The Heritage of the 100M

by Gary Anderson

What’s all the fuss about the 100M? A few weeks ago, for the umpteenth time, that discussion topic surfaced again on the Healey AutoX list, leading your editors to decide to take another shot at writing, for the umpteenth time, a definitive answer.

On the surface, the question is about current market value of one particular variation of the Healey 100. But peel back that layer, and the actual tale tells us much more, about the state of the industry at the time, about period marketing and production practices, and about several facets of that fascinating character, Donald Healey. So grab a cup of coffee, and let me tell you the version of the story about several facets of that fascinating character, Donald Healey.

Once Upon a Time …

At the Earls Court International Motor Show in October 1952, Donald Healey, former rally driver and owner of a small high-performance automobile company in Warwick, England, and Leonard Lord, one of the magnates of the large and successful British Motor Corporation, reached an agreement that would resonate in automotive history to this day.

BMC with its network of English suppliers would manufacture and through its international sales network distribute the sleek two-seat sports car that DMH and its little company had designed around BMC’s Austin A90 engine. DMH, as he was known to everyone in the English auto industry, contracted to continue testing and development, and to promote the new Austin-Healey brand in motorsports events.

The plan was that the bodies would be assembled and trimmed by Jensen’s in West Bromwich, then shipped to Longbridge, where the mechanics and other components would be installed. To prepare for marketing and testing activities, the Donald Healey Motor Company (DHMC) would make 20 more prototypes while Jensen was gearing up for production of the Austin-Healey bodies.

Four of these prototypes were specifically intended for development use, and two were entered to race at the 24 Hours of Le Mans in June 1953. Since the primary purpose of the entry was to make a marketing splash at this internationally renowned race, the cars were only lightly prepared, and ran in full street trim, complete with bumpers. Diving lights were added for additional visibility during night running, the screens were removed and replaced by small racing windshields, and a bonnet strap was added to comply with racing regulations.

Geoff Healey and Roger Menadue mildly tweaked the engines by installing 1.75 inch H6 carburetors, new intake manifolds, a cold air box and an air duct to provide cool air to the carburetors and balance the pressure of the air supply to the carburetor with that in the fuel chambers. The kit also contained a different distributor with a different vacuum advance and mechanical advance springs that provided a two-stage advance curve, a higher lift camshaft, a steel-faced head gasket that resisted burning from higher cylinder temperatures, and a leather strap and buckles for the bonnet.

Dual valve springs, cups, and seats were also supplied. Through that time, these same parts were already being used on all production Healeys, one of the running changes during early BN1 production. Testing showed the modified engine could increase the standard engine output from 90 to just over 100 brake horsepower (with standard 7.5:1 compression pistons). Note that the P.280 kit did not come with high-compression pistons.

The kits could be installed at BMC dealers, by independent mechanics, or owners who were handy with tools. Given the format of the P.280 brochure, it is likely that some dealers may have ordered the kits and installed them on their own. They already had stock, and could order the kit before the cars were shipped from Longbridge, which would have meant that the cars were probably shipped over to Warwick, the kits were installed, and then the cars were trucked or driven back to Longbridge to be shipped to the dealers.

Ever the marketer, soon after the kit was designed, DMH had begun a nice sideline business at his own dealership in Warwick. Not only did he install the Le Mans Modification Kit on customers’ cars, but he also offered some options, including louvering on the bonnet and a neat little M badge that could be
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A few financial considerations ... Should you come across a 100M tucked away in storage and wish to pursue a restoration project, be aware that the initial cost of that car is likely to be 2 to 4 times the cost of a similar non-100M roadster.

And furthermore, restoring a 100M accurately can be particularly difficult if the car is missing original, properly marked modification kit parts, especially the distributor, carburetors, or cold air box. These components were manufactured in very limited quantities, and few survive today. Some are out there to be found, but it can take a long time to locate them, and rare original bits can bring a high price. As with all restorations, the more effort that is made to get the details right, in addition to quality craftsmanship, the greater the value should be of the finished product. However, for this to be fully realized at the time of a sale, buyers need to be aware of and appreciate those unique feature subtleties that an excellent car may possess.

affixed with integrated wires to the 100 flash on the grille.

At some point, DHM also began offering high-compression pistons with a smaller dished area in the face of the piston, as an additional tuning option to further increase power. Testing of the kit with the high-compression pistons indicated a yield of 110 bhp.

Additional modifications were also carried out with the installation of the kits. A special bracket was used to clear the cold air box where the left side support rail attached to the underside of the bonnet opening. Initially, in order to swap out the cam, the engine mounts were unboltered from the chassis so that the engine could be raised and shifted so that the cam shaft could clear the left front “X” brace as it was withdrawn or inserted. Later they discovered that by putting a slight bend in one arm of the “X” the cam could be withdrawn while leaving the engine bolted in position.

The one complication to DHM’s modification program (which was available as early as 1954) was that if the customer wanted a louvered bonnet, the original one had to be returned to Jensen, where the under-skin bracing was removed (by drilling out the spot welds) in order to stamp louvers into the skin. Then the bracing was reattached into place (some examples of this work have been found with brazing, though welding is another possibility) and the bonnet was repainted before being shipped back to Warwick where it was re-installed on the car. Interestingly, as Roger Momment has pointed out, bonnets that were louvered in this manner can be identified because the original body number stamped into the left-rear flange of the bonnet would be partially obliterated when the brace was re-welded (or brazed) back in place.

This program of supplying modification kits to Austin and installing the kits at Warwick continued on a relatively low-key basis into the summer of 1955. To publicize the kit, Donald Healey Motor Company Ltd. produced a one-page (front and back) brochure describing the “Austin-Healey 100M with Le Mans Modifications”, and under the Specifications it lists the gearbox as having 3-speeds, which indicates that this flyer was referring to upgraded BNF Healey 100s. There is no indication that records were kept of the number of kits made and sold or installed, either at DHMCo or at Longbridge; certainly none have turned up.

Birth of the 100M

By early 1955, planning was well underway for the introduction of the new Austin-Healey model, the BN2, that would go into production in August and be introduced at Earls Court in October. The BN2 would have a four-speed gearbox, plus overdrive, but continued with the same standard 90 hp engine.

Demand for the modification kits had been slow but steady, so the decision was taken that a production version would be offered alongside the base BN2, once again copying the practice at Jaguar of selling its “XK150 and XK150M models in parallel.

In this plan, the production process would be simplified slightly. Though cars would still be modified at Warwick – apparently Longbridge couldn’t spare the room for the additional activity or manage the complexity of producing two engines that were almost identical – it was decided that some costs of the 100M conversion could be saved by having Jensen build those bodies destined to be upgraded 100Ms with louvered bonnets from the start. With addition of the 100M to the line of 100 models, two-tone paint was also offered as an option, taking advantage of the neat coves that extended from the front fender duct and flash back across the door and to the back of the rear fender; a subtle design change in the BN2 body style. Nevertheless, build records of these bodies show that nearly 200 of them were originally painted in a single color.

Most of the body had been shipped from Jensen’s to Longbridge, where it was assembled into a completed BN2 (with standard engine). It would be transported to Warwick, where the DHMCo would install the 100M modifications – now also including the high-compression pistons that had been a tuning option and heavier anti-roll bar – and the M badge would be wired to the grille flash. The car would then be transported back to Longbridge for shipment to its final destination.

When the first prototype was shown at Earls Court, the marketing brochures and advertising literature called the high-performance BN2 the “100M” – the same practice of adding an M to the basic model number as used at Jaguar and other companies in the period to identify their high-performance model. To the knowledge of this writer, that term had never been used before to describe any variation of the BN2’s with Le Mans modifications, and was used for the first time in October 1955. (Note: In The Healey Story Geoff Healey notes that DHM made the decision to call this model the 100M since he thought that the term “100 Le Mans” was too cumbersome and associated with other brands and models that didn’t have excellent performance.) Of some interest is that the Le Mans Modification kit continued to be available for sale through the end of BN2 production, and that the louvered bonnet and bonnet shop could also be ordered through the BMC parts department. The original DHMCo brochure was republished in the same format, but updated to indicate that the modification kit was for use with the four-speed BN2 transmis.

sion. It also is likely that many standard BN2s that were languishing on dealer floors in 1956 were upgraded with the P.280 kits (plus high-compression pistons and heavier anti-roll bar) to make them more attractive to buyers.

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Curious race spectators admire NOJ 392 which was one of the two cars that ran the Le Mans race in 1953.

Curious race spectators admire NOJ 391, but carrying the inspected mechanical parts and registration numbers of that car, and then was rebuilt as Scrutineering at 1955 Le Mans. This car – NOJ 393 – had quite a history. In the 1953 Le Mans, it was run in place of NJJ 391.
Why Does All This Matter?

This would all be just a matter of historic trivia, were it not for one point. When BN2 bodies were ordered by BMC from Jensen, paint and trim color combinations were specified as well as a number to have louvered bonnets. When these bodies went down the Longbridge assembly line, build cards for each were filled out to indicate, in addition to the Jensen body number, whether the car was right-hand or left-hand drive, the color of car and interior trim, and any options specified in the order. There was also a notation made on the bodies to indicate which BN2s had louvered bonnets. Consequently, this was the first place where information was routinely documented (existence of the louvered bonnet) that might associate a car with its possibly becoming a 100M. Today, an owner can get that documentation certified by applying to the British Motor Industry Heritage Trust for a production certificate. If the car was originally ordered from Jensen’s to be produced with a louvered bonnet, (and thus likely to be modified at Warwick,) the certificate will carry the note that “At this car was fitted with a louvered bonnet, it is a genuine factory-built 100M (or ‘Le Mans’ Model).” However, this is a kicker in all this. The rationale for having Jensen build bodies initially with louvered bonnets was that this would make subsequent conversion to 100M models less costly. However, Geoff Healey states in his book, The Healey Story, regarding the accuracy of the identification of all units with louvered bonnets as being 100Ms: “There is also an added complication as Austin Export sales cars with louvered bonnets to certain markets like Malaysia, where under-bonnet heat was causing complaints.” This suggests that a number of these “louvered bonnet” BN2s (most likely very few) may never have had the 100M mechanical upgrades done to them. Unless an owner has some other written documentation, such as a dealer’s bill of sale or a receipt from DHMCo, there is no way for any subsequent owner to know if the car was originally equipped with the 100M modifications when it was first sold.

Since that time, those BN2s that were modified during the production process – the only units that build records suggest might have been completed as 100Ms without re-writing history since the firm didn’t exist until October 1953, and then only used for cars sold from BMC with the modifications already installed – have taken on almost mythic significance. Even without its original modifications intact (as identified by specific marking, such as on the distributor or carburetors) and in fact sometimes even without any engine at all, a BN2 that can be documented as having originally been a 100M, with its color and a significantly higher premium than a comparable BN2 without such documentation.

The question of how many of those original BN2 convertibles were actually completed as 100Ms without re-design, with fairly large number stamps, with the five digits of the body number stamped on the plate screwed to the firewall. Since it’s very unlikely that the cockpit rail from one body will fit perfectly on another body, if the three cockpit rails have the same body number as shown on the certificate, then the body you’re looking at is in fact the same one that was originally received at Longbridge with that significant louvered bonnet already installed.

The hand-fitting process didn’t just involve the cockpit rails. In addition, that louvered bonnet, the boot lid, and the splash panel also required special hand work and so they were also stamped with the same five digit body number – probably at the same time since the stamping always looks identical on all cars. The bonnet was stamped on the outside of the flange on the left-hand side opposite the cross brace, the splash panel was stamped on the left front flange, behind the bumper and near the left overrider, and the boot lid was stamped on the semi-circular telescoping stay support bracket.

Identification of 100Ms and Le Mans Modifications

With the substantial premium paid by buyers for Healeys that have the documentation that can prove they were among the 640 BN2s originally built having louvered bonnets, over the past 30 years collectors and commercial restorers alike have been scouring the barns and garages in hopes of finding 100Ms that could be restored. As one might expect in this hobby, the scent of money attracted the scam artists as well, and there have been numerous instances of cars that were claimed to be 100Ms that turned out to have the same car numbers as existing cars that were claimed based on other evidence to be 100Ms.

So say you’re in the market for a very collectible, but all accessible Healey – like you want one of these 100Ms. How can you tell if the car you’re looking at, either that shiny one at the Monterey or Scottsdale auctions, or with its bright shiny cold air box and H6 carbs, or that rust-free body without an engine in your uncle’s barn, is actually a 100M?

The first thing always is whether the BN2’s car number or body number indicates that it was one of the 640 fitted on the original build cards or build ledger as having been received at Longbridge from Jensen’s with a louvered hood in 1955 or ’56. Either the seller has the certificate from BMIHT that validates that claim, or you can request a build certificate using the car number (or in a pinch, and for same extra cost, the body number) to see if the BN2 with that number had a louvered hood when it was originally completed at Longbridge.

But what if the car number plate and/or the body number plate is suspiciously new? To validate that the car sitting in front of you is in fact the same one that is documented on the BMIHT certificate, there is one definitive connection. When every body was produced at Jensen’s in the day, there was a certain amount of hand adjustment required to get the trim to fit the body. In particular, the three alloy cockpit surround rails, and the doors or rear shroud on which they’re mounted generally had to be modified to fit properly. As a consequence, once that adjustment was complete, those three cockpit rails were stamped on the underside, with fairly large number stamps, with the five digits of the body number stamped on the plate screwed to the firewall. Since it’s very unlikely that the cockpit rail from one body will fit perfectly on another body, if the three cockpit rails have the same body number as shown on the certificate, then the body you’re looking at is in fact the same one that was originally received at Longbridge with that significant louvered bonnet already installed.

So then you’re in the market for a very collectible, but all accessible Healey – like you want one of these 100Ms. How can you tell if the car you’re looking at, either that shiny one at the Monterey or Scottsdale auctions, or with its bright shiny cold air box and H6 carbs, or that rust-free body without an engine in your uncle’s barn, is actually a 100M?

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The car buyers, of course, were among the care component makers the Le Mans kit, and in addition to being H.75-inch AUC 6040X (most common) or AUC 6040 AA (less commonly found) carbs, they differ from H6 carbs. They installed on other British Marques (e.g. Triumph), which includes some external machining well as some different internal parts such as suction chamber piston springs and mixture needles.

On all original 1.280 kit carburetors, an additional number was hand-engraved on the exterior of each carb under the cast-in number, with the front carb marked 603 and the rear 6047.

The high-performance distributor, with the 2-stage mechanical advance curve, was ordered from Jensen's to be produced with the louvered bonnet, it is a genuine factory-built 100M (or ‘Le Mans’ Model).
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another component in the kit. On the standard BN2 carb, the part number 40495 would be found stamped on the cam, the engine to be disassembled. It is worth noting that due to wear it is not likely that original carb still survive in OM engines. These are also modified lobe profiles that have been developed by machine shops when re-grinding camshafts to provide equal, or better, performance.

The final, and most visible differentiating component is the icider cold air box, complete with an accurate air duct fastened to the front that directs air from the carburetors. Once again, the marketing savvy of Donald Healey was displayed on this component, with a plate prominently attached saying “This car has been fitted with a ‘Le Mans’ modification kit.”

The original cold air box was fabricated from sheet aluminum, about 0.050 inch thick, and had two steel plates with welded nuts attached to it using aluminum flush rivets for mounting to the carburetors. Originals often show extensive cracking of the aluminum radiator, but the rivets have not been done with great care, careful inspection will at least indicate how selective the resolder has been in the restoration.

The original belts were purchased locally in Warwick from a harness maker, so the work done is fairly crude and usually hand-stitched. Since many of the aftermarket reproductions have not been done with great care, careful inspection will at least indicate how selective the resolder has been in the restoration.

customer, recognizing that there was money to be made and demand to be juiced by selecting and qualifying automobile, provided that the modifications were both effective and obvious.

It was evident in its use both of the Le Mans conversion process and the high-quality tuning kit to upgrade the Healey 100. Of course, this upgrade process was used far in his own machine tool facilities (much as Roush does today with Mustangs) and later in the development of the OM modifications for use with the BMC production parts (a Bill面Le Mans kit). Many who may have learned some of his wisdom from DMH while driving for him in the early stages of his career.

We also know that the emphasis in that pre-computer age was on getting the work done, rather than keeping accurate and comprehensive records. Cars were tracked on the assembly line with index cards filled out by hand and then filed in file boxes, and the cumulative production records were maintained by hand-copying the data from each build card into a ledger book at the end of the line. Both Anderson and Momen have seen microfilm copies of the original build cards, and Anderson, as a special favor, was once shown the original ledgers kept in the archives of British Motor Industry Heritage Trust, almost akin to seeing and touching an original copy of the Declaration of Independence.

But the bottom line to all of this is that today there is a monetary consequence. The problem is that, with three-quarters of a century later, as deep-pocket collectors have discovered that high-quality original automobiles can be a worthwhile and enjoyable pursuit, and the paucity of original records means that there are some serious discrepancies in collector values.

On the one hand, the authenticity can be proven by the factory records to have been part of the set of 640 cars that went down the Longbridge assembly line with standard Healey 100M specifications as it was in the production period. A fresh car, for which the additional specifications, different advance springing can be fitted to the distributor, and H6 carburetors with matching intake manifolds and high-compression pistons can be fitted to the engine, with a consequent marked improvement in performance. Should one desire, a good reproduction of the original cold air box, complete with reproduction tags can be fitted to the engine, and a lowered bonnet, leather retainer strap, and two-tone paint job can be added to complete the tribute to the original car.

Unfortunately, what one cannot do is turn the car into a 100M. That term, far better or worse, is reserved for only cars that can be “documented.” The rest of us can simply watch members of this wealthy strata of the marketplace bid against one another for the privilege of bragging about the specialness of their cars. Those individuals who were fortunate enough to find a 100M while they were still little known, or their heirs, can take some solace knowing that their lucky stars might pay off some day, though eventually some portion of this value might go the way of Pontiac GTOs and other cars with inflated valuations.

For the rest of us, we can sit on the sidelines and comment on the phenomenon, while enjoying the story.

My Thanks to Roger Manton and Lynn Martin for their comments and contributions to assembling and writing this article. For any one who is interested in a first-hand account of the very cases that are in this story, an Internet search on “1953 Le Mans Gordon Wilkins” will produce the article that Wilkins wrote on his experience as one of the Healey drivers of the very first Healey 100M cars that gave rise to the rest of the story.