



Ariel Nomad 2

Ariel launches all-new Nomad – the ultimate go-anywhere sports car

- Second generation of the iconic Ariel Nomad
- Complete re-design from the ground up with only three carry-over parts from first Nomad
- New, larger diameter tube chassis increases torsional stiffness by more than 60%
- Totally revised suspension with anti-dive and anti-squat
- Ford ST 2.3L turbo engine with up to 305bhp and 518Nm torque
- Tuned for ultra-quick in-gear performance, with a broad and predictable torque range
- 0-60mph in 3.4 seconds and a top speed of 134mph
- Three-stage driver-adjustable ECU map
- Adjustable launch and traction control
- Raised aerodynamic ram-air intake
- Dual off-road filtration system
- Larger cooling, fuel, and brake system with adjustable ABS
- Significant aerodynamic improvements to bodywork
- New seats, revised ergonomics, and more cockpit space
- Full colour TFT instrumentation
- PDM (Power Distribution Module) electronics system removes multiple fuses and relays
- UK prices start at £67,992 inc. VAT

Ariel Motor Company, the UK-based low-volume manufacturer of ultra-lightweight road, track, and off-road vehicles, has launched the ultimate go-anywhere sportscar – the all-new Ariel Nomad 2.

Ariel's launch of its second-generation Ariel Nomad is aptly named 'Nomad 2'. As with the Atom sports car, now in its fourth generation, the Nomad evolves and maintains Ariel's core value of SERIOUS FUN, epitomising the company's philosophy of form following function.

Known as the Atom's 'Mucky Brother' the Nomad's off-road capability is immediately evident with exposed outboard suspension, long travel dampers, damage resistant body panels, raised air intake and a hose out interior.

The Nomad 2 is an instantly recognisable development of the original, yet the evolved design language is clear when comparing both vehicles. The Nomad 2 is an all-new design from the ground up – featuring only three carry-over parts – that builds on learnings from the original car, integrates customer feedback, and benefits from significant Ariel R&D.

Henry Siebert-Saunders, Ariel MD: *“The all-new Nomad 2 is the sum of our 25 years of automotive experience, a decade of Nomad feedback and the latest learning from Atom 4. Pouring all this knowledge into Nomad 2 means it is faster and more capable than ever. The Nomad 2 really is the ultimate way to go-anywhere, on road or off it, fast!”*

Designed and engineered by the in-house Ariel team, the Nomad 2 features an all-new chassis, suspension, steering and brakes, electronics, all-new bodywork with significant aerodynamic improvements, new seating and instrumentation, together with a host of design improvements and changes.

With an open design brief to improve the car wherever possible, the Nomad 2 represents a major step forward in the evolution of the Nomad and Ariel itself.

In designing the Nomad 2, Ariel worked to broaden the accessibility of the car’s performance, enabling customers to confidently explore the full extent of its capabilities. With this goal in mind, the new model features options of fully selectable driver aids including a three-stage engine map controller, driver adjustable launch and traction control, and an adjustable ABS system, developed to work on- and off-road. All adjustments can be made on the move, leaving the driver in complete control of settings.

Tested in the harshest environments from racetracks to rally stages, in blistering heat, monsoon rain, floods, mud and snow, the Nomad 2 has undergone Ariel’s most severe test regime to date.

Simon Saunders, Ariel Director: *“Making lightweight cars handle compliantly and comfortably on the road is an artform as suspension loads and forces are so low. Making the same car capable of reliably and repeatedly jumping the crest of an off-road hill at more than 100mph takes this to another level. If you then add in loose surfaces, mud, water, and perhaps some ice, you’ll appreciate the extremes that we have dealt with.*

“The Nomad 2 is, even to us, a truly remarkable car. As ever, we’ve captured all the elements customers want – road car refinement and reliability, rally car performance and dynamics, plus beach buggy fun!

“It’s a car that can be driven to the shops, and then around a WRC rally stage. But most importantly, whatever the journey, our guiding principle is that it will put a smile on your face.”

As with all Ariels, every Nomad 2 will be built to order by a single technician, who takes the car from bare chassis to final test drive before signing it off and placing their personal

nameplate on it. With far more than 100 options, Ariel can tailor-make each Nomad every customer's exact requirements, ensuring no two cars will be the same.

Production of Nomad 2 is set to commence at the Ariel factory near Crewkerne in Somerset alongside the Ariel Atom 4, Atom 4R, and Dash e-bike.

Chassis

The basis of Nomad 2 is an all-new tubular chassis, designed in-house by the Ariel engineering and design team, with much learning coming from the first Nomad and more recently from the Atom 4. Featuring larger (63.5mm and 51mm) diameter main and diagonal tubes than the previous Nomad, each tube has been analysed and optimised to give a light but extraordinarily strong structure. The torsional stiffness of the chassis has been increased by more than 60% compared to the original Nomad delivering enormous structural rigidity. With built-in roll-over protection, the chassis offers a full safety cage for very high levels of occupant safety and exceeds the demands of a full frontal 50kph barrier impact, seat belt pull, and rear impact test.

The combination of sophisticated CAD (Computer Aided Design), FEA (Finite Element Analysis) design work, laser cut components, and bronze-welded CNC (Computer Numerical Control) formed tubes, epitomises Ariel's approach and delivers a quality only achievable in low volume production.

Compared to the original, the Nomad 2 entry / egress opening is larger, while a longer wheelbase provides more cockpit space. Chassis are treated to a three-stage finishing process of phosphating, powder coating to colour choice, and then powder coating lacquer.

Engine

At the heart of the Nomad 2 is the new Ford 2.3-litre, 4-cylinder, direct injection, 16-valve, twin spool turbocharged engine. Derived from the Focus ST the engine has been tuned by Ariel to give up to 305bhp with an astonishing 518Nm of torque. Mapped by Ariel to on and off-road requirements, the Nomad 2 has the option of a switchable ECU allowing drivers to choose from three different engine maps, giving 260bhp / 385Nm, 302bhp / 451Nm, or 305bhp / 518Nm. To achieve ultimate performance off-road, as well as on it, the highest setting delivers considerably more torque throughout the rev range.

Driving through a six-speed gearbox with limited slip differential, the Nomad 2 has passenger car driveability on-road but massive ability off-road. With the option of a six-speed paddle change Quaife sequential gearbox, derived from the Atom 4 and Atom 4R, plus a hydraulic handbrake, the Nomad 2 takes Ariel's ultimate performance ethos to a new pinnacle for off-road, high-performance driving.

The air intake system incorporates an encapsulated air-to-air intercooler, protected from off-road debris, together with a dual engine air filtration system to cope with adverse operating

conditions off road. Clean air is ducted from the roof intake to the intercooler and separately to the engine intake system where a pre-filter removes any debris before a three-layer filter removes any finer particles. Any dirt or moisture collected is collected in a sump within the system and then released via a vacuator valve. A further WRC specification filter is available for ultra-severe conditions.

Designed to meet EUCSSTA (European Community Small Series Type Approval) noise and emission standards as well as racetrack noise levels, the 75mm diameter stainless system exhaust system features a ceramic honeycomb, high palladium / rhodium content catalytic converter, and a twin outlet stainless silencer.

A larger radiator, two and a half times the size of that in the original Nomad, is fitted to extend Nomad 2's capability into yet harsher and hotter environments. With longer journeys into the unknown in mind the fuel capacity has also been increased to 70 litres, a 40% improvement on the previous model, giving a range of more than 550 miles.

Suspension, Steering, and Brakes

Ariel's knowledge and experience of making lightweight vehicles that handle perfectly on and off-road, as well as in competition, sees the Nomad 2 achieve an ideal balance of on-road compliance while maintaining wheel contact and suspension travel off-road. The all-new chassis sees the wheelbase lengthened (+48mm) and track increased (+50mm) enhancing high speed stability off-road. The approach angle (48 degrees) and departure angle (64 degrees) far exceed regular off-roaders, meaning the Nomad 2 has the capability and the performance to tackle any terrain.

Featuring double, unequal length, wishbones with direct-acting outboard dampers, Nomad 2 has increased suspension travel over the original Nomad as well as totally revised suspension and steering geometry. Based on 10 years of continual development from Ariel and design input from suspension guru Richard Hurdwell, the new design incorporates anti-dive and anti-squat geometry. This reduces weight transfer under acceleration and braking, and maintains balance and tyre contact – particularly useful off-road to maximise grip. Given the performance increases, a revised steering rack and new geometry is incorporated, with particular focus on caster refinement to give precision on- and off-road as well as more communicative driver feedback.

K-Tech coil-over aluminium dampers, made specifically for the Nomad 2, are fitted as standard with Eibach dual rate springs. Ohlins TTX dampers and springs are offered as an option, featuring external piggy-back reservoirs and individual three-way adjustment for rebound, high-speed compression, and low-speed compression. A further off-road, full race option of Bilstein two-stage dampers with remote reservoirs is also available.

All inboard and outboard suspension points are now fully sealed rubber bushes and ball joints to prevent dust and dirt ingress, reducing wear and maintenance.

The all-new standard braking system increases in size by 40% over the original Nomad, due to the higher performance, with an option of the AP four-piston calipers and 290mm vented discs all round from the Ariel Atom 4. The twin circuit system features the option of cockpit adjustability to alter front / rear brake bias on the move, as well as a hydraulic handbrake for off-road use. Stainless braided hose for both brake and clutch hydraulic systems is standard fitment throughout.

A driver adjustable, EU-compliant ABS system with selectable road and off-road settings is available as an option. Cockpit-controlled launch and traction control, derived from the Atom 4 system, is also fitted to the Nomad 2 but calibrated for off-road use as well tarmac.

To ensure ultimate and dependable performance, whatever the use, the Nomad 2 is available with a wide range of wheels and tyres. There are three different wheels, made specifically for the Nomad 2, ranging from the standard 16-inch alloys, through 18-inch lightweight forged, to 16-inch Beadlock options. The wheels can be fitted with a range of tyres from road and all-terrain, to off-road and trackday, covering the broad spectrum of Nomad 2 use scenarios.

Body

Bodywork is a mixture of materials carefully selected for the Nomad 2 and its driving environment, both on- and off-road. Contactable body components, including front end, rear covers, and mudguards, as well as header, intake and interior panels are rotationally moulded in self-coloured, toughened polyethylene. The tough, almost unbreakable panels feature the material used in the original Nomad, the same process being used in the manufacture of road cones and boat fenders. Other body components such as front and rear load covers are self-coloured composite with carbon fibre options, with a 'bikini roof cover' option for UV protection.

Immediately noticeable is the raised intake snorkel above the passenger compartment. Designed for the often harsh environments that the Nomad operates in, it feeds clean air to intercooler and engine independently and is the result of substantial design and CFD (Computational Fluid Dynamics) work. Carried out on the Bramble cloud-based platform the complex aerodynamics channel air from the front header rail into the air intake.

Given the Nomad's open chassis, controlling air flow over the car meant overcoming multiple issues. The header rail is an inverted wing that directs air towards the intake. However, to avoid disruption from the open top, air is allowed to bleed through and underneath the header rail to keep airflow attached before entering the intake uninterrupted. Vertical fins on top of the header channel direct cool air to the intake while warm air, exiting the radiator ducts, is forced away.

The header rail has further functions, acting as a sun visor and as a mounting point for the LED roof lights. As well as the standard LED lighting, twin quick-release illuminated whips can be optioned at the rear of the car to give increased visibility in remote off-road environments.

An adaptable rack system at the rear of the car allows the carriage of quickly removeable, waterproof luggage boxes, up to two bicycles, loose luggage, a spare wheel, or a combination of items.

At the front a Warn Axon winch, with a load rating of 1,588 kilos, is available. The winch nestles in a front winch bumper with a matching rear bar and full underbody panels for ultimate off-road protection in even the most severe conditions.

Cockpit

The interior / cockpit of the Nomad is designed to be washed out, with drain holes in the floor to let water out, and no material trim. The two lightweight seats are a version of those first seen in the Atom 4, with supportive wings and the potential to accommodate full race harnesses with crutch straps for competition or serious off-road use. Two widths of seats and carbon-fibre options are available.

New switchgear is all within reach of the 305mm diameter steering wheel, with two turns lock to lock, while instrumentation is via a full colour TFT display unit made for the Nomad by AIM Technologies. Incorporating multiple scrollable menus, the instruments feature gear shift lights and indicate gear position, while there's also provision for real time data logging and recording to a Compact Flash Card. When reverse is selected, a rear camera automatically engages, showing the rearward view on the TFT display.

As part of the new electrical layout a PDM (Power Distribution Management) system has been used in Nomad 2, eliminating the need for multiple fuses, relays and a large fuse box. Using programmable limit channels, the PDM system continually monitors the entire car's electrical system, powering individual circuits off and back on if necessary. This feature is particularly useful when operating in very harsh and adverse conditions.

Performance, Price, and Ownership

Nomad 2 has also raised its performance capabilities over the original car with a 0-60mph time of 3.4 seconds and a top speed of 134mph. Given its high-performance potential both on- and off-road, the Nomad 2 is tuned for ultra-quick in-gear times and a broad and predictable torque range.

Nomad 2 is priced at £56,660 + VAT in the UK (£67,992 inc. VAT). Fixed price servicing is once yearly as standard, but is also dependent on mileage and competition / off-road use. Ariel's legendary reliability and the use of Original Equipment such as oil filters and consumables, contributes to low running costs. The remarkable residuals that all Ariels have enjoyed, since the very first Atom, remove depreciation as the largest cost in any vehicle ownership and Ariels consistently retain most, if not all, of their original cost.

Simon Saunders: *“Recently, we experienced the strength of Ariel residuals first hand as we didn’t have an Atom 1 for our museum. Buying it back cost us more than its original sale price!”*

Ariel Nomad 2 Options

With in excess of 100 options, every Nomad 2 is infinitely customisable to its owner. A notable part of the personalised ownership experience, the Ariel team spends considerable time with each customer going through and advising on every aspect of the car.

Ben Gunn, Ariel Sales Manager: *“It’s really important to us that every customer gets the car that’s right for them. Our owners become part of the Ariel family, so it’s a close relationship and above all we want them to be happy. There are owners who want a simple fun car, to those who want a full-on racer, and many in between, so we spend time making sure the car is absolutely right for them. Our cars are all very serious, hugely capable, ultra-high-performance vehicles but, whatever the use, the bottom line is putting the passion back into driving and having fun.”*

With no two cars the same, each Ariel is as individual as their owners. The company’s tailor-made approach has earned it the reputation as the ‘Savile Row of the Automotive World’.

ENDS

Ariel Nomad 2 **Specification** (*standard*)

Engine	Ford 2.3L ST, direct injection turbocharged 16-Valve DOHC Aluminium alloy block, cylinder head, twin scroll turbocharger Displacement 2267cc Bore & Stroke 87.6mm x 94mm Valvetrain Chain drive DOHC 4 valves per cylinder
Power <i>(with switchable ECU)</i>	260bhp @ 5900rpm Torque 385Nm @ 2500rpm 302bhp @ 5950rpm Torque 451Nm @ 2750rpm 305bhp @ 5950rpm Torque 518Nm @ 2850rpm
Gearbox	6-speed + reverse aluminium alloy casing Hydraulic clutch Close ratio gearbox
Fuel system	Direct injection fuel injection Continuous flow 4.0 bar electric fuel pump 70-litre aluminium fuel tank
Electrical	Electronic coil over plug ignition SCS Delta engine management system Central electronic body control system Thatcham immobiliser system
Cooling	Pressurised, front-mounted fabricated high-capacity radiator
Intake	High-level directed intake Dual-protection filter system with vacuator valve
Exhaust	Fabricated stainless steel exhaust manifold Stainless silencer, twin outlet
Chassis	Bronze welded 63.5mm, 51mm, 38mm diameter steel tube Phosphated and powder coated finish Aluminium bulkheads Right- or left-hand drive
Suspension	Double unequal length TIG welded fabricated wishbones front and rear Sealed ball joint outboard suspension joints, encapsulated rubber inboard joints Billet aluminium CNC machined uprights Outboard K-Tech dampers front and rear Alloy steel Eibach coil springs front and rear
Steering	Rack and pinion cast alloy steering rack – two turns lock to lock Collapsible offset steering column Adjustable inboard joint and outboard track rod ends 305mm race suede covered steering wheel

Braking	Front	288mm ventilated discs		
	Rear	288mm discs		
	Tilton aluminium racing pedal box			
	Twin master cylinders			
	Cockpit adjustable front / rear brake bias			
Wheels	Front	8Jx16 Alloy		
	Rear	8Jx16 Alloy		
Tyres	16-inch Yokohama Geolandar A/T 235/70R16			
Body	Non-structural rotational moulded toughened polyethylene:			
	Nose cone, engine cover, damper covers, mudguards			
	Composite: screen, bonnet, engine access cover			
Seating	Individual composite seat units, 5-position adjustment			
	2-inch E Approved four-point quick-release full harnesses			
Instruments	Aim Digital TFT colour driver display with gearshift lights			
Road Pack	Projector headlamps, front / rear sidelights, front / rear indicators, brake lights, side repeaters, rear fog lamp, reverse lamp, number plate lamp. Three-way closed loop catalytic converter, front and rear mudguards, road mirrors, parking brake, horn			
Dimensions	Length	3400mm	Track (front and rear)	1635mm
	Height	1475mm	Wheelbase	2396mm
	Width	1860mm		
	Approach angle	48 degrees	Departure angle	64 degrees
Weight	715kg			
Performance	0-60 mph	3.4 seconds		
	Top speed	134 mph		