

ASTON MARTIN
A PRODUCT OVERVIEW

Part IV



Baby Astons
to
Casino Royale

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With thanks to

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www.astonmartin.com

I have been working in the world of Aston Martin for the past 25 years. I came upon the marque in my general course of business in the motor trade and have become as enthusiastic as my customers about Aston Martin and their products.



My son Matthew and I with my first Aston Martin

There is an aura about Aston Martin, a heritage far beyond simple statistics. Winning at Le Mans, victory in the World Sportscar Championship, the Zagatos and Royal patronage would be enough for any car manufacturer. Aston Martin goes beyond that – every car has its character and every owner, real pride in his or her car.

Any market place has pitfalls for the unwary and opportunities for the unscrupulous. What I have tried to produce is an overview of Aston Martin cars that can act as an introduction to the marque. It is my view, coloured by my experiences and the use of my library of Aston Martin books as a reference. Most of the Aston Martin photos are from my own archive and I have been fortunate enough to enjoy handling each of these glorious cars.

This may represent your first foray into the world of Aston Martin; it may supplement your own knowledge. Whatever your point of reference, I hope this overview adds to your enjoyment.

Philip Jones
Byron International

ASTON MARTIN DB7

| | |
|--------------------------|--|
| Production dates: | October 1994 – April 1999 |
| Top Speed: | 157 mph |
| Acceleration: | 0 – 60 mph 5.8 secs 0 – 100 mph 14.4 secs |
| Chassis numbers: | SCFAA111VK 100001 - 102703 |
| Length | 182.3 inches (4631 mm) |
| Width | 71.6 inches (1820 mm) |
| Height | 50 inches (1268 mm) |
| Ground clearance | |
| Track | Front 60 inches (1524 mm) Rear 60.2 inches (1530 mm) |
| Wheelbase | 102 inches (2591 mm) |
| Turning circle | |
| Dry weight | 3,797 pounds (1,725 Kg) |
| Engine | 3.2 straight six supercharged |
| Capacity | 3228 cc |
| Cylinder bore | 91mm (stroke 83 mm) |
| Compression ratio | 8.3:1 |
| Power output | 335 bhp @ 5,600 rpm |
| Fuel Injection: | Zytec electronic multi-point sequential |
| Chassis | All steel semi-monocoque with steel panels Composite bonnet, front wings, sill and boot lid |
| Transmission | Getrag 5 speed gearbox 4 speed GM Automatic option |
| Clutch | Hydraulically operated |
| Front suspension | Independent, unequal length wishbones with anti dive geometry Coils springs over telescopic dampers, anti roll bar |
| Rear suspension | Independent wishbone with drive shaft as upper link Longitudinal control arms, coil springs over telescopic dampers |
| Steering | Power assisted rack and pinion |
| Brakes | Teves anti lock control Front 11.2" discs (285mm) Back 11.6" discs (295mm) |



1995 Aston Martin DB7
Chassis No: SCFAA1115SK 100165
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Aston Martin had always looked to the support of its shareholders but economic conditions of the early 1980's meant that for a change, Newport Pagnell was propping up its shareholders' businesses. Up to 1987 there had been a number of changes in stockholdings but it was in that year that, Victor Gauntlett had realised that with ever more stringent legislation on automotive production, exhaust emissions and type approval, Aston Martin needed a more stable financial platform and assistance in research and development. Later that year, the announcement was made that Ford had acquired 75% of Aston Martin Lagonda with Gauntlett remaining as Chairman and retaining 12 ½ % equity with the remaining 12 ½ % in the hands of Peter Livanos.

In 1990, Victor Gauntlett had instigated thoughts of a "small" Aston Martin but had departed for pastures new before that idea came to fruition on the company's stand at the 1993 Geneva Motor Show under the direction of Ford's Walter Hayes. In deference to the new Life President it was named the DB7 and was a truly collaborative success.

Walter Hayes had persuaded a reluctant Ford board to invest in the project and he had been able to call on Ford expertise and resource to bolster the Aston Martin engineers. Utilising the old Jaguar XJ220 factory at Bloxham, Aston Martin Oxford Limited, a joint venture with Tom Walkinshaw, became the home of the new car. Tom was also instrumental in the design of the car insofar as a young Scottish designer had left Ford in 1990 and become General Manager and Chief Designer for TWR's design studios. That designer was Ian Callum and he was tasked to design the new small Aston.

The designer claimed that the design processes leading up to the DB7 owed their generation to his childhood when a family friend had a DB4. The brief was that the car had to be clearly a 1990's car whilst paying due homage to the DB heritage. Callum grew to understand that the old DB's looked the way they did because the cabin got narrower as it gets towards the tail. Combining these design cues with a muscularity in the rear wings, shaping of the body corners and giving the car a long raking backlight delivered a car that, whilst a little wider than the DB6, was virtually identical in overall length.

Ian Callum described the old Aston Martin grille as having facial characteristics, "...a contented, elegant, slightly arrogant smile that no other car could ever have. Its pure James Bond... It's Sean Connery, that car!" But Aston Martin heritage isn't Bond, it's racing – what was needed was a very elegant, very simple design.



1996 Aston Martin DB7
Chassis No: SCFAA111XVK101218

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Callum knew there was no place for "hair shirt nostalgia" on the interior. However, Walter Hayes rejected the first efforts as too stark and by blending a combination of traditional veneers and softer colours, the final effect was traditional Aston Martin in the shell of a modern sports car. When you sank into the hand sewn Connolly hide, you had to have an emotional vista – as Ian Callum concluded, "...why should people on the outside have the best view of it.

ASTON MARTIN DB7 VOLANTE

| | |
|--------------------------|--|
| Production dates: | October 1996 – 2003 |
| Top Speed: | 152 mph |
| Acceleration: | 0 – 60 mph 6.5 secs 0 – 100 mph 17.6 secs |
| Chassis numbers: | SCFAA311 – TK 201001 |
| Length | 184 inches (4646mm) |
| Width | 72 inches (1830 mm) |
| Height | 49 ½ inches (1260 mm) |
| Ground clearance | |
| Track | Front 60 inches (1524 mm) Rear 60.2 inches (1530 mm) |
| Wheelbase | 102 inches (2591 mm) |
| Turning circle | |
| Dry weight | 4,132 pounds (1,875 Kg) |
| Engine | 3.2 straight six supercharged |
| Capacity | 3228 cc |
| Cylinder bore | 91mm (stroke 83 mm) |
| Compression ratio | 8.3:1 |
| Power output | 335 bhp @ 5,600 rpm |
| Fuel Injection: | Zytec electronic multi-point sequential |
| Chassis | All steel semi-monocoque with steel panels Composite bonnet, front wings, sill and boot lid |
| Transmission | Getrag 5 speed gearbox 4 speed GM Automatic option |
| Clutch | Hydraulically operated |
| Front suspension | Independent, unequal length wishbones with anti dive geometry Coils springs over telescopic dampers, anti roll bar |
| Rear suspension | Independent wishbone with drive shaft as upper link Longitudinal control arms, coil springs over telescopic dampers |
| Steering | Power assisted rack and pinion |
| Brakes | Teves anti lock control Front 11.2" discs (285mm) Back 11.6" discs (295mm) |



1997 Aston Martin DB7 Volante
Chassis No: SCFAA3117VK 201479

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The Volante soft top version of the DB7 was planned from the beginning and the development of a dedicated convertible design began once the form of the coupe had been established. But the two cars were treated as separate entities with no thought of compromise.

“We actually clay modelled the raised roof” recalled Ian Callum in a recent interview, “and I worked closely with the trimmers at Aston Martin to learn the constraints coming from the hood material and the folding mechanism, and to ensure that the hood had the correct form. The skills of the trimmers ensured that the silhouette of the raised roof reflects the purity and elegance that characterised the rest of the car.”

The end result is that, from the edge of the doors forward, the Volante is virtually identical to the coupe. However the rear panels are redesigned to produce a shape with a longer boot lid and stowage space for the hood, though this was not designed to fold out of sight. What was out of sight was the extra stiffening and the strengthening of the screen surround which delivered some degree of roll over protection.

To satisfy US type approval, a larger rear bumper was fitted pushing the overall length up by 3 inches. The tailored hood was operated by electric controls and the overall weight of the car raised a total of 150 kilograms. So in spite of the otherwise unchanged specification (no rear anti roll bar) slower acceleration and lower top speeds resulted.

The construction of the DB7 was a departure from established Aston Martin practice. Rather than the traditional hand-made aluminium skin attached to a steel platform, the new car had a steel semi-monocoque bodyshell with steel panels together with composite bonnet, sills and boot lid.

The bodies were made in Coventry and then sent to Rolls Royce in Crewe for painting and finally to the new facility at Bloxham where engines, running gear and interior trims were fitted. The installation of a new paint plant at Bloxham in 2000 shortened that production process and put Aston Martin in closer control.

The light alloy, twin camshaft supercharged straight six engine had four valves per cylinder while the Eaton (Roots type) supercharger ran off a multi grooved flat belt. The engine was designed to run on unleaded petrol and to meet the emission standards anywhere in the world.

It developed 335bhp at 5600 rpm and driving through a 5 speed Getrag gearbox gave a top speed of 157 mph to go with a sub six second zero to sixty miles per hour.

The resources that Walter Hayes was able to bring to the development of the DB7 made it probably the best tested and prepared car ever from Aston Martin. Its early announcement and presentation at Geneva in March 1993 allowed the car to be seen in public during its crucial final development phase. It meant that a total of 30 prototypes were driven in every condition from the heat of Arizona to the cold of snow driven Scandinavia.

When originally shown the car was presented with a Targa top – it was more of a removable sunroof panel with its own carrying case with the main roof structure in place when it was removed. However, research, of customers’ opinion, showed that good air conditioning was preferred on a coupe with a genuine soft top requested by the fresh air fanatics.

Inevitably, it was not long before lure of performance and product development saw the first departure from the standard production car. It was conceived as a plan to develop a single make racing series and Prodrive, the race and rally specialists were asked to develop two prototypes.

ASTON MARTIN DB7 VANTAGE

| | |
|--------------------------|--|
| Production dates: | March 1999 August 2003 |
| Top Speed: | 185 mph |
| Acceleration: | 0 – 60 mph 5.2 secs 0 – 100 mph 11.9 secs |
| Chassis numbers: | SCFAB121 – XK 300001-304458 |
| Length | 184 inches (4666mm) |
| Width | 72 inches (1830 mm) |
| Height | 48 inches (1238 mm) |
| Ground clearance | |
| Track | Front 60 inches (1524 mm) Rear 60.2 inches (1530 mm) |
| Wheelbase | 102 inches (2591 mm) |
| Turning circle | |
| Dry weight | 3,916 pounds (1,780 Kg) |
| Engine | 6.0 litre V12 |
| Capacity | 5935 cc |
| Cylinder bore | 89 mm (stroke 79.5 mm) |
| Compression ratio | 10.3:1 |
| Power output | 420 bhp @ 6,000 rpm |
| Fuel Injection: | Electronic multi-point sequential with Visteon EEC V Transistorised engine management |
| Chassis | All steel semi-monocoque with steel panels Composite bonnet, front wings, sill and boot lid |
| Transmission | Tremex 6 speed gearbox 5 speed ZF Automatic option with traction control |
| Clutch | Hydraulically operated twin plate |
| Front suspension | Independent, unequal length wishbones with anti dive geometry Ball jointed kingpins |
| Rear suspension | Coils springs over telescopic dampers, anti roll bar Independent wishbone with drive shaft as upper link Longitudinal control arms, coil springs over telescopic dampers |
| Steering | Power assisted rack and pinion |
| Brakes | Brembo brake system with Teves anti lock control Front 14" discs (355mm) Ventilated, cross drilled steel Back 11.6" discs (295mm) Ventilated |



1999 Aston Martin DB7 Vantage Automatic
Chassis No: SCFAB123XYK 300128

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Prodrive took two cars and undertook a weight loss exercise – all electrical controls for windows and seats were lost as was the glass in the side windows – lightweight aluminium window frames held acrylic sheets instead. Aluminium radiators were introduced while TWR further enhanced the engine performance by 50 bhp and a new gearbox and clutch were fitted to absorb the power. Unfortunately there was insufficient interest in a one make series and the completed cars found their way to “gentleman racers”.

Around 1998 there was collaboration with Alfred Dunhill adding luxury Dunhill items and accessories to the car and resulted in some 79 cars being marketed. Aston Martin Sales in Mayfair also instigated a “special” known as the DB7GTS II with a number of cosmetic feature differences, but there was still a performance focus at Aston Martin that led to Project Vantage.

This was a show car that surfaced at the Detroit Motor Show in 1998 and reflected designer Ian Callum’s desire to put the car, and Aston Martin, back into the muscle car league. Featuring aluminium extrusions bonded together with carbon fibre mouldings to create a chassis platform and wheels pushed as far out of the wheel arches as possible – the car made use of V12 power and added items like a paddle shift gearbox. It was very much a precursor to the 1999 Geneva Motor Show when Aston Martin launched their new car – the DB7 Vantage.

The only shared item with Project Vantage was the V12 engine, but the new model was still a stunning car. The 48 valve, all alloy 60 degree V12 had been developed by Cosworth and forged in their foundry. It incorporated the latest Formula 1 technology and had a Visteon engine management system capable of processing 1.6 million commands per second.

The car, like the original DB7, had been subjected to a rigorous test programme – not for Aston Martin of the ‘90’s was there to be discoveries about high speed engine problems as they had experienced in the 1960’s with the DB4. The DB7 Vantage had a high speed durability test running for 48 hours continuously at 165 mph in hot mid-summer in Southern Europe. The new engine produced a massive 420 bhp and a performance potential of over 180 mph and there had to be other areas of development in the car. The Brembo brakes, run through a Teves four channel anti-lock braking system, had ventilated, cross drilled front discs of 14” diameter.

Special 15 inch alloy wheels were specially developed with 9 inch rims at the rear and 8 inch rims for the front wheels. Added to that were an advanced traction control system and revised suspension. New upper and lower wishbones linked a new vertical link at the front while at the rear, there was an additional transverse link incorporated. The modifications were completed by Bilstein shock absorbers and updated springs. To accommodate the V12 engine and the associated 6 speed manual, 5 speed automatic or Touchtronic transmission, the underside of the car had to be redesigned. This involved an enlarged transmission tunnel and new front end structure with increased strength and torsional rigidity built into the revised structure.

New cooling requirements meant wider radiator openings and justified the new bright metal grille while new bumpers and integrated sill design blended in the other subtle external differences. Inside the car was standard Aston Martin luxury with Connolly hide, Kenwood car stereo and the introduction of a large red starter button mounted in the centre console.

At missile control, that red starter button would have a large, lockable lever preventing accidental use, such is the power it unleashes. Press the button and almost primeval forces are set free, the initial thunder of the engine settling back into a barely perceptible burble. Engage gear, brace your neck and accelerate – power, beauty and soul.

But buy any DB7 and it will be specified to exactly the demands of its first customer with personalisation of anything from external colour to choice of accessory

ASTON MARTIN DB7 VANTAGE GT and GTA

| | |
|--------------------------|---|
| Production dates: | 2002 |
| Top Speed: | 185 mph |
| Acceleration: | 0 – 60 mph 4.9 secs |
| Chassis numbers: | Within the Vantage Series |
| Length | 184 inches (4666mm) |
| Width | 72 inches (1830 mm) |
| Height | 48 inches (1238 mm) |
| Ground clearance | |
| Track | Front 60 inches (1524 mm) Rear 60.2 inches (1530 mm) |
| Wheelbase | 102 inches (2591 mm) |
| Dry weight | 3,916 pounds (1,780 Kg) |
| Engine | 6.0 litre V12 – recalibrated for fuel and ignition |
| Capacity | 5935 cc |
| Cylinder bore | 89 mm (stroke 79.5 mm) |
| Compression ratio | 10.3:1 |
| Power output | 420 bhp @ 6,000 rpm |
| Fuel Injection: | Electronic multi-point sequential with Visteon EEC V Transistorised engine management |
| Chassis | All steel semi-monocoque with steel panels Composite bonnet, front wings, sill and boot lid |
| Transmission | Quickshift gearbox (GT only) reduces shift displacement by 16% - final drive ration 3:77 -> 4:09 5 speed ZF Automatic option with traction control |
| Clutch | AP twin plate race clutch |
| Front suspension | Independent, unequal length wishbones with anti dive geometry Ball jointed kingpins revised dampers and stiffer bushes Bump stop lowered |
| Rear suspension | Coils springs over telescopic dampers, anti roll bar Independent wishbone with drive shaft as upper link Longitudinal control arms, coil springs over telescopic dampers Additional brace fitted |
| Steering | Power assisted rack and pinion – improved rack location and lateral snubber bushes |
| Brakes | Racing style Brembo brake system with Teves anti lock control Front 14" discs (355mm) Ventilated, cross drilled steel grooved Back 11.6" discs (295mm) Ventilated & grooved |
| Exhaust System | Active sports system with by pass valves |



2003 Aston Martin DB7 Vantage GTA
Chassis No: SCFAB12323K 304176

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In spite of the outstanding performance of the DB7 Vantage, there remained an ethic of continuous improvement within Aston Martin. Nowhere is that better demonstrated, than in the announcement, at the Birmingham Motor Show of October 2003, of the DB7 Vantage GT and GTA.

A review of the specification sees evidence of small gains in every area of the car's performance – the engine power moved up to 435 bhp and the torque went up by 10 pounds to 410 lb ft. A redesigned and shorter gear lever (on the GT) gave a quicker gear change and together with a lower final drive ratio improved the acceleration to get the 0 – 60 mph under 5 seconds. 265/30 tyres on the rear and 245/35 on the front allowed for the additional performance and the revised exhaust helped the breathing.

Better suspension, cooling and reduced lift all contributed to additional performance – but Aston Martin didn't stop there – in 2002, Henrik Fisker, the new Director of Design at Aston Martin met with Andrea Zagato, the third generation of his family to be involved in automotive art. The design of the latest Aston Martin to wear the Zagato badge created in metal in just three months. The car shared the chassis, windscreen structure and interior design of the DB7 Vantage Volante.

The roof, with Zagato's signature "double bubble" and the rear wings were of steel while the rest of the body panels were of hand formed aluminium. The chassis platform and wheelbase were shortened by 60mm and the overall length by a total 211mm whilst the front and rear tracks were widened. The front lighting was DB7 but the wide mouthed "egg box" grille and the pronounced rear wing shaping was reminiscent of the original DB4GT Zagato. In overall terms the design saved 60lbs of weight.

The interior was special to Zagato with hand stitched aniline leather, dyed not colour coated, and quilted. The space behind the passenger's and driver's seats were devoted to luggage with retaining straps and nets. Exactly 100 of these cars were built but they were not the only Zagato designed car produced by Aston on the DB7 Vantage Volante. With the DB7 Vantage Zagato, Aston Martin had tested the market with an exclusive showing to prospective customers amongst the tailored suits of Gieves and Hawkes in Savile Row. For the American market – and truthfully the sunshine states – the DBARI was shown to prospective customers in Los Angeles.

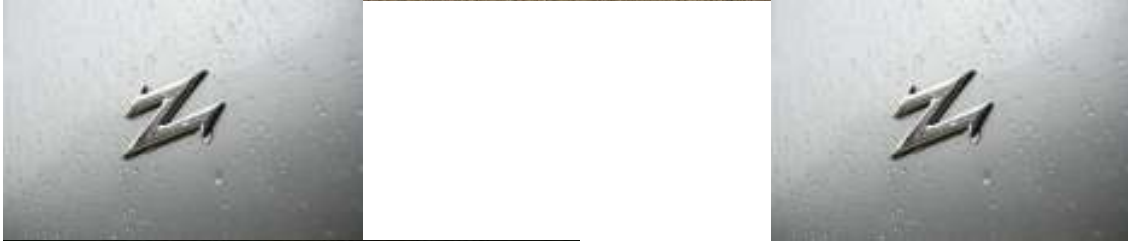
Thursday 2nd January 2003, an Aston Martin press release officially announced a concept Zagato bodied roadster to be built to satisfy a niche in their ever expanding US market place. This unique car was to be manufactured in a similar manner to the DB7 Zagato but as a roofless open two seater-sports tourer. Dr Ulrich Bez emphasised that this car was a first for the company particularly as it was specifically designed for the fair-weather Californian customer who wanted an exclusive Aston Martin.

With a large and distinctive radiator grille, special multispoke 19" alloy wheels and accentuated rear wheel arches, it was a hit with prospective buyers. A production run of 100 cars – all but two of them in left hand drive – sold very quickly with the last of the run being retained by the factory.

As with the Zagato Coupe, the DBARI had the Volante base but, unlike the Zagato Coupe, it was not shortened and it had the power train, suspension and brakes from the Vantage GT. The Vanquish active sports exhaust was fitted with its bypass valve giving the DBARI a distinctive exhaust note.

The braking was improved with the fitment of GT Brembo disc brakes and updated Pagid RS 42-1 front pads. This delivered better sustained performance and removed judder and fade under heavy braking.

Byron International Customer Cars January 2007
(and 2 courtesy of Aston Martin Lagonda)





Maybe an Aston
Martin DBAR1
does need a roof!!





ASTON MARTIN DB7 VANTAGE ZAGATO

| | |
|--------------------------|---|
| Production dates: | 2003 |
| Top Speed: | 180 mph |
| Acceleration: | 0 – 60 mph 5.0 secs |
| Chassis numbers: | SCFAE123-3K700001 - 700100 |
| Length | 176 inches (4481mm) |
| Width | 72 inches (1830 mm) |
| Height | 48 inches (1238 mm) |
| Ground clearance | |
| Track | Front 65 inches (1536 mm) Rear 66 inches (1540 mm) |
| Wheelbase | 99.7 inches (2531 mm) |
| Turning circle | |
| Dry weight | 3,836 pounds (1,740 Kg) |
| Engine | 6.0 litre V12 – recalibrated for fuel and ignition |
| Capacity | 5935 cc |
| Cylinder bore | 89 mm (stroke 79.5 mm) |
| Compression ratio | 10.3:1 |
| Power output | 420 bhp @ 6,000 rpm |
| Fuel Injection: | Electronic multi-point sequential with Visteon EEC V Transistorised engine management |
| Chassis | All steel semi-monocoque with steel panels Composite bonnet, front wings, sill and boot lid |
| Transmission | Six speed manual final drive ratio 3:77 Limited Slip Differential Touchtronic 5 speed Automatic fitted only to 710016 |
| Clutch | AP twin plate 228mm race clutch |
| Front suspension | Independent, double wishbones with anti dive geometry Coil springs, monotube dampers and anti roll bar |
| Rear suspension | Independent double wishbone with longitudinal control arms, coil springs over monotube dampers anti roll bar |
| Steering | Power assisted rack and pinion, column tilt and reach adjuster |
| Brakes | Racing style Brembo brake system with Teves anti lock control Front 14" discs (355mm) Ventilated, cross drilled steel grooved Back 330mm Ventilated & grooved with 4 piston callipers Drum handbrake |
| Exhaust System | Active sports system with by pass valves |
| Wheels and Tyres | Lightweight 18" aluminium alloy with 8 " front rims and 9" rear 245/40 tyres front 265/35 tyres rear. |



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**2004 Aston Martin DB7
Zagato
Chassis No:
SCFAE12343K70052
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ASTON MARTIN DBARI

| | |
|--------------------------|---|
| Production dates: | 2003 |
| Top Speed: | 185 mph |
| Acceleration: | 0 – 60 mph 4.9 secs |
| Chassis numbers: | SCFAD423-3K 800001 - 800099 |
| Length | 184 inches (4666mm) |
| Width | 72 inches (1830 mm) |
| Height | 48 inches (1238 mm) |
| Ground clearance | |
| Track | Front 60 inches (1524 mm) Rear 60.2 inches (1530 mm) |
| Wheelbase | 102 inches (2591 mm) |
| Turning circle | |
| Dry weight | |
| Engine | 6.0 litre V12 – recalibrated for fuel and ignition |
| Capacity | 5935 cc |
| Cylinder bore | 89 mm (stroke 79.5 mm) |
| Compression ratio | 10.3:1 |
| Power output | 420 bhp @ 6,000 rpm |
| Fuel Injection: | Electronic multi-point sequential with Visteon EEC V Transistorised engine management |
| Chassis | All steel semi-monocoque with steel panels Composite bonnet, front wings, sill and boot lid |
| Transmission | Quickshift gearbox (GT only) reduces shift displacement by 16% - final drive ration 3:77 -> 4:09 5 speed ZF Automatic option with traction control |
| Clutch | AP twin plate race clutch |
| Front suspension | Independent, unequal length wishbones with anti dive geometry Ball jointed kingpins revised dampers and stiffer bushes Bump stop lowered |
| Rear suspension | Coils springs over telescopic dampers, anti roll bar Independent wishbone with drive shaft as upper link Longitudinal control arms, coil springs over telescopic dampers Additional brace fitted |
| Steering | Power assisted rack and pinion – improved rack location and lateral snubber bushes |
| Brakes | Racing style Brembo brake system with Teves anti lock control Front 14" discs (355mm) Ventilated, cross drilled steel grooved Back 11.6" discs (295mm) Ventilated & grooved |
| Exhaust System | Active sports system with by pass valves |



2003 Aston Martin DBAR1
Chassis No: SCFAB26313K800025
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ASTON MARTIN V12 VANQUISH

| | |
|--------------------------|---|
| Production dates: | Summer 2001 |
| Top Speed: | 306 kph (190 mph) |
| Acceleration: | 0 – 60 mph 4.7 secs |
| Chassis numbers: | SCFAC133341B 500001 - |
| Length | 184 inches (4665mm) |
| Width | 75.71 inches (1923 mm) |
| Height | 51.89 inches (1318 mm) |
| Ground clearance | |
| Track | Front |
| | Rear |
| Wheelbase | 106 inches (2690 mm) |
| Turning circle | |
| Dry weight | |
| Engine | 6.0 litre V12 |
| Capacity | 5935 cc |
| Cylinder bore | 89 mm (stroke 79.5 mm) |
| Compression ratio | 10.5:1 |
| Power output | 460 bhp @ 6,500 rpm |
| Fuel Injection: | Electronic multi-point sequential with Visteon twin PTEC engine management |
| Chassis | Advanced aluminium/carbon composite construction |
| Transmission | Six speed manual gearbox with ASM/SSM electro-hydraulic Control system. SCP/CAN interface to engine management Limited slip differential 3.69:1 |
| Clutch | |
| Front suspension | Independent aluminium double wishbones,coil springs, monotube damper and anti roll bar |
| Rear suspension | Independent aluminium double wishbones,coil springs, monotube damper and anti roll bar |
| Steering | Power assisted rack and pinion |
| Brakes | Teves anti lock control Front 355mm Ventilated, cross drilled steel grooved 4 piston caliper Back 330mm Ventilated & grooved 4 piston calliper, separate handbrake calliper Electronic brake/engine intervention traction control system |
| Exhaust System | Active sports system with by pass valves |



2002 Aston Martin Vanquish
Chassis No: SCFAC133X2B500201
© BYRON INTERNATIONAL

Ian Callum continued his design themes on to the hugely anticipated Vanquish – such was the anticipation, that at the eventual launch of the car at Geneva in 2001, there was already a quote of a 12 month waiting list.

Inevitably, the body design retained a strong “family “ likeness to the DB7, looking like a bigger, more muscular version of the Vantage – under the skin, it was a very different car. For a start, it was being built at the newly refurbished factory at Newport Pagnell but most importantly, it had an advanced aluminium/carbon composite chassis – making a strong, safe and rigid design, especially suited for low volume production.

The main substructure of the car including the floor and the front and rear bulkheads had been developed in conjunction with Lotus Engineering. It was formed of extruded aluminium sections bonded and riveted around a carbon fibre central transmission tunnel. The inner body side sections formed a single composite piece with carbon fibre windscreen pillars that were bonded to the main substructure to form a single entity – a high strength safety cell.

Ahead of this passenger cell, a steel, aluminium and carbon fibre subframe carried the front suspension and the engine/transmission. The distinctive Aston Martin mesh air intake was in fact a stressed member providing additional protection and accommodating radiators for the engine, transmission and air conditioning. A simple flat surface was developed for the underbody, enabling air to be channelled into a venture section at the rear to aid aerodynamics.

Similarly, together with extruded aluminium side impact beams in the doors, the composite floor, parcel shelf and side rails of the luggage area provided additional deformable crash protection.

For Aston Martin, the biggest change was the structure of the outer skin – in the past, panels had been hand moulded by craftsmen out of individual sheets. The Vanquish body was made from “super-plastic-formed and pressed aluminium – essentially shaped over a mould. It didn’t mean the end of craftsmen – their skills were still needed for fixing the body to the central structure and the fit and finish of every car.

A new 6 litre 450 bhp engine filled the under bonnet with sophisticated fuel and ignition management through the Visteon twin PTEC engine management system. Transmission was through a six speed gearbox. There was a paddle control system for the driver to drive manually but there was also an automatic mode.....and a winter mode, and a sports mode.....the car was built to be the last word in luxury motoring.

The performance of the car was targeted at 190 mph and a 0 – 60 well under 5 seconds, the suspension was all new with front and rear forged aluminium wishbones, coil springs, telescopic dampers and aluminium uprights with anti roll bars.

The waisted aluminium body sides and prominent rear wings covered massive 10J x 19” wheels with Yokohama tyres that were needed to cope with the additional power that was delivered through a limited slip differential with electronic traction control. The car could be specified in 2 seater or 2 + 2. leather from Connolly, carpets by Wilton and a dazzling array of extras and sensors that controlled everything from lights to tyre pressures and wipers.

The final mark of approval for the car was a return of Aston Martin to a starring role in the new James Bond film, Die Another Day. Rockets firing from the grille, machine guns out of the bonnet as well as other devices, put Aston Martin and especially the Vanquish on very public display.

ASTON MARTIN V12 VANQUISH 'S'

| | |
|--------------------------|--|
| Production dates: | Summer 2004 |
| Top Speed: | 331 kph (200 mph +) |
| Acceleration: | 0 – 60 mph 4.7 secs |
| Chassis numbers: | In range of V12 Vanquish |
| Length | 184 inches (4665mm) |
| Width | 75.71 inches (1923 mm) |
| Height | 51.89 inches (1318 mm) |
| Ground clearance | |
| Track | Front |
| | Rear |
| Wheelbase | 106 inches (2690 mm) |
| Turning circle | |
| Dry weight | |
| Engine | 6.0 litre V12 |
| Capacity | 5935 cc |
| Cylinder bore | 89 mm (stroke 79.5 mm) – new hot forged connecting rods |
| Compression ratio | 10.5:1 |
| Power output | 520 bhp @ 7,000 rpm |
| Fuel Injection: | Electronic multi-point sequential with Visteon twin PTEC engine management remapped |
| Chassis | Advanced aluminium/carbon composite construction |
| Transmission | Six speed manual gearbox with ASM/SSM electro-hydraulic Control system. SCP/CAN interface to engine management Limited slip differential 3.69:1 |
| Clutch | |
| Front suspension | Independent aluminium double wishbones,coil springs, monotube damper and anti roll bar |
| Rear suspension | Independent aluminium double wishbones,coil springs, monotube damper and anti roll bar |
| Steering | Power assisted rack and pinion |
| Brakes | Teves anti lock control Front 378mm Ventilated, cross drilled steel grooved 6 piston caliper Back 330mm Ventilated & grooved (2mm thicker than standard Vanquish)4 piston calliper, separate handbrake calliper Electronic brake/engine intervention traction control system High performance brake pads |
| Exhaust System | Active sports system with by pass valves |



Aston Martin V12 Vanquish 2 + 2 Configuration

Chassis No: SCFAC13333B500557

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The Aston Martin V12 Vanquish had established a clear position as flagship for the range. It had replaced the old V8's and worked successfully with its "little brother" the DB7.

However, at the Frankfurt Show in 2004, the DB7 was replaced with the all new Aston Martin DB9 and journalists and customers alike were saying, "Why buy the Vanquish when the DB9 has it all?" Aston Martin's riposte came a couple of weeks later in Paris where they showed what they called "The fastest production car ever produced by Aston Martin" – the Vanquish S.

The simple "S" on the boot lid was obvious, as was the high mounted stop lamp – less obvious was the subtle redesign that helped airflow and contributed to a reduction in the drag co-efficient to a Cd of 0.32. Other styling and aerodynamic changes saw a more rounded, open appearance of the grille for better cooling and a front splitter to improve stability.

Under the bonnet, new cylinder heads with fully machined inlet ports and combustion chambers improved the airflow in the engine while revised engine mapping and new fuel injectors helped increase the power output. The power increased to 520 bhp at 7,000 rpm and new, hot forged connecting rods helped cope with the increased pressures in the engine.

To handle this extra performance, Aston Martin made a few other changes. The Sports Dynamics package that had been offered as an option on other models, became a standard feature of the Vanquish 'S'. It gave improvements in the suspension and steering with stiffer springs and shorter steering arms. The brakes were also upgraded significantly.

The diameter of the front pads was increased by 21% from 355mm to 378 mm which not only increased the swept area but also allowed a 33% increase in thermal capacity meaning more heat dissipation and less fade. Six piston callipers improved the operation of these larger brakes and the use of floating discs gave a consistency of feel to the driver. The rear discs were the same diameter as the standard Vanquish at 330mm but they were 2mm thicker which delivered a 21% increase in thermal capacity. The final tweak to the brakes was a new pedal assembly to reduce travel and improve feel.

Internally, Bridge of Weir leather replaced the Connolly hide in a cabin that mixed traditional Aston Martin finish with contemporary metal interior fittings and finishes.

Having made the statement that this was the fastest production Aston Martin ever, the company took a very responsible attitude to customers who purchased the Vanquish S. They were all eligible for a Performance Driving Course at Millbrook in the UK, Lommel in Belgium or Romeo in Michigan.

With the Vanquish S no longer able to be sold in the US market, production of the Vanquish was no longer viable and in February 2007, Aston Martin announced the last 40 cars would be Vanquish S Ultimate Edition models. Only available in 2 + 2 format, these cars were finished in a unique colour – Ultimate Black – and had semi-aniline leather seating with coarse stitching and a leather headlining. In addition there were chrome interior highlights and each car came with personalised sill plaques noting the owner's name and the limited edition number of the car.

Although the Vanquish had been designed with the structural rigidity for easy conversion to a Volante, Aston Martin did not produce one. However, with the backing of Aston Martin, Zagato produced a Vanquish Roadster and displayed it on the stand at the 2004 Geneva Motor Show. Unlike past offerings, Zagato did not create an entirely new look for the car with changes restricted to the clever hood design and a rounding of the rear lights. In spite of customer interest, the display model was the only one made.

ASTON MARTIN DB9

| | |
|--------------------------|---|
| Production dates: | 2004 |
| Top Speed: | 306 kph (190 mph) |
| Acceleration: | 0 – 60 mph 4.7 secs |
| Chassis numbers: | SCFA01A4G A00001 - |
| Length | 184 ½ inches (4697mm) |
| Width | 73 inches (1875 mm) |
| Height | 51 inches (1318 mm) |
| Ground clearance | |
| Track | Front 61¾ inches (1568mm) Rear 61½ inches (1562mm) |
| Wheelbase | 107 inches (2740 mm) |
| Turning circle | |
| Dry weight | 3762 lbs (1710 Kg) Manual 3872 lbs (1760 Kg) Automatic |
| Engine | 6.0 litre V12 |
| Capacity | 5935 cc |
| Cylinder bore | 89 mm (stroke 79.5 mm) |
| Compression ratio | 10.3:1 |
| Power output | 450 bhp @ 6,000 rpm |
| Fuel Injection: | Electronic multi-point sequential with Visteon EEC V engine management system |
| Chassis | Advanced aluminium/carbon composite construction |
| Transmission | Graziano six speed manual transaxle Touchtronic 2 shift-by-wire Graziano automatic Limited slip differential |
| Clutch | Hydraulically operated twin plate |
| Front suspension | Independent double wishbones with anti dive geometry, coil springs over telescopic dampers, anti roll bar. Ball jointed king pins |
| Rear suspension | Independent double wishbones, longitudinal control arms, coil Springs over telescopic dampers controlled by an anti roll bar |
| Steering | ZF rack and pinion, Servotronic speed sensitive power assistance – column tilt and reach adjustment |
| Brakes | Conti Teves stability control system with ABS, EBD (brake Distribution), TC (traction control), EBA (brake assist) and DSC (dynamic stability control) Front: 355mm Ventilated, grooved 4 piston Brembo monobloc calipers Back: 330mm Ventilated 4 piston calliper, separate handbrake calliper |



2005 Aston Martin DB9 Coupe
Chassis No: SCFAC01A75GA02124
© BYRON INTERNATIONAL

Launched at the Frankfurt Motor Show in September 2003, the DB9 was a huge step forward for Aston Martin. Yes, it replaced the DB 7 but it was more than a successor, it was a move to a new technological car manufacturing base. Ian Callum had moved to Jaguar and, in contrast with past practice, 120 product designers using computer aided design and engineering (CAD/CAE) put a huge raft of technological advances into the new car.

The factory at Bloxham had closed and the DB9 was the first product from the company's new purpose built facility at Gaydon. It was the first car built on Aston Martin's VH (vertical/horizontal) platform with its tub constructed from stamped aluminium sheets, cast aluminium joints and aluminium extrusions bonded together with advanced adhesives and self-piercing rivets.

On to this light, immensely strong structure, the aluminium roof, bonnet and rear wings were bonded together with the composite front wings. The resulting bodyshell was twice as rigid as the DB7 but 25% lighter. The adhesive application at Gaydon involved another first for Aston Martin – a robot they call James Bonder. In spite of this innovation, handcraftsmanship was still dominant and every car took around 200 hours to build.

The strength and rigidity of the new car was tested at Volvo's Safety Centre in Sweden. This was part of an extensive development and testing programme for the car where 93 prototypes were proven in the deserts of the USA, Arctic conditions and at test tracks at Lommel in Belgium and Nardo in Italy.

The new car was stretched by 2 inches in length and 4 ½ inches in wheelbase compared with the DB7 and a stunning design feature were the so called "swan wing" doors. This was a feature that allowed the doors to open and swing up at a 12 degree angle allowing easier access but, more importantly, stopping damage to the doors from high kerbs.

The engine was the third generation of the V12 unit first seen on Project Vantage but it was quite different to the unit seen on the DB7 Vantage. With revised intake and exhaust system, new manifolds, crankshafts and cams all managed by an upgraded engine management system. Most controversially, and as a major departure from past Aston Martin practice, the engine production was moved to Germany. Officially opened on 28th October 2004, the Aston Martin Engine Plant (AMEP) was located within Ford's Niehl engine plant near Cologne. It was a 12,500 square metre facility dedicated to Aston Martin with all engine testing completed during assembly and V8 and V12 units being built concurrently. One tradition that was maintained from Newport Pagnell was that each engine was built by one technician.

In the car, the engine linked with the rear-mounted ZF 6 speed drive-by-wire automatic transmission by a cast aluminium torque tube and carbon fibre propshaft, which endowed the DB 9 with an almost perfect 50:50 weight distribution. That had helped John Miles, the chassis designer, to fine-tune the chassis. Forged aluminium wishbones with aluminium dampers and anti roll bars front and rear together with other performance enhancements like the ventilated and grooved disc brakes with electronic brake assist, electronic braking distribution, traction control and dynamic stability control.

Inside the cabin, seats by Recaro were clothed in Bridge of Weir leather while wood, including walnut, mahogany and bamboo were used only in the centre console and, optionally on the door cappings and were designed to look structural rather than just a veneer. Driver control included a Formula 1 type "paddle" gear shift while the "organic electroluminescent display" was said to be easier to read than traditional LCD screens while the dials included an anti-clockwise swinging tachometer. A Linn audio system specially designed for the DB 9 was standard fitment but an option list allowed customers to personalise their purchase.

Every feature of the car was uniquely Aston Martin.

ASTON MARTIN DB9 VOLANTE

| | |
|--------------------------|---|
| Production dates: | 2004 |
| Top Speed: | 306 kph (190 mph) |
| Acceleration: | 0 – 60 mph 5.0 secs |
| Chassis numbers: | SCFAC02A75G4 B02349 - |
| Length | 185 inches (4710mm) |
| Width | 74 inches (1875 mm) |
| Height | 53 inches (1318 mm) |
| Ground clearance | |
| Track | Front 61¾ inches (1568mm) Rear 61½ inches (1562mm) |
| Wheelbase | 108 inches (2740 mm) |
| Turning circle | |
| Dry weight | 3770 lbs (1710 Kg) Manual 3968 lbs (1800 Kg) Automatic |
| Engine | 6.0 litre V12 |
| Capacity | 5935 cc |
| Cylinder bore | 89 mm (stroke 79.5 mm) |
| Compression ratio | 10.3:1 |
| Power output | 450 bhp @ 6,000 rpm |
| Fuel Injection: | Electronic multi-point sequential with Visteon EEC V engine management system |
| Chassis | Advanced aluminium/carbon composite construction |
| Transmission | Graziano six speed manual transaxle Touchtronic 2 shift-by-wire Graziano automatic Limited slip differential |
| Clutch | Hydraulically operated twin plate |
| Front suspension | Independent double wishbones with anti dive geometry, coil springs over telescopic dampers, anti roll bar. Ball jointed king pins |
| Rear suspension | Independent double wishbones, longitudinal control arms, coil Springs over telescopic dampers controlled by an anti roll bar |
| Steering | ZF rack and pinion, Servotronic speed sensitive power assistance – column tilt and reach adjustment |
| Brakes | Conti Teves stability control system with ABS, EBD (brake Distribution), TC (traction control), EBA (brake assist) and DSC (dynamic stability control) Front: 355mm Ventilated, grooved 4 piston Brembo monobloc calipers Back: 330mm Ventilated 4 piston calliper, separate handbrake calliper |

Although launched at Detroit in 2004, the Aston Martin DB9 Volante was shown well ahead of schedule and it wasn't until the first half of 2005 that the first cars were delivered to the public.

Featuring taut aluminium and composite panels, the DB9 Volante was designed by Henrik Fisker. As a departure from Aston Martin tradition, it had no soft tonneau cover, instead the folded roof fitted neatly into the body under a hard, flush fitting panel. One push of the button and the hood raised or lowered in just 17 seconds.

The design and operation of the roof was possible because the fabric was light, durable material, which allowed for effective stowage meaning no loss of practicality in the car. The rear seats remained unobstructed and the boot space was the same as for the coupe.

The DB9 Volante was conceived at the very start of the model's production and the structural rigidity of the design made it an ideal and practical convertible. Safety was addressed as well because the car had tilt sensors that detected potential rollover accidents deploying twin hoops from the seat headrests to protect the occupants.

Performance motoring remained at the centre of Aston Martin's philosophy and in July 2006, it announced an optional Sports Pack for the DB9. The package featured new, lighter 5 spoke alloy wheels and a revised suspension package that included new spring rates, front anti roll bar and dampers. This reduced the ride height by 6mm and a composite undertray was repaled with a load bearing aluminium panel which added structural stiffness. The Sports Pack could be specified from new or could also be retro-fitted.

The focus on performance and rumours of a return to racing had been fuelled as early as 2002 by the appointment of Jeremy Main as Director of Product Development and Motorsport. On arriving at the company, he conducted a Motorsport feasibility study and upon analysis, it was agreed to establish a separate Motorsport division in partnership with Prodrive.

Prodrive had a strong reputation in world championship motorsport – their Chairman, David Richards was a Rally World Champion co-driver, while his company had taken Subaru to Rally World Championships for drivers and manufacturers.

Worldwide interest in sports car racing at this time was rising and new regulations were drafted by Automobile Club de l'Ouest, who run Le Mans. This would allow production based cars to compete in the 24 hour race on equal terms.

At the launch, David Richards said "At Aston Martin Racing, we will take care of all racing activity for Aston Martin for the next five years. The first venture in this is to build the DB 9 race car."

The DBR9 was officially unveiled to the press on 4th November 2004 at Gaydon. Finished in Aston Racing Green with a yellow nose cone, it had the number 59 to commemorate the 1959 Aston Martin Le Mans victory. Dr Bez, Chief Executive, said "The DBR9 is the first step in our return to Motorsport. I know that our customers and enthusiasts alike are looking forward to seeing Aston Martin racing again at an international level."

ASTON MARTIN DBR9

| | |
|--------------------------|---|
| Production dates: | 2004 |
| Top Speed: | 322+ kph (200+ mph) |
| Acceleration: | 0 – 60 mph 4 secs 0 – 100 mph 9 secs |
| Chassis numbers: | DBR9/101 - |
| Length | 187 inches (4767mm) |
| Width | 77 ½ inches (1978 mm) |
| Height | 52 ½ inches (1318 mm) |
| Ground clearance | |
| Track | Front 61¾ inches (1568mm) Rear 61½ inches (1562mm) |
| Wheelbase | 108 inches (2740 mm) |
| Turning circle | |
| Dry weight | 2420 lbs (1100 Kg) Manual |
| Engine | 6.0 litre V12 |
| Capacity | 5935 cc |
| Cylinder bore | 89 mm (stroke 79.5 mm) |
| Compression ratio | |
| Power output | 600 bhp @ 7,000 rpm |
| Fuel Injection: | Electronic multi-point sequential with Visteon twin PTEC engine management and fuel system. Pi Data system Pectel engine ECU |
| Chassis | Advanced aluminium/carbon composite construction |
| Transmission | X-trac six speed sequential transaxle. Limited slip differential |
| Clutch | Hydraulically operated twin plate |
| Front suspension | Independent aluminium double wishbones, adjustable Koni Dampers and Eibach springs |
| Rear suspension | Independent aluminium double wishbones, adjustable Koni Dampers and Eibach springs |
| Steering | Power assisted rack and pinion |
| Brakes | Front: Servo assisted 330 mm carbon discs with Brembo six piston callipers. Back: Servo assisted 330 mm carbon discs with Brembo six piston callipers. |



The Aston Martin DBR9 was built within GT1 (formerly GTS) regulations as specified by the FIA (Federation International d'Automobile) the motorsport world governing body. Styled using Computational Fluid Dynamics to optimise aerodynamics, the body followed the profile of the DB9 from the wheels upwards but it was shorter and wider. The aluminium roof was taken straight from the road car but other panels were carbon-fibre composite including a flat underbody and large rear wing. A steel roll cage, designed by Aston Racing, completed the body.

It all sat on bespoke aluminium double wishbone suspension with Koni dampers and Eibach springs with OZ Racing forged magnesium alloy wheels and lightweight 330mm carbon disc brakes with Brembo six piston callipers.

The cockpit, as stipulated in the FIA rules, retained the dimensions of the road car and featured a carbon composite dashboard and lightweight racing seat. The car weighed 480 kilograms less than the DB9 and delivered a power to weight ratio of 550 bhp per ton.

The DBR9's engine was based on exactly the same aluminium block and cylinder head as the DB9 V12 but was modified to deliver over 600 bhp at a rev limited 8,000 rpm. It had a dry sump, double overhead camshafts, four valves per cylinder and two 31.2mm air restrictors. The X-trac transmission was mounted on the rear axle.

The commercial objectives at the start of the project were to produce Works cars and Customer cars. The Works teams were established on a franchise basis with a franchise reputedly costing £2,750,000 over three years. The Customer cars were targeted at private racers and collectors and had a target price of £475,000.

Two Aston Martin Works teams were established to compete in the GT1 category in the 2005 international sports car racing season including the FIA GT Championship and the American Le Mans Series (ALMS). Both teams, with three drivers apiece, were run independently with full factory support.

The opening race of the ALMS series, on 19th March 2005, was the Sebring 12 Hours and it saw Aston Martin's official return to racing. David Brabham, driving car number 57 took the flag and a class win in GT1 – an amazing result on the new car's competitive debut. Next on 15th April, it was to Silverstone for the Tourist Trophy, the scene of Aston Martin victories in 1958 and 1959.

The two DBR9's started first and second on the grid and finished in the same order – Aston Martin's name on the Tourist Trophy again! With these two amazing results, anticipation was high going to Le Mans especially when the Aston Martins qualified first and second in class. Sadly, after swapping lead placings, with just one and a half hours to go, both cars suffered problems – one with fuel loss out on the track whilst the other made it to the pits with radiator problems. That car was sent out 10 minutes from the end to claim a well merited third in class and that set the tone for the rest of the season.

At Spa the cars proved their reliability by finishing in fifth and sixth place and at Laguna Seca they lead before a stop and go penalty pushed them down the field. The season started in a better way than it finished, but in the context of a development year, 2005 was a huge success.

It also established a clear platform for an expansion of the product through a customer version of the car, designated the DBRS9.

ASTON MARTIN DBRS9

| | |
|--------------------------|---|
| Production dates: | 2006 |
| Top Speed: | 322+ kph (200+ mph) |
| Acceleration: | 0 – 60 mph 4 secs 0 – 100 mph 9 secs |
| Chassis numbers: | DBRS9/I- |
| Length | 4687 mm |
| Width | 1979 mm |
| Height | 1318 mm |
| Ground clearance | |
| Track | Front 1568mm Rear 1562mm |
| Wheelbase | 2741mm |
| Turning circle | |
| Dry weight | 2420 lbs (1100 Kg) Manual |
| Engine | 6.0 litre V12 |
| Capacity | 5935 cc |
| Cylinder bore | 89 mm (stroke 79.5 mm) |
| Compression ratio | |
| Power output | 550 bhp @ 7,000 rpm |
| Fuel Injection: | Electronic multi-point sequential with Visteon twin PTEC engine management and fuel system. Pi Data system Pectel engine ECU |
| Chassis | Advanced aluminium/carbon composite construction |
| Transmission | Six speed manual(H pattern with syncromesh) Option of six speed sequential / transaxle |
| Clutch | Hydraulically operated twin plate |
| Front suspension | Independent aluminium double wishbones rose jointed adjustable Koni Dampers uprated springs |
| Rear suspension | Independent aluminium double wishbones rose jointed adjustable Koni Dampers uprated springs |
| Steering | Power assisted rack and pinion |
| Brakes | Front: Servo assisted 330 mm carbon discs with Brembo six piston callipers. Back: Servo assisted 330 mm carbon discs with Brembo six piston callipers. |



As originally planned, Aston Martin Racing unveiled the DBRS9 in 2006. It is designed as a competition car for club and national race series and it creates a bridge for teams and drivers looking towards international GT racing.

The DBRS9 is based on the DB 9 road car but shares features with the full GTI specification DBR9. It uses the road cars bonded aluminium chassis fitted with the DBR9 roll cage. All the body panels, apart from the roof, have been replaced with carbon composite materials with the same materials being used on the interior trim, with the side and rear window glass has been replaced with polycarbonate. This means a weight saving of 480 kilograms compared with the DB9.

Aston Martin have tuned the V12 engine increasing the power by nearly 20% to 550 bhp which, with the reduced weight, means a power to weight ratio of 430 bhp per tonne. The standard transmission is an H pattern, fully syncromesh gearbox with shorter competition ratios. There is an option to upgrade this to a fully sequential racing gearbox. The car's ride has been lowered and the double wishbone suspension has been rose jointed and fitted with two-way adjustable Koni dampers and stiffened competition springs.

Aston Martin Racing have been focussed on performance, but not at the expense of practicality. The seat and steering are easily adjustable and there is even the option of a passenger seat for demonstration purposes. Removable body panels, a modular chassis and a comprehensive package of spares simplify service and maintenance.

When the DBRS9 was launched, David Richards, on behalf of Aston Martin Racing, said "The DBRS9 opens GT Racing up to more enthusiasts and with its levels of performance will offer aspiring racing drivers the experience of a GT racing car without the complexity associated with running a full GTI car."

The cars are built to order at Banbury with prices starting at £175,000 plus taxes and spare packages and the project has proved successful with teams competing in the French, Belgian, British and Open GT Championships.

Typical are Barwell Motorsport of Great Bookham in Surrey, running 3 cars in the 2007 British GT Championship, they scored five race wins and nineteen podiums netting them the Team Championship as well as second and third places in the Drivers' Championship.

Aston Martin Racing has restored the racing pedigree of the marque with the DBR9 and the DBRS9. Dr Ulrich Bez, Chairman and Chief Executive of Aston Martin said at the launch of the DBRS9 "It reinforces the DB9's performance potential and inherent racing qualities."

And it is a strategy that Aston Martin have continued to pursue as in January 2008 it was announced that for the first time, Aston Martin Racing is designing this car to run on either standard race fuel or E85 bio-ethanol (where regulations allow). In 2007, Aston Martin Racing successfully converted a standard DBRS9 to run on E85.

Aston Martin Racing also revealed the first impressions of its new GT2 racing car. Known as the Vantage GT2, the new car is based on the V8 engined Aston Martin Vantage road car.

The new Vantage GT2 completed Aston Martin's product portfolio for 2008 with competitive cars now available in every category. The new car will mean Aston Martin is the only manufacturer to offer cars in every GT racing category: GT1 – DBR9; GT2 - Vantage GT2; GT3 – DBRS9; GT4 – Vantage N24.

ASTON MARTIN V8 Vantage

| | |
|--------------------------|---|
| Production dates: | 2005 - |
| Top Speed: | 282 kph (175 mph) |
| Acceleration: | 0 – 60 mph 4.9 secs |
| Chassis numbers: | SCFBB03B869 C00001- |
| Length | 172 ½ inches (4382mm) |
| Width | 73 ½ inches (1866 mm) without mirrors |
| Height | 53.5 inches (1265 mm) |
| Ground clearance | |
| Track | Front 61¾ inches (1568mm) Rear 61½ inches (1562mm) |
| Wheelbase | 102.4 inches (2600 mm) |
| Turning circle | |
| Dry weight | 3461 lbs (1570 Kg) |
| Engine | 4.3 litre V8 Dry Sump |
| Capacity | 4281 cc |
| Cylinder bore | 89 mm (stroke 86 mm) |
| Compression ratio | |
| Power output | 380 bhp @ 7,300 rpm |
| Fuel Injection: | Sequential electronic fuel injection system with SCP/Can Interface to engine management control system |
| Chassis | Extruded aluminium bonded monocoque |
| Transmission | Graziano six speed manual or Sportshift transaxle Limited slip differential |
| Clutch | Hydraulically operated twin plate |
| Front suspension | Independent double aluminium wishbones. Ball jointed king pins coil springs over aluminium telescopic dampers, anti roll bar. |
| Rear suspension | Independent double aluminium wishbones. coil springs over aluminium telescopic dampers, anti roll bar |
| Steering | Rack and pinion – column tilt and reach adjustment |
| Brakes | Stability control system with ABS, EBD (brake distribution), TC (traction control), EBA (brake assist) and DSC (dynamic stability control) Front: 355mm Ventilated, grooved 4 piston Brembo monobloc calipers Back: 330mm Ventilated 4 piston calliper, separate handbrake calliper |
| Exhaust System | Active sports system with by pass valves |

The development of the Aston Martin V8 Vantage was conducted almost totally in public view – not for this car the disguised panels and secrecy normally reserved for new models. From Autocar's introduction to a "Baby V8" to compare with a Porsche 911 through a concept car on display at the Detroit Motor Show in 2003 up to the unveiling of the V8 Vantage Concept Car at Geneva in 2005, the V8 Vantage was very much public property.

It took Aston Martin into uncharted territory with target production levels of 2,500- 3,000 units per annum and a more affordable car for a younger customer. The engine was a return to roots as it took Aston Martin back to a V8 – although based on a Jaguar unit, most of its internal parts were unique to Aston Martin with the unit built alongside the V12 in the Cologne engine plant. Also returning to roots was the lubrication system for the new engine – back in 1928, Aston Martin had pioneered the "dry sump" system where the oil is carried in a separate tank rather than in the bottom section of the engine. As an aid to design, it reduced the overall height of the engine allowing it to sit lower bringing the centre of gravity down and improving the handling.

To allow the engine to be set as near to the middle of the car as possible, the six speed gearbox and the final drive to the back axle were included in a single casing at the rear of the car delivering virtually 50:50 weight distribution.

The chassis platform of the car follows the V/H (Vertical/Horizontal) Platform Strategy and was made from an assembly of extruded and moulded aluminium alloy sections riveted together and further strengthened by use of composite materials. The body design by Aston Martin's Design Director, Henrik Fisker, again took Aston Martin back to the days of the DB2 and DB2/4. By restricting the car to a 2 seater, the luggage area could be maximised and, like its predecessor, access was through an opening rear hatch.

Such was the space in the luggage area that it was designed to take a golf bag laying across the car as well as other bags. The driver and passenger, cosseted in the normal levels of Aston Martin luxury with Bridge of Weir leather and a huge range of options, are protected from the luggage by a built-in-wall.

2006 saw the launch of two derivative models of the V8 Vantage in the twin traditions of Aston Martin – performance and luxury. In June, a V8 Vantage was entered into the ADAC Nurburgring 24 Hours. With a crew that included Aston Martin's Chairman and CEO, Dr Ulrich Bez, the car achieved a creditable 24th place and was then driven back to Gaydon. In commemoration of this, the V8 Vantage N24 was launched offering a car that was largely production standard with an FIA roll cage, larger bag fuel tank, built in air jacks and lightweight wheels

Out went air conditioning, air bags, electric windows and side/rear glass. Weight saving took the car's weight to 2932 pounds while tuning the engine and suspension scaled the acceleration down to a 0-60 sprint time of 4.3 seconds while the top speed was limited to 175 mph.

Later that year, came the luxury with the launch of the V8 Vantage Roadster – like the DBAR1, the Roadster name was used with Volante retained for Aston Martin's 4 seater convertibles. The operating mechanism and design for the soft top was shared with the DB9 Volante meaning that the same purity of line could be retained at the rear along with maximum visibility. The luxury of the interior matched the coupe and, in a very similar fashion to the DBAR1, the Bridge of Weir leather interior trim carried on to twin rear pods behind the driver and passenger.

After criticism over the rigidity of the DB9 Volante, additional engineering was applied to the standard V/H structural architecture to ensure coupe levels of chassis rigidity – and it has proved worthwhile.

ASTON MARTIN V8 Vantage Roadster

| | |
|--------------------------|---|
| Production dates: | 2006 - |
| Top Speed: | 282 kph (175 mph) |
| Acceleration: | 0 – 60 mph 4.9 secs |
| Chassis numbers: | SCFBB03B869 C00001- |
| Length | 172 ½ inches (4382mm) |
| Width | 73 ½ inches (1866 mm) without mirrors |
| Height | 49.4 inches (1255 mm) |
| Ground clearance | |
| Track | Front 61¾ inches (1568mm) Rear 61½ inches (1562mm) |
| Wheelbase | 102.4 inches (2600 mm) |
| Turning circle | |
| Dry weight | 3770 lbs (1710 Kg) |
| Engine | 4.3 litre V8 Dry Sump |
| Capacity | 428l cc |
| Cylinder bore | 89 mm (stroke 86 mm) |
| Compression ratio | |
| Power output | 380 bhp @ 7,300 rpm |
| Fuel Injection: | Sequential electronic fuel injection system with SCP/Can Interface to engine management control system |
| Chassis | Extruded aluminium bonded monocoque |
| Transmission | Graziano six speed manual or Sportshift transaxle Limited slip differential |
| Clutch | Hydraulically operated twin plate |
| Front suspension | Independent double aluminium wishbones. Ball jointed king pins coil springs over aluminium telescopic dampers, anti roll bar. |
| Rear suspension | Independent double aluminium wishbones. coil springs over aluminium telescopic dampers, anti roll bar |
| Steering | Rack and pinion – column tilt and reach adjustment |
| Brakes | Stability control system with ABS, EBD (brake distribution), TC (traction control), EBA (brake assist) and DSC (dynamic stability control) Front: 355mm Ventilated, grooved 4 piston Brembo monobloc calipers Back: 330mm Ventilated 4 piston calliper, separate handbrake calliper |
| Exhaust System | Active sports system with by pass valves |

ASTON MARTIN V8 Vantage N24

| | |
|--------------------------|---|
| Production dates: | 2006 - |
| Top Speed: | 282 kph (175 mph) |
| Acceleration: | 0 – 60 mph 4.3 secs |
| Chassis numbers: | As V8 Vantage |
| Length | 172 ½ inches (4382mm) |
| Width | 73 ½ inches (1866 mm) without mirrors |
| Height | 49.4 inches (1255 mm) |
| Ground clearance | |
| Track | Front 61¾ inches (1568mm) Rear 61½ inches (1562mm) |
| Wheelbase | 102.4 inches (2600 mm) |
| Turning circle | |
| Dry weight | 2932 lbs (1330 Kg) |
| Engine | 4.3 litre V8 Dry Sump |
| Capacity | 4281 cc |
| Cylinder bore | 89 mm (stroke 86 mm) |
| Compression ratio | |
| Power output | 410 bhp @ 7,500 rpm |
| Fuel Injection: | Sequential electronic fuel injection system with SCP/Can Recalibrated engine management control system |
| Chassis | Extruded aluminium bonded monocoque |
| Transmission | Graziano six speed manual |
| Clutch | Valéo twin plate ceramic with lightweight flywheel |
| Front suspension | Independent double aluminium wishbones. coil springs over aluminium monotube dampers, anti roll bar. |
| Rear suspension | Independent double aluminium wishbones. coil springs over aluminium monotube dampers, anti roll bar |
| Steering | Rack and pinion – column tilt and reach adjustment |
| Brakes | Stability control system with ABS, EBD (brake distribution), TC (traction control), EBA (brake assist) and DSC (dynamic stability control) Front: 355mm Ventilated, grooved 4 piston Brembo monobloc calipers Back: 330mm Ventilated 4 piston calliper, separate handbrake calliper |
| Exhaust System | Free flow system |



ASTON MARTIN DBS

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|--------------------------|--|
| Production dates: | 2006 - |
| Top Speed: | 307 kph (191 mph) |
| Acceleration: | 0 – 60 mph 4.3 secs |
| Chassis numbers: | |
| Length | 184 ½ inches (4697mm) |
| Width | 74 inches (1875 mm) without mirrors |
| Height | 50.5 inches (1270 mm) |
| Ground clearance | |
| Track | Front |
| | Rear |
| Wheelbase | 108 inches (2740 mm) |
| Turning circle | |
| Dry weight | 3770 lbs (1710 Kg) |
| Engine | 6.0 litre V12 |
| Capacity | 5935 cc |
| Cylinder bore | 89 mm (stroke 79.5 mm) |
| Compression ratio | 10.9:1 |
| Power output | 510 bhp @ 6,500 rpm |
| Fuel Injection: | Sequential electronic fuel injection system with SCP/Can Interface to engine management control system |
| Chassis | Extruded aluminium bonded monocoque |
| Transmission | Graziano six speed manual transaxle or Touchtronic Graziano six speed automatic. Limited slip differential |
| Front suspension | Alloy torque tube with carbon fibre prop shaft Independent with double aluminium wishbones. Anti dive geometry. Coil springs, monotube dampers, anti roll bar. |
| Rear suspension | Independent with double aluminium wishbones. Coil springs, monotube dampers, anti roll bar |
| Steering | Rack and pinion – column tilt and reach adjustment |
| Brakes | Stability control system with ABS, EBD (brake distribution), TC (traction control), EBA (brake assist) and DSC (dynamic stability control) Front: 398mm Ceramic six piston calipers Back: 360mm Ceramic four piston calipers |
| Exhaust System | Active sports system with by pass valves |



In 1966, the first cars to wear the DBS badge were the Motor Show prototype two seaters produced by Touring of Milan. Forty years later on 4th May 2006 the first photographs of the latest version from Aston Martin was unveiled after very secret development by the Aston Martin Director of Design Marek Reichman and his team.

The new DBS shared the V/H architecture of all the modern Aston Martins and, based on the DB9 has aluminium roof, bonnet and rear wings along with its composite front wings and boot bonded to the aluminium monocoque frame. It contains some elements of the DBR 9 racer including twin bonnet air vents, a huge air vent below the grille, bootlid spoiler, carbon fibre splitter and sculpted sills.

The design was not just about looks and rigidity, it was about perfect weight distribution, 85% of the weight of the car is positioned within the wheelbase. As a further aid to handling Aston Martin had developed an Active Damping System (ADS) which uses two separate valves to adjust the dampers to five different positions. The damper settings are determined by an electronic control unit, which takes sensor readings from the car's systems, including throttle position, brake position, steering wheel rotation and vehicle speed. This data establishes the prevailing driving conditions and the demands the driver is making on the car and automatically adjusts the ride.

The car's braking system feature another innovation, for the first time Carbon Ceramic Matrix (CCM) brakes have been used on a road-going Aston Martin. The end result is shorter stopping distances with excellent resistance to fade in even the most demanding driving conditions. CCM brakes are also some 12.5 kg lighter than a conventional system, reducing the weight of the car overall and, in particular, the unsprung weight and rotational masses, further enhancing the performance of the suspension.

The 6.0-litre V12 features a number of power-increasing enhancements. These include a 'by-pass' engine air intake port that opens above 5500 rpm to allow more air into the engine, and re-profiled air inlet ports that further improve airflow into the combustion chamber. Delivering 510 bhp, it pushed the speed of the car over 300 kph and delivers a startling 0-60 mph time of 4.3 seconds.

Lightweight and hugely powerful, the DBS could not be the flagship of the today's Aston Martin without luxury for the driver and passenger. To start the DBS is pure theatre. Ignition is controlled by a stainless steel and sapphire ECU (Emotion Control Unit), as refined and elegant as a fine timepiece. Once inserted into the dashboard, the ECU glows red in delicious anticipation of the glorious sound of the V12 engine

Aston Martin's designers have used special semi-aniline leather, with its softer, more sensual feel and distinctive aroma. The Alcantara and semi-aniline leather sports seats are electrically adjustable and bear the DBS signature stitch patterning and logo. Created from sandwiched layers of carbon-fibre and Kevlar®, specially developed optional lightweight seats are available to more enthusiastic drivers

The main instrument cluster features white numerals on a dark graphite background. The centre console is a blend of analogue instruments and digital technology, including an advanced audio system, MP3 player connectivity and satellite navigation, regulated by controls fashioned from solid, turned aluminium.

The final seal of approval for the latest product from Aston Martin came with the latest incarnation of its most famous driver, James Bond. The DBS co-starred with Daniel Craig in the latest film, Casino Royale – a perfect car for a perfect Bond?