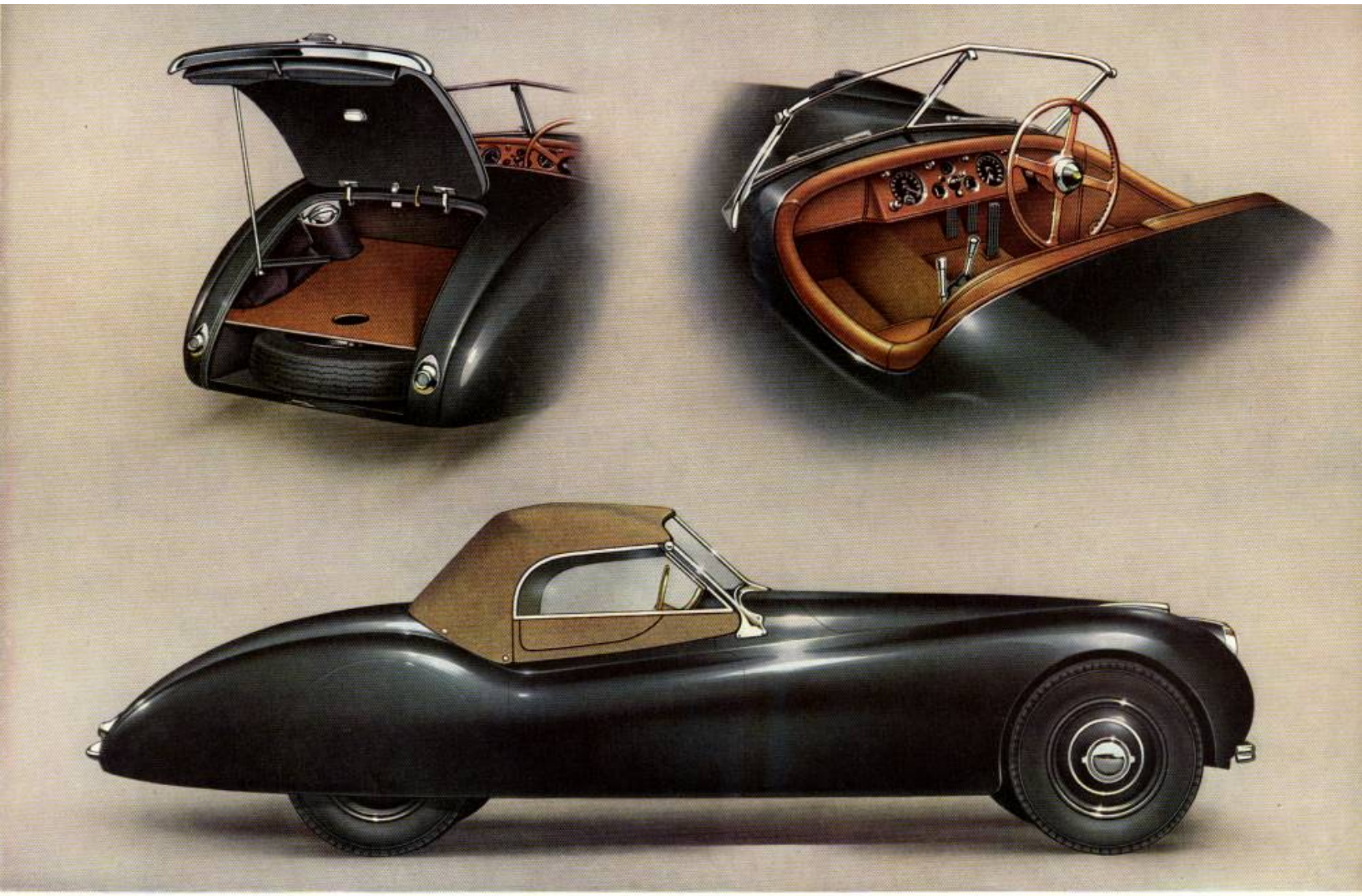
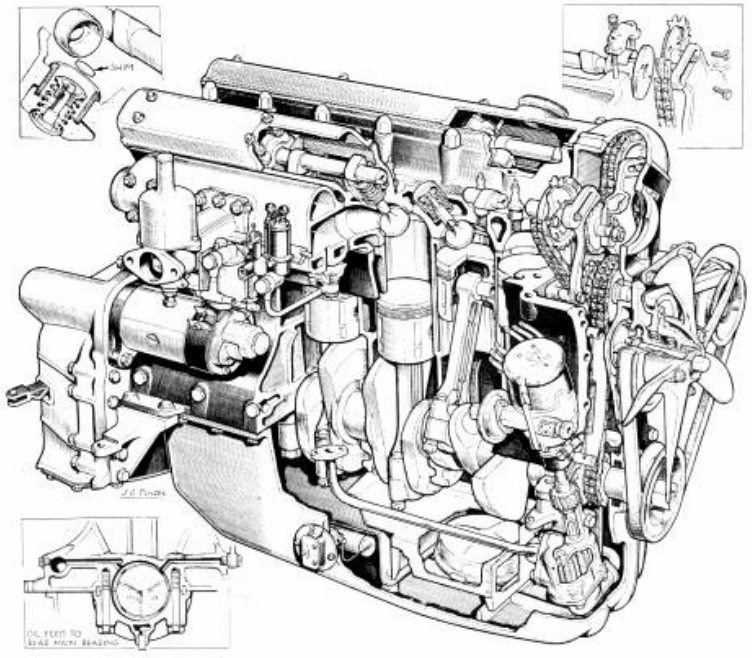
JAGUAR

Type XK

THE JAGUAR XK SUPER SPORTS TWO-SEATER



SALIENT FEATURES OF THE JAGUAR TYPE XK ENGINES



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In this new range of Jaguar engines all compromise in design has been eliminated. Each engine can be truthfully stated to incorporate all the most advanced technical knowledge available to-day on naturally aspirated petrol engines. Tests carried out on the completed units have shown the wisdom of the decision taken by the Jaguar Company nearly nine years ago to develop an engine on these lines.

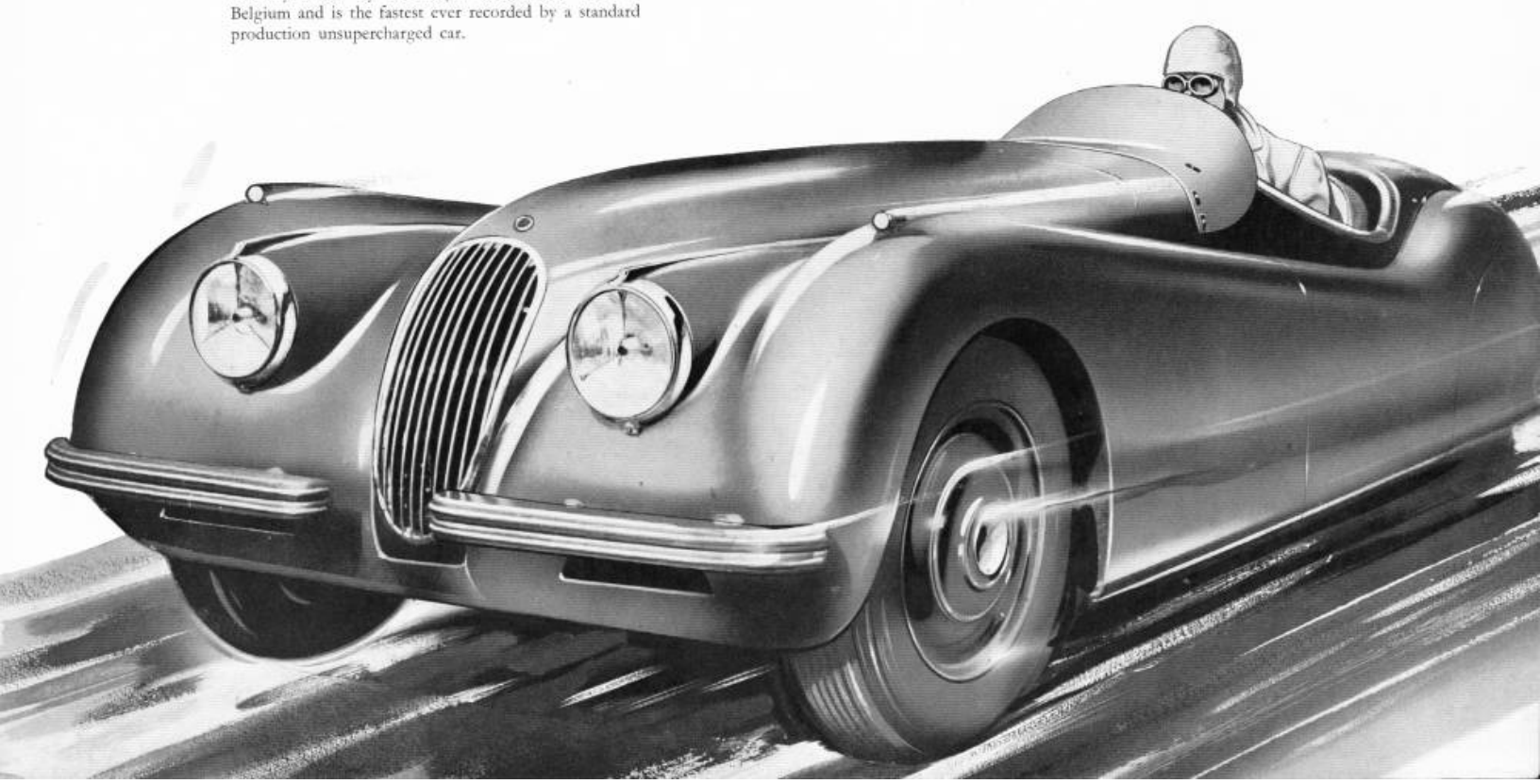
In addition to bench tests, totalling many thousands of hours, extensive road tests at home and abroad have been carried out and it is significant that the 2 litre engine, loaned to Colonel Gardner when he broke the world speed record in the 2 litre class at 176 miles per hour, is a completely standard unit with the exception of modified pistons to give a higher compression ratio.

From the following condensed resume of the more important features of the Type XK engine, it will be seen that no reliance has been placed upon the use of new or untried inventions. Instead, a blend of known and proved detail designs of the highest efficiency has resulted in the creation of a production engine of unparalleled quality and performance.

The following are some of the more important points :—(1) *Hemispherical head of high strength aluminium alloy.* (2) *Valve seatings of special high expansion cast iron alloy are shrunk into the combustion head.* (3) *Induction system, including the valve ports, were designed in collaboration with Mr. Harry Weslake, generally accepted as the foremost expert in this particular science.* (4) *Twin overhead camshafts, driven by a two-stage chain, act directly on the valves through floating tappets.* (5) *Oiling system—exceptionally large capacity oil pump with large diameter oil galleries, a feature which ensures an adequate supply of cool lubricant and eliminates frothing.* (6) *Exhaust valves of high grade austenetic steel immune from lead attack.* (7) *Water circulation—direct flow across the head from a high pressure pump. The head is fed by a gallery alongside the block which ensures equal distribution between all cylinders. The cooling to the block is controlled at a constant temperature by means of restricted circulation.* (8) *The crankshaft is a 65 ton steel forging, adequately counterweighted ; the main bearings in both four and six cylinder engines are* $2\frac{3}{4}$" *diameter. These bearings are larger than have ever been previously used on passenger car engines of similar capacity, and are responsible to a large degree for the exceptional smoothness with which these engines deliver their power, which is maintained up to the high maximum r.p.m. of which these engines are capable. The four cylinder has three bearings and the six cylinder has seven bearings. The bearings themselves are of the Vandervell thin shell type and have shown on test to have practically unlimited life.* (9) *Pistons are of Aerolite aluminium alloy, fitted with chromium plated top rings, which tests show give over 100 per cent. increase in life to the bores.*

132·6 M.P.H. ON PUMP PETROL · · ·

On May 30th, 1949, an entirely standard Jaguar 3½ litre XK 120 Sports Two-Seater, running on pump fuel, attained a speed of 132.6 m.p.h. over a flying mile on the Jabbeke-Aeltre Road in Belgium. This speed was officially timed by the Royal Automobile Club of Belgium and is the fastest ever recorded by a standard production unsupercharged car.



SPECIFICATIONS

3½ LITRE TYPE XK 120 MODEL

ENGINE. Six cylinder 3½ litre Jaguar engine 70° twin overhead camshafts driven by a two-stage duplex roller chain; 83 mm. bore × 106 mm. stroke; 3,442 c.c. developing 160 b.h.p. at 5,000 r.p.m.; large non-adjustable directly operated valves and austenetic cast iron seats; compression ratio 7 or 8 : 1; high grade chromic iron cylinder block, cooling by pump circulation with by-pass thermostat control; cylinder head of high tensile aluminium alloy with spherical combustion chambers; aluminium alloy pistons; steel connecting rods; forced lubrication throughout by submerged pump with full flow filter and floating gauze intake; twin S.U. horizontal carburetters with electrically controlled automatic choke, 2⅜ ins. diameter counterweighted crankshaft carried in seven large steel backed precision bearings.

FRAME. Straight plane steel box section frame of immense strength, torsional rigidity ensured by large box section cross members.

TRANSMISSION. Four-speed single helical synchromesh gearbox, ground teeth gears running on needle bearings, synchromesh on 2nd, 3rd and top. Gear ratios: 1st 12·29; 2nd 7·22; 3rd 4·98; top 3·64. Optional axle ratios: 3·27, 4·0, 4·3. Hardy Spicer propeller shaft in needle roller bearings, Borg & Beck 10 ins. diameter single dry plate clutch, central gear lever with remote control.

SUSPENSION. Independent front suspension incorporating transverse wish-bones and long torsion bars with Newton telescopic type hydraulic shock absorbers. Rear suspension by long silico-manganese steel half elliptic springs controlled by Girling PV.7 hydraulic shock absorbers. Rear springs totally enclosed in gaiters fitted with grease nipples.

BRAKES. Lockheed full hydraulic two-leading-shoe front and 12 ins. drums, friction lining area 208 square inches. Front drums fitted with cooling ducts, central fly-off handbrake operating on the rear wheels only through a separate linkage.

STEERING. Burman re-circulating ball type steering, positive and accurate at all speeds, 17 ins. Bluemel adjustable wheel. Left or right hand steering optional.

WHEELS AND TYRES. Pressed steel bolt-on disc wheels with wide base rim and Dunlop 6·00 × 16 ins. road speed tyres.

FUEL SUPPLY. By a new large delivery S.U. electric pump from a 14 gallon rear tank with reserve supply and warning light, petrol filler cap concealed and fitted with lock and key. 25 gallon tank optional.

ELECTRICAL EQUIPMENT. Lucas de luxe throughout, 12 volt 64 amp. capacity, twin batteries with constant voltage controlled ventilated dynamo, 10 hour discharge, flush fitting head lamps and wing lamps, stop light, reverse light, twin rear lights, panel light, twin blended-note horns, twin-blade screen wiper, cigar lighter, starter motor, vacuum and centrifugal automatic ignition advance.

INSTRUMENTS. 5 ins. diameter 140 m.p.h. speedometer, 5 ins. diameter revolution counter, ammeter, oil pressure gauge, water thermometer gauge, petrol gauge with warning light, electric clock.

CAR HEATER. An interior car heater can be supplied as an optional extra.

BODY. Aerodynamic two-seater body upholstered throughout in finest quality leather hide, floor is thickly carpeted over felt underlay. A Mono Screen is provided for competition work and is interchangeable with the Touring Screen.

SEATING. Divided seat and squab, folding forward for access to hood and battery, seats adjustable for reach. A tonneau cover is provided.

HOOD. Finest quality mohair material concealed behind seats when folded, fitted with unbreakable rear light and removable for competition work. Detachable sidescreens stored in a tray in the hood compartment.

INTERIOR APPOINTMENTS. Instrument panel and garnish rails finished in first quality leather, capacious pockets in the doors.

SPARE WHEEL AND TOOLS. The spare wheel is carried beneath the boot floor in a separate compartment and is readily accessible. The tools and jack are carried in a special container fitted to the side of the luggage compartment, and the wheel brace is housed in the spare wheel compartment.

LUGGAGE ACCOMMODATION. Ample accommodation is provided in a capacious rear locker, provided with an automatic light.

EASY JACKING. A central jack on each side of the car raises both wheels simultaneously with the minimum of effort by means of a special easy-lift jack.

PRINCIPAL DIMENSIONS. Wheel base, 8 ft. 6 ins.; track front, 4 ft. 3 ins.; track rear, 4 ft. 2 ins.; overall length (over bumpers), 14 ft. 5 ins. approximately; overall width, 5 ft. 1½ ins.; overall height (over hood), 4 ft. 4½ ins.; (over windscreen), 4 ft. 1¾ ins.; ground clearance, 7½ ins.; unladen turning circle, 31 ft. 0 ins.; dry weight 24 cwts.

ALTERNATIVE EQUIPMENT. For sporting events an alternative 24 gallon fuel tank and two spare wheels can be supplied. This is not generally recommended owing to the considerable reduction in luggage accommodation.

2 LITRE TYPE XK 100 MODEL

ENGINE. Four cylinder 2 litre Jaguar engine 70° twin overhead camshafts driven by a two-stage duplex roller chain, 83 mm. bore × 91 mm. stroke; 1,970 c.c. developing 105 b.h.p. at 5,000 r.p.m.; large non-adjustable directly operated valves and austenetic cast iron seats; compression ratio 7 or 8 : 1; high grade chromic iron cylinder block, cooling by pump circulation with by-pass thermostat control; cylinder head of high tensile aluminium alloy with spherical combustion chambers; aluminium alloy pistons; steel connecting rods; forced lubrication throughout by submerged pump with full flow filter and floating gauze intake; twin S.U. horizontal carburetters with electrically controlled automatic choke; 2⅜ ins. diameter counterweighted crankshaft carried in three large steel backed precision bearings.

FRAME. Straight plane steel box section frame of immense strength, torsional rigidity ensured by large box section cross members.

TRANSMISSION. Four-speed single helical synchromesh gearbox, ground teeth gears running on needle bearings, synchromesh on 2nd, 3rd and top. Gear ratios: 1st 13·79; 2nd 8·1; 3rd 5·89; top 4·3. Optional axle ratios: 4·5, 4·0, 3·64. Hardy Spicer propeller shaft in needle roller bearings, Borg & Beck 9 ins. diameter single dry plate clutch, central gear lever with remote control.

SUSPENSION. Independent front suspension incorporating transverse wish-bones and long torsion bars with Newton telescopic type hydraulic shock absorbers. Rear suspension by long silico-manganese steel half elliptic springs controlled by Girling PV.7 hydraulic shock absorbers.

BRAKES. Lockheed full hydraulic two-leading-shoe front and 12 ins. drums, friction lining area 208 square inches. Front drums fitted with cooling ducts, central fly-off handbrake operating on the rear wheels only through a separate linkage.

STEERING. Burman re-circulating ball type steering, positive and accuarte at all speeds, 17 ins. Bluemel adjustable wheel. Left or right hand steering optional.

WHEELS AND TYRES. Pressed steel bolt-on disc wheels with wide base rim and Dunlop 6·00 × 16 ins. road speed tyres.

FUEL SUPPLY. By a new large delivery S.U. electric pump from a 14 gallon rear tank with reserve supply and warning light, petrol filler cap concealed and fitted with lock and key. 25 gallon tank optional.

ELECTRICAL EQUIPMENT. Lucas de luxe throughout, 12 volt 64 amp. capacity twin batteries with constant voltage controlled ventilated dynamo, 10 hour discharge, flush fitting head lamps and wing lamps, stop light, reverse light, twin rear lights, panel light, twin blended-note horns, twin blade screen wiper, cigar lighter, starter motor, vacuum and centrifugal automatic ignition advance.

INSTRUMENTS. 5 ins. diameter 120 m.p.h. speedometer, 5 ins. diameter revolution counter, ammeter, oil pressure gauge, water thermometer gauge, petrol gauge with warning light, electric clock.

CAR HEATER. An interior car heater can be supplied as an optional extra.

BODY. Aerodynamic two-seater body upholstered throughout in finest quality leather hide, floor is thickly carpeted over felt underlay. A Mono Screen is provided for competition work and is interchangeable with the Touring Screen.

SEATING. Divided seat and squab, folding forward for access to hood and battery, seats adjustable for reach. A tonneau cover is provided.

HOOD. Finest quality mohair material concealed behind seats when folded, fitted with unbreakable rear light and removable for competition work. Detachable side screens stored in a tray in the hood compartment.

INTERIOR APPOINTMENTS. Instrument panel and garnish rails finished in first quality leather, capacious pockets in the doors.

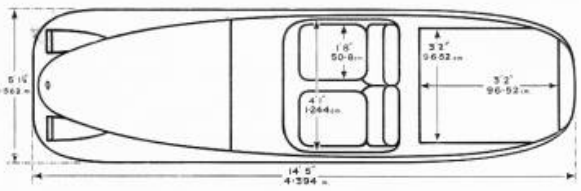
SPARE WHEEL AND TOOLS. The spare wheel is carried beneath the boot floor in a separate compartment and is readily accessible. The tools and jack are carried in a special container fitted to the side of the luggage compartment, and the wheel brace is housed in the spare wheel compartment.

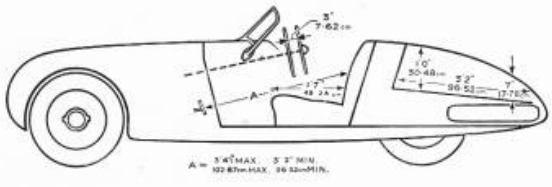
LUGGAGE ACCOMMODATION. Ample accommodation is provided in a capacious rear locker, provided with an automatic light.

EASY JACKING. A central jack on each side of the car raises both wheels simultaneously with the minimum of effort by means of a special easy-lift jack.

PRINCIPAL DIMENSIONS. Wheel base, 8 ft. 6 ins.; track front, 4 ft. 3 ins.; track rear, 4 ft. 2 ins.; overall length (over bumpers), 14 ft. 5 ins. approximately; overall width, 5 ft. 1½ ins.; overall height (over hood), 4 ft. 4½ ins.; (over windscreen), 4 ft. 1½ ins.; ground clearance, 7½ ins.; unladen turning circle, 31 ft. 0 ins.; dry weight 24 cwts.

ALTERNATIVE EQUIPMENT. For sporting events an alternative 24 gallon fuel tank and two spare wheels can be supplied. This is not generally recommended owing to the considerable reduction in luggage accommodation.





SOME WORLD PRESS OPINIONS ON THE XK 120 JAGUAR

The speed achieved (by the Jaguar) is so far ahead of current sports car performance that it represents a major achievement by the British Motor Industry.
Harold Nockolds, ***The Times***

Jaguar have established their car as the world's fastest unsupercharged catalogue model with full touring body work. Indeed, it is very doubtful whether any standard model in catalogue condition, even with the aid of a supercharger, has ever recorded such speeds. ***Autocar***

The Jaguar Super Sports has thus proved by official timing that it constitutes to-day the world's fastest unsupercharged production car equipped with a full complete touring body. Moreover, we do not think that any other production car, even supercharged, has ever been officially timed at a higher speed. It can, therefore, be regarded in a manner of speaking, as holding the "Blue Riband" of the road.
(Translation). ***L'Echo de la Bourse***

The new 3.5 litre Jaguar constitutes one of the most powerful cars produced in England.
(Translation). ***Revuew-Automobiel,*** Berne

Powered by a 3½ litre twin o.h.c. 160 b.h.p. engine, the Jaguar type XK 120 is an obvious contestant for the title of the world's fastest sports car.
Motor

It is typically British that Jaguars never claimed more than 120 m.p.h. for this car.
Californian Autonews

One of the most admirable cars is certainly the new Sports Jaguar. Apart from its technical features . . . . this car reaches a standard of functional beauty never before achieved by a British manufacturer. As a prestige earner abroad it is probably the most important new car to be shown by the British Industry. J. Eason Gibson, ***Country Life***

. . . a performance which does honour to the English Company of Jaguar . . .
(Translation). ***La Meuse***

The spectacular performance of the Jaguar has already placed it in the forefront of super sports cars.
The Sphere

The car which achieved this high speed so easily is a production car. Too much emphasis cannot be laid on this fact. We have ourselves been able to verify that the car in question did not receive the least special care either before or after the trial. The engine was not hot but had the required temperature, and one could trace no oil leak either on the ground or on the engine itself. In a word, a very definite record, and a really admirable achievement.
(Translation). ***Brugsch Handelsblad***

Never has a more impressive demonstration of silent effortless speed ever been given than that of the new Jaguar twin o.h.c. 6 cylinder 3½ litre XK 120.
J. N. Bennett, ***Sporting Life***

One of the fastest cars in the show.
Vienna Morning News

It was a record all along the line ; a well-merited record, due not only to the English quality of the car itself, but also most certainly to the driver who gave a wonderful performance.
(Translation). ***L'Independant***

All of us are still breathless at the remarkable speeds obtained with one of the first production 3½ litre Jaguar XK 120's . . . A rate of 132.596 m.p.h. gives R. M. V. Sutton the distinction of being the driver of the world's fastest unsupercharged catalogue car.
The Light Car

The most important thing in this sporting performance rests in the perfectly normal character of the car which achieved with a disconcerting easiness a speed rarely attained by cars which boast as having descended from racing cars.
(Translation). ***Belgique Sports***

Rarely, we believe, does a similar demonstration attain its objective in such a masterly way.
(Translation). ***La Metropole***

For a normal 3,442 c.c. sports car carrying full equipment even to a front bumper, rear overriders and G.B. letters and running on pump fuel, to officially exceed a speed of 133 m.p.h. is a truly meritorious achievement. ***Motor Sport***

It is the fastest ever tourer, yet as docile in heavy traffic as the most expensive and biggest saloon.
Thomas H. Wisdom, ***Daily Herald***

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JAGUAR CARS LTD
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