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FORGOTTEN KIWI CARS: HERON SPRAYMASTER, TULL SANBAR & MACTRA

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PART TWENTY-TWO

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UTILITY VEHICLES II

Forgotten Kiwi Cars isn't all about sports cars and coupés – as evidenced by this, the second part of our guide to locally-designed and built utility vehicles.

Words and Photos: **PATRICK HARLOW**

Many will wonder why I've included the Heron Spraymaster in this list of farm utility vehicles. Well, with a top speed of around 70km/h it was certainly not blistering fast, but it was road legal. It's also an incredible example of what can be done in this country.

The Mactra was a very credible farm utility vehicle based on the Volkswagen Beetle, and won't be the only VW-based utility vehicle to appear in this list. The Sambar falls into

the same classification as the Mactra as both were very simple, yet very functional farm vehicles that could simply be hosed down and parked at the end of the day.

The final fun fact is that the gentlemen who created the Spraymaster and the Sambar would also at some stage be building New Zealand supercars, Ross Baker with the Heron MJ1 and Bruce Turnbull with the Saker SVS. (See Part 1 and Part 2 in this series NZ Classic Driver #97 and #98)

HERON SPRAYMASTER 1978 TO 1982

The Spraymaster came about one day when orchardist Bob Gee was talking with Ross Baker about a job he hated doing, spraying his fruit orchard in Rotorua. Like all orchardists, every few days while the fruit was growing Bob would have to dress up in wet weather gear, climb on his tractor and tow a trailer/sprayer to spray the fruit to stop pests from destroying his fruit. It was a horrible, uncomfortable job. He had to wear protective gear to avoid contamination from the chemicals, and trundle around his farm slowly in the hot sun.

Ross and Bob had known each other for many years and worked on a multitude of automotive projects together. They were working on a one-off supercar called the Heron GT Mk IV when they started to design a self-propelled sprayer with an air-conditioned and pressurised cab – something that was unheard of in the day. Bob knew what he wanted but didn't know how to build the mechanical side of the sprayer. Nor did Ross, but he didn't see that as a problem. They decided to build a vehicle in which the driver sat in a cab in the front of the machine,

with a 3000-litre spray tank in the middle and a VW engine driving the spray/fan unit from Bob's old sprayer mounted on the back.

To drive the wheels, it use a Ford Zephyr 3.0-litre V6 engine and automatic transmission mounted behind the driver. The drive train was created using a Land Rover front axle assembly at the front and rear so that both axles could be steered, halving the normal turning circle thanks to four-wheel steering. The chassis was built from 100 x 50 x 3mm RHS with a solid-mounted rear differential bolted directly to the chassis. Front suspension was provided by leaf springs. With a working speed of a heady 9km/h, a sports car it wasn't.

The finished sprayer did exactly what Bob had wanted it to do and became a regular implement on his farm. Then the New Zealand Fruit Federation (NZFF) noticed it. The NZFF had been travelling along a parallel course and already invested \$150,000 (just over a million dollars in today's money) trying to develop a similar machine. They met with Ross and Bob in 1979 on Bob's farm as they wanted to see the Spraymaster in action - something that Bob was more than happy to demonstrate. Needless to say, the NZFF was impressed with the way the Spraymaster worked. Discussions started on the topic of Heron Developments building a second prototype, albeit this time using modern components, fully active four-wheel drive and improved streamlining and manoeuvrability so it could go between the fruit trees in orchards where the trees and rows were much closer together.

This was a great opportunity. Having built the first one and seen first-hand how it coped in real and authentic conditions, Ross knew that he would be able to design and build one that was more than adequate for the job.

A key improvement on the second prototype was changing its profile so that it had a wide base and a narrow top, allowing it to travel easily in the aisles between the trees without damaging the fruit. As before, Ross got to work on designing and building a chassis using modern components while Bob started building the huge plug required for their newly designed fibreglass body and tank.

This time they used a Ford Falcon six-cylinder engine placed in front of an automatic gearbox with Land Rover front axles at both front and rear to give it four-wheel drive and four-wheel steering. The transfer gearbox was a problem as it had to reduce the overall speed of the machine, as well as having a drive for the front and rear axles and two power take-offs - one for the pump and another for the tank agitator to keep the spray mixed. Once again, the only option was to design and build a completely new transfer gearbox from scratch. Using experience gained in building



1. Rear view of the Spraymaster (Photo Ross Baker); **2.** The Spraymaster doing what it does best (Photo Ross Baker); **3.** Four production Spraymasters (Photo Ross Baker); **4.** Spraymaster production line (Photo Ross Baker); **5.** Spraymaster prototype under construction. The McLaren F1-style driving position was carried over to the production vehicles (Photo Ross Baker); **6.** The Spraymaster's cabin (Photo Ross Baker).

the Heron GT gearbox, Ross created the drawings and Bob the patterns. The 'Holder' spray unit was bolted onto the back of the machine and utilised a Ford Cortina clutch assembly to disengage the fan when not in use.

By the middle of 1980, the second prototype was finished and field-tested on Bob's orchard without any problems. Ross and Bob built a further three units that were sold through the NZFF.

Early indications were showing that there was going to be a huge demand for these versatile machines, but neither Ross nor Bob wanted to be involved in mass-producing the Spraymaster. Bob enjoyed farming and Ross

was more into speed than slow. Fortunately, Croplands Equipment in Wellington had shown an interest in what had been happening in Rotorua, so NZFF approached them with the possibility of taking the Spraymaster into full production, which they agreed to do.

Despite having a few problems getting the project off the ground, Croplands manufactured an additional 17 Spraymasters between 1981 and 1985. Each of the twenty-one Spraymasters went on to have a long productive life in the fruit industry.

Meanwhile, Ross used the money from the Spraymaster to start work on a radical new sports car we now know as the Heron MJ1.





TULL SAMBAR 1992 TO 2001

As mentioned earlier, Bruce Turnbull has already appeared in an earlier issue with his supercar, the Saker SVS. His next project was at the opposite end of the scale. Designed more for the farm than the road, Bruce designed and built a unique little go-anywhere farm vehicle. The idea came about when a couple of farming friends complained about the demise of their Subaru utes. Mechanically they were still good, but the thin lightweight bodies were not up to the long-term rigours of farm life.

Bruce felt that a well-designed off-road vehicle could supplement his income when he wasn't building supercars. The name Sambar was used because of the Sambar deer that were introduced into Manawatu in 1875 where Bruce grew up. Hunting the breed was quite popular until the 1930s. Sambar are rugged creatures at home on the flat plains and in the bush-clad hills, hence a name that fitted this utility vehicle perfectly.

The prototype was built as time permitted over two years with a design that was intended for robustness and function rather than beauty. The chassis was made of heavy rectangular steel tubing and hot-dip galvanised. The body was fibreglass and the flooring was plywood. All window glass was



flat and laminated. Headlights and taillights were all aftermarket items and could be bought anywhere in New Zealand. The design premise was that the vehicle would be simple and cheap to repair and able to take a lot of punishment.

With 1980s four-wheel drive Subaru Leone acting as the principal donor cars, it was relatively easy to bolt the mechanical layout

into the new chassis, coming as it did with a standard four-wheel drive configuration. Wiring and instrumentation were also transferred into the new body. A lot of the donors were low mileage rust buckets which is exactly what Bruce wanted. Some even had diesel engines.

Sambar were sold all over New Zealand with most of them built as flat decks,



sometimes called a “Rousey” or a well-side ute with the two Leone vinyl seats for comfort. In hot weather the doors were mounted so that it was a simple task to lift them off and store them in a shed.

At \$15,000 the Samba was cheaper than a new Subaru and more durable. Farmers could even opt to build the vehicle themselves (\$8,000 for the kit set) which wasn’t a difficult task for the quiet winter months.

But despite this, only a trickle of vehicles left Bruce’s factory each year. Still, every vehicle sold was money in the bank and nobody cared about how well it did on the racetrack.

Unfortunately, at the start of the new millennium, the Subaru Motor Company also took an interest in the Sambar. Coincidentally the name Sambar was one that they were using for a small sports utility they were selling only in the United States, and

although they had no intention of marketing the car in New Zealand they didn’t like the fact that Bruce was using “their” name.

Sambar production stopped in 2001 after 18 had been built. All were road legal and as far as Bruce knows all but two of them are still operational. The last Sambar was sold to the British High Commission and went to Pitcairn Island where it’s the only vehicle on the island that is not a four-wheel quad bike.



1. At home on the farm, the Sambar (Photo Bruce Turnbull); 2. Rear view of the Sambar wellside (Photo Bruce Turnbull); 3. It wasn't a difficult job to bolt the Subaru's MacPherson strut suspension into place (Photo Bruce Turnbull); 4. This Sambar has the full sports cluster (Photo Patrick Harlow); 5. This was about as luxurious as the Sambar got (Photo Bruce Turnbull); 6. The two Sambars owned by the Slater family of Upper Hutt (Photo Patrick Harlow).



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1. The Mactra showing off its simple lines (Photo Patrick Harlow); 2. Rear view of the Mactra (Photo Patrick Harlow); 3. Exposing the Mactra's air-cooled VW engine (Photo Patrick Harlow); 4. The Mactra's no-nonsense cabin (Photo Patrick Harlow); 5. Like the donor VW, the Mactra's fuel tank was located up front (Photo Patrick Harlow).

MACTRA 1960 TO 19??

Little is known about the Mactra. From what I've been able to find out, I believe they were possibly manufactured in Nelson during the late '60s to early '70s. Only around 20 were produced. Unfortunately, the story behind this runabout has proved elusive. In my archives, I have pictures of three different Mactras. All were abandoned and dilapidated. One of these was relocated to Germany where it was modernised and restored.

When Adolf Hitler encouraged Ferdinand Porsche to design a 'People's Car' there was no way he could have envisioned the effect that this little car would have on the world which continued well beyond both their lifetimes. With over 22 million of the little cars made, they're possibly the most recognisable car on the planet despite being out of production since 1986. It had an air-cooled motor mounted over the rear wheels that was reliable and cheap to repair, and its position was a great help to traction when on uneven or slippery terrain.

Thanks to a reasonably strong platform chassis that could be driven without a body, it became the donor of choice for a multitude of kit and homebuilt cars. It was the VW Beetle that spawned the era of the beach buggy and introduced us to the idea of owning a car that was impractical but fun to use for leisure pursuits rather than as a daily driver. A few others saw a very practical use for the platform.

This example belongs to Archie Moffat who took it upon himself to restore the vehicle to as near original as possible. He initially

believed it to be a Terra (which will be featured in a future issue), a Rotorua-based vehicle of a similar ilk.

Once I saw the vehicle, however, I noticed some key tell-tale features which gave me clues to its identity. Looking at the storage pods just in front of the rear wheels and the shape of the dash panel, I realised that it was a Mactra. This one was discovered in a very dilapidated state at the back of the VW Shop in Hamilton.

To this day I still know very little about Mactras. There's uncertainty that Nelson was indeed the origin of the Mactra so any further information would be greatly appreciated. [cd](#)



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