

AUDI A8L 6.0

Twelve times able

By shoehorning a unique W12 engine into its flagship A8, Audi has created a frighteningly fast luxury saloon.

Sadly, the car just isn't up to the engine



PRECISELY 70 YEARS AFTER the launch of the Horch 670, Audi returns to the supersaloon league with a new 12-cylinder engine. Aimed squarely at the BMW 750i and the Mercedes S600, the A8L 6.0 quattro is powered by a 420bhp W12 co-developed with VW.

The W configuration has always been a rarity in engine terms. The legendary Rumpier teardrop vehicle was fitted with a W6 unit, the record-breaking single-seat racer driven by Campbell, Seagrave and Cobb was equipped with a W12 aircraft engine, and the Audi Avus concept also accommodated a W12 powerplant. But while the historic W engines usually relied on three

separate cylinder banks, the new W12 offered in the A8 features four cylinder banks and two conrods per crank arm. It effectively consists of two narrow-angle 3.0-litre V6 units which are mated together at a 72-degree angle. This package is about as compact as the classic 4.2-litre V8, and it fits under the bonnet of the A8 without requiring too many structural or sheet metal changes.

Being quite short and narrow, the W12 is claimed to be quantifiably stiffer than any competing V12. This superior stiffness results in super-smooth, virtually vibration-free running characteristics. Engineering highlights include an extremely rigid crankshaft with

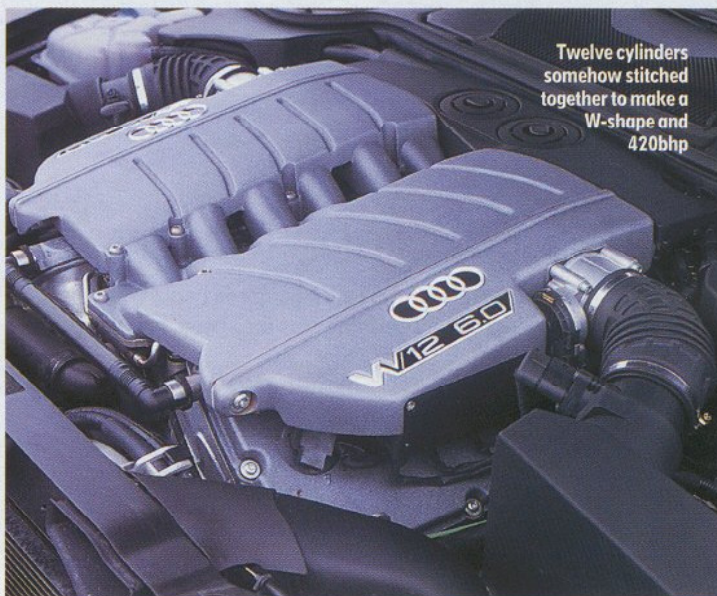
seven bearings, adjustable intake and exhaust camshafts, an extremely complex chain drive, dry sump lubrication and no fewer than six catalytic converters. You don't have to be a prophet to predict that if anything mechanical does go wrong, a mega-big repair bill will automatically follow. Sadly, the cream-of-the-crop Audi still only comes with a limited 12-month warranty.

The A8 6.0 is a sports car dressed in limousine clothes. The long-wheelbase saloon looks stately (from some angles even portly), but all the way from 0-100mph the stretched five-seater easily outperforms my 911 Carrera 4 Tiptronic. The XXL Audi wafts to 62mph in

5.8sec, and although it is limited to 156mph, the test car topped an indicated 175mph 'to compensate for eventual variations in altitude and tyre circumference'. Cheeky.

Redlined at 6000rpm, the W12 performs like a turbine, only without the noise and the throttle lag. Virtually irrespective of gear and accelerator position, the A8 6.0 will take off like a rocket whenever you feel like it, and that amazing urge continues to build above 125mph. Spreading its maximum torque of 398lb ft from 3500 to 4750rpm, the all-aluminium unit offers pulling power by the shedload.

On the autobahn, the car has only one enemy: its own brakes.



Twelve cylinders somehow stitched together to make a W-shape and 420bhp



Since nobody expects an innocent-looking saloon to thunder down the fast lane at the speed of a wrung-out Ferrari, you are repeatedly forced to drop the anchors to avoid mayhem. After half a dozen narrow-miss high-speed deceleration manoeuvres, the discs began to hum in protest, and by the end of the day they juddered and droned.

The 420bhp W12 is an exquisite engine, but the car in which it's offered is quite obviously showing its age. While the powerplant is smooth and quiet, the old car is rather noisy. Aural intruders include the wind, the tyres and the suspension. Audi claims to have composed a sporty full-throttle sound pattern

which sets the W12 apart from the traditional eight, but because of the array of secondary noises you don't hear much of it. At any rate, the W12 is not as overtly raucous at speed as the defunct 6.0-litre V12 from Mercedes, or the V12 fitted to the Ferrari M456GT.

The five-speed Tiptronic transmission is commendably smooth and responsive, but it objects to aggressive downshifts at highish revs, presumably to protect the quattro drivetrain from excessive wind-up and shock. Sadly, there is no protection against the anti-social fuel consumption. While Audi claims an average of 19.3mpg, our test car, which tipped the scales at just under

two tonnes, returned a sobering 11.8mpg, suggesting a driving range of only 240 miles.

Between now and the summer of 2002, when the Mk1 A8 will be replaced, Audi intends to sell merely between 500 and 750 W12 saloons. Most of them will probably be used within VW, and none will come to the UK because it makes no sense at all to tool up for right-hand drive.

In the long run, however, the W12 promises to become a quite significant powerplant. It will be available in the new A8 from the start, even in right-hand-drive form and in combination with the standard wheelbase. It will also be the lead engine for the new VW D1

flagship saloon. And it is earmarked for VW's mid-engined sports car. For this model, the redline will be lifted from 6000 to 7500rpm and the power output will be pushed from 420 to 500bhp, sources say.

According to the grapevine, the W12 is set to boost demand for 12-cylinder engines from 6000 units in 2000 to 20,000 by 2004.

GEORG KACHER

AUDI A8 W12	
Price:	£62,000 (in theory)
Engine:	5998cc dohc 48V W12, 420bhp, 398lb ft
Performance:	156mph, 5.8sec 0-62mph, 19.3mpg
On sale in UK:	In Mk2 A8 in 2002
RATING ★★★★★	