your pride and joy may be a little daunting, but follow this guide and you'll see it's not such a hard job to do well. Two things will make it a whole lot easier – using a good grinder with quality cutting discs and not tightening anything up until the end. Let's get to work.



## The Expert Fraser Barsby

Former LRO staff writer Fraser continues to work with Land Rovers every day, building custom Defenders for customers all around the world. While he's managed to keep his Defender's structural rigidity, we can't vouch for him after five pints...

### You'll need

- Marker pen
- 1mm cutting discs
- Flap discs

### Tools used

- Cordless drill
- 5mm, 11mm and 12mm drill bits
- Metric spanner set
- Grinder
- 90° spike
- Dead blow hammer

### Safety advice

- Protective eyewear while grinding and drilling goes without saying. We'd also recommend protective gloves and ear defenders.

### Preparation

- A big part of this job is taking the roof off. Once the rear door is off, there are six bolts above the windscreen frame, two screws in each front corner, six bolted brackets and a bracket on each side panel. Remove the front seats and the seatbelt retainer brackets on Tdi and older Defenders because this is where the main bar is mounted.

**BRITPART**

The quality parts for Land Rovers

Britpart, The Grove, Craven Arms,  
Shropshire SY7 8DA, England





### Drill out rivets

**1** Drill out all the rivets in the top capping of the bulkhead panel then remove the two reinforcing sections, slotted underneath each side, using some water pump pliers. There may be some seam sealer in place on later models holding the sections in place.



### Mark up bulkhead

**2** Remove the capping and mark a line down rear from the joint to the top of the riveted flange strip. Continue the line around the rear wheelarch boxes and along the bottom about 50mm above the floorpan, just below the lowest rivets. A rough line is OK at this stage.



### Get cutting

**3** Using a 1mm cutting disc, cut along your line – straight down first, positioning the grinder's spark guard to stop you cutting too deep into the wheel box (inset). Do vertical cuts first, then horizontal. Keep cuts inside marked line. Work from rear side of bulkhead.



### Remove panel

**4** Finish by cutting into the support rib from the cab side of the bulkhead. The bulk of the unwanted panel can then be lifted out. Be careful of sharp edges at this point. Jack brackets may need to be removed first if you have them mounted to the front of the panel.



### Remove spot-welds

**5** These are the pieces remaining that need to be removed on both sides. This is the trickiest part of the whole job. They're bonded in and have two spot welds. There are three layers of material here. You need to drill the heads of the spot-weld just enough to break through the first (inner) layer and into the second with the 11mm bit. Then cut the lower horizontal line as close to the wing panel as possible. Score the panel bond along the joint before wiggling the panel free. Be careful you're not damaging the wing as you wiggle the panel.



### Make capping fit

**6** Trim the remainder of the capping protruding into the vehicle. This area will be partly hidden under the roof sides so it's up to you how you want to shape it. I like to trim it back just up to the rivet hole nearest the cut and then pop a fresh rivet in.



### Flap to get flush

**7** Now you can tidy up the opening. Cut the inside top corners off to match the shape of the riveted ridge. Trim the lower edge 2mm to 3mm above the floorpan. To get this completely flush, and to de-burr all the edges, use a flap disc.



### Offer up tubular bar

**8** Offer up the main bar to make sure the bodywork is clear, especially where you've trimmed the top inner corners. These should just clear the bar when the front brackets are over the existing mounting holes. If they touch, take them down with the flap disc.



# How to



## Line up sidebars

**9** Drill out the rivet in front of the spigot nearest to where the bulkhead was (inset). Drill this out to 11mm. Position the left-hand sidebar upside-down on top of the 11mm hole on the right-hand side capping and mark the holes, then repeat with the other side.



## Install support brackets

**10** Centre-punch and drill out these two new holes to 11mm. Repeat step nine on the other side and do the same. Drill out the remaining rivet with a 5mm bit. Put sidebar supports in place and loosely fit the panhead bolts without washers.



## Drill lower mount

**11** Push lower mounting plate of the sidebar support towards the outside of the vehicle and, using the plate as a guide, drill through the box panel front with an 11mm drill bit. Hold bracket in place with a bolt as you drill the other two holes. Repeat for the other side.



## Fit anchor plates

**12** You may need to drill out the three holes to 12mm so they can locate into the backing plate correctly. It's easier to do from inside the rear wheelarch. Once they're lined up, bolt through – but remember to leave them loose for some adjustment.



## Bolt up bar

**13** Before securing main brace bar to the side support brackets, use a 90° spike tool (inset) to remove plastic dust caps from mounting positions on floorpan. Attach loosely to one sidebar support (both if you can) to allow as much movement as possible.



## Gentle persuasion

**14** Use a dead-blow hammer or rubber mallet to tap the main bar into position so it aligns with the bolt holes in the other support bracket. Secure with both bolts and tighten without clamping the bracket completely. Switch from side to side, tightening evenly.



## Work round all bolts

**15** You can expect the front floorpan brackets to be misaligned. Systematically work your way round all the fixing bolts, going from side to side so the frame is secured evenly. Use the dead-blow hammer to align the holes in the floorpan with the brackets.



## Anchor plates

**16** On pre-300tdi vehicles, refit seatbelt retainers through the brackets, or drill 11mm holes into the floorpan bracket and use the supplied anchor plates to secure the bar in place. If the supplied anchor plates don't fit, use individual anchor plates for each bolt.



## Fill the gap

**17** Refitting the roof and sides is the reversal of removal. Washers aren't used for the panhead bolts because they interfere with the seal strip under roof sides. Dab paint on the heads, lower roof and mark where seal touches. Cut the seal if it interferes. Done! **LRO**