

## B184 DERBY RESTORATION DBS STORY APRIL 2018

By Noel McIntosh-Cobb

“It is remarkable to find a car in such original condition and hence it represents a unique opportunity”, reported the BDC Derby advisor, Ken Lea. It was complete with all the factory parts and tools as supplied in 1935. The body style is exceptionally rare as it not just a drop head but a 3 position *sédanca coupe*. All the mechanical and body component numbers match the 1936 Bentley Motors build sheet. I have the original detailed HJM coachworks instruction sheet.

The car arrived in Sydney in late 2012 and I enjoyed much excitement driving it and playing with the various features.

The rear body wooden frame was thin and rotten; the inner steel guards were rusted into 3 pieces all loosely held together and filled with scouring pads (stainless no less). Fortunately the alum skin was in excellent condition with only a minor repair to one front wing. The wood trim veneer was sound but in need of some patching and refinishing. The Las Vages desert sand had turned to cement, encasing all the chassis parts.

This, my last restoration, was to be a labour of love and I aimed to enjoy the whole proc. The mechanical work on Royce's cars is as great a pleasure as the motoring, especially if the car is very original and unmolested. This car was so original that the front brake hubs even had the rarely found lead Bentley warranty seal.

My restoration involved reclaiming parts or restoring to their original condition. Very few body parts were remade. I am an inventor so I look for problems to solve which has been my downfall on many occasions and delayed the completion by over a year.

I removed the body, stripped the chassis and mechanical parts and reassembled it, and did all the mechanical, electrical and woodwork. It gave me an immense amount of pleasure—most of the time.

I aimed to restore to original standards and finishes. Nicely worn parts were cleaned and slightly re-worked to retain the patina of experience, like smile lines in a happy face. For example, small scratches and chips were accepted in running board channels, wood decoration, gear lever knob, etc. Aluminium engine parts and firewall could have been polished or painted, but I decided to only clean the surfaces to restore it back to the condition when it left Bentley. I did strive for a very high standard in the mechanical and electrical rebuilds, without compromises.

The sandblasted chassis was painted and given to me for reassembly. That took a couple of months. I painted hidden chassis parts with the magic red/brown protective paint, as did BM when they assembled the chassis.

The alum body was stripped in a huge army methylene di-chloride bath. It looked like it did on the workbench in 1936, with pencil markings. Beware of chemical stripping the bonnet as you cant remove the stripper under the separate beading without removing and re-riveting the bead.

In the meantime I joined a friend's woodworking shed to make the complicated, wood frame. The body was complete so I had a pattern for every stick of wood.

I repaired the veneer on the wood door trim with walnut cut on a big band saw. The old French polish was removed by scraping and sanding before re-French polishing again. French polish can be fixed again and again with ease so I'm not worried it gets marked with rain. As if!!

The frame sticks were screwed together and finely shaped to fit the old aluminium skin. It is more difficult to fit a frame into an existing skin than skinning a wood frame. Lanolin paste was applied between the frame and skin to stop squeaks and corrosion. Sound deadening Dynamat covers the interior of all the panels, especially the inside of the steel rear inner guards and the footwell. My restoration experience with my first Derby B37CW showed much of the road noise came from these two areas.

The whole interior was re-upholstered/retrimmed in leather, Wilton carpet, hooding and lining all from Bill Hirsch. I French polished the wood trim and re-lettered the instruments with Letra set I commissioned. Extra sets are available to the right member! I have found Linoleum in my other RR and Derbys which is so practical as it doesn't get the "English-wet-carpet-smell). It is in my boot/trunk

The paint colour was discussed extensively with Colin Hughes, the RREC expert who has sample colours of trim and paint who is familiar with original colours. Again I consulted with two well-known Sydney sculptors as they paint 3-D objects. I was guided by the original 1936 colour scheme of "French Grey Dark and lighter grey headland". The body colours also had to match the limited greys of the hooding and red leather. Anyone who has worked with a colour expert will know there are 100 shades of greys and reds and all the colours must work together. The paint is Colour Base with a clear lacquer to cover paint edges where the colours meet. It was interesting to see the high cost of flattening the orange peel, maybe 50% more to get a glass finish.

The end results are a delight and give me a great deal of satisfaction, as the colours on my car look stupendous!

#### Engine.

I found the block was re-sleeved and pistons smaller than nominal size by .005". Strange as they could have ground the old pistons to a smaller size then fitted appropriate sleeves. So why re-sleeve when new pistons were supplied by BM as shown in their 1936 records.

Greg Millard gave me NOS Mk VI rods with modern bearings and I fitted thin wall bearing to the main bearings. I did this on my other Derby which has done 25,000 miles. It simply involves removing the white metal from the steel shells and shims then fitting the modern bearings shells all with the right crush.

Changing or modernising parts has many disadvantages so be careful in accepting recommended changes. You are changing parts designed by very experienced engineers because you are told the new is better.

The car has the Light Clutch, which was in Derbys for a year, between the 20/25 Heavy Clutch and the great Borg & Beck. I don't know where they got the ideas but it has a 1/2" thick floating disc like a modern brake rotor held off the flywheel by 6 light springs. Not a heat sink like a flywheel. The clutch plate is line on both sides and the pressure plate has 8 big springs held in by threaded caps.

I was lucky to pickup NOS cam bearings at the 2013 RREC Annual (\$120) so I treated my cam to a regrind by Retro Track & Air (UK) Ltd who are able to cam-grind concave and convex profiles.

Good chrome platers are difficult to find, especially those who are prepared to listen to the voices of experience. For example, the hollow radiator shutters are easily distorted if too much heat is generated by the polishing wheel and result in poor reflections when the shutters are closed. Mine were redone 3 times to get them right.

Now, this 70+ yearold owner, 80 years later, is thrilled to own the “new” car of his dreams. May he, like Mrs Patten, enjoy the car into his 80s and do some of the long distance motoring for which he is well known.