



Model Series, Innovation and Technology Communications

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Looking ahead to the new Audi A8: More voltage for enhanced efficiency

- **Luxury sedan available for first time with standard electrified powertrain**
- **48-volt primary electrical system opens up fresh scope**
- **Flagship model making world debut at the Audi Summit in Barcelona on July 11**

Ingolstadt, June 8, 2017 – The new Audi A8 is advancing electrification on a broad front. In the next model generation, the flagship will for the first time feature an electrified powertrain as standard. To that end, the combustion engines will be equipped with mild hybrid technology. What this means for the customer is refined running and enhanced performance, coupled with greater efficiency. The basis is the 48-volt electrical system, which features for the first time in the new Audi A8 as the primary electrical system.

The mild hybrid drive comprises two main components: first, the watercooled 48-volt belt alternator starter (BAS), which complements the conventional pinion starter. The latter is only required for cold starts in the new Audi A8. Then there is the lithium-ion battery in the luggage compartment to act as the energy accumulator for the MHEV (mild hybrid electric vehicle) with a 10 Ah charge carrier capacity and a 48-volt system.

The advantage of the BAS becomes particularly clear when the driver approaches a red traffic signal or a roundabout. If the traffic signal turns green during braking while the vehicle is coasting to a stop or if a gap appears for the driver to weave into, and the driver releases the brake, the combustion engine is started immediately. The car accelerates without any delay. This is all thanks to the belt alternator starter, which is permanently connected to the combustion engine.

The new drive combines efficiency with comfort in a very special way: The fourth-generation A8 can enter the noiseless coasting mode within the speed range of 55 to 160 km/h (*34.2 to 99.4 mph*). The automobile can then coast with zero emissions for up to 40 seconds with the engine off altogether. As soon as the driver steps on the gas again, the BAS prompts a swift, very smooth restart. In addition, start/stop operation is actually active from 22 km/h (*13.7 mph*).



The convenient start/stop function in the new Audi A8 differs markedly from previous systems. The high-connectivity luxury sedan can distinguish between different traffic situations. When the road ahead is clear, the BAS starts the combustion engine conveniently and promptly, letting the Audi A8 drive off swiftly. After long standstill phases and if the customer wants to turn up the air conditioning, the combustion engine is started extra-smoothly and quietly. There is the new feature of predictive convenient starting: As soon as the vehicle in front of the Audi A8 moves, the engine starts even if the brake is still pressed. In this scenario the control strategy concludes that the driver will spontaneously fall in with the flow of traffic.

To achieve the high standard of efficiency, the new Audi A8 comes with sophisticated powertrain management: It processes both route data and information from its highly networked set of sensors, which include the front camera. The powertrain management uses this equipment to decide whether the A8 is in coasting or recuperation mode. It recovers energy not just from brake applications or when coasting; the Audi A8 also does so if it is in danger of getting too close to a preceding vehicle while coasting. All these measures are beneficial not just to comfort, but also at the gas station: In the A8, the mild hybrid drive reduces fuel consumption during customer operation by up to 0.7 liters (*0.2 US gal*) per 100 kilometers (*62.1 miles*).

The new Audi A8 makes its world debut at the first Audi Summit in Barcelona on July 11. Further information on powertrain development at Audi is available in the Audi Media Center at www.audi-mediacycenter.com/en/techday-combustion-engine-technology.

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In 2016, the Audi Group delivered to customers about 1.868 million automobiles of the Audi brand, 3,457 sports cars of the Lamborghini brand and 55,451 motorcycles of the Ducati brand. In the 2016 fiscal year, AUDI AG achieved total revenue of €59.3 billion and an operating profit of €3.1 billion. At present, approximately 88,000 people work for the company all over the world, more than 60,000 of them in Germany. Audi focuses on sustainable products and technologies for the future of mobility.