ADVANCE PARTICULARS
OF THE NEW

JAGUAR

Type XK

"100" AND "120" SUPER SPORTS MODELS

FITTED WITH TWIN OVERHEAD CAMSHAFT ENGINES OF 2 LITRE OR 3½ LITRE CAPACITY

JAGUAR CARS LTD COVENTRY ENGLAND

SPECIFICATIONS

2 LITRE TYPE XK "100" MODEL

ENGINE. Four cylinder 70° twin overhead camshaft; 2 litre Jaguar engine; 80.5 mm. bore × 98 mm. stroke; 1,995 c.c. developing 105 b.h.p. at 5,000 r.p.m.; compression ratio, 7 to 1; highest grade cast iron block; cylinder head of high tensile aluminium alloy with spherical combustion chambers; aluminium alloy pistons; light alloy connecting rods; forced lubrication throughout by submerged pump through Tecalemit full flow floating suction filter; twin S.U. horizontal carburetters with electrically controlled choke; counterweighted crankshaft, 2¾" diameter in three steel backed bearings.

TRANSMISSION. Four-speed single helical gearbox with synchromesh on 2nd, 3rd and top; remote control centrally positioned gear lever; Borg & Beck 10" diameter single dry plate clutch; Hardy Spicer propeller shaft in needle roller bearings; hypoid bevel rear axle; overall gear ratios: 1st 13.79, 2nd 8.1, 3rd 5.59, top 4.09.

SUSPENSION. Independent front suspension by wishbones and torsion bar; telescopic hydraulic dampers; half elliptic rear springs with Girling P.V.7 dampers.

STEERING. Burman re-circulating ball type, positive and accurate at all speeds; 18" diameter steering wheel.

BRAKES. Girling full hydraulic two leading shoe brakes; 12" diameter Millenite drums fitted with cooling ducts; friction lining area, 184 sq. ins.

ELECTRICAL EQUIPMENT. Lucas 12 volt de luxe with 64 ampere-hour battery; constant voltage control dynamo; vacuum and centrifugal automatic ignition advance; flush fitting head lamps and wing lamps.

INSTRUMENTS. 120 m.p.h. speedometer; revolution counter; petrol gauge; oil pressure gauge; water temperature thermometer; ammeter; clock; twin bladed screen wipers; electric petrol reserve tap with warning light.

FUEL SUPPLY. From 15 gallon rear tank with reserve supply; twin S.U. electric pumps.

WHEELS AND TYRES. Pressed steel, bolt-on disc wheels with wide base rims; fitted with Dunlop 6.00" × 16" tyres.

BODY. Aerodynamic two-seater body of aluminium on laminated frame; capacious luggage locker in tail with separate spare wheel compartment; individually adjustable bucket seats.

DATA. Piston area sq. ins. per ton, 30.1; top gear m.p.h. per 1,000 r.p.m., 19.7; top gear m.p.h. at 2,500 ft. per min. piston speed, 76.23; litres per ton-mile, dry, 2903.

PRINCIPAL DIMENSIONS. Wheel base, 8' 6"; track front, 4' 3"; track rear, 4' 2"; overall length, 14' 0"; overall width, 5' 1"; overall height, 4' 2"; ground clearance, 7½"; dry weight, 21½ cwt. approx.

3½ LITRE TYPE XK "120" MODEL

ENGINE. Six cylinder 70° twin overhead camshaft 3½ litre Jaguar engine; 83 mm. bore × 106 mm. stroke; 3,442 c.c. developing 160 b.h.p. at 5,000 r.p.m.; compression ratio, 7 to 1; highest grade cast iron block; cylinder head of high tensile aluminium alloy with spherical combustion chambers; aluminium alloy pistons; light alloy connecting rods; forced lubrication throughout by submerged pump through Tecalemit full flow floating suction filter; twin S.U. horizontal carburetters with electrically controlled choke; counterweighted crankshaft, 2¾" diameter in seven steel backed bearings.

TRANSMISSION. Four-speed single helical gearbox with synchromesh on 2nd, 3rd and top; remote control centrally positioned gear lever; Borg & Beck 10" diameter single dry plate clutch; Hardy Spicer propeller shaft in needle roller bearings; hypoid bevel rear axle; overall gear ratios: 1st 12.3, 2nd 7.23, 3rd 4.98, top 3.643.

SUSPENSION. Independent front suspension by wishbones and torsion bar; telescopic hydraulic dampers; half elliptic rear springs with Girling P.V.7 dampers.

STEERING. Burman re-circulating ball type, positive and accurate at all speeds; 18" diameter steering wheel.

BRAKES. Girling full hydraulic two leading shoe brakes; 12" diameter Millenite drums fitted with cooling ducts; friction lining area, 184 sq. ins.

ELECTRICAL EQUIPMENT. Lucas 12 volt de luxe with 64 ampere-hour battery; constant voltage control dynamo; vacuum and centrifugal automatic ignition advance; flush fitting head lamps and wing lamps.

INSTRUMENTS. 120 m.p.h. speedometer; revolution counter; petrol gauge; oil pressure gauge; water temperature thermometer; ammeter; clock; twin bladed screen wipers; electric petrol reserve tap with warning light.

FUEL SUPPLY. From 15 gallon rear tank with reserve supply; twin S.U. electric pumps.

WHEELS AND TYRES. Pressed steel, bolt-on disc wheels with wide base rims; fitted with Dunlop 6.00" × 16" tyres.

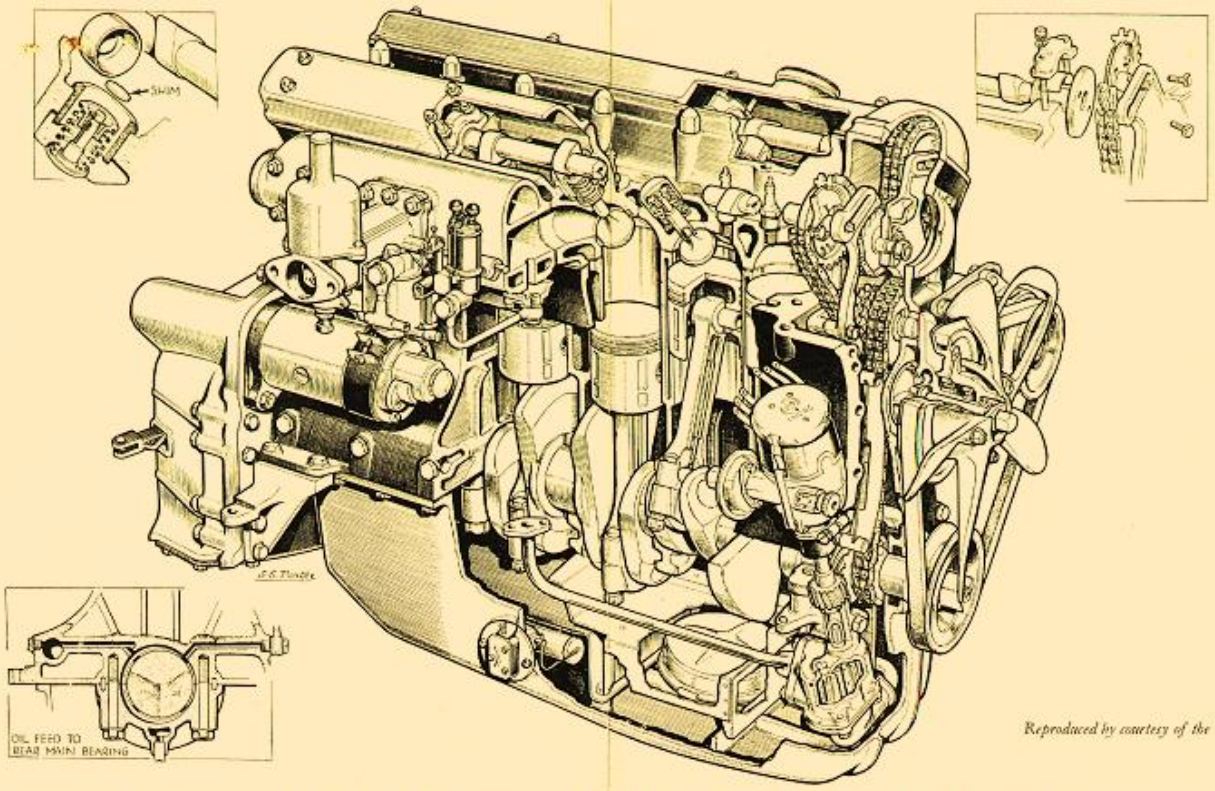
BODY. Aerodynamic two-seater body of aluminium on laminated frame; capacious luggage locker in tail with *separate* spare wheel compartment; individually adjustable bucket seats.

DATA. Piston area sq. ins. per ton, 45.48; top gear m.p.h. per 1,000 r.p.m., 22.1; top gear m.p.h. at 2,500 ft. per min. piston speed, 80; litres per ton-mile, dry, 4250.

PRINCIPAL DIMENSIONS. Wheel base, 8' 6"; track front, 4' 3"; track rear, 4' 2"; overall length, 14' 0"; overall width, 5' 1"; overall height, 4' 2"; ground clearance, 7½"; dry weight, 22½ cwt. approx.

JAGUAR CARS LTD COVENTRY ENGLAND

Printed in England by A.B. & S. Ltd., Leicester



Reproduced by courtesy of the "Motor"

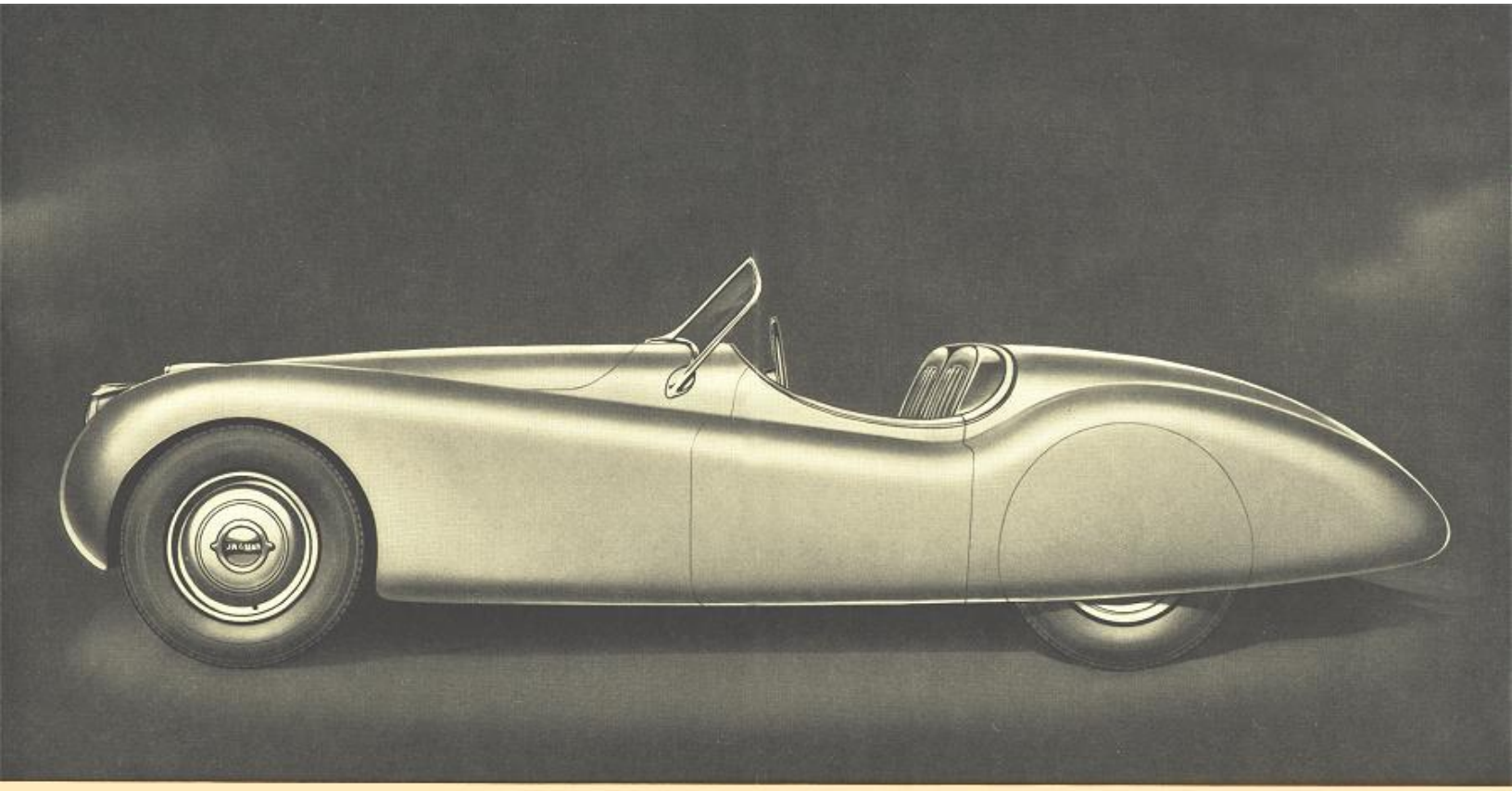
SALIENT FEATURES OF THE JAGUAR TYPE XK ENGINES

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 2¼" 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 Aerolite aluminium alloy, fitted with chromium plated top rings, which tests show give over 100 per cent. increase in life to the bores.*



THE TYPE XK JAGUAR "120" IN TOURING TRIM

Whilst the Type XK Jaguar "120" Super Sports Model has been designed with every consideration directed to performance, its appearance and comfort are of the highest order. Perfect streamlining combined with sweeping contours endow this car with a beauty and distinction seldom found in high performance sports models. The generous width of the cockpit (52 inches) and the deep, resilient upholstery afford perfect comfort, whilst complete weather protection is provided by hood and side curtains which are stowed out of sight when not in use.

A capacious luggage compartment is provided in the tail which also carries the spare wheel in a separate compartment.