



OVER THE TOP

This Defender has been specially prepared for driving deep inside the Arctic Circle in mid-winter. So it can do stuff like this. **Mark Saville** takes a closer look and meets its owner, Ian Woolley

PHOTOS: TOM CRITCHELL

Winches at both ends make
extreme Arctic recovery easier



The big grey Defender lowers itself over the edge of a significantly steep drop, like an anxious elephant descending a ladder, feeling for the next rung while holding on tightly with its trunk – each movement is gradual and considered.

Dangling a couple of tonnes of Defender from a winch, mounted in a brand-new, purpose-built, first-off-the-line rear crossmember, takes a certain amount of confidence in the product. And Ian Woolley, the man behind the wheel, has plenty of that, because the guys who designed and built it, Simon Buck and Matt Cook of Devon 4x4, are standing only a few feet away, and if anything unexpected happens they'll be the second and third people to find out.

Fitting a rear-mounted winch is only the latest in a long line of modifications Ian has commissioned Devon 4x4 to undertake on this Defender along with his other Land Rovers – he has a small fleet of well-prepared machines, including the Tomb Raider 110 featured in our December 2011 issue. So, what does Ian get up to with all these 'toys'?

His business, specialist 4x4 adventure company Mudrut, has earned itself a reputation for leading midwinter camping trips to Nordkapp in Norway – mainland Europe's most northerly point – usually at the end of January. Overnight temperatures at Nordkapp can drop to -40°C, so we're talking seriously cold. Ian's Defender has naturally been modified to cope with these extreme temperatures; and before clients can join his expeditions, there's a list of modifications and checks their own vehicles must comply with. As a rule, Ian strongly recommends Devon 4x4 to his clients – that way, he can be sure that all the vehicles, usually three or four, are fit for the challenging times ahead. Preparing a vehicle for life in sub-zero conditions has to be done thoroughly.

ARCTIC-BUSTING MODIFICATIONS

One of the most vital modifications is the diesel-powered Webasto heater, but even this has been tweaked to suit Ian's needs. He explains:

'The standard heater can be programmed to come on at a set time, but won't stay on for more than one hour. That's no use to me at -40°C. I want it to come on and stay on until the interior is warm enough, so I've had a simple on/off switch fitted.'

The Webasto Thermo Top C fitted to this 110 heats the water and circulates it around the engine's water jacket. Once the engine's warm, the relay for the Land Rover's heater blower turns on, warming the interior.

Warm hands and feet are one thing, but a warm bum and back, helping to maintain your body's core temperature, is a vital necessity not a luxury when it's -40°C outside. Heated seats are the answer, but they need to be really comfortable for the long distances and driving hours that Ian's 110 takes him on.

'These seats are made by Scheelman in Germany,' explains Ian. 'They're particularly well made. They've survived five years in my Tomb Raider, but they look like new. They've been muddied up and haven't been treated at all

'You need as much light as possible – lights on the roof rack and front bumper, which is what I've got. The front bumper is modified to take 170 lamps for low-down light in blizzard conditions'

well, but they still look good. The only difficulty is if you want to get to the seat boxes, because they don't pull out. You have to undo two Allen bolts, but it only takes two minutes.' Like most of the kit on Ian's truck, these amazing seats were supplied by Devon 4x4.

All this warmth can only be provided if you have enough fuel on board, of course, so the standard tank has also been modified.

PROPERLY TANKED UP

Ian's Defender has two underslung 60-litre tanks, one each side between the chassis rails and sill plates. The left-hand one carries water, the right-hand diesel; the water tank isn't used on Nordkapp trips, but the diesel tank is vital.

This auxiliary fuel tank is connected to the main, long-range tank, itself another of the

improvements needed for the Defender's extended overland trips. The main tank holds 120 litres instead of the standard 90 litres.

Ian set Simon and Matt a challenge. He wanted to be able to pump diesel from his 60-litre reserve tank to an outlet by the fuel filler, so that he could re-supply a second vehicle if needed, as well as transfer fuel from the reserve tank to the main tank.

'The problem is that a standard electric fuel sender pump will often burn out after a minute – they're not designed for continuous running,' says Ian. 'Simon managed to find a suitable pump so now I can pump diesel from tank to tank or into a can.'

NORTHERN LIGHTS SHOW

One of the big attractions of travelling north of the Arctic Circle in winter is to witness the Northern Lights. Ian and his fellow adventurers have a pretty solid record of seeing this amazing spectacle (LRO, Spring 2011 issue). But to travel to see nature's light show in the Arctic

winter means enduring light conditions varying between dim twilight and total darkness, so your Defender is going to need to provide its own illumination.

Second to winch one-upmanship, who's got the biggest and brightest array of stellar lights on their Land Rover is probably one of the most talked-about issues. Not many people need or use a big winch, but everybody drives at night time, and everybody knows how rubbish the standard Defender headlights are.

Ian's Defender has a mix of roof lights, extra driving lights as well as upgraded headlights. Each type has specific advantages, as he explains: 'The Lightforce 140s on the roof are a fairly standard thing for me, although I've been experimenting with one of Devon's 40-inch LED light bars on another truck.'



THE DESIGNER MATT COOK

■ Matt Joined Devon 4x4 in 2003 from Land Rover, where he had been a project engineer. Two years later D44 was formed to design and manufacture the now iconic range of D44 products, which Matt now leads. He has been Simon Buck's co-driver for 12 years.



Ian's running two GPS units; one confirms the other

TECH SPEC

MODEL: Defender
110 Utility
YEAR: 2008
ENGINE: 2401cc 4cyl TDCi, with Bell Auto Services remap for improved mid-range power and torque
TRANSMISSION: six-speed manual
MODIFICATIONS: Devon 4x4 steering guard, front bash plate and competition front bumper (ends trimmed, blanked-off on rear surface); Protection & Performance roll cage; Hannibal roof rack with side and rear awnings; Southdown raised air intake; Warn winches – front and rear Warn 9.5XP; WVA rock sliders; Merlin split-charging system



Roof pod houses powerful LED lights, CB and map compartment



Merlin split-charging system is state-of-the-art



Last-minute design tweak; replacement chequerplate



THE OFF-ROADER SIMON BUCK

■ Simon and his wife Liz started Devon 4x4 Ltd in 1984. The company is at the forefront of off-road vehicle preparation. Simon is one of the best-known off-road competitors, and he puts this expertise and technical knowledge into every product and vehicle Devon 4x4 produces.

WINCH-MOUNTED REAR CROSSMEMBER FOR THE FROZEN NORTH



Matt removes the heavy, long-range tank first



Careful measuring and marking a vital aspect



Plasma cutter slices through steel cleanly



Internal walls of chassis look nice and 'fresh'



The body mounting bracket will be modified



Every inch of weld site is carefully prepared



New side rails assembled and welded in-situ



Cut and trimmed rear body mounting bracket



Side rails seam-welded on every edge...



... two long puddle-welded slits add strength

'Lights on the roof rack are great for far-out stuff, but in blizzards they're pointless because the light just bounces straight back at you. But when it's a clear night or when you're off-road, you need as much light as possible. I think you need lights on the roof rack and on the front bumper, which is what I've got.'

Ian replaced the standard headlights with IPF units fed by an upgraded, modified loom so he can fit any lightbulbs he chooses.

'Matt modified the front bumper, which came from my old Tomb Raider 110 to take the Lightforce 170 lamps with modified lenses to give me low-down light in blizzard conditions.'

Blizzards lead to snowdrifts, and snowdrifts lead to vehicles getting stuck – so the ability to self-recover or recover another vehicle can prove vital. A winch really is a must-have piece of kit. But how do you prevent it being on the 'wrong' end of your vehicle? Easy: fit one at both ends.

PULLING POWER AT BOTH ENDS

Ian's Defender has two powerful Warn 9.5XP winches. The newer one sits in an almost 'invisibly non-standard' rear crossmember; a fine piece of Devon 4x4 design and engineering.

Is it just for show or is it really needed?

'You've guessed it; it's there just because it looks good and because we could do it,' laughs Ian. He's joking, of course.

'It's something I've fancied for a long time. I've seen the challenge trucks with them, but overland guys don't seem to have them.'

'There were two occasions when I really could have used one. The first time was on our 2012 Arctic trip. We camped on a sloping service road by a fjord. In the morning, we simply couldn't get enough traction to get off it; it was covered in ice like glass. Once I eventually got my vehicle to the top of the slope, I had to turn it around to use the front winch to winch the other vehicles; a rear winch would have been better because I would have been able to leave my vehicle, anchored in place, at the top.'

'Most recently, in the Pyrenees last April, the thaw hadn't come properly and while we did well on most of the snowy tracks, some we just couldn't get through. The snow was literally up to the bonnet. Without digging all day, there was no way through. So we had to turn the vehicles around.'

'There were very few places to secure ground anchors to winch from; it would have been much easier with a rear winch. It was then that I decided I needed to get one sorted out. But all the other solutions I've seen for mounting a rear winch on a Defender just look messy; they overhang too much or sit too far below the level of the rear crossmember. Or both.'

'I gave the job to Matt to see what he could do with it. The overriding consideration was that it looked cool!' says Ian.

Made from 5mm-thick mild steel, the new crossmember looks very much like the original item and has all the standard holes and brackets you'd expect to see for bodywork mounts and various accessories.

'It's the first 110 rear-mounted, winch-carrying crossmember we've done,' says Matt. 'It's now one of our Devon 4x4 products,' adds Simon.

Fitting it to Ian's TDCi wouldn't have been any different from fitting it to a Td5, had it not been



for the complication of the long-range fuel tank. 'It bolts to the bottom of the rear crossmember rather than through the back. It meant I couldn't mount the winch any lower, which perhaps would have been easier – but Ian wanted it kept high, so it worked out in the end,' says Matt.

As a result of developing the crossmember for Ian's 110, Devon 4x4 now also offers one made from 5mm steel, but without the winch cage.

STATE-OF-THE-ART SPLIT-CHARGING

With two big winches, and usually a fridge in the back, plus all those lights to feed, Ian has adopted the latest in split-charge technology.

'I wanted an electronic system rather than a mechanical relay system,' he explains. 'I wanted

a system that gave more information about the condition of the batteries – not just how much power they had left, but how long they could continue providing that power. The Merlin system I've got now does just that.'

The system is also designed to run a bank of batteries. At the moment two Odyssey PC1500 deep-cycle batteries are stashed under the passenger seat; the next step is to fit two more sandwiched in the void behind the slide-out drawer in the load area.

'Some systems will tell you how "wonderful" your batteries are, but they don't tell you how much "wonderful" you've got left in them,' adds Simon. 'Ian's vehicle is the first one we've fitted with the Merlin system. He's our guinea pig.'

The factory-standard 120-amp alternator has proven perfectly adequate up to now, because unlike the guys who compete in winch challenges, Ian uses only his winches occasionally so the batteries never get drained.

The 110 has had no end of expedition kit and protection equipment fitted to it, so it weighs a

lot, even when empty. Heavy-duty suspension is the final critical element that makes this Defender ideally suited to its role.

for its range. These ones are made by Dobinson in Australia. It now sits exactly how I like it. 'Because the springs are so strong, the run-of-the-mill shock absorbers can't control them so I'm now trying Koni Heavy Track Raids, which are working very well. The set-up provides a couple of inches of lift, and with the weight I carry, I wanted the standard anti-roll bars re-fitted – the previous owner had removed them.'

'It's had the current set-up for two years now, travelling to the Pyrenees and back twice, and 3700 miles to the Arctic and back, all heavily laden on very unfriendly surfaces.'

Ian's a confirmed fan of BF Goodrich MT KM2 285/75 R16 tyres on 8x16 alloy wheels by CVW, a German brand. 'I've got them on all my Land Rovers. There are plenty of great wheels on the market, but most only come in 7in width. My 'standard' tyre size is 285, so I need an 8in-wide rim. All my snow chains fit 285/75 R16 and I've standardised on that size.'

So there you have it. Ian's latest 110 Arctic and Pyrenean explorer is one of the most capable

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and comfortable overland adventure Land Rovers I've seen for a while – and it can dangle itself off extreme bits of scenery, too. **LRO**

THE PERFECT SUSPENSION SOLUTION

'It's a very heavy vehicle,' agrees Ian. 'We found that, when it was fully loaded, Old Man Emu springs left it sagging at the back. At the time, Devon 4x4 was "auditioning" different springs

Thanks to: Simon Buck and Matt Cook of Devon 4x4, and Ian Woolley at Mudrut. To find out more about Ian's trips, go to mudrut.co.uk. For more details about Devon 4x4's modifications, check out devon4x4.com.



More batteries to be housed aft of slide drawer



THE EXPLORER IAN WOOLLEY

■ Ian is a total Land Rover fan. His company, Mudrut, specialises in leading expeditions to the remoter parts of Europe. Ian's particular fascination is with the High Arctic in winter. As we go to press, he's leading another adventure to inhospitable but beautiful Nordkapp in Norway's far north.



Modified suspension gives a handy couple of inches of lift