

# HORSE STARTS PLUG-IN HYBRID ENGINE PRODUCTION AT VALLADOLID FACILITY

- HORSE Powertrain Solutions begins producing 152PS 1.2-litre, 3-cylinder turbocharged engine to be used in Renault Rafale E-Tech Hybrid
- Production at HORSE Valladolid plant initially targets 1,200 units per month
- Investment in Valladolid for new PHEV engine production totals €4 million and will create 345 jobs
- HORSE is a division of HORSE Powertrain Limited, a global leader in hybrid and combustion powertrain solutions across 17 plants and 5 R&D centres

<u>HORSE Powertrain Solutions</u>, a division of HORSE Powertrain Limited and a leader in innovative and low emissions powertrain systems, has started a production run of 1.2-litre, 3-cylinder turbocharged petrol engines for use in plug-in hybrid-electric vehicles (PHEVs).

The proven HORSE 'HR12' engine can deliver peak power of 110kW (152PS) and maximum torque of 230Nm. The new PHEVoptimised HR12 units will be produced at HORSE's plant at Valladolid. There, HORSE is initially targeting production of 1,200 units per month, with a maximum possible production capacity of 6,875 engines per month. The HR12 PHEV variant will be first used in the upcoming Renault Rafale E-Tech 4x4 Hybrid.

Development of the HR12's PHEV variant began in July 2021, with HORSE having invested €4 million in its Valladolid plant to modify and scale its assembly line. This has included a €260,000 investment in people and staff, creating 345 jobs.

**Patrice Haettel, Chief Executive Officer at HORSE, said:** "This HR12 is the first plug-in hybrid engine manufactured at our Valladolid facility and the second produced by HORSE globally. This is a major landmark for our team, and proof of how HORSE's internal combustion engine expertise can facilitate market-leading, low-emission mobility solutions. With outstanding range and efficiency, this PHEV architecture showcase the direction of the automotive industry and the value of HORSE's indispensable technology leadership to our partners."

## Leading PHEV powertrain

Alongside the HR12 internal combustion engine, the complete powertrain unit will also feature three electric motors – two main, and one secondary:

- the first main electric motor on the front axle, delivering 50kW of power and 205Nm of torque
- the second main electric motor on the rear axle, delivering 100kW and 195Nm
- a secondary HSG (High-voltage Starter Generator) electric motor producing 25kW and 50Nm

Altogether, this will mean the PHEV's maximum power output will be over 220kW (300hp), driven by a specially adapted and clutchless multi-mode gearbox. The PHEV's energy will be stored in a 400-volt lithium-ion battery, with a total capacity of 22kWh. Altogether, this means the powertrain will deliver a pure-electric range of over 100km for the Rafale E-Tech 4x4 Hybrid.

The PHEV's superior efficiency will mean that the new Rafale 4x4 will achieve superior emissions performance. In electric mode, it will achieve an average fuel consumption of just 0.7 litres per 100km, with CO<sub>2</sub> emissions of only 15g/km.

### HORSE: a leader in automotive innovation

HORSE was created to provide highly efficient, low-emission engines, transmissions, and technologies to meet the varying power generation needs around the world. HORSE operates eight production plants across seven countries, three R&D centres and a head office based in Madrid, Spain – the company produces 3.2 million units per year for its customers around the world.

Ends



#### About HORSE

HORSE is a global supplier of innovative powertrain solutions. It believes that there is no one-size-fits-all solution to sustainable mobility and so is investing in technologies which will support the automotive industry, and other sectors requiring power generation, in their transition to a sustainable future. With decades of industrial know-how, HORSE develops, produces and supplies highly efficient full-hybrid, plug-in hybrid and internal combustion powertrains, and cutting-edge technologies (engines, gearboxes, full-hybrid and plug-in hybrid systems, and batteries).

HORSE employs over 9,000 people in seven countries, it is headquartered in Madrid, Spain and has eight manufacturing plants and three R&D centres around the world (Argentina, in Córdoba; Brazil in Curitiba; Chile in Los Andes; Portugal in Aveiro; Romania in Bucharest, Mioveni and Titu; Spain in Seville and Valladolid, and Turkiye in Bursa in partnership with Oyak).

#### About HORSE Powertrain Limited

HORSE is a division of HORSE Powertrain Limited, a worldwide leader in hybrid and combustion powertrain solutions. Headquartered in London, UK, the company employs 19,000 people globally across 17 plants and five R&D centres. HORSE Powertrain Limited was officially created on 31 May 2024, with Renault Group and Geely each holding a 45% stake in the company, with Aramco holding a further 10%.

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