

INEOS Grenadier range - Brief (Off)Road Test

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Kim Henson test drives (off road) three examples from the INEOS Grenadier line-up...

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INEOS has been taking the 4×4 world by storm in catering for the many potential buyers who still prefer the 'traditional' approach to off-road vehicles.

In describing the firm's Grenadier, INEOS says, it's "... a serious off-roader that no-one's building any more. The rugged 4×4 that will get you there. And get the job done".

Let's start with appearance, and the Grenadier – in all versions – is deliberately and uncompromisingly 'traditional' in its looks. The 'boxy' design has a wheel at each corner, to optimise space efficiency and minimise body overhang for improved off-road capabilities.





In each case the vehicle is constructed on a box section ladder-frame chassis incorporating steel up to 3.5 mm (0.14 in) thick, to provide rigidity and stiffness, and the body shell is made from galvanised steel, for a long working life.

The comprehensive list of useful features (too many to include all of them here), include: Front and rear skid plates, for off-road underbody protection, also (for example) a 'Wading' mode, to enable the vehicle to keep going through deep water. The vehicle also comes with front and rear towing eyes, roof rails and roof protection strips.

Buyers have a choice between petrol or diesel straight-six cylinder 3.0 litre BMW engines (extensively revised and recalibrated for this application), and the Grenadiers feature permanent four wheel drive, through a ZF eight-speed automatic transmission (recalibrated and fine-tuned by Magna-Steyr). The transmission incorporates a heavy duty torque converter designed specifically for off-road driving. A manual override facility is provided within the auto transmission set-up.

Power is delivered to the wheels via an INEOS-designed two speed transfer case, built by industry specialists Tremec. This is manually-operated and incorporates a built-in centre differential (within the transfer case), which is lockable in both high and low ranges.

The inherently tough front and rear solid beam axles were developed in partnership with Carraro, specialists in heavy duty tractor axles. In addition to the standard-fit central locking differential within the transfer case, electronically-activated front and rear differential locks are optionally available.

Suspension system highlights include progressive coil springs, heavy duty anti-roll bars and a five-link arrangement at the rear, with a pair of longitudinal links on either side of the axle, plus a Panhard rod. INEOS says that the suspension has been set up to provide dynamic handling and a comfortable ride, regardless of the load or type of road.

Braking is by ventilated discs, front and rear, and steering is by a recirculating ball system (deliberately chosen to cope easily with severe off-road work), featuring hydraulic



assistance. The system requires 3.85 turns from lock to lock, and the kerb-to-kerb turning circle is 13.5 metres (44.29 ft).

All Grenadiers provide a braked 3.5 tonne towing capacity, in excess of 2,000 litres (70.63 cu.ft) of load space and 5.5 tonnes of winching power.

A full range of safety systems comes as standard, as does a comprehensive array of infotainment and navigational features, including Android Auto and Apple CarPlay systems, Bluetooth connectivity and a Pathfinder bespoke waypoint-based off-road navigation system.

In developing the technical aspects of the cabin, wherever possible there was a deliberate emphasis towards an analogue rather than a digital approach. This includes the aircraft-inspired overhead control panel. In addition, the central control system features large, easy-to-use buttons.

In developing the vehicle, INEOS tells us that the firm packed in 1.1 million miles (1.8 million kilometres) of testing, then placed the prototypes in the hands of those who will be using such vehicles in the real world, pushing the Grenadier to the limit in, for example, challenging areas of Australia and Namibia.

Underlining the faith that the INEOS company has in its vehicles, all Grenadiers are covered by a base warranty of five years, a paint warranty of three years and an anti-perforation warranty of 12 years.

The different Grenadier models:

Please go to the INEOS website for full current details of the range, which is being updated frequently as new versions arrive:

https://ineosgrenadier.com/en/gb/the-vehicle/the-grenadier

Please note that in each case the vehicle can be configured to the individual requirements of customers.



For my brief off-road drives I sampled three examples from the line-up, as outlined below. These were: Five seater Utility Wagon (diesel), Quartermaster double cab pick-up (diesel), towing a fully laden trailer) and Quartermaster double cab pick-up (petrol).

Two seater 'Commercial':

In May 2024 this replaced the previous two seater Utility Wagon.

The two seater Commercial, priced from £51,931 ex. VAT, was developed primarily for load-carrying, and has space to accommodate a standard 'Euro pallet', $800 \text{ mm} \times 600 \text{ mm}$ (31.5 x 23.6 in). It has a full-length flat load floor plus a full-height cargo barrier behind the two seats.

According to individual circumstances, buyers may be able to reclaim VAT on their purchase, as well as being able to take advantage of lower Benefit-in-Kind (BIK) tax rates.

Buyers can optionally (but free of charge) specify blank rear bodywork side panels, in place of the rear side windows.

Five seater 'Utility Wagon' and 'Station Wagon' versions:

These include the 'Utility Wagon' (starting price £65,015), the Trialmaster Edition (costing from £76,140), developed for extreme off-roading, and the Fieldmaster Edition (from £76,140) 'created for owners with an adventure lifestyle'.

There's also a limited edition, recently-introduced 'Centenary of Belstaff' celebrating 'Grenadier 1924' variant).

Joining the line-up too is the new, limited edition 'Grenadier Detour' – the firm's first Arcane Works Limited Edition model, hand-finished in the U.K. and with just 200 examples being produced.



'Grenadier five seater Utility Wagon':

The five seater Utility Wagon has a little less rear seat leg room than the Station Wagon variants, but the emphasis is on load-carrying, with a sizeable platform behind the rear seats (which are more 'upright' than those in the Station Wagon versions).

The Commercial, Utility Wagon and Station Wagon variants all have rear doors divided 70/30 for convenience.

'Quartermaster' (five seater double cab pick-up):

A five seater double cab, the Quartermaster pick-up is the largest model in the Grenadier line-up, with a longer wheelbase of 3,227 mm or 10.59 ft, an increase of 305 mm (one foot) compared with the Utility Wagon and Station Wagon models. It is capable of carrying a standard Euro pallet.

On-road brief test of the six cylinder petrol-powered Grenadier Trialmaster Edition





Grenadier 'Trialmaster Edition Station Wagon'.

This feature concentrates on my three recent short but challenging off-road forays with three different variants of the current Grenadier range; more about these shortly.

However, before my latest off-road drives, in June 2024 I was able to undertake a very brief road test on tarmac, of a six cylinder petrol-powered version of the five seater Station Wagon, in 'Trialmaster Edition' guise. (This variant takes its name from the 'Trialmaster' protective clothing created in 1948 at the request of the famous professional Trials biker Sammy Miller, and this was cut from 6oz British Millerain waxed cotton – and featuring a slanted map pocket plus an ergonomic pivot shoulder, allowing easier movement).



If you are interested in reading my report on this, please go to: https://www.wheels-alive.co.uk/ineos-grenadier-trialmaster-edition-brief-road-test/

Off-road test driving







At the end of July I was fortunate to be invited to visit 'The Game Fair 2024', a vast event held at Blenheim Palace this year, to test drive three different INEOS Grenadier models. No tarmac was involved; instead the vehicles were put to work on different challenging cross-country routes that included dust, mud and grass, very steep gradients both up and down, exceedingly tight turns (including some on slopes), deep valleys, tall 'humps' and many other hazards. On the day that I visited the weather was hot and dry, but the surfaces under-wheel were still slippery in places.

For each Grenadier that I tried the route was a good test of the flexibility/pulling power (torque) delivery of the engine, the efficiency of the transmission (including the automatic



transmission and the high/low ratio transfer box set-up), the manner in which the steering could be controlled in difficult conditions, and the degree of axle articulation (effectively, up and down movement) when driving over/through the various obstacles.

Grenadier five seater Utility Wagon (diesel)







My first outing was in a five seater 'Utility Wagon' variant of the Grenadier station wagon. This was powered by a straight six cylinder 3.0 litre turbo diesel motor, driving via an eight speed ZF automatic gearbox, and equipped with a high/low ratio two speed transfer box.

The entire route was undertaken with 'low ratio' engaged, and this enabled the vehicle to be carefully guided (under expert supervision) around the course at a low speed, to tackle the various surface and terrain challenges encountered, without stopping involuntarily and without damaging the vehicle.

The torquey turbo diesel motor pulled strongly from low rpm, helping provide plenty of



momentum to keep the vehicle moving in a controlled manner on difficult sections of the route.

When negotiating the steep downward inclines, engine braking held back the vehicle, while at the start of the descent I 'covered' the brakes to keep it in check.

The Grenadier acquitted itself very well, with particularly impressive axle articulation, and I found that the recirculating ball type steering enabled turns to be made very easily on the rough/difficult terrain.





Tech. Spec. in Brief:

INEOS Grenadier five seater Utility Wagon (diesel)

Powertrain:

3.0 litre (2993cc) straight-six cylinder, BMW turbo diesel engine

Max. Power: 249 PS @ 3,250 to 4,200 rpm

Max. Torque: 550 Nm (406 lb.ft) @ 1,250 to 3,000 rpm

Transmission: Eight-speed ZF automatic, plus two speed transfer case. Standard-fit centre differential lock, plus optionally available electronic front and rear differential locks

Performance:

0 - 62 mph: 9.8 seconds

Max. speed: 100 mph

Fuel consumption (approx.): 23 to 26 miles per gallon

CO2 emissions: 286 to 317 g/km

Grenadier Quartermaster five seater double cab pick-up (diesel), towing a heavy trailer









My second drive of the day was undertaken in a diesel-powered Quartermaster, with this tough five seater, with three adults on board, towing a trailer carrying a substantial six wheeler trailer loaded with a tractor.

A different route, on grass, was specified, again with low ratio engaged, taking in a variety of gradients and bends, all of which the Quartermaster handled with ease. Performance was impressive as the strong low engine speed pulling power of the straight six BMW turbo diesel helped keep the combination moving at a deliberately slow, controlled pace.

There was a twist in the tail of the test route, as towards the end of my drive the instructor



asked me to park the Grenadier/trailer combination in a straight line within a marked 'box' and then reverse, again in a straight line, into a second box quite a distance away. I managed to completed this manoeuvre without disgracing myself (I hope!), with the aid of the large side mirrors and the excellent reversing camera. The test drive was enjoyable and straightforward; the vehicle helped to make it easy.



Excellent reversing camera (shown here in the Quartermaster double cab pick-up variant).

Tech. Spec. in Brief:

INEOS Grenadier Quartermaster five seater double cab pick-up



(diesel)

Powertrain:

3.0 litre (2993cc) straight-six cylinder, BMW turbo diesel engine

Max. Power: 249 PS @ 3,250 to 4,200 rpm

Max. Torque: 550 Nm (406 lb.ft) @ 1,250 to 3,000 rpm

Transmission: Eight-speed ZF automatic, plus two speed transfer case. Standard-fit centre differential lock, plus optionally available electronic front and rear differential

locks

Performance:

0 - 62 mph (approx.): 9.8 seconds

Max. speed: 100 mph

Fuel consumption (approx.): 23 to 26 miles per gallon

CO2 emissions: 286 to 317 g/km

Grenadier Quartermaster double cab five seater pick-up (petrol)









My third and final Grenadier outing for the day was in a petrol-powered Quartermaster, this time with the vehicle running 'solo' (i.e. without a trailer) and the quiet, smooth-running BMW straight six performed strongly as the test route was covered.

Interestingly, the petrol motor is more powerful than the diesel unit (286 PS versus 249), but producing rather less torque (450 Nm or 332 lb.ft against 550 Nm or 406 lb.ft).

In real life use either engine produces power and low speed torque in abundance, and is able to perform more than adequately, on or off road. As I discovered on a previous outing on tarmac in a petrol-powered Grenadier, there's plenty of power and torque available for



strong, enjoyable performance on normal roads, but also for maintaining progress when the going gets tough in difficult ground conditions.

There is some difference in fuel consumption, with typical figures for the petrol version quoted as being approximately 19 to 20 miles per gallon, compared with about 23 to 26 mpg with the diesel motor.

Tech. Spec. in Brief:

INEOS Grenadier Quartermaster five seater double cab pick-up (petrol)

Powertrain:

3.0 litre (2998cc) straight-six cylinder, BMW petrol engine

Max. Power: 286 PS @ 4,750 rpm

Max. Torque: 450 Nm (332 lb.ft) @ 1,750 to 4,000 rpm

Transmission: Eight-speed ZF automatic, plus two speed transfer case. Standard-fit centre differential lock, plus optionally available electronic front and rear differential locks

Performance:

0 - 62 mph: 8.6 seconds

Max. speed: 100 mph

Fuel consumption (approx.): 19 to 20 miles per gallon



CO2 emissions: 325 to 336 g/km $\,$