

## Vantage V8 Engine

### Engine summary specifications

4.3 litre (code **AM05 - 4280 cc**) all alloy V8, with quad overhead camshafts and variable inlet camshaft timing. Featuring 4 valves per cylinder (32 valve total), with multi-point sequential fuel injection. Coil on Plug ignition system with a firing Order of 1 - 5 - 4 - 2 - 6 - 3 - 7 - 8 (Spark Plugs NGK – IFR7N-10 -Spark Plug Gap 0.9 - 1.0 mm (0.35 - 0.040 in). Bore 89.0 mm (3.504 in) Stroke 86.0 mm (3.85 in), with four knock sensors - two per cylinder head, Compression Ratio 11.3:1. Engine idle speed 750rpm, maximum engine speed 7,300rpm. 98 RON Super Unleaded fuel recommended for best performance, 95 RON minimum (Fuel Tank 80 litres/17.6 gallons). Dry sump pressurised lubrication oil reservoir. Capacities: Engine sump (incl. filter) 10.4 litres (11 Quarts) (excl. filter) 9.5 litres (10 Qrts)(Castrol Edge Sport or Formula RS 10w-60). Engine cooling system 15 litres (15.8 Qrts). Emissions controlled via 4 Oxygen sensors / two three-way catalytic converters, evaporative loss purge. **Engine upgraded to 4.7 litres (code AM08 - 4735cc) for the 09MY** (Bore now 91.0 mm. [3.582 in] Stroke 91.0 mm. [3.582 in]) all changes including power/performance figures for 4.7 are quoted in detail later with comparisons to 4.3. The V8 was changed to meet Euro-5 emissions from March 2010 (code **AM14**) now 4x three-way catalytic converters. The 2011 **V8S (AM15)** features an upgraded induction system/engine management/spark strategy.

Although loosely based on Jaguar's AJ-V8 engine block the Vantage's all alloy high-revving 4.3 Litre V8 is so heavily re-engineered that it is claimed to be an all-new engine by Aston Martin. Looking at the design you have to agree, it now features an Aston-only specification which includes: dry sump lubrication, all new cylinder heads, crankshaft, connecting rods, pistons, camshafts and inlet plus exhaust manifolds, along with new engine management. Even the cylinder block itself is a new specification, with bore (89mm) and

stroke (86mm) dimensions optimised to balance maximum power with mid-range torque. The sporting nature of the V8 is evident from its specifications which include quad all-alloy overhead camshafts, multi-point sequential fuel injection and 4 valves per cylinder (32 in total). The inlet camshaft timing is also variable: this is designed to improve low-end throttle response, mid-range torque and provide good power delivery. A resonance induction system improves tractability and performance while the efficient exhaust



Above: every car also has an inspection plate under the bonnet.  
Below: the V8 looks a little small when you lift the bonnet, each features the engine size and Aston wings on the induction manifold.

