PRESENTED BY GREG JONES RESTORATION

09.22.



1935 Bugatti Type 59/50s Grand prix

THE RECREATION OF ROBERT BENOIST'S

Engine # 8 - Chassis # 2 - Gearbox # 4 - Rear end #4

Specifications:

300 BHP 8 cyl, 4.91 Supercharged, Twin Overhead Cam engine,
Scintilla Magneto, 3 Zenith 48k updraft carburetors,
4 speed gearbox with a double reduction rear end,
Piano wire wheels, Cable brakes, De Ram shocks.

Web links-

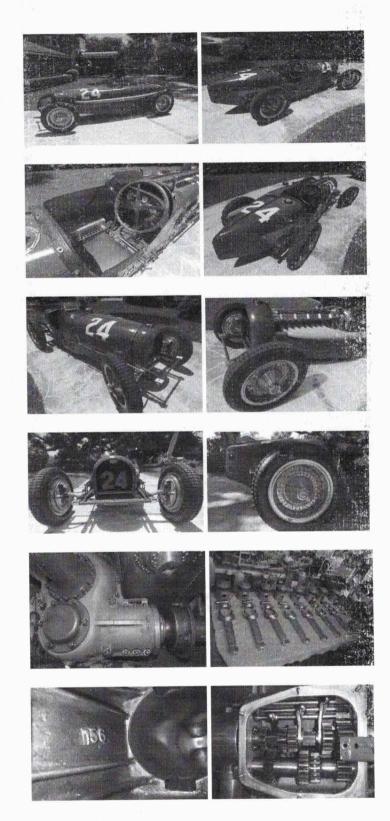
David Sewall report

Youtube video of restoration

Here we are delighted to offer this immaculately presented Bugatti Type 59/50s whose structural and mechanical assemblies are entirely or substantially the originals, manufactured and hand-crafted in period through the mid-1930s by the artisans of Automobiles Bugatti in their world-famous factory at Molsheim in Alsace. Only such peripherals as the body panelling and tanks have been remade.

That such a powerful car embodying such historical significance can now be offered here at all is a tribute to more than 40 years of dedicated interest, enthusiasm and original-component collecting by its present vendor. This machine represents the ultimate achievement of one thread of his near lifetime of Bugatti enthusiasm; to reassemble as much as possible of the legendary French marque's traditional offset-seat Grand Prix car line's last hurrah – the unique 4.9-litre supercharged Bugatti Type 59/50B as driven by the great Robert Benoist in the Grand Prix de l'Automobile Club de France at Montlhéry Autodrome on June 23, 1935.

It embodies not only an original Bugatti-made, in-period Type 59 chassis frame - serial 'No. 2' (which may well have been the basis of the practice car used by Benoist at Montlhéry that historic weekend). It is also powered by the 4.9-litre supercharged 'No. 8' engine known to have been used in its modified and lightened form in Benoist's race car that day. This famous individual Bugatti straight-eight cylinder twin-overhead camshaft power unit began life as the Type 54 engine, previously used by works-backed customer Count Stanislas Czaykowski to smash the World 1-Hour speed record at Berlin's AVUS speedway circuit in 1933. 4.9-litre engine is fitted with a then-new ultra-light aluminium fabricated bottom-end casing and lightened crank shaft. This power unit is coupled to the same original 'No. 4' renforcé (uprated) gearbox which Bugatti deemed necessary to handle the much-enlarged engine's extra power and torque compared to the preceding, 'standard' Type 59 Grand Prix power unit which displaced only 3.3 litres. This original - and again very special - gearbox drives via precisely the correct period-made type of propeller shaft and gear-driven back axle. The car rides on yet more absolutely original in-period, Bugatti-made running gear, including the front axle, the rear axle (which picks up its suspension springing and location members in a distinctively unique manner), plus not only the beautifully-crafted Bugatti Type 59 'piano-wire' road wheels, but also the multi-bolt and legendarily complex De Ram shock absorbers which seem to have been tailored specifically for the original 'Benoist Montlhéry car' and which are plainly identifiable upon photographs of the works entry taken that weekend.



"The gearbox in 'The Benoist car' is not an early Type 59 unit drawn in 1929. Instead it's a new reinforced and entirely larger gearbox drawn in 1935 which was not available to the early 3.3-litre cars – and the normal 3.3 gearbox is much too light for the 1935 '50B' engine. The 1935 'Benoist car' was the first to have the side-mounted external 24-volt starter, for which I have the drawings. The driveline or prop shaft is unique to this car because of its construction and the coupling with the rear axle is by gears, not leather or rubberised fabric couplings. Because of the longer (renforcé) gearbox given to me by Seyfried it is also shorter in length.

"I obtained the 'No 4' gearbox from the T59/50B III that was assembled by Seyfried. The 'No 4' rear axle is totally different from the 1932-33 rear axles. Its differential is ZF limited-slip – much more substantial than the ordinary 3.3 type. Also the axles themselves are much heavier than 3.3 axle shafts.

"The rear wheels are designed for 6.50 tyres, and the front and rear wheels are matched pairs with wider brake drums, distinctive serial numbers and lightening holes which set the real thing apart from modern-made economy replicas. The right-front brake shoes still carry original Bugatti red paint indicating 'Moteur No. 8'."

"The alloy engine bottom end casing as used at Montlhéry 1935 was acquired in California amongst many other Type 50 parts from Bob Estes.

"Upon greeting me and before I would leave the factory, Seyfried would have many important parts for me as gifts. Although I did not speak French, nor he English, he realised that I was maybe the only one who appreciated the parts. He understood what I was going to do with them to resurrect the cars and the work of Ettore Bugatti and his son Jean."

Thus components and fittings – including such priceless original details as the distinctive 'elephant's ear' oil cooler prominent today alongside 'The Benoist car's' cockpit – were drawn from a range of sources, including Bugatti at Molsheim, Carlton Coolidge, as above and Gene Cesari and Bob Estes in the USA.

Ultimately this stock contributed to the extraordinary treasure chest of Bugatti parts embracing many different model ranges, which survived in hiding at Molsheim from 1940 well into the 1960s. Only when growing demand emerged with increasing marque interest in Europe, the UK and particularly the USA where they extensively redeployed...

Growing interest promoted the emergence of specialist repairers and restorers, assiduous parts-finders and dealers supplying that market. Jean De Dobbeleer of Brussels was one pioneer. Luxembourg-based Bugatti specialist Bart Loyens was another - and our current vendor was the third, working in close conjunction with M. Loyens.

During his frequent visits to Molsheim during the 1960s, he recalls the factory's primary treasure chest of significant pre-war parts as having been a 'secret room' concealment: "There was a false ceiling built under the factory roof, enclosing a hidden room accessed from a narrow wooden staircase through a disguised panel. Those who were aware of it could push the panel open, and step through into quite a large space between the false ceiling and the outer roof, and it was in there that the Bugatti people had stashed a tremendous amount of late-model racing and experimental bits which they really treasured, and which they undoubtedly hoped to use again if the war had been over as quickly as most people seemed to have expected in 1939-1940...

"During the period of around four years through the 1960s when I was visiting Molsheim regularly, Bugatti operated a very simple policy. Francois Seyfried ran the show. He made it clear you could buy absolutely anything left over from their former car production, apart from the factory machine tools. I bought chassis frames, engines, gearboxes, axles, wheels, all kinds of detail components – but the instant I asked about buying some of the famous Bugatti vices from the workbenches the answer was a flat 'No'. Those were factory tools – Not for Sale!"."

From this long-preserved treasure chest of Bugatti's once most jealously guarded components – plus other privately-purchased original components of equally impeccable provenance - the vendor of this almost entirely authentic Bugatti Type 59 re-assembly was able to accumulate his own 'retirement pension' stock of really astonishingly high quality genuine parts with which to recreate the former Champion of France Robert Benoist's long-lost, one-off, 1935 Type 59/50B – and we offer it to you here. It merits the closest and most discerning inspection by all enthusiasts for the marque Bugatti...

That so little would require re-manufacture to produce the 90 per cent-plus authentic Type 59/50B we now offer here is something very special – and it is thanks to the extraordinary percipience and knowledge of this pioneering Bugatti specialist that such a treasure-chest reassembly of so many all-original parts has been achieved.



Looking back on his years spent doggedly hunting and accumulating genuine original Bugatti components, the vendor of this Type 59/50B recalls: "During my searches at Molsheim with Bart Loyens they used to provide me with some yellow chalk and two men to help. I was given complete access to all their store-rooms including the false-ceiling concealment off those narrow wooden stairs. Anything I marked with a chalk 'X' my two helpers would stack ready for despatch, usually via Bart in Luxemburg...

"I bought four original Type 59 chassis frames of which chassis '2' is in the car we're selling now.

"I'd also been asked by Carlton Coolidge in Ohio to help get the 4-wheel drive Bugatti Type 53 running that he'd bought from De Dobbeleer. I identified the engine as that very special further modified ex-Czaykowski Type 54 engine, used in the 1935 Benoist Montlhéry car...and Carlton Coolidge finally part-exchanged it all with me for a restored and running Type 37A. Engine 'No 8' had its supercharger distinctively mid-mounted fore-and-aft alongside the engine, unlike the usual Bugatti forward-of-centre mounting – and it had the original special manifolds to match. It breathed through three 48K carburettors under the supercharger, instead of two. Its camshaft drive-train gears are also helical, not straight-cut – and it used dural con-rods, not steel. That's all built into the car today.

"The radiator is original, one of two I received from Seyfried at the factory, and although the tail fuel tank has had to be made new, its definitive Type 59 twin filler necks are again originals. Up in that double-ceiling concealment I found many parts such as springs, hubs, spinners, spring supports, instruments, De Ram shocks...the list was enormous.

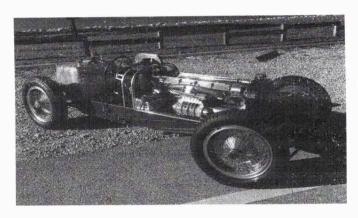
However, the cost of running such a factory team was prohibitive. Without immense future investment little Bugatti could not compete with the new major-industry opposition developed by Mercedes-Benz and Auto Union in Germany, and by the Italian Scuderia Ferrari Alfa Romeo operation. Bugatti is believed to have manufactured 12 Type 59 chassis frames and built eight of them into complete cars. Four of those cars were later sold to British private owners.

The premier race of 1935 for this struggling – yet still rightly proud - French manufacturer was of course 'The French' – the historic Grand Prix de l'Automobile Club de France at Montlhéry.

To confront the ferocious foreign opposition, French Government funding probably helped Bugatti improve the competitiveness of its solitary Grand Prix entry. Where the 3.3-litre Type 59s of 1933-34 had offered perhaps 240bhp, Bugatti's late-completed 'secret weapon' for Montlhéry emerged as the unique 'Benoist car' combining 4.9-litre engine 'No 8' in reassembled, lightened and uprated form with a Type 59 chassis modified to accommodate this longer, larger-capacity engine with its massive supercharger slung centrally – in the longitudinal sense – along its right side.

Bugatti straight-8 engines of this series feature cast-iron cylinder blocks which carry the crankshaft below in main bearings attached to the block via bolt-on main-bearing caps. The engine assembly's bottom end is then closed by attachment of a capacious aluminium lower casing variously described as the 'sump' or 'crankcase'. Here we will use the term crankcase, although in Bugatti Royale and '5-litre' engine practise this structure does not in fact support the main bearings and via them the crankshaft itself. It is still a large and vital component. In 1933, when engine 'No 8' had powered the Czaykowski Type 54 car it had featured the model's standard cast-aluminium crankcase and cast aluminium side plates. As prepared for the 'Benoist car' in the 1935 Grand Prix de l'ACF, its bottom end was enclosed by a new crankcase, fabricated from ultra-lightweight 0.080-inch thick aluminium sheet. This replacement fabrication was uniquely shaped, wider at the bottom and featuring stainless-steel protective sheathing at its front end to prevent stone damage.

At Montlhéry, Robert Benoist and the Bugatti team had used an apparently 'standard' Type 59 during practice – which may well have embodied this very chassis frame 'No 2' – before their very special 'secret weapon' Type 59/50B was delivered around midnight on race eve. The fresh car was hastily completed and was allowed to replace the 'home team's practice car without even being scrutinized. Benoist was finally forced to retire after 16 long race laps.



His race car that day featured both the distinctively extended radiator cowl and prominently seemed riveted tail featured on this Lot. Its De Ram shock absorbers - fitted here today - were the ultimate development of what had become such a much-discussed feature of the 'standard' 3.3-litre Type 59s. These extremely complex examples of precision engineering provided friction damping proportional to the speed of movement of the actuating lever. Internal friction discs were loaded hydraulically by the actuating lever operating a plunger pump whose output pressure was then modulated by leakage through a drilled orifice. While all these 'Type 59' De Ram dampers were exceptional, those fitted to 'The Benoist car' were even more individual, incorporating even more peripheral through-bolts — as seen here.

Subsequently, the actual chassis frame of 'the Benoist Montlhéry car' was re-employed by Jean Bugatti for the modernised centreline single-seat Bugatti Monoplace into which he had a 4.7-litre Type 50B engine fitted to contest the 1936 Vanderbilt Cup race on Long Island, New York, USA. The same Monoplace car was then fitted with a shortened-stroke 3-litre variant of this power unit to race at Cork and Reims-Gueux in 1938, driven by Jean-Pierre Wimille. An appreciation of the power potential of the Type 50B engine is the fact that even in minimised 3-litre form at Cork – and firing cleanly on only seven of its eight cylinders - the car was timed at 147.2mph...

Meanwhile, old engine 'No 8' in company with other components dismantled from the 1935 'Benoist Montlhéry car' were committed to the works store at Molsheim.





In conclusion of this brief summary, almost every fixture and fitting – even the fixing nuts, bolts and screws - on this Type 59/50S re-assembly of the original 'Benoist car' is an original made in period by Bugatti at Molsheim.

Beginning as long ago as the 1960s the present owner personally discovered, properly identified and assiduously accumulated all these component parts – many of them from a long-concealed of the most important, rare and exotic parts that the Bugatti company itself had first hidden away during the German blitzkrieg occupation of northern France in 1940.

He was actually presented with some of these components by none other than Francois Seyfried – the famous long-time Bugatti employee and, by the 1960s, stores manager at Molsheim who was instructed by the company's modern management to dispose of the remaining vestiges of its car producing past. While M. Seyfried was instructed to rid the factory of all its treasure house of obsolescent material "to the smelters" he remained convinced of their significance to marque enthusiasts, and this car's present vendor is one to whom he supplied many more parts at scrap-value prices – one scale for aluminium, another for brass, another for steel, and so on.

The vendor found many of the components built into this car today in the concealed store-room at the Molsheim factory in which they had been cached almost certainly just prior to the wartime German invasion. Many more were accumulated by him during years of extremely perceptive and discerning international dealing with fellow Bugatti enthusiasts and components collectors.

From an early Molsheim acquisition of no fewer than four original but long-unused Bugatti Type 59 chassis frames, he developed the ambition to reassemble this long-lost 'Benoist Montlhéry car'. Quite apart from its historic significance as the last offset-seat works Bugatti before Jean Bugatti embraced centreline single-seat Monoplace racing car design, 'The Benoist car' that day also produced one of the most startling motor racing action photographs of all time, when Benoist actually caught his car's bonnet panel with one hand as it blew off at the height of the racing action...

As the bonnet blew-off it revealed to all and sundry the secret of that special works Bugatti's prodigious acceleration and straight-line speed potential – the lightened 4. 9-litre 'Moteur No. 8'. It delivered a reputed 300 horsepower at just 4,000rpm, allied to tremendous torque. It had been in May, 1933, on Berlin's daunting AVUS speedway that Count Czaykowski had opened it up to shatter the 1-Hour World Speed Record, averaging no less than 213.8km/h, 132.88mph. At that time, although the AVUS course comprised two long parallel bullet-fast



straights, the linking turns at each end were both unbanked, forcing Czaykowski to slow to perhaps as little as 50 mph twice every lap. In the absence of the tall AVUS 'North Wall' banking built there in later years, this makes his 133 mph average over 72 long years ago even more impressive, and speaks volumes for the pick-up and acceleration afforded by Bugatti works engine 'No 8'.

Tragically, Count Czaykowski crashed fatally in the Type 54 later that season at Monza. The precious special works engine survived little damaged. During this period Bugatti fortunes were deteriorating fast. After 1934 Le Patron decided that he could no longer afford to deploy a full factory team of Grand Prix cars, and instead only individual entries would be made in carefully selected events.

Bugatti's existing 1933-34 armoury of Type 59 team cars proved to be the last Grand Prix racing model of which Bugatti built more than one during Le Patron's life. The Bugatti Type 59 had first emerged in 1933, powered by a 2.8-litre supercharged straight-8 engine, quickly enlarged to 3.3-litres. The definitive Type 59s then provided Bugatti's response to the 1934 season's new 750-Kilogramme maximum-weight GP Formula. The team enjoyed its final triumph in the 1934 Belgian Grand Prix, its Type 59s finishing 1st-2nd-4th. One 3.3-litre Type 59 was timed that season at over 170mph.

