

**ESCAPE ROAD**

# Bugatti Atlantique Electron Coupe

*Jean Bugatti's riveting design for the Type 57SC*

*By Roger Barlow*

If the Royale is the most magnificent Bugatti, and it surely is, the Type 57 Atlantique is easily the most spectacular. The Type 57 series overall also has the reputation of being the most practical Bugatti. I concur, for after WWII I drove a Gangloff-bodied convertible from New York to L.A. in comfort and without problem.

The new Type 57 of 1934 was a *voiture* in the best French tradition, combining the often contradictory goals of superb road holding with reasonable comfort, mechanical sophistication with reliability. Still a hand-made, rather complex Bugatti, this unusually dependable line of cars was produced until 1939 and the start of WWII. It was Ettore Bugatti's most successful single model, although no more than about 750 were ever made.

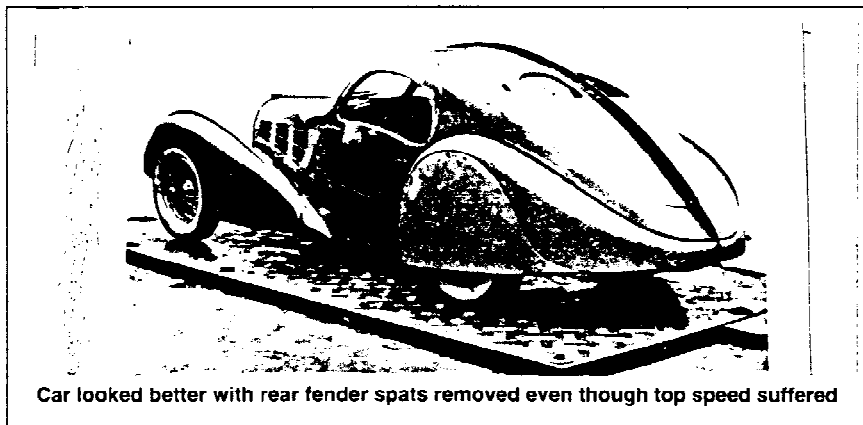
The series began with a basic chassis having a wheelbase of no less than 130 inches, incredibly long by today's standards. But it insured a comfortable ride with the rear seats well within the wheelbase and, of course, put a wheel at each corner with minimal overhang.

The Type 57 suspension, front and rear, was still traditional Bugatti; by now rendered obsolete, in theory, by the new-fangled independent suspension systems of the Germans, whose main virtue was a reduction of unsprung weight. As the unusual Bugatti front axle was exceptionally light, little would have been gained by going "independent" and much might have been lost in steering and handling. Although a Bugatti differential and rear axle casing was smaller and lighter than most others, and the reversed quarter-elliptic springs had their main bulk chassis-mounted as sprung weight, the unit's total unsprung weight was still somewhat greater than that of an IRS layout. But the wheels, of course, maintained their advantageous parallel relationship which made for viceless cornering and directional stability superior to that of early IRS.

Brakes, in huge drums, were cable operated at the start but after 1937 were

Lockheed hydraulic.

Though the Type 57 chassis and suspension was still basic Bugatti, the new straight-eight 3.3 liter engine was a radical departure from Bugatti's usual single overhead cam designs with vertical valves in a line, often with two inlets and one exhaust. It is said



Car looked better with rear fender spats removed even though top speed suffered

that Bugatti acquired one of the 90 cu. in. Miller engines from a front-drive race car being campaigned in Europe by Americans.

However influenced, this new engine had twin overhead cams (gear driven at the rear of the engine), valves at 90 degrees in hemispherical combustion chambers and was cast in iron with the block and head as a unit. Bore and stroke was 72 x 100 mm. The substantial crankshaft was carried in five white-metal main bearings with a sixth between the camshaft drive gear and the flywheel. Power has been quoted at 130-135 hp at 5000 rpm. Gearbox was a compact four-speed constant-mesh unit, without synchromesh for its dog clutch gear engagement. Maximum speed of the 57 ranged from 95 to over 100 mph, depending upon the coachwork fitted. Prices were directly comparable with the less interesting pushrod engined Delahayes and Talbots.

A supercharged version, 57C, was soon available with the power upped to 160 at 5000 by the gear-driven Rootes unit blowing at 6 psi. Top speed, even with sedan coachwork, was now a genuine 115 mph.

In 1936 came the 120 inch short wheelbase chassis "S" version. Axle twist on the semi-elliptic front springs was now controlled by torque rods; bump reaction by the unique and expensive de Ram shock absorbers which used constantly varying hy-

draulic pressure (generated by front axle movement) to load the friction discs, thus automatically adjusting the damping effect according to road irregularity and speed. The engine was the same save for slightly higher compression and a dual plate clutch to cope with the 170 hp (at 5500 rpm). When supercharged these cars were known as the 57SC, developed near 200 hp at 5500 rpm and had dry sump lubrication. Speeds of 130-135 mph must have been attainable.

An unblown 57S Competition model with streamlined open two-seat body won Le Mans in 1937, a blown version in '39.

A number of beautiful and even exciting bodies were fitted to the 57S and SC chassis by various coachbuilders but none

could compare with the truly spectacular Atlantique coupe designed by Bugatti's talented eldest son, Jean. The flowing lines, along with the elegant slightly Veed radiator set low and near the front wheel centers, would alone have won him praise. But what set it apart from all other coachwork, before or since, was the bold use of riveted joints standing proud along the center line of the body and each front fender.

Now this truly innovative styling touch was more than just that. It was an example of "form following material", which few seem to have realized. If Jean Bugatti wanted to use the ultra-light magnesium alloy, electron, for this coupe he was faced with a serious problem: How to join the hand-beaten half-sections of the fenders, and body which would normally be welded together. I do not believe that (at that time) such thin sections of electron could actually be welded, for the heat involved would set the material itself alight. Riveting was the only practical way to join the sections.

Jean Bugatti's brilliance was shown by his decision not to try to *hide* the rivets but to flaunt them along the vertical joint...as an eye-catching spine of gracefully increasing height along the top of the body and in smaller, but appropriate, scale along the crest of each front fender. Sheer creative genius and exceptional good taste.

A silver miniature of an Atlantique coupe ought to become a sort of automotive "Oscar" honoring innovative design—as well as a belated tribute to Jean Bugatti's creative genius. He was killed in 1939 testing the latest 160 mph competition Type 57; he swerved to avoid a drunken cyclist who had blundered onto the road which was thought to be cleared of traffic. ■