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£5.50 / ISSUE 197 / NOVEMBER 2019

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# BOLT FROM LE BLEU

Ballot's pioneering straight-eight stunned the motorsport world when it won the first Italian Grand Prix in 1921. We drive it

Words Robert Coucher Photography Paul Harner

**THERE IS NO SUCH THING** as an ordinary inline eight-cylinder engine. Straight-eights are special in terms of concept, design and performance and have only ever been used in the most prestigious racing cars and limousines. Isotta Fraschini led the way in 1919 with the first production example, and other marques soon followed, including Duesenberg, Alfa Romeo, Bugatti, Cadillac... and Ballot.

This French Racing Blue Ballot 3/8 LC is an automotive masterpiece and was for a short time the fastest car of its type in the world. Its superb straight-eight engine was designed by the reclusive engineering genius Ernest Henry and yet, although it was a multiple race-winner, including a Grand Prix, and was a contender at the legendary Indianapolis 500, the Ballot name is little-known today.

Ballot was a French manufacturer, initially of engines, then later of motor cars. Brothers Édouard and Maurice Ballot founded their company in 1905. Being an ex-naval officer, Édouard chose an anchor motif for their products, initially marine and industrial powerplants, though they also helped Ettore Bugatti with his first engine. They began making their own automobile engines in 1910, but it wasn't until after World War One that they started to build complete cars, spurred on by thoughts of racing glory.

In 1919, Europe was not yet ready to resume motor racing so the Indianapolis 500 was the race that was grabbing international headlines. French racer René Thomas, who had won the 500 in a Delage, introduced Maurice Ballot to the brilliant Swiss-born engineer Ernest Henry, whose Peugeot L76 and L3 cars had dominated pre-war racing. Henry had joined the Peugeot 'skunk works' in 1911 at the age of 27 and designed the four-cylinder double-overhead-cam, four-valve-per-cylinder 7.6-litre Lion and 3.0-litre Lion 3 engines. The L76 crushed the opposition, winning the French GP in 1912, and the Indy 500 the following year.

Henry joined Ballot in 1919 and designed a 4.9-litre straight-eight engine in just 101 days! And when the racing formula changed to 3.0 litres, he designed a 2.97-litre straight-eight, as well as a 2.0-litre four-cylinder engine – all of which would go on to be race winners.

His initial 4817cc straight-eight was a development of his Peugeot 'four', improved with a redesigned head featuring hemispherical combustion chambers as well as double

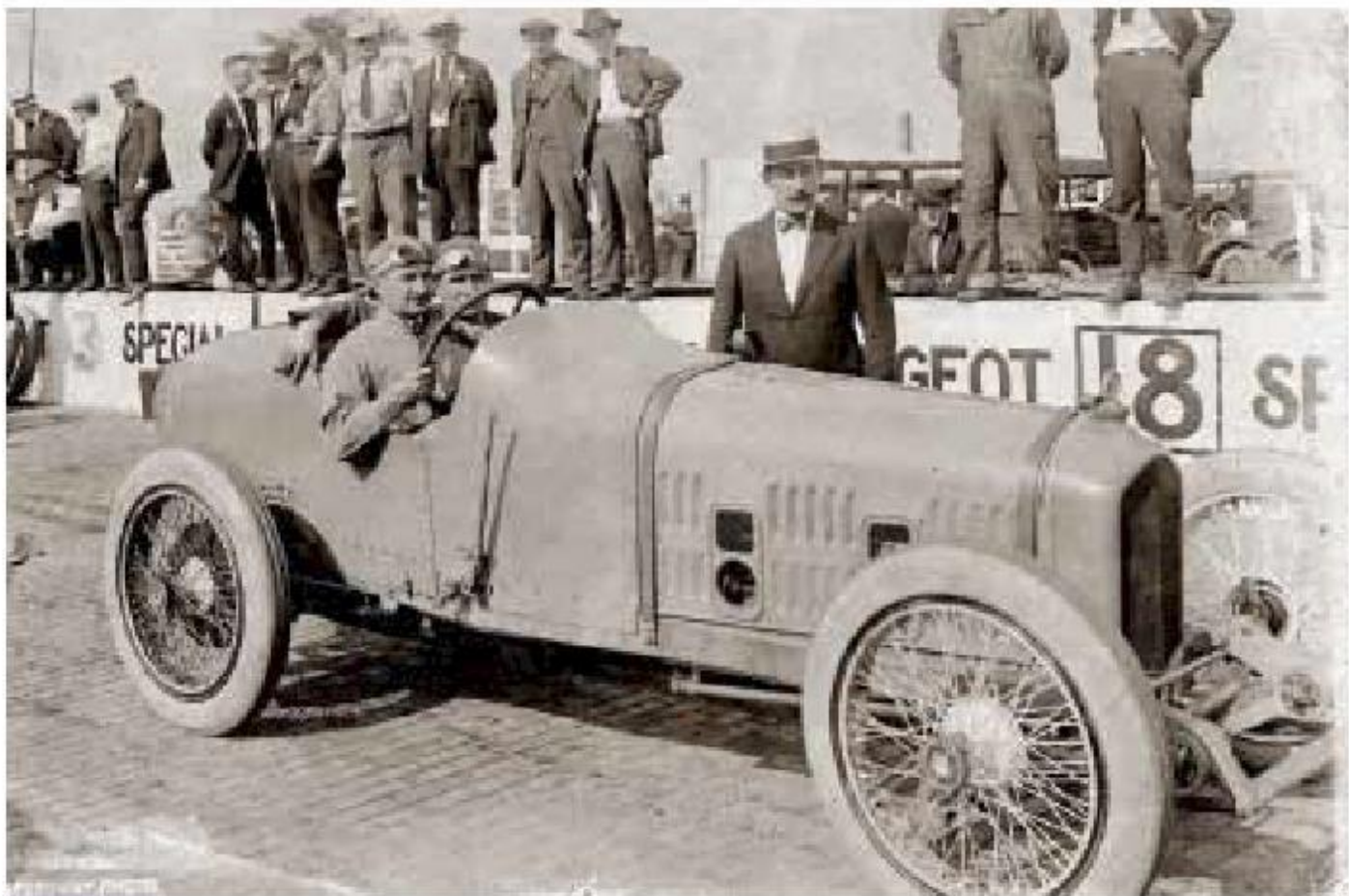
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**'Four cars were shipped to Indianapolis.  
One set the fastest qualifying time  
with a record lap of 104.7mph'**







Facing page  
Ballot chassis 1006  
at the 1920 Indy 500,  
Joan Chassagne at the  
wheel, Maurice Ballot  
standing behind the car,  
Octane's man Coucher  
at the same wheel,  
almost a century later.

overhead cams and four valves per cylinder, inclined at 60 degrees. Power was an impressive 150bhp, endowing the Indy Ballot with a top speed of 120mph.

Four cars were shipped from Le Havre to Indianapolis in 1919 and one set the fastest qualifying time with a record lap of 104.7mph. Come the race, there were tyre problems, a broken wheel and an accident, but eventually one of the Ballots finished fourth and a second 11th. Ironically, a Henry-designed Peugeot won the race.

Although disappointed, Maurice Ballot opted to underwrite – to the tune of \$120,000, a very substantial sum of money in those days – another set of Ballots to contest the new 3.0-litre formula and the car you see here, designated No.2 with chassis number 1006, was one of three (or maybe four) cars to go west again to fly the flag for France. The three Ballots entered in the 1920 Indy 500 finished second, fifth and seventh, driven by René Thomas, American-Italian Ralph DePalma, and Jean Chassagne respectively. In fact, DePalma qualified on pole and had been leading for 456 miles, lapping at 99.15mph, when his car first caught fire and then later ran out of fuel.

The following year, a single car was entered for DePalma, who again proved to be very quick and led the race for 200 miles, but on the 112th lap a conrod failed and he was out. It was clear the Ballots had great potential and three were entered in the 1921 Automobile Club de France Grand Prix at Le Mans. Here they were up against the straight-eight Duesenbergs from the US. Chassagne built up a commanding lead half-way through the race, but his fuel tank ruptured, handing the win to Jimmy Murphy in a Duesenberg.

Finally, on 4 September 1921, Ballot tasted victory, in the Italian Grand Prix at Brescia. The 3.0-litre of Jules Goux and Jean Chassagne dominated the race, finishing first and second, ahead of Louis Wagner in a Fiat 802. It was thought that the Fiat was the faster car and the Italians had designed the triangular circuit with its long straights to suit its speed. But the Ballot drivers had learned 'tyre strategy' from Indy and drove their cars sparingly through the corners, thus conserving the rubber and also saving fuel so they did not have to pit. In the marque's final Indianapolis appearance in 1922, two 3.0-litre Ballots were entered. Jules Goux's car broke its back axle but Eddie Hearne went on to finish in third place, behind two Duesenbergs.

With Maurice Ballot and his team then focusing on the 2.0-litre cars, the three remaining 3.0-litres (the fourth is thought to have been written off at Le Mans) were sold off. In fact, chassis number 1006 was bought by Malcolm Campbell, the car dealer and speed record chaser enjoying some success with his new acquisition, painting it Saxe blue and naming it *Blue Bird* as he did with most of his stock, until he sold it to 'Bentley Boy' Jack Dunfee. He had a lot more success with it, taking at least 38 starts at Brooklands in various scratch and handicap races, winning at least four of them and finishing on the podium 18 times.

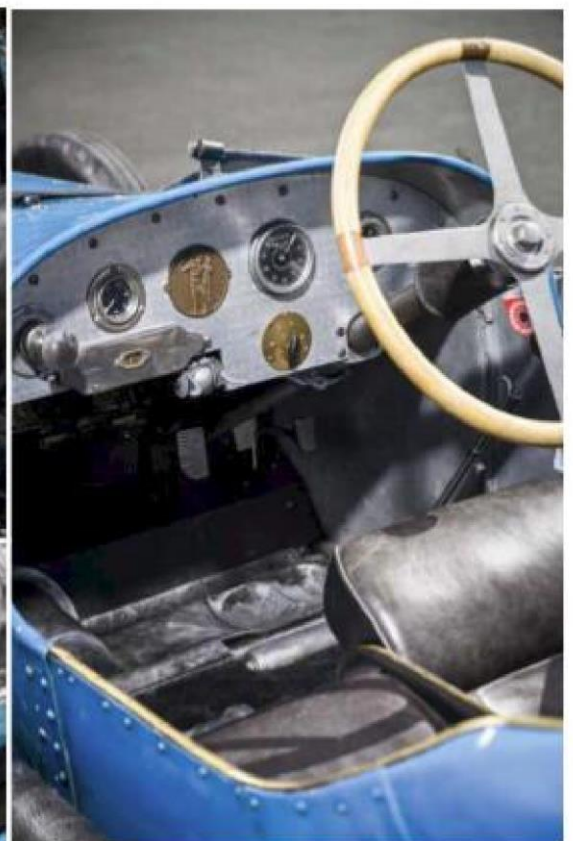
Budding Australian racer Joan Richmond bought the Ballot to compete at Brooklands in the 1933 season but the car threw a rod so she decided to sell it. Captain Dennis Shipwright bought it and patched up the sump, before the car was acquired in 1940 by one MC Crowley-Milling. It would remain in his family's ownership for over 75 years, →





**Above and below**

Car is wonderfully original, largely thanks to having been kept in the same family for more than 75 years. 3.0-litre straight-eight was the creation of the brilliant Ernest Henry, the first engineer to combine twin overhead camshafts and four valves per cylinder.





### 1920 Ballot 3/8 LC

Engine 2970cc straight-eight, DOHC, four valves per cylinder, twin Claudel-Hobson carburetors Power 107bhp @ 3800rpm Torque 122lb ft Transmission Four-speed manual, rear-wheel drive Steering Worm and roller Suspension Front and rear: beam axles, leaf springs, friction dampers Brakes Drums Weight c1100kg Top speed 112mph

becoming available only after the death of Crowley-Milling's nephew, Humphrey Milling, in 2016. That's then arch-enthusiast Alexander Schaufler acquired it.

Alexander has a thing for cars with great provenances and immediately set about researching Ballot 1006. The car's history had always been clear post-1923, but the racing period before that less so. In those days a team would often swap cars about between drivers, so there had long been uncertainty about which actual car won which actual race, the Italian GP in particular.

Ballot's short lifespan ended in 1931 when it was taken over by Hispano-Suiza and most records were lost. So it is not even certain that four 3.0-litre Ballots were ever produced, because only three ever raced together. The chassis numbers of the first four 4.9-litre cars were 1001, 1002, 1003 and 1004, so you'd think the next three 3.0-litre cars would be 1005, 1006 and 1007. Yet the one at the Schlumpf Museum (Cité de l'Automobile) is chassis 1008 and is the car René Thomas came second in at the 1920 Indy 500. Was there ever a chassis 1005? Maybe as a prototype, probably written off at Le Mans in the '20s. Or maybe not.

What is certain is that this 3.0-litre Ballot, chassis number 1006, has matching numbers, a great provenance and – thanks to a long, rolling restoration in the hands of the Milling family – is in superbly original condition. Alexander's research indicates that this is the car that finished seventh at the Indy 500 in 1920, was a DNF at the

French GP in '21 after leading for a significant portion of the race, and came third at the 500 in '22.

And he is now confident that the research proves that 1006 was the Ballot driven to victory by Jules Goux wearing the number 11 at the very first Italian GP in 1921. With the help of modern technology to identify the exact formations of the body rivets and the placement of the handgrip for the riding mechanic, the fuel filler cap and the catch lever ahead of the handbrake, along with many of the chassis parts being stamped with a No.2, it all strongly indicates that this is indeed the Italian GP winner.

Finished in the correct and original shade of blue, the Ballot is patinated but tidy and on-the-button. It's no concours trailer queen, as Alexander and his wife Esmeralda enjoy rallying and driving it wherever possible. So on the Friday before the Concours of Elegance held at Hampton Court Palace, Alexander invites me over to Coworth Park to take 1006 for a twirl around the ample estate.

I hop into the tight bucket seat. The steering wheel, signed by driver Chassagne, is huge and upright (this very wheel was actually from car number 3, swapped in period to suit the driver's requirements). Other, more recent, changes from the original are an electric starter – because starting the engine via the front-mounted crank-handle isn't always practical – and an electric fan to keep things cool.

With the eight-cylinder engine idling at high-ish revs, the gears need to be selected with precision. The right- →







handed gearshift pattern is the standard 'H' but transposed so that first is away from you and up, second down, third towards you and up, and fourth down, with reverse locked out by a manual gate. The clutch is firm and short in action, and it is best to ease the gearshift into second to slow the cogs down before trying for first. Yep, the clutch that reportedly gave Campbell grief is sharp, but the Ballot's ample torque helps prevent stalling. First gear is very high but again no problem thanks to the power and the chassis' low weight. Double-declutching into second is fine as long as you let the revs drop, and third and top have a lock-out hook on the lever that you must remember to lift before the lever will select the top two ratios.

Given its head, the light, aerodynamic and powerful Ballot is wonderful to drive, thanks to its sharp and super-accurate steering. High-g geared, it points the car exactly where you want to go and, shod with Indy 500-style 'Gum Dipped' Firestone tyres, the chassis feels eminently chuckable but at the same time obedient. The finned drum brakes need a firm shove to slow things down, though an additional tug on the long handbrake lever certainly helps. But it's Ernest Henry's fabulous straight-eight engine that makes this Ballot extra-special. It's smooth and sonorous, especially when fitted with the quieter Brooklands exhaust. It loves to rev, too, and as it winds up towards its 3800rpm limit the exhaust note changes from a quality growl to a nape-prickling yowl while all the time remaining gossamer-smooth.

Ballot came out of the blue, but was swallowed up by Hispano-Suiza only 11 years after the amazing straight-eight 3/8 LC went out to contest the fastest race in the world,

**'Given its head, the light, aerodynamic and powerful Ballot is wonderful to drive, its steering sharp'**

the Indianapolis 500. Chassis number 1006, one of three survivors, is clearly in fine fettle and all the better for being used by its owners with such enthusiasm.

Alexander Schauler has been incredibly conscientious in researching and compiling the car's history and has now made archive documentation and photographs available for a most beautiful boxed set of two volumes named simply *Ballot*, written by Daniel Cabart and Gautam Sen with photographs by Makarand Baokar, which sets out in full and glorious detail the short but impressive Ballot history. That such a history lives on today is thanks to the handful of enthusiasts – like Alexander – who keep these wonderful straight-eights running on race circuits and rally courses around the world. 📷

**THANKS TO** Gautam Sen for his summary of the history of Ballot 3/8 LC chassis 1006. The full Ballot boxed set by Cabart & Sen is available from [www.daltomwatson.com](http://www.daltomwatson.com).