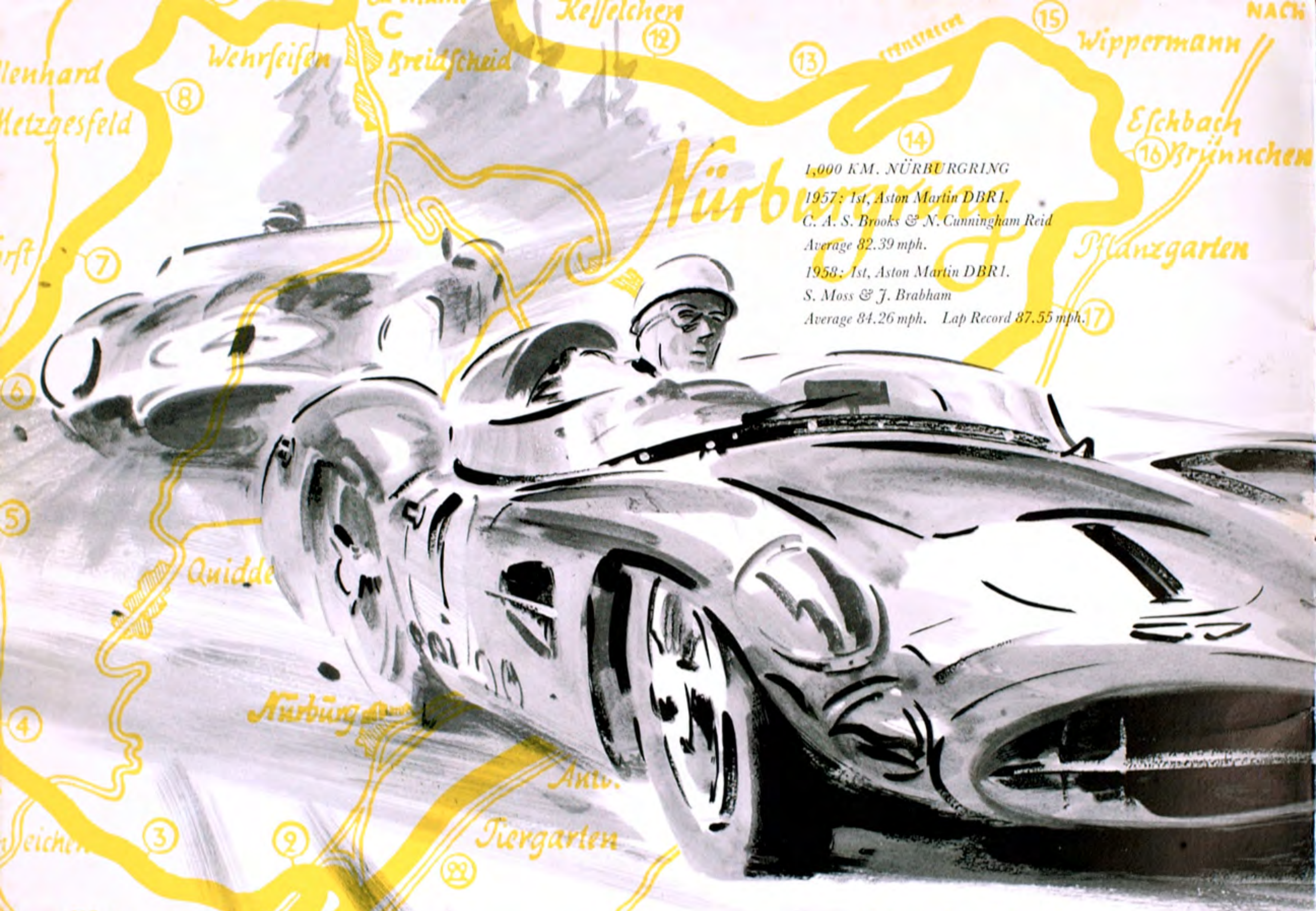
By Appointment to
His Royal Highness the Duke of Edinburgh
Motor Car Manufacturers
Aston Martin Lagonda Limited

THE DAVID BROWN ASTON MARTIN DB4

DAVID BROWN
ASTON MARTIN


Nürburgring
1,000 KM. NÜRBURGRING
1957: 1st, Aston Martin DBR1.
C. A. S. Brooks & N. Cunningham Reid
Average 82.39 mph.
1958: 1st, Aston Martin DBR1.
S. Moss & J. Brabham
Average 84.26 mph. Lap Record 87.55 mph.
Start u. Ziel
Nordschleife =
Wehrseifen
Kreidscheid
Kesselchen
Wippermann
Eschbach
Brünnchen
Pflanzgarten
Tiergarten
Hatzenbach
Quidde
Metzgesfeld
NACH

A new car of fantastic brilliance—THE ASTON MARTIN DB4

It is unique. This first completely new Aston Martin for several years is an entirely new conception; it is the first four seater Aston Martin car since the pre-war days of the glory of this marque; it combines the skills of DAVID BROWN engineering and the Italian design artistry of CARROZZERIA TOURING; it is a four seater production sports car capable of a safe level of road performance which is exceptional by world standards of judgment.

This exciting car is fast. Speeds of 140 miles per hour are possible where road conditions are suitable for that exercise. It will accelerate from 0–100 miles per hour and stop again within 30 seconds. (See the official observed test by the Motor Industry Research Association on page 4).

It is safe. Servo assisted Dunlop four wheel disc brakes ensure stopping power to match the high speeds. Steering is accurate, positive and effortless. Road holding is even better than that achieved, and acknowledged by world acclaim, on the companion model the DB MARK III. The wrap-round windscreen ensures perfect visibility. Driver and passenger safety has been studied. Inspect the off-set and jointed steering column, the rubber padded facia; note the absence of protruding components; consider the robust embracing chassis side members and the sturdy body superstructure.

It is comfortable. There is roominess for relaxed driving. There is adult accommodation in all four seats; seat shape and springing are exactly suited to secure and tireless riding; Chapman Reutter front seat mechanism provides full adjustment to reclining position. Above all, the coil suspension with the rear springs mounted behind the rear axle to add to the spring base, ensures impeccable riding comfort in all four seats.

It is gracious. The aesthetic achievement of the Italian designers of the Superleggera body is fully evident; but equally successful has been the respect to functional requirements. The body is aerodynamic without rakishness, it is pleasing without ornamentation, it is superbly appointed and bears the stamp of the quality standard to which it is built.

It is engineered. Every unit is new. The 6-cylinder 3.7 litre twin overhead camshaft engine, with aluminium alloy crankcase and cylinder head, provides high power output with low component stressing. The four speed central change gearbox is robust and has ratios selected to suit exactly the power and torque characteristics of the engine for which it has been designed. The suspension by transverse wishbones with ball jointed king pins on the front, and parallel trailing links with lateral axle location by Watts linkage at the rear, effectively ensure comfort and stability and contribute to the precise steering and immaculate road holding of the car.

The foundation of this car, the platform chassis, is a sound design conception. Generous box section side and cross members with integral mounted bulkhead form the basic structure. To this is integrated the Superleggera steel tubular body superstructure and the resultant and relatively light complete assembly is exceptional in torsional rigidity and in beam stiffness.

It is complete. There are no extras required for this car excepting those dictated by personal preference, such as radio. The screen washers, Chapman Reutter seat fittings, a twin exhaust system and a large capacity heating and ventilating system are all included as original equipment. This new Aston Martin DB4 is manufactured entirely within the new self-contained automobile factory of THE DAVID BROWN GROUP at Newport Pagnell, Buckinghamshire. On this site, Tickford Limited, now part of the DAVID BROWN organisation, established a reputation for coachbuilding craftsmanship as old as the industry; that tradition is maintained.

THE MOTOR INDUSTRY RESEARCH ASSOCIATION REPORT

ON — Acceleration and deceleration tests on an Aston Martin DB4 saloon.

FOR — Aston Martin Lagonda Limited.

OBJECT OF TEST — To measure the times to accelerate from 0–100 m.p.h. and to decelerate from 100 m.p.h. to rest, six times at intervals of one minute.

CONDITIONS OF TEST — Tests were made on a level road surface of dry tarmac under the following conditions:

Wind:	Nil
Temperature:	60°F
Barometer:	29·90 in. Hg.
Load:	Driver and observer.

RESULTS

Test No.	Seconds 0–100–0 m.p.h.
1	27·4
2	26·2
3	27·8
4	27·2
5	27·4
6	27·4
Mean	27·2

Date: 2nd October, 1958.

signed A. FOGG – Director


4 SMY

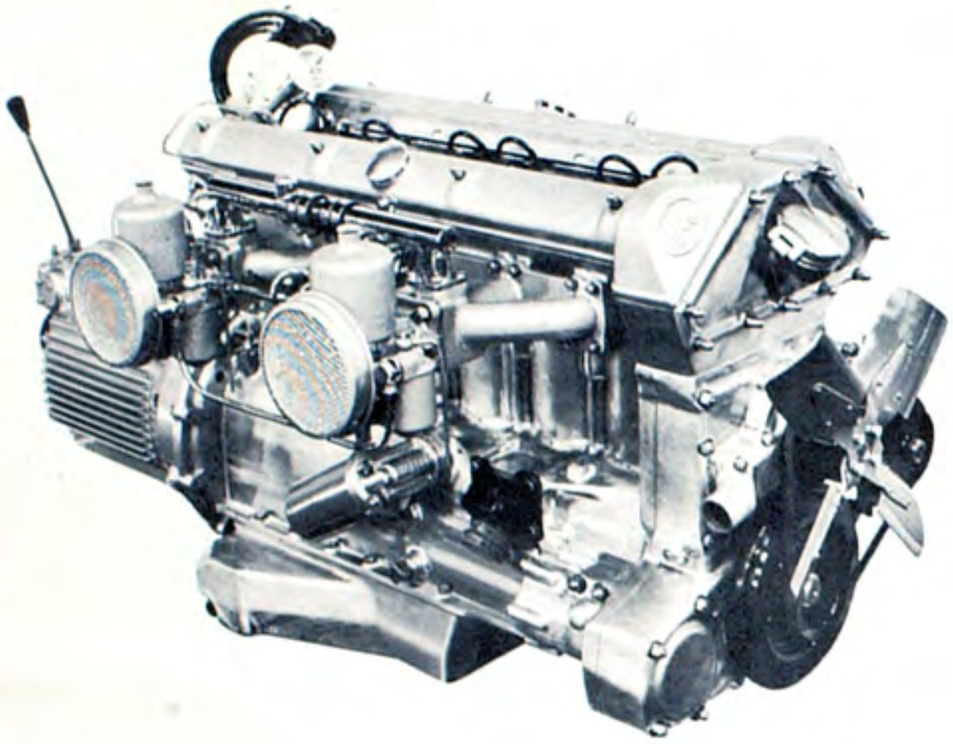
Note the armchair comfort of the front seats. Adjustment to full reclining position is simple and easy of operation by the side lever control of the Chapman Reutter seat mechanism. Note, too, the clear vision afforded by the wrap-round windscreen.

The seats, upholstered in first quality Connolly leather, adequately accommodate four adults. There is ease of access to all seats and the rear seats are generously proportioned.

The instruments are sensible in size, type, and location and hooded to ensure against reflection in the screen. The switches are conveniently grouped and carry identifying symbols. Note the wood rim steering wheel, the side ventilator controls, the pedal arrangement and the fly-off hand brake lever.

Luggage accommodation is commodious for a car of this class. The golf clubs can be carried in the boot with a lesser amount of luggage. Note the sturdy wrap-round rear bumper which is matched at the front end.

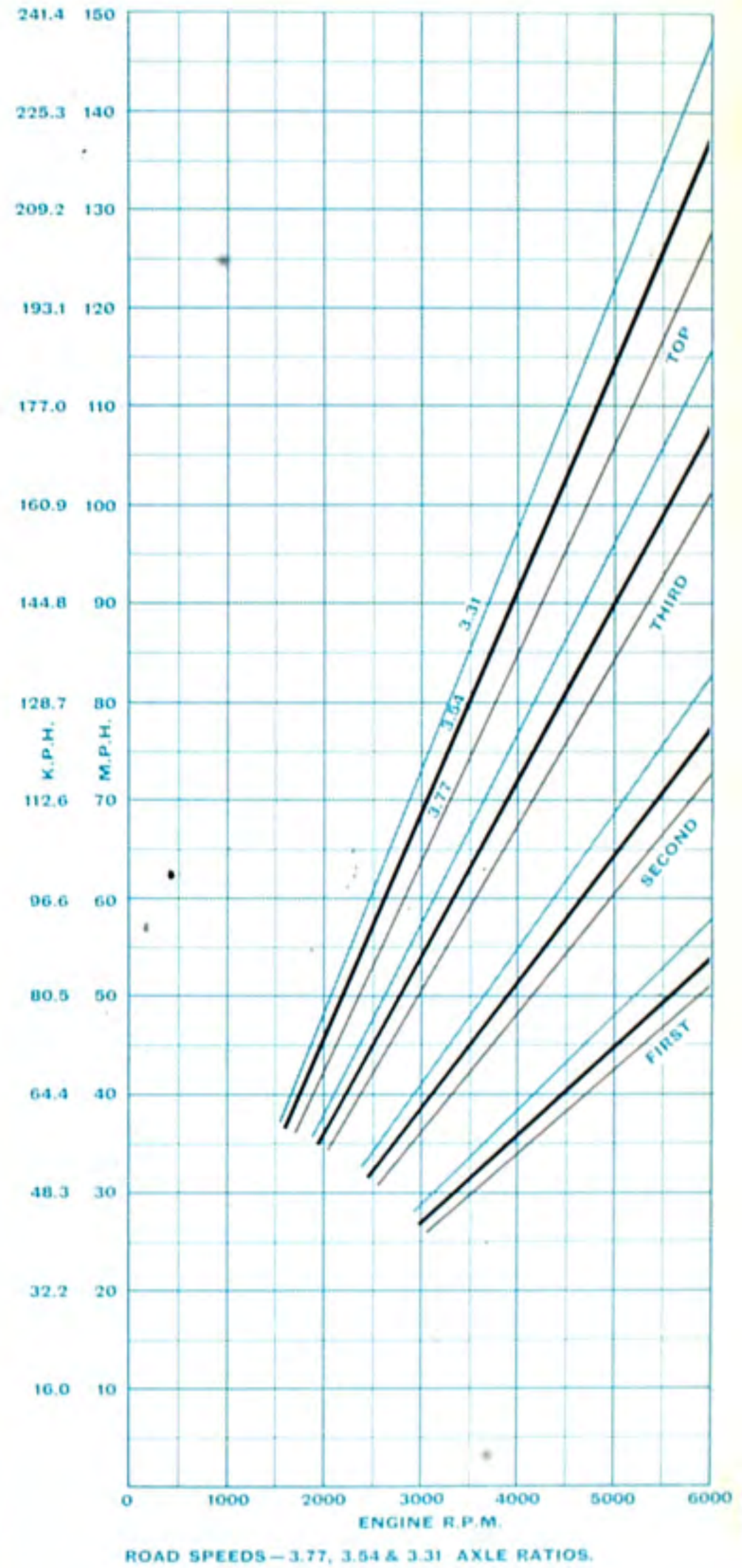
A complete heating and ventilating system is standard equipment and is adequate for the most exacting of climatic conditions. The system provides either fresh air or heated air by selector controls for either the driver or the passenger, or for both. In extremes of temperature an air blower can be operated to augment the normal supply. The controls can be operated by either the driver or the front passenger.



THE POWER UNIT

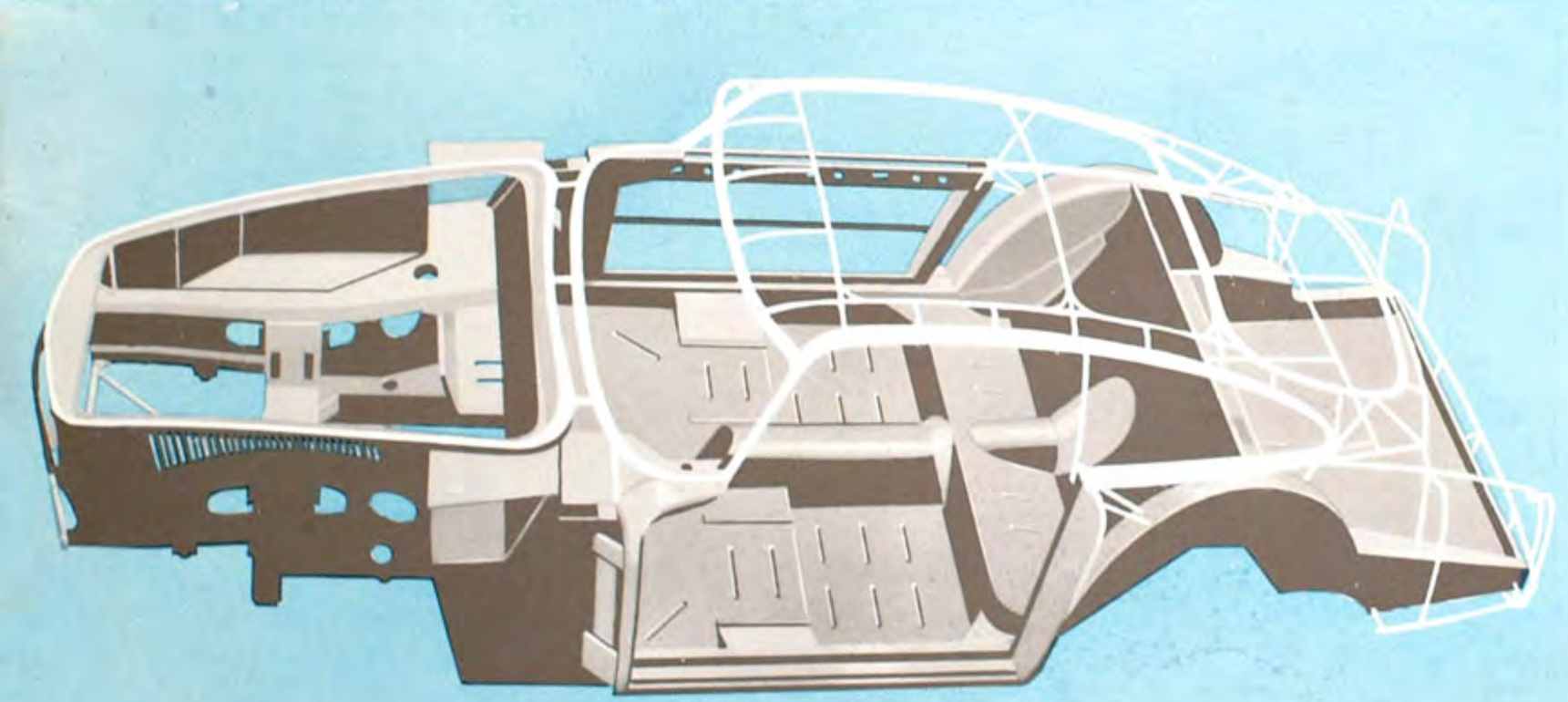
The new 3·7 litre power unit, including the gearbox, is supported at three points which are arranged to permit of true torsional oscillation. The rugged design of the engine, its careful construction, and its rigorous testing ensures a consistently high standard of output, smooth running and reliability. The four speed, all synchromesh, gearbox—specifically designed for the Aston Martin DB4 car by the DAVID BROWN AUTOMOBILE GEARBOX DIVISION—employs a light alloy casing with integral cooling fins. The central gear change is both light and smooth in operation.

The graph shown here illustrates the road speed performance of the car in the four gears, and with the various alternative final drive ratios (3·31 : 1, 3·54 : 1 and 3·77 : 1).



ROAD SPEEDS—3.77, 3.54 & 3.31 AXLE RATIOS.

THE PLATFORM CHASSIS AND SUPERSTRUCTURE. STRONG–RIGID–LIGHT



DB4
ABRIDGED SPECIFICATION

Engine. Six cylinder. Bore 92 mm. (3·622 ins.). Stroke 92 mm. Cubic capacity 3670 c.c. (224 cu. ins.).

Aluminium alloy cylinder block and head.

Seven bearing crankshaft.

Twin overhead camshafts. Two-stage Duplex chain drive.

Hemispherical combustion chambers.

Twin S.U. diaphragm type carburetters with electrically operated starting carburetter.

Lubrication. Chain driven Hobourn-Eaton oil pump and Purolator full flow filter.

Cooling. Centrifugal water pump and fan. Cross flow radiator.

Compression Ratio. 8·25 : 1.

Power Output. 240 b.h.p. at 5,500 r.p.m. 263 h.p. S.A.E. rating at 5,700 r.p.m.

Clutch. Borg and Beck 10 in. single plate.

Gearbox. David Brown four-speed with synchromesh on 1st, 2nd, 3rd and top gears.

Rear Axle. Salisbury hypoid. Ratios 3·31, 3·54 and 3·77 : 1.

Suspension. *Front:* Independent. Co-axial coil springs and Armstrong telescopic shock absorbers.
Rear: Live axle. Parallel trailing links and Watts linkage. Coil springs. Armstrong piston type shock absorbers.

Steering. Rack and pinion.

Brakes. Dunlop disc front and rear. Vacuum servo.

Fuel Tank. 19 Imperial galls (22·8 U.S. galls.) (86·3 litres).

Wheels and Tyres. Dunlop centre-lock 5 in. rims. 6·00×16 Avon Turbospeed tyres.

Dimensions.

Wheelbase	98 ins.	(248·9 cm.)
Front track	54 ins.	(137·2 cm.)
Rear track	53½ ins.	(135·9 cm.)
Overall length	176¾ ins.	(448·0 cm.)
Overall height	52 ins.	(132·1 cm.)
Overall width	66 ins.	(167·6 cm.)
Kerb weight	2,884 lb.	(1308 kg.)

DB4
DONNEES TECHNIQUES SOMMAIRES

Moteur. Six cylindres. Alésage 92 mm. Course 92 mm. Cylindrée 3670 c.c.
Culasse et bloc-cylindres en alliage léger.
Vilebrequin travaillant sur 7 paliers.
Deux arbres à cames en tête. Entraînement par chaînes Duplex deux étages.
Chambres de combustion hémisphériques.
Deux carburateurs S.U. à membrane avec carburateur de démarrage à commande électrique.

Graissage. Pompe à huile Hobourn Eaton entraînée par chaîne, filtre Purolator en série.

Refroidissement. Pompe à eau à turbine et ventilateur. Radiateur à circulation transversale.

Rapport volumetrique. 8,25 : 1.

Puissance effective. 240 HP à 5.500 t.mn. 263 HP (formule S.A.E.) à 5.700 t.mn.

Embrayage. Borg et Beck, monodisque, diamètre 25,4 cm.

Boite de vitesses. David Brown, 4 rapports, avec 1ère, 2ème, 3ème et 4ème synchromesh.

Pont arriere. Hypoïde Salisbury. Rapports 3,31, 3,54 et 3,77 : 1.

Suspension. *Avant:* indépendante; ressorts hélicoïdaux coaxiaux et amortisseurs télescopiques Armstrong.
Arriere: pont rigide; bielles arrière parallèles et tringlerie Watts; ressorts hélicoïdaux. Amortisseurs Armstrong à piston.

Direction. par crémaillère.

Freins. freins à disques Dunlop sur roues avant et arrière. Servo à dépression.

Reservoir d'essence. contenance 86,3 litres.

Roues et pneus. Jantes Dunlop 12,7 cm., montage par chapeau à visser; pneus Avon Turbospeed.

Cotes.

Empattement	248,9 cm.
Voie avant	137,2 cm.
Voie arrière	135,9 cm.
Longueur hors tout	448,0 cm.
Hauteur hors tout	132,1 cm.
Largeur hors tout	167,6 cm.
Poids en ordre de marche ..	1308 kg.

DB4
TECHNISCHE KURZBESCHREIBUNG

Motor. Sechszylinder. Bohrung 92 mm. Hub 92 mm. Hubvolument 3670 ccm.
Zylinderblock und -kopf aus Aluminiumlegierung.
Kurbelwelle mit 7 Hauptlagern.
Obenliegende Doppelnockenwelle. Zweistufiger Duplex-Kettentrieb.
Halbkugelförmige Verbrennungskammern.
Doppelter S.U.-Membranvergaser mit elektrischer Startvorrichtung.

Schmierung. kettenbetriebene Ölpumpe Hobourn-Eaton mit 'Purolator'-Vollstromfilter.

Kuhlung. Schleuderpumpe und -gebläse. Querstromkühler.

Verdichtungsverhaltnis. 8,25 : 1.

Bremsleistung. 240 PS bei 5.500 U/min. 263 PS (nach S.A.E.) bei 5.700 U/min.

Kuplung. Borg & Beck, 25,4 cm Einscheibenkupplung.

Getriebe. Vierganggetriebe Type David Brown mit Gleichlauf im 1., 2., 3. und obersten Gang.

Hinterasche. Salisbury-Hypoidgetriebe. Verhältnis 3,31, 3,54 u. 3,77 : 1.

Aufhangung. *Vorn:* Einzelradaufhängung. Koaxiale Spiralfedern und Armstrong-Teleskopstossdämpfer.
Hinten: Treibachse. Parallele Hinterlenker und Watts-Lenker. Spiralfedern. Armstrong-Hülsenstossdämpfer.

Lenkung. Zahnstangenlenkung.

Bremsen. Dunlop-Scheibenbremsen vorn und hinten. Unterdruck-Servobremsen.

Kraftstoffbehalter. 86,3 : 1.

Rader und Reifen. Bauart Dunlop, 12,7 cm. Felgen 6,00×16. Avon-Turbospeed-Reifen.

Abmessungen.

Achsstand	248,9 cm.
Radspur vorn	137,2 cm.
Radspur hinten	135,9 cm.
Gesamtlänge	448,0 cm.
Gesamthöhe	132,1 cm.
Gesamtbreite	167,6 cm.
Gewicht, unbeladen	1308 kg.

DB4
DATI PRINCIPALI

Motore. Sei cilindri. Alesaggio 92 mm. Corsa 92mm. Cilindrata 3670 c.c.
Testa dei cilindri e monoblocco in lega di alluminio.
Albero a gomito su sette supporti.
Due Alberi a Camme in testa. Doppia trasmissione a catena Duplex.
Camere di combustione emisferiche.
Due carburatori S.U. del tipo a diaframma con dispositivo di avviamento a comando eletrico.

Lubrificazione. Pompa olio Hobourn Eaton con trasmissione a catena e filtri (o filtro) Purolator nel circuito.

Raffreddamento. Ad acqua con pompa centrifuga e ventilatore. Radiatore a flusso orizzontale.

Rapporto di compressione. 8,25 : 1.

Potenza sviluppata. 240 c.v. potenza al freno a 5.500 giri al minuto. 263 c.v. Formula S.A.E. a 5.700 giri al minuto.

Frizione. Monodisco Borg and Beck 25,4 cm.

Scatola del cambio. David Brown a quattro velocità con sincronizzazione sulla 1a., 2a., 3a., 4a.

Asse posteriore. Salisbury ipoide. Rapporti 3,31, 3,54, e 3,77 : 1.

Sospensione. *Anteriore:* Indipendente. Molle elicoidali coassiali e ammortizzatori telescopici Armstrong.
Posteriore: Ponte posteriore rigido. Biellaggio parallelo articolato e articolazione Watts. Molle elicoidali. Ammortizzatori Armstrong del tipo a pistone.

Sterzo. Comando a cremagliera.

Freni. Dunlop a disco anteriore e posteriore. Servo freno a depressione.

Serbatoio benzina. 86,3 litri (19 Gall. Imp., o 22,8 Gall. U.S.A.).

Ruote e pneumatici. Ruote Dunlop con fissaggio centrale 12,7 cm. Cerchi 6,00×16. Pneumatici Avon Turbospeed.

Dimensioni.

Passo	248,9 cm.
Carreggiata anteriore	137,2 cm.
Carreggiata posteriore	135,9 cm.
Lunghezza totale	448,0 cm.
Altezza totale	132,1 cm.
Larghezza totale	167,6 cm.
Peso in strada	1308 Kg.