June 5, 2018

International Engine of the Year 2018: the innovative 1.0 TSI in the new up! GTI wins the award in its category

→ The latest, most advanced version of the 1.0-litre engines produced by Volkswagen was honoured by an international jury
→ The high-tech engine and new four-way catalytic converter with integrated particle filter meets the EU 6AG emission standard

Wolfsburg (D) – The innovative 1.0 TSI in the new up! GTI has been named International Engine of the Year 2018. In other words, the sustainable, yet powerful three-cylinder turbo engine has managed to win one of the most prestigious trophies in the world of engine manufacture. The award was bestowed by an international jury consisting of top journalists. For this year’s edition, the experts reviewed engines in 12 categories, with the 1.0 TSI holding off strong competition in its cubic capacity class (under 1.0 litre) to win.

Volkswagen is a truly compact, lightweight and high-tech engine. The 85 kW / 115 PS petrol-fired engine is the first of its kind to be combined with a four-way catalytic converter and installed in the up!. It also comes with a petrol particle filter. Exhaust gas after-treatment paired with innovative features inside the engine enables the power source on board the up! GTI to meet the new EU 6AG (Euro 6d-TEMP) emission standard.

A detailed looked at the engine and emission control system: The 1.0 TSI version of the up! GTI – available since spring this year – is the latest addition to the EA211 range of engines. The 999 cm³ award-winning engine contains a turbocharger with electric wastegate actuator, an intake manifold with integrated intercooler and an exhaust manifold integrated into the cylinder head. With a pressure of 350 bar (high for a petrol engine), the fuel mixture is injected directly into the combustion chambers.

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Thanks to these features, the compact, lightweight four-valve engine delivers 115 PS at between 5,000 and 5,500 rpm. From 2,000 rpm, the 1.0 TSI – which is fitted with two adjustable camshafts – balances a force of 200 Nm to the drive axle. The maximum torque remains constant up to 3,500 rpm.

One key aim when developing the new TSI was to ensure the lowest possible emissions. This was achieved thanks to innovations inside the engine, such as the new 5-hole piezoelectric injector, high injection pressure, newly developed turbocharger, new pistons and innovative emission after-treatment system. Sustainable operation is therefore assured thanks to the engine and emission control measures. A core element of the emission after-treatment system is a new four-way catalytic converter with integrated petrol particle filter (OPF). The OPF reduces particle emissions by 95 percent. A second three-way catalytic converter in the underbody guarantees that the threshold specified in EU 6AG is complied with – even under heavy loads.

The EU 6AG (Euro 6d-TEMP) emission standard includes fuel consumption measurements according to the new, realistic Worldwide Harmonised Light Vehicles Test Procedure (WLTP) and Real Driving Emissions (RDE) test. The measurements are made on a dynamometer and under real conditions on the road.

1) up! GTI 1.0 TSI, 85 kW / fuel consumption in l/100 km (WLTP): combined 5.7 – 5.6; CO₂ emissions in g/km: 129 – 127 (combined). Fuel consumption in l/100 km (NEFZ): urban / extra-urban / combined 4.8; CO₂ emissions in g/km: 110 (combined), efficiency class: C.

About the Volkswagen brand: “We make the future real”
The Volkswagen Passenger Cars brand is present in more than 150 markets throughout the world and produces vehicles at over 50 locations in 14 countries. In 2017, Volkswagen delivered 6.23 million vehicles including bestselling models such as the Golf, Tiguan, Jetta or Passat. Currently, 198,000 people work for Volkswagen across the globe. The brand also has over 7,700 dealerships with 74,000 employees.
Volkswagen is forging ahead consistently with the further development of automobile production. E-mobility, smart mobility and the digital transformation of the brand are the key strategic topics for the future.