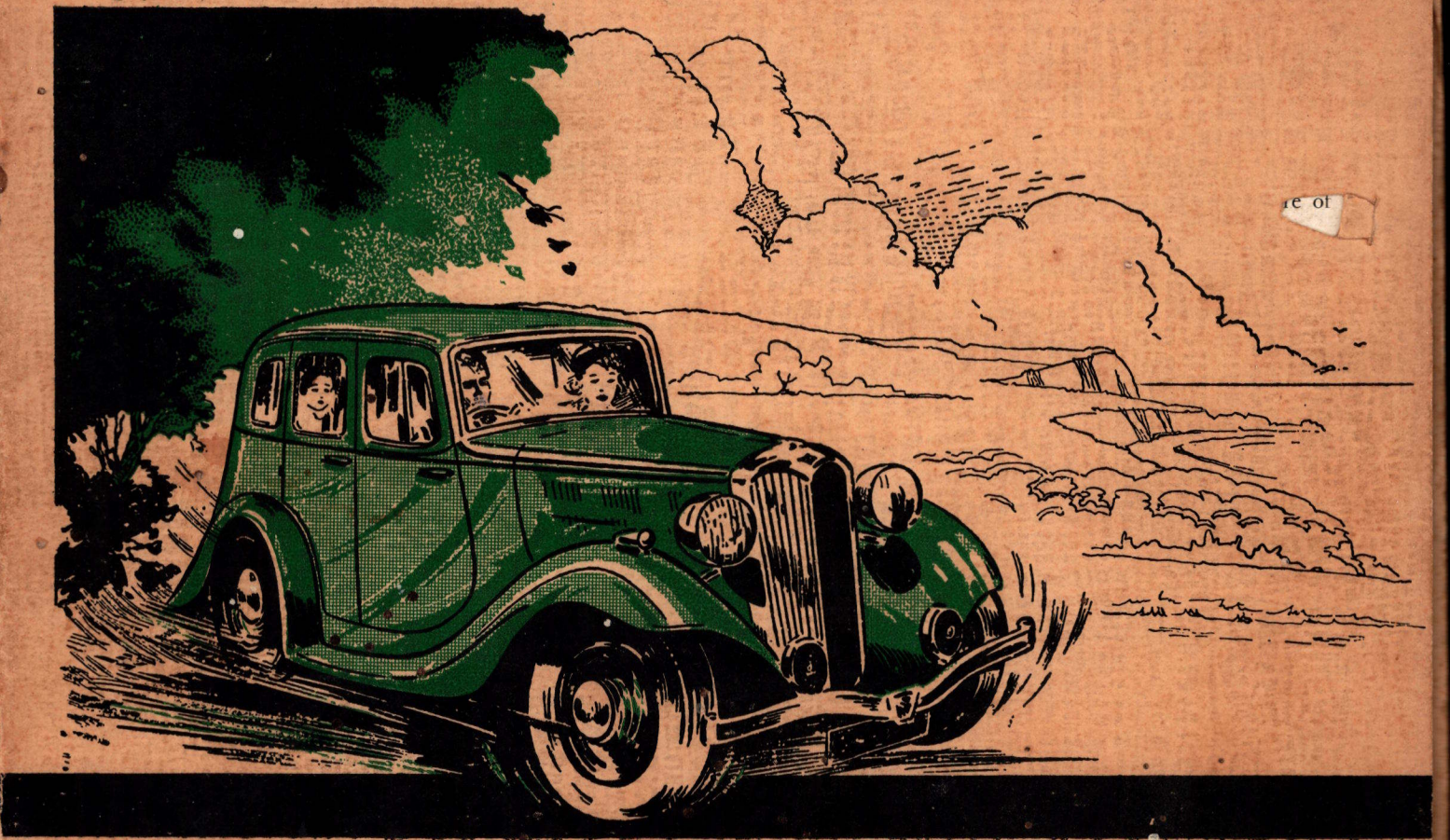


SINGER CARS —*New Season's Models*

SINGER & CO. LTD.,
COVENTRY,
ENGLAND.

Phone: Coventry 5071.
Wires: Singer, Coventry.

The MOST ADVANCED Cars in the World

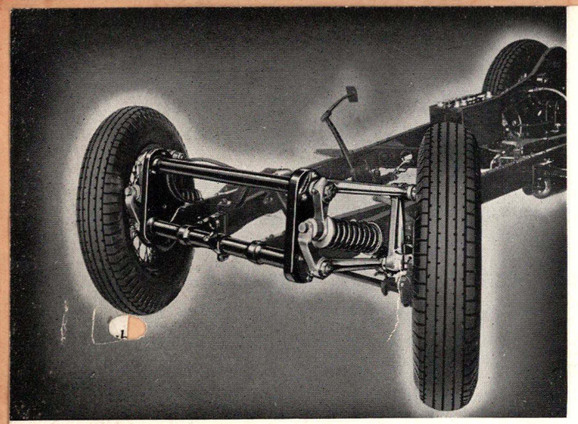
THERE is nothing in the current Season's Singer models of an experimental nature, though there is much which keeps the cars in many cases ahead of contemporary design. Every principle has been well tried—and proved. These cars embody everything that is desirable; everything that will make for better and safer motoring. And yet they are listed at prices within the reach of every type of motorist.

The first section of this catalogue deals with the normal type of Saloon model; the second with Singer Sports cars, than which it would be difficult to find cars more particularly suitable for reliable, high speed work. This claim is fully supported by the successes achieved in international racing and sports events of almost every type, and is dealt with more fully in the introduction to the Sports car section.

This season, the principles of independent front wheel suspension and "Fluidrive"—combined for the first time in history in the Singer Eleven—are taken a step further and are now applied to the "Sixteen" models. Independent front wheel suspension is also a feature of the Special Nine Saloons.

INDEPENDENT FRONT WHEEL SUSPENSION. As fitted to 74% of the world's cars. Unless you have ridden in a car with independently sprung front wheels, you cannot imagine the improvement it makes to riding comfort. You can drive these Singer cars over roads with the worst imaginable surfaces at the speed at which you usually ride without causing yourself or your passengers the slightest inconvenience. One front wheel may go over the kerb—you will not notice it. You can, without discomfort, read an ordinary newspaper while travelling at 60 m.p.h. Corners can be taken with the greatest safety at speeds higher than was previously thought possible; and on the most slippery surfaces there is no tendency for the car to skid.

All this enables the attainment of higher average speeds, which will be unconsciously set up, and driving fatigue is absolutely eliminated.



The independent front-wheel suspension system, showing how the front hub swivels are carried on pairs of parallel motion arms of extremely rigid construction.

THE "FLUIDRIVE."—A notable step forward by Singer. The clutch is used only for engaging gear when the car is stationary. Thereafter, you can stop the car in top (or any) gear without touching the clutch simply by moving the foot from the accelerator pedal to the brake pedal; and, by depressing the accelerator again, you can move away from rest on top (or any) gear without the slightest transmission shudder; the "Fluidrive" smooths it out and takes up the drive silently and efficiently. Gear changing is effected by releasing the accelerator pedal and moving the lever to the desired position. Otherwise, the car may be driven merely by moving the right foot from the accelerator to the brake and back again.

PRE-SELECTED CLUTCHLESS GEARCHANGE.—This is used in conjunction with "Fluidrive," but is also fitted to the Nine De Luxe Saloon, Nine Independent Suspension Saloons and Fourteen models (and to other cars as an extra). It enables gear changing to be effected without touching the clutch, it being necessary only to use the clutch when starting away from rest and when stopping the car. It provides a full measure of pre-selection as, for example, on approaching a traffic stop, a corner, a hill, releasing the pressure on the accelerator pedal will enable you to shift the gear lever to the position desired for a quick getaway once the obstruction has been passed, although you approach the obstruction under the car's own momentum. And if, for the sake of variety, you wish to drive with the orthodox use of clutch and gear lever, the easy system can be put out of operation merely by pushing an accessibly placed knob.

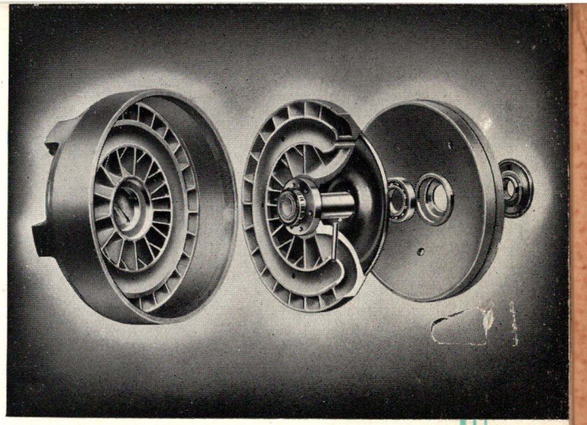
CHASSIS FRAMES.—A low centre of gravity and consequently high stability at all speeds is achieved by the use of dropped frames on all models.

Note, however, the tremendous advance on orthodox design in the Singer Nine Independent Suspension, Eleven and Sixteen models. The strong cross bracing in the centre of the chassis is carried right forward to the front. This system enhances the riding qualities, eliminates chassis distortion and prevents stressing of the coachwork.

ENGINES.—The source of the success of Singer cars over two seasons in international racing events is the exceptional efficiency of the engines. Particularly, the Nine and 1½-Litre Sports models have been responsible for these achievements. Overhead camshaft engines—the most efficient known to automobile engineers—are fitted now to all Singer models. So that the motorist buying a Singer car of whatever type is assured of a high degree of performance.

Engines are all insulated from the chassis by means of scientific mountings—no vibration can be transmitted.

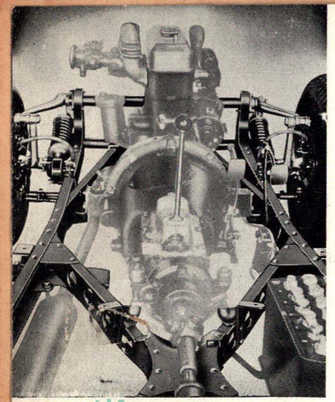
BRAKES.—To be consistently safe, the fastest cars must have the best braking performance. Singer has chosen



The "Fluidrive" coupling between engine and gearbox provides super-smooth transmission, extreme flexibility of drive on all gears, with remarkably low speed pulling and easy acceleration.

the most modern and at the same time the most effective braking system for all models. The Lockheed hydraulics, acting on all four wheels, operate evenly, there is no tendency for the car to pull to one side when the brakes are applied. Braking action is progressive with equal force on all wheels, and quite free of fierceness.

STEERING.—Another essential feature in effortless driving and certainty of control is the absolutely finger-light steering which has just sufficient return action on



Another view of the independent front-wheel suspension, showing, also, the cross bracing.

corners while being free from road reaction and "kick." It has been specially designed to suit the large section tyres with which some of the models are fitted.

luggage accommodation is provided, and streamlining has been carried out to the fullest extent.

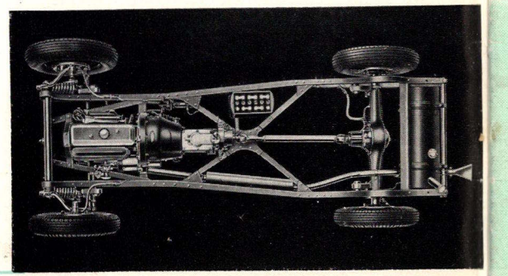
The equipment is complete, providing as it does, every feature for the comfort and pleasure of the driver and passengers. Traffic direction indicators are fitted to all closed models.

Once again, then, the Singer Company place before the public a range of models complete and up-to-date in every respect—attractive and reliable with no feature merely fanciful but everything designed for a specific purpose, making in the aggregate one hundred per cent. efficient cars.

SINGER FOR CERTAINTY!

COACHWORK.—Singer models have long been noted for the beauty of line which is outstanding among all cars of this type. The reason is that "mass" production is unknown in the Singer factories. All bodies are fully coachbuilt, possessing all those desirable features with which only the specialised coachbuilders can be matched.

In the new Season's models, the lines have been still further improved while utility is even better allied to beauty than hitherto. On many of the cars, built-in

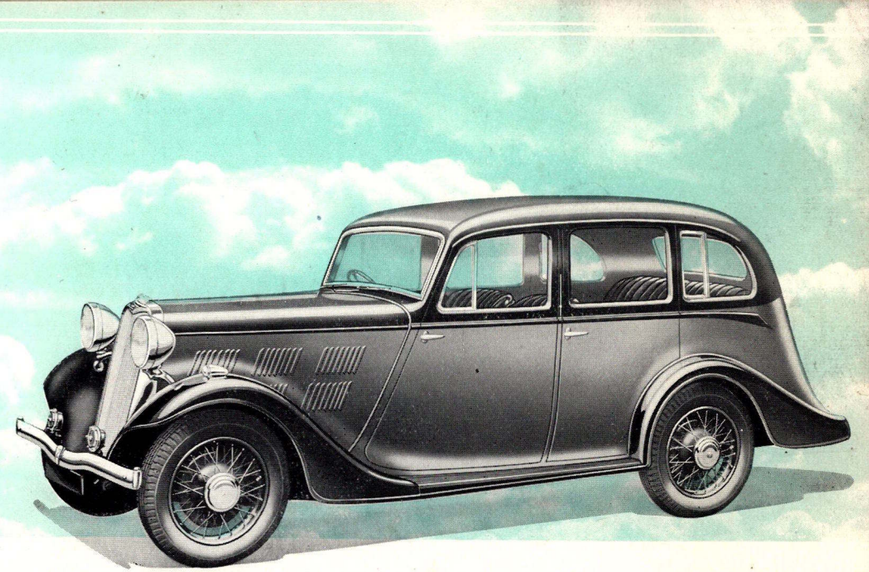


The strong cross bracing carried right through to the front of the chassis; this system improves the riding qualities, eliminates chassis distortion, and prevents stressing of the coachwork.

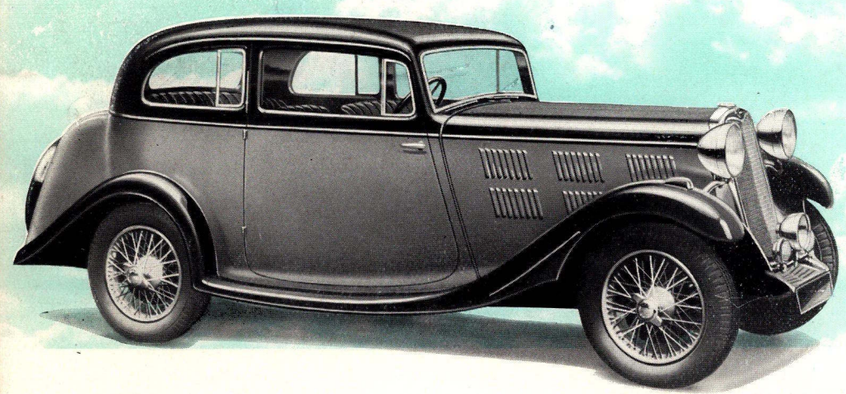
7:8.700,-

SINGER Sixteen Saloon

CHASSIS SPECIFICATION ON PAGES 28 AND 29.



THE specification of this model places it right in the forefront of 1935 models. Amongst its many excellent features listed on pages 28 and 29, it has "Fluidrive" and Independent Front Wheel Springing. The Coachbuilt, Four-Five Seater Body has sliding roof, winding windows with pivot type vertical ventilators to front doors and rear quarter lights; safety glass all round; adjustable hammock slung front seats with folding backs; side arm rests and adjustable detachable centre arm rest; leather seatings; parcel rack behind rear squab; built-in pockets to rear quarters and scuttle sides; twin coupled windscreen wiper mounted on the scuttle with silent concealed drive and remote control; fold-down lid to compartment at rear which holds spare wheel, the latter being mounted inside the compartment and on the body, while the lid folds flat to form a luggage carrier and is fitted with strap staples. Pile carpets and underfelt; rope pulls in rear; three ash trays; roof lamp; glove boxes; private door locks; interior driving mirror; real walnut cappings; bumpers front and rear; traffic direction indicators.



Kr 9.900.-

SINGER
Sixteen
Special
Sports
Saloon

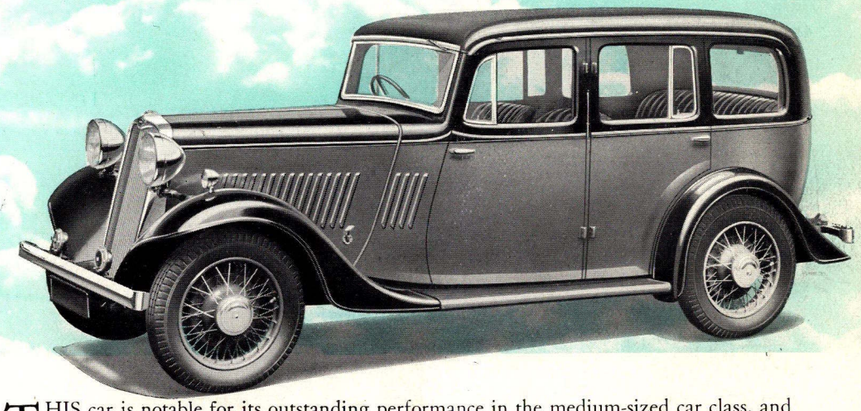
ONE of the most modern cars on the road to-day, with independent front wheel springing, "Fluidrive" and a cross-braced chassis. The body is as up-to-date as the chassis, being a fully coachbuilt, full four-seater, fitted with a large luggage compartment at the rear, sliding roof, pivot type vertical ventilators and winding windows. The windscreen opens, and safety glass is fitted throughout. The hammock slung seats in front with folding backrests are adjustable, and the two separate seats at the rear have side and centre armrests. It has furniture hide upholstery, spare wheel cover and traffic direction indicators. Three ash-trays, scuttle ventilators, interior driving mirror, pile carpets and underfelt, roof lamp, real walnut cappings, etc.

CHASSIS SPECIFICATION ON PAGES 28 AND 29.

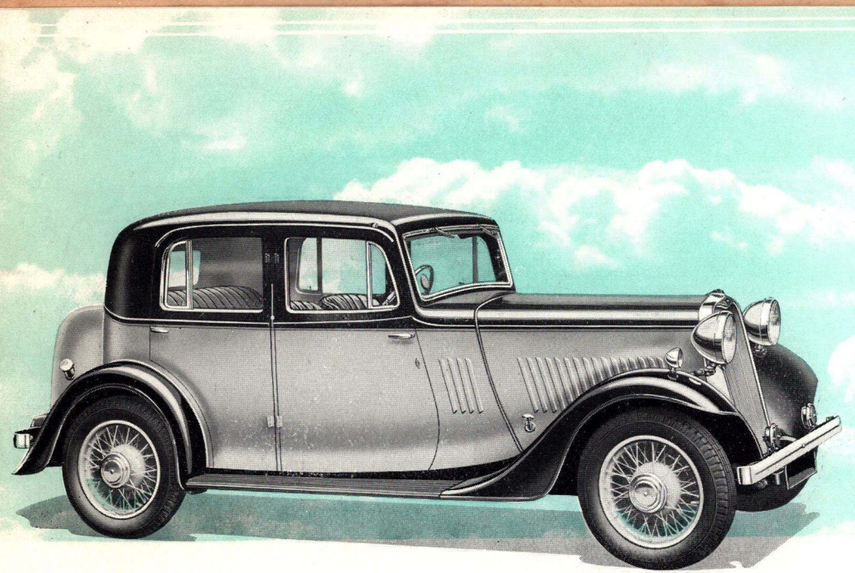
Kr. 7.400.-

SINGER
Fourteen
Saloon

CHASSIS SPECIFICATION ON PAGE 32.



THIS car is notable for its outstanding performance in the medium-sized car class, and has rapidly achieved a high degree of popularity. It is fitted with Preselected Clutchless Gear Change, is beautifully appointed and is a fine looking car in every respect. The coachbuilt, four-five seater, four-door body has sliding roof, winding windows, safety glass all round, hinged ventilators to windows, adjustable bucket seats; rear seats have arm rests at sides and centre; centre arm rest folds into rear squab; adjustable footrests; pneumatic rear cushion; furniture hide upholstery; pile carpets and underfelt; rope pulls in rear; rear and side blinds; door pockets; three ash trays; roof lamp; glove boxes; electric windscreen wiper; private door locks; interior driving mirror; real walnut cappings; bumpers front and rear; spare wheel cover; traffic direction indicators.



THE chassis of this model is exactly as that used for the Fourteen Saloon. The body is a fully coachbuilt close-coupled type with ample accommodation for four people. A large luggage trunk is situated at the rear, and the body equipment includes sliding roof, winding windows, safety glass all round, hinged ventilators to windows, adjustable bucket seats, rear seats have arm rests at sides and centre; rear footwells, pneumatic rear cushion, furniture hide upholstery, pile carpets and underfelt, rope pulls in rear, rear and side blinds, door pockets, three ash trays, roof lamp, glove boxes, electric windscreen wiper, private door locks, interior driving mirror, real walnut cappings, bumpers front and rear, spare wheel cover, traffic direction indicators.

£1. 7. 400.-

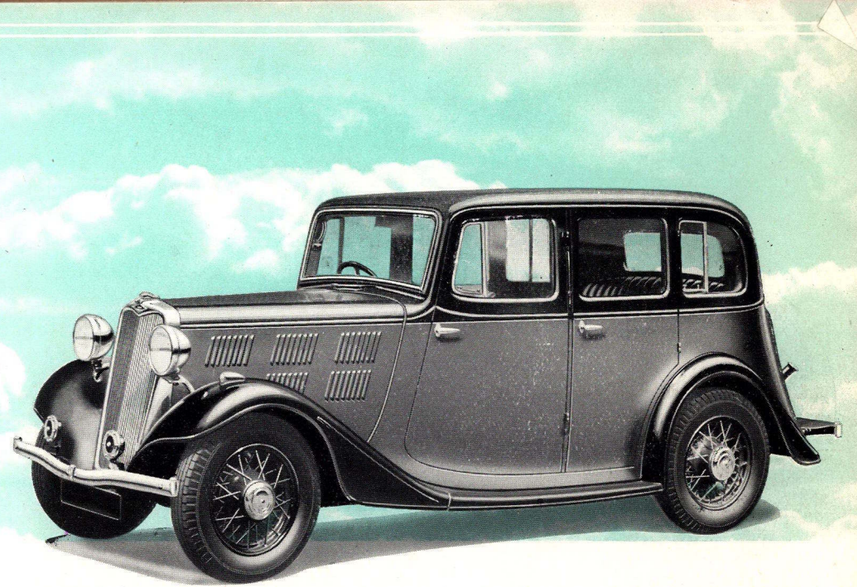
SINGER Fourteen Continental Saloon

CHASSIS SPECIFICATION ON PAGE 32.

£1. 6. 9 50.-

SINGER Eleven Saloon

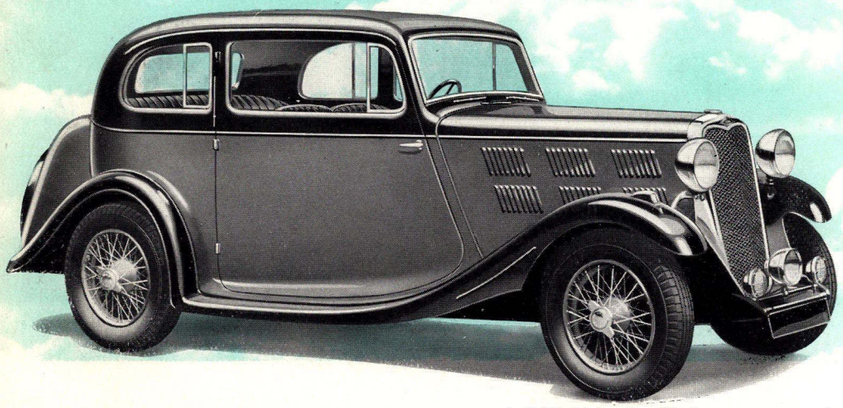
CHASSIS SPECIFICATION ON PAGES 33 AND 34.



THE first car in the world to be fitted with "Fluidrive" and Independent Front Wheel Springing, this model is also outstanding as regards body equipment, which includes safety glass all round; a spare wheel locker at the rear with accommodation, when the locker lid is down, for luggage; winding windows fitted with hinged ventilators; adjustable bucket seats; furniture hide upholstery; pile carpets and underfelt; built-in pockets to scuttle and rear quarters; three ash trays; cubby holes; roof lamp; scuttle ventilator operated from the dashboard; rear seat arm rests; cord handles on rear pillars; interior driving mirror; windscreen wipers and traffic direction indicators. Wide section single bar chromium-plated bumpers extend the full width of the car at front and rear.

Fr. 8.600.-

SINGER Eleven Special Sports Saloon

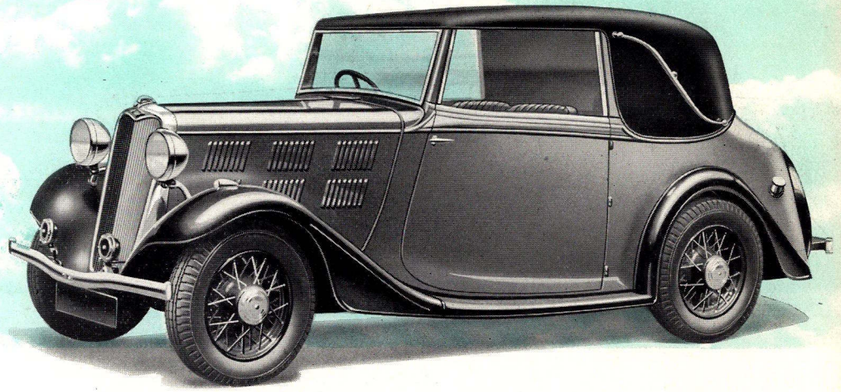


INDEPENDENT Front Wheel Springing and "Fluidrive" allied to an up-to-date Sports Saloon body place this car definitely ahead of all light cars. It is a fully coachbuilt, full four-seater and has a large luggage compartment at the rear, sliding roof, pivot type vertical ventilators and winding windows. The windscreen opens, and safety glass is fitted throughout. The hammock slung seats in front with folding back rests are adjustable, and the two separate seats at the rear have side and centre armrests. It has furniture hide upholstery with pneumatic cushions, spare wheel cover and traffic direction indicators. Three ash-trays, scuttle ventilators, interior driving mirror, pile carpets and underfelt, roof lamp, rear blind, real walnut cappings, etc.

CHASSIS SPECIFICATION ON PAGES 33 AND 34.

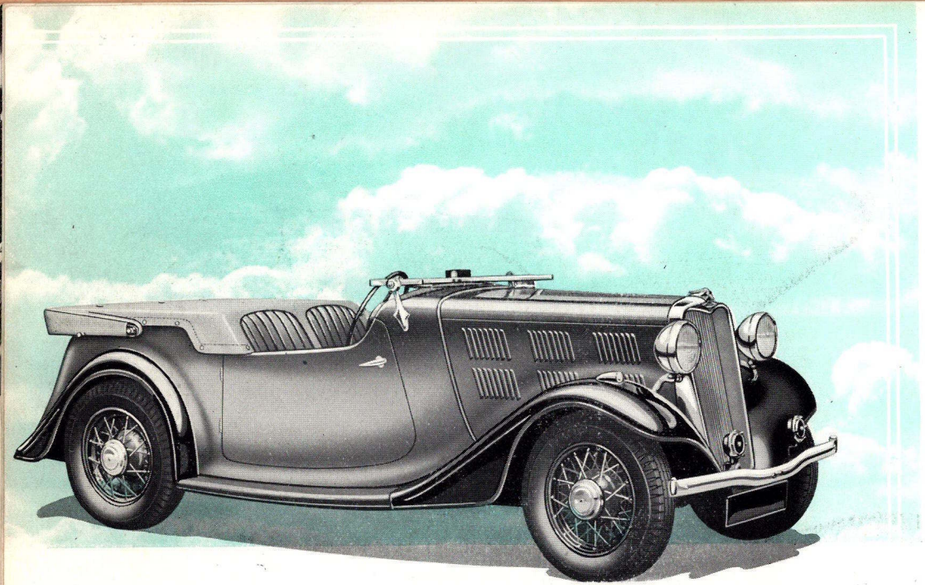
Fr. 8.100.-

SINGER Eleven Drop Head Coupe



THE Eleven chassis is utilised for this modern Drop Head type body. The two doors have mechanically operated windows with glass guides and are fitted with private door locks. The hood is of waterproof twill and has a roll-up canopy. The single panel windscreen is hinged at the top and opens outwards and has dual arm wipers. The front seats are separate and adjustable, the backs being hinged for ease of access to the rear single type seat which has fixed side and folding centre arm-rests. Air cushions are fitted to all seats; the body is trimmed in hide with carpets to harmonise. Full set of instruments and usual equipment.

CHASSIS SPECIFICATION ON PAGES 33 AND 34.



£ 7.7.700.-

SINGER Eleven 4-Seater

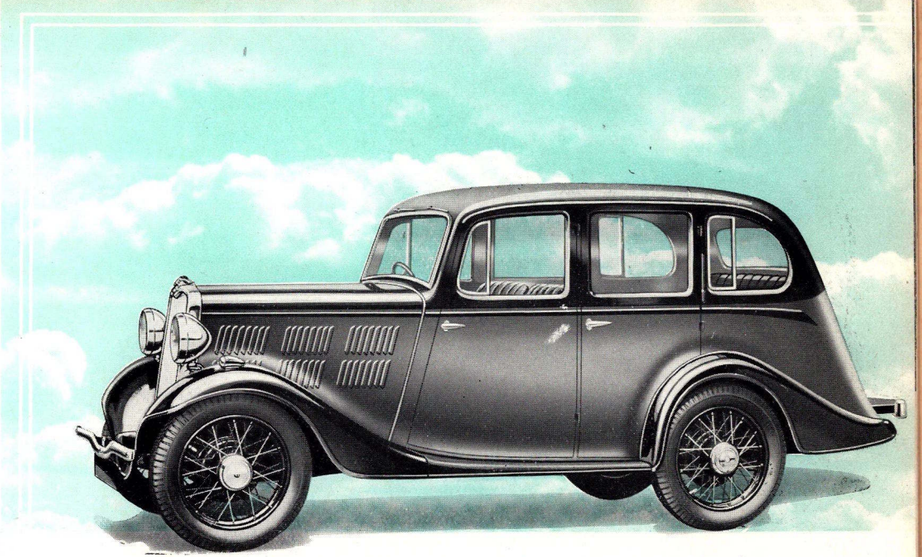
A TWO-DOOR four-seater coachbuilt body with two adjustable bucket seats in front and full seating for two persons at the rear is mounted on the Singer Eleven chassis. The single panel safety glass windscreen folds flat on the scuttle. The four-stick type waterproof twill hood lies flat with the top of the body and an envelope cover is provided. Complete draught-proof equipment with side curtains opening with the doors, and a tonneau cover is provided for the rear seats. When not in use the side curtains are stored in a locker behind the rear squab. Front and rear seats are fitted with pneumatic cushions and spring squabs, leather upholstered. Tandem electric windscreen wiper and full electrical equipment.

CHASSIS SPECIFICATION ON PAGES 33 AND 34.

£ 7.5.400.-

SINGER Nine Independent Suspension Popular Saloon

CHASSIS SPECIFICATION ON PAGE 37.

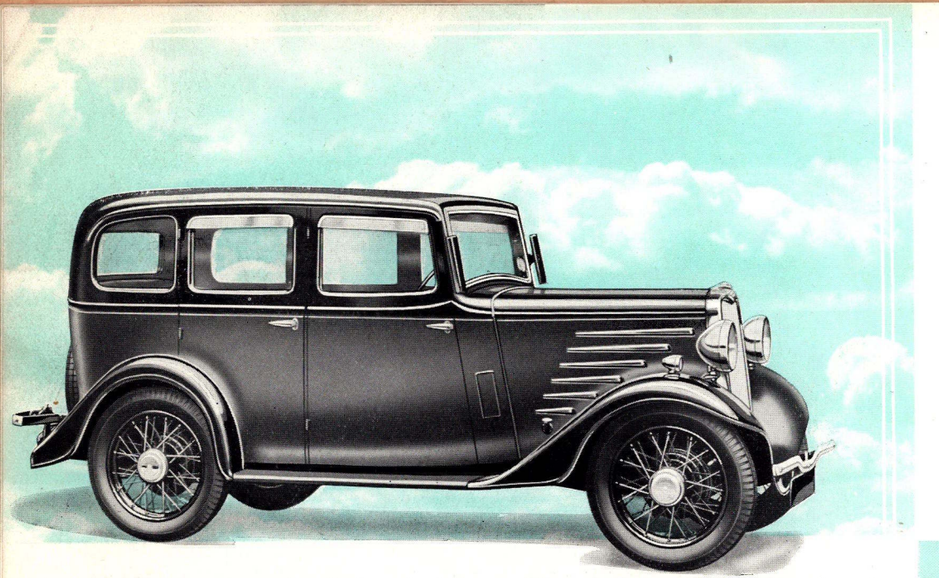


WITH independent front wheel springing and an entirely new body, this model is the most up-to-date in the 9 and 10 h.p. class. It has a full four-seater four-door body with sliding roof, winding windows, safety glass opening windscreen, adjustable hammock slung front seats, leatherette upholstery, pile carpets, underfelt, ash tray, glove tray and parcel tray, scuttle ventilator, electric windscreen wiper, private door locks, interior driving mirror, traffic direction indicators (flush fitting), fold-down lid to compartment at rear which holds spare wheel; the spare wheel is mounted inside compartment on the body, and the lid folds flat to form a luggage carrier and is fitted with strap staples; the front doors are equipped with vertical opening ventilators; hinged backs to front seats and foot space under front seats for rear passengers; roof lamp.

NINE I. S. SALOON DE LUXE.

As above and as illustrated, with the addition of real leather seatings, bumpers front and rear, chrome plated head and side lamps, safety glass all round, vertical opening ventilation to rear quarter lights; detachable, adjustable arm rest to rear seats; dual blade windscreen wiper.

" FLUIDRIVE " TRANSMISSION can be fitted to these models at an extra cost.



THE coachbuilt four-door body with sliding roof has winding windows, safety glass opening windscreen, adjustable bucket seats, rear foot wells, leather cloth upholstery, pile carpets and underfelt, rear blind, door pockets, ash tray, glove boxes, scuttle ventilators, electric windscreen wiper, private door locks, interior driving mirror, real walnut cappings, traffic direction indicators.

The Saloon De Luxe, as illustrated, is basically the same as the Popular Saloon, but has the Pre-selected Clutchless Gear Change and the following extra equipment. Safety glass all round, window louvres, rear seat arm rests, furniture hide upholstery, rope pulls in rear, three ash trays, roof lamp. Bumpers front and rear, spare wheel cover.

£.5.100.-

SINGER Nine Popular Saloon

CHASSIS SPECIFICATION ON PAGE 38.

The most consistently Successful Cars in the World

SINGER Sports Cars—ordinary stock models—have taken their place alongside the most expensive types of international reputation, and have won hundreds of coveted awards in face of the severest competition. It is not possible in a catalogue of this nature to give a complete list of Singer car successes, but the following are a few of the most outstanding:—

LIEGE-ROME-LIEGE 2,160 MILE TRIAL.—Motor Union Cup for best performance up to 1100 c.c.

R.A.C. RALLY.—Highest number of marks irrespective of class. Light Car Trophy for best performance in the class up to 1100 c.c. Also third and fifth in this class. First place in the Ladies' Class Three. Starting point prizes from London, Leamington, Bath and Newcastle. Manufacturers' Team Prize. Club Team Award.

The horses have a well earned rest while the Singer passes.

AUSTRALIAN GRAND PRIX.—First.

SCOTTISH RALLY.—The Motor Trophy. The Glasgow Herald Trophy. The R.S.A.C. Prize.

LE MANS 24-HOUR RACE.—Second and third in the Rudge Whitworth Cup. First, third and sixth in the class for cars under 1000 c.c. Seventh, eighth, sixteenth, eighteenth and twenty-third in the Grand Prix d'Endurance.

A successful Competitor in the London—Edinburgh Trial.

trials and speed events. 495 awards were gained, comprising 298 First Class, 105 Second Class, 49 Third Class and 22 Special Awards; and 21 Team Prizes.

Can we say anything more convincing of the reliability of Singer cars—bearing in mind that the vast majority of these successes were obtained by private owners with stock cars purchased through the normal retail channels?

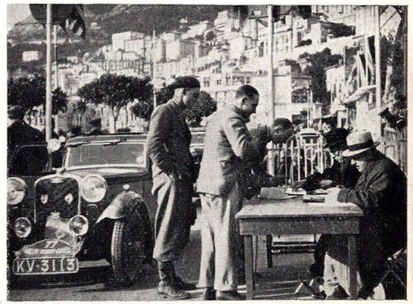
These cars have been designed in conjunction with men who know intimately the requirements of the sports car enthusiast—by men who themselves are known

6,000 KILOMETRE RACE ROUND ITALY.—The only British entry to finish the whole course; the first foreign entry in all classes to reach Rome.

LIGHT CAR CLUB RELAY RACE.—Wakefield Trophy. Light Car Cup. Houghton Cup.

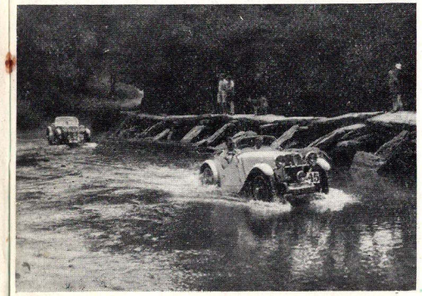
What is even more remarkable, is the consistency of Singer performance. From the 1st January, 1933, to 31st July, 1934, 578 Singers cars took part in first class

Checking in at Monte Carlo—one of the many events in which Singer cars have been particularly successful.



throughout the country for their personal achievements in all sorts of speed and trials work. A casual examination of any Singer Sports car will show that no detail making for utility and suitability for the work has been left out of the specification.

The Le Mans models have proved themselves capable of prolonged high speed work. Road holding, stability and safety are outstanding factors. Double dropped frames have been specially lightened and strengthened to give the high power-to-weight ratio necessary for present-day competition and high speed work.



Only one of the unusual conditions under which Singer cars successfully operate.

At the famous "Esses" bend at Le Mans — the first unsupercharged British car under 1000 c.c. ever to qualify for the Rudge-Whitworth Cup.

The engines are super-tuned, high speed units, having fully balanced crankshafts with machined webs, special high lift camshafts with harmonic cams and large capacity oil sumps ribbed for cooling.

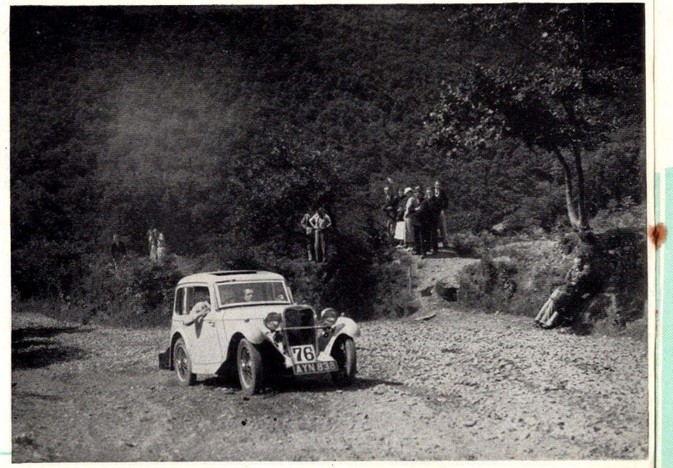
The other sports models are not merely converted touring cars; but they are so designed that they are making a continually growing appeal to those motorists who require faster touring speeds, a more unconventional appearance and brighter colours.

Over the roughest roads — on the steepest hills, the Singer can always be relied upon.

Open types have complete all weather equipment which can be readily erected or dismantled.

A survey of the specifications in the following pages will convince that these models are thoroughbred sports cars to be relied upon at all times for the highest degree of performance.

SINGER FOR CERTAINTY!



Sports Coupes and Saloons have been equally successful with open types in all Trials.

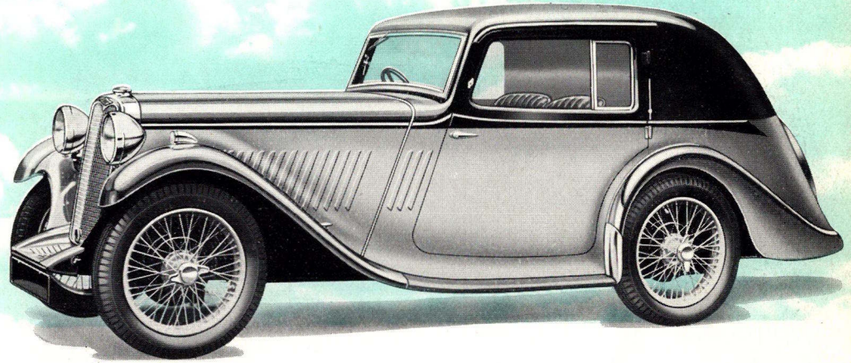
In the Le Mans models, the bodywork shows improvements on the original types, though the latter are being retained because of their appeal to a large section of the public. The new cars provide more room or luggage accommodation.

7. 9. 70

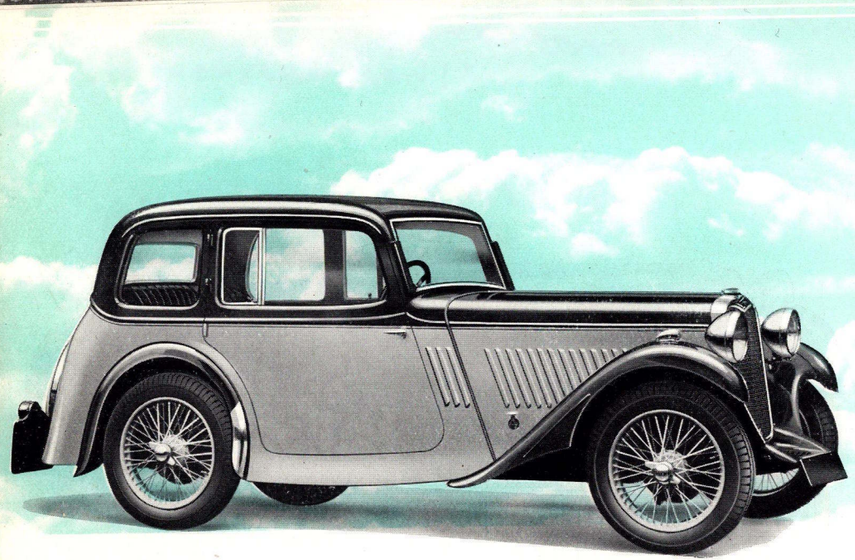
SINGER

1½ Litr
Sport ns
Saloo e

CHA IS
SPECIFI TION
O
PAGE 36.



AN outstanding model amongst closed sports cars, this improved Singer Nine has greatly increased luggage accommodation available at the rear of the car. It is a two-door, two-seater, streamlined coachbuilt model with sliding roof; hinged ventilators to windows; furniture hide upholstery; safety glass all round; winding windows; sponge rubber cushions; adjustable seats with folding backs; pile carpets and underfelt; door pockets; ash trays; roof lamp; glove boxes; electric windscreen wiper; interior driving mirror; walnut cappings; spare wheel cover; traffic direction indicators.



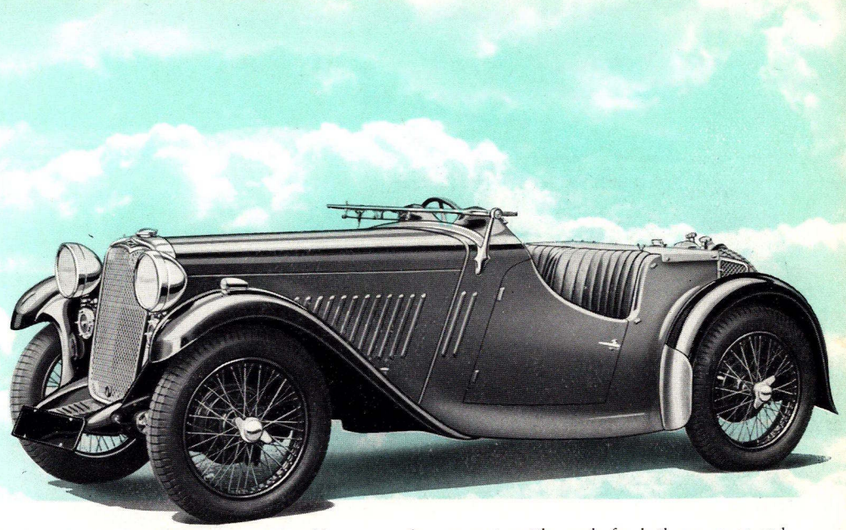
SINGER
Nine
Sports
Saloon

THIS is a further body type on the 9 Sports chassis, the complete car having the appearance and performance of a super sports model, with full saloon comfort for four, rear seats being well upholstered, whilst the rear lights obviate any feeling of being "closed-in." This car will make a particular appeal to the family man who often wishes to carry four people, and at the same time obtain something better in way of performance than is normal in low taxed saloon models in this price class. The equipment is comprehensive, including, as it does, sliding roof, hinged ventilators to windows, furniture hide upholstery, safety glass throughout, winding windows, adjustable seats with folding backs, ash trays, pile carpets and underfelt, door pockets, roof lamp, glove boxes, electric windscreen wiper, interior driving mirror, real walnut cappings, spare wheel cover, traffic direction indicators.

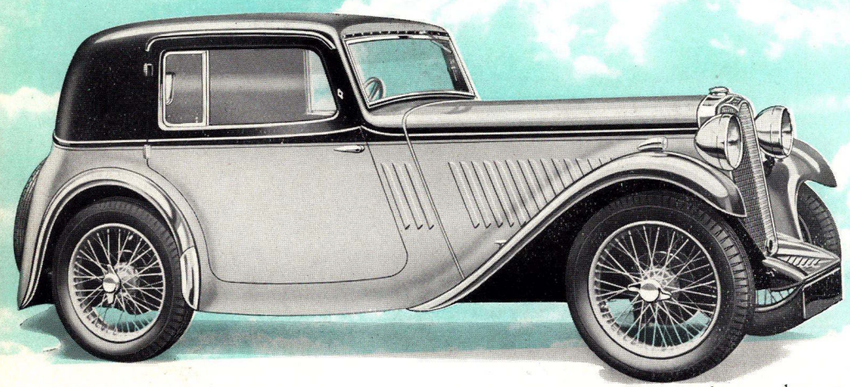
CHASSIS SPECIFICATION ON PAGE 36.

SINGER
Nine
2-Seater
Le Mans

CHASSIS SPECIFICATION ON PAGE 36.



THE body equipment includes adjustable seat squabs, upswept scuttle cowls for both passenger and driver, acting as air deflectors when the windscreen is folded flat, pockets in doors, glove box, scuttle ventilators, driving mirror and chromium-plated "grab" rail fitted to passenger's scuttle cowl. Low bonnet line and maximum driving vision are obtained by carefully positioning the radiator. The latter is a high efficiency block mounted in a cradle carrier giving full insulation from shock. The windscreen is fitted with tandem wiper, the motor of which is mounted centrally to prevent obstruction to vision. The upholstery is in furniture hide, with separately adjustable pneumatic cushions, and the pile carpets are provided with underfelt. An adjustable seat squab is hinged for access to the hood compartment in which the quick-acting disappearing hood, together with side curtains, are stored completely out of sight when not in use. A luggage compartment with tonneau cover and a capacity of over 2 cubic feet is readily accessible, and two suit cases or one trunk made to fit this compartment are available as extras. The tools are carried on a deck underneath the bonnet.



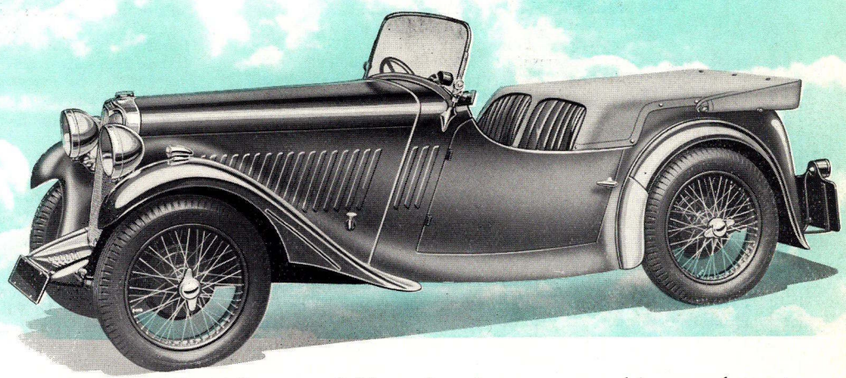
SINGER Nine Sports Coupe

BASED essentially on the Sports Four-seater chassis, this Coupe has become known as one of the prettiest cars on the road, as well as one capable of a high measure of performance which is borne out by its successes in various trials. It has been particularly favoured by the judges in Coachwork Competitions, winning the First Prize in the 1933 Monte Carlo Rally (small closed car class); First Prize in the R.A.C. Hastings Rally; First Prize in the Eastbourne, Ramsgate and Torquay Concours d'Elegance, etc. Two-seater, two-door, fully streamlined coachbuilt body having sliding roof; hinged ventilators to windows; furniture hide upholstery; safety glass all round; winding windows; adjustable seats with folding backs; pile carpets and underfelt; door pockets; ash trays; roof lamp; glove boxes; electric windscreen wiper; interior driving mirror; real walnut cappings; spare wheel cover; traffic direction indicators.

CHASSIS SPECIFICATION ON PAGE 36.

SINGER Nine 4-Seater Sports

CHASSIS SPECIFICATION ON PAGE 36.



ALTHOUGH the performance of this car is such as to commend it to purely sports enthusiasts, it has been very popular with the motorist who prefers an open car which at the same time has easily operated all-weather equipment giving complete protection from inclement weather. It has generous accommodation in the rear seats, but when these are not required for use, they are concealed by a very neat and efficient tonneau cover. Four-seater, two-door coachbuilt body with adjustable front seats having folding backs; special furniture hide upholstery; safety glass windscreen which folds flat; electric windscreen wiper; torpedo streamlined bonnet; smart well-formed hood which folds flat with neat hood cover and tonneau cover; metal framed side curtains with sturdy fixings; storage compartment at rear; exterior driving mirror; pockets in doors; scuttle ventilators. Tools clipped on a deck under the bonnet.

Chassis Specification

ENGINE. 6-cyl. O.H.V. 15.9 h.p. R.A.C. rating. 65 mm. bore. 100 mm. stroke. 1,993 c.c. capacity. Fully counterbalanced four-bearing crankshaft. Overhead camshaft driven by "duplex" roller chain. Super-efficient cylinder head; large inclined valves operated by rockers direct from the camshaft. New dual oil filtering system with large capacity wire gauze on the suction side and a fabric type on the pressure side, which fully protect bearings. The filter element is detachable for cleaning and replacement, and a by-pass valve is provided in case of obstruction. Self-adjusting pistons with two working rings and one oil control ring.

CARBURATION. Horizontal type "Solex" easy-starting carburetter fitted with efficient air cleaner and silencer.

IGNITION. High duty coil and distributor, both units being high up on engine in an accessible position. A warning light is incorporated in the instrument panel.

ENGINE MOUNTING. Engine and gearbox unit suspension on four absorbent rubber mountings, scientifically incorporated at front and rear and midway on torque arms.

CLUTCH. Smooth acting, using low pedal pressure. Only required when starting from rest.

TRANSMISSION. Incorporating Vulcan-Sinclair "Fluidrive" coupling between engine and gearbox, resulting in super-smooth transmission, extreme flexibility of drive on all gears with remarkable low speed pulling and easy acceleration. Four-speed helical gear "Perm-mesh" gearbox with silent second, third and top speeds. Preselective clutchless remote control gear change. Gear ratios: Top 5.2—1; Third 6.89—1; Second 10.96—1; First 21.6—1; Reverse 29.3—1. Hardy Spicer tubular propeller shaft with latest type enclosed roller-bearing universal joints.

REAR AXLE. Semi-floating type with silent spiral bevel crown wheel and pinion, nickel-chrome-molybdenum axle shafts and steel banjo casing.

BRAKES. "Lockheed" fully balanced and compensated hydraulically operated foot brakes on four wheels with independent mechanical operation of rear shoes by central hand brake.

SUSPENSION. Singer "Gordon-Armstrong" independent front wheel suspension with low-frequency coil springs. In place of the usual axle beam the front hub swivels are carried on pairs of parallel motion arms of extremely rigid construction which are in turn mounted on large diameter transverse trunnion shafts running in totally enclosed bearings in the tubular front cross-members of the chassis frame. Long and widely spaced semi-elliptic springs are used at the rear, mounted on silent-bloc bearings.

STEERING. Transverse worm and nut steering specially designed to suit independent wheel suspension and full balloon tyres. Finger-light at all speeds.

WHEELS AND TYRES. "Magna" type wire spoke wheels with 16 × 4.00 in. rims and large hubs with chromium-plated covers; 16 × 6.00 in. full balloon extra low pressure heavy duty tyres.

Chassis Specification

CHASSIS FRAME. Specially designed to suit independent wheel suspension and "Fluidrive" transmission. The frame is a great advance on the orthodox cross-braced design. The "X" type centre bracing is extended forward to form an "A" member at the front, thus adding greatly to the rigidity of the chassis and giving improved roadability with increased safety. Three stout tubular members and one pressed steel cross-member give added strength.

COOLING. By centrifugal water pump and fan. The large radiator block with extended header tank is a separate unit carried in a substantial channel section loop type sub-frame. The large filler is situated under the near side of the bonnet.

PETROL SUPPLY. A 12½ gallon rear tank, completely covered, supplies the petrol through the medium of an electric fuel pump. This pump incorporates an easily detachable filter; it is connected to the ignition circuit and is therefore "in" and "out" of action when the ignition is switched "on" or "off." An electric recording petrol gauge is fitted on the instrument panel.

ELECTRIC EQUIPMENT. 12 volt self-regulating constant voltage system with automatic control of charging rate to suit varying conditions and thus maintain full battery charge. "Startix" automatic starter control. An alternative finger-touch starter switch is also provided when the automatic switch is not required to operate. Junction and fuse-box incorporated with the cut-out and voltage control unit is mounted high up on the dash and provides separate fuses to all components of the electric equipment. The dynamo is larger than usual and is driven by a duplex roller chain in the engine timing case. A large 51 amp. 12 volt battery is readily accessible. Large chromium-plated head lamps fitted with domed fluted glass and 36 watt bulbs are mounted high up and provide a clear, wide beam suitable for fast driving. Electric "dip and switch" is controlled from the centre of the steering wheel. Twin coupled wide range windscreen wipers are mounted on the scuttle below the windscreen. Twin tuned electric high-frequency horns with press button in steering wheel centre. Flush fitting traffic signalling arms are controlled by a switch in the centre of the steering wheel which incorporates an automatic cancelling device. The neat, centrally grouped instrument panel is equipped with concealed lighting and has clock, speedometer, oil gauge, petrol gauge, ammeter, "Startix" control, warning light, ignition key, panel light switch, inspection lamp sockets. Finger-tip control for horns, head and side lamps, dipping reflector and traffic signalling arms.

CONTROLS. Adjustable foot pedals for clutch and brake. Organ type accelerator pedal on right-hand side. Central remote control for gearbox and central hand brake lever make access easy from either side of car.

SILENCER. A large and efficient silencer is flexibly mounted to the chassis frame by means of rubber insulation which prevents vibrations passing to the inside of the car.

Sixteen
Saloon
and
Sports Saloon

1½ Litre Le Mans
SPECIAL SPEED MODEL

Chassis Specification

ENGINE. Bore 59 mm., stroke 91 mm., 1493 c.c. R.A.C. rating 12.95. Six cylinders, overhead valves operated by overhead camshaft driven by duplex chain; balanced disc type crankshaft with four large bearings and vibration damper mounted at the front end; detachable combustion head, specially treated to assist gas flow; valve rocker gear of special design; pistons of high tensile aluminium alloy, with special design scraper ring for conserving oil. COOLING SYSTEM by centrifugal water pump and fan; water capacity 20 pints. IGNITION.—Vertical type high-tension magneto specially suitable for efficient working at high speeds. Auto and manual control. CARBURETTERS.—Three balanced carburetters. ENGINE LUBRICATION.—Full forced feed through a filter in the sump. Sump is of extra large capacity and of cast aluminium alloy with cooling fins and adaptor for oil sump thermometer. The oil filler cap is airtight and separate breather tube conveys fumes away.

CLUTCH. Heavy duty single dry plate to give rapid take-up of drive.

GEARBOX. " Perm-Mesh " mounted as a unit with the engine. Central remote control change lever. Gear ratios: 4.44—1; 5.64—1; 9.08—1; 17.7—1; Reverse 24.0—1.

PROPELLER SHAFT. Open type with Hardy-Spicer mechanical universal joints.

REAR AXLE. Semi-floating with bevel drive and bevel gear differential.

FRONT AXLE. High tensile steel stamping. Steering connections of ball and socket type.

STEERING. Patented type worm and nut, rigidly anchored to the frame. Self-centring action. Spring steering wheel.

BRAKES. Lockheed hydraulic operate in large diameter drums. Foot brake operates on all four wheels. Handbrake operates independently on rear wheels. Handbrake is of special racing type.

FRAME. Double dropped downswept pressed steel, with specially designed cross members. Low centre of gravity.

SUSPENSION. Wide, long, semi-elliptic springs with Hartford friction heavy duty shock absorbers. Silentbloc bushes.

WHEELS AND TYRES. Six racing type "knock-on" wheels with self-locking hubs and special wing nuts. Six 4.75 × 18 in. tyres.

ELECTRICAL EQUIPMENT. 12 volt, 51 ampere hour battery located under the driver's seat; starter motor with solenoid starter switch, dashboard control; large output dynamo; vertical magneto: long range, high powered biflex headlamps with special lenses and electric dip and switch mechanism; sports sidelamps; stop, tail and reverse lamp; two dash lamps; ammeter; high frequency twin tuned horns; high intensity flat beam fog lamp.

PETROL SUPPLY. 15 gallon tank at rear with two level tap giving 1½ gallon reserve. Quick-action self-locking lever filler cap; electric pressure pump with filter.

CHASSIS LUBRICATION. A large number of oiling points has been eliminated by fitting Silentbloc bushes. Lubrication to other parts of the chassis by Tecalemit high-pressure grease gun to nipples in accessible positions.

CHASSIS DIMENSIONS. Wheelbase, 7 ft. 8 ins. (2.33 m.). Track, 3 ft. 9 ins. (1.14 m.). Ground clearance, 6½ ins. (.16 m).

CHASSIS EQUIPMENT. Large dial trip speedometer, large dial revolution counter and clock combined, dash reading radiator thermometer, dash reading oil sump thermometer and oil pressure gauge, tandem electric windscreen wiper, full kit of tools, number plates.

1½ Litre Sports Saloon

Chassis Specification

ENGINE. (With Vibro-Damper Mounting). Bore 59 mm.; Stroke 91 mm.; 1493 c.c. R.A.C. rating 12.95. Six cylinders. Overhead valves. Overhead camshaft. Balanced disc type crankshaft with four large bearings and damper. Detachable combustion head carries the valves. Camshaft driven by Duplex roller chain having automatic tensioning device. Pistons of special aluminium alloy, drilled for oil saving in conjunction with a patented design scraper ring. Gudgeon pins fitted with pads. COOLING SYSTEM.—By Thermo-syphon and fan. Capacity 24 pints. Special high efficiency radiator with stoneguard front. IGNITION.—H.T. coil and distributor. Automatic advance and by lever on steering column. CARBURETTER.—Two carburetters with hot-spot manifold. ENGINE LUBRICATION.—Full forced feed through a filter in the sump. Oil pressure gauge on the instrument board. The oil filler cap is airtight and a breather conveys fumes away from the body.

CLUTCH. Heavy duty single dry plate, designed to give rapid take-up of drive.

GEARBOX. "Perm-Mesh" mounted as a unit with the engine. Central remote control gear lever. Gear ratios: Top 5.66—1; Silent third 7.18—1; Silent second 11.57—1; First 22.5—1; Reverse 30.6—1.

PROPELLER SHAFT. Open type with Hardy-Spicer mechanical universal joints.

REAR AXLE. Semi-floating with spiral bevel drive and bevel gear differential.

FRONT AXLE. High tensile steel stamping. Ball and socket steering connections.

STEERING. New type (patented) worm and nut, rigidly anchored to frame. Self-centring action. 18 in. diameter steering wheel.

BRAKES. Lockheed hydraulic operate in 13 in. drums and give the maximum efficiency with progressive action. Foot brakes operate on all four wheels. Central, racing type, hand brake operates independently on rear wheels.

FRAME. Downswept pressed steel with specially designed cross members. Low centre of gravity.

SUSPENSION. Wide, long, semi-elliptic springs with Hartford heavy duty shock absorbers. Springs fitted with Silent-bloc bushes.

WHEELS AND TYRES. Five "knock-on" racing road wheels with quick-action self-locking hubs and special wing nuts—18 × 3.25 rims and 18 × 5.25 tyres.

ELECTRICAL EQUIPMENT. 12 volt, 51 ampere hour battery located under the driver's seat; starter motor with solenoid starter switch, dashboard control; large output dynamo, distributor, ignition coil, long range high powered Biflex headlamps with special lenses and electric dip and switch mechanism; sports side lamps; stop tail lamp; concealed lighting to instrument board; ignition warning light; high frequency twin tuned horns; high intensity flat beam fog lamp.

PETROL SUPPLY. 10 gallon tank fitted at the rear for safety. Quick-action self-locking lever type filler cap. Fuel feed by electric petrol pump incorporating filter.

CHASSIS LUBRICATION. A large number of oiling points has been eliminated by fitting Silentbloc bushes. Lubrication to other parts of chassis by high pressure grease gun to nipples accessibly placed.

CHASSIS DIMENSIONS. Wheelbase, 9 ft. 0½ ins. (2.75 m.). Track, 4 ft. 4 in. (1.32 m.). Ground clearance, 7½ ins. (.19 m.).

CHASSIS EQUIPMENT. Brooklands instruments incorporating trip speedometer, revolution counter and clock, oil gauge, electric petrol gauge, ammeter, all on a centrally placed instrument panel with concealed lighting. Dash reading radiator thermometer. High frequency tuned horns. Sports side lamps. Stop light. Finger-tip control on steering wheel centre to ignition, throttle, head and side lamps and horns. High intensity, flat beam fog lamp. Dual arm electric windscreen wiper. Sports silencing system. Full kit of tools. Number plates.

Fourteen
Saloon and Continental Saloon

Chassis Specification

ENGINE. (With Vibro-Damper Mounting). Bore 60 mm.; Stroke 95 mm.; 1612 c.c.; R.A.C. rating 13.4. Six cylinders. Overhead valves. Overhead camshaft. Crankshaft has four large bearings. Detachable combustion head carries the valves. Camshaft driven by Duplex roller chain having automatic tensioning device. Pistons of special aluminium alloy drilled for oil saving in conjunction with a patented design scraper ring. Gudgeon pins fitted with pads. ENGINE LUBRICATION.—Full forced feed through a filter in the sump. Oil pressure gauge on the instrument board. The oil filler cap is airtight and a breather conveys oil fumes away from the body. IGNITION.—H.T. coil and distributor. Automatic advance and by lever on the steering column CARBURETTER.—Solex self-starter. COOLING.—Thermo syphon and fan. Cooling system capacity, 24 pints.

CLUTCH. Cushioned type, single dry plate, having flexible centre.

GEARBOX. "Perm-Mesh" mounted as a unit with the engine. Clutchless gear change including automatic restarting device and central remote control change. Gear ratios: Top 5.66—1; Silent third 8.43—1; Silent second 11.55—1; First 20.5—1; Reverse 27.8—1.

PROPELLER SHAFT. Open type with Hardy-Spicer mechanical universal joints.

REAR AXLE. Semi-floating with spiral bevel drive and bevel gear differential.

FRONT AXLE. High tensile steel stamping. Steering connections of ball and socket type.

STEERING. Patented worm and nut, rigidly anchored to the frame. Self-centring action. Large thin section shallow boss type wheel.

BRAKES. Lockheed hydraulic operate in 13 in. diameter drums and give the maximum efficiency with progressive action. The foot brake operates on all four wheels. Handbrake operates independently on rear wheels.

FRAME. Downswept pressed steel, with specially designed cross members. Low centre of gravity.

SUSPENSION. Wide, long, semi-elliptic springs with hydraulic shock absorbers all round. Road springs fitted with Silent-bloc bushes.

WHEELS AND TYRES. Five detachable wire wheels with Magna-type hubs, five 18 × 5.00 in. low pressure tyres.

ELECTRICAL EQUIPMENT. 12 volt 51 ampere hour battery located under the driver's seat; starter motor, automatic restarting device, distributor, ignition coil, large output dynamo, electric dip and switch headlamps, sidelamps, stop tail lamp, ammeter, concealed illumination, ignition warning light, high frequency twin tuned horns.

PETROL SUPPLY. 10 gallon tank fitted at the rear for safety. Fuel is fed by electric pressure pump incorporating a filter.

LUGGAGE GRID. Sturdy folding luggage grid of large capacity on Saloon Models.

CHASSIS LUBRICATION. A large number of oiling points has been eliminated by fitting Silentbloc bushes. Lubrication to other parts of the chassis by high pressure grease gun to nipples which are in accessible positions.

CHASSIS DIMENSIONS. Wheelbase, 9 ft. 0½ ins. (2.75 m.). Track, 4 ft. 4 ins. (1.32 m.). Ground clearance, 7½ ins. (.19 m.).

CHASSIS EQUIPMENT. Dash reading fuel gauge, speedometer directly driven from gearbox, 8-day clock, oil pressure gauge, automatic restarting device, dip and switch headlights, side and rear lamps, ignition control, luggage grid, stop light, concealed lighting to instrument panel, finger-tip control, full kit of tools.

Eleven
Saloon, Sports Saloon, Drop-Head Coupe and 2-Door Four Seater

Chassis Specification

ENGINE. 4-cyl O.H.V. 10.5 h.p. R.A.C. rating. 65 mm. bore. 105 mm. stroke. 1384 c.c. capacity. Fully counter-balanced three-bearing crankshaft. Overhead camshaft driven by " duplex " roller chain. Super-efficient cylinder head; large inclined valves operated by rockers direct from the camshaft. New dual oil filtering system with large capacity wire gauze on the suction side and a fabric type on the pressure side, which fully protect bearings. The filter element is detachable for cleaning and replacement, and a by-pass valve is provided in case of obstruction. Self-adjusting pistons with two working rings and one oil control ring. Horizontal type " Solex " easy-starting carburetter fitted with efficient air silencer. High duty coil and distributor, both units being high up on engine in an accessible position. A warning light is incorporated in the instrument panel. Engine and gearbox unit suspension on four absorbent rubber mountings, scientifically incorporated at front and rear and midway on torque arms.

CLUTCH. Smooth acting, using low pedal pressure. Only required when starting from rest.

TRANSMISSION. Incorporating Vulcan-Sinclair " Fluidrive " coupling between engine and gearbox, resulting in super-smooth transmission, extreme flexibility of drive on all gears with remarkable low speed pulling and easy acceleration. Four-speed helical gear "Perm-mesh" gearbox with silent second, third and top speeds. Preselective clutchless remote control gear change. Gear ratios: Top 5.2—1; Third 6.89—1; Second 10.96—1; First 21.6—1; Reverse 29.3—1. Hardy-Spicer tubular propeller shaft with latest type enclosed roller-bearing universal joints.

REAR AXLE. Semi-floating type with silent spiral bevel crown wheel and pinion, nickel-chrome-molybdenum axle shafts and steel banjo casing.

BRAKES. "Lockheed" fully balanced and compensated hydraulically operated foot brakes on four wheels with independent mechanical operation of rear shoes by central hand brake.

SUSPENSION. Singer " Gordon-Armstrong " independent front wheel suspension with low-frequency coil springs. In place of the usual axle beam the front hub swivels are carried on pairs of parallel motion arms of extremely rigid construction which are in turn mounted on large diameter transverse trunnion shafts running in totally enclosed bearings in the tubular front cross-members of the chassis frame. Long and widely spaced semi-elliptic springs are used at the rear, mounted on silent-bloc bearings.

STEERING. Transverse worm and nut steering specially designed to suit independent wheel suspension and full balloon tyres. Finger-light at all speeds.

WHEELS AND TYRES. "Magna" type wire spoke wheels with 16 × 3.50 in. rims and large hubs with chromium-plated covers; 16 × 5.50 in. full balloon extra low pressure heavy duty tyres.

CHASSIS FRAME. Specially designed to suit independent wheel suspension and " Fluidrive " transmission. The frame is a great advance on the orthodox cross-braced design. The " X " type centre bracing is extended forward to form an "A" member at the front, thus adding greatly to the rigidity of the chassis and giving improved roadability with increased safety. Three stout tubular members and one pressed steel cross-member give added strength.

Eleven
Saloon, Sports Saloon, Drop-Head Coupe and 2-Door Four Seater

Chassis Specification

COOLING. Thermo-syphon circulation and improved silent fan. The large radiator block with extended header tank is a separate unit carried in a substantial channel section loop type sub-frame. The large filler is situated under the near side of the bonnet.

PETROL SUPPLY. An 8 gallon rear tank, completely covered, supplies the petrol through the medium of an electric fuel pump. This pump incorporates an easily detachable filter; it is connected to the ignition circuit and is therefore "in" and "out" of action when the ignition is switched " on " or " off." An electric recording petrol gauge is fitted on the instrument panel.

ELECTRIC EQUIPMENT. 12-volt self-regulating constant voltage system with automatic control of charging rate to suit varying conditions and thus maintain full battery charge. "Startix" automatic starter control. An alternative finger-touch starter switch is also provided when the automatic switch is not required to operate. Junction and fuse-box incorporated with the cut-out and voltage control unit provides separate fuses to all components of the electric equipment. The dynamo is larger than usual and is driven by a duplex roller chain in the engine timing case. A large 51 amp. 12 volt battery is carried in a cradle on the chassis and is readily accessible. Large chromium-plated head lamps fitted with domed fluted glass and 36 watt bulbs are mounted high up and provide a clear, wide beam suitable for fast driving. Electric " dip and switch " controlled from the centre of the steering wheel. Twin coupled wide range windscreen wipers are mounted on the scuttle below the windscreen. Twin tuned electric high-frequency horns with press button in steering wheel centre. Flush fitting traffic signalling arms are controlled by a switch in the centre of the steering wheel which incorporates an automatic cancelling device. The neat, centrally grouped instrument panel is equipped with concealed lighting and has clock, speedometer, oil gauge, petrol gauge, ammeter, "Startix" control, warning light, ignition key, panel light switch, inspection lamp sockets. Finger-tip control for horns, head and side lamps, dipping reflector and traffic signalling arms.

CONTROLS. Adjustable foot pedals for clutch and brake. Organ type accelerator pedal on right-hand side. Central remote control for gearbox and central hand brake lever make access easy from either side of car.

SILENCER. A large and efficient silencer is flexibly mounted to the chassis frame by means of rubber insulation which prevents vibrations passing to the inside of the car.

THE ELEVEN SPORTS SALOON.

Specification as above, but with twin carburetters, tandem electric windscreen wiper, large dial revolution counter and clock combined and large dial speedometer.

Nine
Le Mans Special Speed Model

Chassis Specification

ENGINE. (With Vibro-Damper Mounting). Bore 60 mm.; Stroke 86 mm.; 972 c.c.; R.A.C. rating 8.93. Four cylinders. Overhead valves. Overhead camshaft. Detachable combustion head carries the valves. Pistons of special aluminium alloy, drilled for oil saving in conjunction with a patented design scraper ring. The gudgeon pins are fitted with pads. ENGINE LUBRICATION.—Full forced feed through a filter in the sump. The oil filler cap is airtight, and a breather conveys oil fumes away from the body. IGNITION.—H.T. coil and distributor ignition with manual and automatic ignition advance. CARBURETTER.—Twin carburetters and hot spot manifold. COOLING.—By thermo-syphon and fan. Cooling system capacity, 16 pints.

CLUTCH. Single dry plate, solid centre heavy duty clutch to give rapid take-up of drive.

GEARBOX. "Perm-Mesh" mounted as a unit with the engine. Central remote control change lever. Gear ratios: 5.57—1; 7.52—1; 12.42—1; 24.4—1; Reverse 33.6—1.

PROPELLER SHAFT. Open type with Hardy-Spicer mechanical universal joints.

REAR AXLE. Semi-floating type with spiral bevel drive and spur gear differential.

FRONT AXLE. High Tensile steel stamping. Steering connections of ball and socket type.

STEERING. Patented type worm and nut, rigidly anchored to the frame. Self-centring action. Spring steering wheel.

BRAKES. Lockheed hydraulic operate in large diameter drums. Foot brake operates on all four wheels. Special racing type hand-brake operates independently on rear wheels.

FRAME. Downswept pressed steel, with specially designed cross members. Low centre of gravity.

SUSPENSION. Wide, long, semi-elliptic springs with heavy duty shock absorbers all round. Silent-bloc bushes.

WHEELS AND TYRES. Six racing "knock-on" wheels with self-locking hubs and six 4.5 × 18 in. low pressure tyres.

ELECTRICAL EQUIPMENT. 12 volt, 51 ampere hour battery located under driver's seat. Starter motor with solenoid starter switch, large output dynamo, distributor, ignition coil, electric dip and switch headlamps, sports sidelamps, stop tail lamp, ammeter, concealed illumination to instrument panel, ignition warning light, twin tuned high-frequency horns, two dash lamps.

PETROL SUPPLY. A seven-gallon tank is fitted at rear for safety. Fuel fed by electric pressure pump incorporating a filter.

CHASSIS LUBRICATION. A large number of oiling points has been eliminated by fitting Silent-bloc bushes. Lubrication to other parts of the chassis by Tecalemit high pressure grease gun to nipples in accessible positions.

CHASSIS DIMENSIONS. Wheelbase, 7 ft. 8 ins. (2.33 m.). Track, 3 ft. 9 ins. (1.14 m.). Ground clearance, 8 ins. (.2 m.).

CHASSIS EQUIPMENT. Dash reading electric fuel gauge, large dial speedometer directly driven from gearbox, large dial combined clock and revolution counter, oil pressure gauge, dip and switch headlights, side and rear lamps, stop light, concealed lights, finger-tip control. Stone guard to radiator, sports silencing system, full kit of tools.

Nine Sports

4-Seaters, Coupes, Saloon and Le Mans

Chassis Specification

ENGINE. With Vibro-Damper Mounting). Bore 60 mm.; Stroke 86 mm.; 972 c.c.; R.A.C. rating 8.93. Four cylinders. Overhead valves. Overhead camshaft. Detachable combustion head carries the valves. Pistons of special aluminium alloy, drilled for oil saving in conjunction with a patented design scraper ring. The gudgeon pins are fitted with pads. ENGINE LUBRICATION.—Full forced feed through a filter in the sump. The oil filler cap is airtight, and a breather conveys oil fumes away from the body. IGNITION.—H.T. coil and distributor with automatic ignition advance. CARBURETTER.—Twin carburetters and hot spot manifold. COOLING.—By thermo-syphon and fan. Cooling system capacity, 16 pints.

CLUTCH. Single dry plate, solid centre heavy duty clutch to give rapid take-up of drive.

GEARBOX. "Perm-mesh" mounted as a unit with the engine. Central remote control change lever. Gear ratios: 5.57—1; 8.7—1; 12.4—1; 24.4—1; Reverse 33.6—1.

PROPELLER SHAFT. Open type with Hardy-Spicer mechanical universal joints.

REAR AXLE. Semi-floating type with spiral bevel drive and spur gear differential.

FRONT AXLE. High tensile steel stamping. Steering connections of ball and socket type.

STEERING. Patented type worm and nut, rigidly anchored to the frame. Self-centring action. Spring steering wheel.

BRAKES. Lockheed hydraulic operate in large diameter drums. Foot brake operates on all four wheels. Handbrake operates independently on rear wheels.

FRAME. Double dropped pressed steel, with specially designed cross members. Low centre of gravity.

SUSPENSION. Wide, long, semi-elliptic springs with Hartford friction shock absorbers all round. Silent-bloc bushes.

WHEELS AND TYRES. Five " knock-on " wheels with self-locking hubs and five 4.5 × 18 in. low pressure tyres.

ELECTRICAL EQUIPMENT. 12 volt, 51 ampere hour battery located under driver's seat. Starter motor with solenoid starter switch, large output dynamo, distributor, ignition coil, electric dip and switch headlamps, sports sidelamps, stop tail lamp, ammeter, concealed illumination to instrument panel, ignition warning light, high frequency horn.

PETROL SUPPLY. A seven-gallon tank is fitted at rear for safety. Fuel fed by electric pressure pump incorporating a filter.

CHASSIS LUBRICATION. A large number of oiling points has been eliminated by fitting Silent-bloc bushes. Lubrication to other parts of the chassis by Tecalemit high pressure grease gun to nipples in accessible positions.

CHASSIS DIMENSIONS. Wheelbase, 7 ft. 8 ins. (2.33 m.). Track, 3 ft. 9 ins. (1.14 m.). Ground clearance, 8 ins. (.2 m.).

CHASSIS EQUIPMENT. Dash reading electric fuel gauge, large dial speedometer directly driven from gearbox, large dial combined clock and revolution counter, oil pressure gauge, dip and switch headlights, side and rear lamps, stop light, concealed lights, finger-tip control. Stone guard to radiator, sports silencing system, full kit of tools.

THE LE MANS 2-SEATER.

The chassis specification is substantially the same as above, with the additions and refinements given alongside the illustration and the following: six wheels and tyres, heavy duty shock absorbers, special racing type handbrake, twin tuned high frequency horns, two dash lamps, manual as well as automatic ignition advance, dash reading radiator thermometer. Gear ratios: 5.57—1; 7.52—1; 12.42—1; 24.4—1; Reverse 33.6—1.

Nine

Popular and De Luxe Independent Suspension Saloons

Chassis Specification

ENGINE. Bore 60 mm.; Stroke 86 mm.; 972 c.c.; R.A.C. rating 8.93. Four cylinders. Overhead valves. Overhead camshaft. Detachable combustion head carries the valves. Pistons of special aluminium alloy, drilled for oil saving in conjunction with a patented design scraper ring. The gudgeon pins are fitted with pads. ENGINE LUBRICATION.—Full forced feed through a filter in the sump. The oil filler cap is airtight, and a breather conveys oil fumes away from the body. IGNITION.—H. T. coil and distributor with automatic ignition advance. CARBURETTER.—Solex self-starter type. COOLING.—By thermo-syphon and fan. Cooling system capacity, 16 pints.

ENGINE MOUNTING. Engine and gearbox unit suspension on four absorbent rubber mountings, scientifically incorporated at front and rear and midway on torque arms.

CLUTCH. Cushioned type, single dry plate, having flexible centre.

GEARBOX. "Perm-Mesh" mounted as a unit with the engine. Clutchless Gear Change, including central remote control change lever. Gear ratios: 5.57—1; 8.7—1; 12.4—1; 24.4—1; Reverse 33.6—1.

PROPELLER SHAFT. Open type with Hardy-Spicer enclosed roller bearing universal joints.

REAR AXLE. Semi-floating type with spiral bevel drive and spur gear differential.

STEERING. Patented type worm and nut, rigidly anchored to the frame. Self-centring action. Large thin section shallow boss type wheel.

BRAKES. Lockheed hydraulic operate in 10 in. diameter drums. Foot brake operates on all four wheels. Handbrake operates independently on rear wheels.

FRAME. Specially designed to suit independent wheel suspension. The frame is a great advance on the orthodox cross-braced design. The "X" type centre bracing is extended forward to form an "A" member at the front, thus adding greatly to the rigidity of the chassis and giving improved roadability with increased safety. Three stout tubular members and one pressed steel cross-member give added strength. The low built deep section side members provide a low centre of gravity and reduce the height to the floor of the coachwork.

SUSPENSION. Singer " Gordon-Armstrong " independent front wheel suspension with low-frequency coil springs. In place of the usual axle beam the front hub swivels are carried on pairs of parallel motion arms of extremely rigid construction which are in turn mounted on large diameter transverse trunnion shafts running in totally enclosed bearings in the tubular front cross-members of the chassis frame. Each front wheel moves independently of the other over rough roads without change in the plane in which it rotates, thus maintaining true gyroscopic action with absence of wheel "flap" or "kick" on the steering connections, no matter what speed or condition of road. Long and widely spaced semi-elliptic springs are used at the rear, mounted on silent-bloc bearings. This system of suspension, in combination with double-acting hydraulic shock absorbers, gives a wonderfully smooth ride at all speeds and loads, being practically free from pitching and roll.

WHEELS AND TYRES. Five detachable wire wheels with large hubs and five 4.75 × 17 in. low pressure tyres.

ELECTRICAL EQUIPMENT. 12 volt 51 ampere hour battery located under driver's seat; starter motor (solenoid starter switch with dashboard control on De Luxe Model); large output dynamo, distributor, ignition coil, electric dip and switch headlamps, sidelamps, stop tail lamp, ammeter, concealed illumination, ignition warning light, horn.

PETROL SUPPLY. A seven-gallon tank is fitted at rear for safety. Fuel feed by electric pressure pump incorporating a filter.

CHASSIS DIMENSIONS. Wheelbase, 7 ft. 8 ins. (2.33 m.). Track, 3 ft. 9 ins. (1.14 m.). Ground clearance, 8 ins. (.2 m.).

CHASSIS EQUIPMENT. Dash reading electric fuel gauge, speedometer directly driven from gearbox, 8-day clock, oil pressure gauge. Foot starter switch. Hand switch on De Luxe models. Dip and switch headlights, side and rear lamps, stop light, concealed lights, finger-tip control, full kit of tools.

Nine
Popular & De Luxe Saloon

Chassis Specification

ENGINE. (With Vibro-Damper Mounting). Bore 60 mm.; Stroke 86 mm.; 972 c.c.; R.A.C. rating 8.93. Four cylinders. Overhead valves. Overhead camshaft. Detachable combustion head carries the valves. Pistons of special aluminium alloy, drilled for oil saving in conjunction with a patented design scraper ring. The gudgeon pins are fitted with pads. ENGINE LUBRICATION.—Full forced feed through a filter in the sump. The oil filler cap is airtight, and a breather conveys oil fumes away from the body. IGNITION.—H.T. coil and distributor with automatic ignition advance. CARBURETTER. —Solex self-starter type. COOLING.—By thermo-syphon and fan. Cooling system capacity, 16 pints.

CLUTCH. Cushioned type, single dry plate, having flexible centre.

GEARBOX. "Perm-Mesh" mounted as a unit with the engine. De Luxe Model Saloon fitted with Clutchless Gear Change, including automatic restarting device and central remote control change lever. Gear ratios: 5.57—1; 8.7—1; 12.4—1; 24.4—1; Reverse 33.6—1.

PROPELLER SHAFT. Open type with Hardy-Spicer mechanical universal joints.

REAR AXLE. Semi-floating type with spiral bevel drive and spur gear differential.

FRONT AXLE. High tensile steel stamping. Steering connections of ball and socket type.

STEERING. Patented type worm and nut, rigidly anchored to the frame. Self-centring action. Large thin section shallow boss type wheel.

BRAKES. Lockheed hydraulic operate in 10 in. diameter drums. Foot brake operates on all four wheels. Handbrake operates independently on rear wheels.

FRAME. Double dropped pressed steel, with specially designed cross members. Low centre of gravity.

SUSPENSION. Wide, long, semi-elliptic springs with hydraulic shock absorbers all round. Silent-bloc bushes.

WHEELS AND TYRES. Five detachable wire wheels with large hubs, and five 4.5 × 18 in. low pressure tyres.

ELECTRICAL EQUIPMENT. 12 volt, 51 ampere hour battery located under driver's seat; starter motor (automatic restarting device on Clutchless Gear Change models); large output dynamo, distributor, ignition coil, electric dip and switch headlamps, side-lamps, stop tail lamp, ammeter, concealed illumination, ignition warning light, horn.

PETROL SUPPLY. A seven-gallon tank is fitted at rear for safety. Fuel feed by electric pressure pump incorporating a filter.

LUGGAGE GRID. Sturdy folding luggage grid of large capacity on Saloon and Four-Seater Models.

CHASSIS LUBRICATION. A large number of oiling points has been eliminated by fitting Silent-bloc bushes. Lubrication to other parts of the chassis by Tecalemit high pressure grease gun to nipples in accessible positions.

CHASSIS DIMENSIONS. Wheelbase, 7 ft. 8 ins. (2.33 m.). Track, 3 ft. 9 ins. (1.14 m.). Ground clearance, 8 ins. (.2 m.).

CHASSIS EQUIPMENT. Dash reading electric fuel gauge, speedometer directly driven from gearbox, 8-day clock, oil pressure gauge, automatic restarting device on De Luxe Saloon. Foot starter switch on other models. Dip and switch headlights, side and rear lamps, luggage grid on Saloons, stop light, concealed lights, finger-tip control, full kit of tools.

Colour Schemes and Dimensions

MODELS.	Body Top.	Lower Panels.	Wheels	Wings.	Upholstery.
All SIXTEENS, ELEVENS, and I.S. NINES.	Black	Green	Green	Black	Green
	Black	Black	Green	Black	Green
	Black	Black	Brown	Black	Brown
	Black	Black	Maroon	Black	Maroon
	Black	Maroon	Maroon	Black	Maroon
	Dark Brown	Light Brown	Brown	Black	Brown
	Dark Green	Light Green	Black	Black	Green
	Black	Blue	Blue	Black	Blue
	Black	Cream	Black	Black	Brown
	Dark Grey	Light Grey	Grey	Black	Grey
All FOURTEENS and NINE POPULAR *, and DE LUXE SALOONS.	Black	Green	Green	Black	Green
	Black	Blue	Black	Black	Blue
	Black	Black	Green	Black	Green
	Black	Maroon	Maroon	Black	Maroon
All OPEN SPORTS MODELS.	—	Ivory	Apple Green	Apple Green	Green
	—	Ivory	Signal Red	Signal Red	Red
	—	Signal Red	Signal Red	Ivory	Red
	—	Light Blue	Light Blue	Ivory	Blue
All CLOSED SPORTS MODELS.	Carnation Red	Signal Red	Carnation Red	Signal Red	Red
	Apple Green	Ivory	Apple Green	Ivory	Green
	Carnation Red	Ivory	Carnation Red	Ivory	Red
	Black	Ivory	Black	Ivory	Green
	Black	Black	Black	Green	Green

* Black wheels on Popular Nines. Coloured wheels, extra.
Special exterior body panel colours on Saloons, extra (Black wings).
Special colours for wings, extra.

Description.	NINES.									ELEVENS.		FOUR-TEENS.		1½ LITRE.		SIX-TEENS.	
	Sal. oons.	I.S. Sal.	Le Mans 2-Sr.	Le Mans 2-Sr. Speed	Spts. 4-Sr.	Le Mans Spts. 4-Sr.	Spts. C'pe.	Le Mans Spts. C'pe.	Spts. Sal.	Sal-oon.	Spts. Sal.	Sal-oon.	Con. Sal.	Spts. Sal.	Le Mans.	Sal-oon.	Spts. Sal.
	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.
Wheelbase	92	93½	92	92	92	92	92	92	92	96	96	108½	108½	108½	92	108½	108½
Overall length (grid extended)	150½	153½	134	141	140	151	140	156	145	—	162	177	162	168	141	—	171½
Total Height (unladen) ...	64	64	51	55½	57	55½	56	56	59½	64½	63	67	65½	62	55½	66½	65
Height—Cushion to Roof (front)	37½	36	34	36	36	36	35	36	40	37	36	37½	37½	36	36	38	36
,, ,, ,, (rear)	36	36	—	—	33	35	—	—	33	37	36	37½	36½	35	—	36	36
,, Floor to Roof (Max.)...	48	46½	37	—	45	—	35	39	40	45½	45½	44½	43½	49	37	49	45½
Depth of Windows (Max.) ...	13	16	16	—	20½	—	12½	12½	14	14	12½	14½	14½	13½	16	17¼	12½
Height of Front Cushion ...	10½	10	6	7¼	5	7¼	5	7½	5	11½	9	9	9	7½	7¼	13	12½
,, ,, Rear ,, ...	16	13½	—	—	15	16	—	—	17	14	11½	12½	17	18	—	13½	11½
Diam. of Steering Wheel ...	16½	16½	17	17	17	17	17	17	17	17	17	18	18	18	18½	17	18
Height of Front Squab ...	19	22	18	18	19	18	16	16	21	20	22	21	21	18	18	22	22
,, ,, Rear ,, ...	23	23	—	—	18	14	—	—	19	23	23	23½	21½	23	—	23	23
Dist. betw'n Cushion and Wheel	6¼	8	7	5¾	7	5¾	7	7	7	8	7¾	8	8	7	5¾	8	7¾
Height of Wheel from Floor ...	16¾	18	12	12	10½	12	10½	14½	11½	19½	19½	16¾	16¾	12½	12	17¾	18½
Overall length (grid closed) ...	141	151½	—	—	—	—	—	—	—	152½	—	163	162	—	—	169	—
Width over Front Wings ...	57	55	56	55	56	55	56	55	56	59	59	66	66	66	57	63	63
,, ,, Rear ,, ...	55½	55	53	51¼	53	53¾	53	55	53	57	59	63	63	62	54	63	63
Track	45	45	45	45	45	45	45	45	45	48	48	52	52	52	45	52	52
Width over Front Seats ...	43	42	40	39½	41	39¼	41	39½	40	45	44	45	45	42	40	46	46
,, ,, Rear Cushions ...	36½	36	—	—	35½	35½	—	—	36	38	38	41	41	37½	—	40½	40½
Maximum interior width ...	44	43	40	39½	41	41	43	42½	43	47	49	49	49	48	40	49	52
Depth of Front Cushion ...	19	20	21	20	18½	18	18½	18	18½	18	20	19	19	22	19	20	20
Dist. between Wheel and Squab	15	14	14	12	13	12	13	12	13	15	14	15	15	13	12	14	14
Depth of Rear Cushion	19	20	—	—	18	17	—	—	16	20	20	22	20	19	—	20	20

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