

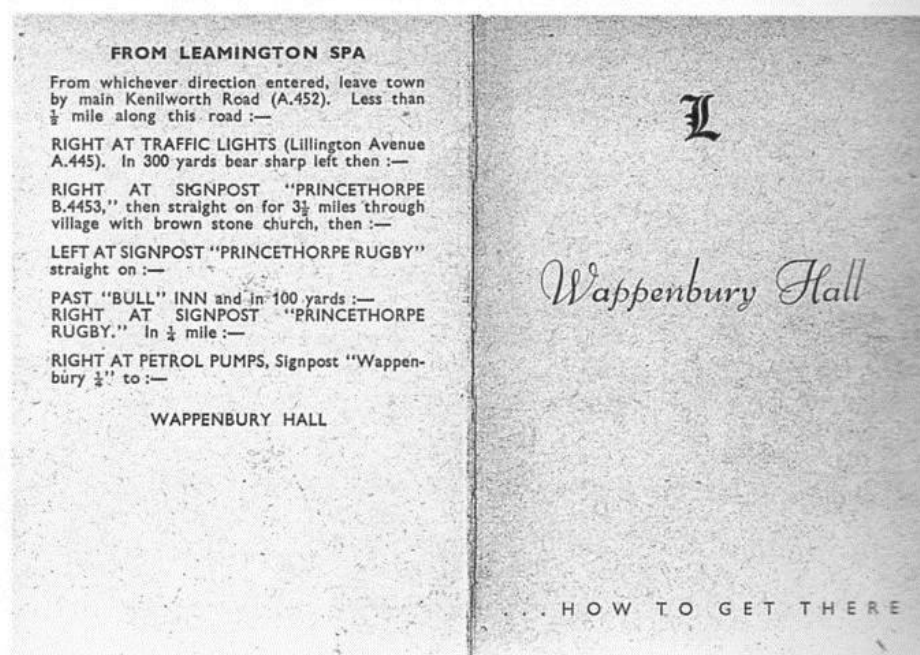
# JAGUAR



# 1950's

# FIFTIES

*Apart from being Lyons's imposing home, Wappenbury Hall was often used as a setting for Jaguar publicity photography. (Jaguar Cars)*



According to an internal memo dated 1 September 1950, the new sports racing car to be designed for the 1951 Le Mans was to be known as the XK.150. Instead it became the XK120C, or entirely unofficially, the C-type.

If one remembers that the XK120 was so-called to indicate the car's estimated top speed, then the choice of XK.150 was an entirely logical one.

At this date, it was intended to use

a chassis of 'two main basic tubes and basic front cross member and rear cross member. Tubular centre cross member and tubular upper frame side members would be suitable either for the body to conform to the International Sports Car Regulations, or with straight tubes which would permit the construction of a monoposto body'.

This chassis was to be designed to

take no less than seven different engines, including the XK.100.

By December the specification had evolved to that which was to be produced and the frame was now described as 'tubular, of triangulated construction'.

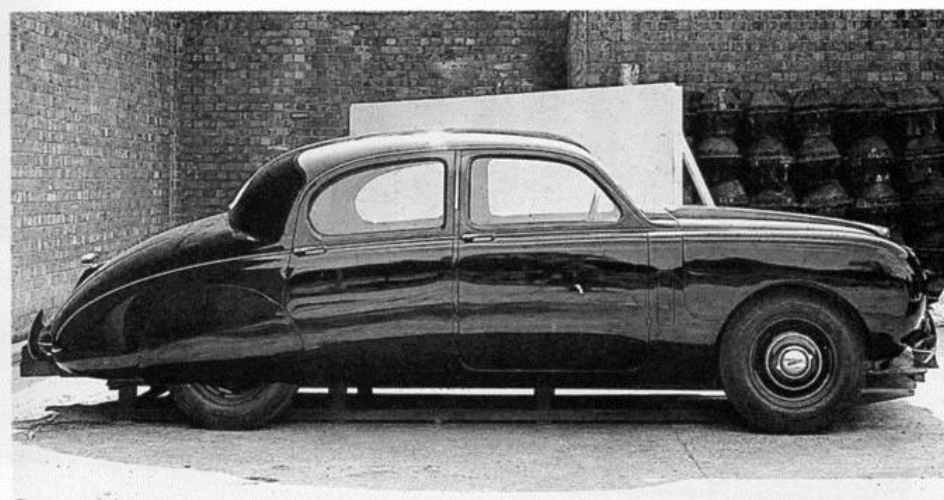
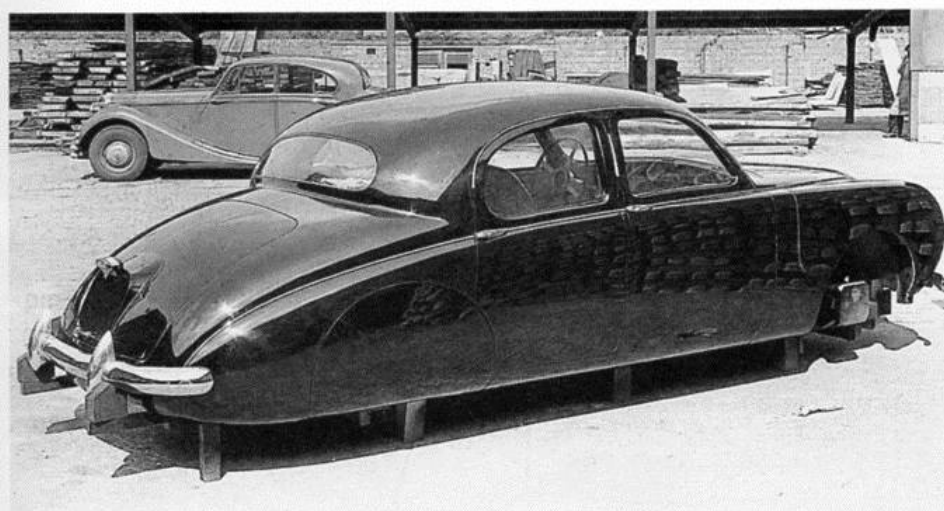
On this report the '150' was crossed out and '120C' was written above.

Official speeds recorded over timed kilometre during the Tourist Trophy Race of 1951, as issued by the RAC.

Collins	Allard 5.4-litre	110.30 mph
Allard	Allard 5.4-litre	110.90
Watkins	Allard 4-litre	101.90
Moss	Jaguar XK.120.C	127.60
Walker	Jaguar XK.120.C	128.20
Rolt	Jaguar XK.120.C	127.40
Fairman	Jaguar XK.120	115.60
Swift	Jaguar XK.120	111.50
Macklin	Aston Martin D.B.3	114.90



Abecassis	Aston Martin D.B.2	110.50
Shawe-Taylor	Aston Martin D.B.2	110.50
Clark	Aston Martin D.B.2	107.00
Buncombe	Healey	103.60
Baird	Ferrari 2.6-litre	121.20
Lee	Connaught 1750 c.c.	107.40
Gerard	Frazer Nash 2-litre	109.10



Wappenbury Hall, Lyons's magnificent home and backdrop for many photographs of Jaguar models, 'was originally bought for just £5000.' Rankin let that slip on one occasion,' the late Claude Baily once mentioned to me.

Lyons always referred to the Mark I, which we see here in earliest mock-up form, as the 'rotund style'. It is interesting to note that the wing styling atop the headlamps is reminiscent of the later S-type and even the XJ6. Also it appears that the whole front end was to be a one-piece item hinging forward akin to the E-type. (Jaguar Cars)



*Behind this view of the trim shop can be seen an XK120 Roadster, a Drophead Mark V and several Mark V Saloons. (Jaguar Cars)*



*One of the main exhibits on the 1952 Earls Court Show stand was the 'Seven Days and Nights' car, LWK 707.*



Financial arrangements made with Stirling Moss for the 1951 season

22nd September, 1950

**STIRLING MOSS**

£100 per drive plus reasonable personal hotel expenses in the case of British and Continental races. In the case of American, or races that necessitated exceptional expenses, special arrangements would have to be made. Prize money and bonus money would be retained by the driver.

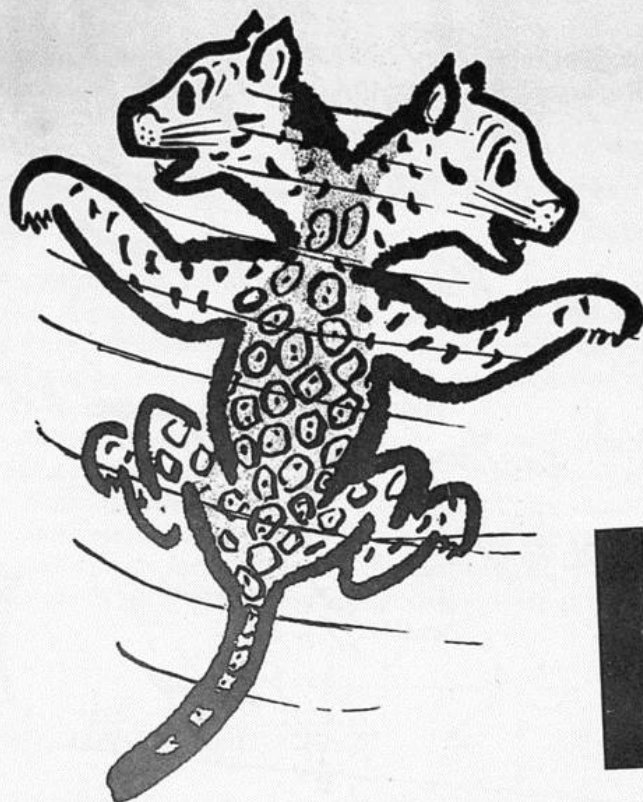
Entry to be made by the driver, on the Company's instruction, in any race of the Company's choice. On the other hand Mr. Moss will agree to give us priority of his services as a driver in any race open to sports cars in which we may choose to participate. This would, of course, not preclude Mr. Moss from taking part in formula racing or 500 c.c. racing with other makes of vehicle.

The car to be raced would be loaned to Mr. Moss as his property, but would remain in control of the Company at all times other than when actually participating in events.

'Sir William Lyons was a man of complete integrity in every sense of the word.'

ALAN NEWSOME

**BY JAGUAR! THAT'S SHELL—THAT WAS!**



**172**

**M.P.H. USING**

**SHELL PETROL AND SHELL X-100 MOTOR OIL**

**PRECISELY THE SAME AS SOLD AT YOUR GARAGE**

Shell celebrates the XK120's remarkable feat of achieving 172 mph at Jabbeke in 1952 in their own inimitable and truly delightful way.  
(Shell)

Telephone 2181

# White Cloud Farm

Tring, Herts

Dear Mr Heynes

I would like to say how excellently the X.K. performed at Silverstone. Its preparation was perfect, and I cannot find one word to say against it at all.

I am sorry about our misfortune in the Mille Miglia, but it could not be avoided; it would have taken a Nuvolari to eat that one out!

I'm enclosing my expense a/c for the M. Miglia etc.

Sincerely yours  
Stirling

10th May, 1951

Dear Stirling,

Many thanks for your letter of the 7th enclosing your account.

I was just as sorry as you are about the Mille Miglia, but we have to take the rough with the smooth in matters like this.

I must congratulate you again on the very successful drive at Silverstone, and trust the same good luck will follow you throughout the season.

Yours sincerely,


W Heynes



**Well done-Jaguar**

**100 m.p.h for seven days**

**and nights using**



*Shell salutes the XK120's achievements at Montlhéry. (Shell)*

Internal memo from CLAUDE BAILY to Messrs Whittaker, Heynes, Blumson, Weaver, Cook and Siviter, 9 January 1952

*HUBS FOR KNOCK ON WIRE WHEELS C.6021/1 FRONT. C.6022/3 REAR*

*XK120 CARS*

Mr. Turner can provide 22 sets of Front and Rear hubs ex XK120C finished stock, for the building of twelve XK120 cars and ten XK120C cars. These hubs are made from some stampings which they had in stock (not Jaguar) and in the case of the front hub an additional ring had to be welded on to make up the required length.

The new dies and stampings are said to be still some twelve months away, so that a further covering order is necessary to bring up the total quantity of these hubs to the fifty sets for XK120C cars and including our further anticipated requirements on the XK120 car.

[From this we can see how few of the earlier 120s left the factory with wire wheels in spite of the high proportion wearing them today. P.P.]

#### BOARD MEETING 2 January 1952

BROWNS LANE – Mr. Lyons reported that he had completed negotiations with the Ministry of Supply regarding the rent for the Browns Lane factory. A draft lease was being examined. This provided for taking over the factory from August 1st 1951 – the first five months to December, 1951 to be rent free, and then the lease would be for ten years from January 1st, 1952. Rent to be £30,000 per annum for the first five years, and £57,500 for the last five years.

The following was quoted from a letter from Sir Archibald Rowlands of the Ministry. 'In the event of altering the whole basis of rentals for Government owned factories, then you will get the benefit which may result therefrom. This would be in addition to the special concessions already made to you arising out of the special circumstances of your own case.'

*Daily Mail, Monday 25 June 1951. The Jaguar XK120C, the new Le Mans version of the world's fastest-cheapest sports car, is "practically in production and assured of an enormous sale," Mr. Claude Baily, chief designer of Jaguar Cars Ltd. said last night. "Practically every one we turn out will be for export," he added.*



*Stirling Moss is seen hurling the big Mark VII round the Silverstone circuit in 1952 to win the Production Car Race. (Frank Rainbow)*

This was accepted in the event of any other factories being let on more favourable terms which had received comparable treatment, as this answer was in response to the Chairman's specific request.

Although it had been hoped we should be completely installed in Browns Lane by the end of last year, due to slowness of the exit of the Daimler Company, this was not possible but the move should be completed within the next three or four months.

Arrangements are being made to provide a sports field to replace that now sold to Dunlop. We have been successful in obtaining a lease for a piece of land from Coventry Corporation at a rental of £30 per annum, the lease to coincide with the lease of Browns Lane Factory.

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Mr. Lyons reported that we had now received official advice that a contract from the Ministry of Supply for the manufacture of Meteor tank engines is to be placed with us. In this connection we have received a contract for the purchase of material to the value of one million pounds. We have also received a contract for the repair of Meteor tank engines. These contracts might prove nearly as large a part of the Company's business as that of car manufacturer.

In connection with the manufacturing contract a lot of the machines have already arrived at the Browns Lane factory from the Ministry of Supply on a rental basis. The ultimate value of plant so provided would be in the region of three million pounds. Rental terms appeared satisfactory but these were receiving consideration.

It was also reported that information had been received that a contract for development of a prototype tank engine, Jaguar XK.800, will be placed with the company by the Ministry of Supply.

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Directors' visit to America: Messrs. Whittaker and Heynes had been to the United States of America. They visited most of the car manufacturing plants where they had high level technical discussions obtaining much knowledge of the highest value to the Company.

They also visited our distributors in New York and Los Angeles where they met many Jaguar dealers and discussed both present and future prospects for the sale of the Company's products.

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Exports: Mr. Lyons reported that we had had a very successful year in regard to export and read out the monthly figures. These show that the total exports for the year ended December 1st, 1951 were 84.35% of production. Home deliveries have been kept to the figures laid down, with the result that we received a small bonus on sheet supplies.

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### **Report on Jaguar Mark VII KRW 76**

*15th May, 1952  
To Mr. ENGLAND*

*From R.E. BERRY  
GENERAL*

<i>Total Distance Covered</i>	<i>6437 kms</i>
<i>Total Petrol Consumed</i>	<i>1076 litres</i>
<i>Overall Petrol Consumption</i>	<i>17 mpg</i>
<i>Total Oil Added to Sump</i>	<i>8 litres</i>

*The overall petrol consumption figure is interesting since it is the result of widely varying conditions of driving from the 50 mph gait of our outward run to the 90 mph cruising along the autostrada, and the pottering around Brescia.*

#### **REPORT**

*This was the same car in which we covered some 4700 kilometres during the period of the Monte Carlo Rally.*



*A considerable amount of work appeared to have been done on the car since it was last used by us, this being particularly noticeable in the engine which was extremely quiet, and produced much more power than in January. Carrying all the spares required for the "C" car plus four wheels and tyres, the luggage of four persons, and two passengers, the car was very heavily laden and must have weighed something over two tons, though we did not have an opportunity of determining the exact figure. This weight was reflected in the tyre wear, for despite a modest speed of 55 mph on the outward run, both the rear tyres were very badly worn on arrival at Calino, i.e. after about a thousand miles. Subsequent high speed runs over some 2000 miles of Italian roads and autostrada proved sufficient to render useless four of the covers in as much as no semblance of tread was left on two of the covers, and very little on the remaining two. For the return journey we fitted two 6.50 x 16 racing covers to Mark VII wheels and put these on the front of the car. Tyre pressures used were 30 lbs. front, 35 lbs. rear in the dry; 27 front, 32 rear in the wet.*

*Considering the unfavourable weight distribution, the car on the whole handled remarkably well. Most forcible reminder of this weight was a violent oversteer which set in when rounding fast or medium fast bends. This was partially nullified by running the front tyres at a considerably lower pressure than the rears.*

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#### JOE SUTTON, former racing mechanic

'I was chief mechanic to Number 20 at Le Mans in 1951, and my two drivers were Peter Walker and Peter Whitehead. The whole thing was done on a shoestring, because my mechanic was either one of the two drivers, depending who was free at the time. So if Peter Whitehead came in, he was my mechanic till Peter Walker took over. That's how it worked.

'The other cars had broken oil pipes but mine kept going and I was fortunate, the first time, to be the mechanic to the winning car at Le Mans – just a lucky break.'

---

'I was coming back through customs on one occasion with a C-type and I'd got through and was nattering with this customs bloke about cars. Old Peter Walker comes out as large as life and says, "Ah, I'm glad you got out. Did they find the watches?"

'I said, "No, we got them hidden too well, Peter!"

'Of course, the customs bloke knew that was one thing we would never do.'

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'One year Mike Hawthorn had done the fastest lap at Reims and the prize was 75 bottles of Champagne. So he asked us to bring them back. He told us to take the two cases of 25 for him and to share the other one between us. So we had a couple of bottles apiece.

'We got to customs and the chap told me to open the van.

'"Anything you want to see?" I asked.

'"Yes," he said, "I want to see these two cases of Champagne you've got!"

---

'In 1954, I think it was, Ted Brookes and myself were mechanics to Ecurie Belge at Le Mans. They were using some foreign tyres and about every two laps the treads blew off.

'Ted had been their mechanic before. Anyway they'd just done a pit stop and Ted said, "Come on. We'll go round the back and have a smoke. They won't want us for a bit now."



*From left to right, we see Joe Sutton, Norman Dewis and Frank Rainbow in front of the mobile timekeeper's vehicle at Jabbeke. (Frank Rainbow)*

### BOARD MEETING 31 DECEMBER 1952

*Meteor contract: Mr. Lyons reported that we had received notification from the Ministry of Supply that production of the Meteor engine was to be drastically reduced and under the circumstances we shall not be called upon to go into production beyond an initial quantity for trial purposes.*

*Browns Lane: Mr. Lyons reported that we are well established in the new factory. The paint shop was operating as satisfactorily as we could hope.*

*Negotiations were going on with the Pressed Steel Company for the production of a pressed steel body for a new 2-litre car which we had in hand, and which it was hoped we should be able to sell for a price not exceeding £695 excluding Purchase Tax.*

'We'd only been out the back a few minutes, when suddenly there were shouts of "mechanicians, ici, quick!"

'Instead of us coming through the pit and over the counter, we came through a trade pit which had got no counter at all. Ted and I took one look and saw what had happened. We got the car jacked up, the wheels changed and the car going out and they're still shouting, "Jagwah mechanicians".

'Ted and I were leaning on the counter, and when they looked round there was complete astonishment. They didn't even know the car had gone!

'As I said, the whole thing was done on a shoestring, and we didn't get paid a lot. We only got two hours overtime a day when we were at Le Mans. No matter how long you worked, you only got paid for two.

'This happened after Le Mans in '51 because we put a helluva sheet in for overtime, because we'd done plenty.

'Thurstans, the accountant at Jaguar – do you know what he said to one of the other mechanics, Jack Lea? He said, "You've had the pleasure of going".

'The mechanic replied, "Yes, we've had the pleasure of going to work. The mere fact that we won is incidental. That's due to our efforts."

### FRANK RAINBOW, riding and racing mechanic,

and member of the Engine Development Department, on the 1950 Tourist Trophy which a young Stirling Moss won in an XK120.

'I have never seen it rain so much in all my life. But it was hilarious. On the opposite side of the road to the pits was a beer tent.

'All the good souls were watching the racing with pints in their hands – Guinness and so forth. The rain came down and the wind blew. Then, all of a sudden, this marquee just collapsed!

'It was the funniest thing in the world to see people clambering out, and still clutching their pints!

'We weren't too badly off in the pits, but they were a bit primitive. They'd got tarpaulins over the top on some sort of scaffolding. Every so often the tarpaulin would fill up with rain, and then the wind would blow it over us standing in front of the pits. But it was a very interesting race.

'Moss had the capability of being able to assess a corner probably better than anyone else. Often he didn't have the power that some of the others had, but he could still do a faster lap.

'He had his twenty-first birthday there and he said, "Look at my hair. It's disappearing already. My old man's got three dentist's surgeries, he's got all these chemist pals, and none of them can give me anything to make my hair grow!"

'Probably about three o'clock in the afternoon, Mr Hassan would come along and say, "You'd better take a car and pick-up young John [Lyons] from school".

'I used to buy John an ice cream, because he didn't seem to have any pocket money of his own.

'After his apprenticeship at Leyland, he came to the factory and he was working alongside me in our department for some weeks. He was making a tour of the works, seeing how everything went.'



The name of Soapy Sutton is a well known one in Jaguar history. He did most of the road testing in the late forties and early fifties, and is particularly remembered for driving the XK120 at Jabbeke. I have often wondered why he was called Soapy and asked Frank.

'I gathered why Ron Sutton was called "Soapy" from Harold Irving. He was the Chairman of Champion Sparking Plugs, but had been mechanic to Sir Henry Segrave's *Golden Arrow* when it broke the World Land Speed Record.

'They went to some event in France and every morning Ron always got soap in his ears after he'd had a wash. So they called him "Soapy", and the name stuck – just like a lot of school kids!'

---

The year 1953 was, of course, a disastrous one for Jaguar and the long nose C-Types all overheated with dire results. As some of the plumbing work had been carried out by a Roy Kettle, though he was not to blame for the problems, these cars were nicknamed the "Kettle Specials"!

'We'd got this water leak and our car was the only one still going. The two others had already fallen out. Jack Emerson, who was in charge of the engine side, told me to put some water in, so I did.

'He said, "I think that's enough, Frank".

'I said, "Why?" He was standing by those short exhaust pipes.

"Well," he said, "I've got my shoes full already!"'

---

'It would be during a race in 1953 that John Bolster was bending down over a car with his microphone during a pitstop, and I was changing a wheel. The hammer slipped straight out of my hand, and went straight between his legs!

'So he had to do a hop, skip and a jump!'

---

**Taken from Norman Dewis's log entitled 'BRONCO 1'**  
**This is the strange device designed by Sir William that was nicknamed the *Brontosaurus*.**

Axle: Salisbury 3.31:1 (see below)

Brakes: Lockheed 2 L-S

Brake Fluid: Lockheed Green

Rack and pinion steering

Enveloping body

Enclosed wheels

Works Order No. WCR 1148

19.09.53 Car prepared for drag tests at Gaydon.

20.09.53 Drag tests made at Gaydon with and without front blanking plates. 15% approx. better than XK120C.

23.09.53 4.09:1 axle removed and Salisbury 3.31:1 fitted. Filled with 3½ pints of lead soap additive No. S 2497 Speedo changed to ATS 505.

28.09.53 Tests at Lindley. 1st test – speedo correction.

Speedo:-	30	50	70	90	110
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Actual:-	30	49½	68½	87	107
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2nd test – tyre temperatures. Tyre size:- 6.50 x 16 all round.

Tyre pressures:- 30 lbs front, 35 lbs rear.

Dunlop rep. Mr. Simmonds. Air temp:- 54 degrees F.

Tyre

temp:-	N-F	N-R	O-R	O-F
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15 mins.	47	48	47	47 degrees C.
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Water

temp:- 60 degrees C.

Oil

pressure:- 40 lbs.

## BOARD MEETING JULY, 1953

Mr. Lyons reported that production was satisfactory and as a matter of fact the schedule of output had been increased to some 250 cars per week, and although this figure had on occasions been attained, the general output was running at about 230 cars per week. In view of the general dissatisfaction expressed by the Home distributors as to the number of cars released to the Home market, it was intended to step up quantities released to them which could now be done without detriment to our export requirements, which would still average about 70% of the output.

*In the fifties a television programme, probably Sportsview, set up a competition in the studio between the Jaguar and Aston Martin mechanics. The contest consisted of changing wheels and plugs and, obviously, the winners were the team who completed the operation first.*

*The Jaguar team won easily.*

*How did they do it? Simple. They had machined all but a single thread off the spinners and spark plugs!*

Test cancelled owing to the O-F wing valance shaking loose and falling off the car. Both front wing valances will have to be fitted more securely.

Maximum rpm obtained at Lindley – 5200 rpm

29.09.53

Car weight 21 cwt.

H.P. required:-

10 mph	1.035 hp
20 mph	2.36 hp
30 mph	4.2 hp
40 mph	6.94 hp
50 mph	10.7 hp
60 mph	15.78 hp
70 mph	22.98 hp
80 mph	30.9 hp
90 mph	43.5 hp
100 mph	57.8 hp

30.09.53

Front and rear wing valances being made secure by fitting dzeus fasteners.

## PHIL WEAVER, who for many years ran the Competition Shop

'Most of the XK engine development was done by Jack Emerson. Jack was a very clever bloke. He was one of these silent people. He didn't say much but what he did say was good.

'The XK engine, in its highly tuned form, was rather unkind to cylinder head gaskets. When you were racing it, it used to blow water out of the gasket. The gasket hadn't got sufficient land on it to seal it. The expansion rates between the alloy head and iron block were, of course, different.

'Because of this differential expansion, which everybody gets, it is easy to overstress the cylinder head stud. When we were racing, we weren't absolutely trouble free – don't think that for one minute. Although we won races, it was because of the slick work of the mechanics, there's no two ways about it. We used to use a lot of water. It used to blow water out of the gasket. But Jack solved it, quite simply.

'He used a thread of cotton. Last thing, before the cylinder head on all our racing engines was dropped on to the block, Jack used to put a continuous piece of cotton right the way around the studs and just overlap it, and then drop the head down on it. That completely cured it!

'Old Jack actually cured that without any big modification. He'd learnt all these wrinkles in his motor cycling days. A very sound engineer, Jack was.

'He first did that in the XK120 days and it carried on right the way through. He also used to do it on any customer engines, like those for Brian Lister, Ecurie Ecosse, and people like that.'

'You've heard of the Brontosaurus. Well, a lot used to go on between the right way to do things and the wrong way to do things. The Old Man had his way of doing it with Fred Gardner. Although old Fred was a woodworking man, he and the Old Man used to get in the Body Shop, as it was then, and cook things up themselves. Old Fred actually had enough skilled personnel, not only in woodworking, but also in panel making and welding, that they could conjure up something unbeknown to Mr Heynes.

'I well remember the Old Man coming up to me and saying, "Weaver, I want that to run". So I had to go into the Body Shop, old



Fred Gardner's holy of holies, and there was this monstrous looking thing, stuck there.

'We had to work all hours, night and day, to fix D-type bits on it so as to get it to run round the works. He wanted it done in five minutes!'

The emphatic victory at Le Mans in 1953 received the approval of Her Majesty The Queen. (Jaguar Cars)

Charges to pay

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TELEGRAM

Prefix. Time handed in. Office of Origin and Service Instructions. Words.

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15 JUN 53

Ac

From

By

TS A 1222 6.45 BUCKINGHAM PALACE OHMS 37

THE CHAIRMAN JAGUAR COVENTRY

= THE QUEEN WAS VERY PLEASED TO LEARN OF THE SUCCESS OF THE JAGUAR TEAM PLEASE CONVEY HER MAJESTYS SINCERE THANKS TO ALL MEMBERS OF IT FOR THEIR KIND AND LOYAL MESSAGE =

For free repetition at office of delivery.

PRIVATE SECRETARY

S ENQUIRY " or call, with this form his form, and, if possible, the envelope. B or C

# PERSONNEL AND DUTIES

Chef d'Equipe :  
M. H. MORRIS-GOODALL  
Pit Manager :  
P. R. W. ENGLAND

## CAR No. 16

DRIVER 1 ... S. MOSS  
DRIVER 2 ... P. WALKER  
MECHANIC 1 ... J. SUTTON  
MECHANIC 2 ... G. THOMSON

## CAR No. 17

DRIVER 1 ... A. P. ROLT  
DRIVER 2 ... J. DUNCAN HAMILTON  
MECHANIC 1 ... L. HAYDEN  
MECHANIC 2 ... G. GARDNER

## CAR No. 18

DRIVER 1 ... P. WHITEHEAD  
DRIVER 2 ... I. STEWART  
MECHANIC 1 ... B. PENNY  
MECHANIC 2 ... F. RAINBOW

Reserve Driver : N. DEWIS

## ECURIE FRANCORCHAMPS :

DRIVER 1 ... J. SWATERS  
DRIVER 2 ... A. NOTHER  
MECHANIC 1 ... L. STANLEY  
MECHANIC 2 ... E. BROOKES

## Jaguar Technicians :

J. EMERSON, R. KNIGHT

Timekeepers :  
T. JONES, D. YORK (Chief), R. BERRY

Commissioner :

MRS. ROLT, MRS. HAMILTON, MRS. WALKER, MISS WESTON

Fuel :

R. LEVEQUE

EQUIPE HEADQUARTERS : HOTEL DES IFS, 4, Rue du Pavé. Phone 887.  
GARAGE & WORKSHOP : ATELIER GARCZYNSKI, 34 Rue du Pavé. Phone 1193.

# DIRECTORY

Name	Firm	Address	Telephone
Mr. Bailly	Jaguar	Hotel de Paris	35.28
Mr. Berry	Jaguar	Hotel des Ifs	8.87
Mr. Brookes	Jaguar	Hotel des Ifs	8.87
Mr. Delecroix	Delecroix	Hotel de Paris	35.28
Mr. Delecroix	Delecroix	11 Rue de Berri	Balsac 44.69
Mr. Emerson	Jaguar	Hotel de Paris	35.28
Mr. England	Jaguar	Hotel des Ifs	8.87
Mr. Freeman	Dunlop Tyres	Hotel des Ifs	8.87
Mr. Gardner	Jaguar	38 Rue Premartine	8.87
Mr. Hamilton	Driver	Hotel des Ifs	8.87
Mr. Harris	S.U.	Hotel des Ifs	8.93
Mr. Hayden	Jaguar	Hotel Central	35.28
Mr. Heynes	Jaguar	Hotel de Paris	8.87
Mr. Hodgkinson	Dunlop Brakes	Hotel des Ifs	8.87
Mr. Jones	Jaguar	Hotel des Ifs	35.28
Mr. Kesterton	S.U.	Hotel de Paris	8.87
Mr. Knight	Jaguar	Hotel des Ifs	35.28
Mr. Leveque	Delecroix	Hotel de Paris	8.87
Mr. Lyons	Jaguar	Hotel des Ifs	8.87
Mr. Morris-Goodall	Jaguar	Hotel des Ifs	8.87
Mr. Moss	Driver	Hotel des Ifs	8.87
Mr. Moss, Snr.	Jaguar	Hotel des Ifs	8.87
Mr. Penney	Jaguar	Hotel des Ifs	8.87
Mr. Rainbow	Jaguar	38 Rue Premartine	8.87
Mr. Rolt	Driver	Hotel des Ifs	0.50
Mr. Stanley	Driver	Hotel Modern	8.87
Mr. Stewart	Jaguar	Hotel des Ifs	8.87
Mr. Sutton	Jaguar	Hotel des Ifs	8.87
Mr. Thomson	Jaguar	Hotel des Ifs	8.87
Mr. Turle	Shell	7 Rue Montauban	—
Mr. Walker	Driver	Hotel Modern	0.50
Mr. Whitehead	Driver	Hotel de Paris	35.28
Mr. Whittaker	Jaguar	Hotel de Paris	35.28
Mr. Wright	Dunlop	Hotel de Paris	35.28

A small booklet was prepared to aid communication at Le Mans in 1953.



SEPTEMBER 9, 1953

# The Motor

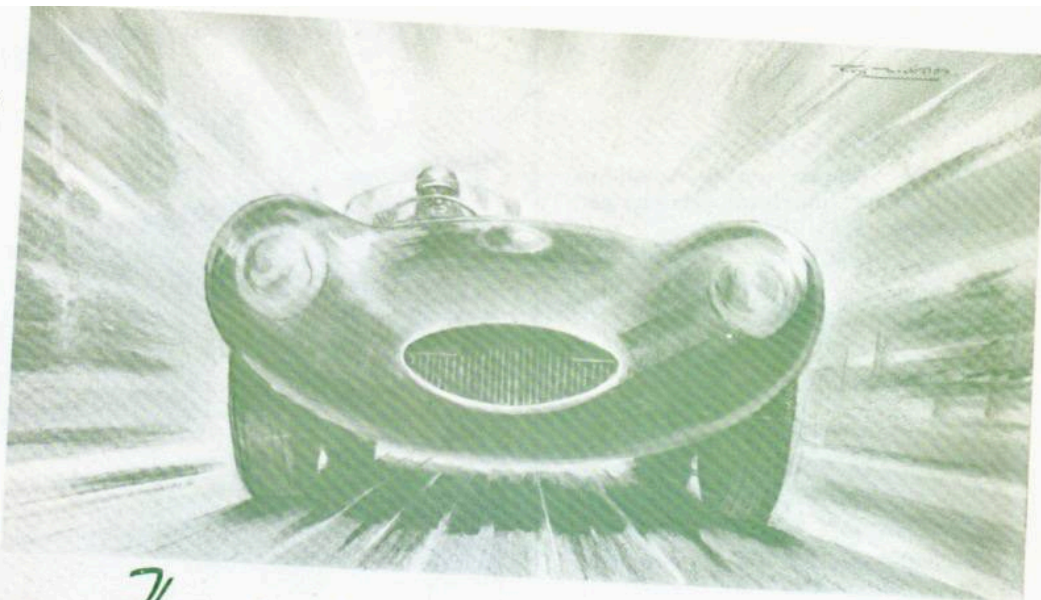
EVERY WEDNESDAY  
ONE SHILLING



Grace... Space... Pace... **JAGUAR**



The Jaguar D-type even had a sales brochure. It seems rather amazing that Jaguar should go to the trouble, or even feel that they needed to produce such a publication, for a hand-built sports-racing car.



## The JAGUAR D Type

### SPECIFICATION

**ENGINE.** Six cylinder  $\frac{1}{2}$  litre Jaguar engine 85 mm. 106 mm., 3,442 c.c. Twin overhead camshafts driven by two stage chain. Cylinder head of high tensile aluminium alloy with hemispherical combustion chambers. Aluminium alloy pistons, steel connecting rods. Forced lubrication on dry sump principle. Cooling by pump.

**TRANSMISSION.** 4 speed synchromesh gearbox operated by central remote control lever. Triple dry plate clutch.

**SUSPENSION.** Independent front suspension incorporating transverse wishbones and torsion bars with telescopic shock absorbers. Rear suspension by trailing links and torsion bar with telescopic shock absorbers.

**BRAKES.** Dunlop disc type.

**STEERING.** Rack and pinion. Steering wheel adjustable for reach.

**WHEELS AND TYRES.** Dunlop light alloy perforated disc with centre lock hubs. Dunlop Racing tyres and tubes.

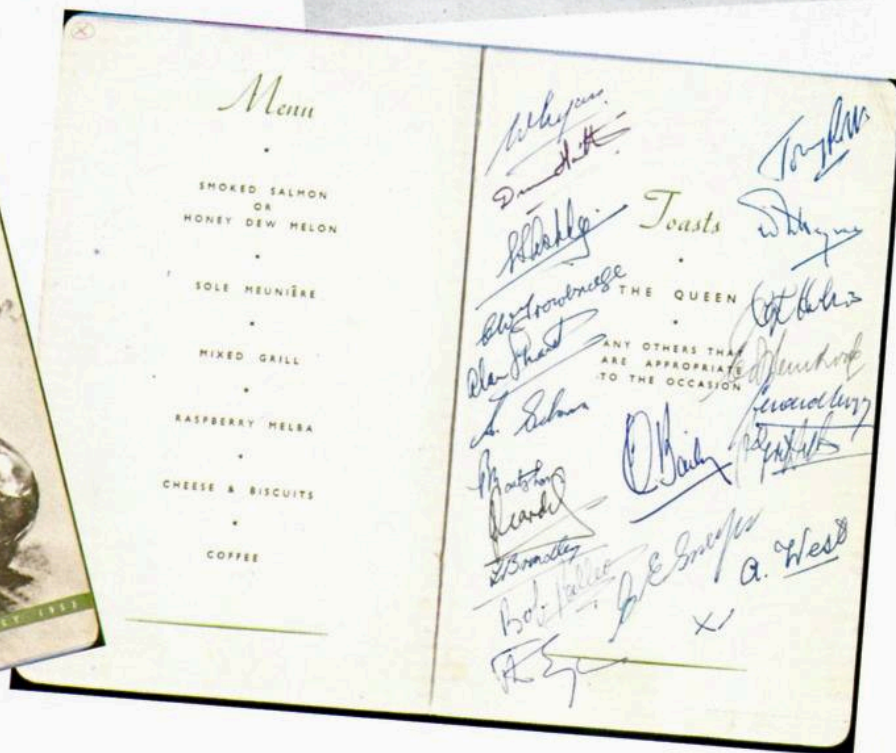
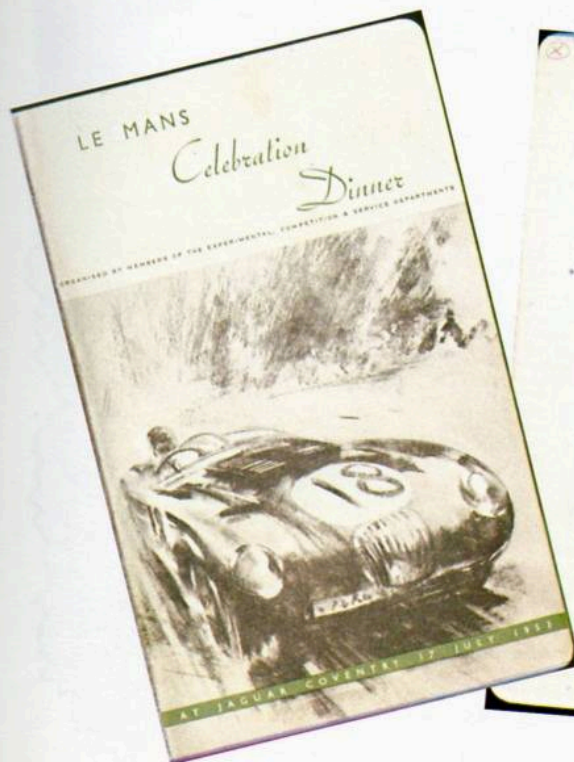
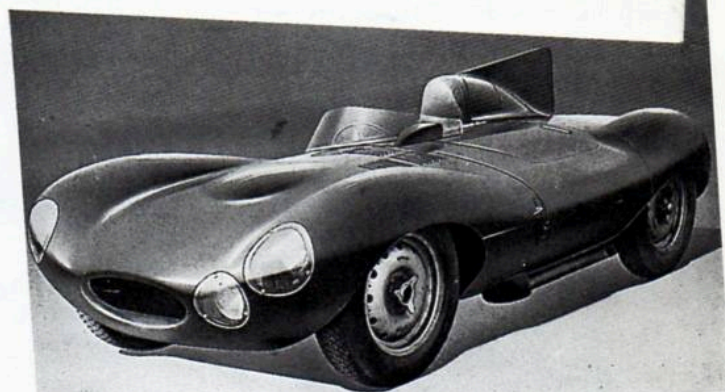
**FUEL SUPPLY.** By large S.U. electric pumps from rear mounted tanks.

**ELECTRICAL EQUIPMENT.** 12v. 40 amp-hour battery. Constant voltage controlled ventilated dynamo. Flush fitting headlamps and sidelamps, integral stop/tail lamps with built-in reflectors. Instrument panel light. Horn. Starter motor.

**INSTRUMENTS.** Revolution counter, oil pressure gauge, water thermometer gauge, ignition warning light.

**FRAME AND BODY.** Integral frame and body. Body of light alloy, constructed on monocoque principles. Two seat body complying with F.I.A. sports car regulations. Spare wheel carried horizontally in tail.

**DIMENSIONS.** Overall length 14' 8", overall width 5' 4". Height at seat 2' 8", wheelbase 7' 6". Track (front) 4' 7", (rear) 4'.





S.S. 90 – Almost concours condition. High compression head, excellent performance. £185. Terms.

February 1955

Reconditioned S.S.100 3½-litre drop-head coupe. This rare specimen is probably the only one in existence, being the 1939 show model. It has the main characteristics of the 100 with the flared wings but is fitted with attractive drophead bodywork complete with winding windows. Fold flat screen, large dials, remote control, etc. Space for luggage or uncomfortable third passenger. Just released from the bodyworks after expert recellulosing in metallescent silver grey to contrast with the deep blue leather upholstery. £325.

March 1955

*Ian Appleyard, and his former wife Pat (née Lyons), with the 1953 Monte Carlo Mark VII. (Jaguar Cars)*



*From an unknown US publication dated 1954.*

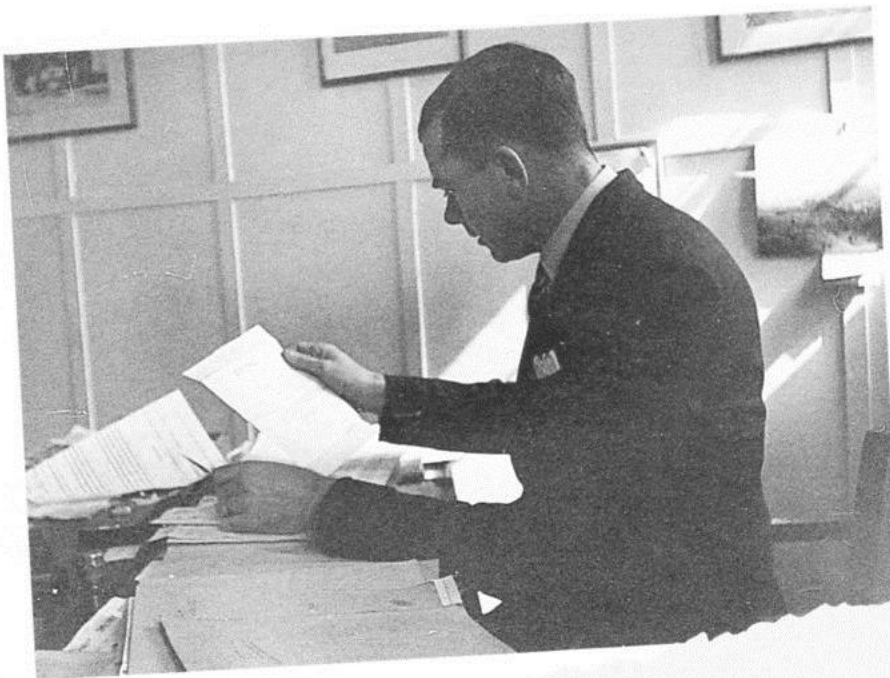






The XK120 (middle row, far right)  
and its competition in the fifties.





*Lofty England seen at his desk in the fifties.*

S.S.I Airliner Saloon, 20 hp, VGC. £65 ono.

January 1958

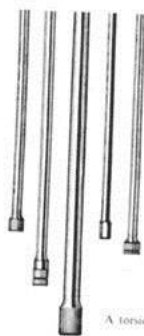
S.S.I Sports 4-seater, unusually well cared for, B.R.G. Beautiful engine, recent steering and brake overhaul. Zip tonneau. £89.

February 1958

*Not surprisingly, firms were keen to align themselves with Jaguar's successes and the English Steel Corporation used this splendid photo and caption in their booklet on Torsion Bars.*



*SILVERSTONE 1955. Photograph shows Mike Hawthorn, leader of the Jaguar team, in action with the "D" type Jaguar fitted with E.S.C. Torsion Bars. During this race Hawthorn set up a new sports car lap record of 95.79 m.p.h.*



## Introduction

A torsion bar is a very simple type of spring, and, as the name implies, consists merely of a bar which is gripped at each end and twisted. This twist provides the springing.

The ordinary coil-spring is simply a torsion bar which has been coiled into helical form.

The section of the bar is usually circular, although other sections, i.e. square and rectangular, can be used. The circular section bar, however, is the most economical on space and weight, since it will absorb the highest energy per unit of weight and is also the easiest design to produce commercially.

In its simplest form it looks like this:—



The heads may be serrated as shown, or have a polygonal section, usually hexagonal or octagonal, although square ends have been made. In addition there may be spigots at the ends for locating the bar.

Some variants on the basic design are shown below:—





## COMPANY CARS 31 AUGUST 1953

### MARK VII SALOONS

LDU 268	710136	Grey	Mr. Lyons
ODU 849	716438 D.N.	Black	Mr. Lyons (De Normanville Overdrive)
MRW 768	713438	Black	Chauffeur
Mk. VII			
No. 1	710001	(Service School Chassis)	
U.S.A. 1.	735556 BW	Mr. Eerdmans America	
U.S.A. 2.	736391 BW	Mr. Reid America	
U.S.A. 3.	735189 BW	Mr. Hickman America	
U.S.A. 4.	732338	Mr. B. Smith America	

### XK120 OPEN 2 SEATERS

XK. No. 3	661078	White.	(Distributors Show Car)
MDU 524	660986	Green.	Press Car.

### MARK VI SALOON

HRW 488	620004	Black (XK Engine) (J. Flattery)	
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### MARK V SALOONS

MRW 487	620006	Birch Grey.	Meteor Contract Ferry
JRW 393	622222	Black.	Service Chauffeur
JRW 422	621852	Black.	F. Ford
JRW 416	621944	Black.	E. Warren

### 1946 1½ LITRE SALOON

HWK 252	410001	Black. Spares Dept.	
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#### NOTE:

The original HRW 488 – 620004 has been broken up and the registration number and chassis number transferred to Mark VI chassis 623173 Ex. Experimental Department.

HRW 487 – 620006 and Mark IX Saloon (Ex. Lockheed) have been made into one good car and registered HRW 487.

### XK 2 LITRE

No. 1	470001	Prototype
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### XK SPECIAL MODELS

- XK 120 C. Light Alloy Body
- XK Special with enclosed wheels (Bronco)

Mark III (1948 type Saloon Body and XJ Chassis)

CDU 700 1937 S.S. Saloon

CDU 431 Vauxhall Velox

Studebaker Champion G.297326

#### NOTE:

XK 120 C – XKC.001 – Dismantled and parts passed to Service Dept. 669001 White Fixed Head Coupe fitted with 2 Litre Engine has been dismantled.

710229 has changed identity with 710004. KRW 621 and original white 710004 has been broken down for salvage.

Prototype Mark IV XK 120 F.H.C. has adopted Chassis No. 660001.

HKV 455 and original Blue 660001 Open 2 Seater is to be broken up.

### Extract from booklet produced by ENGLISH STEEL FORGE AND ENGINEERING CORPORATION

'A torsion bar is a very simple type of spring, and, as the name implies, consists merely of a bar which is gripped at each end and twisted. This twist provides the springing.

'The ordinary coil spring is simply a torsion bar which has been coiled into helical form.

'The section of the bar is usually circular, although other sections, i.e. square and rectangular, can be used. The circular section bar, however, is the most economical on space and weight, since it will absorb the highest energy per unit of weight and is also the easiest design to produce commercially.

'The heads may be serrated, or have a polygonal section, usually hexagonal or octagonal, although square ends have been made. In addition there may be spigots at the end for locating the bar.

'The largest single use of torsion bars has been motor-car suspensions. The torsion bar has some advantages over the helical spring for both independent front and rear wheel suspension because of its great compactness of design, and its greater load-carrying capacity which means that the unsprung weight of the vehicle is reduced. They are also used for suspension of very heavy vehicles such as tanks or other armoured fighting vehicles, passenger buses, railway coaches, lorries, etc.

'An interesting variation on the principle is that of anti-roll bars for motor cars. This consists of a torsion bar bent near the ends, and with a forged eye in place of the normal splined head.'

*During 1954 the D-type, XKD 406, was taken to Silverstone for various drivers to try.*

*Jimmy Stewart put in 12 laps in the wet and recorded a best of 2.11. With the wet surface drying, he put in a further 15 laps with a best of 2.5. In fact, he showed remarkable consis-*

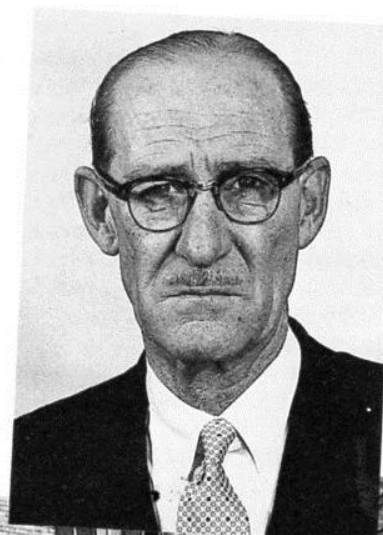
*tency recording that time on no less than 9 of his 12 flying laps.*

*With the surface semi-dry, Ninian Sanderson achieved 2.03 during his 10 laps, Peter Walker then posted a 1.57 amongst his 23 laps and Bob Berry clocked up 21 laps. On his penultimate lap he stopped the clock at 1.54.5.*

Alice Fenton was a remarkable lady who joined the fledgling Swallow company in the early days in Blackpool and rose through the ranks to become the Home Sales Director. (Jaguar Cars)

Right: E.W. 'Bill' Rankin was the man who created so much of the Jaguar image in conjunction with Jaguar's advertising agency. (Jaguar Cars)

This is a shot of Hoffman's showrooms in Park Avenue, New York, but it is a curious one. I have seen 'exactly' the same photograph, but with a different car in it. If you look closely, you will see that the car has been superimposed upon the photo and is, in fact, grossly out of scale with the car behind – and he's parked a bit close!



**LES BOTTRILL, member of the Competition Department until moving to the US as a service engineer**

'I started in 1950, and then in 1954 I was transferred into the Competition Department, where they built all the Production D-types, the few that were built. I track tested every single one of those, and some of the Works cars.

'We did most of the test work at MIRA although we drove them on the road as well. I used to do about 300 or 400 miles on each car, just to run everything in. Interjected with that we used to do a little tyre testing for Dunlops. Norman Dewis used to do most of the experimental test work, but it was all a lot of fun.

'We had a couple of near misses, but nothing serious. At MIRA, if you were going to run above 100 mph average, they used to restrict the amount of vehicles on the banked circuit, and you had to run above the yellow line on the outside. I was going round one day and saw this Land Rover. MIRA used to be an old RAF base, or whatever, so up to the circuit in various spots were aprons and bits of runway. I saw this guy in various spots and he'd got people taking photographs.

'I was a little worried by this because he was very close up by the circuit, then he'd disappear. A few minutes later I saw him on the end of one of the banks, and he was right on the edge of the safety wire. I had a thought in my head. "He's gonna move," and he sure did. He came onto the circuit.

' "What am I goin to do now?" I thought. "Back side of him, front side of him?" Anyway I went off into the infield, missed everything fortunately, didn't do any damage, didn't flip or anything. Then he just disappeared. That was a little scary!

'Then one other day - it was in the early part of the winter, I suppose, and it was frosty - I'd been running round and the track started to get a little ice on it. I pulled in and thought that was enough for the day.

'Then I saw Ken Richardson, who used to be the Chief Tester for Triumph, go out in a TR2 or TR3 and started barrelling round. Just the north bank was in the shade and that was the one that had got ice on it. I'd found it awfully slippery the last time round, and I thought if he goes into that full belt, he's goin . . .

'So I went off again and chased him round to flag him down. He thought I was racing him. But I managed to pull in front of him and slowed him down.

'Those were a couple of incidents I had with the D-types. You'd hit a couple of crows occasionally and they gave you a good whack. I hit one one day and it punched quite a big dent in the front. I couldn't do anything about it. You wouldn't believe the shock you get through the car if you hit a crow at 140/150 mph.

'Depending on the gearing, I guess a stock 'D' could run up to about 145 on the back straight. When they first came out with the fuel restrictions at Le Mans, I did a test run on one test car to see how hard we could run it with the mixture as lean as possible. I think I did about 144 miles in the hour. You could do about 170 on the back stretch in the Works cars!

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**RONNIE ADAMS, on the Monte Carlo Rally**

'The Jaguar factory took more interest in 1953 when Ian Appleyard and Cecil Vard took second and fourth places in works cars followed by myself in fifteenth place with my privately-owned Mark VII.

'Appleyard did not compete in 1954, but myself and Vard took sixth and eighth places being unlucky not to win the Charles Faroux Team Trophy due to the third member of our nominated team only reaching

**BOARD MEETING FRIDAY  
9 JULY 1954**

Henlys Limited: Mr. Lyons reported that Henlys had signed a lease for new showrooms in Piccadilly for a period of 42 years. The showroom would be solely devoted to Jaguar cars. It has been agreed that this Company will contribute £5000 per annum towards the expenses of this showroom and will also pay one-third of the cost of shop front decorations, which will cost approximately £20,000. It is agreed that the whole of the ground floor will be staffed by Messrs. Henlys Limited with salesmen selling only Jaguar cars and that they use the basement and the first floor for the sale and display of used cars.

**TED BROOKES, former racing mechanic and Superintendent of the Experimental Shop, on the great rivalry, both on the track and off, between those two great gentlemen and sportsmen, Tommy Sopwith and John Coombs.**

*'There was an occasion when I delivered a special Mark II to John Coombs, in the evening. I arrived at Guildford about seven o'clock and Tom hadn't had his car. They were both having one at the same time, but Tom hadn't actually got his yet.*

*'When I got to Guildford, the first thing that John Coombs asked me was, "has Tommy Sopwith had his car yet?" I said, "No".*

*'Right," he said, "I'll run you back to the station at Euston."*

*'We toured London, trying to find Tommy Sopwith! We went to the Steering Wheel Club and all the pubs he could think of, before we got to the station. We couldn't find him, but the object was to show off his car!'*

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156th place. I came near to an outright win by leading the Rally on arrival at Monte Carlo, only being beaten on handicap by the small cars on the Monaco circuit.

'1955 saw the first full works team of Mark VIIIs driven by myself, Vard and Appleyard, finishing 8th, 27th and 84th respectively. That year saw the beginning of Vard's run of bad luck when he was heavily penalised at a newly innovated secret control. Appleyard suffered even worse luck when a core plug of his cylinder block dropped out forcing his retirement during the Mountain Circuit Test. An amazing photograph appeared in a motoring journal of Appleyard's car – with steam rising to the mountain tops – which had been taken from my car when waiting to check in at a Control. Nevertheless we did win the Charles Faroux Trophy.

'In 1956 the works team consisted of myself, Vard and Reg Mansbridge (Appleyard again not competing). I gained an outright win followed by Mansbridge in 45th and Vard in 153rd place, the latter having been unluckily involved in a collision with a non-competing car which put paid to our chances of the team prize.'

RONNIE ADAMS

The Chequered Flag (London) Ltd, offer: C-type, ex-Ecurie Ecosse, D-type mods, suitable as road or track car, finished in BRG, full weather equipment. £965.

1938 3½-litre SS100. Excellent throughout. New weather equipment, tyres, etc. £285 or offers. Must sell. HP arranged.

July 1960



*What you might, perhaps, call an 'inaction shot'!*



In June, 1957 Bill Heynes put together his 'Notes on Suggested Models for 1958'. The following are extracts taken from those notes

#### Mark VIII

To the best of my knowledge no major changes are envisaged on this model. If changes are required the following would be suggested:-

- 1) Adjustable Front Bucket Seats now offered as optional.
- 2) Adjustable Bench Seats. This in my opinion is most desirable as I personally find the bench seat quite a strain to drive on a long journey.
- 3) Adjustable Rear Seats. I understand that these are supplied as an optional feature on the Humber Hawk and I believe it would be quite a selling feature on the Mark VIII.
- 6) Disc Brakes. If it is essential, it is felt that the present disc as used on the XK150 can be employed. We should, of course, be liable to get criticism on the basis of excessive wear if the brakes were deliberately abused, but this would only be in a small percentage of cases. It is felt that for fade and performance the brake is probably at least equivalent to the existing Girling drum brake and that we need have no qualms in this respect.

Whilst on the question of drum brakes it has come to light that a certain amount of trouble has been experienced on the TR.3 with the disc brakes under severe icing conditions where the car has either been allowed to stand in driving snow or has been driven in driving snow without use of the brakes. I have no direct information that this has

*A trifle over-the-top, perhaps, this XK120 Fixed-Head. (Jaguar Cars)*

actually happened, although both Dunlop and Girling are fairly keyed up on this possibility at the moment.

The obvious solution, of course, is to fit a drum transmission brake which would also act as a handbrake instead of having the handbrake on the rear discs, and it is probably the most satisfactory solution that can be devised.

#### 2.4 'S' TYPE

- 1) Blue head S.U. carburettors.
- 2)  $\frac{3}{8}$ " lift camshafts.
- 3) Suction tank for brake servo necessary due to the low suction at the bottom end.
- 4) Disc brakes – standard.
- 5) Wire wheels – standard.
- 6) 3.4 Radiator aperture necessary due to the increased horse-power output of this engine.
- 7) 60 watt headlamps – standard.

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#### 10 RICHARD HASSAN, Ex-Jaguar apprentice and son of Walter

'Back in the fifties, Bill and Dutch Heynes got the caravan bug and came down to Saundersfoot, where we kept ours, one summer. They came down for a fortnight, and we were all on the same field.

'Then they used to come down at weekends, and on Sunday night Bill and dad would go back to Coventry – Bill to Jaguar, dad to Coventry Climax. One weekend he said, "I am going to bring a new prototype down next weekend, it should be ready. In fact, I've asked for it to be made ready."

'He came down on the Friday night, very late, in the first of the 2.4 Mark I prototypes. It was painted, but it was very bare, with very little chrome. There was a radiator on it, but no badge or anything like that.

'My father had a boat over on the Haven and at that time a Mark VII. So the whole crowd of us got into the two cars and off we went to have a picnic. One of my brothers and I asked if we could have a go in the new "Jag". Mr Heynes loved children and readily agreed.

'It was decided my father would go ahead with all the gear and get the boat near the steps, and Bill Heynes would take my mum and Mrs. Heynes and us kids through Haverfordwest to get some more food for the picnic.

'So Bill Heynes drove into the centre of Haverfordwest, which you could do in those days, and parked smack in the middle of the High Street, outside one of the shops. We noticed a policeman looking at the car, and he wandered over.

'The policeman put his head through the window and said, "What's this then?"

'Mr Heynes very bravely said, "I am not allowed to tell you". This is to a uniformed policeman!

'"Oh," he said, "Is it one of those secret new models, is it?"

'"I am afraid I can't . . .

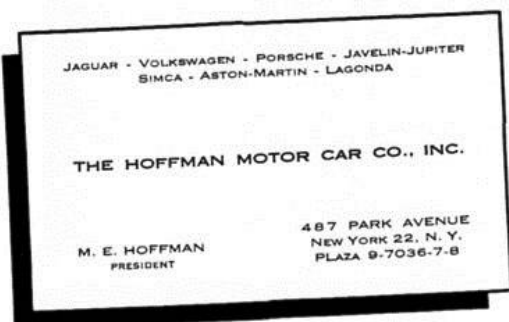
'"Looks like a special-bodied Alvis to me!"

'"Possibly."

'He then walked all round it, and walked off!

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'Did that car rock and roll. It had tremendous roll. It is quite a fast road back from Haverfordwest to Tenby and my father could drive quite briskly if he wanted to. He proceeded to do so and Bill Heynes had to try and keep up with him. This old thing was coming round the bends on the door handles!



Max Hoffman's business card.



### On the integral construction Mark VII

'That was a lovely car. It was the first monocoque saloon that they did. It had XK140 running gear and was very low. You could tell how low it was because it used a little 140 gear stick. Externally it had Mark VII panels, with a single piece windscreen and wire wheels.

'I used to look at that car, as a youngster, and I thought, "I wonder if one day they'll sell it". They cut it up. Very important car that, really, because, other than the wartime thing that dad built, that was their first integral monocoque saloon.

---

### On the VA and VB Jeeps built by his father during the war

'These were two totally different vehicles. The one had a little Jap air-cooled engine and the other one had a Ford 8 or 10 engine.

'The VB used sheets of steel, corrugated and the whole lot welded together. That gave it a very simple box construction. But it had very clever suspension on it, rather like Chapman had in the end and which he christened as his strut. It had an identical rear suspension to that with a pump housing with a coil spring straight up to the top coil, and used the half-shaft as its outrigger. It had to be built very light.

'My father used it as a road car during the war. We used to go down to London in it on odd weekends, because he had petrol rations for development. We'd all jump in the back and off we'd go. It was like a very small jeep and ended up at Farnborough because it was paid for by the Ministry of Defence.

---

### On the glass-fibre D-type, which it has often been stated never existed

'Oh, it did because we had it on show in Coventry with Mike Hawthorn one day. He came up to make the "Ernie" Premium Bonds selection. They had a big procession in Coventry during the week and Mike Hawthorn was the celebrity who pressed the button.

'It was done in Owen Owens, the store in the centre. The only "D" we could lay our hands on that morning was the fibre glass one.

'It ran round Coventry that morning.'

It has often been stated that the car was built by the apprentices.

'No. It was built in Competition and in a fibre-glass shop next to the laboratory. A chap called Thompson ran that section, and he used to do all the fibre glass panels.

'All the external parts were fibre-glass but it had a steel frame. I don't remember too much about the detail, but I am sure those panels ended up on a Ford 10 Special, which this chap Thompson built. He kept the panels. When it was cut up, he just removed all the panels.

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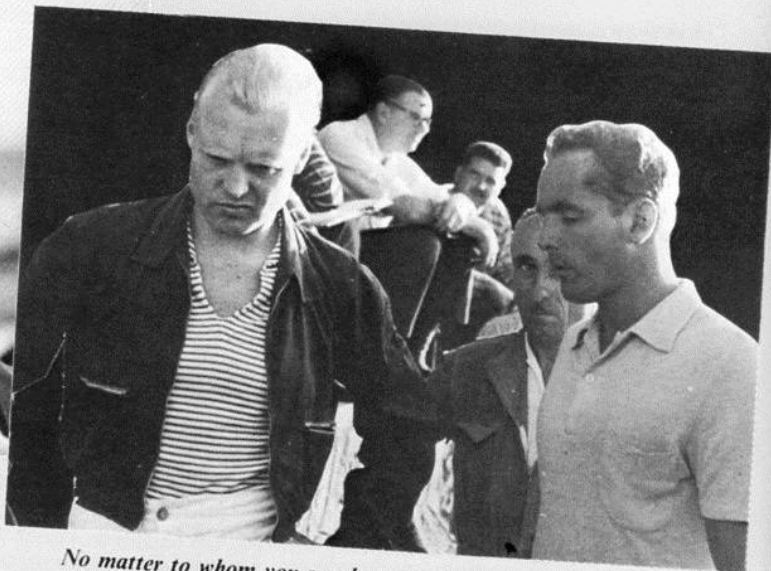
'There was one 3.8 we had in Experimental which got written off. Richard Soames wrote it off when he hit the local chimney sweep up in Wales. Can you imagine the big cloud of black dust going up? The sweep was driving an A35 van, and it was like an atom bomb going off as he hit it broadside on!

ECURIE



ECOSSE

*Jaguar could hardly have dreamt that, thanks to Ecurie Ecosse, the D-type would take a third Le Mans win after the company had retired from racing.*

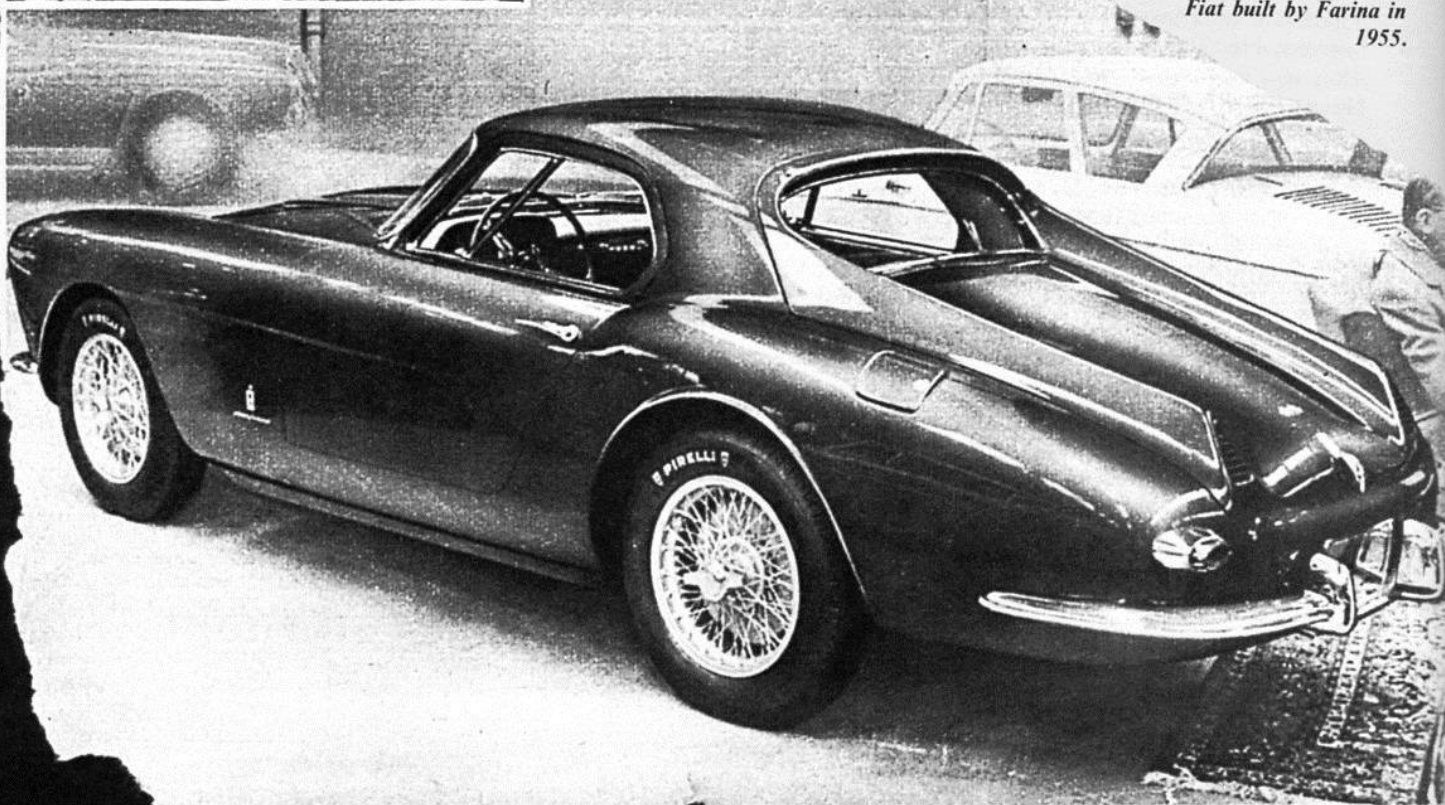


No matter to whom you speak amongst the former Jaguar men, their favourite driver was always Mike Hawthorn, who enjoyed one of his great duels with Fangio in a D-type at Le Mans in 1955.  
(Jaguar Cars)



Left and panel, in...

This looks curiously reminiscent of the XJ-S in certain areas. It is a special-bodied Fiat built by Farina in 1955.







**JOHN COOMBS**, for many years one of the main Jaguar dealers and famous entrant of Mark IIs and E-types, amongst others. His drivers included Roy Salvadori, Graham Hill and Jackie Stewart.

'After Graham and Roy had left, I was then left with having to have various other drivers. Bob Jane came along, and we had Colin Chapman. He was remarkably quick. Jack Sears, who was no mean driver, was seen off by Colin Chapman in his first race in a 3.8, which was really remarkable.

'I suppose the most exciting race we ever had, looking back to the saloons, was with Roy Salvadori and Stirling Moss. Tommy Sopwith employed Stirling to drive at the International Meeting at Silverstone. In practice Stirling was fractionally quicker than Roy, and one assumed that he was going to win the race.

'Roy said to me on the grid, "This is one that I don't think we are going to win. I don't think I can get past him".

'To my amazement – well, not to my amazement, because Roy was very versatile and could always pull something out of the bag – he passed and repassed Stirling lap after lap. It was the most incredible race. They came through Woodcote side by side, literally flat out, nobody giving.

'Roy won on the last lap. He passed Stirling coming down Hangar Straight, which was fabulous. It was a super race.'

*These fascinating illustrations show Malcolm Sayer's thoughts for a Grand Prix Jaguar in 1956. Diag. 2 looks remarkably akin to the all-enveloping Connaught, whereas Diag. 4 is vaguely reminiscent of the Bugatti Type 251 post-war racing car where the nose broadens to guide air around the front wheels. In this area it also reminds one of much more modern single-seater cars and Diag. 7 is obviously similar to the 1954 GP Lancias that were handed over to Ferrari to race.*

### 3) ANALYSIS OF DRAG.

By changing various parts it was possible after many tests to apportion the drag at 180 m.p.h. as follows:-

Main body of car, including driver .....	46%
Wheels (stationary) .....	41%
Rotation of wheels .....	6 1/2%
Internal losses (radiator) .....	6 1/2%
Total: .....	100%

At lower speeds the fact that the wheels are rotating has less effect than that quoted. It will be noticed that it is the aerodynamically bad shape of the wheel rather than its rotation that causes 7/8 of its drag. The flow pattern round a wheel is shown in Diag. 3. The drag of the body was extremely low (18.8 h.p. for 100 m.p.h.) and better than most single-seater aircraft fuselages.

### 4) REDUCTION OF DRAG.

Numerous ways of nullifying the wheel drag were tried. The results, expressed as percentage reduction in total drag, were as follows:-

a) Fairing in front of wheels (as Gordini & Bugatti) (Diag. 4) .	0
b) Fairing behind wheels (Diag. 5) .....	1/2
c) Combination of A & B .....	1/2
d) Discs on wheels to improve shape (Diag. 6) .....	2
e) Lancia-type sponson fairings (Diag. 7) .....	5
f) Combination of E & A .....	5
g) As E but solid between body and sponson .....	1
h) Thin sheet-metal "sponson" (Diag. 8) .....	5
i) As H but no flow through intake orifice .....	11
j) Fibre-glass D-type wings (Diag. 2) .....	21

Test H was to demonstrate what observations of wool-tufts had led to be suspected, i.e. the sponson fairings act, not by virtue of fairing the wheels, but by erecting a barrier so that smooth flow over the car is not disrupted by turbulence from the front wheels.

Test I was to try the effect of using surface-radiators as sponsons and having no conventional radiator intake orifice. As it might be made as light as normal layouts, and is easily controllable by alternative tappings, its decrease in drag is sufficient to warrant consideration. Vulnerability is no greater than that of Lancia and Ferrari fuel tanks.

Test J shows that with D-type wing the car comes down to the same drag as a 1955 D-type as might be expected.

### 5) STABILITY.

Although the model tested had no inherent vices, i.e. no excessive positive or negative lift on either axle, it was noticeably unsteady at higher speeds, undoubtedly from the turbulent air from the wheels buffeting the body. Whilst not serious, as aerodynamic unbalance would be, it would improve neither comfort nor handling. It was noticeably less in tests 4 E to 4 X, and disappeared completely with the fitting of wings.

### 6) MISCELLANEOUS.

a) As splashboards are often fitted nowadays, their effect was tried in various shapes. In general they increase the drag of a normal Grand Prix car by about 3%.

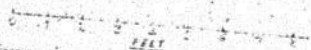
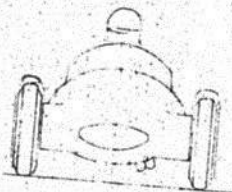
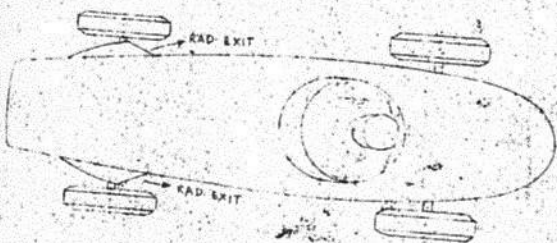
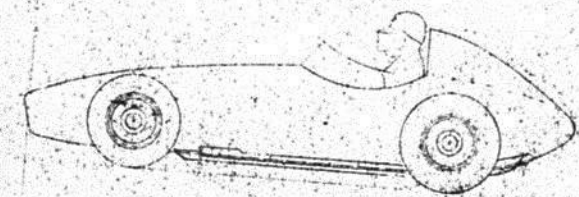
b) Extraction of the radiator air through the rear of the front suspension fairings was very strong, and increased with wheel revs.

### 7) SUMMARY.

Judged entirely from airflow considerations, conventional Grand Prix cars have at least a 15 m.p.h. disadvantage compared with a "D-type" single-seater. Side-sponsons reduce the disadvantage to 12 m.p.h., whilst retaining the better visibility, brake-cooling, and weight-saving. If used as side radiators they reduce the disadvantage further, to 8 m.p.h. less. These figures are for an exceptionally well-shaped car.

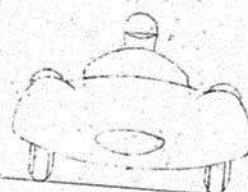
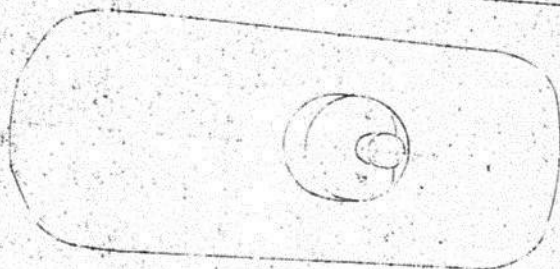
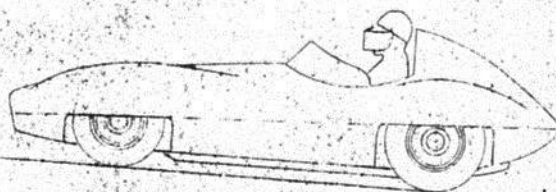
M. G. SAYER





Diag. 1  
(Para. 1)

Wind-tunnel tests on single-seater

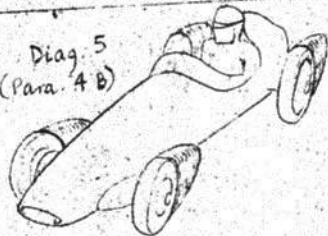


Diag. 3  
(Para. 3)

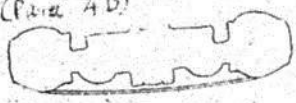
Diag. 4  
(Para. 4x)



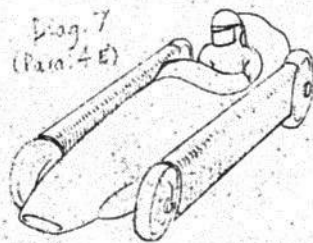
Diag. 5  
(Para. 4B)



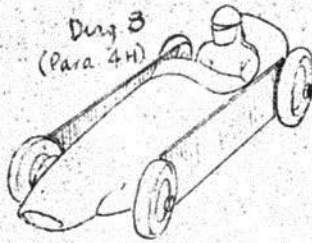
Diag. 6  
(Para. 4D)



Diag. 7  
(Para. 4E)

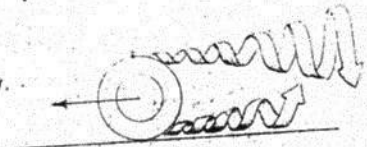


Diag. 8  
(Para. 4H)

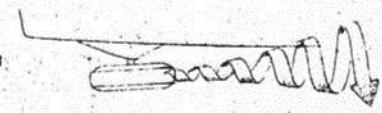


Vortices from locked wheel

ELEV.

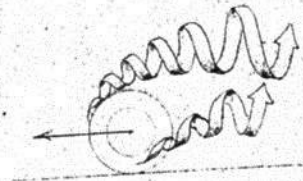


PLAN



Vortices from rotating wheel

ELEV.



PLAN



S 14.5.56

Wind-tunnel tests on single-seater



**PHIL WEAVER recalls a chassis being built**

'It was built of two C-types back to back and it was done on the production line, supervised by Bert Harthorn in conjunction with us. It never ran though.

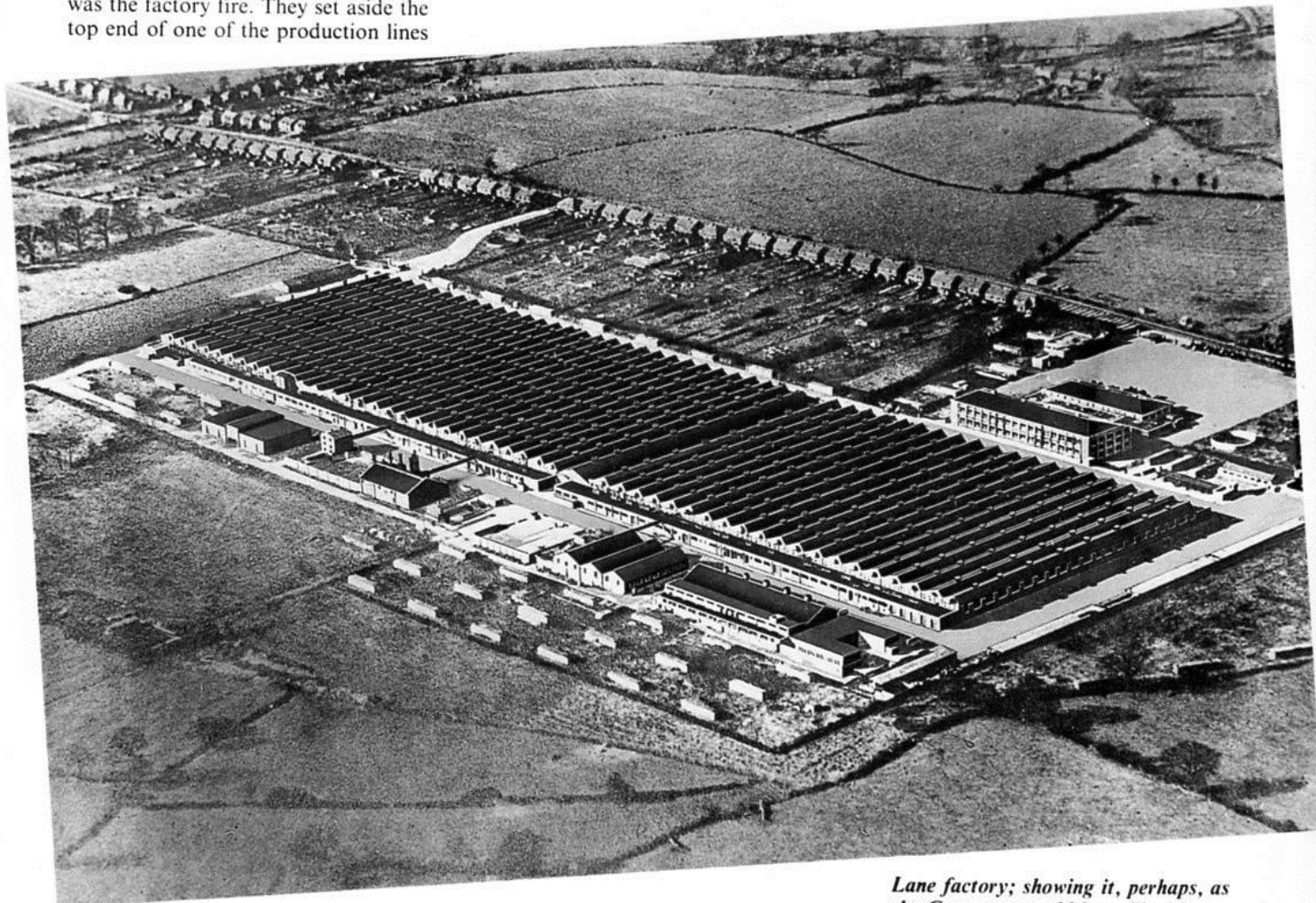
'The thing that interfered with it was the factory fire. They set aside the top end of one of the production lines

where they were building the C-types, for space to be given to this one.

'Although the Drawing Office gave assistance, where necessary, it was done, sort of, on cigarette packets in the Experimental Machine Shop. Somebody would sketch something out and they'd say, "Oh yes, I like

that". And you'd give it to Bill Cassidy, and Bill would make it like that!

*An undated but extremely heavily retouched photograph of the Browns*



**TOMMY SOPWITH, who drove saloons before retiring from active competition to run his Equipe Endeavour team. During his racing days he had many famous dices with Mike Hawthorn in Mark Is**

'It was great fun racing with someone like Mike Hawthorn because you knew that he wasn't going to make a mistake – of course he was a very much better driver than I was – and therefore you could get very close to him, in perfect confidence.

'I think the biggest compliment I was ever paid in my racing career was after practice at Silverstone. I suppose it was May '58, and Dunlop produced one set of R.5 tyres. Michael said, "you

can have them" and Lofty England said "no you can't"!

'I was very pleased about that. Michael had them for the race, and I had them after that. They were the only set. I think that was the biggest compliment I was every paid racing.'

I reminded Tommy Sopwith of the famous occasion when he was dicing and took a rather wider line than usual, and went round the advertising hoardings on the outside of the bend and, continuing at unabated speed, rejoined the circuit proper and recommenced his duel.

'Oh, that was with Michael. That comes of being a spectator. You see I went to school very close to Silverstone, and I actually sat in that stand. So I knew that you could go round the other side and then back again!

*Lane factory; showing it, perhaps, as the Company would have liked it to look rather than how it actually did look.*

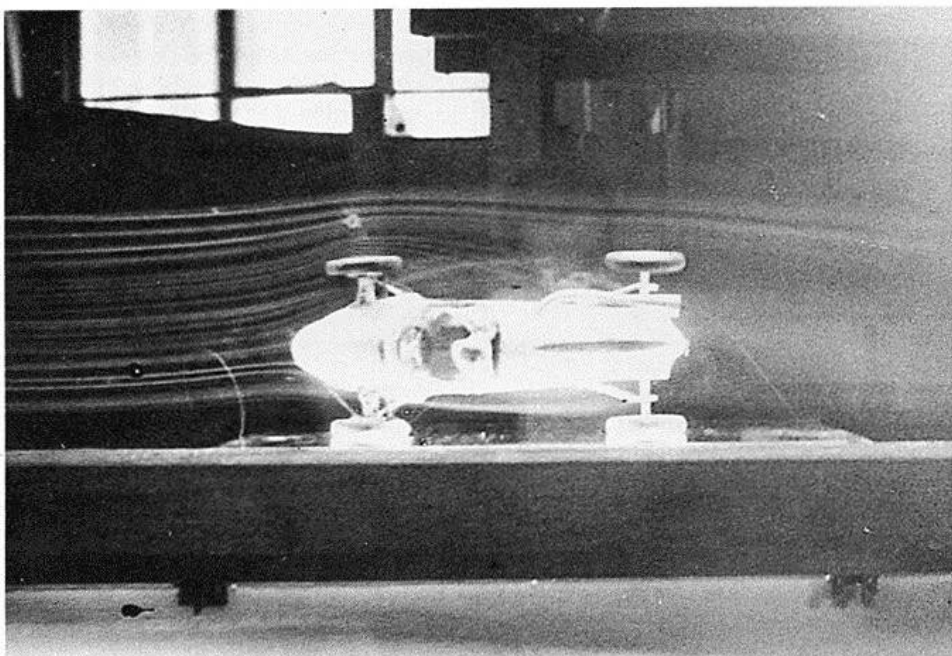
I asked Sopwith why he started his team and called it Equipe Endeavour.

'I suppose the team was started when I was racing. It was fashionable to put "entered by" someone different to you. Gawaine Baillie and I got together, because we were both involved in Woking Motors, and we settled on that name [Tommy's father, the late Sir Thomas Sopwith, had used the name *Endeavour* for his racing yachts, P.P.J.]. Then when I gave up racing, I ran the team for a few years afterwards and kept the same name going.

'We had the rivalry with Coombs that lasted for quite a long time and which was quite fun.'



*This photograph is from Malcolm Sayer's own collection. It shows smoke tunnel tests of a single-seater. Clearly a GP type and rear-engined; the question remains was it a Jaguar project?*



*Her Majesty The Queen and The Duke of Edinburgh are assisted to the Royal car by Sir William, having completed their famous visit to the factory in 1956.*



When asked how many Lister-Jaguar's were made, Brian Lister stated, 'about 20 if we include kits of parts in this country and those exported to the USA'.

It would be interesting to know how many survive – rather more than 20, I fancy!

#### **SIR WILLIAM LYONS**

Past President of the Society of Motor Manufacturers and Traders Ltd (1950–51); Past President of the Motor Industry Research Association (1954); Past President of the Motor Trades Benevolent Fund (1954); Appointed Royal Designer for Industry by the Royal Society of Arts in 1954; Created Knight Bachelor 1956.

Recreation: Golf

Private Address: Wappenbury Hall, Leamington Spa, Warwickshire.

*On 29 November 1957 the US name of the company was changed from Jaguar Cars North America Corporation to Jaguar Cars Inc.*

**MR SAMMY NEWSOME**, who apart from running the Coventry Theatre became the Coventry dealer, describes his association with the Company (first published in the sixties in the newsletter of the Midland branch of the JDC).

#### **S.H. NEWSOME OF COVENTRY**

'The first association of S.H. Newsome and Co. Ltd with Jaguar Cars commenced soon after the old Swallow Coachbuilding Company moved to Coventry from Blackpool. At that time they were specialising in the manufacture of attractive sports bodies on such well known makes as Austin, Wolseley and Standard. As Standard distributors, the company were invited to take up the representation of Swallow bodies on Standard chassis, and thus were one of the earliest firms associated with Swallow bodies for the new Coventry factory.

'When the first S.S. car was produced, we were appointed distributors almost automatically as it was very largely a Standard product, but I must admit that my first impression was not over-enthusiastic. However, we sold a number of this first model but it was not until a year or two later that we began to feel that this new S.S. car really had a future. At that time we were also distributors of MG, Lea-Francis and Riley cars, whose sports cars were long established, and as an enthusiastic racing driver I was perhaps understandably inclined to reserve my interest for those cars which I used for races and competitions. However, the keen and energetic William Lyons persuaded me to drive a 2 1/2-litre S.S. Tourer as a personal car and thereby inspired me with some of his own enthusiasm. Gradually my interest and admiration for the car outweighed my interest in these other makes, so much so that in a year or two I had complaints from both Riley and MG that we were concentrating our energies too much on this new S.S. car for their liking. I was faced with an ultimatum that their representation would be transferred to other dealers unless the S.S. was dropped. This was quite a serious matter to decide upon as for several years past Riley and M.G. cars had provided a substantial part of our turnover. However, careful consideration brought me to the decision that my belief in the future of William Lyons himself, added to the association with our principal agency, Standard Motors, outweighed all other considerations and, albeit reluctantly, I decided to pin my faith to S.S. This was probably one of the most fortunate decisions I have ever made, for not too long afterwards two unforeseen developments took place.

'One was the introduction of the sensational SS Jaguar which established an absolutely new era in high performance cars; the second was the purchase of Riley by Morris Motors. These events took place about five years before the war, and by that time I had increased my interest in Jaguar cars by entering for a number of competitions, such as the R.A.C. Rally and the Scottish Rally, in the original 2 1/2-litre S.S. all of which increased my confidence in the great future which lay ahead for this new and enterprising concern. I was entrusted with a very exciting hotbed-up, stripped version of the 2 1/2-litre SS 100 in which I had many exciting runs at Shelsley Walsh and a number of successes culminating in being privileged to drive the first car with the new 3 1/2-litre engine. By this time the Jaguar was being taken very seriously as a sports car and putting up splendid performances in all sorts of competitions, all of which helped greatly to establish the marque as a factor to be reckoned with in the industry. Year by year sales increased as a result of the quite phenomenal value represented by these cars and their outstanding performance. By 1939 our sales of Jaguar cars were equal to all the distributorships which I had given up.

'After the war we took up the distributorship again with enhanced enthusiasm and I ran the old 3 1/2-litre special at Shelsley Walsh in 1946 and 1947 still maintaining its position as one of the fastest cars regularly competing, until an unfortunate misjudgement on my part caused a crash which finished racing and speed events for me.



'Subsequently, as everybody knows, Jaguars went in for racing seriously and swept the board in sports car racing, and in doing so achieved success in this field which has probably never been equalled. There is no doubt that their enormous success at Le Mans and elsewhere did much to enhance their reputation abroad and to provide the data from which the outstanding qualities of present day Jaguars owe a tremendous debt.

'I suppose the biggest milestone in the Jaguar history was the introduction of the famous XK120 and the Mark VII with a similar engine. Since then Jaguar sales have increased nearly every year and the various new models introduced since that date have caused me to think back many times on my good fortune in having made a decision to concentrate on Jaguars to the exclusion of other distributorships.'

S.H. NEWSOME

### From what I conjecture to be a Company press release

#### JAGUAR CARS AT MONZA JULY 2nd, 1957

'A race on the banked circuit at Monza was held on Saturday June 29th. The race was 500 miles divided into three heats and is probably the fastest race ever held in Europe.

'Nine American racing cars had been brought over from the U.S.A. These cars had all been specially built for the Indianapolis 500 miles race, the premier race in America.

'Originally it was arranged for these cars to race against the European Racing Stables, but eventually all European cars were withdrawn.

'At very short notice by special request from the organisers Jaguar Cars agreed to compete with their three D-type Jaguars to give a European challenge to the race. Two of the D-type Jaguars which were competing in the race were the two winning cars from the Le Mans 24 hour race. Owing to the difficulty of transport and the short time between the two events, these cars had to be run in the exact condition in which they finished Le Mans. Further, owing to the limited time, the cars had to use normal section racing tyres as compared with the larger section track racing tyres which were being used by the American cars. For this reason the cars had to be limited to a maximum speed of 150 miles on the banked circuit, a speed well below the maximum of which the D-type is capable.

'Order of finishing showed three American cars in the first three places with the three Ecurie Ecosse D-type Jaguars placed fourth, fifth and sixth. The other six American cars which were competing failed to complete the full course.

'The achievement of the Jaguar D-type sports car constitutes a remarkable feat of endurance, particularly when it is recalled that two of the cars had already completed the 24 hours Le Mans course at a record speed.

'The speed of 148 mph that Jaguar achieved in this race represents the highest speed at which any sports car in the world has ever completed a race.

'The American cars which were competing were all single-seater cars run on special fuel. These cars had been specially built with the chassis offset to reduce the weight on the outer wheels and as these special cars are only capable of running one way on the circuit the race was run the opposite to the normal direction. This again put additional handicap on the Jaguar, which was a normal two-seater sports car with R.H. drive and furthermore running on normal pump fuel.

'The Dunlop road racing tyres of exactly the same type as used on the 24 hours race performed faultlessly on all three cars, despite the high loading caused by this exceptional track and the extremely high temperature of the day.'



*Fred Gardner was one of the legendary 'characters' of Jaguar. Superintendent of the Wood Mill, he physically terrified anyone who came near the place and was absolutely unique in being the only employee that Lyons ever addressed by his first name! (Jaguar Cars)*

JAGUAR COVENTRY CR 1G184 BOLOGNA 10 24 1250 =  
JAGUAR COVENTRY TELEX =  
BEST CONGRATULATIONS YOUR MAGNIFICENT PERFORMANCE LEMANS =  
WEBER  
++  
JAGUAR COVENTRY

*Min. Fenton*

**24 JUN 1957**

*After Ecurie Ecosse had won Le Mans  
for Jaguar in 1957, Weber  
Carburetors sent this telegram to the  
British firm.*

*Amongst a number of organisations  
which did an excellent job for Jaguar  
by producing a most successful sports  
racing car into which the XK engine  
was mounted, was the Cambridge  
engineering firm of Lister.*

## GEORGE LISTER AND SONS, LIMITED

*Machinists and Engineering Craftsmen since 1890*  
Abbey Road, Cambridge - 'Phone: 55601/2/3 Wires: Welding, Cambridge

Our ref: BHL/TBR/MM



REGD. TRADE MARK

Your ref:

## BRIAN LISTER (LIGHT ENGINEERING) LIMITED

*Manufacturers of Engineering Components and The Lister Sports/Racing Car Chassis*

Abbey Road, Cambridge - 'Phone: 55602

Mr. Heynes,  
Messrs Jaguar Cars Ltd.,  
Coventry.

18th November, 1957.  
BHL/TBR/JM.



**D TYPE 3.4 Litre. BRAND NEW  
NEARLY £1,000 UNDER LIST**

List Price £3,879

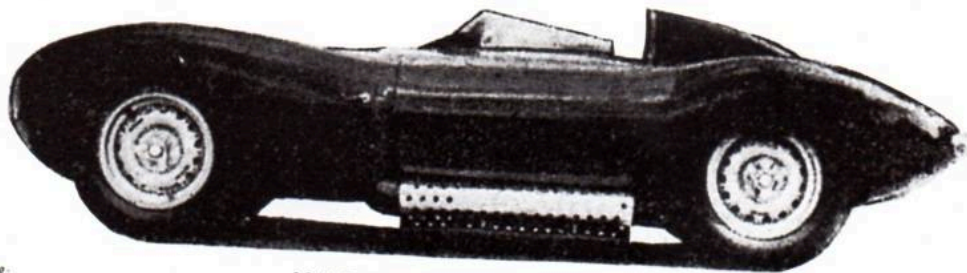
**OUR PRICE £2,995**

This colossal reduction is possible because the car has been on showroom exhibition

**NEVER BEEN RACED  
OR USED**

This is the most outstanding racing sports car Britain has ever produced. Sweeping the board in all countries, leaving behind a trail of successes.

A chance of a lifetime to acquire a magnificent sports—racing car in British racing green at—remember nearly £1,000 under list.



**HAROLD IRELAND LTD.**

323/330 WILMSLOW ROAD, FALLOWFIELD, MANCHESTER, 14.  
Tel: RUSHOLME 4161

*Autocar 8/Aug/58*

*In actual fact, and it seems remarkable today, the D-types did not sell like hot cakes, and subsequent owners had some difficulty in divesting themselves of examples. Jaguar themselves ended up with a surplus hence the move, in late 1956, to produce the XKSS.*

*The ideal registration on Campbell McLaren's XKSS. (Philip Porter)*





*Tommy Sopwith in his Mark I saloon  
enjoyed many an entertaining dice with  
Mike Hawthorn similarly mounted.  
(Jaguar Cars)*



*Alice Fenton admires Lyons's  
latest creation. I imagine the  
marquee to be seen in the  
background was probably  
erected for the launch.  
(Jaguar Cars)*



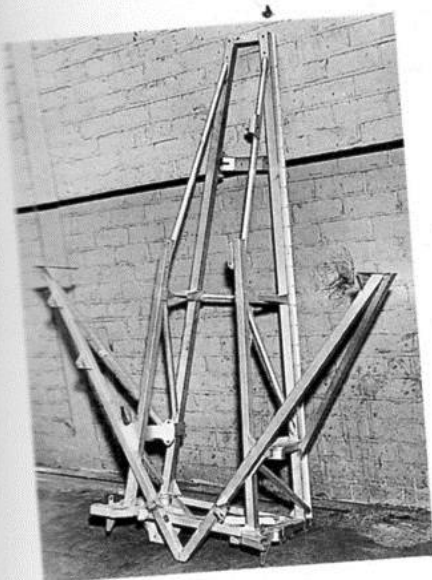


*When Jaguar bought Daimler, they inherited the SP250 model and had thoughts of replacing it with a successor before finally killing it off. (Jaguar Cars)*



*Mike Hawthorn is caught by the stills camera about to catch the action on his cine camera.*

*By my calculations there are 26 tubes in this D-type chassis. The way things seem to be going at present, should that chassis be discovered in a shed today it would enable 26 'genuine' cars to be built bearing that chassis number! (Jaguar Cars)*



### BILL RANKIN

'In the course of 27 years as PRO with this company, I have had to put out (often under protest) stories that were, shall we say, slightly exaggerated to such an extent that they were little less than downright inventions.'

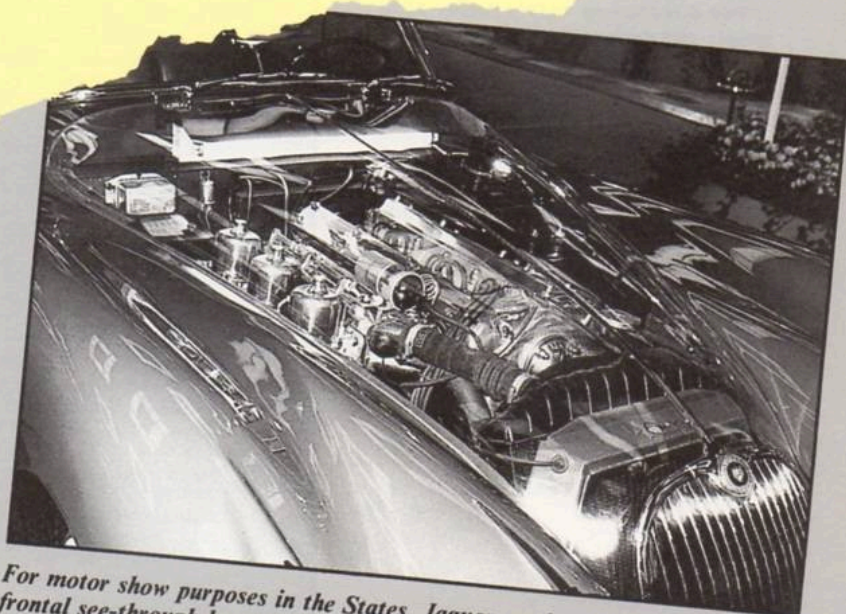
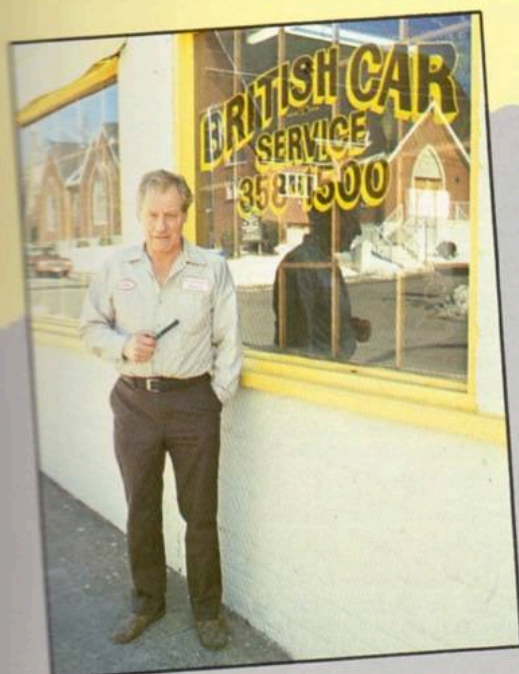




*A keen sporting Jaguar exponent in the Midlands was George Ward, a leading member of the Midland Automobile Club in the fifties and sixties. He used a succession of the small Jaguar saloons in hill climbs, such as the M.A.C.'s Shelsley Walsh, sprints and rallies. (Mr. Ward Jnr)*







*For motor show purposes in the States, Jaguar produced this full frontal see-through bonnet for an XK150. (Jaguar Cars US)*

*Les Bottrill seen in later years outside his US-based company. (Philip Porter)*



21st September, 1951.

W. M. Heynes, Esq.,  
Hotel Book-Cadillac,  
DETROIT. MICHIGAN. U.S.A.

Dear Heynes,

I do not know whether you have yet seen the Salisbury axle people.

If you have, you may already be aware of the trouble we ran into with the T.T. cars with the lower axle ratio, 3.54. Three of these failed on test at Lindley after approximately 150-180 miles, the trouble apparently being caused by a breakdown in the film strength of the lubricant. As a result of this, a higher viscosity oil, S.A.E. 140 was tried.

Bradley had been called in immediately the trouble was experienced, but he was unable to be helpful in any way. We were using recommended oil, G.X.90., which the oil people said should be satisfactory.

We then ran a fourth axle with the S.A.E. 140 oil, which stayed put, but we had only time to do 110 miles at Lindley.

Unfortunately, this was on the Friday before the cars had to leave on the Monday and, although I was very disturbed at the idea of running on the higher axle ratio, it appeared to be the only safe thing to do, as the short test was not conclusive that we should not have trouble in the race.

However, England took two of the lower

- contd. -

*Whilst Heynes was over in the States on business in September 1951, he received this letter from his Managing Director. It is interesting to learn, amongst other things, that the prime motivation for adopting the Borg-Warner automatic transmission was a matter of supply rather than simply the desire to offer this type of transmission.*

axle centres, which I told him to risk if we were hopelessly over-geared. Fortunately, although the drivers did complain of being over-geared, the cars seemed to be fast enough to win as, of course, they proved to be.

Bradley, incidentally, was most helpful. He spent a good deal of time at the works, and at Lindley, but freely admitted that he could not understand the cause of the failure, and he is now awaiting a report from America.

I think the above brief details are sufficient for you to follow up on the investigation which is no doubt being made over there.

We are in trouble with the cam shaft. We have been receiving a tremendous number of complaints regarding noise. As you know, I have predicted this for a long time. It has been found that a satisfactory silent engine can be produced by fitting E.N.V. camshaft, and it has now been established (why it could not have been done before I do not yet know) that the E.N.V. cam form is not to drawing, whereas our own is, yet on the evidence we have at the moment, we cannot obtain the same silence on our own camshaft. However, since carrying out tests with different clearances, it seems that we may be faced with having to obtain new master cams for our Landis machine. Will you enquire whether, if we have to do this, there is any possibility of the job being done quickly.



I enclose drawings showing the difference between the E.N.V. and our own camshaft, from which you will see that there is a considerable variation.

- contd., -

Regarding the Borg-Warner box, it is imperative that we press ahead with this as soon as we can, as gearboxes are going to be a limiting factor in our production. I have done the best I can with Moss Gears, but they will not promise us more than 85 a week. They have, in fact, been giving us 65 only, and it is more than likely that they will not keep their new promise.


Will you let me know what delivery Borg-Warner can give. I think we should endeavour to schedule 50% of our production with this unit.

Incidentally, I have had a letter from Hornburg complaining that someone has returned to his part of California and is broadcasting that we are changing over to the Borg Warner box in the near future. Hornburg says this will have a very bad effect on his sales. It is essential that this matter, therefore, is treated in the utmost confidence.

I sent you a cable, as I found that Rankin had not done so, giving you the result of the T.T., although I presume you would already have some information about it. As we thought, Johnson was well down on the others, and actually fell to eighth or ninth position. He came in and handed over to Rolt, who, as I advised you in my cable, went like a bomb, but could not do better than pull up to fourth position. Two or three laps more, and he could easily have been third.

Yours sincerely,

(Drawings under  
separate cover.  
Air Mail.)



### JOHN COOMBS, on his racing saloons

'The saloon started basically as a shell, two new shells in fact, without the underseal. The underseal was 35/40 pounds weight of gunge, plus the lead used on the joints. The interior of the doors was taken out, so we didn't have any winders, apart from the driver's door. It didn't have a dashboard, of course. That was the one thing that the homologation didn't specify that it had to have. So we didn't have any dashboard or fillets, or anything like that, and no headlining.

'The car got down to 24 cwt, which was an illegal weight. So we had to lead-weight the car. We used sheet lead on the floor at the back and the front. It was quite an interesting exercise trying to balance the cars. In the end if you took it out, it didn't make any difference - you could never make any difference!

'I remember doing a test day with Graham, with Roland's toolbox, which was a double handle job that would take two men to lift. We put it in the boot and the car still did the same speed around Goodwood. It was no different. It didn't create more understeer, or more oversteer, which was an amazing thing.

'I think the legal weight was 26 cwt, so therefore we had to ballast them up, but we got the weight down from the top to the bottom where we wanted it.

'We got down to two-leaf springs, which we had to hide for a long time! I don't know whether that one was ever caught up with!

'We used to cover the suggested five or six springs at the back with tape, and hope nobody ever broke the tape to see what was inside. In actual fact, it was pieces of plywood.

'They worked very well with two leaves on the back. We did away with the rubber between the springs because this created a problem for us as the axle used to tramp, and could move back and forward in the rubber. So we did away with all rubber. Eventually, we employed the stainless steel wire used in yachts to hold the mast, and we got up to something unbelievably high, such as five tons breaking strain on the cables that went from the rear axle to the suspension point on the body. We managed, on the first test session, to break those off, so we had to strengthen it up, and eventually we used those throughout. That, at last, stopped the axle tramping, which had been terrible. There was an unbelievable vibration period, which we managed to stop by doing that.

'Plus, we bent the rear axle. We got toe-in on it, which I thought up till then was impossible. Many times I would agree with you that it would be impossible.

'However, we bent the main axle casing, and then forced the drive shafts into the diff, and three-quarters of an hour driving around Goodwood, and we had worn them in. That was the method of getting toe-in on the back axle, which worked.

'We gained fractions of a second on all these things we did. It was quite satisfying.'

---

'We were invited by Harry Weslake to give him an engine and he would improve on the performance of it. This we did. We gave him an engine over-bored to the maximum allowed and with a raised compression ratio, and sent it up to Harry Weslake.

'We were without the engine for a few weeks, and eventually we got a call saying. "Jolly good news – engine ready for you – 264 bhp," which really was magic.

'So we rushed a mechanic to Rye, he returned with the engine, we fitted it and called up Graham. Took both cars to Goodwood, whereupon it was slower – considerably slower.

'At that time the 3.8 engines were giving 222 bhp, that was the best we ever saw. So our 222 was quicker than the 264 bhp. So I got hold of Mr Weslake and told him our problem, whereupon he said, "Nonsense. You must have fitted the engine incorrectly".

'We replied that it was a pretty simple thing to do: "You just drop it in and pipe it up".

"Nonsense. Bring it to Brands Hatch." Arrived at Brands Hatch with Graham at the wheel and rapidly proved that the Mark II number one car was faster than the Mark II number two car. Engine was removed, taken to Rye, telephone rang later, "found where the problem is. It was carburettors. Drop it back in again. You'll find it will be fantastic."

'The engine never did work, It never ever worked. So we advertised one 264 bhp engine, got a very good price for it, and that was the end of that!

'He had this great dislike of Sopwith, that's why he called me. He wanted to see every race won by a Coombs car, rather than a Sopwith one, and we were very pleased to help him with that problem! He was very kind, he virtually did it for nothing too – but it didn't bloody well work!'



I asked John Coombs how his racing relationship with Jaguar Cars started.

'I met Lofty. I suppose Lofty being Service, and I'm always moaning about the product, that's why I met him. Plus he was interested in motor sport, at the same time as myself.

'The first car he modified for me was a 3.4 Mark I that Ron Flockhart drove. He also let me have a Mark I 2.4, which I drove. It blew the water hose off the heater on the second lap and filled the interior of the car with steam!

'I came into the pits and I wasn't aware that you had to use the tools provided by the manufacturer in the car to do the running repairs. So you can imagine, I arrived in the pits, lifted the bonnet, found the hose off, and screamed for screwdrivers and what I needed.

'England shouted back at me, "Bloody fool, you've got to use the toolkit in the car".

'In those days, I didn't even know where it was kept!

'I always had a very good relationship with Lofty. Strained on many occasions but still a superb relationship with a wonderful guy.'

JOHN COOMBS

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#### Letter from Birfield Limited, 1 March 1957:

*Dear Mr. Heynes,*

*I was much saddened to hear from Mr. Power, that you felt resentful of the way in which Hardy Spicer had recently increased prices. I am quite certain that, if you knew the circumstances in which these prices had been reached, you would realise how, for years past, we have been absorbing a large percentage of the increased costs of manufacture, without passing them on to our customers. It was only possible for us prior to June 1956, to supply you without loss because of the exceptionally large volume of production during the car boom. Even then, the profit we made on sales to you and other car manufacturers was fractional.*

*Since then, we have supplied the passenger car companies at a loss – a loss that we carried for a short time by the back-log of spares supplies. This back-log has now disappeared. We did not increase our prices until it was clear that the over-all profit margin was dwindling dangerously.*

*In the last two years we have taken necessary steps to improve our research and development facilities, and we are making every endeavour to improve the quality of our product. Experience has shown that we must also be prepared, at short notice, to raise finance to keep abreast of your increasing demands – and we have great faith in the continuing increase in Jaguar cars in particular. We can do neither of these things if we are supplying you and the other car companies at a loss.*

*It is thus sad that, because the car trade has been over-indulged by us in the past, we now appear to some of our customers to be inconsiderate in advancing our prices.*

*Please do not think for one moment that I resent your feeling. I understand it. I also understand that we must never embark on a programme of absorbing expenses in future, when most of the people in the component industry are advancing their prices with each increase in cost and thus maintaining their profit margins.*

*I am sure you will be interested to know that the comparable prices at which your European competitors are buying propeller shafts is anything from 30% to 100% higher than the price at which we supply you.*

*We hold Jaguar Cars in the highest possible esteem, and you and your colleagues equally so. I do hope you will realise that any strictures*

## JAGUAR SCRAPBOOK

*which you pass upon us cause us great disappointment. At the same time, we realise that perhaps our unobtrusive generosity in keeping prices down in the past has, unhappily, made us the target for what we feel is unreasonable, but quite understandable, criticism.*

*I was hoping to see you on Thursday next, when Sir William Lyons had kindly invited me to luncheon. In view of the disastrous fire you suffered, I am writing to ask if he would prefer that I postpone my visit to a later date – disappointed as I should be if this is necessary.*

*I do hope that you are successfully overtaking the immense difficulties you must all have been caused by this dreadful misfortune, and that you will soon be in full production again.*

*Yours sincerely,  
H.E. HILL*

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Jaguar were unimpressed and five days later Arthur Whittaker, who had a widespread reputation for very tough, though fair, bargaining, sent an internal memo to Sir William Lyons on the subject.

After showing a breakdown of Hardy Spicer costs and estimated costs at which Jaguar's own machine shop could produce three types of prop shaft, the in-house costs were marginally keener in each case. It was only a matter of shillings, but it was by watching even such small amounts that Jaguar made such cheap cars and offered their famous value for money.

Whittaker, whom Heynes insists played a vital role in the Jaguar story, concluded his memo with the following.

'During the past few years we have met basic labour and material increases, which have been proportionate to those applied by other major suppliers. Accordingly their prices, prior to any increase, are only reasonable compared with other major component figures. Whilst they were quite helpful on prices in the early post war period, once we changed specifications on the introduction of the Mark VII and XK models, necessitating double shafts, it was always considered by us that earlier possible benefits were lost as a result, for the new figures were never regarded as being as favourable. This matter was discussed with them on a number of occasions without our being able to persuade them into our way of thinking.'