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THE ULTIMATE BUGATTI

BY KEN W. PURDY

A ZIFF-DAVIS PUBLICATION

How To: USE RACING FUELS

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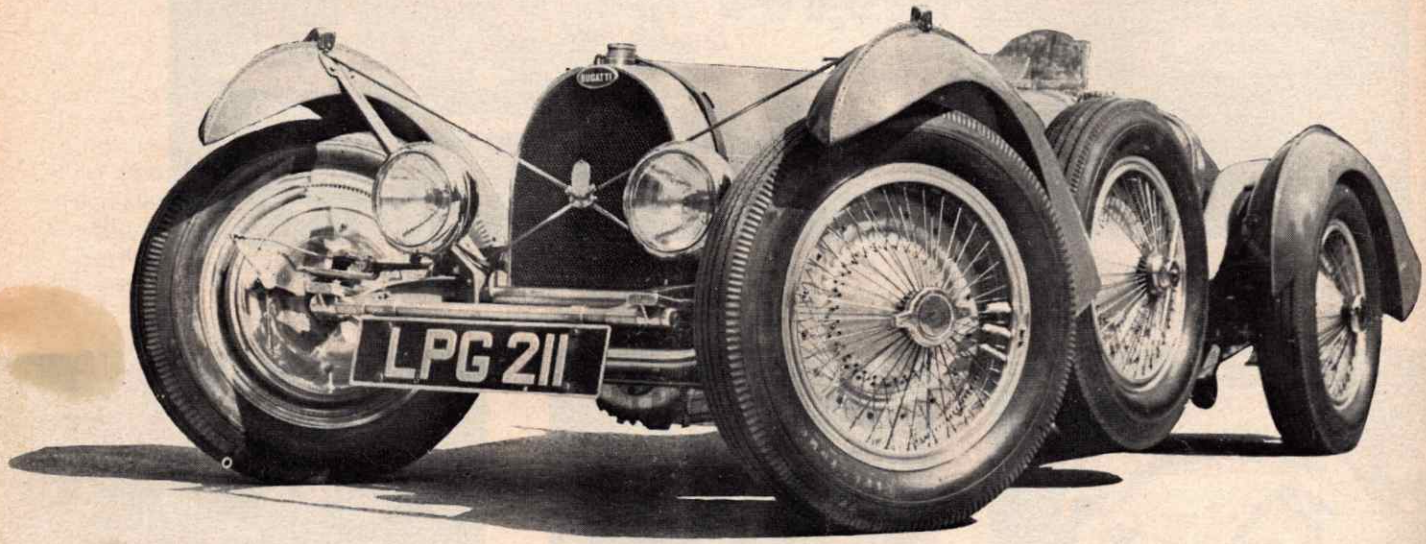
Last of the legendary Bugs: The 3.3 Type 59

By KEN W. PURDY



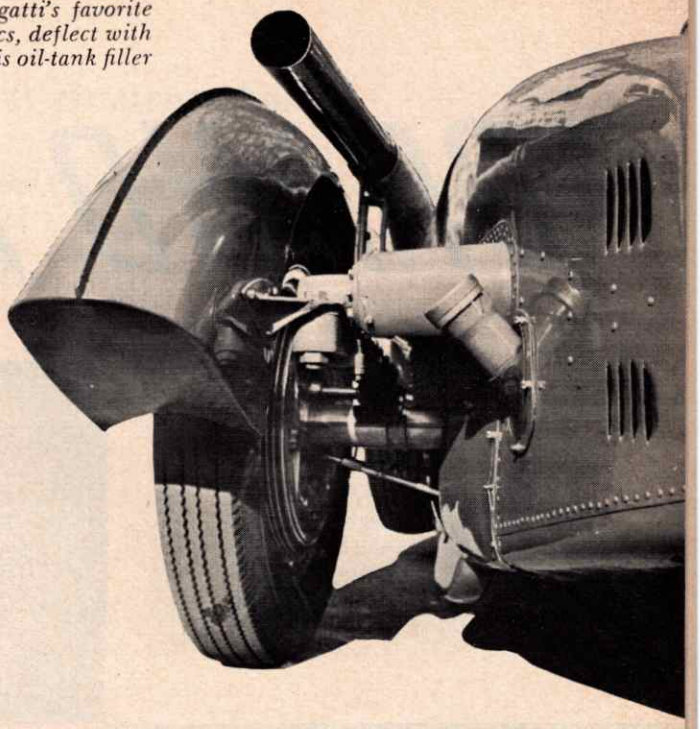
IN 1932 the Grand Prix formula for the years 1934, '35 and '36 was announced; 1650 pounds maximum weight, 33½ inches minimum frontal area. The Nazi government handed the Mercedes-Benz and Auto-Union factories $100,000 subsidies and they produced the four-liter W25B Mercedes and the six-liter Type C Auto-Union. Ettore Bugatti, who was not, of course, getting a *sou* of subsidy from his government, built the 2.8-liter Type 59.

It's commonly thought that the Type 59 was the last of the racing Bugattis, but it was not. Before World War II blew everything apart, the Molsheim factory had run the 3.8 Grand Prix car, the blown three-liter, the 4.7 sports, the blown 4.5 and 4.7 *monopostos*. The 4.7, incidentally, has a special place in history: driven by J. P. Wimille, it won the very first European post-war race: the Coupe des Prisonniers, September 9, 1945. But the Type 59 in its best-known form—3.3 liters supercharged—overshadowed the other cars.

The Type 59, putting out a modest 260 horsepower, could hardly compete on level terms with the contemporary Mercedes-Benz and Auto-Union cars, both of which delivered 430, but within its limitations it was a successful model, and had the competition in its day been factory-to-factory, it might have been the world-beater the Type 35 had been. As it was, it set up a respectable record. The car ran first in the Spanish Grand Prix of 1933, as a 2.8-liter, and finished fourth. In 1934 the bore was increased from 68 to 72 millimeters and in that year and 1935 it won a fair number of events. Rene Dreyfus took the Belgian Grand Prix in a 3.3, Wimille and Benoist won the Picardy and Algiers G.P.'s, the car was first at Mannin Moar, 2nd in the Tunis, Lorraine and Donington G.P.'s, 3rd in the Coppa Acerbo, in the Monaco and Spanish Grand Prix events. The car was timed on the San Sebastian straight at just over 168 miles per hour. Another 3.3 ran 147 while missing on one cylinder. The car continued to compete in 1936 and 1937 and in the latter year Wimille ran 162 miles over the 12-mile Montlhery road circuit at 91.13 miles per hour—a hair below the then lap record, held by Mercedes-Benz. Wimille set the new record, 92.44, and it still stands.

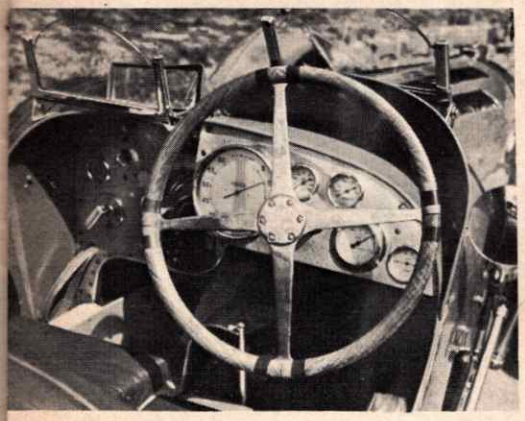
The only 3.3 Type 59 (a Type 59 can be 2.8 or 3.3 or 3.8) in this country belongs to Mr. F. H. Ludington of Pelham Manor, N.Y. This is the ex-Brian Lewis car, the Mannin Moar winner, and Mr. Ludington bought it from Rodney Clarke. It can honestly be described as a fantastic automo-

Photos by Irv Dolin



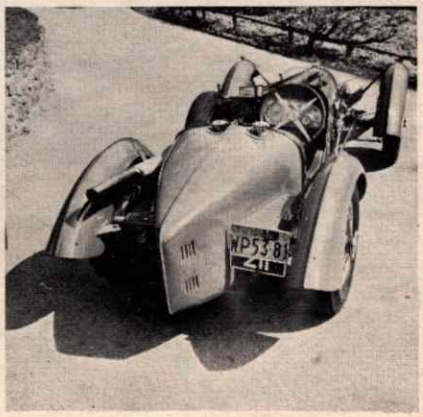
Rear springs, Ettore Bugatti's favorite reversed quarter-elliptics, deflect with reluctance. Pipe at right is oil-tank filler

bile. So much nonsense has been written about Bugatti automobiles that superlatives applied to them have lost much of their force. There is one school of writers which holds that all Bugatti devotees are glassy-eyed morons who "drool" every time they see a Bug. "Drool" is a colloquial and archaic form of the word "drivel" and "drivel" means to allow saliva to run down the chin while, at the same time, talking like an idiot. Members of the "Drool School" of motoring journalists, even when writing about one of the lesser Bugattis, say a Type 38 or a Type 57, will tell you that this is a car which causes the true fanatic to salivate uncontrollably, whimper, pant, and exhibit involuntary spasmodic twitching. I think I have written as much about Bugattis as anyone in this country, and I've seen more of them than most, and every time I approach a new one I look around covertly for wet chins and glassy eyes. So far I've always been disappointed. Dyed-in-the-wool 33rd-degree Bugattistes of the stripe of Charles Addams and Ralph Stein might drive 500 miles in a howling gale to see a strange Bug., but even if the thing turned out to be a Type 57SC that had been run a



Driver's view. Instrument panel is non-standard, so is clutch-stop (vertical lever in center.)

Mudguards and lights were added to Grand Prix car by English owner. Note Bugatti's "split" front axle.



The 3.3 Bugatti (actually 3,257 cc.) produced about 260 horsepower, had a top speed very close to 170 MPH.

total of 100 kilometers and then sealed in pliofilm I doubt either of them would say more than, "Nice, isn't it."

I remember when Mr. Ludington's 3.3 came off the boat, in a crate, naturally. When it was unpacked it looked like something executed by Cartier's. There was no square inch on the automobile that would have soiled a white glove, and I include the exhaust pipe for as far as I could reach inside it. It was the most nearly immaculate automobile I've ever seen, obviously of the highest drool-quotient, and the place was full of Bug.-lovers. Later I checked the garage floor for telltale drool-droppings. Negative.

Mr. Clarke had a simple, straightforward system of maintenance. First off, he owned a commercial garage. Second, he employed a strong-armed youth of 18 or so whose duties were clear-cut and limited. Beginning on Monday morning, he polished the 3.3. By Saturday he had finished and on Monday he could begin again. The axles, springs, brake-gear and so on are unplated steel. The so-called "piano-wire" spokes are steel, and would rust in a light fog. When Mr. Clarke wanted to take the car to, say, Prescott to run it up the hill at a Bugatti Owners Club meeting, all the bright work on it

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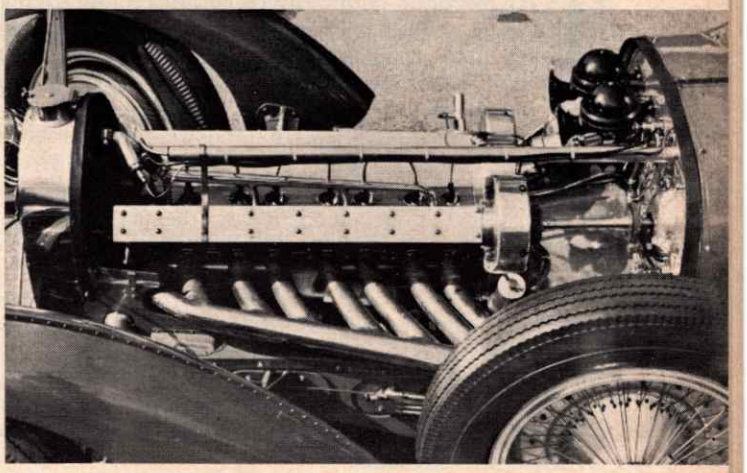

DOHC straight-eight engine was typically clean, straightforward design. Note oil-cooler tubes behind spare wheels thin spokes, serrated rim.

Bugatti 59

(Continued from page 29)

was given a heavy coating of protective grease. Arrived at the venue of the meeting, the grease was removed and everything polished. The car made its runs, the grease was replaced, and home again, where it was taken off and a spot of polishing done. I think Mr. Clarke would be pleased to know that the car today looks to me just about as it did when it came off the dock. Clean. Very clean.

Ludington bought the car sight unseen and he paid a considerable sum of money for it, how much, he does not care to say, but I imagine a pretty good second-hand Ferrari would not have cost more. The engine was set up to run on alcohol and since Ludington did not intend to use the car for more than ordinary road work he had the engine de-tuned by the redoubtable Bill Frick. Frick successfully tamed the beast without taking much of the bite out of it. Later the block was cracked and the new one was put in by Alfred Momo. The car has had no other major mechanical attention.

Considerable modification was carried out on the Ludington car in England. In standard form the Type 59 was a single-seater, although not *monoposto*, an oil tank or a pair of them occupying much of the left side of the driver's berth, and the car usually ran under a metal half-tonneau cover. This tankage has been installed in the tail, and Ludington can carry a passenger—although not a very big one very far. The car has a Type 55 starter mounted on the gear-box, and a plate of heavy gridded metal rises from the floor and curls over the starter, to keep the passenger's feet out of trouble. A Type 57 generator was installed to take care of the lighting arrangements, and a clutch-stop to allow engagement of first and reverse without the otherwise almost-inevitable graunching. The hand-brake, normally inside on the driver's left, has been put out-of-doors with the gear-shift lever. The mudguards are beautifully made, seamed down the center in the fashion of the elektron-bodied Type 57SC's, as is the tail itself.

The engine is of course a supercharged straight eight, but not, as the resident Bugatti expert of another publication recently wrote, "like all Bugattis." (The Types 13, 22, 23, 37, 40, 37A and 40A were four-cylinder cars, and the Type 47 was a sixteen. This same tester also ruled that the Type 35B "might have been" one of the cars that hung the "temperamental" reputation on the Bugatti; many of them, he said, started but did not finish races. The Type 35 is generally held, by the likes of Laurence Pomeroy, to have been the most successful racing automobile of all time, the present included. In 1925 and 1926 35's won 1,045 events, in 1927, 806. This record, never remotely approached by anything else on wheels, causes one to wonder what the Type 35 might have accomplished had it been reliable.) Well, where were we? Ah, yes, the engine. Two hundred and sixty horse at 6,000 rpm, about ten pounds of boost from the Roots-type blower. Two Zenith carburetors bolted to the top of the blower instead of the bottom as had been normal Bugatti practice, multi-plate clutch, no flywheel. In the ordinary way of things the engine was commenced by inserting a crank amidships on the left. It worked through the timing gears. The straight pipe houses no silencing arrangement, but by exercising reasonable care, Mr. Ludington has thus far avoided trouble.

The crankshaft, set up like two four-cylinder cranks bolted together at 90 degrees to each other, is carried in six plain bearings. Head and block are in one unit, two valves per cylinder, 90° inclination, spark plugs in the center. Lubrication is dry-sump, the fuel tank holds 30 gallons, pressure-fed. Final drive, double reduction, with ratios from 2.9 to 4.5 available.

For this G.P. car the great man of Molsheim came up with a typically Bugatti innovation, the "piano-wire" wheels. This is a deceptive arrangement at first glance, because it is hard to believe that the slender wires radiating from the hub could sustain even the dead weight of the car. As a matter of fact, they don't. The wheel is solid, with a serrated outer diameter mating with serrations on the rim. Weight of the car, accelerating and braking stresses are thus cared for; the "spokes" serve mainly to locate the standard Rudge hubs. This wheel was ten pounds lighter than the slab-spoked one that preceded it, but it had its disadvantages. Rene Dreyfus, team driver for Bugatti and now owner of Le Chanteclair restaurant in New York City, recalls that he never overcame his initial distaste for the 3.3 wheel. Dreyfus, and the other drivers as well, objected to the alarming "whack" as the car accelerated or braked, and the slack between the wheel and rim serrations was taken up. Dreyfus complained to Le Patron, but was airily told that the tolerance between the two sets of serrations actually served the useful purpose of taking up some of the shock.

Four 3.3 Type 59's were brought into England in 1935, and these are the only ones known to exist today: two in England, one in America, one in South Africa. Only three are running. The fourth had a tragic history: It caught fire and killed the Duke of Grafton the first time he ran it in the 1930's, and it killed Kenneth W. Bear, an outstanding English Bugattiste, in a post-war hill-climb, and was wrecked beyond repair. Bear's accident was due to brake-linkage failure, giving him a one-side application that put the car through a hut beside the road. Ettore Bugatti always maintained that no driver had ever been killed or seriously injured through a material failure on one of his cars, and as far as I know this was true until Bear lost his life on a ten-year-old automobile.

If the Type 59, in action, has less of the cat-like grace and sheer agility of the variants of the Type 35, still it does own more urge, higher top speed, better brakes, and it is surely one of the most beautiful automobiles ever bolted together by men who were happy in their work.

Ken W. Purdy

(Continued from page 62)

RACING ROLLS?

Two questions: First, will a Porsche Carrera outcorner a Rolls Royce? I realize this is an extraordinary question, but according to statistics, will it? Secondly, which machine has the greater prestige—the Rolls or the Bentley (disregarding cost)? Congratulations on a wonderful magazine.

Pvt. Weldon Roberts
Camp Pendleton, California

Both in practice and theory, the Porsche Carrera will outcorner a Rolls Royce. The low center of gravity of the Porsche reduces the amount of lateral weight transfer in a corner, and thus limits the critical loadings on the outside tires. Also, the much shorter wheelbase is a big help.

Prestigewise, it's worth it to spend the extra 40 bucks to get the Rolls radiator. It's identical to the present Bentley in all other respects, but the Bentley reputation is that of "The Silent Sports Car", which puts it in the class of the reformed criminal, while the Rolls has stood uncompromisingly as "The Best Car in the World".

COOL AIR FEED

I've been considering the idea of providing the SU carbs on my TR2 with an independent supply of cool air. There are quite a few TR's around here with hoods reworked to do this, and this seems to work well. However, I would prefer to keep away from bodywork for this purpose and would rather duct the air through a flexible rubber or steel tube.

It seems to me that the carbs should be stripped of the existing air cleaners and linked by a common air collecting box, fed by a tube running from the front of the engine compartment. Somewhere in the line would be placed a filter, easily accessible for cleaning. Even this would be affected by under-the-hood heat, but I think it would deliver cooler air than does the stock setup. Also, I think this arrangement would create a ram effect in the air delivered to the carbs.

Frank A. McGoveran
Toronto, Ontario, Canada

Hood reworking is a reasonably good approach to the problem for a beginner, since it avoids some of the complications that crop up with direct ducting. The latter method is the most positive, and does pick up the coolest air at the nose if the duct is led out even with the radiator. If you're thinking of ducting from within the compartment, it isn't worth it. A better spot would be the angled wall to the right of the grille, where a hole or scoop could be cut.

A ram effect or pressure buildup at the carbs should be avoided, unless the same pressure is applied to the float bowls and carbs as a whole, since it can greatly upset the mixture balance. The usual symptom is leaning out and power loss as car speed rises. If you're running a duct from the grille to the carbs, either box in the entire carburetor group, leaving grommeted holes for linkages and lines, or, more simply, leave the back end of your duct open to prevent any pressure buildup. That way you still get the cool air without carburetion worries.