



ROAD TEST ASTON MARTIN DB-4

Roy Salvadori tests David Brown's newest

WHILST it is perhaps well known that for many years I have driven, as I hope I shall continue to drive, for David Brown, American enthusiasts may not know that I go up in his estimation because of any criticisms that I make. (He has often said that he has learned more from failure than success in motor racing.) I say this before beginning this test report, which contains barely a word of criticism. The faults generally found in a new car have been sorted out during the rigorous prototype testing period, and David Brown has produced a car which will be on top for many years.

First, the DB-4 is the first model completely designed, developed and built by David Brown since he acquired the Aston Martin Company in 1947. The other DB models to date have been evolved from the prototype chassis already in being in 1947 and from the W. O. Bentley-designed, 2.5-liter Lagonda engine.

Thanks to a very low door sill, the car is easy to get into,

even with my long legs. Once inside, one is conscious of "completeness." The seats are luxurious, upholstered in leather, and give support where it is needed and allow a relaxed driving position, a vital factor in a car of this performance. At last a British manufacturer has seen fit to include as standard the Chapman Reutter seat mechanism, allowing finger-tip control for every possible angle to full reclining position. The 16-inch steering wheel has a laminated wood rim and its column, off-set and jointed (a good safety factor), has adjustment for angle as well as length. To the side of the driver is a positive fly-off-type hand brake.

The panoramic windshield has very slim pillars, well out of the driver's line of vision. The excellent convex rear-view mirror covers a very wide angle: it is even possible to see somebody coming up alongside through the rear quarter windows!

The instrument panel is finished in dark leather, rubber padded and with a grab handle on the passenger side. The

instruments are intelligently arranged, with the speedometer and tachometer easily viewed through the top part of the steering wheel. Also included are fuel, water temperature and oil pressure gauges, an ammeter, clock, two-speed windshield wiper and combined electric washer, electric fuel reserve, rheostat switch for panel illumination, lighter, map and courtesy lights. On either side of the steering column are control arms for operating the flashing direction indicators and dipping the headlights; on the end of each of these is a small button for flashing headlights.

The ride is very good, and noticeably softer than that of the earlier model. Behind the rear seats, and over the 22.8-gallon tank, is a very large shelf for parcels.

There are only two or three manufacturers in the world who produce a car of this type, and I was quite prepared to accept what they normally offer for luggage space—practically nothing—but imagine my surprise when I found ample room here for four fair-sized suitcases. The battery and tools are kept in recesses at each side, and the spare wheel is under the floor in a dirt-proof compartment.

Mechanically I found the car most interesting. The integral chassis and body construction employed is called "Superleggera" (super lightweight), an apt description, for the bare chassis and steel tubular superstructure weigh only 448 pounds; yet the design is sound and exceptional in torsional rigidity and beam stiffness, with generous box-section sides. One of the advantages of the platform chassis is that a very low seating position is achieved with only shallow sills.

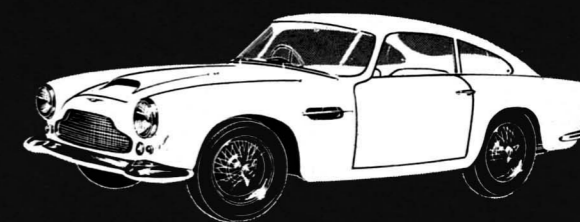
The 6-cylinder engine, a direct development from the DBR-2 racing unit, has twin overhead camshafts and an aluminum-alloy crankcase and cylinder head (the valves are inclined at an 80° included angle). Individual inlet ports are fed from two three-branch manifolds by two 2-in. SU carburetors. Power output is 263 brake horsepower at 5700 revolutions per minute, with a compression ratio of only 8.25:1. Without resorting to a very high compression ratio and the resultant stresses involved, this seven main-bearing engine has been designed to run with complete reliability and very low component stresses. (I shudder to think of the power this engine could develop if suitably tweaked!) I well remember when the 3.7-liter engine was being developed in the DBR-2 sports/racing cars in 1957 and 1958. Although it won many races and held the lap records for Goodwood, Oulton Park and Aintree, it was always difficult to believe one had made a good lap time.

The 4-speed David Brown gearbox has synchromesh on all gears and well selected ratios which match the torque characteristics of the engine. Dunlop servo-assisted disc brakes are fitted on all four wheels and provide exceptional stopping power, the like of which I have never experienced before in a production car. However, one needs time to appreciate this formidable stopping power, so—mainly for the sake of the car following—one should take a little time to accustom oneself to them.

The suspension at the front is by wishbones with helical coil springs mounted on large-diameter Armstrong telescopic dampers. (This system was developed on the Aston Martin DBR-3 racing cars.) At the rear, the live axle is mounted on parallel trailing links and located transversely by Watts linkage, incurring true vertical movement of the axle. Helical coil springs are mounted behind the axle, with large double-acting Armstrong piston-type dampers. Steering is by rack and pinion and is pleasantly light, yet precise. Although the engine is well forward the weight distribution is very good: 51.7% at the front, 48.3% at the rear. The combination of these aspects produces road holding of the highest order, superior even to the DB Mark III (Road & Track, December 1958), which I have always considered without equal.

(continued)

ROAD & TRACK ROAD TEST 202



ASTON MARTIN DB-4

SPECIFICATIONS

List price	\$9770
Curb weight	2884
Test weight	3204
distribution, %	51.7/48.3
Dimensions, length	177
width	66
height	52
Wheelbase	98
Tread, f and r	54/53.5
Tire size	6.00-16
Brake lining area	n.a.
Steering, turns	2.8
turning circle	34
Engine type	6 cyl, dohc
Bore & stroke	3.62 x 3.62
Displacement, cu in	223.9
cc	3670
Compression ratio	8.25
Bhp @ rpm	263 @ 5700
equivalent mph	130
Torque, lb-ft	245 @ 4000
equivalent mph	90.5

PERFORMANCE

Top speed (4th), mph	140.2
best timed run	
3rd (5800)	105
2nd (5800)	75
1st (5800)	52

FUEL CONSUMPTION

Normal range, mpg	14/17
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ACCELERATION

0-30 mph, sec	3.0
0-40 mph	3.9
0-50 mph	5.9
0-60 mph	7.5
0-70 mph	9.6
0-80 mph	12.6
0-90 mph	15.1
0-100 mph	18.3
Standing 1/4 mile	15.8
speed at end, mph	94

GEAR RATIOS

O/d (n.a.), overall	
4th (1.00)	3.54
3rd (1.25)	4.42
2nd (1.74)	6.16
1st (2.49)	8.82

TAPLEY DATA

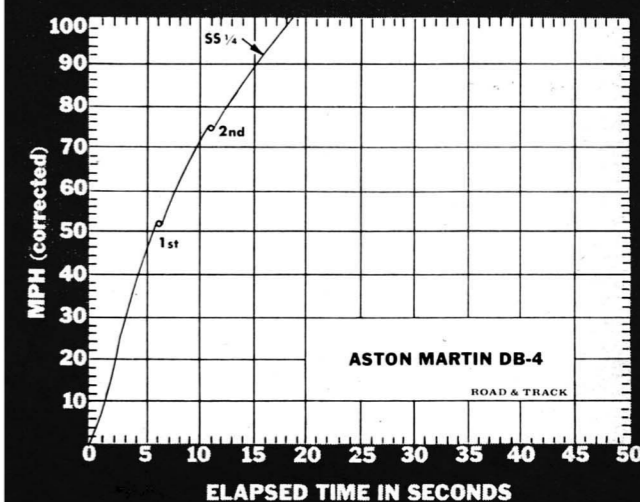
4th, lb/ton @ mph	300 @ 83
3rd	395 @ 78
2nd	575 @ 57
1st	off scale
Total drag at 60 mph, lb	100

CALCULATED DATA

Lb/hp (test wt)	12.2
Cu ft/ton mile	107
Mph/1000 rpm (4th)	22.6
Engine revs/mile	2650
Piston travel, ft/mile	1600
Rpm @ 2500 ft/min	4150
equivalent mph	94
R&T wear index	42.5

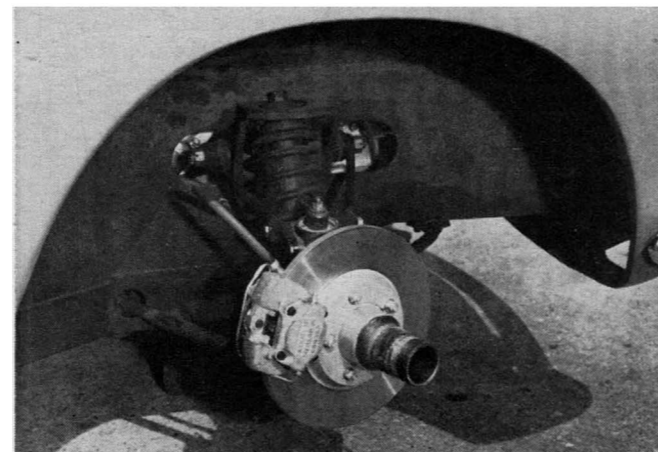
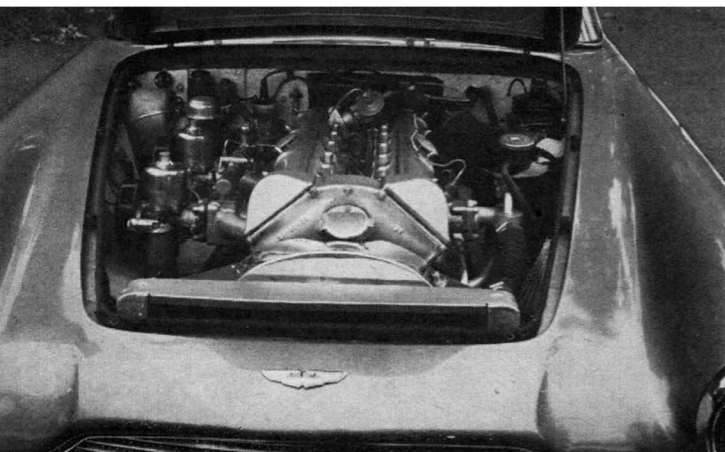
SPEEDOMETER ERROR

30 mph	actual 32
40 mph	42
50 mph	51
60 mph	61
70 mph	72
80 mph	80
90 mph	91
100 mph	101

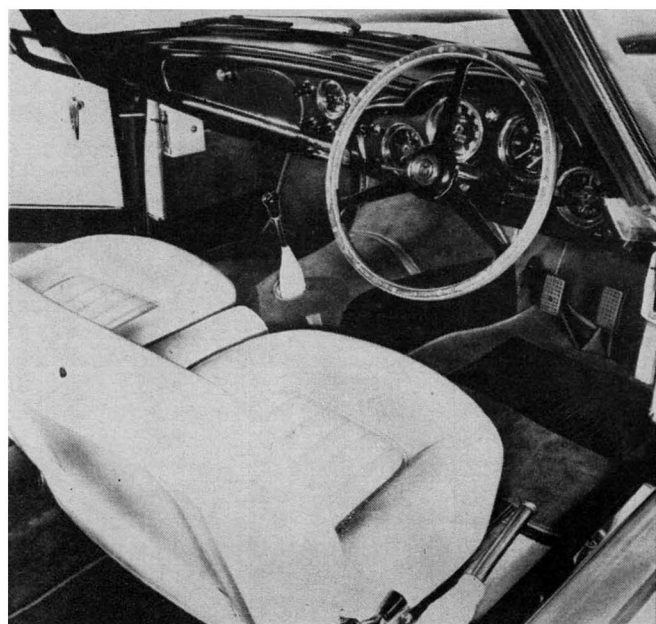
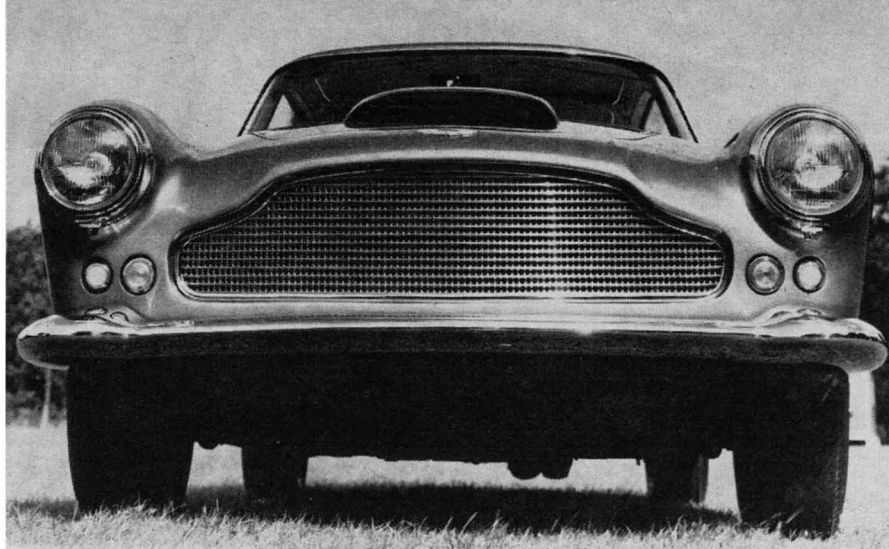


Racing-bred to take you smoothly to 100 miles per hour . . .

. . . And back to a stop again in a total of 26.2 seconds.



The lines are unmistakably Italian (it was styled by Carrozzeria Touring in Milan), yet it is also unmistakably an Aston Martin. The rear quarter windows are hinged for thorough ventilation, and the rear seats are comfortable for all but tall people on a long trip. Control of the rack and pinion steering can be adjusted to suit almost any taste: the wood-rimmed wheel will sit in your lap or lend itself to a straight-armed Italian manner; the column itself can even be raised or lowered. Controls and instruments are complete, and for those Britishers (and Americans) who don't take their pleasures sadly, there are individual heat/air controls.



At last I was ready to set out on my comparatively short test on busy English roads—not the best of conditions! After only a few miles I realized the DB-4 quite definitely had a dual personality. It is a very potent performer and a docile family car rolled into one. Let me explain.

With a good open road ahead, or better, in competition on a circuit, the full use of the remarkable acceleration and speed can be used. Never using more than 6000 rpm, you do about 54 miles per hour in 1st, 76 in 2nd, 108 in 3rd and 140 in top (with 3.54 axle ratio). Changing up at over 100 mph, you still feel a definite kick in the back as you accelerate in 4th. At 70 or 80 mph, when many cars are near their limit, the DB-4 is happily cruising at *only half the speed* for which it has been designed, and you always have ample acceleration, with powerful braking plus the road holding to get you out of almost any difficulty.

I had read the publicity handout claiming acceleration to 100 mph and back to a stop again in 26.2 seconds, but just to convince myself I decided to have a go. With a skeptical friend operating the stop watch and checking the speed with the speedometer (which was afterwards checked and found to be accurate), I reached 100 mph and stopped dead again in 27.4 sec. Fair enough, I thought, but immediately repeated this performance in about the same time to see if there was the slightest indication of fade in the brakes, for they had to work really hard bringing this 2884-lb car

to a halt. There was none, a truly magnificent performance.

The road holding and steering promote confidence, and fast driving on twisting roads is sheer joy; there is just enough feel through the wheel to know what is happening (I hate dead steering). Yet it is light enough not to be tiring, even at low speeds in city traffic. On wet roads one can still use considerable power without any indication of tail breakaway. Naturally, care is needed when coming out of a slow corner. If you bring the power in too quickly the car will tend to break away slightly, but it is nothing vicious and very easily and pleasantly controlled. The Avon Turbospeed tires have been specially developed for the high speeds possible.

As the test wore on and I became more familiar with the car, I found that I was changing gears less and less, almost without noticing it. If you like, this can be treated as a "top gear" car at any speed from 17 mph (850 rpm) right up to its maximum.

Another point suddenly struck me: the car was very quiet. Conversation with my passenger was in a normal voice, and even at high speeds the engine note, through the twin exhaust system, was very modest. Wind noise was negligible. Very high performance has been achieved without the noise generally associated with a sports car, and there is space and comfort superior to many family cars—even your grandmother would not object to riding in the DB-4!