

# Rufus Dashboard Part 1.

## **Introduction:**

The original dashboard was a plywood mess that had started to delaminate. Before stripping the dashboard out of the car I mocked up a good seating position and sat in the car to check areas of dashboard visibility. The end result was that the gauges were in a good position but the switchgear was awful. I decided to use the original dashboard as a template to cut out a new dashboard and the holes for the gauges.



**The original dashboard looks better than it was.**

## **Dashboard material:**

The choices include wood, aluminium, painted, fabric covered or something else. I decided to go for something else. Emma my TD has a very nice faux wood dashboard which is made from a 'Burr Walnut' blank sold by Europa Spares. I had previously bought an engine turned aluminium dashboard blank from them for Mungo my Lomax 224 and at the time I had looked at their faux wood (plastic based) range of dashboard blanks.

Contacting Europa Spares revealed that they were out of stock and their supplier had gone out of business. They informed me that they would contact me when the dashboard blanks became available again. After three months I hadn't heard from them so contacted them again. Their answer was they had not been able to source a supplier. A request on the NG Forum produced a NOS Burr Walnut blank from NG Cars.

When I collected the dashboard I discovered it was slightly different from Emma's dashboard. The NG Cars one was also slightly thicker which prevented the old fashioned Lucas style toggle switches being fitted direct to the dashboard; a metal switch plate will be required to fit early toggle switches.

## **Note.**

*The dashboard blank from NG Cars was still in the original protective film and complete with Europa Spares label so they have changed suppliers at least once before.*



**This Part Number shows a double size blank.**

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#### **Dashboard fitments:**

Before I could make the dashboard I needed to confirm what gauges, switches and warning lights etc. I was going to fit. The choice of gauges was easy, the original gauges fitted in their original positions. Warning lights would be added to and switchgear would be dependant on what (if anything) could be fitted to the steering column.\*\*

#### **Note.**

*\*\* It did not take long to decide to abandon all switch gear mounted to the steering column. This was mainly for aesthetic reasons as well as limited room.*

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#### **Gauges:**

1. Speedometer.
2. Tachometer.
3. Combined oil pressure and water temperatures gauge.
4. Fuel gauge.
5. Voltmeter.

With the exception of the combined oil pressure and water temperature gauge (I bought NOS) the other gauges were refurbished by giving them a good clean and renewing the chrome bezels.

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#### **Warning lights:**

I decided to use the original headlamp beam and ignition warning lights, in the speedo and tachometer gauges respectively.

The following additional warning lights will be mounted either side of the combined oil pressure and coolant temperature gauge.

1. Indicate left. (Green).
2. Indicate right. (Green).

Below the combined gauge I will fit an oil pressure warning light\*\* (Amber).

**Notes.**

*\*\* An oil pressure warning light is not normally fitted to an MGB but can be fairly easily fitted.*

*Due to my choice of a USA spec. tandem brake master cylinder there was no facility to fit a brake fluid low level warning (Red) light.*

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**Steering column switches:**

1. Ignition lock and starter key.

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**Dashboard switches:**

These will be detailed, along with method of fitment in Part 2. of this article.

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**Making the dashboard:**

The original dashboard was very crude and had started to delaminate so I eased off the top layer with a scraper blade. The top layer was around 4mm thick, just thick enough to use as a template to guide a 'guided router cutter'.

Whilst the dashboard securing holes in the body were central on the body scuttle flange the holes in the dashboard were right on the edge. With the body on its nose for ease of working I offered up the top layer of dashboard to check the accuracy of fit in the body, at this time I could see that the placement of the lift-the-dot fasteners for the tonneau cover had been drilled in the position occupied by the dashboard and were preventing the dashboard being positioned close up against the body. After removing the fasteners I offered up the dashboard and it was a much better fit.

With the fit of the top of the dashboard confirmed I smoothed the edges to make a nice template then clamped the template to my burr Walnut dashboard blank. At this stage there are two options available.

1. Pencil mark the outline of the template onto the blank and cut the blank with a fine jigsaw blade, fretsaw or bandsaw; or
2. Use a guided router cutter.

I know from experience that cutting laminate with a saw blade can chip the edges so to prevent this on the side that shows you need to mark out and cut from the reverse side if using a jigsaw. I decided to use a router with the template guiding the cutter blade.

**Note.**

*If you decide to use a router then remember the golden rule. 'Go round the outside of a board in an anti-clockwise direction and round the inside of a hole in a clockwise direction'.*

**Cutting out the dashboard:**

After clamping the template in position on the reverse side of the new burr walnut blank I marked out the outline of the dashboard and the five gauge holes with a felt tip pen.

The felt tip pen left a 2mm thick line so after removing the template I cut on the outside edge of the line with a very fine blade in the jigsaw. This produced a very slight chipping that didn't extend past the inner side of the felt tip pen line.



With a parallel guided router bit\*\* in the router and the template secured to the dashboard blank I removed the waste (the thickness of the felt tip pen line).

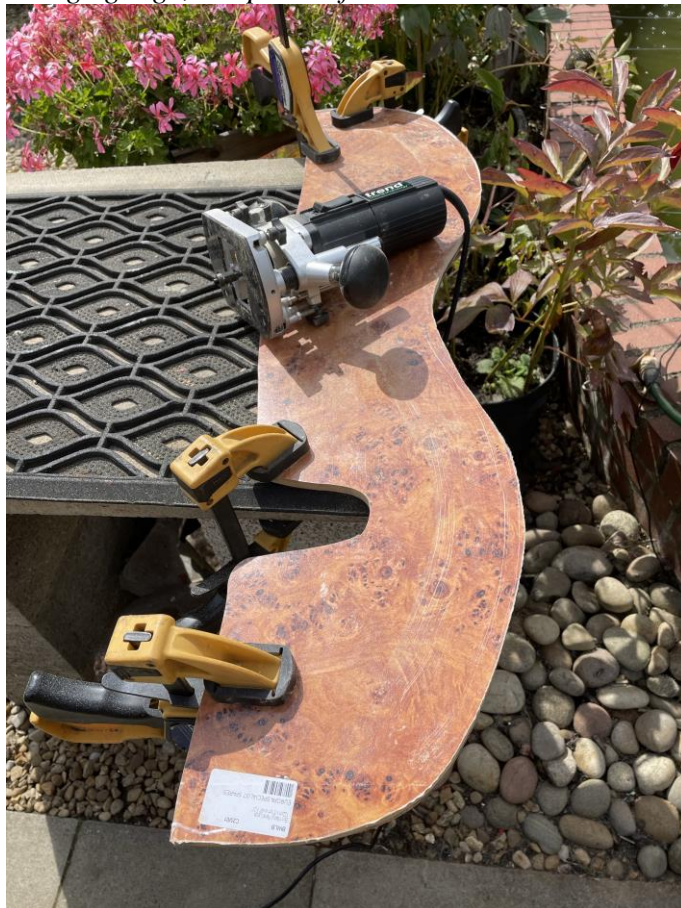
**Note.**

*A parallel guided router bit has a bearing on the end which is the same diameter as the router bit. Adjusting the depth to allow the edge of the bearing to just clear the dashboard blank will result in a smooth edge without any chipping.*



**A bearing guided parallel cutter.**

*This is the piece cut out for a large gauge; the plastic film has been removed to show the finish.*



**The template is clamped to the dashboard blank and the assembly clamped to the workbench.**



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### **Cutting out the gauge holes in the dashboard:**

For a nice neat job there is no substitute for a hole saw or a router. For the small 2" gauges I used a hole saw. I didn't have a 4" hole saw but know from experience that the use of a jigsaw wouldn't produce a good finish I invested £15.89\*\* at Screwfix and bought a 102mm hole saw to make the speedo and tachometer holes. For cutting large holes with a hole saw you need to clamp the work to a pillar drill otherwise vibration will produce a larger hole

### **Note.**

*I already had the hole saw arbor, if you haven't got one then you will need to add another £4.65.*

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### **Cutting the warning light holes:**

The majority of warning lights will suit thicker dashboards and I simply drilled the holes with the correct size 'Forstner' bit, these leave a very neat hole. Clamping the dashboard to a piece of wood will ensure you don't split the reverse side laminate when the bit breaks through.



**With the gauge and warning light holes cut out.**

### **Note.**

*The blank looks dull which is because the protective film is still on the surface.*

*The raggy edge is the frayed protective film, the edges of the laminate are pristine.*

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### **Cutting the switch holes:**

The vast majority of switches that suit old cars are only suitable for thin metal) dashboards. To fit them in a thicker wooden dashboard you need to remove material from the reverse side of the dashboard using a router etc. the problem is that this weakens the dashboard considerably. A better method is to fit the switches to a metal plate and secure the metal plate to the dashboard; this is how it was done on the old cars (Jaguar's etc.) with quality wooden dashboards. Full details of this work will be in Part 2.

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**Summary:**

The original dashboard was delaminating and had been chiselled out at the back to take the body of the switches; this had weakened the dashboard considerably. Additional to this the switches and warning lights were in the wrong position for me.

On the plus side the shape of the dashboard looked right, allowed room for my knees and the gauges were correctly positioned to be visible from the driver's seat. The old dashboard therefore made a perfect template for making the new dashboard and for marking out the gauge hole positions.

Part 2. of this article will describe the chosen switches and their fitment.

**To be continued.**