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SHOGUN v TENERE



ROTORVATION

RIDING THE NEW NORTON

TESTS: YAMAHA TDR250/DUCATI 750 SPORT/YAMAHA FZR400

YAMAHA TENERE

MITSUBISHI SHOGUN

Testing Europe's favourite two and four-wheeled off-rovers/Howard Lees

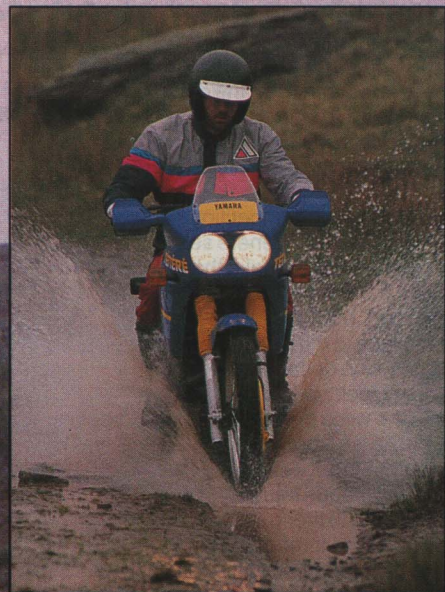
It had to happen sooner or later. Trying to balance a 400lb trail bike with a full tank of petrol isn't easy, and when even six foot-plus riders have trouble touching the ground the odds against stopping the thing toppling over are seriously stacked against you.

On a short but steep and slippery climb the rear wheel slid sideways into a pothole, the bike jerked to a standstill and my boot found nothing but thin air under its sole. Next thing I knew the bike was on its side with me under it, observed by a semi-circle of cows looking as if they'd seen it all before.

We were at the end of a two-day trek that had taken us over rocky tracks in the Welsh mountains, fast dirt trails and muddy, rutted paths that brought us to a standstill more than once. Discovering the differences between Yamaha's latest Ténéré and Mitsubishi's Shogun 4x4 had kept mind and body working at full stretch, but even though it's almost impossible to topple over in a Shogun, the two have more in common than you might think.

Although we seem strangely immune to the fervour it generates in Europe, the Paris-Dakar rally is central to the success of both the Yamaha and the Mitsubishi. Over the last few years both companies have won their respective sections of the rally, and both use that success heavily in their advertising – the 1988-spec Ténéré has a new twin-headlamp fairing just like the Sonauto factory machines and is of course





named after the Ténéré desert section of the route. This advertising approach works too. The Shogun tops the off-road market in several countries on the continent, and the Ténéré is a runaway success. It hasn't repeated its 1985 feat of being the overall best-selling bike in Europe but it still sells in huge numbers.

Despite this competition heritage, the Shogun and the Ténéré sell mostly to people who never take them near the rough. Each has a reputation for good manners on the road, but have they been civilised over the years to the point where off-road ability is only skin deep? Setting course for Dakar wasn't really on, so to find out we headed off into the wilds of Wales with a short-wheelbase Shogun Turbo Diesel and the latest XT600Z Ténéré.

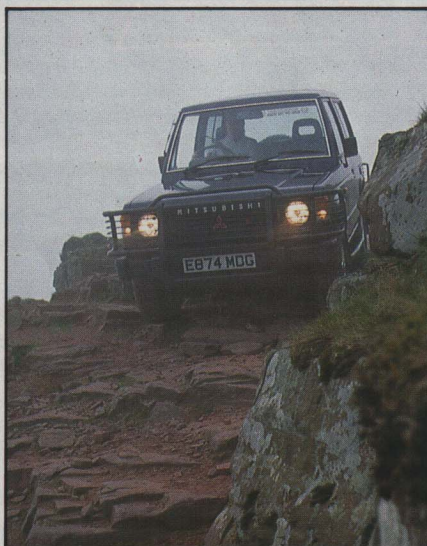
The Shogun hasn't changed much since it first came to these shores in 1983. There's a bit more equipment, the turbo diesel engine has been pumped out from 2.3 to 2.5 litres, but otherwise the recipe remains the same. With a choice of seven seat long or five seat short wheelbase versions with petrol or diesel power it's Mitsubishi's most successful model in the UK.

We chose a three-door version on the grounds that its lighter weight and smaller dimensions would help off-road – similarly the flexibility of the turbo diesel plus the fact that it's by far the most popular choice, meant we opted for the oil-burner. The turbocharged 2.5 litre four cylinder diesel churns out 84hp at 4200rpm and 148ftlb of torque at 2000rpm. The rear wheels are normally driven through a five-speed gearbox, but a dual range transfer box can power the front wheels via automatic freewheel front hubs in high or low ratio.

Short wheelbase Shoguns are less lavishly-equipped than their five-door brothers, but the missing gimmicky inclinometer is no great loss. There are also no electric windows or the limited slip rear diff offered in the five-door version. We were going to miss that diff.

Yamaha were the first Japanese company to produce a big capacity, single cylinder trail bike and the current Ténéré can trace its ancestry back to that XT500 of 1977. It really did start a trend, and now every self-respecting manufacturer has a big four-stroke trail bike in its range. Over the years the XT has been given a better chassis and brakes, radically different styling and almost 50lb in weight. The XT600Z now boasts Monocross single shock rear suspension, a box-section swing arm, 43mm long travel front forks and disc brakes front and rear. Its air-cooled four-stroke engine has gained an extra 100cc, a four-valve head (still with a single overhead camshaft) and what Yamaha call a Duo Intake System (YDIS I suppose) – a clever combined constant vacuum and slide twin choke carb. All this has upped the power over the years from a lowly 30 to 46hp at 6500rpm, with peak torque of 38ftlb at 5000rpm. Drive is through a five speed gearbox, gear primary drive and 0-ring sealed chain.

The Ténéré has been quite extensively re-engineered for '88. As well as the rear disc brake, there is a full fairing with twin headlights almost identical to the '87 Paris-Dakar bikes, a new fuel tank, side panels and a low-mounted front mudguard to match. That 595cc engine boasts more cooling fin area on the cylinder, a new head and revised lubrication to the top end and



gearbox.

Cruising down the M4 en route to the Severn Bridge the Shogun and Ténéré proved to be evenly matched. Both would cruise happily at 75 to 80mph, the Mitsubishi limited by an 82mph top speed while the Yamaha's upright riding position meant that going any faster was a real stretch on the arms. The small screen on top of its twin-headlight fairing helped reduce windblast, but caused uncomfortable buffeting around the crash helmet that got much worse if you came within 20 yards of the Shogun's rear bumper. Hand protectors on each bar did a fine job of keeping thinly-gloved digits dry and warm in the early morning fog and drizzle.

That long travel suspension (10in front and 9in rear) gives a supple, well controlled and very comfortable ride with no trace of high speed or cross wind instability even with quite a decent load strapped on the rear carrier. A 600cc single cylinder engine is always going to vibrate, but even though the bars and footrests tingle it never gets uncomfortable. That's more than can be said for the seat though. After 100 miles perched on that high, narrow cushion you begin to long for a halt where you can stand up for a bit.

Despite rather more pitching than on long wheelbase versions and a trace of harshness from the rear leaf springs, the Shogun still provides a perfectly acceptable ride. Well-shaped, firm and comfortable seats help, aided by a good driving position and the new smaller and thicker-rimmed 15½in steering wheel mounted on a tilt-adjustable column. The Shogun is reasonably free of wind noise for something shaped like a portacabin wrapped in scaffolding, and the balancer-shaft-equipped turbo diesel engine is so smooth and quiet, that it seemed more like a petrol-driven vehicle.

Once over the bridge we headed for the Brecon Beacons along a series of fast, twisting B-roads. On these, the Yamaha was able to exploit its better power to weight and inherent nimbleness, leaving the

Mitsubishi a shrinking dot in the mirror.

At first glance the widely-spaced blocks and deep tread of the Ténéré's Bridgestone Trail Wing tyres don't look at all suitable for hard charging on tarmac, but the 3.00 S21 front and 4.60 S18 rear cover didn't squirm at all when cornered hard and proved exceptionally grippy in the dry. With loads of ground clearance the Ténéré could be banked deep into the corners, and the punchy mid-range of that 600cc single would power it out into the next short straight. Keep the power on late towards the next bend and a two-finger squeeze on the front brake lever gets the single front disc biting hard enough to squeal the front tyre. Even with most of the front fork travel used up and very little weight on the rear tyre, the 220mm disc back brake proved progressive and controllable.

For its size and power output, the Shogun is no slouch along the lanes either. Push it hard and the body rolls, the 215 SR15 Bridgestone Desert Duelers shift from understeer into a four-wheel drift, but the limits are high enough to surprise the average driver in a lukewarm hatchback. The standard power steering is reasonably positive and the disc front/drum rear brakes provide plenty of stopping power for the performance. It's only when trying to accelerate out of the corner you yearn for a bit more poke. At a more relaxed pace, the flexibility of the Shogun's engine allows you to be very lazy about gearchanging – both it and the Ténéré have light, progressive clutches and fairly slick gearboxes.

North of Merthyr Tydfil, we soon found what we'd come for. A steep climb to the top of the pass took us into the cloud and left us facing an even steeper, tortuous descent over scree and fearsome-looking rock steps. Even if both vehicles got down okay, I knew they would have real trouble coming back up.

On this terrain, the Shogun was master. It was possible to let the engine do all the work in low range while it was steered between the rock outcrops, both feet off the pedals. The biggest worry was the lack of clearance under the sump, but Mitsubishi has fitted a stout steel guard to prevent damage.

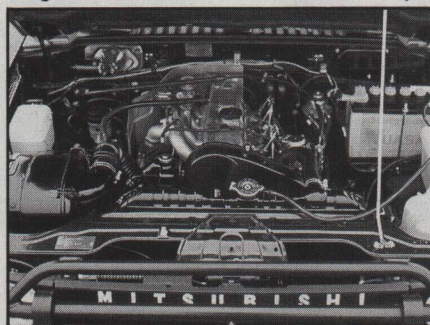
Of course the Ténéré doesn't have the luxury of a dual-ratio gearbox like the Shogun (although the Suzuki TC125 had one almost 20 years ago), and with a five-speed gearbox and overall gearing aimed at road use, first gear just isn't low enough for slow speed off-road work. It's not helped by the engine's eagerness to stall abruptly when asked to pull from under 2000rpm. Upping the tickover helped slightly but we still found the only safe way down to be with the clutch in, modulating the rear brake to get traction and right hand well clear of the front anchor.

The sheer weight of the bike and its high centre of gravity made it quite difficult to change direction accurately enough to follow the line down the slope you had chosen. If you need a steadying dab of the boot, you'd better be tall – in fact anyone under six foot is going to have trouble with the seat height of a Ténéré even on the road.

Further on, the track flattened out, sweeping around the side of the hill and along a remote valley. At first, the Shogun gained ground. In low range fifth it could be powered over the rough gravel track, suspension coping well with the occasional pothole with just the lightest pressure on the



Shogun's four wheel drive was somewhat compromised by lack of ground clearance



Turbo-charged diesel engine and dual ratio gearbox give the flexibility needed on this terrain

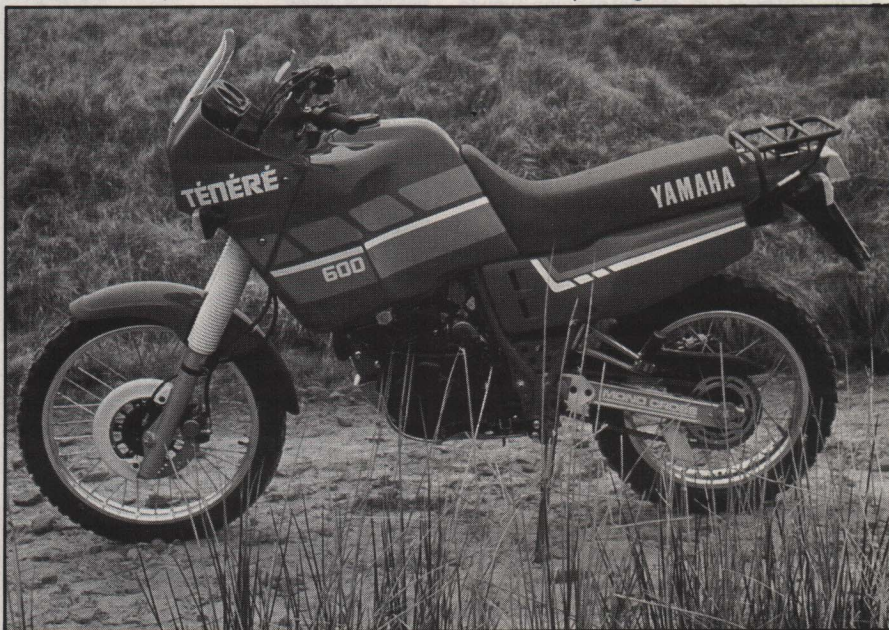


Ténéré's engine is generically linked to the very first XT500 and coped well under test conditions

steering wheel allowing it to make its own corrections. Despite the blinding cloud of dust it kicked up, the Ténéré began to close the gap.

The Yamaha's stability and well-damped suspension soaked up ruts and potholes rather than necessitating a change in line to avoid them. Standing on the pegs with weight well back and arms lifting the front wheel until it was just skimming the ground, the Ténéré was in its element. With a smooth rush of power between 3000 and 7000rpm, the Yamaha wasn't going to loft its front wheel without warning. Indeed, its weight meant you had to be quite determined to get the front tyre in the air.

It was time for something that wouldn't be easy for the Shogun or the Ténéré – the deepest and muddiest sections of the Fosse Way after some serious rainfall. We started with some flat but deeply rutted and very sticky trackway. The Shogun had real trouble here – its brand-new Bridgestones gave plenty of traction but the limited ground clearance kept lifting them clear of the ground. The Shogun would then spin its wheels and lose impetus. Without the limited slip diff of its bigger brother it only takes one spinning rear and front wheel to ▶



Ténéré's seat height proves daunting on the dirt

bring the Shogun to a halt. With 15-inch wheels instead of the 16-inch rims fitted to most serious 4x4s, this was happening a lot. The only way through was to get up enough momentum in third to keep the Shogun sliding across the tricky patches, bouncing from corner to corner and the wheels giving just enough of a shove each time to keep things moving.

Keeping the Ténéré under way demanded more care and a slower pace. Riding between ruts was better than riding in them, but the danger of dropping one or both wheels into a rut while not being able to touch the ground was ever-present. In the end we settled for the rut, paddling with both feet when the rear Bridgestone couldn't provide enough grip, which was often under these conditions.

Both vehicles handled deep water very well. However the Shogun's low slung exhaust pipe was prone to disappear under the surface – all very well if the engine kept running but a recipe for mechanical havoc with a hot turbo if it stopped. Through a particular deep river crossing the Ténéré began to misfire, but was able to haul itself up the opposite bank.

With a fairly tough blend of off-roading and high speed road work we got the Shogun's fuel consumption down to 19.6mpg – still a bit better than a petrol engine would manage and enough to give over 250 miles from its 13.2 gallon tank. The Ténéré's economy was spectacular by comparison – 50.5mpg over exactly the



Three door Shogun lacks inclinometer of five door version but retains power steering

same route and a good deal better than many road bikes of similar performance. With its beautifully-sculpted but vulnerable 5.1 gallon tank it has almost exactly the same range.

We ended up with a closer match than expected. The Shogun can't keep up with the Ténéré on winding roads, but as motorway cruisers they are very close indeed. Ground clearance permitting, the Shogun's 4WD gives it the edge in really sticky going, but get on an open track and the Ténéré pulls away. The Mitsubishi



Comprehensively equipped instrumentation for dual purpose machine

needs more power and bigger wheels and the Yamaha could do with a six-speed box with lower first gear and greater tractability at very low revs.

Despite their faults they're both still real off-roaders – luckily for most buyers they're pretty good round town too. A measly £2849 gets you the Yamaha, but unless you've got the inside leg measurement to cope you'd better opt for something smaller. The Mitsubishi will set you back £13,199, but at least you don't have to be nine feet tall to drive it.



Shogun would benefit from 16in wheels as fitted to most 4x4 vehicles



Ténéré's Bridgestone Trail Wings performed well when pushed, both on road and on trail

	XT600Z TENERE	MITSUBISHI SHOUGUN 3 DOOR
Price	£2,849	£13,199
Motor	Single cylinder, air cooled SOHC four-stroke	Liquid-cooled, SOHC, diesel in-line four with fuel-injection and turbocharger
Displacement	595cc	2477cc
Bore and stroke	95x84mm	91x95mm
Compression ratio	8.5:1	21:1
Maximum torque @ rpm	37.6ftlb @ 5500rpm	148ftlb @ 2000rpm
Maximum power @ rpm	46.6hp @ 6500rpm	84hp @ 4200rpm
Carburettors	27mm Teikei	Fuel injectors
Transmission	Gear primary, five-speed, chain final	Five-speed gearbox, high and low ratios with 4WD
Frame	Steel, semi-duplex	Steel, box section
Rake	27.5°	
Steering		15½ in steering wheel, 3.4 turns lock to lock
Trail	109mm	
Front fork	Leading axle telescopic	
Front suspension		Independent wishbone torsion bar with anti-roll bar, telescopic dampers
Rear Suspension	Rising-rate gas/oil monoshock, adjustable for preload and rebound	Live axle with elliptical leaf springs, telescopic dampers
Brakes		
front	267mm disc, opposed piston caliper	2 x 254mm discs
rear	210mm disc, opposed piston caliper	2 x 254mm servo-assisted drums
Tyres	Bridgestone Trail Wing	Bridgestone Desert Dueler
front	3.00S21 (tubed)	215SR15
rear	120/80S18 (tubed)	215SR15
Wheelbase	1460mm	2350mm
Seat height	890mm	1839mm
Width	835mm	1679mm
Weight	364lb (165kg) dry	3533lb (1604kg)
Fuel capacity	26.1 litres (6.9 gallons)	60 litres (13.2 gallons)
reserve	3.1 litres (0.8 gallons)	
Fuel consumption	50.5mpg	20mpg