Aston Workshop is delighted to offer its Evolution 6.0 package for the Aston Martin AM V8, a thoughtfully developed portfolio of upgrades refined by our decades of experience in restoring and unlocking the true potential of these exceptional sporting Grand Tourers.

A thoroughly re-engineered and enlarged 6.0-litre V8 engine conversion lies at the heart of Evolution 6.0, but the desirable and sympathetic upgrades include complementary transmission, chassis and braking enhancements. Together, these improvements build on the original character of the AM V8 models while ensuring they are vastly more capable in every regard. The result is far greater levels of performance but with a corresponding uplift in handling, safety and reliability to suit the demands of modern driving conditions.

Evolution 6.0 is not a one-size-fits-all programme of upgrades, rather it provides a framework within which each customer can order their dream specification. Contact Aston Workshop to discuss creating your ultimate Aston Martin AM V8 today.
Aston Workshop’s 6.0-litre V8 engine conversion is the jewel in the crown of our Evolution 6.0 upgrade package. Designed by legendary Aston Martin engineer Tadek Marek to succeed his equally renowned straight-six engine, this powerful and refined V8 was initially specified with a capacity of 5340cc, but was future-proofed in period for larger capacities and increased outputs. As such, the design of the renewed engine is ideally suited to a wide range of upgrades and enhancements that unlock exceptional increases in horsepower and low and mid-range torque, while retaining the flexibility and smoothness inherent in the original design.

Engineered on-site in Aston Workshop’s state-of-the-art facilities, two different iterations of the Evolution 6.0 engine are available, and build on the V8 specification that debuted in the Vantage supercar of 1977. In both cases, the original specification crankshaft and connecting rods are used, with the engine capacity increase instead gained via a larger cylinder bore diameter. This not only helps reduce costs, it also retains the engine’s willingness to rev freely and maintains an acceptable rate of fuel consumption, thus preserving an excellent touring range.

All customer-supplied engines are fully stripped down, cleaned and inspected with parts replaced as required, or alternatively new engines can be built from new factory supplied cylinder blocks and heads. The cylinder block is machined to accept oversize cylinder liners and fitted with new lightweight, low-friction, high-compression forged pistons. Extensive cylinder head work capitalises on the capacity increase, and includes sprined camshafts, gas-flowed inlet and exhaust ports, plus enlarged valve seats, springs and camshaft followers. Four Vantage specification 48 IDF Weber carburettors are specified, and matched with larger diameter manifolds and exhausts to complement the changes and deliver a richly distinctive soundtrack. In this state of tune, the Evolution 6.0 upgrade delivers a nominal 380 bhp plus a 20 per cent increase in torque spread all the way from 1500 to 5000 rpm — a sizeable uplift from the 320 bhp and 250-260 lb ft typical of a standard V8.

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A CHASSIS FIT FOR THE POWER

Aston Workshop’s programme of chassis and braking enhancements has been developed to match the prodigious performance of its Evolution 6.0 engine upgrade, giving tauter, more responsive handling and dramatically improved stopping power without compromising the long-legged touring capability for which DBS V8 models are famed.

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Uprated springs and shock absorbers provide greater driving enjoyment and vastly improved body control, with the final calibration and ride height carefully tailored to your own requirements. These specifications are complemented by a stiffer front anti-roll bar and, if even greater precision is desired, a rear anti-roll bar.

A conversion from the obsolete early fitting lever-arm rear shock absorbers to telescopic shock absorbers provides yet more improvement over the original vehicle.

An increase to 16-inch BBS alloy wheels with wider, lower-profile 255/55 16 tyres would provide more traction to cope with the huge increase in performance.

The fitment of Aston Workshop’s ultimate braking upgrade, which includes six-piston front calipers gripping 295mm ventilated brake discs and high-performance brake pads, provides truly exceptional levels of stopping power and far greater driver control.

In both cases, flexible rubber brake hoses can be replaced with braided units, enhancing both feel and performance.
Aston Workshop’s electronic fuel injection (EFI) system offers numerous advantages and zero drawbacks. The result of an extensive two-year in-house development programme, it represents a fantastic upgrade over either the four twin-choke Weber carburettors or the notoriously temperamental electronic fuel injection systems with which the V8 left the factory.

The bespoke EFI system has been calibrated to perfection on Aston Workshop’s engine dynamometer, along with thousands of road miles to ensure the ultimate combination of performance, efficiency, reliability and refinement in all driving conditions.

The precisely controlled system not only offers an increase in performance, torque and fuel economy throughout the rev range, it also eliminates the need for regular tuning, future-proofs against constantly changing fuel compositions and ensures ease of starting, even after long periods of storage.

Packaged neatly beneath the original airbox that sits at its factory height for a period-correct appearance, Aston Workshop’s EFI system is completely reversible should an owner ever wish to revert to factory specification.

The bespoke EFI system has been calibrated to perfection on Aston Workshop’s engine dynamometer.
A STAGE FURTHER WITH X-PACK

X-Pack takes things a stage further than the standard EF, with uprated camshafts, competition specification gas flowed cylinder heads and increased compression ratio. Also included are larger bore inlet manifolds, larger throttle bodies, an increased capacity air box and a large bore, free flowing stainless steel exhaust system.

The result is a nominal 460-470 bhp, with an additional 20 per cent torque from 1500 to 5000 rpm. This is our ultimate state-of-tune for a fast-road specification V8, and delivers phenomenal energy and attitude during spirited driving without compromising driveability and refinement at a more leisurely pace.

Aston Workshop also offers a range of more affordable V8 engine upgrades, with enhanced versions of the original 5.3-litre capacity and a 5.7-litre upgrade also available.

Whichever specification you choose, Aston Workshop V8 engines are equipped with electronic ignition and an uprated electronically controlled radiator fan to ensure modern standards of reliability. Each engine package is also tailored precisely to your requirements, fine-tuned on Aston Workshop’s dynamometer and supplied with an industry leading 10-year guarantee.

* Specification restrictions apply.
The DBS V8 was originally offered with either a five-speed manual gearbox or a three-speed automatic gearbox, with the latter a compromised option that sacrificed power and driver involvement for comfort and ease of use. Aston Workshop now offers a six-speed automatic gearbox that combines the best of both worlds and can be driven in full automatic mode for maximum comfort, or in ‘tap shift’ manual mode for greater driver involvement.

Easily installed without body modifications and with a period-correct appearance to the interior trim, the result is 21 per cent more power delivered to the rear wheels, far crisper gear changes, and ratios that are more closely spaced for more urgent acceleration, and feature a lower bottom gear and taller top gear for improved acceleration from a standstill, more refined motorway cruising and a higher top speed.

The conversion is compatible with all engine variants and is 100 per cent reversible. Aston Workshop can also convert vehicles fitted with the three-speed automatic gearbox to five or six speed manual operation, again with no structural modifications and a factory interior specification.

A higher final drive ratio is available upon request and, whichever option you choose, the differential carrier and its supporting cradle are strengthened to easily withstand the considerable increase in torque and power delivered by the Evolution 4.0 engine upgrade.
With a global reputation for excellence, Aston Workshop is regularly asked to source left-hand-drive Aston Martins. These vehicles, however, are in extremely short supply as only 10 per cent of Aston Martins manufactured prior to the DB7 were originally specified in left-hand drive form.

Today, the worldwide appeal of classic Aston Martins makes these far scarcer models extremely sought after, so to meet demand from overseas customers Aston Workshop has developed left-hand-drive conversions to the very highest standard. We re-manufacture or acquire original items necessary to carry out the straightforward conversion, to deliver a driving experience, mechanical integrity and a quality of fit and finish that is at least commensurate with left-hand drive vehicles produced in period. Furthermore, the demand for such vehicles ensures re-sale values remain incredibly robust.

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To enquire about any of Aston Workshop's upgrades in this brochure please call us or email us for a quotation.

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Images - Tim Wallace and Aston Workshop