

The eight-week Challenge

That's how long it took for Devon 4x4's Simon Buck to create his Rain Forest Challenge-winning Range Rover. *Dave Barker* went along to see how it was done



Is this the most famous bobtailed Range Rover ever? It has to be the most looked at and possibly the most photographed bobtail, after its many appearances centre-stage on the Devon 4x4 Centre's stand at the *LAND ROVER enthusiast Show* at Billing.

The bobtail Range Rover was built (or was it "created"?) back in 2000 to do one job – win the Malaysian Rain Forest Challenge. In 2002 it did exactly that, making its creator and owner Simon Buck of Devon 4x4, along with navigator and co-driver Matt Cook, the only European

competitors ever to win the event. It was a real achievement to beat the Australians and Malaysians on their own event, but Simon says that his bobtail is outdated now. It needs a rebuild and up-dating; ideas, equipment, and suspension set-ups have all moved on since it was built.

So it was time to have a closer look at this instantly recognisable bobtail before it gets the threatened make-over and update.

Committed

Imagine the situation: it's the late summer of 2000, and you are committed to competing in possibly the toughest challenge event in the world, the Malaysian Rain Forest Challenge. It's just eight weeks before you must ship your vehicle half-way round the

world. The container is booked and the shipping fees paid to get your vehicle to Malaysia – and you still need to build it!

That was the situation Simon Buck was in, back in 2000. He had entered the RFC before in a Tdi Defender, so he knew all the problems and difficulties of the event. He also knew the importance of vehicle preparation on the RFC, whether you wanted to be successful or simply to finish the event.

Simon's plan for the 2000 event was to have an all-new vehicle, one he could win in. His new vehicle had to be suited to the special conditions of the Rain Forest Challenge; it had to be strong to survive the event and the mud of the rain forest. It had to be fast and stable at speed off-road, as many of the



Bobtail



Above: Power from 4.6 V8 Thor engine

Below: Important tools like this machete are close to hand

special tasks on the event are speed runs where the quickest vehicle wins. It also had to be large enough to live in and to carry all the equipment and spares for two weeks in the jungle.

The longer wheelbase of a Range Rover would be more

suited to the faster tasks than a 90, and a V8 engine would give more power and torque than a Tdi. A Range Rover would also offer better and more comfortable accommodation for the crew. But a Range Rover has long body overhangs at the front and back; the only solution was to chop them off, and to keep the longer wheelbase and almost all the cabin space for the crew. So the plan was made: it was to be a bobtailed Range Rover.

Now, chopping a Range Rover and making it into a bobtail is a well-proven job, and not that complicated if you know what you are doing. Most people who do it just leave the suspension and the engine and gearbox in place.

They cut the rear overhang off the chassis, relocated the fuel tank, cut the side panels and the roof and put it all back together again. They normally spend several months doing it. But Simon Buck wasn't just going to chop a Range Rover and turn it into a bobtail, was he?

The plan also called for speed and reliability, so the new

vehicle would be powered by a new engine. So a new engine was ordered – a then-new Thor 4.6-litre V8 as used in the Range Rover.

This would be coupled to a new four-speed autobox, well-proven and strong. And on top of that the new bobtail would need all the other modifications and additions any vehicle taking part in the RFC or any challenge event needs. Front and rear winches would be fitted, so a suitable winching bumper would have to be built into the vehicle's chassis, and a wiring and charging system to cope with the needs of the winches would be needed.

The vehicle would need an uprated suspension system, ARB air lockers in the diffs front and rear, and uprated shafts in the axles. It would need underbody protection, a GPS navigation system, plus storage for parts and spares and all the "living equipment", water, food and fuel you need for two weeks in the jungle. A full roll cage, both internal and external, would have to be fitted. And it would all need to be completed in eight weeks!



Twin batteries are situated behind the seats



Working cabin area: GPS for navigation, and all switches and fuses are easily accessible



The ARB air locker switches, located in the centre

Donor

Now to build a bobtail, the first thing you need is a donor Range Rover. This was found locally – a 1982 two-door model, in good condition for its age despite regular off-road use. It was free from rust and rot in both the chassis and the steel inner body frame, making it the ideal starting-point. Once it arrived in the Devon 4x4 yard, it was quickly stripped down. The interior was taken out, and the roof and all the body panels were removed. The old V8 and gearbox came out, and in fact the story goes they were still warm when they came out! A grinder was now used to cut the rear overhang off the chassis and then the rear body side sections were hacked down by 17.5 inches to fit the newly shortened chassis.

Rather than refitting the standard rear crossmember to shortened chassis, a new rear crossmember section was fitted, having been manufactured "in-house" to incorporate a cradle for mounting the rear winch. At the front, a special bumper was fitted to accommodate the front winch. The body was also given a one-inch lift to help improve ground clearance; every little helps.

The front inner wings were modified, too. Any type of normal tall tyres catch a Range Rover's inner wings when the suspension is on full bump, so when a vehicle is fitted with extra tall Simex jungle tyres there is a big problem. By cutting and changing the angle the front section of the inner wing goes down at, you can gain a few more inches of clearance for the tyres. It's not a massive modification but experience says it's all these small but significant modifications that make the difference when you are off-roading in extreme conditions. On next went heavy-duty box-section side protection bars, replacing the standard Range Rover sills. Additional strengthening sections were

added to the chassis, along with mounting points for the full six-point roll cage which was made "in-house" before being fitted onto the bobtail's chassis.

Problems

The fuel tank caused a problem. Rain Forest Challenge regulations require a set amount of fuel to be carried by every vehicle and Simon needed to carry 150 litres of the stuff. The difficulty was finding a tank of the right size that would also the right shape to fit into the bobtail. Then he came across a pair of fuel tanks from a combine harvester – just the thing you have lying around in the yard if you're in the country! The tanks were cut into the right shape to fit, standing up into the back of the vehicle.

Next the engine and gearbox were lifted into place. Both were standard, but a 1:404 ratio transfer box was added to give the turn of speed Simon wanted. It would be able to power the vehicle to 65 mph in low box and the gearing would give 100 mph in top, ideal for the event's high speed tasks. To keep both these units cool in the heat of the rain forest, a Land Rover hot-climate (Saudi Arabian spec) radiator and oil cooler were fitted.

Then the remaining body panels, the floor and the interior could be replaced. Storage boxes could be added in the rear for spare wheels and tools. Other small items would be stored wherever there was space. The passenger footwell was converted to house a storage locker for items that would not be damaged by water. Spare CV joints and other parts would be



The donor two-door arrives



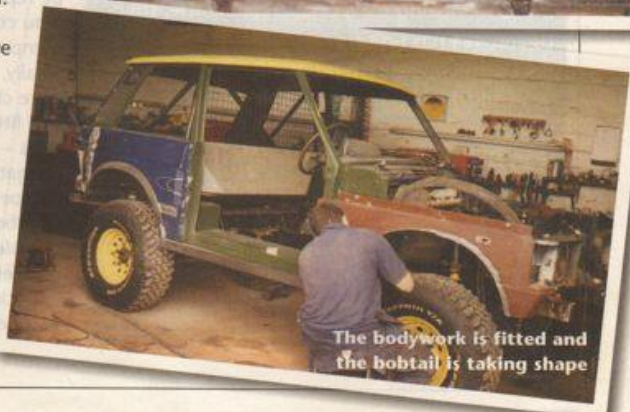
It's stripped down; roof and sides come off



The inner wings are reshaped to allow the tyres to fit

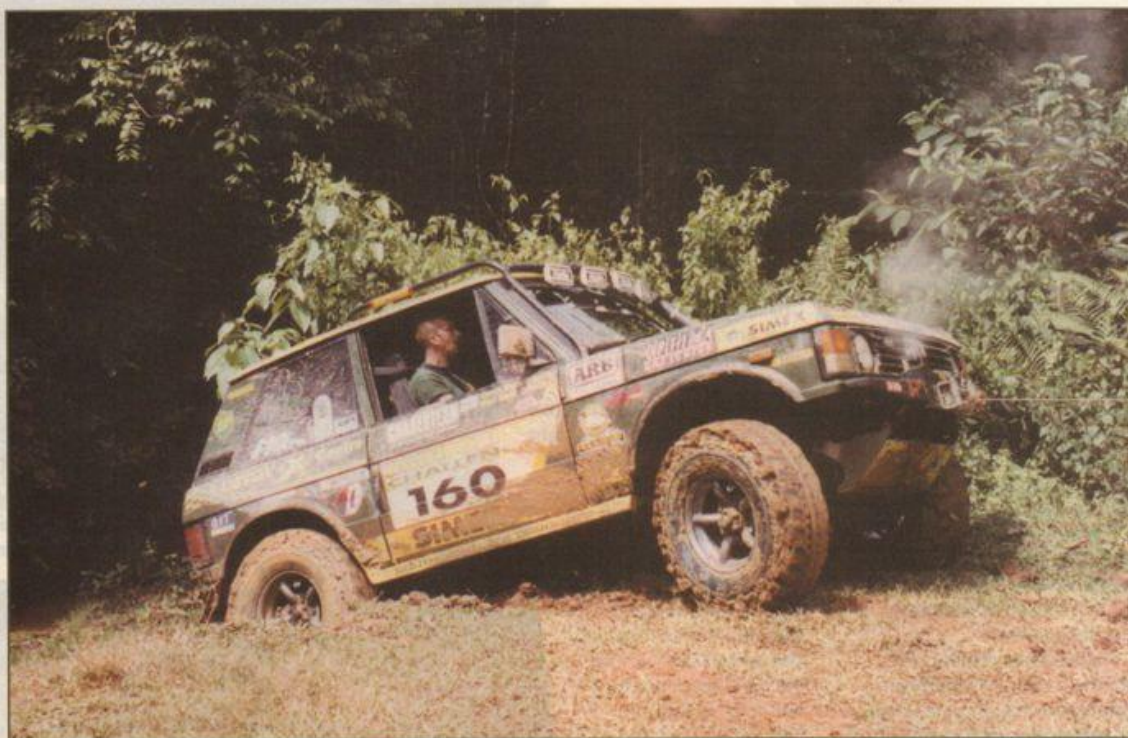


The roll cage is fitted into the vehicle



The bodywork is fitted and the bobtail is taking shape

Bobtail



In action on the Rainforest Challenge

stored under the seats. Every bit of space was to be utilised for the storage of equipment.

Time was now marching on and the shipping date, when the finished vehicle had to be loaded into its container and sent to Malaysia, was drawing ever closer. Wiring and fuel lines went in next, and twin fuel pumps and filters were fitted under the front seat.

One pump would be the duty pump and the second a spare which could be switched in at any time. The batteries – twin Optimas – were wired in parallel without a split-charging

system. Their job was to supply the power to the two Warn winches, an 8274 at the front and a XD9000 at the rear.

The axles were the next thing to get upgraded. The standard-ratio 3:54 diffs would remain, but would be pinned and have ARB air lockers fitted in both front and rear. The standard half-shafts would be replaced with GKN 10-spline heavy-duty items, which have proved unbreakable. The standard steering box was replaced with a quick-ratio type to make turning lock-to-lock faster.

The entire suspension would be replaced, using Old Man Emu coil springs and twin dampers both front and rear. Finally, a set of Wolf wheels were chosen for their strength and fitted with Simex jungle tyres – which are almost obligatory wear if you're competing on the RFC. The new bobtail was now almost complete and ready to go.

There would be just time for a quick paint job, which would see the new vehicle decked out

in the now famous green and yellow of Devon 4x4. So, after 860 hours of work, the bobtail Range Rover was now ready to be shipped out to Malaysia. A few jobs still remained to be finished off but they would have to wait until Simon and Matt next saw the vehicle when it was unloaded on the dockside – and so would any real road test.

Not quite

Did the new bobtail give Simon his win of the RFC? Well, not in 2000, as a number of teething problems with the vehicle hindered their progress on the event. In 2001 Simon and Matt finished in third place, and then in 2002 they went on to win on what many said was one of the most demanding Rain Forest Challenge events ever.

Simon Buck might consider his RFC-winning bobtail Range Rover old-fashioned and outdated in need of a rebuild, but in the right hands this is still one of the most competitive challenge vehicles around and more than capable of winning any event. ■

If you're looking for a Challenge vehicle, then Devon 4x4 has one currently for sale: Simon Buck's "UK spec" Defender 300 Tdi is available. Its specification list is long, but the vehicle has Warn 8274 winches front and rear, OME suspension with cranked rear radius arms, Garmin GPS and more. For more details contact the Devon 4x4 Centre.

☎ 01769 550900

@ info@devon4x4.com

■ www.devon4x4.com