



# ALVIS CAR AND ENGINEERING CO. LIMITED COVENTRY

ENGLAND

This List cancels all previous Lists dealing with Alvis Front
Wheel Driven Cars

Master of the King's Highway

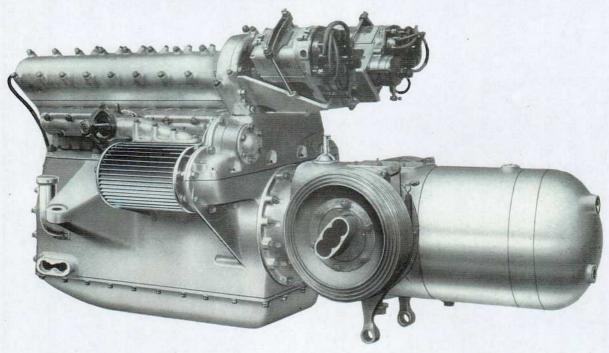
## FOREWORD

HE Alvis Front Wheel Drive Car has become the automobile sensation of the year 1928. Its advent created widespread interest far outside the realms of motordom and in the narrower circle of actual motorists it became an absorbing topic, almost as soon as the first cars were seen on the road. These cars are frankly revolutionary in principle for not only is propulsion through the front wheels introduced but the design of the chassis embodies vertical independent springing of all four wheels. To appreciate the merit of Front Wheel Drive, comparison should be made between this and the ordinary car. In an ordinary rear wheel driven car, when the driver alters the direction of the steering, several things happen. One is that although the car tends to go in the direction in which the front wheels are pointing, at the same time, the driving force at the back tends to make the front wheels move laterally or at an angle to the steered direction of the car. To carry this idea to its logical conclusion, if the car is running on a very slippery surface when the front wheels are turned, as there is no resistance to the road, the car still goes directly forward and slides upon its front wheels until equilibrium is achieved. This tendency is overcome in the Alvis Front Wheel Drive Sports Car. The great factor in Front Wheel Drive is that the driving force is always applied in the direction in which it is desired that the car shall move. The driver not only changes the direction of the front wheels but also the direction of the force propelling the car, consequently, corners can be taken much faster than is usual with an ordinary car and it is nearly impossible to overturn the car from any force applied from the interior.

The confidence of its designers in Front Wheel Drive is very great and prolonged experience on road and track have fully endorsed this. To drive one of these cars is a revelation even to an experienced motorist. Its remarkable road holding qualities, its surging power, its steadiness at all speeds, its tractability and light steering are characteristics that are evident to an unique extent and so far have not been produced in like degree in any other car built and offered for sale to the general public. The Alvis Front Wheel Drive Sports Car offers a new experience and a never ending joy to its owner—and the reputation it has already established is the surest indication of its remarkable qualities.



## THE ALVIS FRONT WHEEL DRIVE POWER UNITS



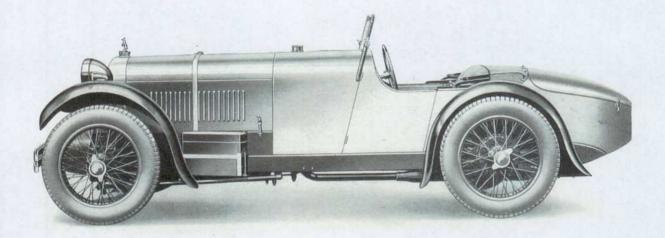
WO distinct types of power unit are available on the Alvis Front Wheel Drive Chassis, a four cylinder and an eight cylinder. These engines are fundamentally different from those used in either the Alvis Four or Six Cylinder cars. The illustration reproduced above will serve to indicate to the keen student of engineering, the many directions in which the eight cylinder engine differs from those of orthodox design.

The four cylinder type is equally original in design and layout. The four cylinder supercharged power unit develops well over 70 B.H.P. on the settings supplied for ordinary Touring work, and this can be increased to over 80 B.H.P. when tuned for competition purposes. As an indication of its vivid acceleration it may be mentioned that a speed well over 40 m.p.h. can be attained from a standing start within one hundred yards. The eight cylinder engine can considerably exceed the power output of the four and at the same time is perfectly smooth and silky under all conditions. In each case these powers are developed without overstressing any parts of the engine and consequently can be maintained for long periods.

It will be understood that the degree of accuracy necessary to make such performance possible, is very high indeed and that in order to produce an engine that will continue to perform in this way, extreme care in the selection of raw material and ultimate manufacture must be exercised. The standard of engineering skill in the Alvis engine shops is as high as—perhaps higher than—that of any other car manufacturer in the world and the scrupulous care given to every phase of production ensures that the high reputation of the Alvis cars will continue to be wholly maintained by the Alvis Front Wheel Driven Car.



## THE ALVIS FRONT WHEEL DRIVE TWO-SEATER SPORTS



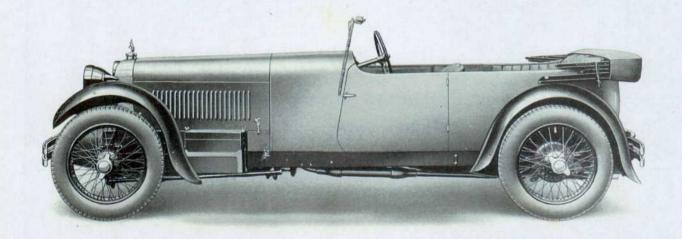
THE Alvis Front Wheel Drive Two-Seater Sports Model is available with either an eight or a four cylinder engine. It is an exceptionally smart looking car of low and sweeping lines and its beauty is greatly enhanced by the long bonnet, made possible by the fact that the gear box is carried in front of the engine. A light coachbuilt body is used and this has been designed to provide the minimum of wind resistance without giving the car that naked appearance so often found in fast touring or sports cars.

In both four and eight cylinder cars a supercharger is embodied in the design and guaranteed speeds are given under the chassis specifications on pages nine and eleven. In each case, the figures given are conservative and may be exceeded without difficulty under favourable conditions. Altogether, this two-seater model is one that will delight the heart of the keen motorist—whether he requires a car for fast touring over long distances or purely for sport.

For prices see pages 9 and 11.



## THE ALVIS FRONT WHEEL DRIVE FOUR-SEATER SPORTS



THE Four-Seater Front Wheel Drive Sports Car has a very roomy body providing comfortable accommodation for four passengers while still retaining the grace, symmetry and streamlining effect so evident in the other Front Wheel Drive Models. The low build of this car, it will be agreed, suggests greater length than is actually the case, and seeing this car on the road one has the impression of a very high powered and in every sense of the word "big" car.

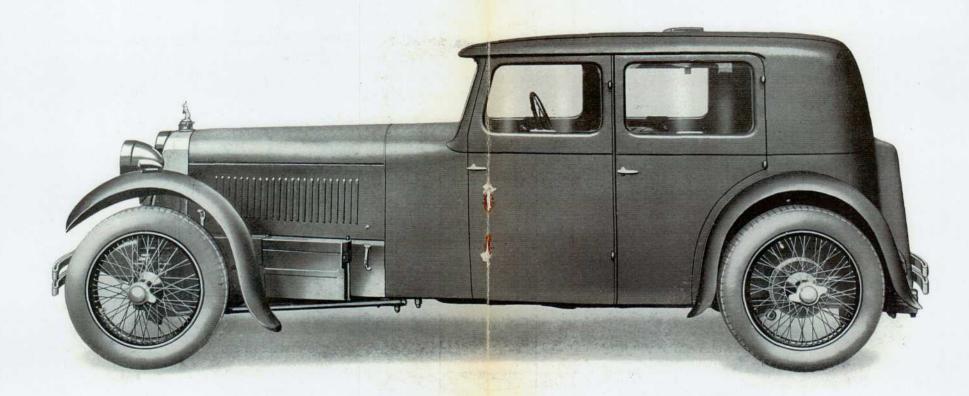
The light coachbuilt body is constructed of aluminium panels coloured to choice, this type of body having proved most satisfactory for fast touring and speed work. As in the two-seater model, this car can be had either with a four or an eight cylinder power unit. It is delivered completely equipped with all necessary instruments and accessories and its finish is, of course, entirely worthy of the fair name of Alvis. For the Sportsman-Motorist, who enjoys his pleasures in good company, this four-seater car will be found totally adequate and satisfactory in every way.

For prices see pages 9 and 11.



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### THE ALVIS FRONT WHEEL DRIVE SPORTS SALOON

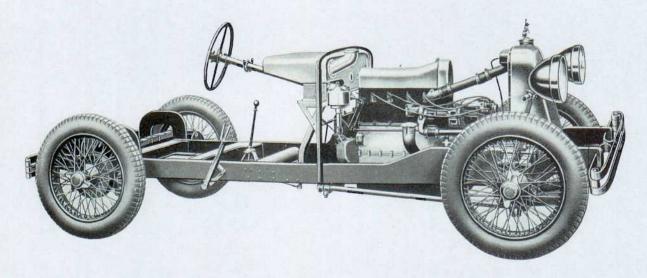


THE Alvis Front Wheel Drive Flexible Sports Saloon is a car of exceptional merit, combining as it does, all the distinct advantages of the Front Wheel Drive Sports Car with the amenities of a luxurious saloon. The chassis is, of course, the same as in other Front Wheel Drive cars, but the body is constructed upon the now famous Alvista principle. In this type of body are embodied many patented features of special design which are available in no other makes of cars. The body is neither a "Weymann" nor a Fabric body as commonly understood, but possesses the best characteristics of each, with a number of valuable ones in addition. It is a full-bodied Four-Seater Saloon of handsome appearance and modern lines, the comfort of which is really epoch-making. Ample leg and head room is provided for even very tall people and all controls are immediately to the hand of the driver. The equipment is complete in every respect and the car is excellently ventilated . . . . in fact this is an enclosed car calculated to meet the needs of the most at lent seeker after luxury and comfort.

Added to these undeniably attractive characteristics are the speed and safety for which the Alvis Front Wheel Drive Car is famous. It is not difficult, then, to appreciate the demand that has arisen for this car in a very short space of time. Like other Alvis Front Wheel Drive Cars, this model is available as either a four or an eight cylinder Saloon—though for absolute perfection in silent, speedy, luxurious travel the eight cylinder model is recommended. A wide choice of body colours is given in either type.

For prices see pages 9 and 11.

#### 4 CYLINDER CHASSIS SPECIFICATION



ENGINE.—Four cylinders 68 m/m bore, 102 m/m stroke, 1481 c.c. Detachable head, ample water spaces carefully proportioned to avoid distortion in cylinder or head. The gasket is not used to make the water joint, separate passages being provided for this purpose. Crankshaft is of heat treated steel and is carried in three bearings; it is machined all over and is fitted with counter balance weights. Connecting rods are of Duralumin with special white metal linings pressure cast in position. Pistons are of special aluminium alloy. Valves of specially developed alloy steel are in the head, and are operated by an overhead camshaft gear driven. A semi-dry sump is used. Lubrication by rotary gear pump providing forced feed to main crankshaft and big-end bearings and to overhead camshaft. The camshaft is hollow and has pressure feed to all bearings and to each individual cam.

COOLING is by centrifugal pump and genuine honeycomb radiator. The radiator has a solid nickel case with an effective stone guard.

SUPERCHARGER is of ALVIS design and manufacture, and has been thoroughly tested out during the past five years on our racing and experimental cars.

CARBURETTOR.—A single horizontal Solex Carburettor is fitted.

IGNITION is by special Polar Inductor Magneto.

CLUTCH.—Single plate clutch of Alvis design including a "clutch stop" as part of original design and providing remarkable ease of control and easy gear change.

GEARBOX.—Four speeds forward and reverse. All shafts are splined. Gears and shafts of alloy steel accurately finished after hardening. Right hand gear change.

FINAL DRIVE by spiral bevel gears of nickel chrome case-hardened steel.



#### 4 Cylinder Chassis Specification, continued.

FOUR WHEEL BRAKES of ALVIS design and of unusual efficiency are provided.

INDEPENDENT SPRINGING is provided for each wheel of ALVIS system and steering of each front wheel is independently controlled. Hartford shock absorbers are fitted, front and rear.

SPRINGS are of high grade alloy steel with a very high safety factor.

FRAME of very special design, providing maximum possible rigidity and strength.

PETROL TANK is in dash, the capacity varying according to type of coachwork—minimum size holds 8 gallons, maximum size holds 18½ gallons.

SPECIAL QUICK ACTION FILLERS are provided on Radiator, Petrol Tank and Oil Filler.

ELECTRICAL EQUIPMENT.—12-volt 2 Unit system dynamo is positively driven and is easily removable without affecting any other component.

WHEEL BASE .- 10 ft. o ins.

TRACK .- 4 ft. 6 ins.

OVERALL DIMENSIONS.—Length 13 ft. 6 ins. Width 5 ft. 9 ins.

EQUIPMENT includes electric horn, special instrument panel containing back lighted speedometer and rev. counter, clock, oil gauge, and petrol gauge. Switchboard, starter switch, carburettor strangler, spare wheel and tyre.

#### PRICES:

Chassis only, Supercharged -	-	-	£575
Sports Two-seater, Supercharged	-	-	£650
Sports Four-seater, Supercharged		-	£650
Sports Saloon, Supercharged -	-	-	£750

All prices are ex-works at Coventry.

#### GUARANTEED PERFORMANCE.

The Super-charged Two-seater Sports model is guaranteed to cover the flying half-mile on Brooklands Track at 90 m.p.h.

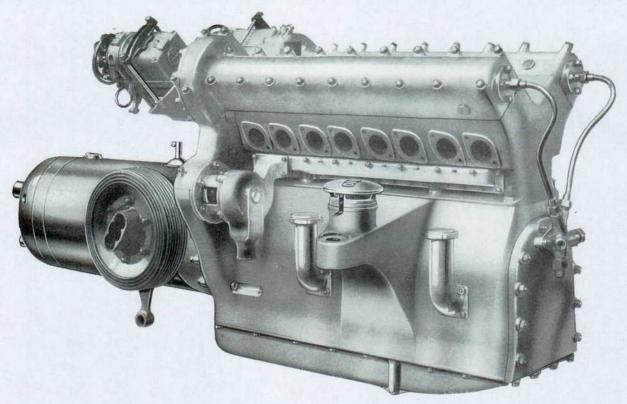
This figure is conservative and consistently can be exceeded.

The Front-wheel Drive Chassis is guaranteed for one year.



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#### 8 CYLINDER CHASSIS SPECIFICATION



ENGINE.—Eight cylinders 55 m/m bore, 78.5 m/m stroke, 1491.98 c.c. Hemispherical head with valves set at 90° and operated by two overhead camshafts. Crankshaft is of special steel and is carried in three plain and two large roller bearings. Connecting rods are of special steel and are fitted with roller bearing big ends. Pistons are of special heat treated aluminium alloy. A semi-dry sump is used. Lubrication is by rotary gear pump providing forced feed to crankshaft and big-end bearings and to the camshafts. Camshafts are hollow and have a separate feed to each individual valve piston tappet.

COOLING is by centrifugal pump and genuine honeycomb radiator. The radiator has separate case which can be finished in nickel or chromium plating.

SUPERCHARGER is of ALVIS design and manufacture, and has been thoroughly tested out during the past five years on our racing and experimental cars.

CARBURETTOR.—A single horizontal Solex Carburettor is fitted.

IGNITION by two special Polar Inductor Magnetos.

CLUTCH.—A special multiple disc clutch of ALVIS design and manufacture is used providing remarkable ease of control and easy gear change.



#### 8 Cylinder Chassis Specification, continued.

GEARBOX.—Four speeds forward and reverse. All shafts are splined. Gears and shafts of alloy steel accurately finished after hardening. Right hand gear change.

FINAL DRIVE by spiral bevel gears of nickel chrome case-hardened steel.

FOUR WHEEL BRAKES of ALVIS design and of unusual efficiency are provided.

INDEPENDENT SPRINGING is provided for each wheel of ALVIS system and steering of each front wheel is independently controlled. Hartford shock absorbers are fitted front and rear.

SPRINGS are of high grade alloy steel with a very high safety factor.

FRAME of very special design, providing maximum possible rigidity and strength.

PETROL TANK.—Tank in dash fed by automatic electric pump from large capacity tank situate low down in frame. Total petrol capacity, 20 gallons. Special quick action fillers are provided on Radiator, Petrol Tanks and Oil Filler.

ELECTRICAL EQUIPMENT.—12-volt Dynamotor driving direct on crankshaft and easily removable.

WHEELBASE .- 10 ft. o ins.

TRACK .- 4 ft. 6 ins.

OVERALL DIMENSIONS.—Length, 13 ft. 6 ins. Width, 5 ft. 9 ins.

EQUIPMENT includes electric horn, special instrument panel containing back lighted speedometer and rev. counter, clock, oil gauge, and petrol gauge. Switchboard, starter switch, carburettor strangler; spare wheel and tyre.

#### PRICES:

Chassis only, Supercharged - £900 Sports Two-seater, Supercharged - £975 Sports Four-Seater, Supercharged - £975

All prices are ex-works at Coventry.

#### GUARANTEED PERFORMANCE.

The Two-seater Sports Model is guaranteed to cover the flying half-mile on Brooklands Track at 100 m.p.h.

This figure is conservative and consistently can be exceeded.



# CONDITIONS OF GUARANTEE, TERMS OF BUSINESS, &c.

THE Company takes precaution to ensure reasonable care and skill in the selection and use of the best materials and the best workmanship. Accordingly all Warranties, Conditions or Guarantees as to quality, or as to the fitness for the purpose for which cars or goods are sold, or as to any other matter implied by Common Law, Statute or otherwise are in all cases excluded. But the Company gives to purchasers from the Company a Guarantee such as is set out below. The Company advises that the total weight of the car, including chassis, body, fuel, spares, passengers, etc., should not exceed 30 cwt. which is amply sufficient to satisfy all ordinary purposes, and this is so far in the interests of the owners that the Company stipulates that the Guarantee shall not apply if the car is at any time so laden that the total weight exceeds 28 cwt. If the chassis, having been continuously and being still owned by the purchaser and in his possession, shall, within one Year from the date of receipt by purchaser, develop any fault other than by reason of fair wear and tear, dirt, misuse, neglect or accident, and provided that

- (a) no alteration shall have been made to the chassis and the same shall not have been dismantled or repaired by any other maker or repairer at any time after the delivery of the chassis by us unless with our express consent in writing.
- (b) the chassis shall not at any time have been so loaded that the total weight of the car, including chassis, body, passengers, and all else therein or thereon, shall exceed 28 cwt.
- (c) the chassis shall not at any time, except with our written approval which in proper cases will be readily given, have been run on tyres other than such as we supply as standard to wit, pneumatic tyres of suitable size and flexibility,
- (d) the owner shall not have adopted and had fitted (except with our written approval) any wheels or rims being a departure from our standard wheels or rims,
- (e) the owner forthwith, after the fault appears, communicates the facts to us at our works in Coventry, giving the chassis number,
- (f) the owner at a date to be agreed with us, at his own expense, sends the chassis or faulty part to our works at Coventry,
- (g) it shall appear that the fault was, in fact, due to defective material or workmanship, and not to fair wear and tear, dirt, misuse, negligence or accident.

we will repair or replace the defective part, and if the chassis is returned to Coventry, dismantle and re-assemble so as to leave the part in perfect working order, free of charge.

The owner, having sent the chassis to our works pursuant to the above shall, in any event, be under obligation to remove the same from our premises if required so to do.

This Guarantee shall not apply to any chassis which has been used for racing or other competition work, nor does it apply to coachwork, tyres, batteries, nor any proprietary article forming part of such chassis, such as dynamos, magnetos, lamps, speedometers, etc., which are not manufactured by us.

In the event of the original owner disposing of the car before the expiry of one year from date of purchase, the Company is prepared to transfer the Guarantee to the new owner for the unexpired portion, providing that the car is brought to the Works at Coventry to permit an examination being made of the car (for which examination a nominal charge of  $\mathfrak{L}_{\mathfrak{I}}$  is made) and providing that the original or the new owner agrees to any work being done by the Company, which the latter, in their opinion, may specify as being necessary for putting the car in proper condition.

REPAIRS AND REPLACEMENTS. All parts sent for repair or replacement must be forwarded carriage paid, and bear the sender's name and address; the car number and year of manufacture should also be given. Cars which are sent for repair will only be driven by our employees at the risk and responsibility of the owners. Repairs of cars are undertaken only on the assumption that the owners give us authority to drive the cars on their behalf.

DEALERS. Those firms whom we style our dealers or agents are not authorised to act on our behalf by advertising or otherwise incurring debts or transacting business for us; nor are they authorised to give any Warranty or make any representation on our behalf. The term "Agent" is used in a complimentary sense only.

ALTERATIONS IN PRICE, CONDITIONS OF PAYMENT, SPECIFICATIONS, ETC. The Company reserves the right to alter the price and conditions of sale or the specification of a particular model at any time without notice, and all cars are subject to price and conditions ruling at the time of delivery. All previous catalogues are hereby cancelled and the issue of this catalogue does not constitute an offer. All prices quoted are for nett cash upon notice being sent that the car or chassis is ready for delivery, and payment must be made before the same leaves the works. Delivery is given at the Company's works, Coventry—carriage and insurance therefrom being payable by the customer. Every effort will be made to adhere to promised date of delivery, but the same cannot be guaranteed, and no claim shall be made upon the Company in respect to any such delay or for any loss or damage arising therefrom.

EXHIBITIONS. Goods are only supplied by us on condition that same are not to be exhibited by any person, or firm, or Company at any Exhibition or Show held in the United Kingdom other than an Exhibition or a Show held or approved by the Society of Motor Manufacturers and Traders, Limited, for Exhibition of Motor goods by its Bond Signers. Any breach of this provision shall render the purchaser liable to indemnify us in respect to our liability to the Society, and to pay such damages not exceeding £250, as the Committee (or on appeal the Council) of the Society may award.

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