



Adam's thinking: 'I bet it doesn't stay this clean for long'

HOW LONG?
Build and fit:
around 2 hours

HOW MUCH?
£1266

HOW HARD?

Project 90

Vehicle: 1991 Defender 90

Engine: 300Tdi

Mileage: Now shows 59,302, but this is speedo number 3

What we're doing: Fitting a rear storage drawer



Fit storage drawer

LRO's 90 carries a lot of kit, and we're messy, so a storage drawer makes perfect sense, explains Neil Watterson

You'll need

- A large working area
- Workbench/table

Tools used

- Screwdriver
- Screwdriver bits
- 10mm, 13mm and 17mm spanners and sockets
- Drill
- Pilot drill and 8mm drill bit

Safety advice

- Wear goggles when drilling and when working under the vehicle
- Wear gloves – some of the edges and galvanising can be very sharp
- Wear safety boots

Defenders, especially 90s, have very little storage space. Well, usable storage space that is – the load area is big enough but if you want to keep kit close to hand, you don't want it buried under everything else. A storage drawer is a great addition – you can still fill the back up but get to kit below it.

We're fitting one of the new Black Widow drawer kits from Boab (boab.biz, 01451 821305). They have a standard drawer and come with vehicle-specific 'wings' to adapt them to fit perfectly – and it means they can be swapped between vehicles if you change your Land Rover in the future.

These are supplied flat-pack form to reduce transportation costs. Plus, as you don't have to pay for them to be built at the factory, they're cheaper too.

The heavy-duty rollers, frame and drawer make it ideal for our recovery gear – heavy stuff which needs to be as low down as possible. The additional storage space to the side of the drawer – an essential gap if the drawer is to avoid hitting the door stay – is just the right size for the ground anchor pins I carry.

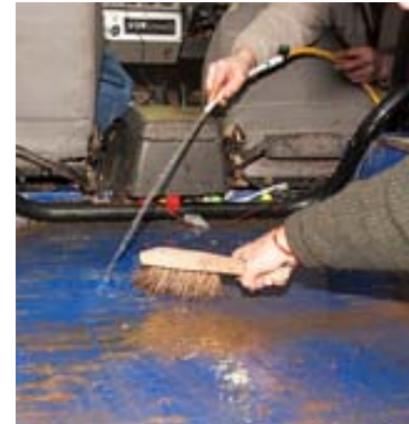
It's no more difficult to put together than a typical piece of flat-pack furniture – all of the holes are pre-drilled and rivet nuts are already installed.

Work methodically and follow the instructions here and the drawer will be easy to build and fit. It'll take the best part of a morning, but at least you'll have saved some cash over the ready-built price!



The Expert Adam Stanford

Adam is the hired help at Boab when kit needs to be installed – he's as at home building other people's kit as creating his own. His day job is photographing archaeological digs using his TDCi Defender 110 Utility-mounted aerial camera.



Clean the interior

1 The rear load area is bound to be a mess if your Defender has seen any off-road use, so get a hose and brush on it, and give it a good clean. If you've got carpet fitted, give it a good vacuuming.



Build the outer frame

2 The frame is made from three pieces of galvanised steel. The bolt holes only line up one way, so it's clear how it goes. The frame unit is shown upside-down; the roller holes should be at the bottom.



Attach the rollers

3 There are six rollers on each side – four along the base and two halfway up. Feed two bearings onto the bolt followed by a washer – serrated side away from the bearing – and attach to the frame.



Fix the front base plate

4 The front cross bracket fixes to the opening end and is attached with countersunk screws. Don't fully tighten the screws yet. We fitted it with the lip outwards to reduce the amount of dirt getting under it.



Fit the other cross pieces

5 The second cross piece fits just behind the front piece and has captive nuts. There's a third one at the back. It should extend out to the side of the door hinge. Tighten all the fixings.



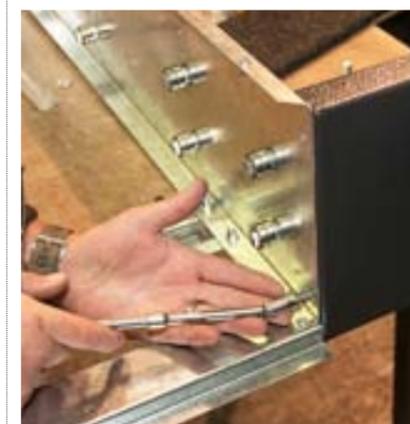
Fit the lower rollers

6 The drawer uses a pair of rollers in the base of the unit to help prevent the drawer from sliding around when it opens and closes. Build the rollers up in the same way as step 3.



Fit the wings

7 Because the drawers are designed to fit a variety of different size vehicles, wings are supplied to make up the gap. Attach the front and rear ones using the countersunk screws. Tighten them up.



Attach right-hand fascia plate

8 Two fascia plates are supplied – one for vehicles with carpets and the other for those without. This is secured with three countersunk screws, with the plain edge towards the back of the vehicle.



Modifying our wings

9 The first batch of drawers were made for TDCi Defenders, with their angled wheel boxes, so we have to modify our wings to fit. The next batch will be supplied with the correct wings for the Defender's year. **12**



Fit the drawer bump stops

10 Two small rubber bump stops need to be fitted to the back of the frame to absorb any impact when you close the drawer and reduce movement in transit. Push the points through the holes and seat them.



Fit the side bracket

11 The left side (looking at the drawer in the back of the vehicle) has an angular plate fitted to the top edge. This is to attach the top wooden trim panels to when the drawer is fitted into the vehicle.



Attach left-hand fascia plate

12 There's another fascia plate on the left side of the frame. There is just one piece for this side – you line this side against the wheel box. Attach using three countersunk screws. Tighten the screws fully.



Build up the drawer

19 Slide the end panel down the inside of the drawer, with the lip on the top edge facing outwards. Loosely fit all of the fixing screws – they will go through the frame first, then the end panel.



Fit the front handle

20 Slide the front panel down the front of the inside of the drawer and lift the handle/lock unit into place. Fix the panels into place with countersunk screws. Tighten all of the screws, front and rear.



Slide the drawer into place

21 Lift the drawer into place and slide it onto the rollers. It should open and shut with a smooth movement. Try fitting the top panel if it doesn't – it may spread the sides slightly, stopping it from gripping.



Fit the drawer stop

13 You don't want the drawer to slide out completely when you open it. Attach the stops to both sides, just above the second rollers. Don't fit the ones to the drawer itself until the drawer is actually fitted.



Lift the frame into the vehicle

14 Wear gloves if you want to protect your hands from cuts and lift the drawer frame into the vehicle, checking it sits squarely (or as squarely as possible in a Defender...).



Drill the fixing holes

15 Butt the frame to the wheel box on left side. Test fit the trim panels to line it up – there's a cut-out for the filler on later models. Drill the fixing holes in the rear floor – not too deep if you have a rear fuel tank!



Fit the drawer stops

22 The drawer stops are fitted from inside the drawer. Slide the drawer almost the whole way in then use a pointed tool to poke a hole in the drawer sides. Attach the stops on both sides with the screws.



Fit the top panel

23 Mark the fixing hole locations in the trim panels, lift the top panel into place and butt it up to the removable and fixed panels already fitted. Slide the final panel into place – it should be a snug fit.



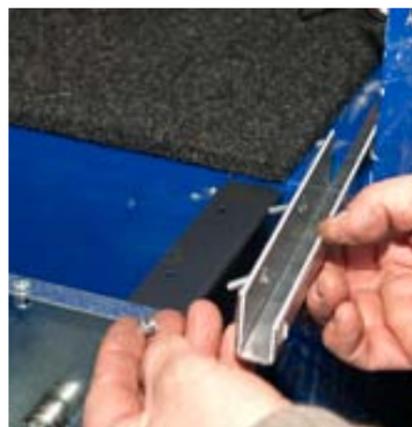
Screw the panels down

24 Work around the panels and screw them down. You may have to nudge the panels to get them to seat correctly so don't tighten the screws until all of the screws are in place.



Bolt the frame down

16 The kit is supplied with channel bolts to make securing it a one-person job. Put the rectangular washer over the bolt and drop it through the hole. Then wind the bolt on from under the vehicle.



Fit the edging trim

17 The high-wear leading edges of the wooden trim get aluminium edges to protect them from damage. This is attached to the front fascia plate with countersunk screws and nuts.



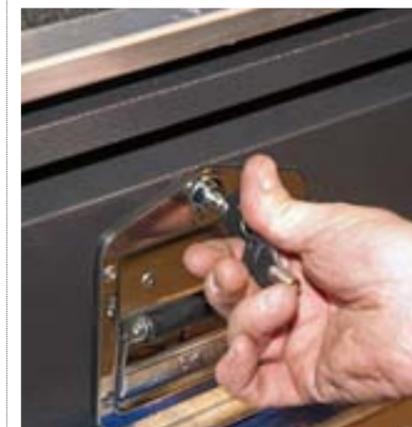
Fix the storage area trim panel

18 The area between the drawer and the right hand box is an additional storage area. The rear trim is fixed in place using countersunk screws; the front is a lift-out panel giving access to the storage.



Fit the end trim

25 The main panel and left-hand side panel also have trim strips. Line them up with the existing trim. Fix them into place with the self-tapping screws – you shouldn't have to pre-drill the wood first.



Check the lock mechanism

26 The drawer should open and close smoothly and click shut reassuringly when closed. Check the lock works smoothly if you are going to be using it as secure storage and put the keys onto your keyrings.



Load it up

27 With everything fitted it's just a case of peeling the protective plastic off the trim edges and loading the drawer and storage with kit. It won't stay looking good for this long in our hands... **LRO**