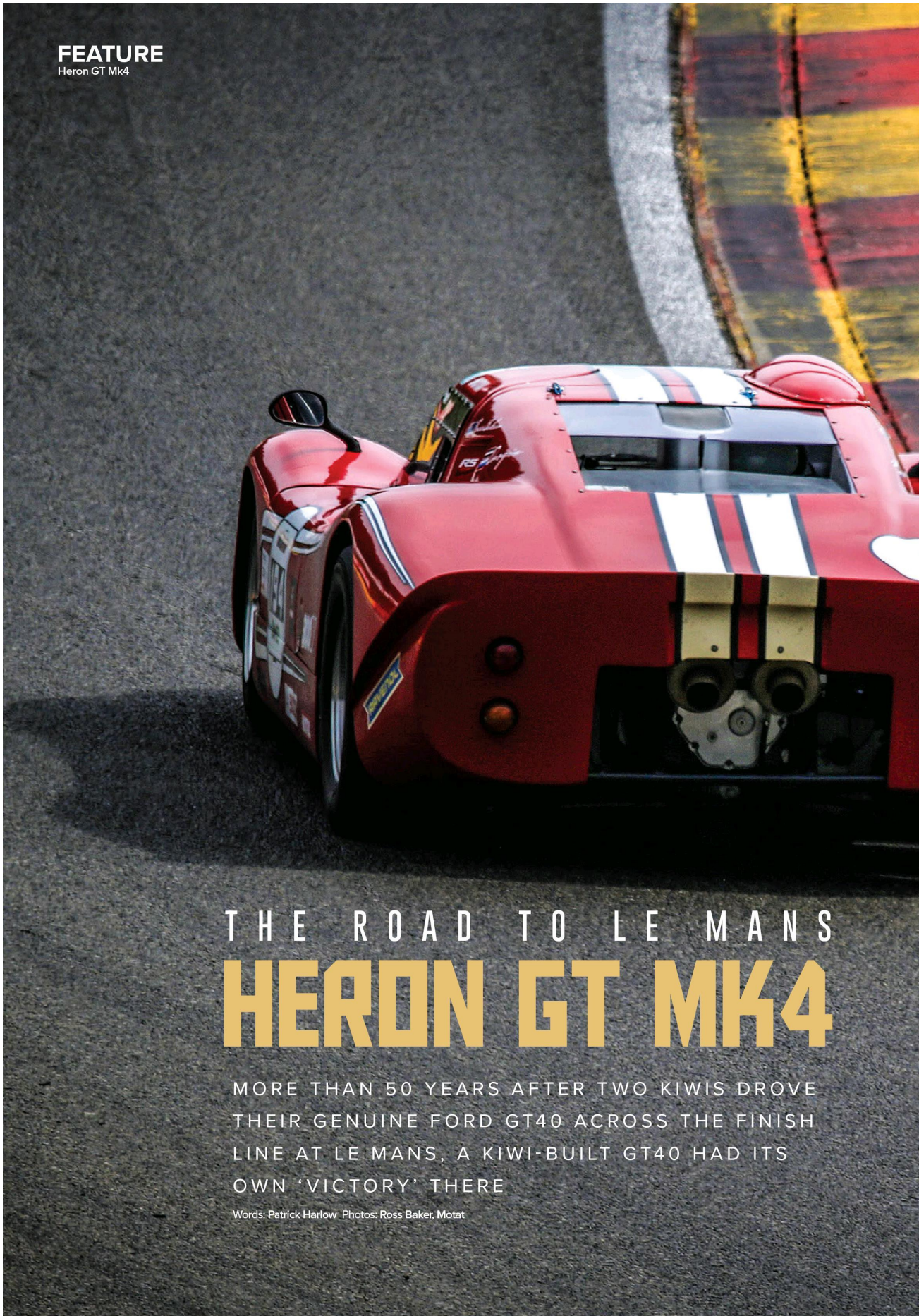


**FEATURE**  
Heron GT Mk4



THE ROAD TO LE MANS  
**HERON GT MK4**

MORE THAN 50 YEARS AFTER TWO KIWIS DROVE THEIR GENUINE FORD GT40 ACROSS THE FINISH LINE AT LE MANS, A KIWI-BUILT GT40 HAD ITS OWN 'VICTORY' THERE

Words: Patrick Harlow Photos: Ross Baker, Motat



In September 2018, Ross Baker and his wife, Bev, boarded an aeroplane for France. Ross had been invited by Andris Stals to come and see a car that he had sold more than 30 years before and, until recently, believed to have been destroyed. What was so special about the car? Well, it is thought to be the only replica of a Ford GT40 Mk4 in existence, and Ross built it from scratch in his basement shed roughly 50 years ago. Andris, of RS Motorsport, had restored the car so that its current owner, a Russian gentleman by the name of Aleksander Drogin, could race the car on racetracks around Europe. The reason for the invitation was that the Baker car was being raced on the track where the original Ford GT40 Mk4 had its greatest victory, Le Mans.

### A long journey

The journey started back in 1961, when Ross was a young man in his early 20s. He was living in Rotorua and working as an apprentice mechanic. Le Mans was a racetrack that he had heard of but would not have believed he would one day stand on. Ross decided that building a car from a bunch of bits would be a good way to test his developing skills, so he purchased a kitset car called the 'Mistral'. When finished, it was road legal and also provided him with many hours of fun on racetracks around the upper North Island.

Anybody who knows Ross Baker's story knows that this was not the last car he would build from scratch. Although he would have a lot of fun racing production cars through the ensuing years, it is hard to beat the thrill of racing a car that you have built from the ground up. However, the Mistral was the one and only kitset car he would build. The future cars would all be totally designed and built by Ross — oh, and that they would be called 'Hérons'. The best-known example of these homebuilt cars is the Heron MJ1, New Zealand's only production supercar.

### The Herons

When the Mistral was sold in 1962, Ross was already working on his next car with his good friend Bob Gee. The car was called the 'Heron Mk1', and had a lovely hand-beaten aluminium body inspired by the Lotus 23. The next two cars, the Mk2 and Mk3 Herons, were supposed to be powered by the air-cooled flat-six Chevrolet Corvair motor, along with its four-speed gearbox. Unfortunately, the motors were impounded by the government when they arrived in the country. In the end, Ross used a Daimler V8 — but that is another story.





Left: Andris Stals, Aigurs, and Normunds from RS Motorsport, Latvia



### The GT40 replica

By the late '60s, Ross was looking for another challenge, perhaps the hardest to date. For his next car, Ross decided that he and Bob would have a go at making a replica of the Ford GT40 Mk4, a car that had dominated GT sports car racing in the US and Le Mans from 1966 to 1968.

The intention was to build the car to be ready for the 1970 sports car race season. Ross and Bob chose the 1967 Mk4 GT40 because, in Ross' opinion, it was, at the time, one of the best-looking race cars ever. It was also the car that won Le Mans for Ford again in 1967. About halfway through 1967, Ross began collecting all the information that he could find from magazines and other sources — details on aspects such as how difficult it

was to climb over the 15-inch-wide door sill and the length of the windscreen. Each little gem had an important measurement. Using the information he had accumulated, Ross started on the design drawings. As he drew the car to scale, Ross came to the realization that his design was not going to be an exact replica, as the original car had a honeycomb aluminium monocoque. The fibreglass doors and hinged fibreglass front and rear body panels were not a problem, but there was no way that Ross would be able to acquire sheets of honeycomb aluminium from the local hardware store.

### Localized adaptation

The car, now known as the 'Heron GT Mk4', would have an all-fibreglass body over

a steel monocoque chassis. The motor that powered the original was a seven-litre Ford V8, but Ross settled for a 327-cubic-inch (5.4-litre) Chevy V8, since go-faster Chevy competition components were far easier to obtain. The transmission was the main problem: to buy a transaxle transmission for a mid-engine car with this type of power would cost a fortune, so there was no alternative but to ... build one!

Naturally, there were many challenges, since Ross had never built a monocoque chassis or a four-speed transaxle transmission — let alone one that could cope with in excess of 350hp (261kW). He drew the basic car, then broke it down into individual panels to make up the monocoque chassis. There were 57 panels

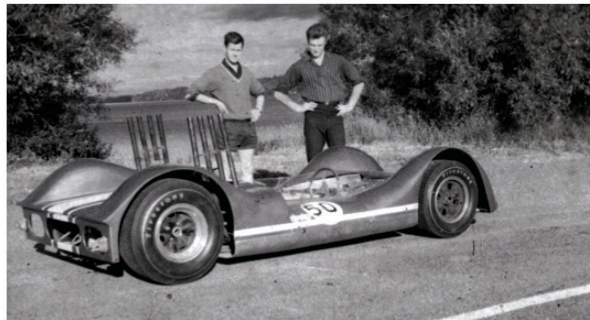




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**Top:** Ross racing the Mistral at Tarawera Hill Climb in 1961. Note the lack of roll bar  
**Above left:** 1962 Heron Mk1 sports racer **Above right:** 1963 Heron Mk2 sports racing car (Photo: Motat)

in total. Once the drawings were complete, Bob and Ross started cutting the panels out by hand and folding them to shape. The panels were either spot-welded or pop-riveted together, but the pair had to be very careful, as a good fit was crucial. It is a testament to the care and skill that went into the drawing phase that, of the 57 panels required, only two had to be remade.

### Boxing on

About that time, Ross had fitted a 350-cubic-inch Chevrolet engine into a Ford Mk4 Zephyr. As the original Zephyr gearbox handled the power without any problem, he decided to use the same gear train for the gearbox/transaxle that he would design for the GT. The crown wheel and pinion were from a 1934 Ford V8. Next, Ross modified the crown-wheel carrier to take the Mk4 Zephyr spider gears, output shafts, and half shafts. Another problem was solved when Ross took the gears out of the transfer gearbox of Bob Gee's Howard rotary hoe and used them to quickly change the final-drive ratio.

### Casting around

With all the components for the rear drive train selected, all Ross had to work out was how to join them together. The only real solution was to design and cast a new aluminium transaxle housing. Ross drew all the components in their respective positions, then proceeded to draw the housings around them. Using the drawings, Bob made a full set of patterns out of wood and fibreglass ready for casting the transaxle housings in aluminium.

Finding a foundry to cast the patterns proved to be more difficult than the pair had expected. The first foundry they approached in Auckland laughed and said that no one could cast a housing as complex as theirs. The second, third, and fourth said a similar thing. The boys from the sticks turned around and headed back to Rotorua very disillusioned. All their hard work and thinking was heading for the woodpile.

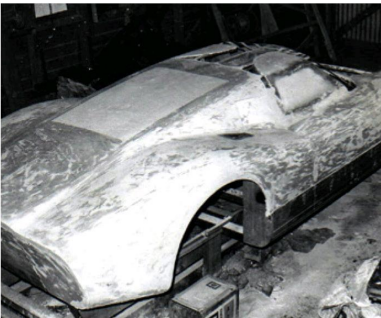
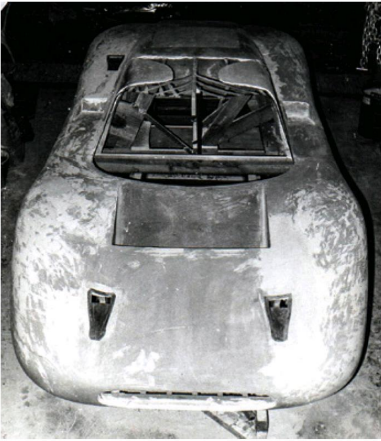
Approaching Rotorua, Ross decided, as a last resort, to try a little Rotorua backstreet foundry called Foundry Engineering, which cast mainly brass antique lights but had cast a

few aluminium wheel spacers for him over the years. Ray, the foreman, took one look at their funny-shaped firewood and said to give him a ring in two weeks, by which time he would have had a look at it. After the two weeks had slowly ticked by, Ross, expecting the worst, gave Ray a ring and asked if he thought he could do the job. In a very dry and slow voice, Ray replied, "They are all finished; come and pick them up!"

Caught completely off guard, Ross raced around to find a complete set of aluminium castings made from their patterns. The castings were then machined to the specifications in Ross' drawings, and the first Heron four-speed transaxle was a reality.

Ross spent many more months constructing the monocoque chassis and suspension components, while Bob worked on the male plug for the body. When Ford built the GT40, it was determined to beat Ferrari at any cost; Ross had a slightly different perspective, and not even a smidgen of the Ford budget. Technical support came from books and the school of 'if it doesn't work, find a solution and make it again'.





### True camaraderie

At the end of the day, it was two blokes working in a shed, each comfortable with what the other was doing. It's the sort of friendship that is unique, and only blokes who have worked together in this way will understand. The satisfaction obtained from taking on this sort of project alongside a good friend is far greater than the satisfaction of doing it all by yourself.

All was going well until the car was about three-quarters finished, when the controlling body of motor racing in New Zealand suddenly announced that it had decided to lower the capacity of sports cars to two litres. In Ross' opinion, this effectively killed sports car racing in New Zealand, and it has never recovered. Both Ross and Bob were devastated. They had worked almost non-stop on this car for a considerable amount of time, overcoming multiple challenges, only to have

the establishment make it obsolete. The car was almost finished, but, in disgust, they pushed it to the back of the space under Ross' house, where it sat gathering dust for years.

### Rare outings

In 1986, Ross was given the opportunity to display his Heron GT Mk4 at the Whenuapai Wings and Wheels historic race meeting. He accepted the invitation and, with the help of another good friend, Chris Cook, dragged the Heron GT out of the shed, dusted it off, and proceeded to make it driveable. Sadly, this would be the only time that Ross would ever drive the car in anger. It sounded beautiful, and went well in a straight line — faster even than all the Ferraris and Porsches — but the 1965 Humber 80 brakes were not up to the task of stopping it.

Ross says, "It was a very easy car to drive,

and handled well despite being a little off tune."

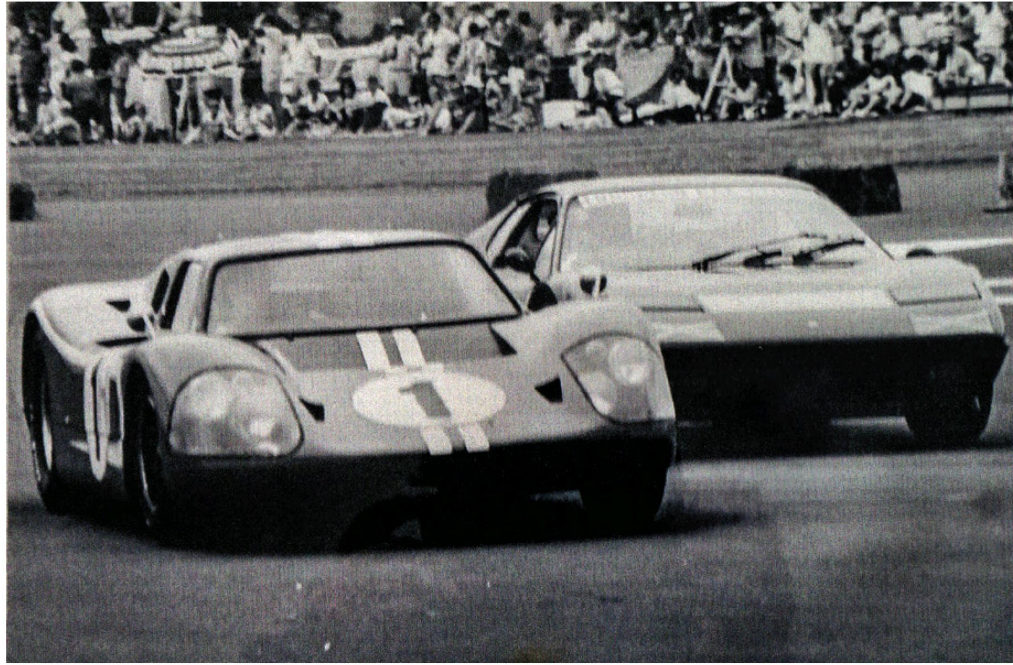
The car was driven one more time on a New Zealand racetrack — not by Ross but by his now-grown-up daughter, Marny.

Apart from those two events, the GT probably did more miles being pushed in and out of Ross' workshop than it ever did on the track. It was great to look at and a great conversation starter, but, unfortunately, having been forced into obsolescence before being completed, seemed destined to sit idle.

### Convolved circuit

In 1990, the Heron GT was sold to David Manton of Tauranga. When David sold up and moved away, Ross lost track of the car. Then, in 2008, he heard it was for sale in Belgium. Keen to find out what was happening with the car, Ross tried to contact the new owner, but he was afraid that Ross

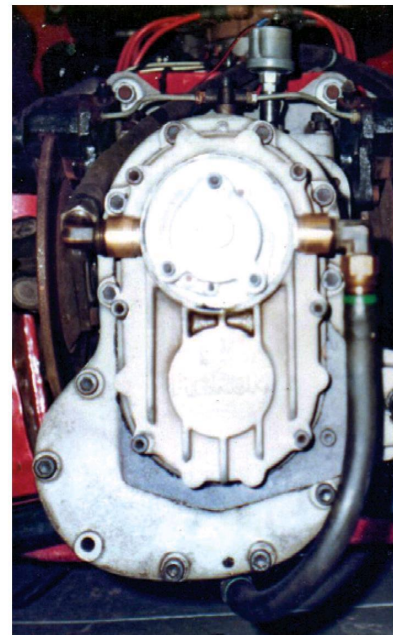
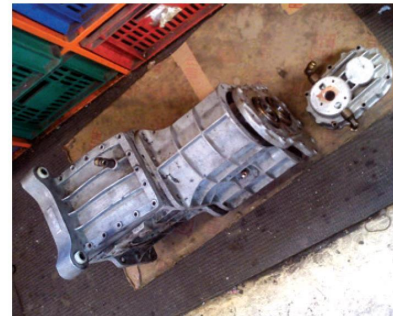
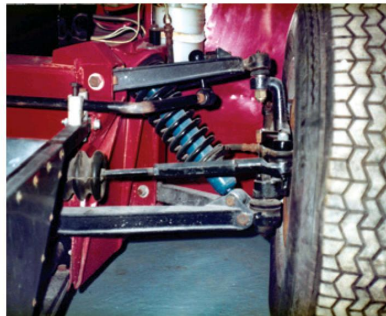




**Below:** Racing at Whenuapai, 1986. Ross Baker's Heron GT Mk4 heads off a determined Ferrari driver

**Facing page:** The buck and through to the rolling chassis

**Below and right:** Pictures from the original 1967 build with Corvette V8, suspension detail, and the locally created transaxle



was trying to repossess it, so that was a bit of a dead end. Ross did some sleuthing on his own, and came to the conclusion that when the car left New Zealand it had headed to a new owner in the US before being sold again to a person in Europe. Unfortunately, as it entered Europe, it was seized by Customs, which kept it for at least three years. Ross once again lost track of the car at that point, although he did learn that, at some point in its life, it was

registered illegally as an actual Ford GT40, with all reference to it being a Heron GT Mk4 built in New Zealand removed.

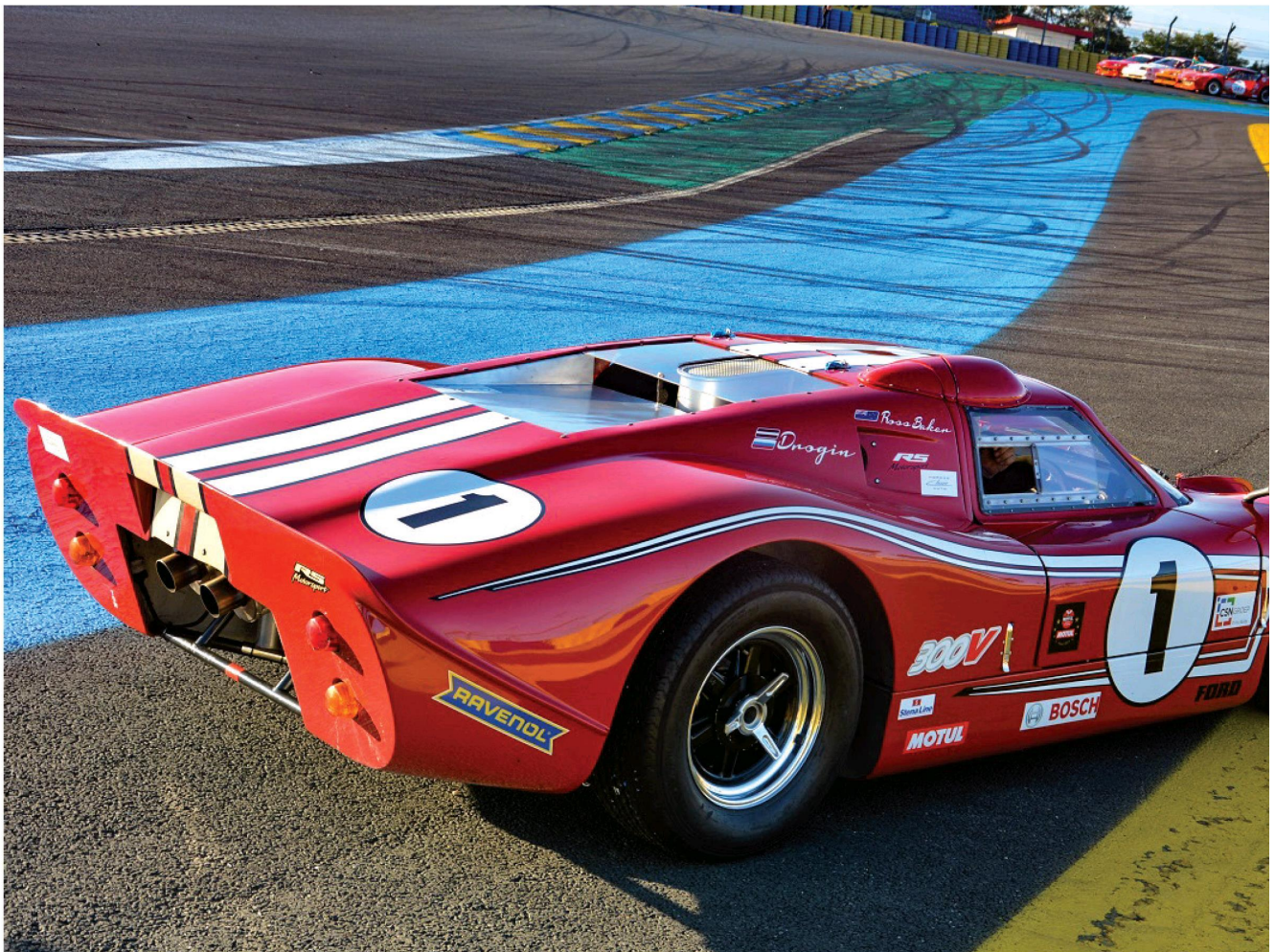
**New lease of life**

Then, in 2016, Ross was contacted by the aforementioned Andris Stals, from Latvia, who said that he thought the car he was racing in Europe was the Heron GT Mk4. Its owner, Alek, was having great success

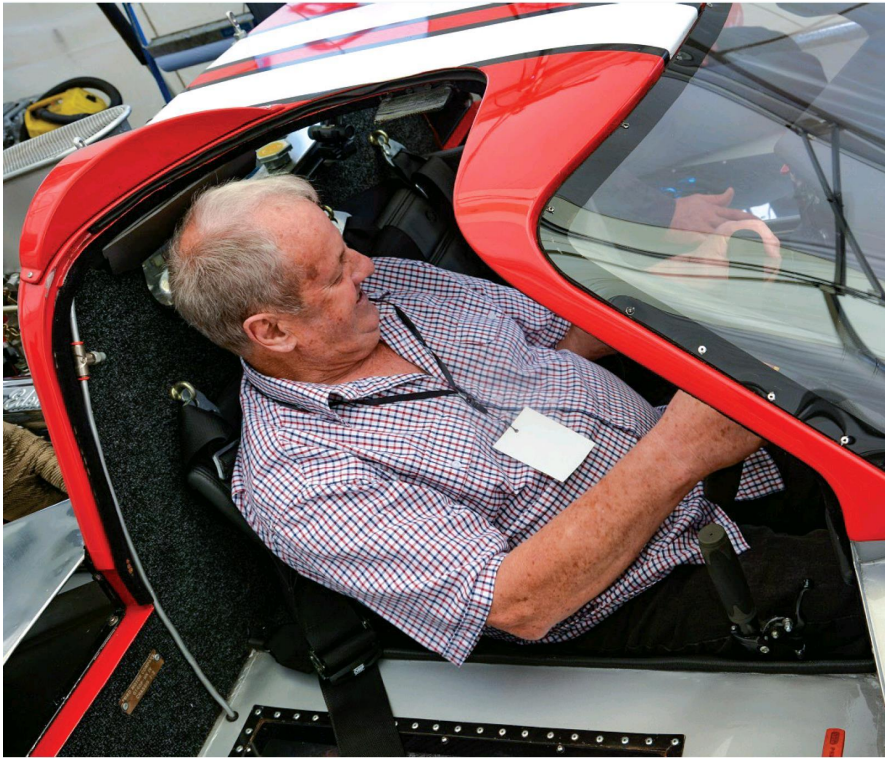




**Left:** Lining up to start Le Mans at nearly 50 years of age  
**Right:** Ross Baker in the Heron GT cockpit that had inexplicably shrunk over the last 50 years  
**Below:** Andris, Ross, and Alek on the winners' podium







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**The man at Le Mans**

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The GT drew a lot of interest and looked magnificent among the other 40 or 50 cars in Alek's group (pre-1975 race cars) on the dummy grid. During the week that Ross was there, Le Mans officials asked if they could photograph the car under the Dunlop Bridge for their archives.

The car went very well in practice, but, due to the rules it was racing under, it was only allowed narrow tyres, which was a real disadvantage, especially against later model cars using slicks — while the GT was very quick down the straights, the cars with slicks were much faster in the corners.

That event may have been the first and last time that the Heron GT would race at Le Mans. Alek has decided to sell the car because it is restricted competitively due to the types of tyres permitted in this class.

The GT is currently for sale for around NZ\$500K — not bad when you consider that it is a replica built about 50 years ago by a couple of blokes in a shed in Rotorua. ■

in racing but wanted to find out more about it. The brakes had been upgraded, as had the coilover springs and the engine, which was now putting out more horsepower. Amazingly, it still ran the same transaxle that Ross had designed and built decades earlier.

In 2017, Alek had a bad accident in the GT, so he took the opportunity to give it a full restoration, including changing the Heron gearbox that was becoming unreliable due to the extra horsepower. Fortunately, Ross was able to help him out by obtaining some parts for him and telling him where some of the other parts had originated from.



Right: Under the Dunlop Bridge at Le Mans

