

# ENLINEORMATION PACK



## INTRODUCING EVIJA

Due to start production in 2020, the world's first British EV hypercar will be called the Lotus EVIJA.

Pronounced 'ev-eye-a' it means 'the first in existence' or 'the living one'. It is highly appropriate; Lotus has an unquestionable reputation for its pioneering approach in both automotive and motorsport. The Evija, as the first all-electric hypercar from a British car maker – continues that story of innovation.

Exclusivity and desirability go hand in hand in the world of hypercars, and the Evija is blessed with an abundance of both. Production is limited to not more than 130 examples, making it among the most exclusive cars ever launched. It's a figure set in tribute to the car's project code, Type 130. Lotus road and race cars throughout the brand's seven decades of success have been assigned a Type number, and the Evija is no exception.

As well as tempting the world's hypercar buyers, the car will act as a halo for the rest of the Lotus range – the renowned Elise, Exige and Evora. It will do the same for a range of eagerly anticipated new Lotus performance models to come, but like it's namesake would suggest, it all starts with Evija, the first.



2000<sub>PS</sub>

Most powerful car ever to enter production

1680 KG

The lightest EV hypercar ever to enter production

200+MPH

Max speed of more than 200 mph (320 km/h)

250 MILES

Range (400 km) (WLTP combined cycle)

"The Evija is a Lotus like no other, yet a true Lotus in every sense."

Phil Popham, Lotus CEO



# A HISTORY OF INNOVATION

Established in 1948, Lotus cars was the child of an elaborate love of tinkering and pushing the boundaries of technology.

Type 14	World's first composite monocoque production road car (Elite, 1957)	Type 88	World's first carbon fibre F1 car (1981)
Type 25	World's first fully-stressed monocoque F1 car	Type 92	World's first active suspension F1 car (1983)
Type 72	Most successful F1 car ever and the blueprint for F1 car design for many years, championship winner in 1970, '72 and' 73	Type 111	World's first aluminium and bonded extrusion construction production car (Elise, 1995)
Type 78	World's first 'ground effect' F1 car (1977)	Type 130	Britain's first electric hypercar (Evija, 2019)

By remaining true to the ethos of founder Colin Chapman, Lotus stands alone as a brand dedicated to pure driver's cars. Innovative engineering, cutting-edge technologies and advanced materials ensure that every Lotus proves the value of achieving performance through light weight. Reducing mass remains the most effective means of achieving a true connection between driver, car and road – a quality shared by every car to proudly wear the Lotus badge.

Every Lotus to leave the factory benefits from the company's dedication to engineering, optimising and refining at every stage of the design and construction process. Each car is built by hand and tested around the famous test track at the factory in Hethel. Immensely proud of its heritage, Lotus combines the very best of British craftsmanship with bold, distinctive, inspirational design.

Ultimately, the only way to truly understand a Lotus is to drive it. Only then can you feel the communication, agility and precision that make it one of the world's great driving experience, with the Evija being the pinnacle of everything we stand for.

Like many of its predecessors, the Evija stands as yet another first for Lotus, by being the first electric hypercar to be produced by a British manufacturer, and joins an illustrious list of fantastic Lotus innovations, some that led to race wins and others that led to revolution.



### EXTERIOR DESIGN



The most striking element of the Lotus Evija is its exterior. From every angle the full carbon fibre bodywork is stretched taut, appearing shrink-wrapped over the mechanical components. Crouching low to the ground, with a ride height of just 105 mm, the pronounced muscular haunches envelop the teardrop cabin that sinks between them.

Taking inspiration from the aeronautics industry, the exterior is a perfectly proportioned blend of fluid forms and crisp lines. This is clearly illustrated by the gently curved but sharp leading edge of the bonnet, which is reminiscent of so many classic Lotus road and race cars.

True to Lotus founder Colin Chapman's core belief that every component should serve multiple purposes, the exterior design is also exceptionally efficient on every level. The most obvious example of this – and unquestionably the most dramatic element of the exterior – is the Venturi tunnel which pierces each rear quarter. Inspired by Le Mans race cars, they optimise air flow by directing it through the bodyshell.

Aside from creating a breath-taking presence, this design concept – known as 'porosity' – aids the delivery of high-energy air flow to the rear of the car. This in turn counteracts the low pressure behind the car to reduce drag. Furthermore, the Venturi effect inside the tunnels pulls air through the rear wheel arch louvres, maintaining air quality in the diffuser.

When viewed from the rear of the car, each tunnel is edged with a red LED to create a striking ribbon-style light signature. The result is a stunning visual effect that's akin to the afterburners on a fighter jet, especially when seen at night. As an extra detail, an LED hidden within each tunnel illuminates its interior



Ahead of the steering wheel is a state-of-theart digital display, providing the driver with key information such as mode, battery charge and remaining range. It is the car's only screen, putting all necessary information in one place. The screen displays essential functions only, with information appearing as required when the appropriate button is pushed, then fading when no longer needed.

Further controls are located on the floating centre console, which features touch-sensitive haptic feedback buttons. Each is integrated in hexagonal recesses to help guide the driver's fingers. Climate control and a premium infotainment system are fitted as standard. Customers can seamlessly integrate their smartphones via Apple CarPlay and Android Auto, accessing their own music and navigation.

## INTERIOR DESIGN

The interior of the Lotus Evija is as dramatic as the exterior. Inspired by the technical precision of race car engineering, the dominant characteristic of the cabin is the 'floating wing' dashboard which can be glimpsed from outside through the windscreen. The design also echoes the porosity of the exterior. Inspired by some of our more iconic prototype and race cars of the 1960's, the interior is an example of the fine balance between form and function. Adhering to Colin Chapman's philosophy that no component in a Lotus car gets a free ride, each aspect of the cabin and interior serves a distinct purpose. Whether that is to aid to the driver in operation of the car or to amplify the already visceral experience a Lotus has to offer, the Evija stays true to the Lotus mantra.

Access to the cabin is through the two dihedral doors. Handle-free to preserve the sculpted exterior, they're operated via the key fob. It's the first time Lotus has used such doors, and while they make for a moment of dramatic theatre, they also provide maximum space for ingress and egress.

Inside, the cabin strikes the perfect balance between the precise functionality of a track car and the comfort of a road car. The driving position is fully adjustable to accommodate the greatest range of occupants. The elegant carbon fibre shell seats are hand-trimmed with thick Alcantara-finished pads and feature manual fore/aft adjustment plus electric back operation. The steering column is manually adjustable for both rake and reach. Three-point seatbelts are fitted as standard, with four-point harnesses an option. Built into the bodyshell, close to the occupants' hip point, are two bespoke storage areas.

The design of the steering wheel, similar to that found in an LMP or F1 car, further reinforces the Evija's sporting intentions. The outer ring is finished in Alcantara as standard with leather available as an option. Buttons are grouped in an intuitive manner and govern functions including phone use, cruise control and DRS deployment.





### PERFORMANCE

The battery pack is mounted centrally behind the passenger compartment, in keeping with Lotus' mid mounted philosophy. and its cover is visible through the glass rear screen. This positioning delivers significant advantages in terms of styling, aerodynamics, packaging, weight distribution, occupant comfort and dynamic handling. It also supports fast and convenient servicing and maintenance. Furthermore, the set-up has been designed so that in the future alternative battery packs – for example, to optimise track performance – can be easily installed.

Power is fed from the battery pack to a bespoke in-line axial arrangement of two high-power density e-motors. These feature integrated silicon carbide inverters and epicyclic transmission on each axle of the four-wheel drive powertrain. The motors and inverters being supplied by Integral Powertrain Ltd.

Four exceptionally compact, extremely light and highly efficient single-speed, helical gear

ground planetary gearboxes transfer power to each driveshaft. Measuring a mere 100mm in depth, each gearbox comes packaged with the e-motor and inverter as a single cylindrical Electrical Drive Unit (EDU). With a target power of 500 PS per e-motor, this is the most efficient and elegant engineering solution to deploying so much power with precision.

Torque-vectoring, enabled by the four e-motors, provides exceptional dynamic response and agility on the road. This fully automatic, self-adjusting system can instantly distribute power to any combination of two, three or four wheels within a fraction of a second. In Track mode the ability to add more power to individual wheels enables the radius of corners to be tightened, potentially reducing lap times.

The Lotus Evija is equipped with ESP stability control to ensure safety in all road conditions, with further grip provided by the four-wheel drive system. A pure steering feel – a vital ingredient of every Lotus – is assured via an electro-hydraulic system. The car is built on a one-piece motorsport-inspired carbon fibre monocoque chassis. It is supplied by CPC, the Modena, Italy-based world-leader in composite technology. Constructed from multiple carbon plies, the manufacturing process is identical to that of an F1 chassis, and ensures the lightest, stiffest, safest and most technically advanced Lotus road car platform ever built. The total weight of the monocoque tub is a mere 129kg.

This chassis, coupled with innovative engineering and clever packaging throughout every element of the Evija's powertrain, has contributed to the class-leading target weight of 1,680kg in its lightest specification.

When all of this is brought together using the 71 years of industry expertise we have accumulated, the end result will be the pinnacle of dynamic, road-going performance that is propelled by a leading-edge electric drivetrain.



#### NEXT STEPS

Now you have been introduced to the Evija it would be worthwhile to familiarise yourself with the next steps of the journey. During the process you will have a personal contact directly at Lotus who will support and facilitate your requirements.

**EVIJA GENERAL ENQUIRIES:** 

evija@lotuscars.com

**REGISTRATION OF INTENT** 



INITIAL DEPOSIT (£250K)
(Refundable)



CAR SPEC. DEPOSIT (£250K)

(Total £500k now non-refundable)



BUILD DEPOSIT (£500K)

(Total £1m non-refundable)



START OF PRODUCTION



**DELIVERY** 

(Balance paid on collection)



### SPECIFICATION\*

Name	Lotus Evija (Type 130)	
Powertrain	Pure electric, 4WD	
Power	2,000PS	
Battery power	70kw/h (capacity)/2,000kW (power)	
Torque	1,700Nm with torque vectoring	
0-100 km/h (0-62mph)	Under three seconds	
0-300 km/h (0-186mph)	Under nine seconds	
Max speed	In excess of 200mph (320km/h)	
All-electric range (WLTP combined)	250 miles (400km)	
Charging time (350kW charger)	18 mins	
Weight	1,680kg	
Production run	Maximum of 130 cars	
Overall dimensions (L/W/H)	4,459mm/2,000mm/1,122mm	
Price	£1.8m - £2.0m + duties and taxes	
Reservation process	£250k deposit secures a production slot	
Start of production	2020	

\*Rationale for target specifications

The Evija that you have seen in this document and in the press is a real representation of the production car but is yet to complete it's prototype test program. Up to this point, there has been thousands of hours of computer modelling, dynamic simulation and engineering development that has contributed to the above target specification with a strong degree of confidence. As the prototype cars progress through their programs, we expect to see our targets hit with the above numbers being met and, in some cases, surpassed. All customers will be kept up to date with the prototype program and invited to view it's progress first hand where suitable.



FOR THE DRIVERS