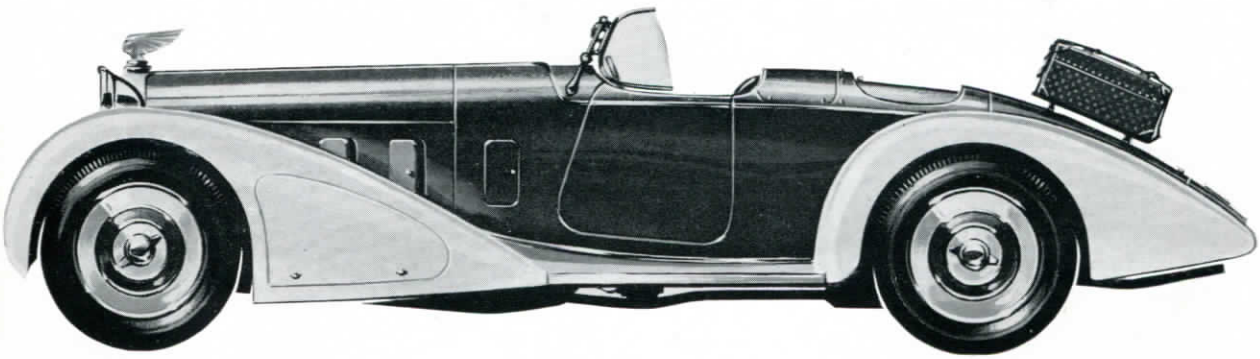
The Delage Series D8

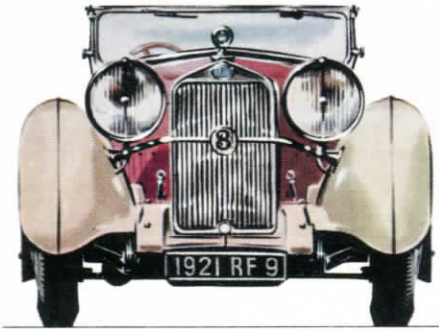


NUMBER 34

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UNITED STATES & CANADA 50 CENTS

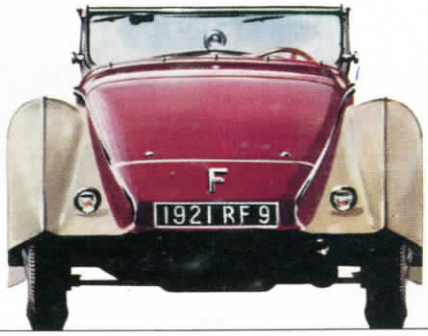
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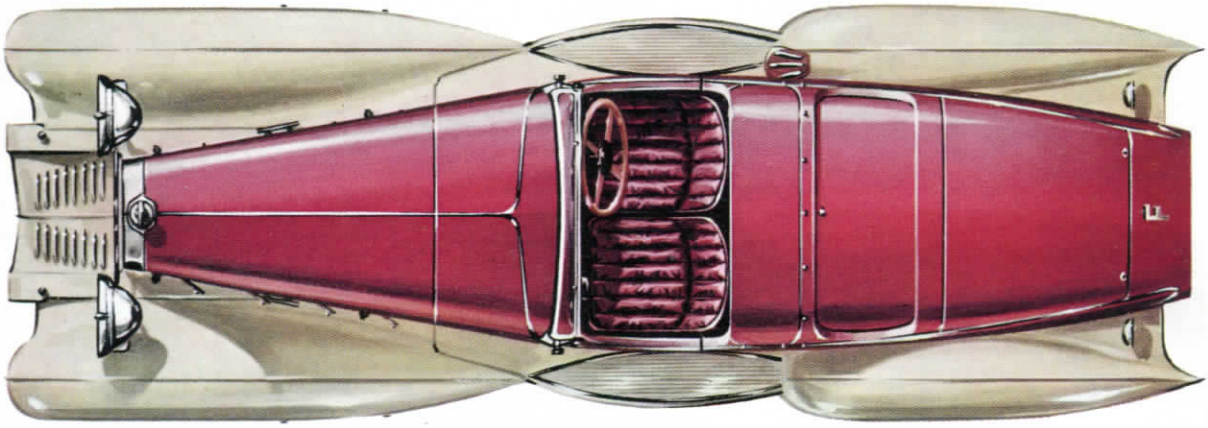




1932 DELAGE D8 'GRAND SPORT' open 2/4 seater with coachwork by Letourneur et Marchand. Owner: Mr. André Surmain of New York. The left-hand profile shows the ground glass mascot by the Lalique Galleries of Paris, and travelling trunk by Vuitton of New York (both typical of the period), with wheel discs in position.









© JAMES LEECH

The Delage D8 Series

by J. R. Buckley

'The Road to the Isles': a 1932 D.8.S coupé on the Bramber Pass, Argyllshire. (Photo: Montagu Motor Museum)

The first Delage appeared in 1906, almost exactly sixty years ago. In 1966, the French Club '*Les Amis de Delage en France*', whose primary interest is to preserve the works of Louis Delage, is celebrating the event with an International rally of Delage cars in Nantes and at the château of the Marquis Robert de Gourlaine in the Loire valley.

Louis Delage was born in the Département de Cognac, in France in the year 1874. He died in 1947. When fifteen years of age he commenced his technical studies at the Ecole des Arts et Métiers at Angers. It is therefore fitting that the Rally to commemorate his work is being held only a few kilometres away.

He was handicapped as an engineer, in that he only had one good eye but, ignoring this disability, he gained considerable valuable experience in the experimental department of Peugeot in the days when they were producing racing motor-cars which were virtually unbeatable in Europe.

Delage's ambitions were wholly introspective, however, and in 1905 he resigned his position with Peugeots to start building motor-cars on his own account at Lavellois. From the beginning he wished to do two things: to produce for France the finest and fastest cars in the field of international motor racing, and to make the name of Delage synonymous with quality in France.

His first ambition was undoubtedly achieved, despite fierce competition from his colourful contemporary Ettore Bugatti, and if after the end of the first world war Marc Birkigt's Hispano-Suiza, then to be built in France at Bois Colombes on the Seine, eclipsed the luxury Delages, it was only by a matter of degree. From the mid-1920s until the outbreak of the second world war, Delage motor-cars were typical of the luxury, quality and elegance of an elegant era not only in France, but throughout the world.

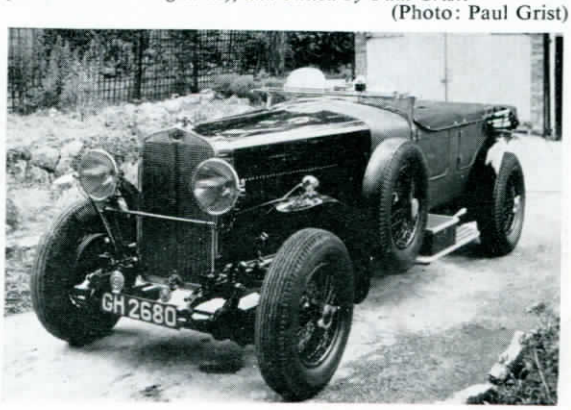
Delage, once established at Lavellois, did not have to wait long for the straws indicating the winds of fortune which were to bring fame to his industry in the years to come.

EARLY COMPETITION DELAGES

On leaving Peugeot in 1905, he took with him to Lavellois one of Peugeot's best engineers, Legros, with whom in 1906 he produced two cars for the *Coupe de l'Auto* race of that year. One of them finished in second place. His car won the *Grand Prix des Voiturettes* at Dieppe two years later, and the so-often elusive seal of success was set on the marque by Bablot's impressive wins firstly in the Voiturette Races at Boulogne in 1911 and, finally, in the Grand Prix de France of 1913. By now the works at Lavellois had proved inadequate, and Delage's new and permanent home had been established at Courbevoie, where they had moved in 1910.

It is of interest to note that Delage, throughout almost his entire career, was always prepared to experiment in his search for success, and prepared to back his ideas publicly in competition—often before their success had been proved. Thus the winner of the Grand Prix of 1913 had highly unconventional horizontal valve gear; the 1914 racing Delage had twin overhead camshafts, and the valves of this car

1929 Delage type D.8.C, with open coachwork by Vanden Plas (non-standard mudguards), and owned by Paul Grist. (Photo: Paul Grist)





1930 Type D.8.C coupé owned by D. H. Shrimpton.



A fixed-head coupé body by Figoni et Falaschi on the type D.8 chassis. Note the very 'close-coupled' passenger accommodation.

were closed mechanically. The 1914 car was also one of the first to race with brakes on all four wheels. Years later, the best of all Delages to be built, the D.8.SS (though on points of sheer quality of workmanship and luxury, it *may* have been eclipsed by the 40/50 h.p. six-cylinder type Grand Luxe) appeared again with highly unusual valve gear, in that the valves themselves were divorced from the valve springs which closed them. This was an excellent idea, though not a particularly necessary one in an engine peaking at some 4,000 revolutions, the object of which was to reduce valve bounce at high engine speeds, and prolong the life of the valve gear. As a side effect it made the accurate setting of valve clearances quite a sporting proposition.

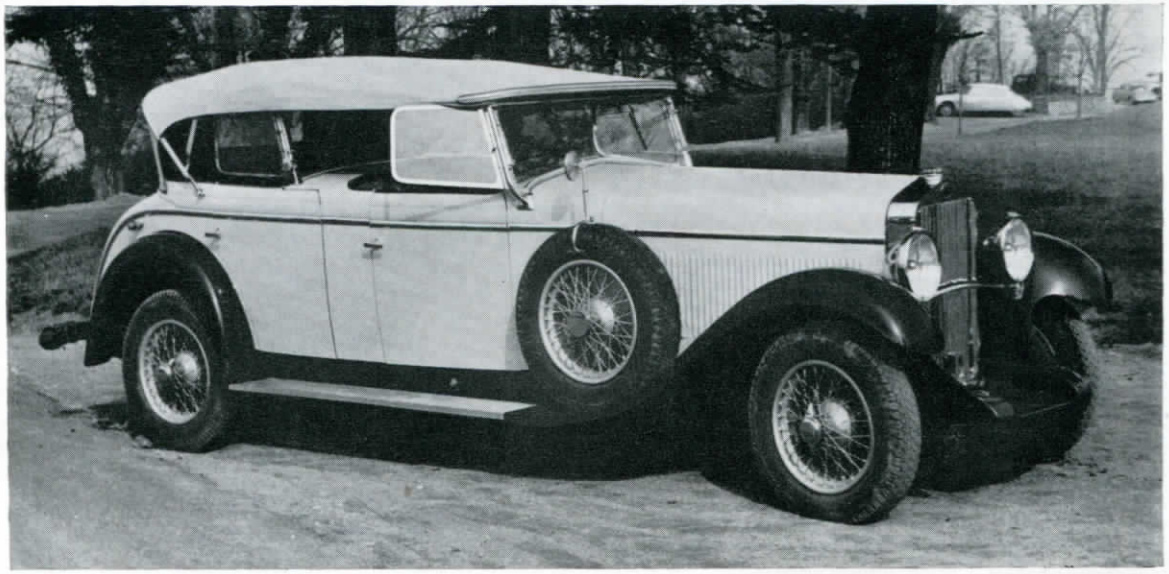
Throughout the life of the company, Delage produced a very large number and variety of models. Most of them were successful in their particular field, and some of them highly so.

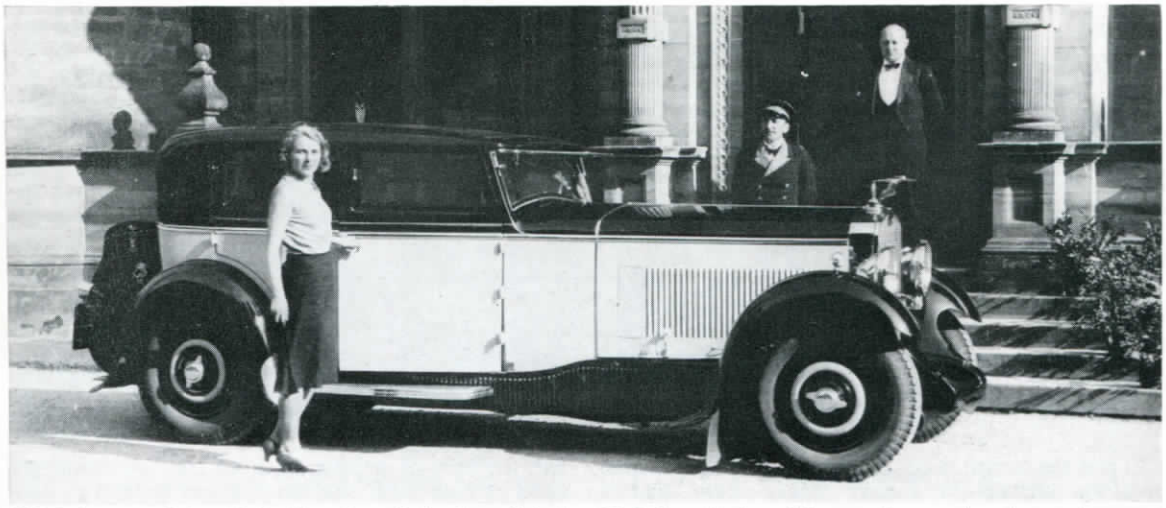
In 1923 there was the 10·5-litre V-12 cylinder car built to attack the world's land speed record. This it captured at Arpajon driven by René Thomas on 6th July 1924, at a speed of 143·24 m.p.h.

Also in 1923, Louis Delage instructed Planchon to produce a racing car capable of sweeping the international field. Incredible though it may seem today, this was done within six months, despite the fact that its 2-litre V-12-cylinder double overhead camshaft engine was one of the most complex racing engines ever built. It did not meet with immediate success, but, by 1925, Monsieur Lory had amended the design of the chassis and supercharged the motor with a pair of compressors, each coping with one bank of six cylinders. In this form the car produced 190 b.h.p. at 7,000 revolutions (by no means its maximum) and won the Grand Prix de France at Monthléry at 69·7 m.p.h. driven by Benoist and Divo. It also broke the lap record for the circuit and, driven by Albert Divo, later won the Grand Prix de San Sebastian, and for Louis Delage the championship of Europe for 1925.

Despite the swingeing cost of evolving so complex a car, instead of modifying it for the new formula, which was amended to 1·5-litres for the following year, Delage produced an entirely new competition car, designed also by Lory, the 1·5-litre racing straight eight. This car literally swept the competition field in 1927, driven largely by Delage's star driver, Robert Benoist. Its successes included winning the Grand Prix de France at 77·24 m.p.h., the Spanish Grand Prix, in an

Type D.8, with an open touring body, with a second windscreen for the rear seat passengers, (non-standard, smaller wheels and modern tyres have been fitted), in the collection of Henri Malartre at the Chateau de Rochetaillée.
(Photo: Musée Français de l'Automobile, Rochetaillée, s/Saône-Rhône)





1930 Delage type D.8 and Miss Kitty Brunell, daughter of the late W. J. Brunell, the well-known photographer of motoring events in the 1920s and 1930s. (Photo: Radio Times Hulton Picture Library)

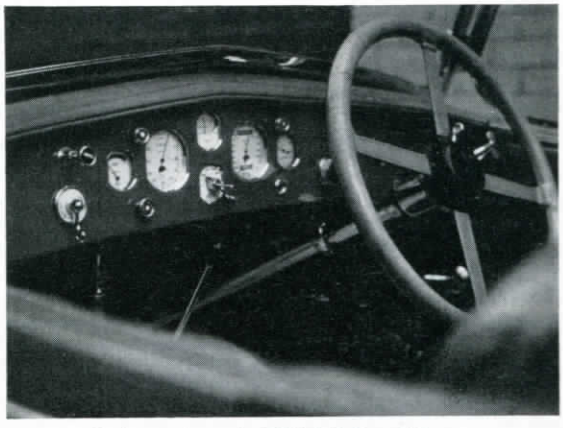
almost tropical heat at San Sebastian at 80·5 m.p.h., the Grand Prix de l'Europe at Monza in Italy at 90 m.p.h. and the British Grand Prix at Brooklands at 85·6 m.p.h. (See Profile No. 18.) Having reached the highest peak of success in the motor racing field, Delage announced his retirement from racing.

THE TYPE GRAND-LUXE

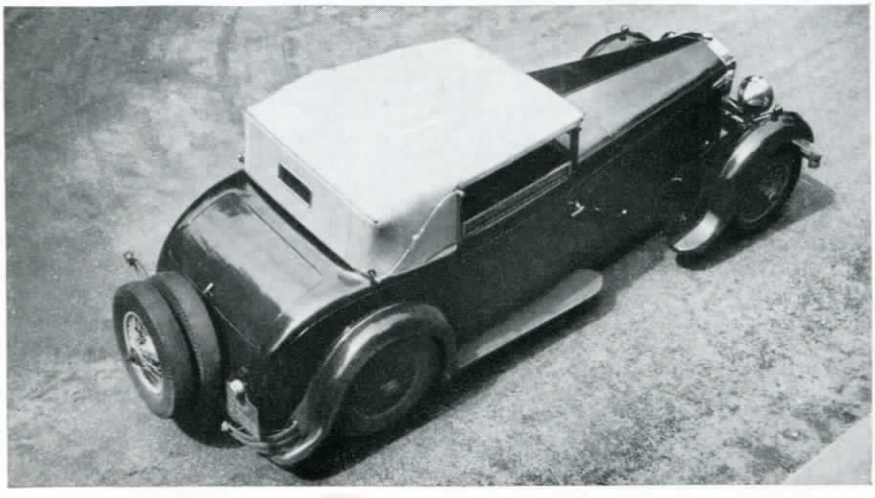
Contemporary with this intensive racing programme, but on a completely different note, the type G.L. was produced in 1924. Its designatory letters were the abbreviation for Grand-Luxe, and such indeed the car was.

The Grand-Luxe was the forerunner of the luxury cars carrying the restrained blue enamel and silver Delage badge, which the Courbevoie factory was to continue to produce henceforth until the marque ceased to exist.

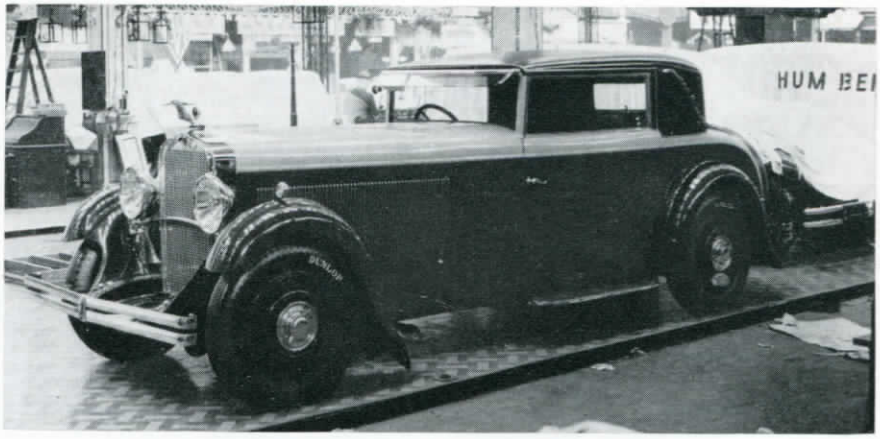
The Grand-Luxe was a magnificent motor-car, beautifully engineered in detail, typical of cars of this quality at the time. Possibly to associate it in the minds of potential buyers with the contemporary Rolls-Royce Silver Ghost, it was known in France as the 40/50 Delage, though in England it was listed as the Delage 34 h.p. type G.L.



Instrument panel—1931 D.8 Grand Sport.



Maurice Craig's 1931 Type D.8.C with English coupé body after Figoni et Falaschi. (Photo: Maurice Craig)



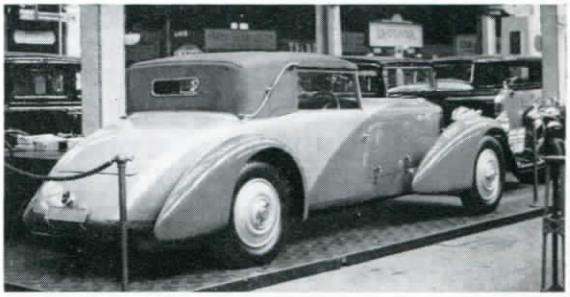
1931 Motor Show at Olympia: a 2-door fixed-head coupé D.8 by Figoni et Falaschi, and (facing page top) . . .

It was the largest production car Delage ever made, and the chassis—in *chassis longue* form—had a wheelbase of 12 ft. 8 in., massive and heavily braced by a cruciform cross member; it was powered by a six-cylinder engine of 95×140 mm. giving a capacity of 5·952-litres, and its specification included such desirable—though rare—contemporary features as pump cooling, overhead valves operated by an overhead camshaft, dual ignition and four-wheel brakes. It remained in series production until 1928, when it was replaced by the first of the 4-litre D.8s.

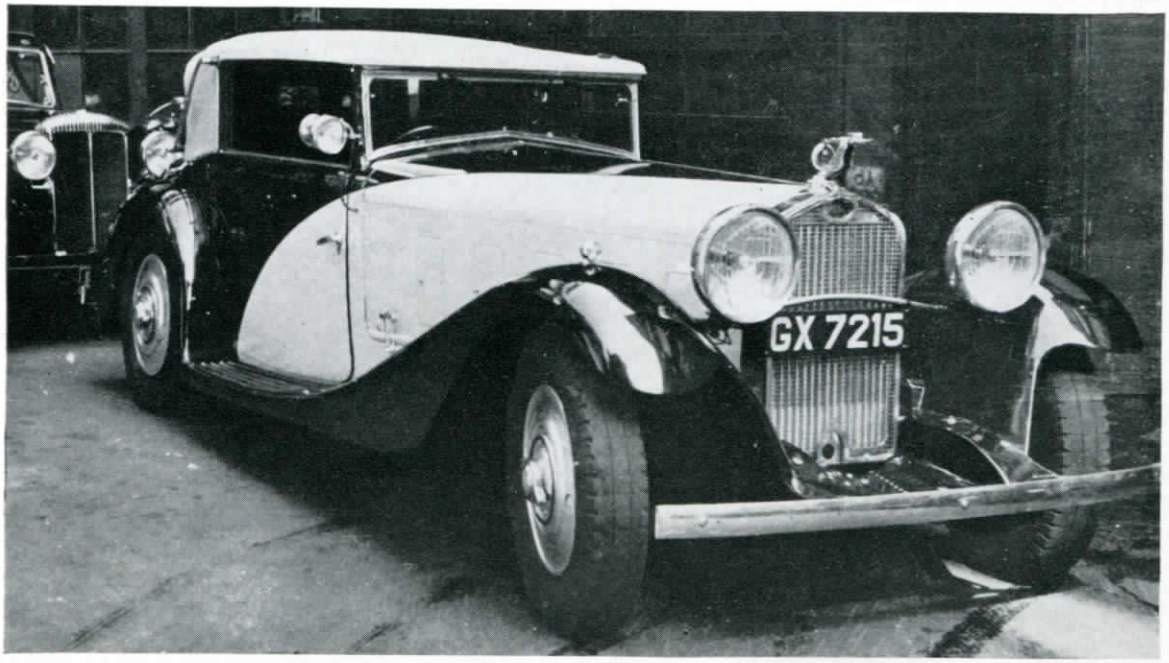
I have never tried to total the number of individual designs produced by Louis Delage, but I am almost certain they would exceed in number those of almost any other manufacturer, with the possible exception of his contemporary Ettore Bugatti, who in his lifetime produced rather more than 70 separate designs. Surprisingly though, when viewed from this standpoint, there does not seem to have been a bad or even an indifferent Delage. Certainly the four cars of Monsieur Delage which I have owned between 1928 and the time of writing, have all been outstandingly good of their type, and have proved themselves over very high mileages indeed.

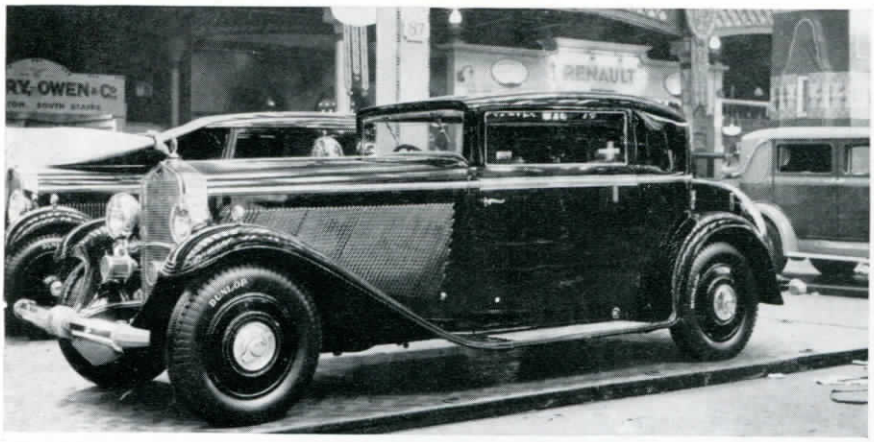
THE TYPE D.I.

The first Delage to be seen in England in any numbers were the 2-litre four-cylinder cars, the type D.I.



Below and above centre: *1931 and 1932 Delage types* Grand Sport *with drophead coupé bodies.*
Photos: Louis Klemantaski and Radio Times Hulton Picture Library)





. . . a similar body (coach-builder unknown) on the D.8.N. chassis.
(Photos: Radio Times Hulton Picture Library)

They were extremely well built, fitted with four-wheel Perrot-type cable-operated brakes, and had a four-cylinder engine of 75×120 mm. utilising coil ignition and a single Zenith triple-diffuser carburettor.

A slightly more potent version, the type D.I.S., appeared in 1925, continuing in production with only minor specification changes until 1928, but the best of all the variants of the D.I. came from Courbevoie in 1926. This was the type D.I.S.S. (Delage type D.I. Special Sport). It was in effect a D.I. with a lower and lighter chassis, a lighter and more reliable clutch, the same modified cylinder head with larger valves as the D.I.S. and fitted with a modified camshaft. For the first time the small narrow radiator appeared, which was to grace all sporting Delages until the advent of the 3-litre cars of 1935/6.

Complementing the four-cylinder D.I.s in the firm's catalogue during this period was the six-cylinder type D.M. with its sporting derivative (also with a narrow radiator) the D.M.S., and the very few and rare 21 h.p. D.M.S. type Grand Sport. They were still the beautifully-made Delages, typical of the quality motor cars of the 1920s. Their crankcases, webbed in polished aluminium, spanned the width of the chassis and the sump could be drained by the simple expedient of turning a lever mounted on this platform. Their six-cylinder 21 h.p. engines had overhead valves, coil ignition, bore and stroke being 75×120 mm. and capacity slightly over 3-litres at 3,181 c.c. The chassis of the type D.M. was a larger and tougher edition of that developed for the D.I.S.S. and four-wheel brakes were actuated by a Dewandre vacuum servo motor. The D.M.S. had a maximum speed of 85 m.p.h. and like all sporting Delages had quite faultless road manners.

1931 Type D.8.S coupé by Fernandez et Darrin once owned by John Bolster. (Photo: John Bolster)



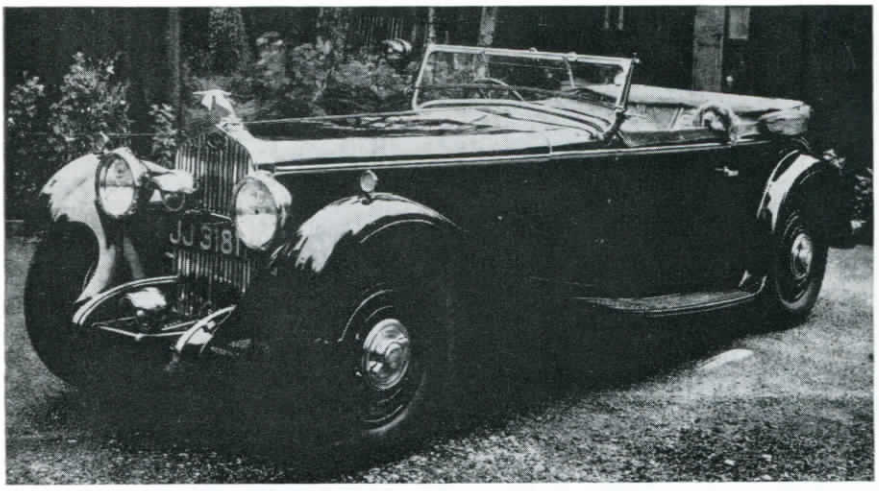
THE SERIES D.8

Late in 1929—though they were not seen in England until 1930—came the first of the Delage Series D.8. The type Grand-Luxe faded gracefully from the scene to make way for this most worthy successor which, even if it had to sacrifice something of the very expensive detail engineering of the G.L., and to a lesser extent perhaps the D.M.S., had every earlier Delage beaten from the start in the matter of looks.

I believe it was Peter Ustinov, another Delage addict, who said—or possibly only repeated—the time-worn euphemism about Delage motor cars of this era: 'One drives, of course, an Alfa Romeo; one is driven in a Rolls, but one gives *only* a Delage to one's favourite mistress.'

Quite certainly if the—presumably—millionaire enthusiast who, in those halcyon days of the 1930s, tore across Europe to the Midi in his Alfa Romeo, had a mistress whose powers to enchant needed glamourising, then, as a setting, few cars could equal the Delage D.8s, though their beauty was considerably more than merely skin deep. Their long low lines, the imposing Maréchal headlamps carried high on a handsome crossbar, the graceful sweeping wings, and above all, the long line of the car's bonnet ending in the simple, classically graceful, radiator were all hand-tailored to make the coachbuilder's job an easy one. Always on their mettle, they rose to the occasion, with the result that the Delage D.8s of the years between 1930 and 1936 are unquestionably amongst the best-looking motor cars of an era which produced some of the most handsome cars of all time.

The 1930s were the years in which the straight-eight-cylinder engine flourished. Moreover, it was a most versatile unit. One motoring writer has stated that it was the almost inevitable precursor to financial ruin from the maker's standpoint. I do not agree, but it is true that it was a fairly expensive motor to produce satisfactorily. That it had a wide appeal is evident from the fact that in Europe, many manufacturers of very expensive cars produced this type of engine, for example: Isotta-Fraschini and Alfa Romeo in Italy; Minerva in Belgium; Mercédès-Benz in Germany; Delage, Ballot, Bugatti and Renault in France; Daimler, Lanchester, and, had they continued in business, Sunbeam, in England. Almost every manufacturer in America selling into the markets of the middle income bracket in the 1930s listed such an engine, while some others, such as Duesenberg, Stutz and Packard produced notably fine ones.



1932 Type D.8.S with rare open 2/4-seater body.
(Photo: Author's Collection)

The Delage D.8 of 1929–1931 was a large motor-car, very similar in appearance to its contemporaries, the 37·2 and 8-litre Hispano-Suizas. Its high radiator was—its badge apart—almost identical though by no means a copy, since the Delage radiator of the period was evolved over many years.

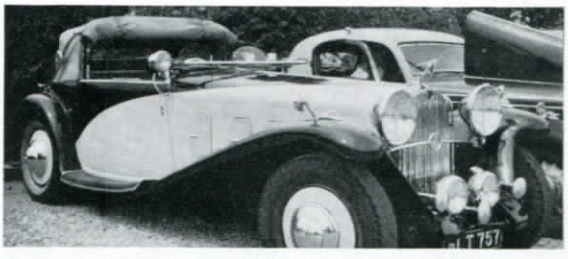
It appeared—in D.8 form—in three chassis lengths, 'short', 'normal', and '*chassis longue*'. All were of channel steel section typical of the period, and all were substantially braced by channel and tubular steel cross-members. Suspension was by long flexible semi-elliptic springs front and rear, and a single dry-plate clutch transmitted the power through a four-speed sliding pinion gearbox via an open propeller shaft to the rear axle.

The brakes (a good feature on all Delages and naturally on all four wheels), were cable operated through Perrot-type shafts, and the driver's effort was implemented by the urge of a powerful Dewandre vacuum servo motor bolted alongside the cast-iron gearbox casing.

The engine made few concessions to lightness, and as a result, the years have proved it to be almost indestructible. The eight cylinders had a bore and stroke of 77×109 mm. and a capacity of 4·050 litres. It was fitted with a detachable cylinder head and a detachable block, both of cast-iron, and the crankshaft was carried in five large-diameter main bearings. There were two overhead valves per cylinder operated by pushrods, and the connecting rods were drilled for lubrication of the small ends. Ignition was by coil and distributor and carburation by a single Smith's 5-jet carburettor. Power output in this early form was 120 b.h.p.

The bodies on almost every car were graceful, and those seen most often in England in the early years of the model, were two- and four-door saloons and coupés by Figoni et Falaschi, with the elegantly domed helmet-type wings with which Figoni had earlier adorned the fine bodies on the 2-litre and straight-eight Ballots.

The English concessionaires for Delage were Messrs Smiths Ltd. of Albemarle Street, London. They advertised the D.8s extensively, and their quite considerable sales in this country—the car's merit apart—were undoubtedly helped by the very favourable French/English foreign exchange rate of the period. The early 1930s were the days when an Englishman could stay at the best hotels in the South of France for something like ten shillings a day, and



Above: *1932 Delage D.8. SS.100 drophead coupé by Fernandez et Darrin. The car is believed to have once been owned by the Shah of Persia.*
(Photo: Maurice Craig)



1932 Delage D.8.S at Brooklands Motor Course. The 2-door saloon body is by Chapron.
(Photo: C. W. P. Hampton)

the Côte d'Azur was the favourite spot for the not-so-wealthy to retire to, for the same reason.

At £1,125 in 1931, the long sleek Figoni et Falaschi four-door sporting saloon was without question one of the best buys in the English luxury car market. A 20/25 h.p. Rolls in bare chassis form cost £1,050, the Bentley 4½-litre had cost about the same and the Invicta 4·5-litre N.L.C., in saloon form, cost some £1,750.

The Motor Shows of 1931 saw the first sporting edition of this Delage. It was a modification of the type D.8.C and was known in France as the D.8 Grand Sport. Also for 1932 the front axle of all D.8s was now positively located by long radius arms to isolate braking torque from the front springing and further to improve steering at high speeds.

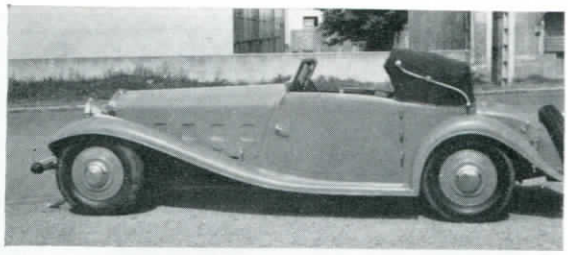
In November 1931, *The Autocar* tested the first of these new sporting D.8s. Though the car was not seen in England until 1932, it had been well worked out in France however. Before launching this very fast version of his D.8, Louis Delage made sure that most of the problems likely to emerge when even a good car is considerably developed, had been ironed out of it, and with his appreciation of the value of publicity, he decided before marketing his new model, to attack existing records at Monthléry, with a car in standard tune and modified only as to coachwork. It was fitted with a very light two-seater body, and it achieved its purpose at the first attempt with a mean average speed of 109·619 m.p.h. for 24 hours, breaking several world and class records in the process. Later a similar car, also at Monthléry, put further class records into the bag including that of 12 hours at 112 m.p.h.

IMPROVED PERFORMANCE

Between 1932 and 1935 the car was developed, and appeared in D.8.S and D.8.SS forms. Performance was improved quite impressively, the 80 m.p.h. maximum of the standard D.8 being lifted to substantially over 100 m.p.h. for the lightened short chassis D.8.SS in its ultimate form of development in England, and Delage guaranteed this maximum speed for the models D.8.S and D.8.SS.

This performance, and the excellent handling characteristics at high speeds, were obtained by material weight reduction and by a marked decrease in frontal area by lowering the chassis some three and a half inches, by fitting special re-bound leaves to the rear springs, and by increasing the output of the engine from 120 b.h.p. to 145 b.h.p., and the crankshaft speed from the permissible 4,000 r.p.m. of the D.8 to 4,500. The improved output was obtained by increasing the compression ratio to 7·5 to 1, by using a modified camshaft, and translating the improved power into performance by the use of a high-ratio rear axle. A modified sump and oil pump were fitted, the sump being traversed lengthwise by copper tubes acting as air ducts to cool the oil. The grouped chassis lubrication points of the earlier D.8s were discarded and replaced by a centralised chassis lubrication system, similar to that used by Rolls-Royce, actuated by a pedal in the driving compartment, pump and oil reservoirs being under the bonnet.

Peculiar to a small number of cars imported into this country, the maximum power was further improved on the type D.8.SS by the fitting of a very fine induction system to replace the original Smith Barraquand single-instrument installation with its necessarily overlong induction pipes. This was an excellently designed four-port chromium-plated manifold with integral balance pipes to which were fitted four S.U. carburettors with their inter-connecting control linkage. Type D.8.SS cars fitted with the 3·6 axle and this

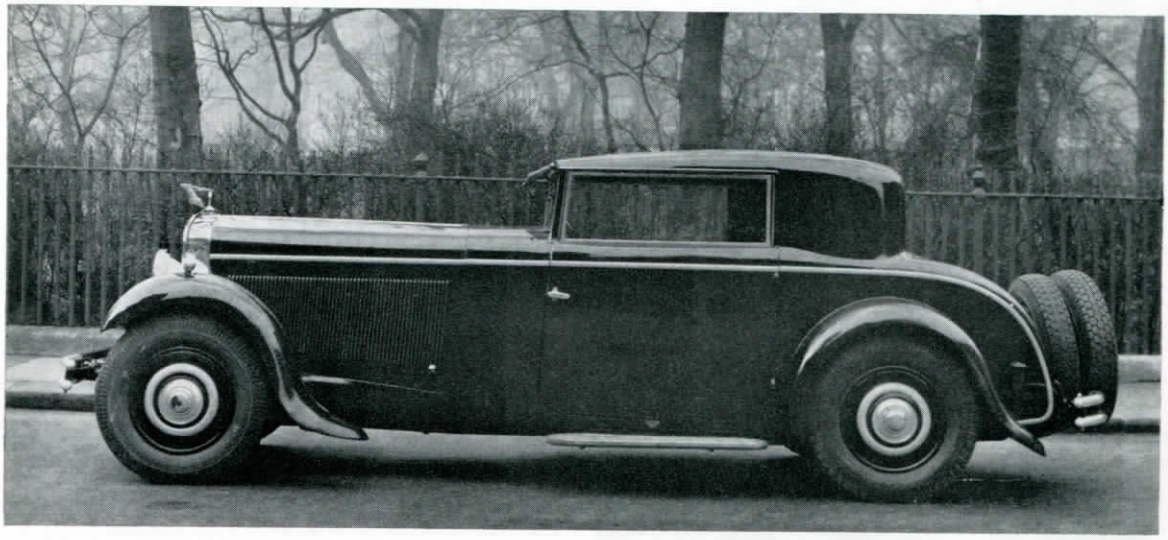


1933 Type D.8.S, with a drophead coupé body by Pourtout, owned by André Surmain of New York.

(Photo: André Surmain)

1932 Type D.8 fixed-head coupé by Figoni et Falaschi.

(Photo: Author's Collection)





1933 Delage type D.8.SS—a close-coupled saloon by Chapron owned by S. C. E. Braund. (Photo: Michael Buckley)

induction system, were known in Great Britain as Type D.8.SS.100s.

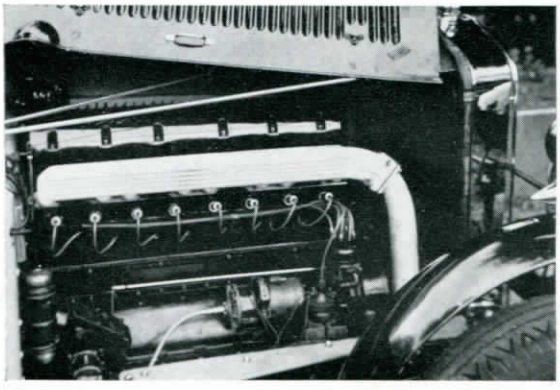
This modification (and certain others), has caused some confusion over the years, but it must be remembered that, in order to obtain very worthwhile customs benefits, many, Delage cars came into England in uncompleted form. They were painted, upholstered and finished on arrival, and in some cases fitted with English instruments. Standard instruments were of very high quality by Jaeger-le-Coutre and included both revolution counter and temperature gauges.

These later sporting D.8s were available in two chassis lengths: 10 ft. 10 in. and 10 ft. 2 in. The very short chassis was always rare, and today I don't know of the existence of one, either in England or in France. With the prodigious length of bonnet, even the 10 ft. 10 in. chassis had to have a quite close 'close-coupled' body and the 10 ft. 2 in. chassis was really suitable only for a two-seater car unless the coach-builder was prepared to seat the rear passengers over, instead of in front of, the rear axle.

The early D.8s had been impressive cars. The later sporting versions with their long tapering bonnet—usually moulded with a sweeping curve from radiator cap to door-line—and the small narrow sporting radiator, almost invariably carrying a stoneguard, were handsome indeed. Usually fitted with two/four-seater close-coupled saloon, coupé or sedanca coupé bodies, their lines were matched by the comfort of their interiors.

Despite their impressive performance and high maximum speeds, they were, first and last, luxurious fast—very fast for their time—touring cars, whose manners couldn't be faulted. They held the road as a good car should, but not always does, they had excellent brakes and they steered . . . like a Delage, and were completely reliable.

Type D.8.C engine, 1929. (Photo: Paul Grist)



The end of the Series 'D.8' coincided with the end of Louis Delage's jurisdiction over his own empire. Always an individualist, perhaps to some extent something of an egocentric, he had always resisted ideas which conflicted with his own, and had declined to veer his policies to temper the winds of change which for some years had swept through the motor industry.

His relations with his board of directors are said to have become so strained, that communications between them had become difficult in the extreme. The result was that in 1935, Delage ceased to control his own works, and very shortly afterwards Delage merged with Delahaye.

AFTER LOUIS DELAGE

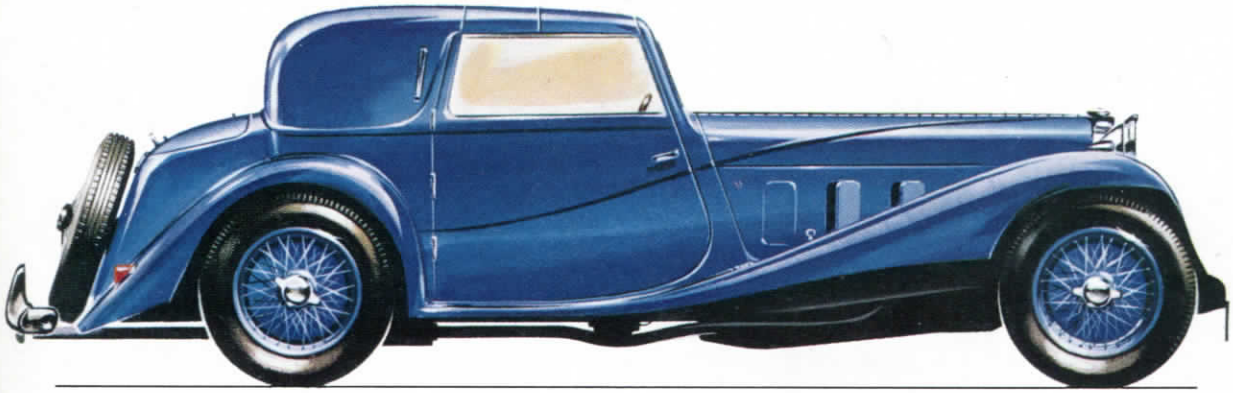
In 1935 and 1936 there were still eight-cylinder Delages, though they were now manufactured by Delahaye. They were still very good-looking motor-cars, but of a quality and performance that made Delage connoisseurs smile!

The smallest was a 2·6-litre car with an almost square bore and stroke ratio of 75×75·5 mm., engine capacity being 2,667 c.c. and known as the D.8.15.

This was closely followed by yet another eight-cylinder car of 3·5-litres capacity, the type D.8.85, the bore and stroke again altered at 79·25×90·5 mm., giving a swept cylinder volume of 3,571 c.c. Both had box section chassis frames, and independent front suspension by means of a transverse leaf spring and wishbones, and brakes were now hydraulically operated.

The last of the 'Delahaye' Delages appeared in 1937, the type D.8.120. This car also had independent suspension and hydraulic brakes, but a larger engine. With a bore and stroke of 80×107 mm., capacity was now 4·7-litres. Weight had increased by roughly 1,000 lb. when compared with the earlier D.8 type S, and performance was much inferior. Developed horsepower was still 140 b.h.p. at 4,000 r.p.m., but maximum speed was only fractionally better than 90 m.p.h. Further, the car had now acquired considerable overhang, both front and rear, and was fitted with four external exhaust pipes carried in chromium-plated conduits.

It was, in fact, just a little larger than life, and lacked the well-bred air of the earlier cars. It did have one

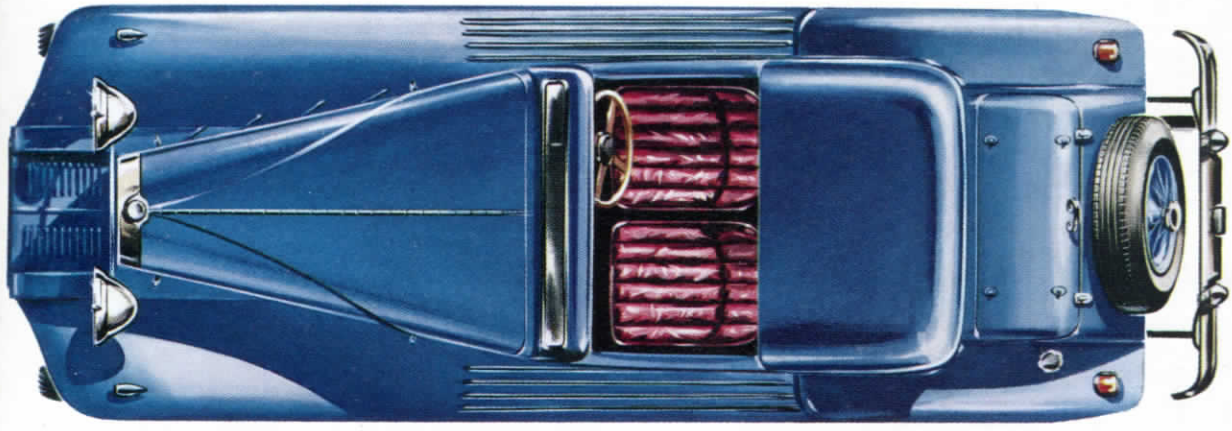


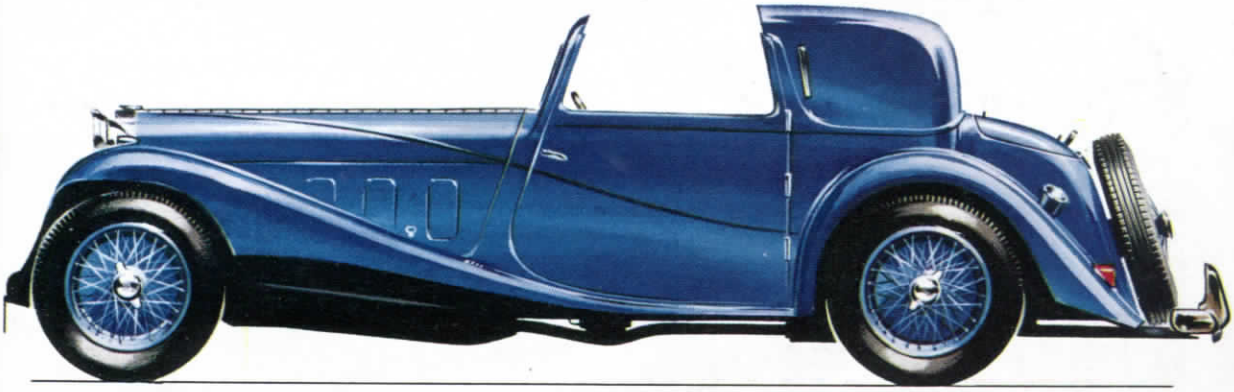


D8 SS DELAGE: with Sedanca Coupé coachwork made by Gurney Nutting for the Paris Salon d'Automobile and the London Motor Show of 1933. Owner: Lt. Col. J. R. Buckley.

0 3'







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'Le rêve passe...': a 1937 D.8.120 coupé owned by V. F. Mashek of Chicago. By this time Delages were being built by Delahaye.

(Photo: V. F. Mashek)

excellent fitting however, and one from which the earlier D.8.Ss could have derived enormous benefits. This was the Cotal electro-magnetic four-speed gearbox.

All earlier Delages had suffered from gearboxes with hardly, perhaps, the best choice of ratios for this country, but in this context it must be remembered that in England, except when rapid acceleration was called for, the D.8s (and particularly the sporting versions), were virtually top gear cars—a point upon which *The Autocar* commented in their road test of the early Grand Sport.

In their country of origin, however, twenty-five mile climbs through mountains were not uncommon, and gear ratios were chosen accordingly.

Contemporary with these later D.8s, and continuing after their demise, were a series of very good six-cylinder cars, the D6.70s, 75s and 3-litres. A very handsome 3-litre Delage coupé was placed 4th in the overall results at Le Mans in 1937, and it was with this model that Delage-Delahaye endeavoured to continue the famous name of Delage after the war. But the days of cars of this calibre in France were gone.

By 1950 Delahaye could see the end of the luxury car market in France, and were concentrating on the manufacture of commercial and utility vehicles. Only one car, the type 235, was listed under their name, and that was a re-styled version of the 1938 type 135 M. By 1952, the production of the 3-litre Delage, the last to bear this famous name, ceased entirely, and in 1954 the company was absorbed by Hotchkiss.

As a merger, it was an abortive one. Almost immediately, Hotchkiss themselves were taken over by the Brandt organisation, a large industrial complex, and Hotchkiss, Delahaye and Delage disappeared from the automobile world.

For thirty years Delage was a name to conjure with—synonymous with speed, luxury, quality and supreme elegance.

As a memory it will fade but slowly.

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SPECIFICATIONS

Delage Series D.8

Engine: 8-cylinder in line. O.H.V. push rod operated. Two valves per cylinder, in detachable cast-iron head. Separate detachable cylinder block.
Bore and stroke 77 × 109 mm. Capacity 4,050 c.c.
Crankshaft carried in 5 main bearings.
Nelson Bohnalite bi-metal pistons having aluminium crowns with lightweight cast-iron skirts.
High pressure forced feed lubrication, with drilled connecting rods for small end lubrication.
Ignition: Delco-Remy coil and distributor.
Carburation: Single Smith-Barraquand 5-jet carburettor, heated by circulating engine oil.
D.8.SS 100: 4 S.U.s on special manifold.
D.8.120: Dual choke Stromberg.
Clutch: Single dry plate.
Gearbox: In unit with engine. 4-speed and reverse sliding pinion. Overall ratios—Type D.8.S and SS: 3·6, 4·89, 7·56, and 12·6 to 1.
Many variations of above to suit other chassis and coachwork with final drive ratios varying between 3·9 to 5·4 for normal D.8 chassis.
D.8.120: Cotal electro-magnetic 4-speeds and reverse.
Suspension: Half-elliptic springs front and rear. Shock absorbers: Type D.8, various; Type D.8.S and D.8.SS, André Hartford tele-hydraulic; Type D.8.15, 85 and 120, by transverse leaf springs and wishbones.
Frame: Channel steel braced by channel and tubular cross members. Dropped frame on D.8.S and D.8.SS. D.8.15; 85 and 120; boxed section steel frame.
Wheelbase: Type D.8, 10 ft. 10 in. to 11 ft. 11 in.; Type D.8.S and D.8.SS, 10 ft. 2 in. and 10 ft. 10 in.; Type D.8.120, 11 ft. 0 in.
Track: 4 ft. 8 in.
Wheels: Type D.8, steel disc with 18 × 7·00 tyres; Type D.8.S and D.8.SS, Rudge Whitworth centre-lock wire wheels with 18 × 7·00 tyres.
Weight: D.8.SS chassis, 2,900 lb.
Price: (1932) D.8.SS chassis, £975.
Performance data: D.8. Grand Sport chassis (Press Road tests).
Mean Time flying ½-mile, 98·9 m.p.h.
Maximum speeds on gears: 1st, 29 m.p.h.; 2nd, 48 m.p.h.; 3rd, 67 m.p.h.
Top in excess of 100 m.p.h. under not very favourable conditions.

Chassis data:

Valve clearances: inlet and exhaust 5/10 mm. or ·018 in. (hot).
Contact breaker points: ·018 in.
Firing order: 1, 3, 7, 4, 8, 6, 2, 5.
Carburettor: Single Smith-Barraquand 5-jet carburettor or Type D.8SS 100, 4 S.U.s on special manifold.
Plug setting: ·7 mm. or ·023 in. Champion type No. 7.
Valve timing: Type D.8. Inlet: Opens 5° b.t.d.c. Closes 35° a.b.d.c. Exhaust: Opens 45° b.b.d.c. Closes 5° a.t.d.c. Types S and SS.—vary as to camshaft fitted.
Ignition timing: At t.d.c. fully retarded.
Distributor points: ·018 in. gap.
Sparking plugs: Champion type 7. Points setting ·023 in.
Tracking: Front wheels, toe-in 3 mm. (measured at wheel centre height).

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