THE FABULOUS CENTAUR

Named after the fairy-tale beast that was half-man and half-horse, the Centaur was a flop commercially, but that doesn't stop it being a firm favourite with Land Rover enthusiasts...

GARY PUSEY CRAIG PUSEY AND THE DUNSFOLD COLLECTION

THE Centaur could well be the most interesting Land Rover ever made, and it certainly draws a crowd. It was the brainchild of Beaumaris-based company Laird (Anglesey) Limited, which was part of the giant Metro-Cammell engineering business. The left-hand drive vehicle you see here has been part of the Tank Museum collection at Bovington in Dorset since 1989 when it was donated by Laird.

It recently arrived at the Dunsfold Collection on long-term loan and, of course, Philip Bashall had the spanners out even before it was winched off the transporter. Three hours later he had it running and driving, although stopping using the brakes remains an elusive ambition for the time being.

"It really didn't need much work," he shouts in my ear as we take a spin around the yard at Dunsfold. The Centaur is deafeningly noisy, and the rest of the conversation has to wait until we stop. "The first challenge was to find an ignition key because it didn't come with one," he tells me. "And then I had to go through all the usual things with a vehicle that's been parked up for a few years. New battery, inspect the fuel tank and pump, clean the fuel filter, add fresh fuel, and check all the levels. It needed a new clutch master cylinder, a replacement distributor which had to be modified to the Snatch-type electronic ignition, and the king lead was missing. And it needed a new coil, new oil pressure switch, choke cable and wiper blades. Several bulbs and fuses needed replacing, and I had to fit a new printed circuit in the dash. I've attempted to bleed the brakes but had no luck with them yet."

Now that Philip's got it running and we've each enjoyed the thrill of driving it, it's my job to research the history of Dunsfold's latest acquisition while Philip gets back to fixing the brakes. The documents supplied by the Tank Museum aren't providing many answers and are, if anything, posing even →

Centaur is impressive from every angle. What's not to like?

Centaur drives like a standard One Ten apart from the noise levels; note flared doors to match rear body width

more questions. In the Bovington paperwork the Centaur is described as pre-production vehicle 'P8', but also as 'P1' with a 'new front end' based on a One Ten V8 with coil suspension. All the other Centaurs used Stage 1 109in V8 front ends with standard leaf springs, so it is already clear that this one is a unique oddity.

The Bovington documents also state that it was built in 1978 but that doesn't make sense because the One Ten wasn't in production then (it was launched at the Geneva Motor Show in March 1979 for sale in certain overseas markets, and became available in the UK on 24 August 1980). A quick check of the Land Rover records at the British Motor Museum reveals that, in fact, this One Ten was a basic utility model delivered on 9 January 1984 to Laird, more than four years after the other Centaurs had been completed in 1979. Did Laird update an earlier leaf-sprung pre-pro with a later coil-sprung front end? Or was it an additional vehicle built from new around a One Ten? But if so, why would Laird have done this, four years after it should have been clear that the original idea had been a flop from a sales perspective, with no significant orders for the vehicle ever placed?

The mystery deepens when I look at the documents on the Tank Museum's other Centaur (yes, it has two) which is stored at Bovington. This one is 'P5' and was also donated by Laird in 1989. It has a standard Stage 1 front end and carries a civilian Q-plate registration, but the file states that it was once 06SP17, although the same service number plate was on the vehicle delivered to Dunsfold. Unravelling the mystery of this extraordinary vehicle is going to take some doing.

An article in the Tank Museum's magazine *Tracklink*, dated Autumn 2020 contains a lot of interesting information, particularly in relation to the overseas military trials undertaken by the pre-pro vehicles. The article also suggests that P1 to P6 were based on the 109in Stage 1, while P7 was based on the One Ten. There's no mention of a P8...

Rare sighting: a Centaur features on the cover of this Defence publication

Searches online throw up various other interpretations of the story, together with an excellent film on *YouTube* of a white-painted Centaur undergoing winter trials in Norway, and this vehicle also carries the service registration 06SP17. Registration numbers turn out to be a nightmare when it comes to researching the Centaur, because it seems that the same numbers were allocated to multiple vehicles. Some of the numbers in contemporary photographs that appear at first glance to be British military issue are fake, including the frequently used 19LA78 (derived from 'LAird 1978') and 65FL73, which was actually allocated to a 101in Forward Control that was not struck off until April 1981.

At least the Centaur's technical specification is easy to research, thanks to brochures produced at the time by Laird, examples of which survive in the Dunsfold Collection archive. The tracked part of the Centaur is derived from the Scorpion light tank, with a new chassis incorporating a set of CVR(T) tracks and drive sprockets, but with only three road wheels per side rather than the Scorpion's five. The light tank's torsion bar suspension is retained.

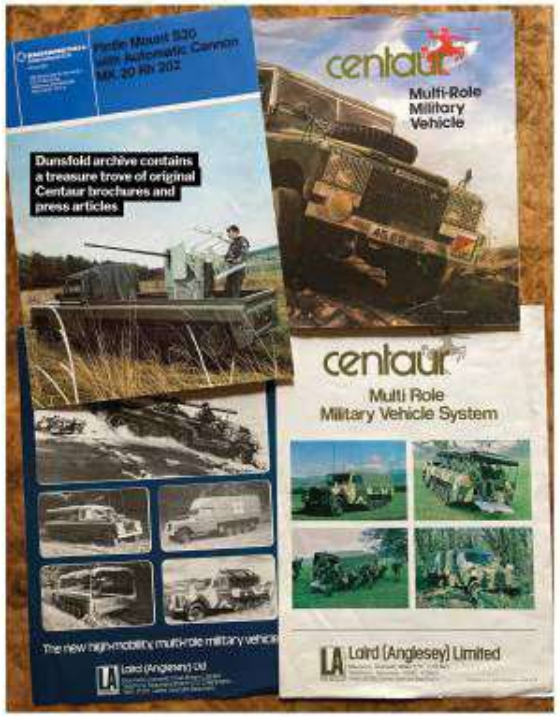
To those of you who, like me, are not hardcore military vehicle enthusiasts, CVR(T) stands for Combat Vehicle Reconnaissance (Tracked) which was a family of armoured fighting vehicles sharing common components developed by Alvis in the 1960s. And since you ask, as well as the Scorpion and Scimitar light reconnaissance tanks, there was the Spartan armoured personnel carrier, the Sultan command and control vehicle, the Samaritan armoured ambulance, the Striker anti-tank guided missile vehicle, and the Samson armoured recovery vehicle. →

Rear loadspace area can carry up to three tonnes

Rear tracked section is based on the Scorpion light tank's running gear with three road wheels rather than five

One Ten Centaur was originally painted green, as evidenced by hidden panels

Salisbury diff with inboard discs and calipers



Dunsfold archive contains a treasure trove of original Centaur brochures and press articles

The Stage I version of the Centaur is powered by Land Rover's 3.5-litre V8 which drives the front wheels and the rear tracks via a Salisbury diff, using the standard Land Rover gearbox and transfer 'box, although the V8 delivers the 132bhp and 185lb-ft of the contemporary Range Rover, rather than the stifled version that was normally installed in the Stage I V8s.

The steering operates the front wheels only and is not connected to the tracks, which means that on certain terrain the vehicle tends to plough straight on, regardless of what the driver is trying to do with the steering wheel. Even when the vehicle does respond to what the front wheels are doing, the turning circle is on a par with the proverbial supertanker. Top speed is around 50mph on the road, although at anything approaching that speed the tracks tend to flail and clatter against the bodywork. The Centaur could never have been put to any military purpose that required stealth! Not surprisingly, fuel consumption is apparently around 4mpg.

One interesting feature that is immediately obvious when you see the vehicle is that the rear body is around 16in wider than the standard Land Rover front end, which means the doors close at an angle to ensure they align with the rear body. Load carrying is impressive at around three tonnes and the fully laden weight is just under seven tonnes.

Despite being owned by the Tank Museum the Centaur is not, of course, a tank, being neither armed nor armoured, although its designers at Laird did kit it out with all manner of weaponry in their unsuccessful attempts to secure military orders for it. Half-tracks had proved popular in the Second World War, particularly with the Americans and the Germans, but by the time the Centaur was conceived in the late-1970s the world's military had generally moved on – developments in off-road vehicle engineering meant that the half-track had been pretty much consigned to the history books.

Contemporary press coverage sheds interesting light on Laird's thinking. The Dunsfold Collection archive contains a fascinating article written by the late, great motoring writer Phil Llewellin and published in *Truck* magazine in April 1981. Llewellin interviewed George Stowell, Laird's project coordinator, who said: "The basic brief was to design a low-cost, high-mobility vehicle capable of carrying a good payload and doing a number of jobs. It also had to be easy to maintain, so an off-the-shelf philosophy was adopted right from the start."

Apparently, the driving force for the project was Laird's sales director, Major W J 'Bill' Wiggett, late of the Royal Engineers. The project was approved by Laird's board in November 1977, and work started in earnest in January 1978. Laird saw the new vehicle as a "bread and butter product to supplement specific contracts from the MoD that would also attract civilian customers." With such a vague and imprecise design brief, it is perhaps hardly surprising that the end result was a vehicle that was jack of all trades and master of none.

The original prototype was completed in early 1978 and was based on a second-hand Series III whose 2.25-litre diesel engine proved, needless to say, totally inadequate for the job. Land Rover had been supportive of the project from the outset and provided Laird with a V8, which appeared to offer an answer to the power problem. By the time Phil Llewellin wrote his article, six further prototypes were reported to have been made, and Laird told him that "orders were anticipated."

An earlier article by Irvine Cohen in *Defence Attaché* magazine in October 1979 indicates that the UK MoD had been asked to express its opinions on the vehicle at the design stage and stated that it could see potential for it with the British Army as an ambulance, ammunition carrier, and Milan missile launcher. No doubt buoyed by the MoD's apparently positive response, Laird pressed on with its concept vehicle.

Re-engined with the V8, it was assessed by the Army between April and June 1978, and displayed at the British Army Equipment Exhibition in June, as well as being shown off at Bovington in the mobility demonstration associated with the BAEE. It then joined a three-month MoD-led overseas sales tour of British defence equipment, during which it visited Greece, Spain, Tunisia, Algeria, Nigeria, Brazil and Colombia.

According to *Defence Attaché* magazine, six complete pre-production Stage 1 V8 109s were delivered by Land Rover to Laird in April 1979 and pre-pro P1 was completed about a month later. By July, when *Defence Attaché* visited Beaumaris, the remaining five pre-pro Centaurs were in various stages of completion and by the end of the year all were in use.

Early tests revealed a number of problems: there were premature clutch failures and the engines suffered repeated power losses and fuel starvation problems. There were front propshaft and halfshaft failures, the latter eventually resolved when it was discovered that Land Rover had made the shafts too short. Transfer 'boxes and gearboxes were running far too hot, and the Army wanted the noise levels to be reduced and the turning circle improved. Nevertheless, a report in 1980 concluded rather oddly that 'these trials have substantially increased the level of confidence in the vehicle design'.

Quite how Dunsfold's One Ten Centaur fits in remains stubbornly unclear. Both the *Defence Attaché* and *Truck* articles agree that one prototype and six pre-production vehicles were built, but these articles pre-date the delivery of the One Ten to Laird in January 1984. Time to extend the boundaries of our research programme, and Philip and I are off on a 500-mile round-trip to Yorkshire's East Riding...