

# SUPER HERO



When James Trembath bought a run-of-the-mill 90 back in 1999, it wouldn't have merited a second glance. By the time it emerged from his workshop in 2006, it had been transformed into a hero of a 4x4, with special powers and everything. And it's been saving the world ever since...

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**T**he great thing about superheroes is that when they're not using their special powers to save the world, they're everyday men and women just like the rest of us. From somewhere deep within, though, when the call comes they're able to do amazing things. But deep down, they're as normal as anyone else.

It's the same with off-roaders. Well, sort of. When you look at a highly modified adventure truck or competition car, it can be hard to believe it was ever a relatively normal vehicle. Until they're built up into hero mode, they're as meekly anonymous as Clark Kent.

That's never more the case than with James Trembath's 90. He bought it back in 1999, at which time it was just a moderately modified truck cab and wouldn't have turned your head in the street. But little did anyone know what the mild-mannered Land Rover was going to become...

Today, the 90 has been transformed into a highly successful competitive off-





roader. It's earned James a bulging trophy cabinet, as well as generating no small amount of admiration among his fellow challenge enthusiasts.

Of course, it wasn't always the case that people cast admiring glances at the vehicle. As James says, it was one of the first ever traybacks on the UK off-road scene, and its outlandish looks met with a scornful reception when unleashed on the challenge circuit.

'When I chose to convert the vehicle into a trayback,' James reports, 'there were only about three of them in the country. We followed the concept trayback designed and built by Martin Lewis, which certainly looked a little unusual. But I knew from the outset it would be a brilliant off-roader, and it wasn't long before the idea caught on.'

Such is the life of a pioneer - and James can certainly be described in those terms. He's a popular figure at challenge events in his native south west, as well as further afield. And his vehicle has definitely become one to watch among competitors, with a famous victory at the Muddy Truckers Trophy being just one of its many triumphs.

As it goes, James didn't start competing in the 90 until 2006, when he entered one of Challenge South West's Mission: Impossible events. 'This was a pretty steep learning curve for me,' he says, 'and I took a huge step towards making more radical modifications to the vehicle pretty soon afterwards.'

Like many before him, James prioritised fitting new wheels and tyres to the 90, as well as a suspension upgrade and front and rear winches. Sounds like quite a lot of modifications for a truck that was

only just cutting its teeth in off-road competition, doesn't it? This was barely the beginning, though: a great deal more was to follow.

By Easter 2006, James and his then-co-driver Paul Milsom were ready to perform major surgery on the Land Rover. Off came the bodywork, to be replaced with a home-fabricated rear tray incorporating stowage for tools and spares, and delivering a substantial improvement in the vehicle's all-important departure angle.

This improvement has since been augmented by custom-built rear chassis sections, enabling James to locate the rear winch in a fashion that offers accessibility without compromising the rear overhang. Other home-brewed components at the back end include custom-built recovery points, a 60-litre aluminium fuel tank and a 12mm T45 aluminium full-length belly plate.

As you can tell, James isn't afraid to manufacture his own components. The result is a distinctive vehicle that makes good use of off-the-shelf components where necessary, while retaining a reassuringly homespun personality.

Talking of off-the-shelf components, the trayback sports an MSA-spec Protection and Performance roll cage, North Off Road front wing bars, a Southdown steering guard and Ashcroft Force 9 heavy-duty diff pans. These deliver considerable peace of mind amidst the rough and tumble of competitive off-roading - ensuring both the vehicle and its occupants are protected from harm.

Back to 2006, and James was quick to set his new trayback to work. By 2007, the vehicle was notching up victories



What you're looking at here was one of the first trayback designs to appear on the UK off-road scene. As well as stripping the vehicle of as much unnecessary bulk and weight as possible, this allows tremendously easy access to all the kit you need to carry for winch challenges - such as a ground anchor, waffle boards and, positioned above a custom made 60-litre aluminium fuel tank, a high-lift jack

The 2.8 TGV engine is basically an enlarged version of the 300Tdi, made by International Motors in Brazil. It develops 135bhp and 277lb.ft in standard tune, powering a vehicle like the 90 with ease while retaining the mechanical simplicity of an old-tech unit





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across the UK, and competing regularly in CSW and LR4x4 Forum events.

The latter is now the 4x4 Adventures series, of which James has been the lynchpin since 2008. That hasn't prevented him stepping into the competitive fray, with the trayback's triumphs including a joint series win in 2008 - until a significant rebuild in 2009.

Foremost among the modifications undertaken at this time was an extension to the wheelbase - from the 90's standard 92.9 inches to 100 inches. The design of both the front and back ends of the vehicle was overhauled, and a four-speed ZF HP22/24 Ashcroft monster automatic gearbox was slotted in place.

'These changes made a world of difference to the way the truck performs,' James says. 'Immediately we'd made them, I realised the truck was climbing, gripping and tackling descents with a lot more confidence. The rebuild has been a revelation.'

The gearbox is used in conjunction with an LT230 transfer box, and the engine that drives the vehicle onwards is a 2.8-litre TGV unit - the fabled 'Brazilian.' James has stuck with the engine's standard tuning, but has installed a larger intercooler in order to squeeze out a few more horses. Cooling comes from a rear-mounted Allisport V8 radiator coupled to twin electric fans that are



Both axles are Ashcroft Force 9 units featuring bomb-proof diff pans of the same name. Inside, the same company's 4.11 diffs are controlled by air-locking centres - meaning the vehicle has the strength to go with the tractability delivered by its 35x10.50x16 Fedima Siroccos



The engine in this 90 is basically standard in tune, though it runs a full-width intercooler to aid efficiency and deliver a boost in output



With the vehicle's front end regularly dumped into the deepest, stickiest mud known to man, it makes sense for the radiator to be somewhere else entirely. The back, for example - which is where you'll find an Allisport unit aided by twin electric fans



The four-speed ZF auto box is cooled by its own dedicated rad and electric fan, which are tucked away out of trouble in the back corner of the engine bay



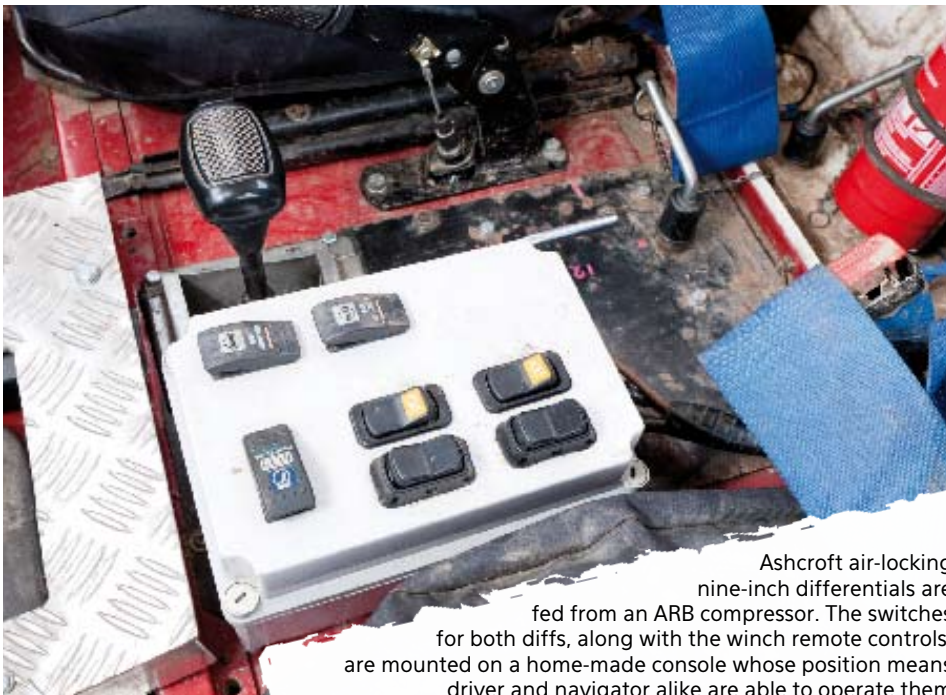
operated by an X-Eng cooling switch with manual override.

This all sounds bewilderingly complex, so it's reassuring to be reminded of some of the more standard components used on the truck. There's the Land Rover Defender chassis, for a start - which, apart from a few adjustments here and there (a longer wheelbase, little things like that), is as it was on the original donor vehicle. Likewise the Defender cab, bulkhead and bonnet, demonstrating that at the heart of even the most extreme off-roader there is more often than not a workaday 4x4.

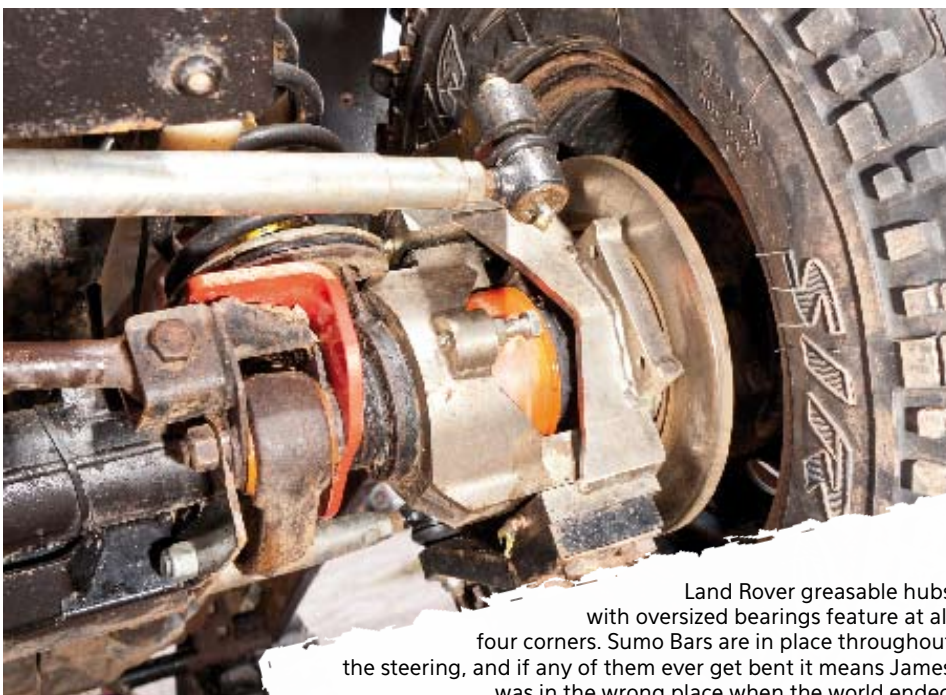
That said, the vehicle's axles can hardly be described in such terms. These are

Ashcroft Force 9 components, featuring reversible air-locking differentials with a 4.11 ring and pinion upgrade. That makes for a fine ability to transfer the engine's power to useable motion (delivered, incidentally, through Gwyn Lewis 300Tdi heavy-duty wide-angle propshafts). But it does pose a potential threat to the other components in the vehicle's drivetrain.

This threat is partially ameliorated through use of Land Rover hubs, running oversized bearings. Even so, it's a surprise to learn that James has stuck with standard front radius arms, given the hardcore approach taken elsewhere with the axle set-up. He's also stayed standard with the four-bolt steering box,



Ashcroft air-locking nine-inch differentials are fed from an ARB compressor. The switches for both diffs, along with the winch remote controls, are mounted on a home-made console whose position means driver and navigator alike are able to operate them



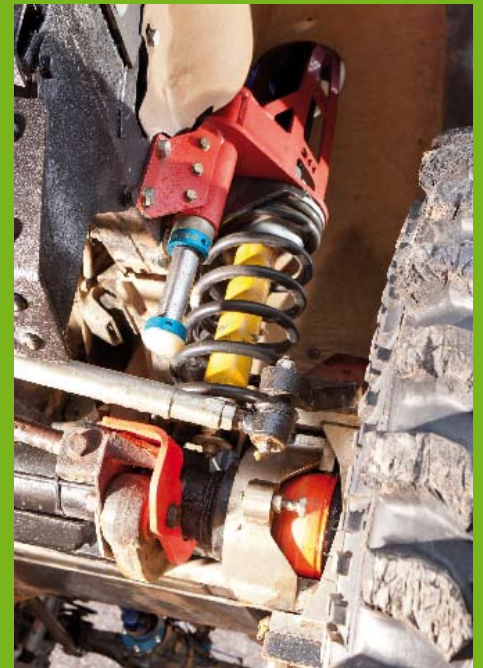
Land Rover greasable hubs with oversized bearings feature at all four corners. Sumo Bars are in place throughout the steering, and if any of them ever get bent it means James was in the wrong place when the world ended



Both diffs are turned by heavy-duty, wide-angle 300Tdi propshafts from Gwyn Lewis



X-Eng says its adjustable rear radius arms allow more unrestricted articulation than any other trailing arm system on the market. You can fit them on any Defender, Mark 1 Disco or Range Rover Classic - but they're absolutely in their element on a hardcore challenge truck like James' trayback



James struck a sponsorship deal with Devon 4x4 in 2010 which saw his vehicle fitted with a range of top-quality suspension kit. Up front are 240lb springs and +5" travel shocks from Old Man Emu, along with hydraulic bump stops from King Off Road. These are mounted on 65mm drop turrets from D44's own range



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though steering protection is beefed up thanks to Gwyn Lewis Sumo bars and a track rod protector.

In 2010, James signed a sponsorship deal with Devon 4x4, and the vehicle benefited from a completely revamped suspension configuration. 'Simon and Liz, and the whole team, have given us loads of really great input,' says James. 'The new suspension has once again transformed the truck.'

Thanks to the deal, James' trayback now runs with Old Man Emu 240lb springs on the front and rear. These are used in conjunction with OME front shock absorbers, giving five extra inches of travel, and Terrafirma +5" rear shocks. All four are located using Gwyn Lewis shock mounts.

Helping the axles articulate to the very best of their ability is a pair of +65mm front shock turrets, incorporating hydraulic bump-stop mounts. The rear axle runs with X-Eng adjustable rear trailing arms and D44 dislocation cones, also with hydraulic bump stop mounts. These are necessitated, of course, by the 2.5" King hydraulic bump stops that James has installed on the front and rear.

With the impressive suspension configuration keeping all four wheels in contact with the ground for as much of the time as possible, it makes sense for

James to run with a set of grippy tyres. He's opted for 35x10.50x16 Fedima Siroccos, which are fitted to 9x16" steel modulars by means of weld-on beadlocks.

James says the set-up enables him to keep driving through ground that would ordinarily require at least the diff-locks to be engaged, if not the winch to be unwound. The time saved can make the difference between victory and defeat, and helps explain why James won the 2010 4x4 Adventures Series in his first season after the suspension change.

No matter how good a vehicle's traction, there will always come a time when its winches are called into service. That's the *raison d'être* of challenge events, so it's hardly surprising that James has fitted a pair of Warn 8274s to his vehicle.

Both the front and rear units feature uprated mainshafts and brakes, courtesy of Giggiepin, and are powered by Goodwinch Bowmotors (9hp at the front, and 6.7hp at the rear). The winches are controlled from the cab via Allbright solenoids, and James has fitted Dyneema Bowrope for ease of handling.

Twin Optima Yellow Tops are augmented by a pair of Newmax 12-volt batteries, meaning James rarely finds himself short of charge for the winches. The batteries also power an ARB air



Tucked safely away above a bash plate that looks like you could moor the Ark Royal to it is another piece of the familiar X-Eng magic, in the shape of its X-Brake disc handbrake. This is famous for being very, very good, in much the same way that the standard part it replaces is famous for being very much the opposite





compressor, from which James feeds a Giggiepin air reservoir for use with a tyre inflation line and which also supplies the locking differentials.

With so much attention on keeping the vehicle moving forwards, James could be forgiven for forgetting that he also needs to make it stand still from time to time. Fortunately, a set of 110 calipers on the front and rear discs takes care of things in that department, providing a bit of extra stopping power in comparison to the original 90 components.

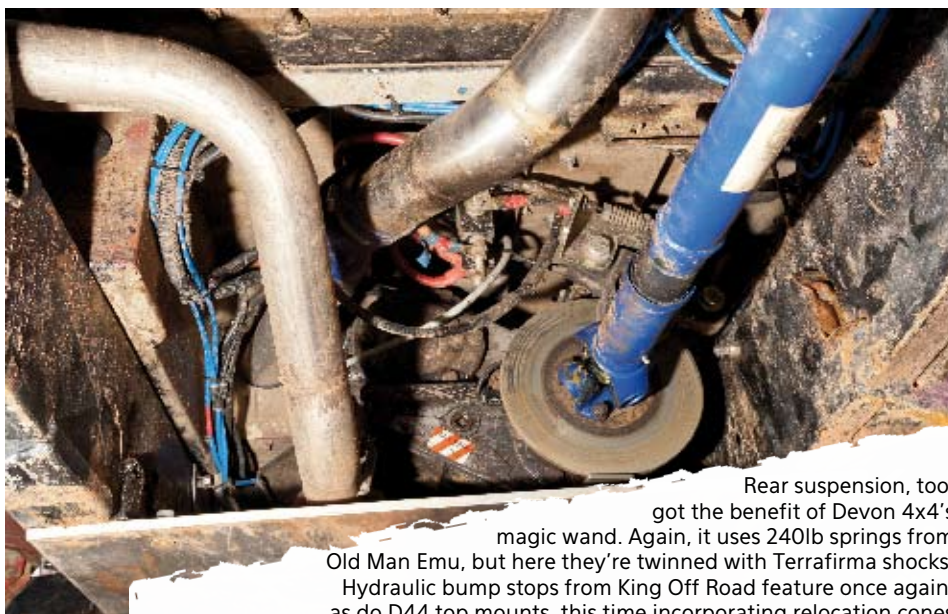
Llama flexible and extended brake hoses offset the increased ride height, and a Discovery 2 brake servo ensures efficiency of operation. An X-Eng disc handbrake conversion helps prevent the 'handbrake-on' backwards roll that will be familiar to many Defender drivers.

In that one sentence, we see what's so appealing about this most unusual vehicle. Because, for all its outlandish looks, for all its competitive success and

for all James's judicious use of extreme modifications, this truck is resolutely still a Land Rover.

If that tells us anything about hardcore off-roaders, it's that they don't come from nowhere. So remember this: for every extreme mud machine you come across, a factory-spec vehicle will be responsible for at least some of its DNA. Somewhere, in every superhero there's an average guy just like you and me.

*We photographed James' 90 at Land Rover Experience West Country, just outside Honiton in East Devon. Thanks to Andy Summers for his help here. Part of the LR Experience network, it offers the usual training packages as well as 'Trec Days' - green laning adventures in your own vehicle on private tracks spanning Devon and bordering Exmoor. Want to know more? We thought so. Call 0844 848 4471 or visit [www.westcountry.landroverexperience.co.uk](http://www.westcountry.landroverexperience.co.uk).*



Rear suspension, too, got the benefit of Devon 4x4's magic wand. Again, it uses 240lb springs from Old Man Emu, but here they're twinned with Terrafirma shocks. Hydraulic bump stops from King Off Road feature once again, as do D44 top mounts, this time incorporating relocation cones



A Farr winch mount provides a neat home for the Warn 8274 on the front end, preventing what is a big, bulky bit of kit from imposing too much on the 90's famously good approach angle. The winch itself has an uprated mainshaft and brake from Giggiepin, as well as Allbright solenoids and a 9hp Bowmotor from Goodwinch. Needless to say, it runs Dyneema Bowrope for safety and ease of handling



Thought we were joking about the approach angle? Turns out we weren't. Also on show here are front wing bars from North Off Road, which dial out one of the most vulnerable parts on any 90 that's going to get used hard