



Aston Martin's V8 Vantage – originally launched to widespread critical acclaim at the Geneva Motor Show in 2005 – is to receive significant technical enhancements, reaffirming the car's position as one of the world's most desirable and exhilarating sports cars.

While the universally distinctive and award-winning shape of the V8 Vantage is retained, the car benefits from a number of technical changes which include significantly up-rated engine performance from a new 4.7 litre power unit in both Coupe and Roadster variants. Other changes include revised dynamics to take full advantage of increased power and torque availability, improved Sportshift™ transmission software and a new sports suspension option.

The 4.7 litre V8 engine has a power output of 420bhp (an 11% increase on the previous 4.3 litre unit) and delivers peak torque of 470Nm (15% increase), providing the V8 Vantage with new reserves of mid-range performance, an improved 0-60mph time of 4.7 seconds and top speed of 180mph (288kph). Combined European fuel economy and CO2 emissions are also improved by 13% (Sportshift™).

Inside, the changes include a new centre console and revised switchgear and the introduction of an ECU replacing the previous V8 Vantage key. Externally, the acclaimed V8 Vantage design appearance is enhanced with a range of new standard and optional 19" alloy wheels.

Aston Martin Chief Executive Officer, Dr Ulrich Bez said: "Continued development and evolution of our unique VH (Vertical-Horizontal) architecture has brought even higher levels of refinement and dynamic performance to our whole range. "With the new 4.7 litre engine and associated changes we have taken the V8 Vantage to new levels of performance to produce an even more desirable sports car. "The V8 Vantage is now the most successful Aston Martin in our history and we are confident these changes will continue its appeal and driving enjoyment for both new and existing customers."

## Engine

Improvements in performance have been achieved through a number of carefully developed changes to Aston Martin's acclaimed V8 engine. The cylinder bore and stroke has been increased from 89mm to 91mm and 86mm to 91mm respectively, giving a total displacement of 4735cc. The increase in cylinder bore is facilitated by a move to cylinder liners that are pressed into the pre-machined aluminium alloy block, allowing a thinner liner than was possible with the cast-in design of the 4.3 litre engine. The new forged steel crankshaft provides the 91mm stroke and incorporates new holes in the counter weights for reduced rotating mass and improved inter-bay breathing. New forged steel con-rods and cast aluminium pistons complete the capacity-related changes.

Other key changes include efficiency improvements to the dry sump lubrication system, including a new sump casting with oil pick-up points moved from the front and rear to the sides of the sump. The cylinder heads are modified with a new intake port and an inlet valve size increase from 34.9mm to 35.9mm. The intake manifold has been modified to match the new port to optimise air flow.

## Transmission

The V8 Vantage transmissions have also undergone changes to improve performance and to handle the increased levels of power and torque. Both the standard manual stick-shift gearbox and the optional Sportshift™ transmission benefit from a modified clutch and flywheel, reducing clutch pedal efforts and delivering a 0.5kg weight saving, reducing the rotating masses within the powertrain, and hence increasing engine responsiveness. Aston Martin's Sportshift™ transmission has undergone a series of specific changes to broaden the capabilities of the gearbox to offer customers enhanced comfort and convenience with sporting capabilities. Changes include a revised control strategy, allowing the transmission, rather than the engine, to dictate how best the engine torque should be deployed to optimise performance and deliver power smoothly and consistently.

'Dual Throttle Map' software is also featured. When 'Comfort' mode is selected the engine reacts in a smoother more progressive manner to driver throttle inputs and in the default 'Sports' mode the throttle mapping is more aggressive, delivering a more dynamic and sporting feel. Sportshift™ now also has the capability to take inputs from the steering wheel enabling the current gear to be held when the car is negotiating a corner and hill descent detection, allowing a low gear to be held, maximising the effects of engine braking.

## Suspension

A series of improvements are introduced to the V8 Vantage chassis and suspension setup to deliver improved body control and low speed ride quality; enabling the driver to take full advantage of the increased performance potential. A number of the improved components originally introduced on the Vantage Roadster are now carried over to the Coupe, including revised upper damper mountings and bump stops. Additionally, the front spring rates are stiffened by 11% at the front and 5% at the rear.

Steering geometry is also modified to improve steering feel, while the front lower suspension arm compliance bushes are stiffened by 22% to provide enhanced steering response and handling. The V8 Vantage also now benefits from Bilstein dampers as standard; these low-friction dampers provide improved levels of dynamic capabilities and further improve ride quality.

### **Design & Optional Equipment**

Also introduced as an option for both Coupe and Roadster variants is a new Sports Pack which comprises forged lightweight alloy wheels aiding a lower unsprung mass, re-tuned Bilstein dampers with improved dynamic response, up-rated springs and a revised rear anti-roll bar (Coupe only). The Sports Pack is intended to offer greater agility, high speed body control and precision feel for the most enthusiastic of drivers.

Although the award-winning exterior design of the V8 Vantage remains largely unchanged, a new 20-spoke 19" alloy wheel is introduced as standard, with either diamond turned silver or graphite finishes available as options, affording customers maximum choice. Alternatively, as part of the Sports Pack option, a 5-spoke lightweight aluminium wheel will be provided.

In the cabin, a new centre console constructed from die cast zinc alloy with a graphite silver finish is introduced along with a new ECU – first seen on the DBS in 2007. The ECU – constructed from glass, polished stainless steel and polycarbonate - replaces the key used previously for the V8 Vantage. The revised car also includes a new Hard Disk Drive (HDD) Navigation System offering faster route processing, additional features and improved graphics. Full ipod/MP3 integration is retained as standard equipment.

First shown as a concept car at the 2003 North American International Auto Show in Detroit, the V8 Vantage caused a worldwide sensation as it allowed Aston Martin to enter a new sector of the premium sports car market with a genuine alternative to other cars on offer. Deliveries of the V8 Vantage Coupe to customers began in late 2005, joined by a convertible sibling in 2007 when the Vantage Roadster was launched. The car is hand built at Aston Martin's Headquarters at Gaydon, Warwickshire, UK and to date more than 10,000 have been delivered to customers around the world.

Prices for the revised V8 Vantage will be confirmed at a later date, with deliveries set to commence from quarter three 2008.

## **Specifications**

### **Body**

Two-door style coupe body style with tailgate or two-door body with soft cover convertible top and heated glass rear screen with 2+0 seating.

Bonded aluminium structure, aluminium alloy, steel, composite, and magnesium alloy body.

Extruded aluminium side impact bars.

Halogen projector headlamps (main beam).

LED rear lamps.

### **Engine**

Aston Martin all alloy quad overhead camshaft 32 valve, 4735cc 4.7 litre V8.

Variable inlet camshaft timing.

Dry sump lubrication system.

Fully catalysed stainless steel exhaust system with active bypass valves.

Front-mid mounted engine.

Rear wheel drive.

### **Transmission**

Rear mid-mounted six-speed manual gearbox with optional Sportshift\*4 automated manual transmission.

Alloy torque tube with carbon fibre propeller shaft.

Limited slip differential.

Final drive ratio 3.909:1

### **Steering**

Rack and pinion, power assisted steering, 3.0 turns lock to lock.

Column tilt and reach adjustment.

Electronic steering column lock.

### **Wheels and Tyres**

Standard: 19" alloy wheels – 20 spoke design - Front: 8.5J x 19" / Rear: 9.5J x 19". Bridgestone Potenza tyres - Front: 235/40 ZR19. Rear: 275/35 ZR19.

Optional: 19" alloy wheels – 7 spoke design - Front: 8.5J x 19" / Rear: 9.5J x 19". Bridgestone Potenza tyres - Front: 235/40 ZR19. Rear: 275/35 ZR19.

## **Suspension**

Front: Independent double aluminium wishbones incorporating anti-dive geometry, coil springs, anti-roll bar and monotube dampers.

Rear: Independent double aluminium wishbones incorporating anti-squat and anti-lift geometry, coil springs, anti-roll bar and monotube dampers.

## **Brakes**

Radial-mounted four-piston monobloc calipers.

Dynamic Stability Control (DSC).

Traction Control.

Anti-lock Braking System (ABS).

Electronic Brakeforce Distribution (EBD).

Emergency Brake Assist (EBA).

Positive Torque Control.

Front: Ventilated grooved steel discs 355mm diameter

Rear: Ventilated and grooved steel discs 330mm diameter

## **Interior**

Full grain leather interior.

Alcantara headlining.

Alloy facia trim and graphite centre console finish.

Electrically adjustable seats.

Dual stage driver and passenger airbags.

Side airbags. Heated rear screen.

Automatic temperature control.

Organic Electroluminescent (OEL) displays.

Trip computer, Glass ECU.

LED map reading lights. Rear parking sensors.

Tyre pressure monitoring.

Alarm and immobiliser.

Remote control central door locking and boot release.

Battery Disconnect Switch (BDS).

Battery conditioner.

Tracking device (UK only).

### **In-Car Entertainment**

160W Aston Martin Audio System with six-CD autochanger.

Integrated Apple iPod® connector\*5.

USB connector with Waveform Audio Format (WAF), Windows Media Player (WMA) and MPEG (MP3) audio file compatibility.

### **Options**

Sportshift\*4 automated manual transmission.

Sports Pack.

Hard Disk Drive (HDD) satellite navigation system\*1+.

High Intensity Discharge (HID) Headlamps (dipped beam).

Satellite radio system (USA only).

Piano Black facia trim.

Personalised sill plaques.

Auto dimming interior rear view mirror\*1.

Auto dimming interior rear view mirror with garage door opener\*1.

Alarm upgrade (volumetric and tilt sensor).

Memory seats and exterior mirrors (three positions).

Heated seats.

Front parking sensors.

Tracking device\*2.

First aid kit.

Ashtray and cigar lighter.

Cruise control.

Bluetooth telephone preparation\*1.

Powerfold exterior mirrors.

Boot mounted umbrella.

700W Aston Martin Premium Audio System with Dolby® Pro Logic II®.

## Dimensions

Length: 4380mm (172.5")

Boot Capacity Coupe: 300 litres (10.6 cu ft)

Width: 1865mm (73.5") exc. mirrors 2025mm (80") inc. mirrors

Boot Capacity Roadster: 144 litres (5.0 cu ft)

Height: 1255mm (49.5")

Front Track: 1570mm (62.0")

Wheelbase: 2600mm (102.5")

Rear Track: 1560mm (61.5")

Weight: 1630kg (3595lb)

Cd: 0.34

Fuel Capacity: 17.6 UK gal (80 litres) 21.1 US gal

Turning Circle: Kerb to kerb: 11.1m (36.5 ft)

## Performance

Max speed: 180mph (290 km/h)

Max power: 313kW (420bhp) @ 7300 rpm

Acceleration: 0-60mph 4.7 seconds

0-100km/h (62mph) 4.8 seconds

Max torque: 470 Nm (346 lb.ft) @ 5000 rpm

## Fuel Consumption\*3

### Manual

Mpg (litres/100km)

Urban 14.2 (19.9)

Extra Urban 27.3 (10.4)

Combined 20.4 (13.9)

### Sportshift\*4:

Mpg (litres/100km)

Urban 14.6 (19.4)

Extra Urban 29.5 (9.6)

Combined 21.4 (13.2)

## CO2 Emissions

Manual: 328g/km Sportshift\*4: 312g/km

\*1 Not available in all markets, please consult your dealership for details

+ Includes Traffic Messaging Channel (TMC) in Continental Europe

\*2 Complies with UK Thatcham Category 5 requirements. Excludes subscription. Standard in the UK.

\*3 Data not applicable to North American market

\*4 Sportshift trademark is used under licence from Prodrive (Holdings) Ltd

\*5 iPod is a trademark of Apple Inc., registered in the U.S. and other countries