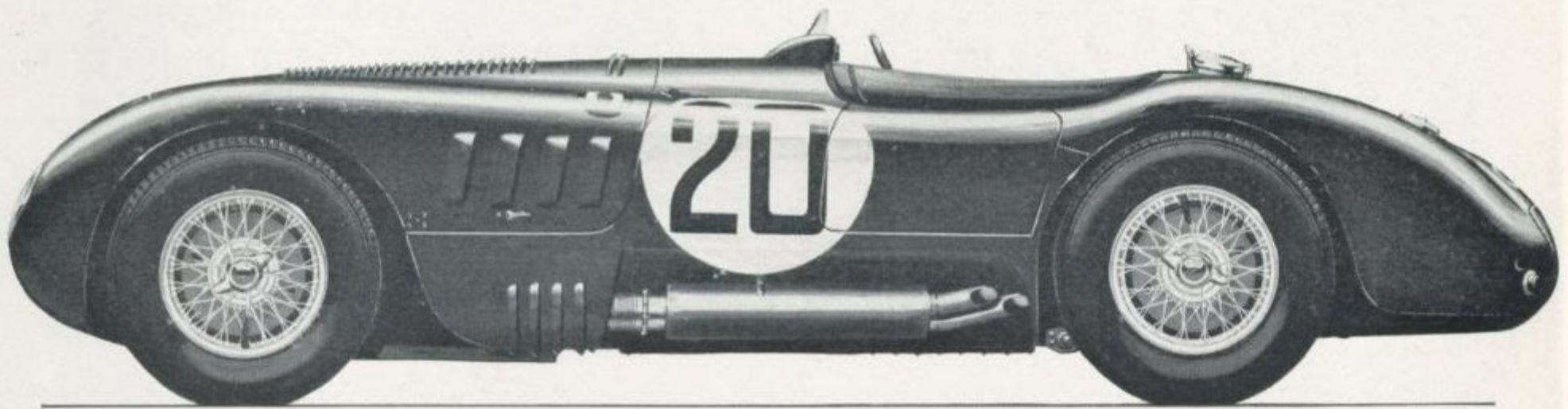


The Jaguar C-type



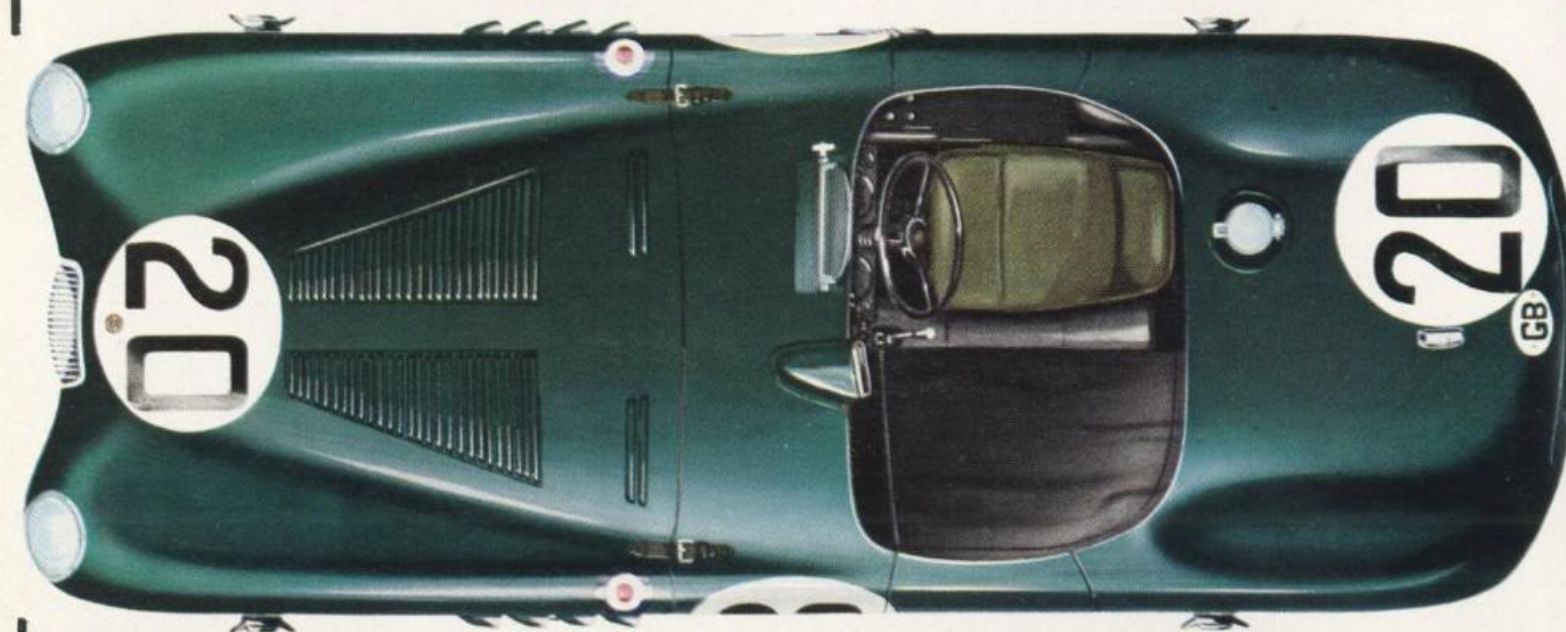
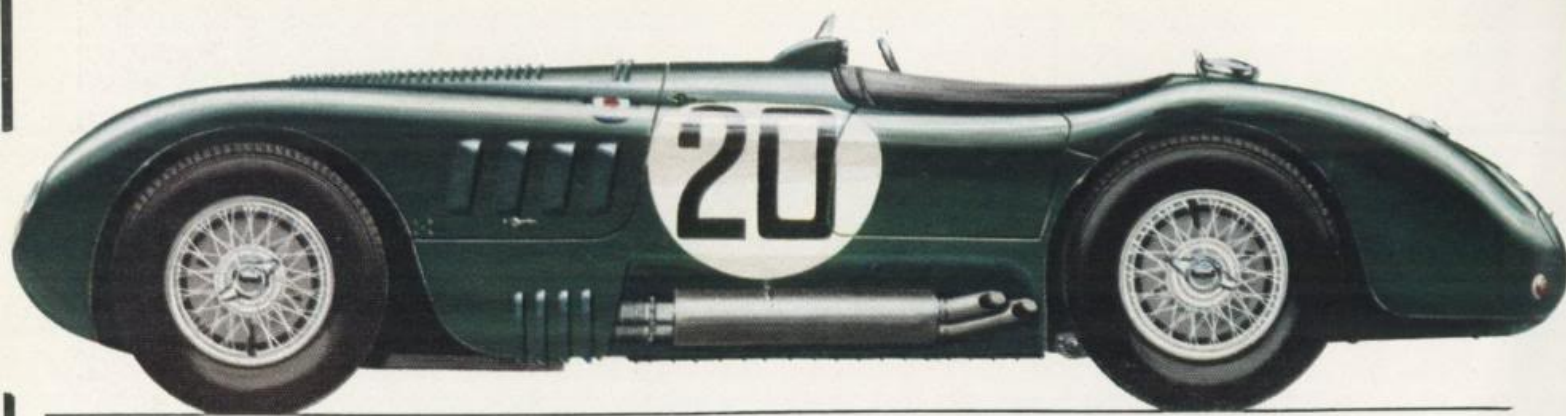
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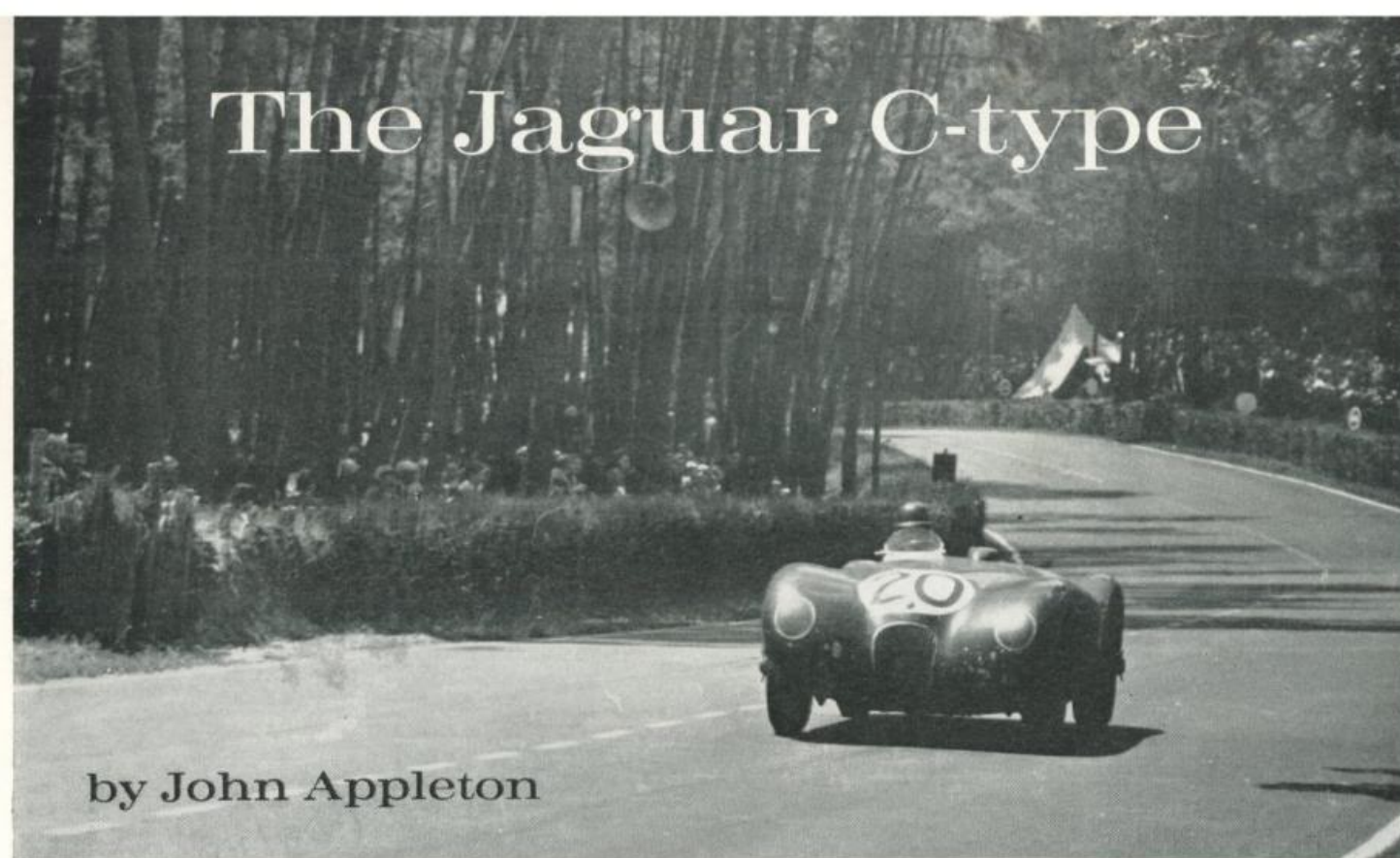
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PROFILE PUBLICATIONS



THE JAGUAR C-TYPE: winner of the Le Mans 24-hours race, 1951. Drivers: Peter Whitehead and Peter Walker. Record average speed: 93.50 m.p.h. Badge as worn by 1951 Le Mans team cars.

The Jaguar C-type



by John Appleton

Peter Walker accelerates away from the Esses at Le Mans 1951—the C-type's first race, and it's first win. (Photo: Louis Klemantaski)

Nomenclature of Jaguar cars has always tended towards the obscure. The Jaguar C-type began life as the XK 120C—'C' for 'Competition'. The subsequent naming of the D-type and E-type merely happened.

There is little doubt that the Jaguar XK 120, introduced at the 1948 London Motor Show, was one of the most outstanding post-war high performance cars to emerge from Britain. Designed primarily as a sporting road car, it nevertheless gained laurels in many forms of motoring competition—to the delight of the Jaguar management, one suspects. Chief Engineer William Heynes has stated that, until he attended the 1950 Le Mans race, he had 'never seriously contemplated designing a car for racing'.

Despite its many controversial aspects, the Le Mans 24-hour race remains to this day the world's most publicised motoring competition outside Indianapolis. Its aura of 'endurance of man and machine', its Gallic setting, its chequered history—all have

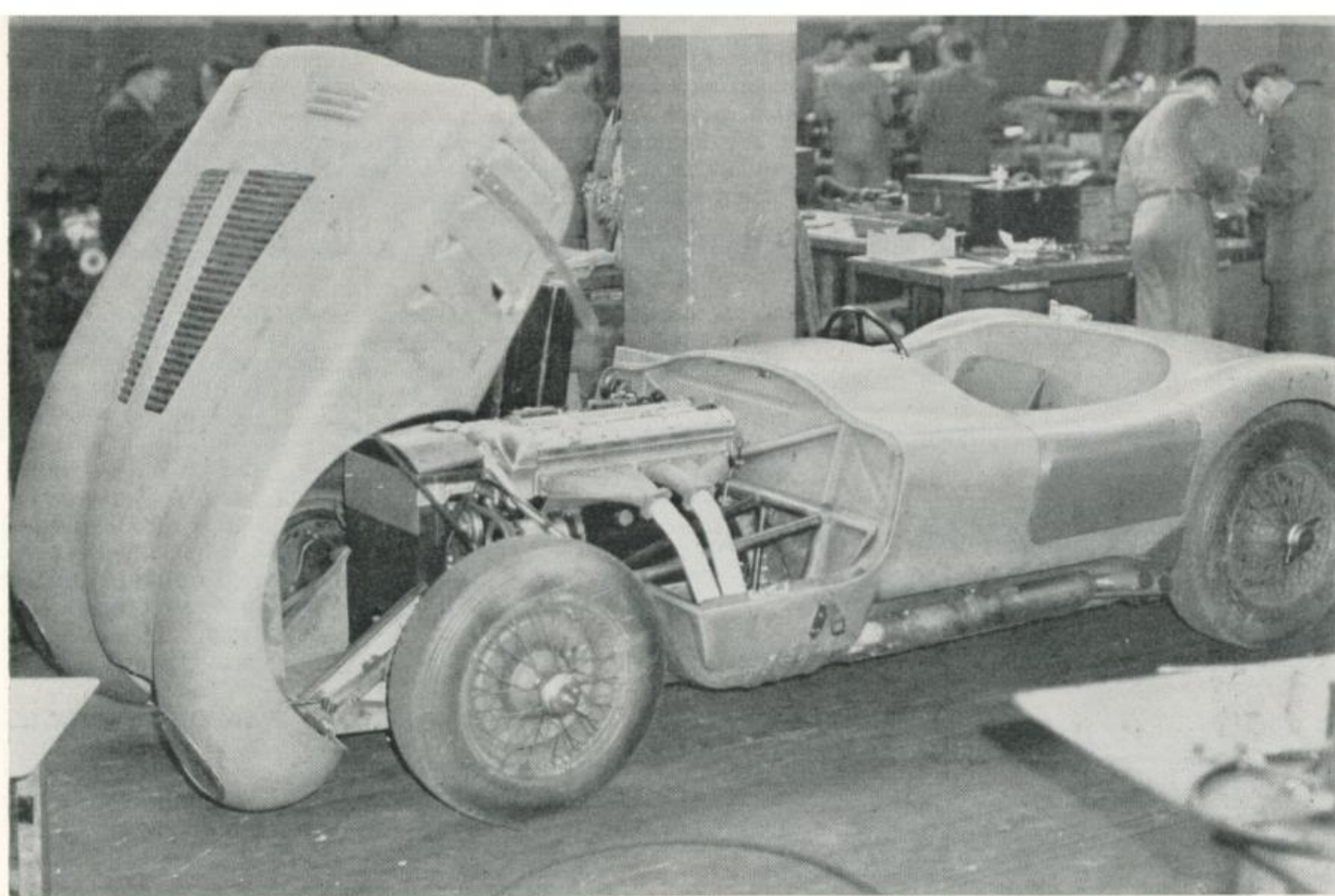
combined to give *Les Vingt-Quatre Heures du Mans* more press coverage than any other road race in the world. Of this fact Jaguar took full advantage.

Enzo Ferrari began his interest in motor-racing by operating his own team and, after the war, by building his own competition cars as he does to this day. His production road cars came later as a development of his enthusiasm.

Jaguar, on the other hand, had been producing their own cars since the early 1930s and, although they built some sporting models, they had never paid more than scant attention to competition work other than the Alpine and 'domestic' rallies. In 1950, with two fine motor cars—the XK 120 and the Mk. VII—getting into production, and the export market as yet barely tapped, Jaguar's founder William Lyons saw in Le Mans the means to sell British prestige abroad—particularly in the form of Jaguar cars. Daimler-Benz raced their silver cars for similar reasons—but rarely

The Jaguar works team, Le Mans 1951: left to right are the drivers, Fairman, Biondetti, Johnson, Moss, and (the eventual winners) Walker and Whitehead. The 'trade' plates indicate that the cars were driven and not transported to the circuit—a Jaguar habit that was continued throughout the company's racing years. (Photo: L'Action Automobile)





One of the original C-types in preparation at the Jaguar factory. The securing straps were later moved to the top of the bonnet. (Photo: Jaguar Cars Ltd.)

has any firm designed a car for so specific a purpose as did Jaguar when they set their sights upon Le Mans.

The XK 120s did not win the 24-hour race of 1950, but, as they watched from the pits, Lyons and Heynes learned all they wanted to know. 'This race, as far as I was concerned, debunked the tradition of a tuning wizard with a lifetime's experience on the track and a special gimmick in his tool box,' said Heynes ten years later. 'I realised that a car could be built of standard production units from the factory, and that such a car could win the race given reasonable luck.' He was, of course, referring specifically to Le Mans and its high mechanical failure rate; his remarks would be less applicable today.

It was not until autumn 1950 that Jaguar's design staff found time to lay down the first mock-ups of the XK 120C, to which I shall refer from now on as the C-type. Whilst the engines, gearboxes, and rear axles of the 1950 Le Mans XK 120s had stood up to the strain remarkably well, there were several further basic targets to be achieved—notably a reduction in weight, and improvements to high-speed handling and braking. In order to achieve the two former requirements, a completely new structure was designed. This consisted of a highly rigid complex of welded steel tubing, entirely triangulated, and incorporating well-drilled channel-section members at the base. Lightness was also achieved by varying the tube diameters in relation to loading, so that the main and lower tubes were 2 in. in diameter, whilst the upper tubes were 1½ in. and the connecting struts an inch. Further rigidity was achieved by forming the entire scuttle as a welded panel to prevent vertical distortion; another bulkhead formed a further stressed member at the rear of the framework, which terminated just forward of the rear axle. A subsidiary channel-section frame-

work carried the rear of the body, housing a spare wheel and 40-gallon fuel tank.

Incorporating many standard Jaguar components, the independent front suspension featured wide-base wishbones, longitudinal torsion bars and large Newton telescopic hydraulic dampers. The rear suspension was, however, quite original, being via a single transverse torsion bar passing through the lower tubular chassis frame member and anchored at the centre. A trailing link from each end of the torsion bar was connected to hanger brackets attached under the rear axle casing. The primary locating member was an upper link, or A-bracket, just inboard from the offside rear wheel; this not only located the axle laterally, but was designed to work in reaction to the torque produced by hard acceleration, reducing the tendency for the right-hand wheel to lift. Thus, although an orthodox

Conference at Silverstone during a prototype practice session prior to the C-type's debut, 1951. Note the second aeroscreen, which was to become an option on production models. The bonnet side vents were changed for louvres on post-1951 C-types. (Photo: Jaguar Cars Ltd.)



axle was used, road grip proved as effective as that provided by many contemporary de Dion systems.

The new chassis and suspension design, together with rack and pinion steering, endowed the C-type with excellent high-speed stability together with traction characteristics that were quite an improvement over those of the XK 120. Better braking was obtained by incorporating a new Lockheed self-adjusting hydraulic two-leading-shoe system. Centre-lock wire wheels were fitted to assist brake-drum cooling and speed up pit-work.

Development leading to the introduction of the Jaguar XK engine was described in *Car Profile* No. 4 ('The Jaguar XK Series'). For the C-type, this power unit employed a camshaft giving a lift of ⅜ in. as against the standard ⅝ in. Timing was widened and the induction pipe opened out; ports were modified and valve diameters increased. Twin 2 in. SU carburettors were fitted in place of the standard 1¼ in. units. Basically, however, the engine was the same as that which powered the XK 120 and Mk. VII volume-production models.

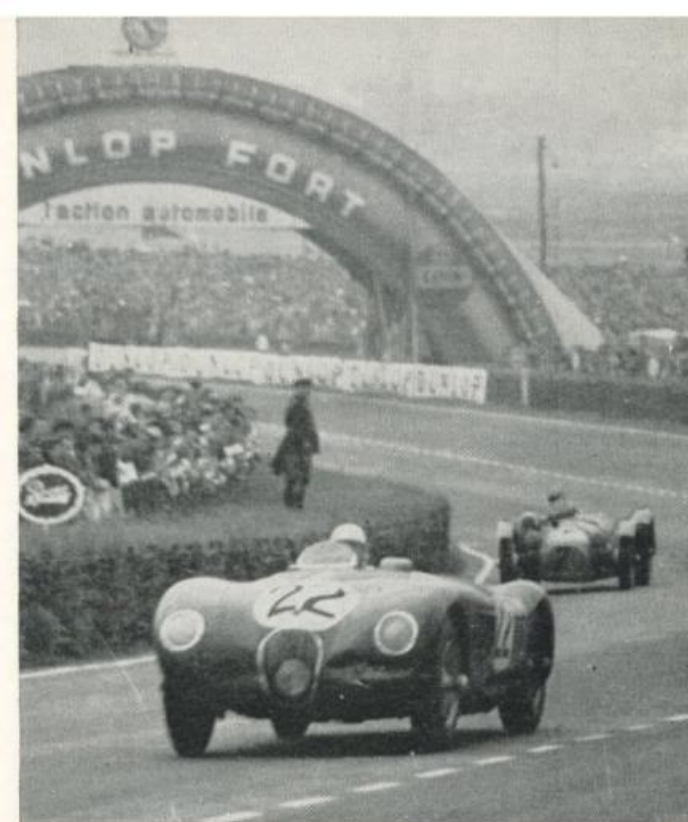
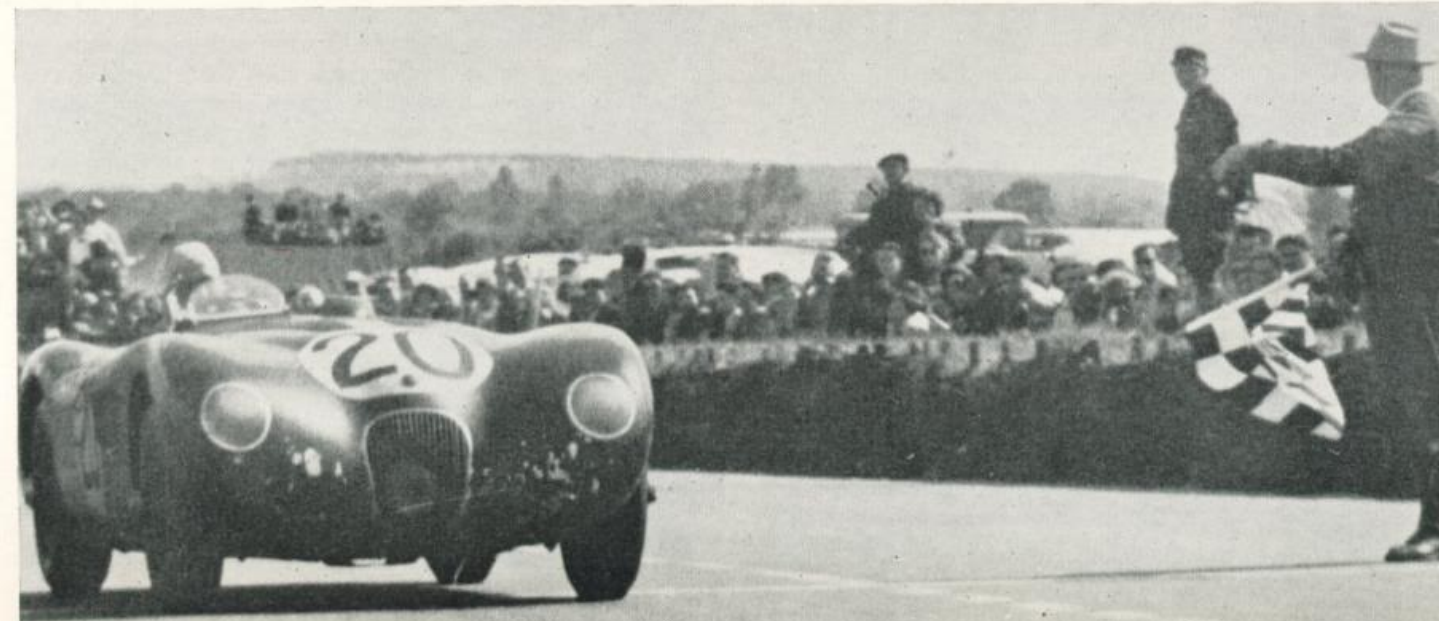
Bodywork was both distinctive and attractive; most important of all was its low drag, which allowed 100 m.p.h. to be maintained with approximately 20 per cent less power than that required on the XK 120. The whole bonnet assembly could be hinged forward.

VICTORY FIRST TIME OUT

Despite their short preparation period, three of the new C-type Jaguars lined up for the start of the third post-war Le Mans 24-hour race in June 1951. The team drivers were Stirling Moss/Jack Fairman, Peter Whitehead/Peter Walker, and Leslie Johnson/Clemente Biondetti. After an initial battle with the 4½-litre Talbots of Gonzalez/Marimon and Fangio/Rosier, Moss and Fairman established a clear lead, followed by their team-mates. Soon after quarter distance, however, Biondetti retired his Jaguar with no oil pressure; an oil pipe had broken due to the failure of a flange to stand up to constant vibration. After eight hours, the same defect caused Moss to give up with engine failure, too. Whitehead and Walker went on to win by an enormous margin from the Talbot of Pierre Meyrat/Guy Mairesse, the Aston Martin DB2 of Lance Macklin/Eric Thompson, then another Talbot and Aston Martin respectively.

Moment of glory: Peter Whitehead takes the chequered flag at Le Mans, 1951, in his battle-scarred Jaguar.

(Photo: Jaguar Cars Ltd.)



Twenty-five minutes gone, and Moss takes the lap-record-breaking C-type through the Dunlop Bridge ahead of Louveau's Talbot at Le Mans, 1951. (Photo: Louis Klemantaski)

Potentially strong opposition from Ferrari and Cunningham failed to develop.

The winning Jaguar set a record average speed of 93.50 m.p.h., and Stirling Moss put in a record lap at 105.24 m.p.h. Victory came as something of a relief, but there was confidence at Jaguar following this great victory, for although two cars had retired, their failure had not been caused by any basic design weakness.

Three months later, in the Tourist Trophy race at Dundrod, N. Ireland, the new C-types took 1st, 2nd and 4th positions overall, despite a handicap system, with Moss winning from Walker. Tony Rolt, who had taken over Leslie Johnson's car, made up a lot of lost ground and recorded fastest lap, but was nevertheless unable to take over 3rd position from Bob Gerard's Le Mans Replica Frazer Nash. This T.T. marked the



'XKC.004': Duncan Hamilton in Jaguar C-type number four—the first privately-raced example—finishing second to Moss at Boreham in 1952. After a somewhat chequered career, this car has now been restored to near-original condition by Sussex Jaguar-collector Guy Williams, who uses it on the road. (Photo: Louis Klemantaski)



'XKC.005': The winning C-type, prior to the start at Reims, 1952. Left to right: F.R.W. England, Stirling Moss, Tom Wisdom, Joe Sutton, and Bill Cannell. This car's most successful subsequent owner was Michael Head; its present owner is A. W. Wood of Northamptonshire. (Photo: Talbot Frith)

début of the DB3 Aston Martin, which showed its mettle in the hands of Lance Macklin before retiring. It was another fine Jaguar victory although the opposition was not particularly strong, in spite of the handicapping. Stirling Moss rounded off the C-type's first season by winning the sports-car race at the September Goodwood meeting.

MIXED FORTUNES IN 1952

For 1952, few changes were made to the works C-types, which produced 204 b.h.p. at 5,500 r.p.m., and would run up to 6,000. William Heynes records that the compression ratio was reduced from 9:1 to 8½:1 for Le Mans 1952, however, due to 'discrepancies' in the fuel used in 1951.

First outing for a works car in 1952 was the Easter meeting at Goodwood, where Moss could finish no higher than 4th in a sports car handicap, although in the six laps he pulled back more than a quarter of a minute on Geoff Duke's Aston Martin DB3.

A C-type was sent to Italy for the Mille Miglia, but, with only a single car entered, and with just one tender vehicle to accompany it, Jaguar obviously did not expect to win. The significance of the event was that it marked the first occasion on which a Jaguar was raced with disc brakes. (Close collaboration on brake and tyre design was carried out between Dunlop and Jaguar during the latter's racing years.) Stirling Moss—accompanied by Jaguar's chief experimental tester Norman Dewis—drove admirably

and, despite sustaining a split fuel tank and tyre trouble, was lying third when an excursion damaged the steering. With the car wandering dangerously he wisely decided to call it a day at Bologna, barely 150 miles from home, and left Giovanni Bracco's Ferrari to win by just under five minutes from Karl Kling's Mercedes-Benz 300SL. As a test for the Jaguar's new brakes, however, the Mille Miglia had proved ideal.

On the following weekend, Moss won the 'Daily Express' Silverstone production sports car race from the three works DB3 Aston Martins, after the retirement of the other two C-type drivers, Rolt who had been lying second (half-shaft) and Walker (brakes).

'Production' was fairly loosely interpreted at that time, and in fact the first privately-owned C-type to take part in a race was Duncan Hamilton's, in the British Empire Trophy race on the Isle of Man in late May. Although he put up fastest practice lap and led for two laps, Hamilton had to give up early on; a full tank and a hump-backed bridge on the tortuous Douglas circuit combined to break the rear axle support brackets.

On the same weekend, Moss was driving a lone works C-type in the Monaco G.P. for sports cars, and stayed ahead for 23 of the 100 laps before being overtaken by Robert Manzon's new 2.3-litre Gordini. Shortly afterwards, both cars, still dicing together, arrived at Ste. Dévote to find their way blocked by one of those *mêlées* which tend to occur at street circuits, and particularly at Monaco. The event became a walkover for Ferraris; they took the first five places, followed home by Tom Wisdom in the second 'private' C-type to appear in a race. Moss continued gamely with his battered car, but was later disqualified for receiving outside assistance at the time of the pile-up.

Le Mans 1952, was a complete disaster as far as Jaguar were concerned. At the last minute it was decided to improve the drag of the C-type body by fitting new bonnet and tail sections. The lowered bonnet line necessitated a new radiator system. Practice revealed that the engines were overheating badly and, just in time for the event, standard-type radiators were fitted to the cars of Moss/Walker and Rolt/Hamilton, which consequently appeared on race day with unsightly bulges in their hastily-beaten-out bonnet tops. The third car (Whitehead/Stewart) retained its smooth lines and smaller radiator, and was the first Jaguar to retire—after only 16 laps; but Moss and Hamilton, too, gave up shortly afterwards with sadly overheated engines. It is difficult to say whether or not their two cars would have endured the race, had they been fitted with their original radiators for practice. It is almost certain that they would have won it if they had also had their original bodies. Jaguar did not make excuses for their mistake, which had come about as a result of the performance shown by the 300SL coupé recently introduced by Mercedes—one of Jaguar's main selling rivals in world markets and now making their first post-war re-entry in motor racing. It is unlikely that any other manufacturer could have caused Jaguar to take such drastic steps to find greater speed at such a late hour. The 300SLs were by no means the fastest cars in that race, but they finished first and second on pure reliability (and considerable luck), whilst the C-type Jaguar in its 1952 Le Mans form was never seen again.

After Le Mans, Duncan Hamilton raced his own car (MDU 214) at Oporto, but failed to finish. Stirling Moss drove MDU 212, the C-type owned by

Wisdom and Cannell and fitted with disc brakes, in a 50-lap sports car race at the Reims G.P. meeting, winning easily after the leading 2.3-litre Gordini (driven as at Monaco once again by Robert Manzon), had left the road spectacularly when a stub axle broke. Jaguar's Le Mans blisters continued to heal when the young Scottish star, Ian Stewart, gained victory in the Jersey Road Race in July, driving his brand new C-type (JWS 353). This car was entered by David Murray's newly-formed team, *Ecurie Ecosse*, which was to play an ever-increasing part in the Jaguar competition success story during ensuing years. Shortly afterwards, Stewart introduced the C-type to Scotland impressively by winning two races at Charterhall.

The International August meeting at Boreham, Essex, saw all three privately-owned C-types competing in the 100-mile race for cars of over 2-litres. Ian Stewart left the course on lap one, but Stirling Moss (in the Wisdom/Cannell car), and Duncan Hamilton finished first and second without challenge from an opposition including Parnell and Abecassis in DB3 Aston Martins and the 2.7-litre Ferraris of Salvadori and Cole.

A week later, Ian Stewart won the sports-car race at Crimond, Aberdeenshire, but, whilst gripping Ron Flockhart's ex-Mays E.R.A. in the *Formule Libre* event at the same meeting, he had to retire the C-type with rear axle trouble.

Jaguar's official team came back into the fray later in August by entering three standard-bodied cars for the first Goodwood Nine-Hour Race. Driver pairings were as at Le Mans and the works C-types were lying first, second and third—Moss, Rolt, and P. Whitehead respectively—when the latter left the road, damaging his car severely enough to necessitate retirement. The two remaining C-types continued to circulate steadily and unchallenged until, in the seventh hour, the Rolt/Hamilton car shed a rear wheel due to a broken half-shaft. Still it seemed that Moss and Walker must win for they were five laps ahead of anyone else. But it was not to be. With less than two hours to go, the leading car crawled to the pits with the A-bracket broken, thus ending Jaguar's chances completely. Excellent pit-work enabled the unit to be replaced and Moss to finish fifth, and first in the over 3-litre class; but the car had been stationary for some 20 laps and victory went to Aston Martin.

The works cars, together with the three privately-owned models, made hay of their final events of the



'XKC.006': C-type number six, after winning the 1952 Jersey Road Race. Left to right: Sandy Arthur, Bill Dobson, Reg Tanner, Ian Stewart, and 'Wilkie' Wilkinson. This car is now owned by Robert Allen, New York, who runs a C-type register in the U.S.A. (Photo: David Murray)

1952 season. Peter Walker executed stirring ascents of Shelsley Walsh and Prescott to break the sports car records for both hills. Moss beat Hamilton and Stewart at Turnberry, Ayrshire; Stewart won the Wakefield and O'Boyle Trophies at the Curragh; Rolt defeated Moss by a short head at Goodwood; Ian Stewart finished first again at Castle Combe and then returned to Scotland to repeat the 'Rolt treatment' by defeating Moss fair and square at Charterhall. Before the season ended, the first C-types to reach America were beginning to make their mark too, notably in the hands of Phil Hill, Sherwood Johnston and John Fitch—the latter driver gaining for the C-type its first transatlantic victory in the Seneca

Two views of the ill-fated 1952 Le Mans Jaguar; this was the Stewart/Whitehead car, which was the first of the works team to retire with engine damage due to overheating. (Photo: Jaguar Cars Ltd.)



Cup at Watkins Glen. Final 1952 appearance of a works car was once more at Goodwood, where Jaguar team manager 'Lofty' England and Stirling Moss gave impressive demonstrations at the Guild of Motoring Writers' test day.

THE PRODUCTION C-TYPE

Regular delivery of production C-types from Coventry had begun in August 1952—mostly to America—and continued in a gradual flow for about a year. 'The Motor' obtained a 'C' for road-test and, with 3.3 axle ratio, reached a mean maximum speed of over 143 m.p.h. in very adverse weather conditions. Their testers found the car 'very stable' when driven quickly round a damp Nürburgring circuit, but did not elaborate on this aspect of the test except to say that the drum brakes did not fade, nor did the engine lose its tune after a 'severe thrashing' despite the quality of continental fuel at the time. Acceleration figures included 0 to 30 m.p.h. in 3.2 seconds, 0 to 60 in 8.1, and 0 to 100 in 20.1. Characteristic of the XK engine's flexibility even in competition form was 'The Motor's' ability to record a figure (7.3 seconds) from 10 to 30 m.p.h. in top gear. Speeds on the indirect ratios at 5,700 r.p.m. were 48 m.p.h. (1st gear), 82 (2nd), and 119 (3rd). The overall fuel consumption was 16 m.p.g., with 15 m.p.g. at a constant 100 m.p.h. and 23 m.p.g. at 70 m.p.h. (Incidentally, the 1951 Le Mans winner averaged 11.4 m.p.g. for the 24 hours.) 'The Motor' praised particularly the C-type's docility and its precise steering combined with exceptionally 'true' straight-line running.

IN SIGHT OF A CHAMPIONSHIP

For 1953, the F.I.A. introduced a World Championship for sports car manufacturers, which was to continue for nine seasons. That Jaguar never won the championship can be attributed largely to the fact that they never tried. In 1953, however, they very nearly did win it.

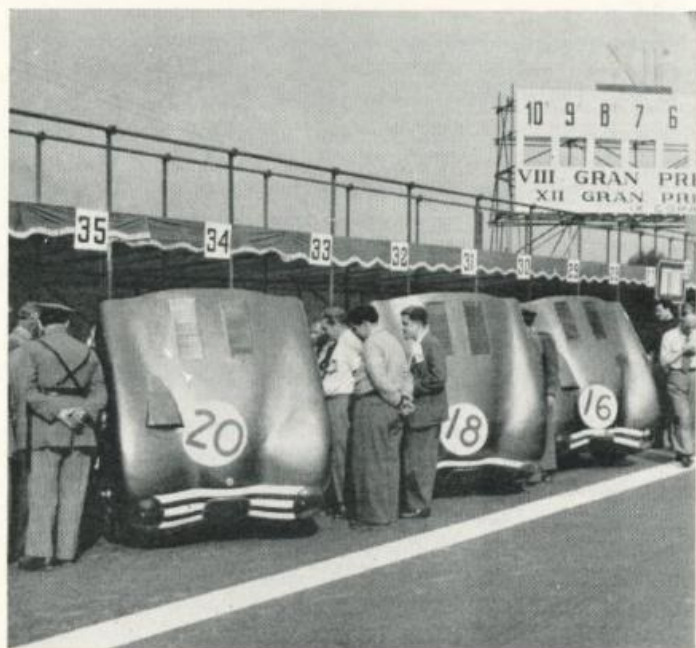
At Sebring the C-types of Sherwood Johnston/Robert Wilder and Harry Gray/Bob Gegen finished 3rd and 4th behind a Cunningham and an Aston Martin. Jaguar suffered another disastrous Mille Miglia, however, despite a stronger works entry which included Leslie Johnson's car fitted with overdrive.

Le Mans 1953, on the other hand, could not have gone better for Coventry. The works Jaguars were almost identical in appearance to the 1951 winner, apart from a neat air intake for their triple twin-choke 40 mm. Weber carburetors. Power output was now approximately 220 b.h.p., and all three cars had disc brakes, flexible fuel tanks, and lighter chassis tubing and bodywork. Following previous experience of rear axle 'wind-up', the fabricated A-bracket was deleted and replaced by a Panhard rod and a second pair of trailing links running forward from above the axle casing. This time there was no mistake. Cannily controlled by *chef d'équipe* 'Lofty' England, his new competitions manager 'Mort' Morris-Goodall, and their highly efficient pit crews, the Jaguars swept all before them, with Tony Rolt and Duncan Hamilton taking the honours and pushing the race record speed up by approximately 9 m.p.h. Stirling Moss and Peter Walker were second and Peter Whitehead and Ian Stewart fourth, team formation being split by the Walters/Fitch Cunningham. Roger Laurent and Charles de Tornaco of Belgium did well to take ninth position in their production C-type, giving Jaguar a reliability rating of 100 per cent. In this particularly



Lance-Corporal, Corporal, Sergeant: The distinctive markings on Ecurie Ecosse's 1953 ex-works cars. They are seen (above) at their second home—Merchiston Mews, Edinburgh. The photograph (below) shows the team at the 1954 Spanish G.P. meeting where one car 'blew up' in practice—but Salvadori and Sanderson finished 2nd and 3rd respectively in the Barcelona Cup sports car race behind Picard's 3-litre Ferrari.

(Photos: David Murray)



competitive year, disc brakes were the greatest single weapon which demolished the opposition.

Next events in the 1953 World Sports Car Championship series were the Belgian 24-hour and the German 1,000-kilometre races. Works Jaguars were not sent to either meeting, and Ecurie Ecosse—now running a team of four C-types—upheld Jaguar prestige by finishing second to Ferrari on each occasion. (At Spa-Francorchamps, the runners-up were Sir James Scott-Douglas and Guy Gale, and at the Nürburgring, Ian Stewart and Roy Salvadori.) A similar gearbox failure on all three works C-types ruined Jaguar's chances in the T.T., although the Moss/Walker car was coaxed across the line to finish 4th on handicap and 3rd on distance. Had Jaguar gained their third successive Ulster victory, as seemed highly likely during the early stages, the C-type would have won the first world sports car title. As it was, neither the works nor Ecurie Ecosse contested the seventh and final round of the championship, the Carrera Panamericana, although a C-type had in fact been prepared for it. Messrs. England and Moss did go to Mexico, however, but only for a reconnaissance which was never followed up.

Ferrari won the first World Sports Car Championship from Jaguar by just three points; Aston Martin were third, and Lancia and Cunningham equal fourth.

Jaguar appeared unmoved by this narrow defeat. Already their engineers were getting down to the business of designing a new car—the D-type—for the all-important Le Mans.

NON-CHAMPIONSHIP EVENTS, 1953

Preoccupied by their determination to regain prestige at Le Mans, the Jaguar team did not do well at the May 1953 Silverstone meeting. Moss's practice crash was almost an omen, and the best C-type position in the sports car race was fifth (Peter Walker) behind Ferraris and Aston Martins. Jaguar's 1952 luck repeated itself in the 'Nine-Hour', when a miscalculation of oil consumption (combined with surge produced by Goodwood's many bends), affected all the team cars. Moss/Walker and Rolt/Hamilton lay first and second after eight hours, only to retire simultaneously with no oil pressure and seriously damaged engines; the P. Whitehead/I. Stewart car could not cope with the new DB3S Aston Martins and failing brakes (its discs were glowing red in the darkness), and was nursed home third, followed by two Ecurie Ecosse production C-types. On the other hand, Reims—now lengthened to 12 hours—provided Moss and Jaguar with a fine win, very ably assisted by Peter Whitehead.

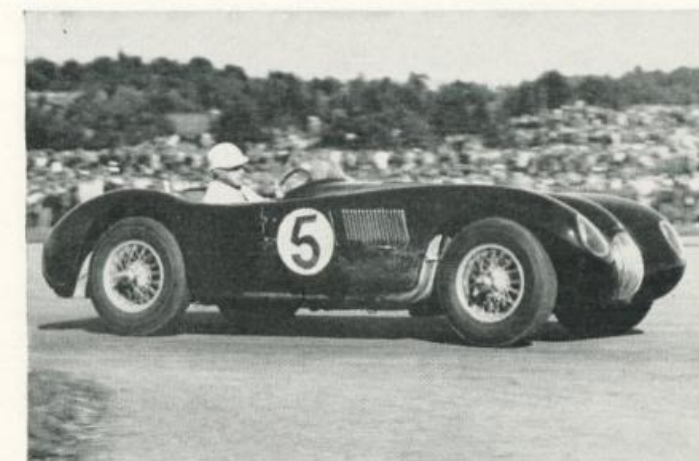
The outstanding 'privateer' victory of 1953, was in yet another long-distance event—the Hyères 12-hour race—in which C-types were 1st and 2nd, driven by

Peter Whitehead/Tom Cole and Armand Roboly/John Simone respectively. Ecurie Ecosse had a full and very successful season, their star men being Ninian Sanderson and the unrelated Stewarts, Jimmy and Ian, with strong support from Sir James Scott-Douglas, Bob Dickson, John Lawrence, and others.

1954 ONWARDS

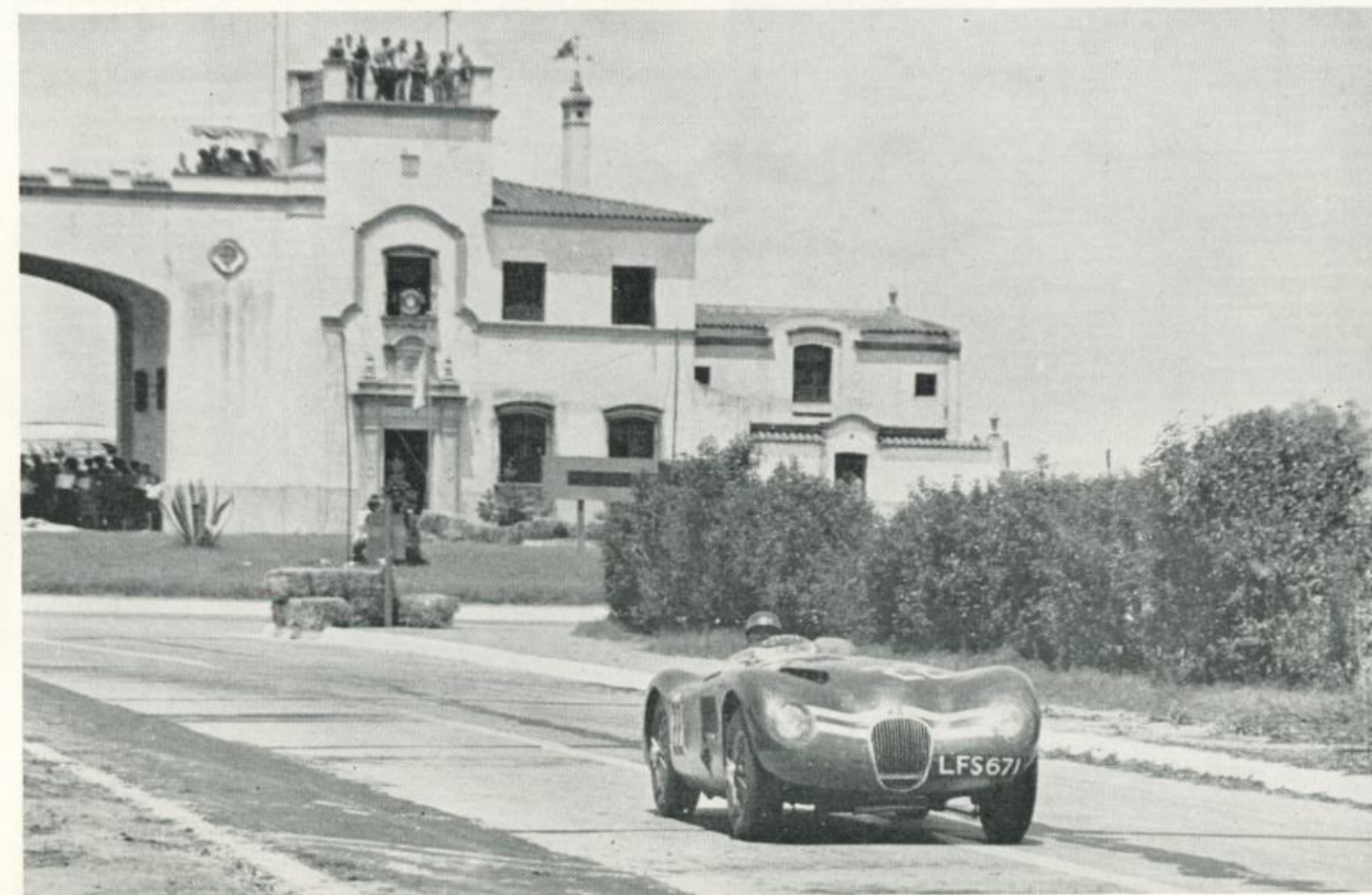
After the 1953 season, Jaguar sold their 'lightweight' team cars to Ecurie Ecosse, and the 'Mexico' car to Duncan Hamilton. Already, the fiftieth C-type had left the factory, and private owners all over the world were meeting with varying success, depending upon their own skill and the preparation of their cars.

David Murray's Ecurie Ecosse raced their 'new' C-types throughout 1954, and into 1955—i.e., until



Above: Private owner Oscar Swahn winning a race at Skarpnack (Sweden, 1953), in his production model C-type. This car is still in Sweden, being restored by Eric Magnus Alván. (Photo: B. Lindau)

Below: Ninian Sanderson and one of Ecurie Ecosse's 1953 ex-works Jaguars in the Buenos Aires 1,000 km. race of 1954; Sanderson and Scott-Douglas finished 4th. (Photo: David Murray)

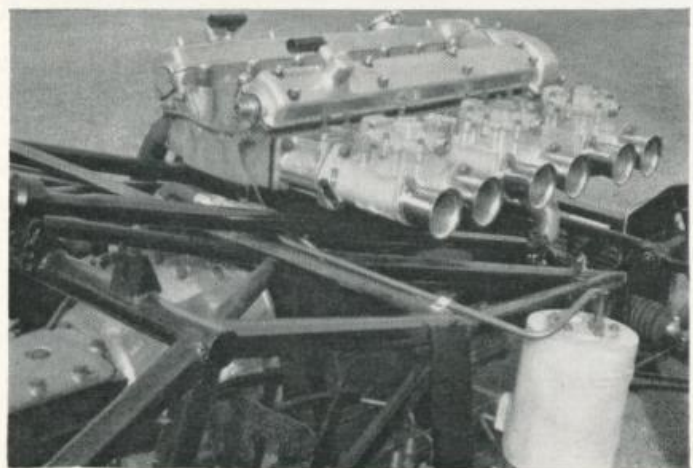




Private owners still enjoy racing their C-types. Gordon MacKenzie of New York has owned his since 1958, and has modified it so successfully that it is still a competitive competition car. Note that the roll-bar is hidden by a head-rest à la D-type.

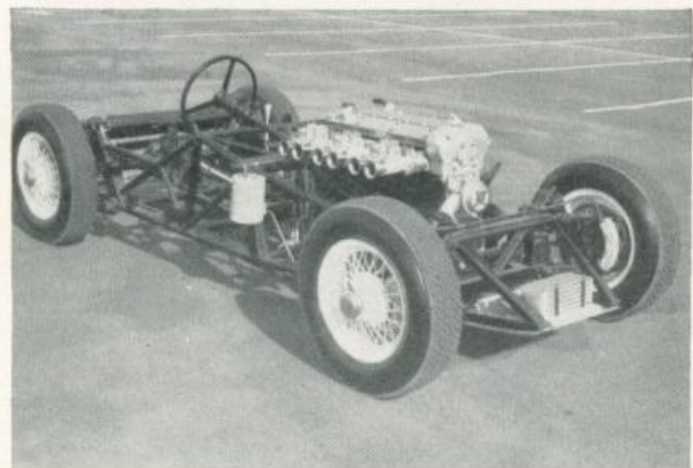
(Photo: Fred Vytal)

Below: Hans Maag of Switzerland taking part in a recent hill-climb at Kandersteg; this C-type was originally exported to Italy, but has spent most of its life in Switzerland. (Production C-types had same bonnet badge as XK 120.) (Photo: Hans Maag)



Two views of the 1953 Le Mans winner as it is today, undergoing full restoration by Miles Brubacher of California. Clearly shown is the complex structure of the frame. Note also the Weber carburetors and Dunlop disc brakes which played so important a role in the success of the 1953 lightweight C-types at Le Mans.

(Photos: Brubacher)



Jaguar C-type (chassis No. XKC.051)—leader of the clean sweep at Le Mans 1953—sets off on its lap of honour with Duncan Hamilton at the wheel, and co-driver Tony Rolt flanked by Len Hayden and Gordon Gardener of Jaguar's competitions department.

(Photo: Jaguar Cars Ltd.)

they could obtain D-types—gaining further useful victories at home, together with a win at Zandvoort, Holland (Sanderson), second and third places at Barcelona (Roy Salvadori and Ninian Sanderson respectively), and a fourth in the Argentine 1,000 kms. (Sanderson/Scott-Douglas).

Whilst the works D-types and Ferraris battled for the lead, Roger Laurent and Jacques Swaters quietly brought their C-type through the field at Le Mans to finish 4th for Belgium. Outstanding, too, during 1954, were Duncan Hamilton with major wins at Aintree and Monthéry, and Michael Head whose ex-Wisdom/Cannell car had a particularly successful outing in Scandinavian production car races.

Many a well-known driver has cut his racing teeth on the C-type, and to this day motoring enthusiasts retain a particular affection for it. A remarkable number are still used regularly both on the road and

JAGUAR C-TYPE SPECIFICATION (PRODUCTION MODEL)

Engine: 6 cylinders, 83 x 106 mm., 3,442 c.c. Overhead valves at 70 degrees, operated by twin overhead camshafts driven by two-stage Duplex chain. High tensile aluminium alloy cylinder head with hemispherical combustion chambers; Austenitic valve seats. Aluminium alloy pistons, steel connecting rods, counterweighted crankshaft in seven 2½ in. steel-backed bearings. Full-flow Tecalemit oil filter. Twin 2-in. horizontal S.U. carburetors. Twin exhaust system. Compression ratio 8 to 1 for 80 octane fuel, giving 200 b.h.p. at 5,800 r.p.m.; 9 to 1 ratio for 85 octane fuel, giving 210 b.h.p. at 5,800 r.p.m.

Transmission: Borg and Beck dry single-plate clutch with solid centre and bonded riveted lining. Four-speed gear box with synchromesh on 2nd, 3rd, and top; central lever. Overall gear ratios, normal 3.31, 4.51, 6.59, and 11.2 to 1; close ratio box, 3.31, 3.99, 5.78, and 9.86 to 1. Axle ratios available, 2.9, 3.31, 3.54, 3.75, 3.92, 4.09, and 4.27 to 1. Final drive by Hardy Spicer propeller-shaft to hypoid bevel axle with semi-floating shafts.

Suspension: Independent front with wishbones and torsion bars. Rigid rear with trailing links, 'double-action' torsion bar and torque reaction member. Newton hydraulic dampers back and front.

Brakes: Lockheed hydraulic, two L.S. front. Self-adjusting. 12 in. drums. Friction lining area, 188 sq. in.

Steering: Rack and pinion. Adjustable wheel.

Wheels and Tyres: Dunlop Road Racing, 6.00 or 6.50 x 16 on knock-off wire wheels with light alloy rims.

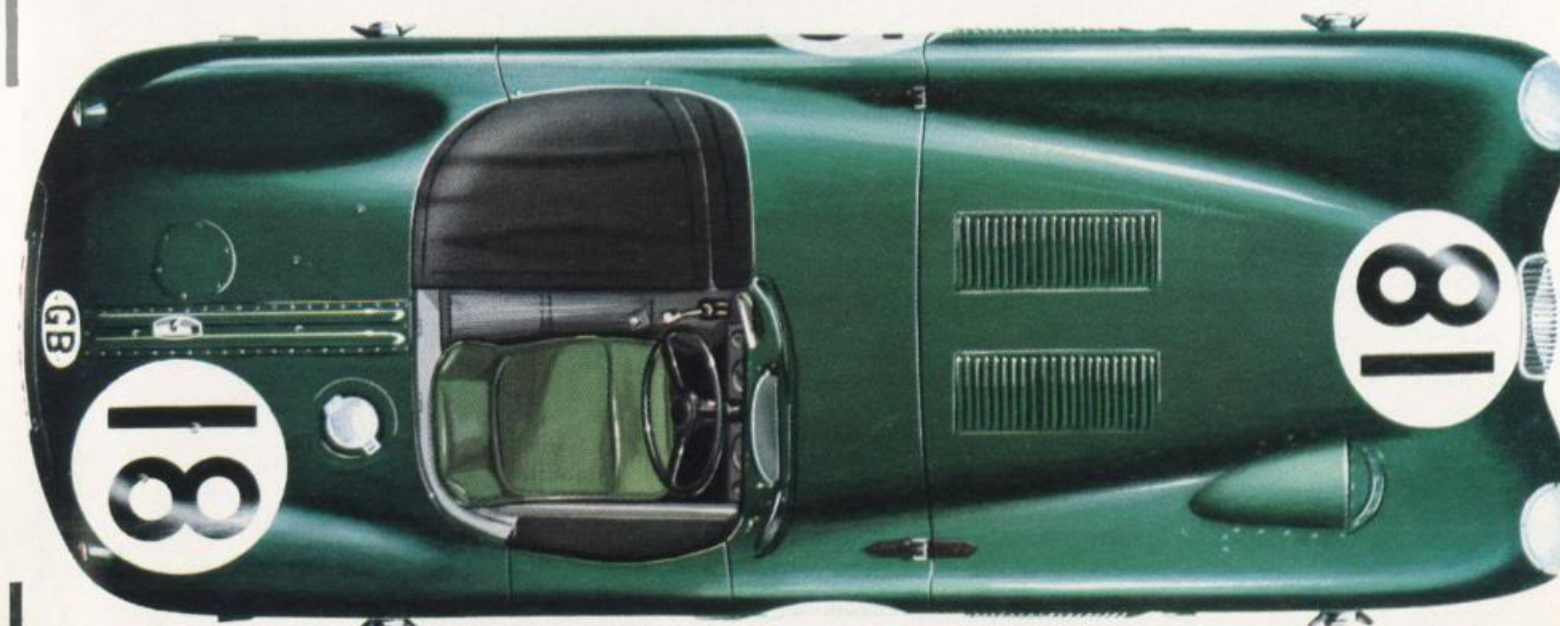
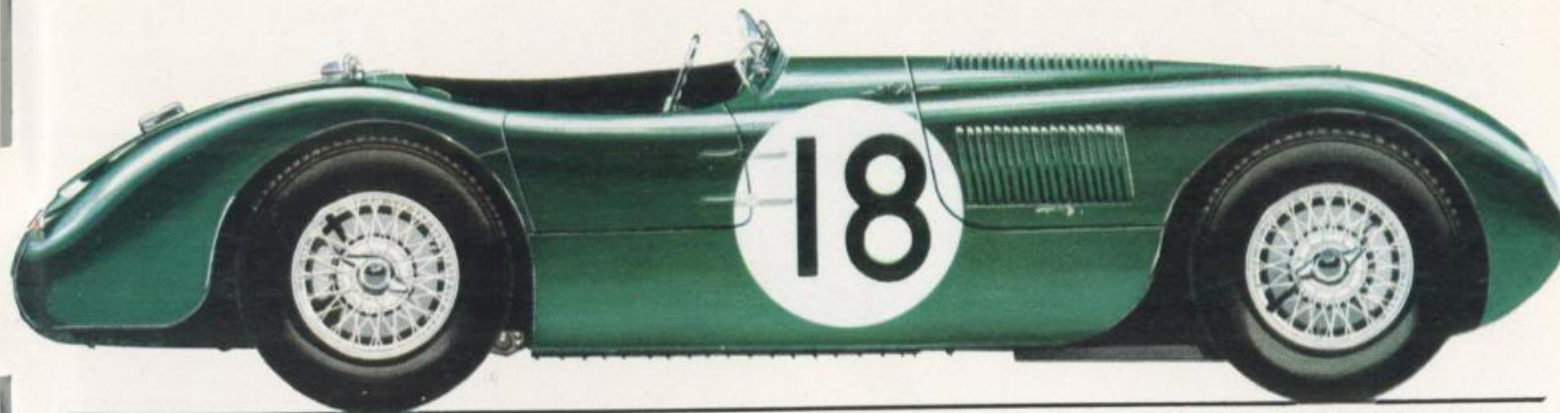
Electric Equipment: Lucas 12 volt, Lucas coil; 40 ampere-hour battery. Champion N.A.10 plugs (soft N.A.8; hard N.A.12) or equivalent.

Fuel System: 40-gallon rear tank; two S.U. electric pumps.

Main Dimensions: Wheelbase, 8 ft.; track, 4 ft. 3 in.; overall length, 13 ft. 1 in.; width, 5 ft. 4½ in.; height (screen down), 3 ft. 2½ in.; ground clearance, 5½ in. Approximate dry weight, 18½ cwt.; front/rear weight distribution, 50/50.

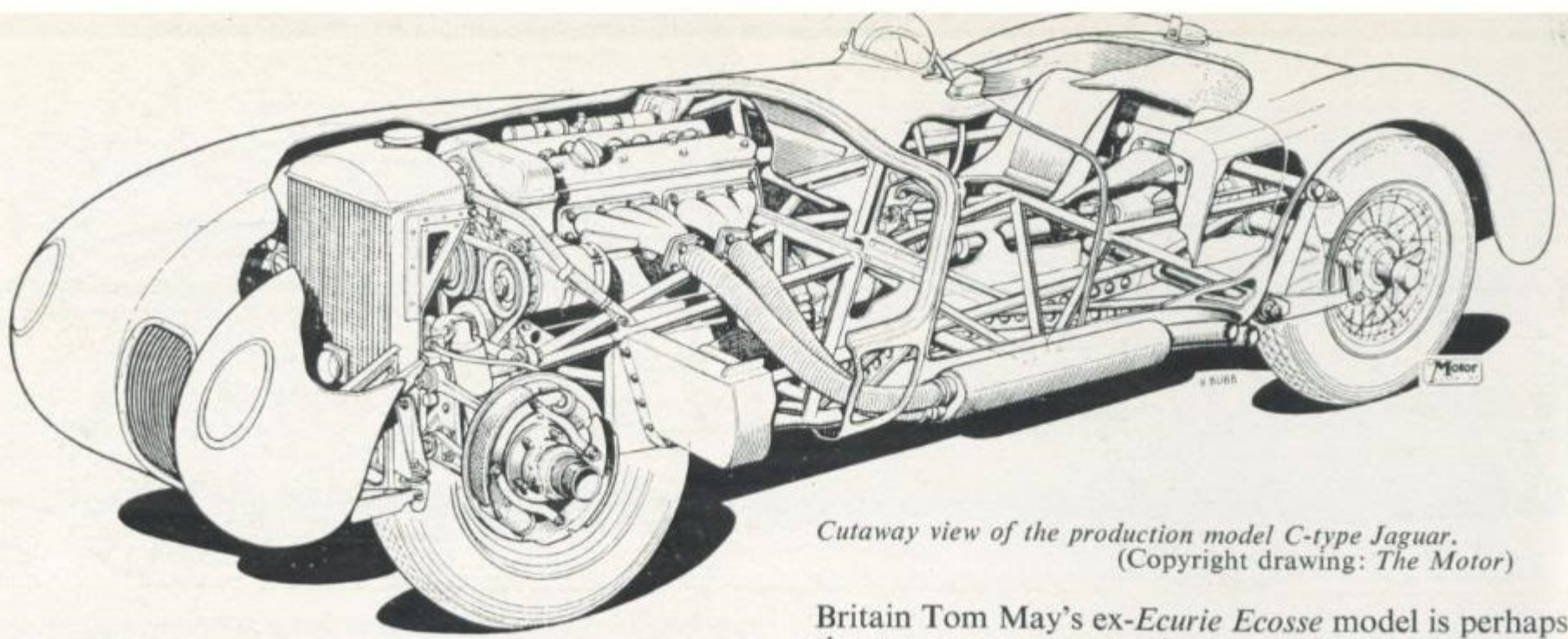
Price: £1,495 plus £832 Is. Id. P.T. Equals £2,327 Is. Id. total.

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THE JAGUAR C-TYPE: winner of the Le Mans 24-hours race, 1953. Drivers: Duncan Hamilton and A. P. R. Rolt. Record average speed: 105.85 m.p.h. (The 1953 Le Mans winner was not fitted with a badge.)





Cutaway view of the production model C-type Jaguar.
(Copyright drawing: *The Motor*)

in competitions. Some have been restored to original condition and others vastly modified to keep them competitive. Notable in the latter category are those owned by Frank Sowden of Yorkshire (the ex-Hamilton 1953 car) and Gordon Mackenzie of New York. These have 3.8-litre D-type engines, disc brakes, and E-type independent rear suspensions. Mackenzie has modified his ex-Kaplan car so much over the years that in 1965 it was lapping the Lime Rock, Connecticut, circuit within two seconds of the class record held by a Lotus 30; Sowden's has covered the standing quarter-mile in 12.68 seconds—an improvement of more than 3½ seconds on 'The Motor's' contemporary production C-type road test figure.

Amongst the 'restorers', Californian Miles Brubacher is carrying out a most painstaking rebuild of the 1953 Le Mans winning C-type, whilst in

Britain Tom May's ex-Ecurie Ecosse model is perhaps the top *concoeurs* contender. In the U.S.A. there is an unofficial owners' club, and C-types in varying stages of renovation are known to exist in Australia, New Zealand, South America, Sweden and Switzerland.

As with its successor, the 'D', Jaguar's C-type was by no means an all-purpose competition car—but, since it was designed to win a specific race, its other successes can in a sense be regarded as incidental. An opposing view would be: how little extra effort it would have required to make the C-type a world-beater on every circuit. The fact remains that this great motor car—which developed a magnificent love-hate relationship with most of its drivers, and a mutual understanding with those capable of extracting the maximum performance—put Britain on the post-war motor racing map at the time when such prestige was most needed. Fifty-four C-types were constructed, including works and production models.

© John Appleton, 1966

A typical sports car race line-up of the 1950s—The Johnson Trophy race, 1954, at Goodwood—with C-types well to the fore. Jimmy Stewart (No. 26) makes the best start; he won from his Ecurie Ecosse team-mate Ninian Sanderson (extreme right). Gerry Dunham (No. 28) was 3rd, and Michael Head (No. 78) 5th behind Roy Salvadori's Maserati. The other C-type Jaguar in the picture (No. 29) was one of the Scottish team's early cars; on this occasion it was driven by its new owner, John Keeling, who hit the chicane and did not finish. (Photo: Planet News)

