

JAGUAR



1980's

EIGHTIES

THE LATE HARRY MUNDY, former head of power unit design

Among senior engineering staff, there was considerable disagreement on the merits and demerits of the four-cam versus the two-cam V12 engine. It will be recalled that, with competition primarily in mind, the four-cam was the first to be designed and built. It was fitted in the unique XJ13 mid-engined sports racing car. Mundy belonged to the pro-two-cam camp and he was not known for mincing his words.

'The XJ13 was a complete waste of time and money. Installed in the car, the engine only gave about 480 horsepower. It gave 503, I think, with testbed exhausts.

'If the four cam engine, which I killed, had gone ahead in production, Jaguar wouldn't be in existence today.

'You couldn't get air pumps on it, power steering pumps – they were even going to the extent of designing an auxiliary power unit to go into the boot, to drive these things.

'It had a downdraught inlet port. These had been tried by BRM and Ferrari, and thrown away, and also on the Mercedes-Benz 300SLR, which barely gave 300 horsepower. This is because as the air comes in it always goes round the outside of the induction tracts. It went onto the cylinder wall, there was a restriction on air flow and on which the fuel separated out. That was the basic problem.

'As is well known, we also did a V8, as a single cam. It had a sort of tingling effect, a second-order resonance like a four-cylinder, which we could never really entirely get rid of. It also had unequal firing down each bank, but this was never criticised.

'We went to the May head on the V12 which enabled us to lengthen the stroke. We increased one to 6.4-litres and put it in a XJ12, which was a brilliant motor car. I could start off from Coventry in top gear and go to the middle of London in fifth gear. If I didn't have to stop, I never changed gear.

'It also had a five-speed gearbox which never went into production. They thought that Jaguars would all be automatic. If it had gone into production, the take-up of manuals would have been much more than 50 per cent, in my opinion, and would have made the XJ-S.

'I was responsible, despite what they may publish and tell you, for the new six-cylinder that is going in the XJ40 – entirely.'

JACKIE STEWART

'One of the great riches that Jaguar had was Sir William. He obviously had wonderful taste, because whoever was in there designing – and his team included Heynes and Lofty and all these people – at the end of the day, I think it all went down to Sir William, when it came to that style.

'The man was so unassuming and so mild. He always had his dark blue suit on, with his light blue tie and his white shirt. He was a wonderfully elegant man in himself, and almost an introvert within the industry.

'Yet he obviously had such a strong part to play. The SS100 was a fantastic looking car, I think, and then to produce the XK120 and follow it with the E-type – I think all of those cars were great.

'The present coupe car, the XJ-S, is neither hither or tither as far as I'm concerned. Funnily enough I drove one of the new saloons this morning and I thought I was in one of the old ones. I thought I was in an XJ6, not an XJ40. I felt as if I was looking over the car, rather than out of the car. It just didn't feel as if it was a modern car. It seems to have been left behind. The cosmetic changes that they made to it, which took such a long time to come around, really aren't so dramatic.

'On the other hand, the company's still alive. I just hope it can hold on, but I don't think it can hold on that long. At the moment there's a romance going on that might allow it to go, but for how long.

I mentioned to Stewart that the XJ40 was scheduled to last nine years.

'It's a long time. I wish them well. It's a wonderful name. If it takes something to keep it there, a relationship with somebody else to make sure it stays there, as long as the integrity remains, then I think fine.

'But Jaguar's certainly been one of the great ambassadors for the British motor industry.

Noted Jaguar restorer and enthusiast, Aubrey Finburgh, pedals his wares; or, perhaps it is a case of 'stop me and buy one'; or, perhaps, just his ideas on how to redesign his ancient van. The D-type front might well improve top speed and petrol consumption, but the complete XK120 front end can hardly help.





'The XK-SS was the Porsche 959 of its day. People would have paid any number of pounds, dollars or deutschmarks for one. That was something that I would have thought would really have gone – that people would have wanted to have.'

JACKIE STEWART

BILL JONES, who worked in the Body Shop and the Styling Department

Gents and ladies both queued up to buy the stylish SS Jaguars which were offered with every convenience!

There are interesting parallels between the XK120, launched at the Motor Show in 1948, and the XJ220 Supercar, launched at the Motor Show forty years later.

Neither had even run before the Show. In spite of this, both 'stole' their respective Show though neither was intended as a production model.

In both instances the name was based on the 'estimated' top speed.

In its early tests, the XK120 only just exceeded the 100 mph mark.

To adjust a D-type clutch, you first have to remove the transmission tunnel and the picnic hamper. Bottoms up! (Philip Porter)

'My brother Tom, who is 10 years older than me, brought me to Coventry. He'd been with Jaguar since 1940 and he came back to Wales for the Easter holiday in 1949. I was about to leave school and join a firm down there as a cabinet maker, but he said, "Do you want to come back and learn a trade in Coventry?"

'I think it was 1 May 1949 that I started. That was in Foleshill. Styling at Foleshill was a Nissen hut, with a dirt floor, and one of those old combustion stoves in the middle.

'The Experimental was on stilts. It had an old wooden floor. The knots would fall through and you could look down about 12 feet to the dirt that was below. In the body shop, in those days down there, everywhere they had a spot welding machine, they put a big sheet of steel down, so it wouldn't wear away.

ON FRED GARDNER:

'He was the Styling Department. You wouldn't need locks on the door with old Fred. All the high security we have today, he was the high security! You crossed him once, and you never went in there again.

'He ran the Wood Mill, because we had a lot of wood in the cars in the early days. I did nine months in there. He was half and half – wood mill and styling. There were no problems in the wood mill with Fred, no threat of a "downer" there. He was the Shop Steward as well as the gaffer, he always said that!

'At certain times, perhaps for a couple of hours, he'd come into the styling area. In there he had about ten body makers and four tinnies from Abbey Panels.

'Sir William always had the final decision on every styling detail.

'On every car we made, he spent more time on grilles than virtually the rest of the car. When you think about it it is the main feature of a car. When you look at them in a showroom, they are always pointing at you and that's the first impact. Even if it's turning a corner a hundred yards away, you know it's a Jaguar, because that's the Jaguar grille. We mustn't lose that.

'I made the XJ40 grille out of my head. We were down to three stylists. Everybody was frustrated. We were under Leyland. Leyland was killing it.

'Edwardes came and said, "Make it a Jaguar".

'Before that we'd had the Stokes's, and all the regimes. They'd all looked at it: "Best thing we've seen". But of course they'd been looking at Morris Marinas, all those sorts of things. "Oh well, we'll go up the Jag now and see what their turning out." That's what you felt they were doing, and I think anything would have pleased them. Regimes kept changing but we had to do something quickly because we wanted money off the Government. So we said, "For Christ's sake, let's put a grille on it".

'It was a fibre-glass car, and I made a wooden model, and a chap from Abbey Panels made the chrome grille, all the vanes in it. I had made grilles for Sir William, and he was missing at the time. Sir William had finished with us. It was in the latter two years of the XJ40 that he came back to put his little bit in it.



'As a kid, I'd seen blokes making grilles for him, and you'd think, "That's marvellous". You could look at that grille and look at that car, and it was straight dead on at the front – perfect. You'd go, say, 45 degrees and there was something wrong – it didn't look quite right.

'So you really had to cheat, and you'd say, "Right. Number four from centre line, pull it out a $\frac{1}{16}$. Eighth from centre line, push it in. It was all wrong if you did it on paper, but for looks it was perfect.

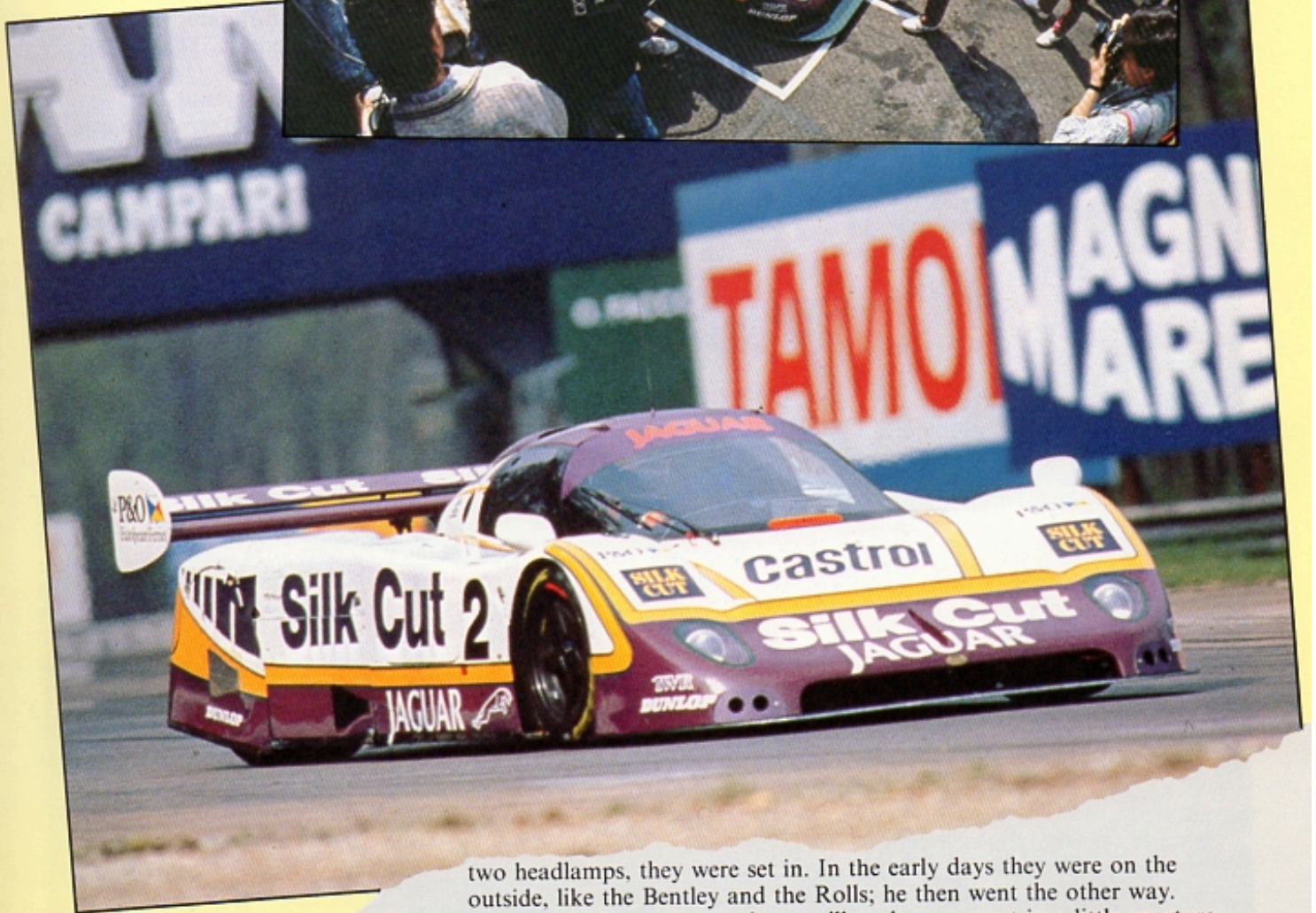
'Front head-on the grille would look good, but as you went round you'd think there was a kink in it. There wasn't. It was reflections and everything. We cheated to make it look good. Nobody else would know, but that's why a lot of time was always spent on the grille.

'There were even wire mesh grilles tried inside the mouth of the E-types before they were launched. Sir William always tried to set his grilles in a fraction. Even on the XJ6 it was in an aperture, just like the

*Showing a slight contrast in size, the TWR Jaguar team transporter and the little motorised trolley for transporting wheels and tyres around the paddock.
(Jaguar Cars)*



At Monza in 1988 TWR Jaguar established their supremacy over the Sauber Mercedes with Brundle and Cheever winning by more than a lap and the Jaguar moving into the Championship lead. (Jaguar Cars)



two headlamps, they were set in. In the early days they were on the outside, like the Bentley and the Rolls; he then went the other way. When he had two dummy horn grilles, they were set in a little aperture, which was beautiful coachwork.

'Nowadays we have a choice of, say, a dozen steering wheels. A steering wheel just came and he said that was the one we were having. Things were done so quickly then.

'But it was just the one person who mattered. It was Sir William's taste and his car, and everything rubbed off on all those old skilled blokes. When I went as a kid in 1949, many of them had been with him 20 years then. They were very elderly people who taught me my skills, but it was a pleasure.

BILL HEYNES talking of his late wife, Dutch.

'She used to drive my S.S.I, and once came back with both door handles missing!'

At the third attempt, in 1988, TWR raised the tally of Jaguar wins at Le Mans to six.

'Sir William always expected a high standard of work. But what is surprising, he spoke to very few people. He never spoke to his shop floor workers. If I was doing a job for him, he would call the Foreman. "Rogers. What's this man doing now?"

'He would never ask me if the job was going all right until his last years. When he came in the department, he recognised people who'd been loyal to him and stuck with him. There'd be somebody young in quite a responsible job but he wouldn't recognise him, so he'd come straight over.

'I remember towards the end of his life he'd had a fall. He was chauffeured to Jaguar to look at something. So, obviously, he sat in the back. The Series III he came in had rise and fall seats, and sitting in the back, he could see the mechanism. He was out of that car – although he'd had a fall – called me and, oh, he went spare, as if it was my fault! Now, in his day, you would never see anything like that.

'I went to America on a styling clinic with the 40. The Americans just said, "You know what they want. They want class. They want British skill and British craftsmanship. If you want furniture, you want Chippendale. If you want nice china, you want Worcester. That's what they expect – keep it wood, keep it leather".

'I was ashamed to work here when it was under Leyland.

'We must keep it looking Jaguar, not follow these others. You can engineer them just the same, cause it's the looks of the car that matters. There's only a few of us left now.'





This medal was awarded by the State of California to the XK-E. (Jaguar Cars)

Pat Smart, seen here centre, is today, the Chairman of the Jaguar Apprentices Association and Manager of Fleet Sales.

Miscellaneous weights

COOPER-JAGUAR

Total Weight: 2292 lb (20 cwt 1 qtr 24 lb)

Weight distribution: 50.6/49.4

MARK VII WITH LIGHT ALLOY BODY - KRW 621

Total weight: 29 cwt 3 qtr 23 lb

Spare wheel, tool kit, lightweight bucket seats.

PRODUCTION MARK VII

Total weight: 34 cwt 1 qtr 26 lb

LAGONDA 2.9-LITRE

Total weight: 32 1/4 cwt

XK120D

Total dry weight: 17 cwt 3 qtr 16 lb

Complete with full racing equipment.

PRODUCTION XK140 WITH BORG-WARNER FITTED

Total weight: 28 cwt 2 qtr 0 lb

Full tank.

MERCEDES-BENZ 300SL

Total weight: 25 1/2 cwt

With tool kit, spare wheel, 13 gals of fuel. Scale weight

LISTER-JAGUAR

Total weight: 17 cwt 3 qtr 0 lb

5TH YEAR OF PUBLICATION

JANUARY 1952

JAGUAR

Apprentices' Magazine

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TOM JONES, who played a leading role on creating most of the competition and production Jaguars until his retirement in 1985

'I joined Jaguar in 1940, and did 45 years with the company. I firstly did two weeks in the shop as an electrician's mate, straight from college, and within two weeks they felt that I could read a drawing and I was asked if I wanted a job in the Drawing Office.

'So I then went on to jigs and tools for two and a half years. The war was still on and I got seconded to work with Claude Baily, doing the forerunners of the XK engine, the folding sidecar and the jeep thing that we were going to do.

'During the latter part of the war, we were working in a shed out the back doing these odd Ministry jobs. When the war finished I worked on engines and gearboxes. Then I took on automatic transmissions and I was responsible for their installation in all Jaguars.

'At that time they brought in a man by the name of Albert Moore and split Claude Baily's job of Chief Designer job into Engines and Transmissions, and Chassis. Bill Thornton was in charge of bodies at the

time. I was put to work with Albert Moore on chassis as the Assistant Chief Designer. He lasted 10 months and then they gave me the job!

'I had something to do with the C-type, therefore, and from '53 on I was responsible to Bill Heynes for all the competition models.

'Sir William very rarely came into the Drawing Office, but one day he came in when we were doing the XJ6 and Bob Knight and I put some facts before him on where we could take some Mercedes sales.

'He said, "Do you think we could sell a thousand a week? If we can, we'll go for one car".

'That's why the big saloon was eventually dropped. He didn't want to do another big saloon and when it got down to 50 a week, it was hardly viable.'

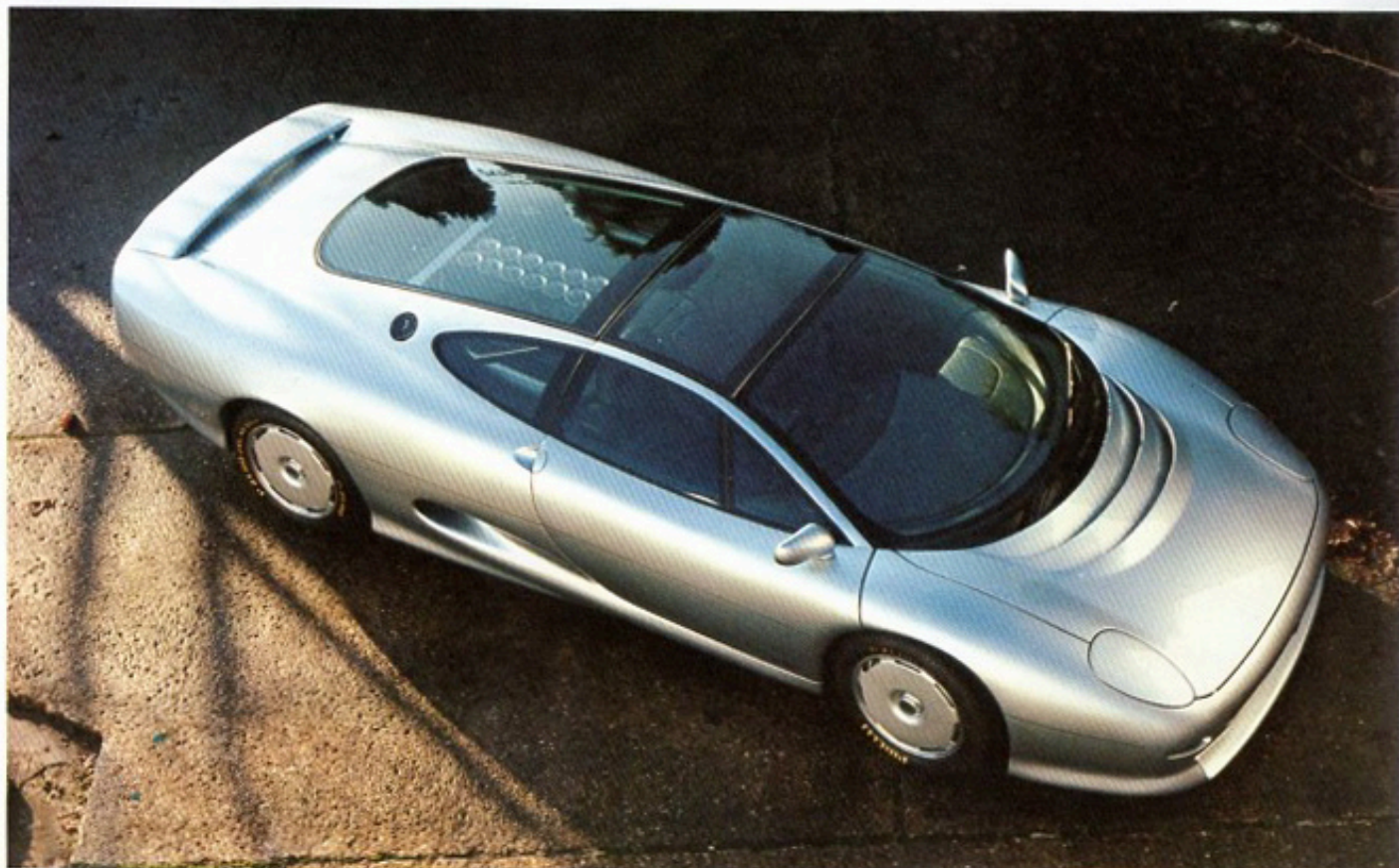
When we chatted in 1985, I asked Tom if there had been any thoughts of a Mark II replacement.

'It's been thought of recently, in the last three years. When the XJ6 was launched, it had a 109-inch wheelbase, and then for the long wheelbase version, we stretched it four inches. That was really to get sufficient room inside. It was really felt that that was the minimum occupant size that we could really have for a Jaguar.

'A lot of people think that we could have made a small saloon, but I don't think we could keep the Jaguar standards, the refinement, and remain competitive price-wise. This is what we came up with three years ago. It was felt we could do with a smaller car because we'd lost what we call the "executive market" in this country. The price was too high and we'd lost the market to cars like the Ford Granada.

'We did an exercise using XJ40 components, obviously for cost reasons, but unfortunately weight and cost-wise, it wasn't on. So it does mean that if they ever do one, it will have to be a brand new car again. I think the right thing for Jaguar is to go up market rather than down market from the 40.

The XJ220 stole the 1988 Motor Show in a way that was reminiscent of that Lyons masterpiece of exactly 40 years earlier - the XK120 Super Sports. (Jaguar Cars)





'I had to stop the new XJ41 sports car two years ago and put it on one side. I felt that if we didn't, we wouldn't achieve the 40 programme, which we were losing ground on.

'Aluminium was considered for the E-type. We had done the first 240 XK120s in aluminium before switching over to steel, and that was in everybody's mind. It is all right for competition cars, and it is still thought about for production cars. You go through it every so often.

'We started off thinking about it for the XJ40 to get the weight out. We considered bolt-on panels in aluminium, but I think what killed that in the end was that the capital expenditure went from £56m to £94m if we used aluminium panels.

'You have to heat treat the panels and you have to press them within three days. So the only way to do it, really, is to have furnaces alongside the press shop. You have to anneal the panels to keep them soft, so it was like a continuous process which meant installing all these furnaces.

'So that was out because we only had £100m to do the whole car, and you couldn't spend it just on the body!

'The E-type was not really ready by the time of the launch. I don't know whether it was a deliberate policy, but Sir William never built a car unless it was sold.

'It was the same thing with the XJ6. There were hardly any cars for months after it was launched. Some drawings were not released till after the launch! He'd change his mind about things, and the other thing was that he got opinions at the launch, and then he would rush this in, rush that in. He didn't wait till next year's model!

'There was one man he always brought in before a launch for his opinion, and that was old man Henly himself. Of course his wife was the other one, who really had a say. We had to ship the cars out to Wappenbury and she had a look. I think he took a lot of notice of his wife.'

To say that the XJ220 interior moved away from the Jaguar tradition would be something of an understatement. No picnic tables here! (Jaguar Cars)



For a number of years, there seemed to be a gap in the market for a company to do for Jaguar what Alpina had done for BMW. Eventually that void was filled, appropriately, by TWR. (Philip Porter)

List of XJ Numbers

(XJ = experimental Jaguar – applied to projects. Those missing may not have been assigned.)

XJ3	S-type Saloon
XJ4	XJ6 Saloon
XJ5	4.2 Litre Mark X
XJ8	E-type 2 + 2
XJ10	XJ12 Saloon
XJ13	Mid-engined Sports Racing Car
XJ16	420 Saloon
XJ17	Series II E-type 2 + 2
XJ21	Possible E-type replacement
XJ22	Series II E-type
XJ23	Initially intended to be 'E-type Stage 2 facelift with V12 engine', then probably SII
XJ24	Not assigned according to Jaguar
XJ25	Series III E-type V12 2 + 2
XJ26	Series III E-type V12 Open
XJ27	XJ-S V12 Coupe
XJ28	XJ-S V12 Cabriolet
XJ29	Series I XJ6 LWB Saloon
XJ30	Series I XJ12 LWB Saloon
XJ31	Series II XJ6 LWB Saloon

XJ32	Series II XJ12 LWB Saloon	XJ50	Series III V12 Saloon	Mark I saloon *
XJ32	Series II XJ12	XJ51	Series III 3.4 Saloon	XDM/2 Daimler 2 ¹ / ₂ V8 engined
XJ33	Probably – Series I XJ6 2 Door Coupe	XJ52	Series III 4.2 Saloon	Mark II saloon *
XJ34	Probably – Series I XJ12 2 Door Coupe	XJ53	Series III 4.2 Vanden Plas Saloon	XDM/3 Daimler Limousine
XJ35	Series II XJ6 2 Door Coupe	XJ54	Series III V12 Vanden Plas Saloon	XDM/62 Daimler Limousine – Middle East Specification
XJ36	Series II XJ12 2 Door Coupe	XJ57	XJS 6 Cyl Coupe	XDM/65 Daimler Limousine – USA Specification
XJ37	Series II XJ6 2 Door Coupe (may be 3.4, though not produced)	XJ58	XJS 6 Cyl Cabriolet	*This is my theory! Certainly XDM/1 was a Daimler engined Mark I or II. The engine was first put in a Mark I but I can find no reference to XDM/2 and thus I think it is reasonably safe to assume the above. <i>P.P.</i>
XJ40	XJ6 Saloon	XJ59	Series III Diesel Saloon	
XJ41	New Sports Car	XJ60	Series III converted to XJ40 front and rear suspension	
XJ43	Series II 4.2 Vanden Plas Saloon	XJ77	XJS V12 Convertible	
		XJ82	LWB XJ40 with V12 engine	
		XDM/1	Daimler 2 ¹ / ₂ V8 engined	