Media Release

Kia Motors New Zealand



NEWS

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Kia Introduce 8-speed Transmission

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Kia Motors has unveiled an advanced, lightweight 8-speed automatic transmission that will improve the performance and economy of future front wheel drive models.

The new transmission, designated the FWD 8AT, has been developed inhouse by Kia's engineers and will make its debut in 2017 production vehicles, then introduced progressively to other FWD models.

The FWD 8AT is being described as a "breakthrough" because it boasts lighter weight and similar dimensions as a conventional 6-speed automatic transmission used in front driving vehicles.

Kia has already developed an 8-speed automatic for large rear wheel drive vehicles, but says that incorporating the same number of gears into a FWD car is incredibly challenging due to packaging constraints and the need to mount the transmission transversely, competing with the engine, suspension and auxiliary components for space under the bonnet.

"The fact that they have achieved this and also made it 3.5kg lighter than a traditional 6-speed auto is an astounding feat of engineering – I can't wait to experience it," says Todd McDonald, General Manager of Kia Motors New Zealand.

The FWD 8AT has been under development since 2012 and has resulted in patents taken out on 143 new technologies.

Kia says the new transmission delivers smooth acceleration from standstill, as well as greater fuel efficiency, improved NVH characteristics and more decisive acceleration at high speeds than an automatic transmission with fewer gears.

To improve the FWD 8AT's fuel economy, Kia engineers significantly reduced the size of the oil pump (the main source of power loss in an automatic transmission) and simplified the structure of the valve body. Boasting the smallest oil pump of any production transmission in its class, the 8AT is able to use hydraulic oil more efficiently, distributing it evenly throughout the unit at all times.

Kia's development teams also incorporated a direct control valve body to allow solenoid control of the clutch directly, rather than via several control valves. This enabled Kia to reduce the number of control valves from 20 to 12, resulting in quicker gear shifts, a more direct mechanical link to the engine and improved packaging.

Incorporating an additional clutch and gear over Kia's existing FWD 6AT, the ratio between the top gear and the lowest gear in the new transmission has been increased by 34% over the FWD 6AT, resulting in greater fuel economy and improved NVH in higher gears and faster acceleration and climbing performance in low gears.

Hinting at even more technological breakthroughs to come, Kia says the FWD 8AT will serve as a stepping stone to the development of future advanced Kia transmissions.

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Photo caption 1: The advanced 8-speed automatic transmission created by Kia engineers is

lighter than its similar-size 6-speed auto.

Photo caption 2: The new 8-speed automatic transmission from Kia takes up no more

space than a 6-speed automatic.

About Kia Motors New Zealand

Kia Motors New Zealand Limited (www.Kia.com/NZ) – a maker of quality vehicles for the young-atheart is a subsidiary of Kia Motors Corporation (KMC) which was founded in 2006 and sells and services high quality, class leading vehicles like the Soul, Cerato, Optima, Sportage and Sorento through a network of 21 dealers nationwide. Kia Motors New Zealand manages the New Zealand operation from its Auckland headquarters. Kia's brand slogan "The Power to Surprise" represents the company's global commitment to surprise the world by providing exciting & inspiring experiences that go beyond expectations.

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