

JAGUAR

3·4 5 3·8 'S' MODELS



Introducing the...



Jaguar 3.4 and 3.8 'S'

The new 'S' type models have been introduced to bridge the gap which has existed in the Jaguar range between the highly successful Mark 2 models and their equally successful larger counterpart the Mark X. The compact overall dimensions of the Mark 2 have proved to be one of its most important sales features and this fact was borne clearly in mind when the dimensions of the new 'S' types were decided upon. As a result, these newcomers are larger only by an amount sufficient to provide a valuable increase in passenger and luggage accommodation and to enable independent rear suspension and larger fuel tank capacity to be incorporated in the specification. Thus the 'S' types are compact 4/5 seaters with 19 cu. ft. of luggage space and fit in neatly between the Mark 2 (12 cu. ft.) and the Mark X (27 cu. ft.). The new 'S' types are complementary, therefore, to the existing Mark 2 and Mark X models which, together with the 'E' type Grand Touring models, are continued for 1964.



The new Jaguar 'S' type saloon is powered by the 6-cylinder twin overhead camshaft XK engine which has proved to be one of the most successful power units ever produced. Its high power output over a wide speed range, its durability and extreme smoothness have endowed it with a world wide reputation—a reputation which has been further enhanced by the many victories won by Jaguar cars in international rallies and races all over the world. In 3.4 litre form, the bore and stroke are 83 mm. \times 106 mm. giving a capacity of 3442 c.c. and, with the standard compression ratio of 8 : 1, develops 210 b.h.p. at 5,500 r.p.m. The 3.8 litre version has a bore and stroke of 87 mm. \times 106 mm. giving a capacity of 3781 c.c. The standard compression ratio is again 8 : 1 and 220 b.h.p. is developed at 5,500 r.p.m. It is worth noting that suitable alternative compression ratios are supplied to countries where fuel requirements make this necessary. Both power units are fitted with twin S.U. carburettors and are supplied with air via a large duct from the front of the car. This duct incorporates a silencer and filter unit, thus providing both an adequate supply of filtered air at ambient temperature and the lowest possible level of engine noise.

In order to meet every possible customer requirement,



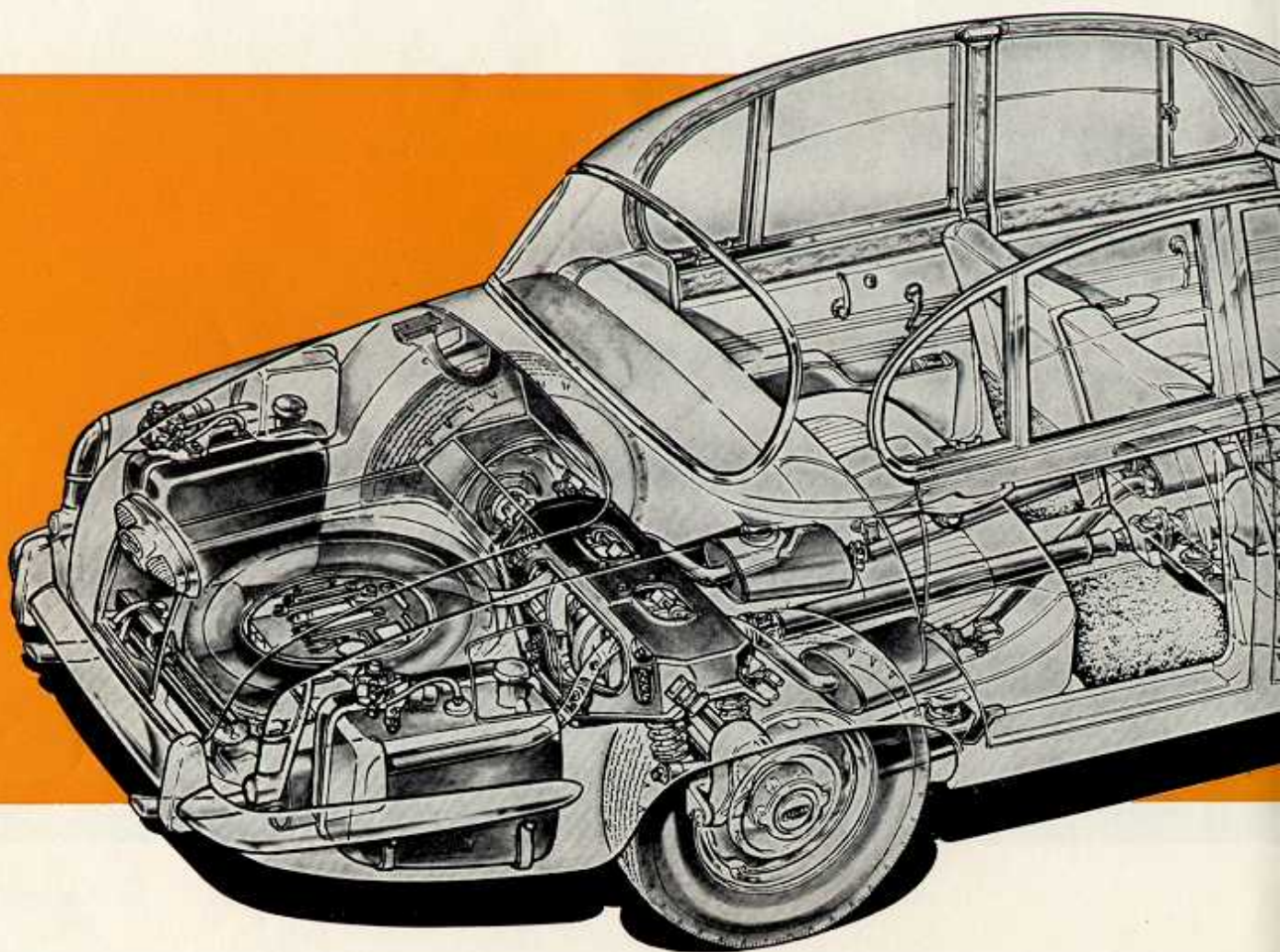
both manual and fully automatic transmissions are available. The manual transmission consists of a four speed gearbox with synchromesh on the upper three ratios, and a hydraulically operated dry plate clutch. If required, an overdrive can be specified which operates in fourth gear only and is electrically controlled by a lever mounted on the steering column. The automatic transmission consists of a fluid flywheel coupled to a gearbox providing three forward ratios, 'low', 'intermediate' and 'high' as well as reverse. The maximum torque converter multiplication of 2:1 and a final drive ratio of 3.77:1 give the wide range of 7.6 and 3.77:1. An important refinement first introduced by Jaguar in 1956 is the fitting of a gear hold switch mounted on the facia panel, which enables instant changes to be made between high and intermediate, allowing this gear to be held irrespective of throttle opening until the switch is again operated. This is particularly useful when overtaking in heavy traffic conditions and, together with the provision of a gear selector position for engaging and retaining 'low', this means that the driver can exercise complete control of the gearbox if he so desires. Thus all the advantages of fully automatic transmission are combined with the more important features of manual change trans-

missions to provide a system fully capable of meeting all the demands of varying operating conditions and driving techniques.

The front suspension is by semi-trailing wishbones and coil springs which enclose the telescopic dampers. An anti roll bar is fitted between the lower pair of wishbones. The whole of the front suspension assembly, together with the steering gear, is carried on a fabricated beam which is attached to the body-chassis unit by four rubber mounting blocks. Two of these are of the 'V' type which carry the weight of the car and serve to locate the beam in the transverse plane. The other two are vertical sandwich blocks interposed between the forward located torque arms of the suspension beam and the body-chassis structure. These locate the beam in the longitudinal plane and also provide a controlled degree of flexibility.

With the provision of independent rear suspension on the 'S' type, all Jaguars except the Mk. 2 now possess this feature, which was first introduced on the 'E' type Grand Touring cars and subsequently on the Mark X saloon. This layout makes it possible to employ a softer suspension than would otherwise be the case if a heavy and rigid axle were fitted. This

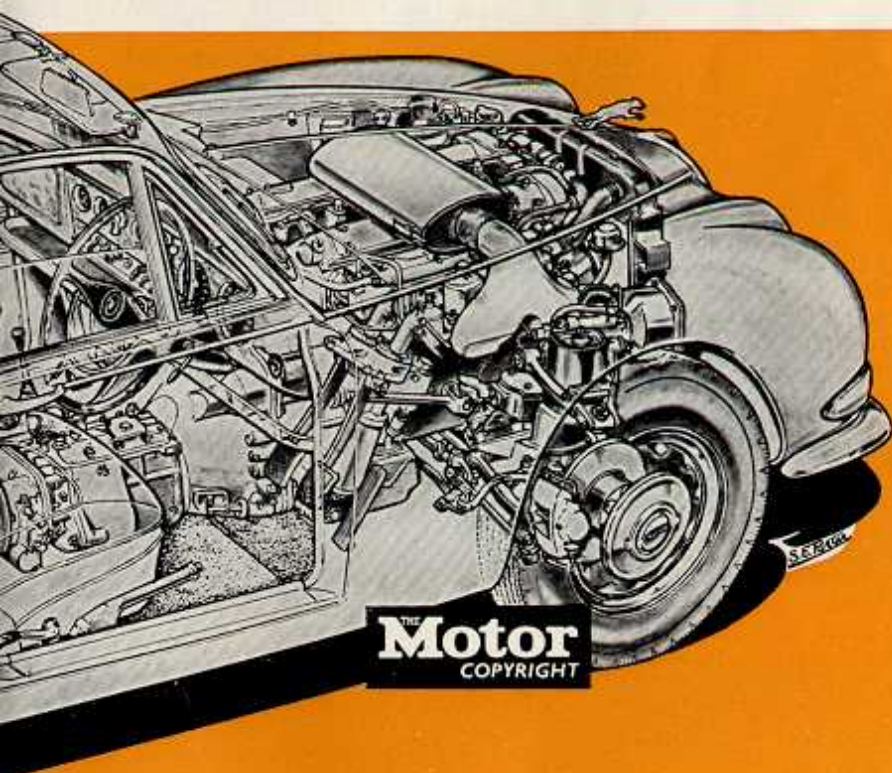
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Salient Features

of the new

'S' Type Jaguar



THE Motor
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- ★ Full 4/5 seater—lavishly equipped and superbly finished.
 - ★ Individual front seats, with combined adjustment for reach and height, also feature reclining type back rests and centre armrests.
 - ★ The shaped rear seat with centre armrests provide maximum comfort for two persons, or three if the centre armrest is folded away.
- ★ High efficiency fresh air type heating and demisting system providing extremely wide choice of settings coupled with simplicity of operation.
 - ★ Comprehensive instrumentation.
 - ★ Large luggage compartment of 19 cu. ft. capacity.
- ★ Choice of 3.4 or 3.8 litre 6 cylinder XK engines.
 - ★ Choice of manual change transmission—with or without overdrive—or fully automatic transmission.
 - ★ Independent suspension and self-adjusting disc brakes on all four wheels.
- ★ Large fuel tank capacity of 14 gallons, carried in two separate tanks.

JAGUAR 3.4 and 3.8 'S'

(continued)

results in a softer, smoother ride and superb road holding, since independent suspension gives a much closer control of wheel movement. In the Jaguar system, location of the wheels in a transverse plane is achieved by the use of two tubular links of which the top link is the half shaft—universally jointed at both ends. The lower link is also tubular and is pivoted at its outer end to the aluminium wheel carrier and to the subframe adjacent to the differential casing at the inner end. To provide maximum rigidity in a longitudinal plane the pivot bearings at both ends of the lower link are widely spaced. The suspension medium is provided by twin coil springs enclosing telescopic hydraulic dampers, and these are mounted on each side of the differential casing. The whole assembly is carried in a fabricated steel subframe which is easily and quickly detachable from the body structure. The subframe is mounted in the body by four 'Vee' rubber blocks and by a rubber bushed radius arm on each side of the car between the lower link and a mounting point on the body structure. Not only does this result in the insulation of the whole assembly from the body, but it eliminates all transmission roughness and noise—two of the main disadvantages of fully independent suspension systems.

Dunlop bridge type disc brakes, with self adjusting quick-change pads, are fitted to all four wheels. The use of a vacuum servo ensures that maximum retardation is available with only light pedal pressure. The handbrake is of the latest self-adjusting type—the linkage, in the 'on' position, is also arranged to actuate the brake fluid level warning light. The braking system is, therefore, completely self adjusting for wear throughout the life of the pads, thus relieving the owner of this onerous task.

Precise and light steering are essential features on a car of this type, and Burman re-circulating ball type steering is provided. The 17 in. two spoke steering wheel is adjustable for reach, and 4.7 turns are required from lock to lock. A thirty-three foot turning circle is provided. Power assisted steering is available as an optional extra, hydraulic pressure being provided by an eccentric pump, driven off the rear of the dynamo.

The body is an all steel four-door five-seater saloon of integral body-chassis construction. This form of construction provides a body of moderate weight allied to a very high degree of stiffness in bending and torsion. An important safety feature of the design is the provision of excellent all round visibility. This has been achieved by the use of slim windscreen pillars, a deep windscreen and a semi wrapround rear window. In addition, all four doors incorporate large windows carried in narrow chrome plated frames. The doors themselves are hinged at their forward ends and open through a wide angle to facilitate entry and egress. The latest type of lock enables the doors to be closed easily and quietly.

The interior of the car is lavishly equipped and luxuriously furnished. Individual front seats are

fitted, each being provided with reclining type squabs, centre armrests, and a combined height and reach adjustment. This feature, together with the adjustable steering wheel, enables all drivers to find exactly their most comfortable driving position—an important safety feature since driver fatigue is thus reduced to a minimum. Both front and rear seats are upholstered in finest quality leather and spring cases with an overlay of foam rubber cushions are employed. The wide rear seat will accommodate three adults, or two in armchair comfort if the wide folding central armrest is brought into use.

A comprehensive range of instruments is provided and these, together with the row of clearly labelled switches controlling the electrical equipment, are mounted in a polished walnut instrument panel. The revolution counter and speedometer are placed immediately in front of the driver. The other instruments for oil pressure and water temperature, together with the ammeter and petrol gauge are arranged so that they can be read at a glance. All switches and instruments are illuminated at night by internal flood lighting controlled by a two-position dimmer switch. The passenger's side of the instrument panel incorporates a glove compartment fitted with an interior light and lockable lid. A full width parcel shelf is fitted beneath the instrument panel and, below this, a central console carries the radio and speakers when fitted. High quality carpets are fitted in both front and rear compartments and all woodwork is in polished figured walnut.

It is important to note that this accent on luxury has not affected the more practical aspects of the car's design. Reference has already been made to the instrument panel layout and to the provision of a wide range of driving positions. The windscreen is kept clear by two-speed self-parking windscreen wipers and electrically driven windscreen washers. Sealed beam asymmetric dip headlamps enable the car's full performance to be used at night. A map reading lamp is provided in the front compartment and comprehensive courtesy lighting in the rear is operated by any of the doors or by a switch on the instrument panel.

An important feature of the car is the new fresh air type heating and demisting system which has been specially designed and developed for the 'S' type. It has been designed to provide a system which is both extremely efficient and simple to operate. The equipment is thus capable of delivering a small or very large volume of air, at any temperature between maximum and ambient, through a system providing separate delivery to each side of the front compartment as well as an individual supply to the rear. Simplicity and ease of operation are ensured by the use of vacuum servos to operate the water valves, heater flaps and air intake vent. Thus the system is controlled solely by three push buttons mounted on the centre console, a volume control lever and a switch (mounted on the fascia-panel) which operates the two-speed blower. This comprehensive system provides an infinite range of temperatures and volume together with rapid defrosting and demisting of the large windscreen.

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The lower photographs illustrate (left) the independent rear suspension assembly, and (right) the individual reclining front seats and instrument layout.



SPECIFICATION

JAGUAR 3.4 and 3.8 'S' Models

ENGINE (6 cylinder 3.4 litre Jaguar XK engine). 70° twin overhead camshaft driven by a two stage roller chain. 83 mm. bore × 106 mm. stroke. Cubic capacity 3442 c.c. (210 cu. ins.). Compression ratio 8 : 1. For countries where fuel specifications require a change in compression ratio, the correct alternative ratio is supplied. Develops 210 b.h.p. at 5,500 r.p.m. Twin S.U. type HD6 carburettors and double exhaust system.

(6 cylinder 3.8 litre Jaguar XK engine). 70° twin overhead camshaft driven by a two stage roller chain. 87 mm. bore × 106 mm. stroke. Cubic capacity 3781 c.c. (230.6 cu. ins.). Compression ratio 8 : 1. Develops 220 b.h.p. at 5,500 r.p.m. For countries where fuel specifications require a change in compression ratio, the correct alternative ratio is supplied. Twin S.U. type HD6 carburettors and double exhaust system.

TRANSMISSION (Manually operated gearbox). Four speed single helical synchromesh gearbox. Gearchange lever between front seats. Dry plate clutch with hydraulic operation. Sealed bearing propeller shaft. Hypoid rear axle. Limited slip differential on 3.8 litre model. Final drive ratio 3.54 : 1.

(Overdrive model). As above with addition of a Laycock de Normanville overdrive controlled by a lever mounted on steering column. Limited slip differential on 3.8 litre model. Final drive ratio 3.77 : 1 (overdrive 2.93 : 1).

(Automatic transmission model). Borg Warner Automatic Transmission system with driver controlled intermediate gear hold. Gear ratios: Low 17.6—8.16, intermediate 10.95—5.08, direct top 3.54. Gear selector lever on steering column. Limited slip differential on 3.8 litre model. Final drive ratio 3.54 : 1.

SUSPENSION (Front). Independent suspension incorporating semi-trailing wishbones and coil springs with telescopic dampers. Anti-roll bar between lower wishbones. Suspension assemblies and steering gear are mounted on a separate subframe which is itself located in the body by rubber mountings.

(Rear). Fully independent rear suspension incorporating on each side, a lower transverse tubular link pivoted at the wheel carrier and sub-frame adjacent to the differential case and, above this, a half-shaft universally jointed at each end. These serve to locate the wheel in a transverse plane. Longitudinal location is provided by the rubber mountings locating the sub assembly in the body structure, and by a radius arm between the lower link and a mounting point on the body structure. Twin coil springs, each enclosing a telescopic hydraulic damper, provide the suspension medium.

BRAKES. Dunlop bridge type disc brakes featuring quick change pads with automatic adjustment for wear. Vacuum servo assistance. Self adjusting 'pull up' type handbrake. Combined handbrake and brake fluid level warning light.

STEERING. Burman re-circulating ball type steering with 17 in. diameter two spoke steering wheel adjustable for reach. Left- or right-hand steering optional. Turning circle 33½ ft. Power assisted steering available as an optional extra.

WHEELS AND TYRES. Pressed steel bolt-on disc wheels fitted with Dunlop tyres. Wire spoke wheels available as an optional extra. Spare wheel and tyre.

FUEL SUPPLY. Two separate tanks, one in each rear wing; total capacity 14 gallons. Two electrically operated S.U. fuel pumps (one for each tank) controlled by changeover switch on instrument panel. The separate fillers to each tank are concealed beneath hinged covers.

BODY. All steel, four door, five-seater saloon. Integral body-chassis construction providing maximum rigidity with minimum weight.

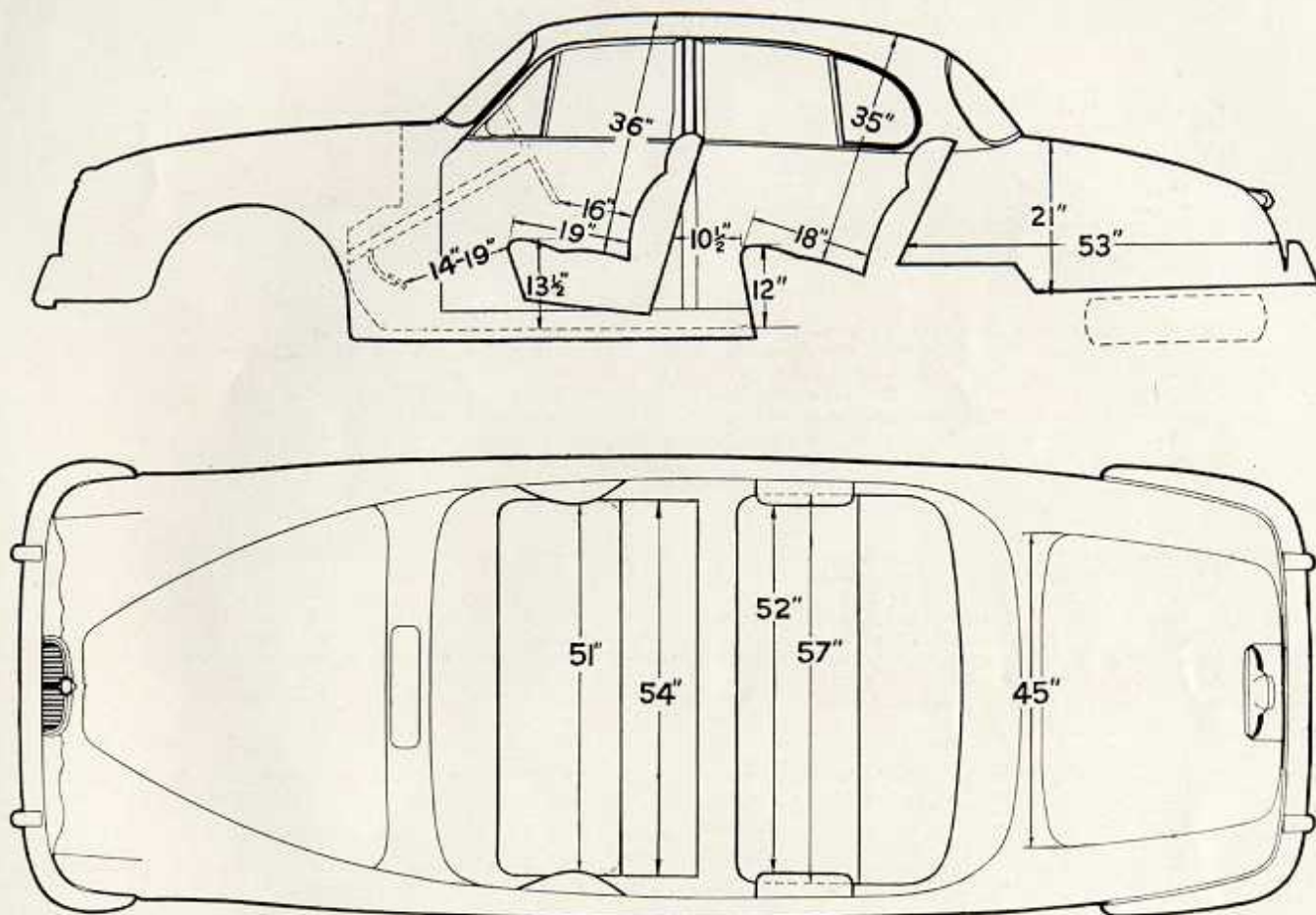
HEATING AND DEMISTING. Completely new fresh air heating system capable of high temperature and volume supply to front and rear compartments. Separate control varies supply to rear compartment. Air intake vent and heater valves are vacuum servo assisted. Two-speed fan controlled by switch on instrument panel.

LUGGAGE ACCOMMODATION. Ample luggage accommodation is provided in a capacious compartment of 19 cu. ft. capacity. The lid is counter-balanced for ease of operation. Interior of compartment illuminated by night. Compartment fully trimmed to protect luggage.

SPARE WHEEL AND TOOLS. The spare wheel is carried beneath the luggage compartment floor, in a separate compartment, and is readily accessible. The tools, in a special fitted and lined container, are housed in the spare wheel compartment. Jack and wheelbrace (or wheel hammer on wire wheel models) housed in luggage compartment.

JACKING. Exterior jacking points, front and rear, enable the car to be lifted with the minimum of effort by means of the jack provided.

D I M E N S I O N S



Wheelbase	...	...	...	8' 11 ³ / ₈ "
Track (front)	...	...	...	4' 7 ¹ / ₄ "
Track (rear)	...	...	...	4' 6 ¹ / ₄ "
Overall length	...	...	...	15' 7 ³ / ₄ "
Overall width	...	...	...	5' 6 ³ / ₄ "

JAGUAR CARS LTD.

The issue of this publication does not constitute an offer. Jaguar Cars Ltd. reserves the right to amend specifications at any time without notice.

