BRITAIN'S FIRST "SUPER-CAR"

The ASTON MARTIN V8

Mention Vantage among Aston enthusiasts and it immediately conjures up images of high performance, far exceeding that of the normal cars. Aston's new Project Vantage is a showcase for future technology and performance that are synonymous with the name. While Vantage has been used since the early 1950's the origin of the name has remained obscure and a detailed analysis of the cars has never been made. A new book by Kean Rogers due this year sheds light on Vantage history and details Britain's first real "Super-Car" the V8 Vantage. Here is part 1 of a 2 part series.

ORIGIN OF THE SPECIES

"The Vantage" first appeared in the sales brochures of January 1951, in the guise of a more powerful engine option for the DB2. For over 36 years the origin of the name had remained obscure until a chance meeting at Aston Martin Lagonda in 1997.

A tour of the works had been organised by a young Mr. Robertson for himself and his father, an ex-Aston employee from the Feltham days. As it transpired Robertson Sr. had in fact penned the "Vantage" moniker.

Alan Robertson, newly arrived from the David Brown parent company in Huddersfield, shared an office with John Wyer at Feltham, both having arrived at the same time in early 1950. The name "Vantage" was chosen after leafing through a thesaurus looking for suitable tags for higher performance variants of the then current model, the DB Mk II.

Offering 125bhp, versus 105 bhp for the standard engine, Vantage represented the tuned state for Aston Martin's fine handcrafted automobiles and was easily distinguished by a "V" in the engine number and obviously higher levels of performance.

Interest in marketing the name had waned by 1953 when the Vantage engine became standard issue on the DB2/4, with no mention of it appearing in sales information, the "V" in the engine number the only indication.

It wasn't until early 1962 that the Vantage name appeared once again in Aston's marketing literature.

DB4 VANTAGE

For the first time "Vantage" appeared as a distinct model name in the form of the DB4 Vantage. The Series IV DB4 was the recipient of the name; however, it represented more than just an uprated engine specification.

Visually it was distinguished from the standard car by a restyled front-end with sloping faired-in headlights (as was then current on the shorter wheel base DB4GT), but with the longer wheelbase of the normal DB4 and a rear seat, while the GT was strictly a two seater. The DB4GT instrument panel was fitted as standard. Under the bonnet was a Special Series engine, an intermediate step between the DB4 and GT specification. Identified by a /SS suffix, it benefited from three SU carbs in place of the standard two, higher compression ratio of 9:1, special pistons, larger inlet and exhaust valves, hotter plugs, a revised advance curve on the distributor, modified intake manifolds and throttle linkage with an air intake plenum chamber instead of individual air cleaners and an oil cooler placed below the radiator. The resultant output of 266 bhp was 26 bhp up on the standard unit. In all 45 DB4 Vantages were built between March and October 1962, beginning with chassis number DB4/951/R and ending at DB4/995/R. Until the advent of the V8 Vantage in 1977, these were the only Vantage models to carry body modifications distinct from the standard car.

First of the breed, DB4 Vantage, Chassis DB4/951/R Engine 370/950/SS; finished 23/3/62.

BRITAIN'S FIRST "SUPER-CAR"

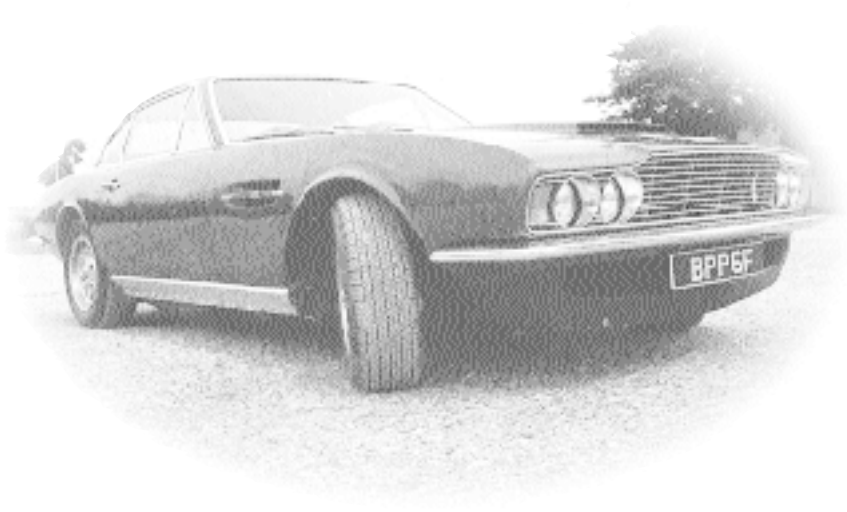
DB4 VANTAGE GT

With the advent of the Series V DB4 in late 1963, Vantage and Vantage GT variants were on offer in both coupe and convertible form.

The DB4 Vantage GT had the same engine as the DB4GT, producing 302bhp @ 6000rpm with the aid of triple Weber carburation and a twin plug head.

In all 104 Vantage saloons and 32 convertibles were built, along with only six DB4 Vantage GT saloons and one convertible.

The Series 5 sported a longer body than the earlier car and the majority of these were built with sloping faired-in headlights. Only by looking at the engine could the Vantage be distinguished from the standard car.



DBS/5002/R, the prototype DBS V8 Vantage in 1969. It achieved 172 mph during testing in Italy with a 384bhp carburettored engine. it was to be another eight years before the first V8 Vantage became available.

VANTAGE VARIANTS

Subsequent Aston Martins models of all body styles were offered with the Vantage engine option. The difference between these and the standard car was only the state of engine tune, offering approximately 10% more horsepower.

From the DB5 of September 1964 onwards, through DB6, DB6 MKII and DBS these tuned models carried Vantage badges affixed to the side air intakes behind the front wheels, outwardly distinguishing them from their lesser brethren. Upon closer inspection the suffix /V can also be found in the engine number.

Two special DB5s were built with 4 litre twin plug GT engines. Known as DB5 Vantage GT's one was a convertible, the other a coupe (DB5C/1515/R & DB5/1467/L)

By the time the DB5 Vantage was built engine tune was the only difference from the normal car.

DBS V8 VANTAGE

Plans were made to offer the DBSV8, the first of the V8-engined Astons introduced in 1969, in uprated Vantage form but they never saw production.

Mike Loasby wrote of Development Project No. 1416 in June 1969, " In view of the enhanced speed potential of the DBS car when fitted with a 5.35 litre V8 engine in both normal and a future Vantage specification, it was decided to carry out high speed tests in order to prove the vehicle. The following aspects received particular attention: Stability and Aerodynamics; Tyres: Engine and Gearbox at sustained high speeds."

During tire testing in Italy the prototype achieved 172 mph with a 384 bhp engine fitted (the standard DBSV8 only offered 310-320 bhp and was good for 160 mph). The quarter mile came up in 13.5 seconds at 106 mph and 0-60 mph was done in 5.7 seconds, times comparable with the V8 Vantage that was to appear in 1977.

AM VANTAGE

The classic, single-headlight AM V8 saloon (no longer a 'DB', the company's post-war saviour David Brown having sold the company in February 1972) appeared in May of 1972 and alongside it the AM Vantage, a tuned six cylinder car rather than a Vantage version of the V8.

It represented a departure from custom as Vantage was usually reserved for the tuned version of the standard production series of car. This was unusual in the fact that no standard six cylinder car was available, a point that has confused many automotive historians over the years.

Concurrent with Aston's usual practice since the DB5, a V in the engine number, in this case the suffix /SVC, will identify the AM Vantage. It was to be another five years - and after another change of ownership - before the first V8 Vantage joined the range. It was worth the wait, the next Vantage was quite different from anything that had gone before.

The last AM Vantage, AM/6070/RA, a departure from normal as no standard six cylinder car was available.

BRITAIN'S FIRST "SUPER-CAR"

THE V8 VANTAGE

At last Aston - and Britain - had its first top-drawer 'supercar'. The V8 Vantage car that went on sale in February 1977 was quite different from anything that had gone before. It was now a distinct model, although that was not the original intent, as opposed to a higher performance variant of the standard car.

The concept was first conceived soon after the company reformed in 1975 under the auspices of George Minden and Peter Sprague, with Alan Curtis and Denis Flather soon joining the partnership. Engineer Mike Loasby, who had been with company in the late 70's and worked on the prototype DBSV8 Vantage, came back to head up engineering.

The V8 Vantage as such did not begin life as a production car. It was initially envisioned as a conversion kit to be installed by the Aston Martin Service department at Newport Pagnell; much in the fashion they now offer 6.3-litre conversions for the V8 and Virage cars.

Realising the standard V8 lacked power and performance, especially in the face of ever more stringent emission and safety legislation, Loasby developed a package to be offered through the service department for existing V8s, as Aston Martin did not have the resources to develop a new model at that time. The car released to the press in February of 1977 was a standard V8, in fact the factory demonstrator, converted to Vantage specification by the experimental department.

DEVELOPING THE BEAST

The Vantage engine owes a debt of gratitude to the development of the "space-age" Lagonda of 1976.

David Morgan, Aston Martin engine man since 1968, was responsible for the engine's initial development and takes up the story. "With the Lagonda we found the V8 lacking in power and torque. This was due to a number of reasons."

"First we had to modify the airbox and inlet manifold to fit the engine into the Lagonda's rakish nose, it's bonnet line being significantly lower than the V8's. This substantially reduced power and brought down the torque figure also. Additionally it was mated to Chrysler's new Torqueflite automatic with a lock-up torque converter. The Lagonda ended up with a big flat spot around 2500 rpm; add in the substantial weight of the car and performance was not up to Aston's normal level. We developed the bigger valves to restore some of the lost power. Combined with lower-lift camshafts the result was a return to the original power level for the V8, but down from a peak at 6,000 rpm to 5,000 rpm with maximum torque now occurring at 2,500 rpm instead of 3500 rpm."

RACING IMPROVES THE BREED

"Mike Loasby was always pushing for more performance from the V8. Having got the big valves in existence he thought we should use them in building an uprated V8. So we put big valves into the V8, fitted 48IDA carburetors and higher-lift camshafts using the profile from the Fuel Injected V8, which actually dates back to the Vantage C engine of the DB6.

The first engine produced around 375/380 bhp. We used the "hot" engine in a standard V8, chassis number V8/11429/LCA, for testing and raced it at AMOC club meetings in 1976 to prove its performance. It raised quite a few eyebrows on the track as it looked like the standard car but didn't go like one."

"At the same time Robin Hamilton was developing his Le Mans car and Mike Loasby wanted to give Robin assistance so he paid for a wind tunnel session."

"We made the spoiler and bits and pieces to go on V8/11429/LCA and tested it in the tunnel with Robin's car. Combining the aerodynamic aids fitted to both cars resulted in a nice taut car, quieter and more controllable at speed."

"We had the first experience of what aerodynamics can do. Hence the Vantage body work was born, basically with a 10 per cent reduction in drag and we almost deleted any lift."

"The biggest gains were made blanking off the grille. Air was brought in under the bumper through the spoiler and had no negative effect on cooling. The drag reduction was amazing."

The prototype undergoing handling tests at Silverstone in 1977.

Robin Hamilton's Le Mans car in the wind tunnel at MIRA. Lessons learnt here led to Vantage bodywork.

Ready for action in the AMOC St. John Horsfall Tropy race in 1977. It came in first!

BRITAIN'S FIRST "SUPER-CAR"

Under full acceleration the Vantage gets down on it's haunches and just goes. No drama, just unrelenting power at the driver's disposal. Here the V8 Vantage prototype, V8/11470/RCAC, performs for cameraman Roger Stowers. With 0-60 in 5.4 secs. and a top speed of 170 mph there's no need for a rearview mirror!

HOW TO BUILD A VANTAGE

The Vantage prototype was created from the factory demonstrator, V8/11470/RCAC, a 1976 V8. Not all the modifications that follow found their way onto the production cars, but they certainly endowed the prototype with startling performance. More than one journalist came unstuck with the car, returning it to the factory worse for wear as they had underestimated just how powerful the Vantage was!

The engine used modified 48IDF2/100 carbs with a new manifold developed especially to mount them.

The pistons were standard ones machined to allow clearance for the bigger 2.1" valves and inlet ports bored out to 1.5" and polished.

Revised camshafts with the same profile as the "fuel injection" exhaust camshafts were fitted and the timing revised with more overlap on the induction side.

The distributor was remapped with a different advance curve replacing the standard unit. A larger airbox with 4" inlet trunking, instead of the normal 3", was fabricated for better breathing to the carbs.

The head was skimmed and the compression ratio brought back up to between 9.0 and 9.25:1. Hotter spark plugs, NGK BP6EV, coped with the increased compression and larger exhaust manifolds guided the spent gases into a new cruciform exhaust with a larger diameter of 2.5".

Power was 360-bhp (370) at 5800 rpm on the test bed with 375-380 available after running in. Torque was a respectable 380 lb./ft at 4000 rpm.

Aerodynamic accruements included a bolt on alloy spoiler on the tail, plugged bonnet air intake, blanked off radiator shroud incorporating two 7" Cibie driving lights, deep fiberglass chin spoiler/air dam and perspex head lamp covers.

The view of a V8 Vantage most people will see!

HANDLING THE POWER

The chassis benefited from tweaking used on V8/11429/LCA in club racing. Suspension was stiffened all round with adjustable Koni dampers and slightly stiffer springs rates, the springs were cut down 1 coil to achieve this. A stiffer front roll bar and more progressive rubber bump stops were fitted at the front. At the rear ride height was lowered through cut down springs and revised bump stops fitted for a demon tweak on the de dion rear end to promote a different roll steer effect.

Radially slotted front discs reduced brake fade and increased feel while an increase in castor angles gave more steering feel.

Tyres increased in size to 255/60 VR15 Pirelli CN12s fitted on spacers at the rear to increase the track.

All told the V8 Vantage could be easily distinguished from the standard car. Unlike previous Vantages, that were tuned versions of the production series, the first V8 Vantages were radically uprated vehicles. They also received "V" suffixes in both their chassis and engine numbers. V8/11640/RCAV was the first production car, built specially for George Minden, one of Aston's saviours in 1975.