MAZDAS TURBOCHARGED SKYACTIV G-2 5T ENGINE WINS 2017 WARDS 10 BEST ENGINES AWARD

AWARD RECOGNIZES STANDOUT POWERTRAINS ACROSS ALL VEHICLE SEGMENTS

IRVINE, Calif. (December 12, 2016) – Mazda North American Operations (MNAO) today announced its turbocharged SKYACTIV-G 2.5T engine, which made its debut in the <u>second-generation Mazda CX-9 midsize crossover SUV</u>, has received a 2017 Wards 10 Best Engines award.

"We're honored that WardsAuto has recognized our turbocharged SKYACTIV-G 2.5T, as it serves as validation of our innovation that everything we do is focused on creating value and strong trust with our customers," said Kelvin Hiraishi, director of engineering, MNAO. "This is who we are, and this principal is here to stay at Mazda."

The SKYACTIV-G 2.5T offers many Mazda- and industry-firsts, including its innovative Dynamic Pressure Turbo, which uses a butterfly valve in the engine's exhaust to create more pressure through a smaller chamber—like holding your thumb over the end of a garden hose—at low RPM. As a result, its turbocharger can spool up almost instantaneously, providing up to 310 lb-ft of torque for ample flexibility and performance in any situation. It is also the first time Mazda has turbocharged a gasoline SKYACTIV engine.

For use in CX-9, Mazda engineers focused on real-world performance rather than chasing horsepower or torque figures that wouldn't be usable during normal driving. Engineers validated their focus by studying how SUV drivers would drive in the city, opting for strong off-the-line acceleration in city traffic and linear, controllable operation.

"There are lots of powerful turbocharged four-cylinder engines out there, but Mazda's 2.5-liter turbo stands out by using very elegant engineering to create especially smooth and abundant low-end torque for great everyday V-6-like performance in a sizable crossover SUV," said WardsAuto Senior Content Director Drew Winter.

By replacing a heavy V-6 engine with the SKYACTIV-G 2.5T in the new-generation CX-9, Mazda was able to eliminate more than 250 lbs. and improve EPA-estimated fuel-efficiency by 25 percent compared with its predecessor. Part of the impetus to rethink how to create the SKYACTIV-G 2.5T came from the desire to improve real-world figures as well, so Mazda developed a cooled exhaust gas recirculation (EGR) system so the engine could run at a high 10.5:1 compression ratio without needing to dump fuel into its cylinders for cooling, commonly known as enrichment.

"Most turbocharged gasoline engines use enrichment very early on, leading to fuel economy that rarely meets the EPA-estimated numbers," said Hiraishi. "While the SKYACTIV-G 2.5T's cooled EGR doesn't improve the catalog fuel economy numbers, it does pay dividends for customers to achieve greater real-world efficiency[1]. That's what matters".

For more information on the Wards 10 Best Engines awards, visit WardsAuto.com.

Mazda North American Operations is headquartered in Irvine, Calif., and oversees the sales, marketing, parts and customer service support of Mazda vehicles in the United States and Mexico through nearly 700 dealers. Operations in Mexico are managed by Mazda Motor de Mexico in Mexico City. For more information on Mazda vehicles, including photography and B-roll, please visit the online Mazda media center at www.mazdausamedia.com.

###

[1] Based on internal Mazda studies. Actual fuel-efficiency will vary.

https://news.mazdausa.com/2016-12- engines-award	12-mazdas-turbocharge	d-skyactiv-engine-wins-20	17-wards-10-best-