The Straight Eight

By Bert Ward, 1978

Volume 11 No. 138 of the factory paper "Rolls-Royce News" published in January 1963 announced the retirement of W.A. Robotham (Rm) a director of the Company. An account of his 44 years with Rolls-Royce reveals some interesting background to the Post-War cars and excerpts are reproduced for interest.

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"When war was declared, not unnaturally all facilities available for the manufacture of motor cars were immediately switched to Merlin production, and this included the capacity for producing prototype parts. Overnight, therefore, an excellent design and development team was left with nothing to do. At this point in time, the slender assets of the Rolls-Royce Motor Car Division - as it was later to be called - consisted of drawings of various prototype post-war motor cars, including prototype F-head six-cylinder engines, and half a dozen coach-built motor cars.

It appeared essential, therefore, that if Rolls-Royce motor car production were to be re-started successfully at the conclusion of hostilities, the team of technicians should be kept together; the drawings should be preserved; and the prototype cars kept running or at least stored in a safe place.

The first step was to ship one comprehensive set of drawings to the USA, together with two prototype cars to Canada, and to store a second set of drawings and tracings in the strong-room of a bank at Ashby-de-la-Zouche. The Navy were kind enough to co-operate by transporting the drawings to Canada on a destroyer.

At the beginning of the war, we had two of the postwar rationalized experimental cars running tests in France and in these I had just done a comprehensive Continental tour. One was a seven-passenger limousine known as Big Bertha, and the other - the forerunner of the post-war Continental Bentleys - the Corniche. The big car got across the Channel safely, but the Corniche was destroyed by a bomb on the quayside at Dunkirk, and all that returned to us was the set of ignition keys - a sad loss of much excellent development work.

Where to locate the remainder of the prototype cars and the personnel presented rather an acute problem. However, investigations showed that there was a derelict iron foundry at Belper called Clan Foundry which was unoccupied and thither the motor-car design, detail and development team was transferred in stages over a period of nine months - the advance guard, headed by Harold Hunt, moved in under conditions of acute discomfort. The buildings had a dirt floor, was infested with rats, and the roof leaked.

By this time, I was operating as Chief Engineer of Tank Design in London, and it occurred to me that, having already produced six- and eight-cylinder versions of our engine, if we could make a four, there was a good possibility that the Army would be interested in the whole range of engines for their wheeled vehicles.

One of our experimental cars had a light but adequate coach-built body and was fitted with a bored-out 6.3 litre eight-cylinder engine, now known as the B-81. As can be imagined, the performance of this car was quite phenomenal and it achieved a mean average both-way speed of 101 mph along the Grampound Road, Cornwall, and climbed Porlock gradient on top gear (there were no automatic gearboxes in those days) on the same day.

It was demonstrated to various top-level soldiers, including General Sir Charles Dunphie (now Chairman of Vickers) and aroused great interest; in fact, the car earned for itself the name "Scalded Cat".

The next move was to design and manufacture the four-cylinder version of this range, and this we fitted to a small coach-built car which we called the "Ripplet". The engine was very flexibly mounted, and the car only weighed 30 cwt. It was surprisingly smooth and had a reasonable performance. The engine was fitted with a standard single SU carburettor, having a long zinc-base alloy throttle body. I used this car at the Ministry for a time and one day, returning from lunch and crossing Parliament Square with a senior Army officer in the car, we stopped at a red light, and my driver could not restart. I investigated the trouble and, after looking under the bonnet, found that the carburettor had broken off across the throttle body, due to excessive movement of the engine when idling, and was lying in the undertray. A quick trial showed that the carburettor could be refitted and that the two parts of the jagged fracture were intact. My driver, therefore, drove back to Shell-Mex House with me, in a bowler hat and striped trousers, sitting on the wing of the car, holding the carburettor in place with my foot! I often wish I could have heard the story related by my passenger when he returned to his Mess.

By the end of the war the adoption by the War Office of what had by then become known as the B-range of engines had considerably advanced the development of the engines to be used in our post-war motor cars. At the same time, it resulted in continuing work for the War Office in post-war years work, which has produced valuable orders for the Company.

Much improvement and many installation changes have subsequently been made by Crewe to the B-range but it is a source of great satisfaction to the Clan Foundry team to know that many thousands of the range have been made to date.

The post-war pressed steel body, the first fully-tooled body ever to be made by Rolls-Royce, was projected at Belper by Evernden, and a home-made wooden mockup for inspection by the directors was constructed at Clan Foundry. Mrs Whyman made a great contribution to the trim by responding to an SOS to bring her sewing machine and sewing all through the night so that the car would be ready when the directors came to view it on the following morning."

W.A. Robotham ("Rm") from "Rolls-Royce News", Volume 11 No.138

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