

For Immediate Release

TREMEC Introduces 7-Speed Dual Clutch Transmission

Extreme performance with lightning fast shift times

Wixom, Mich, February 25, 2019 – TREMEC dual-clutch technology has transformed automated manual transmissions with the new TR-9070 DCT. The innovative transmission provides extreme performance with 900 Nm (664 lb-ft) of torque capacity and lightning fast shift times of less than one-tenth of a second.

Depending on the situation and mode, the fun-to-drive 7-speed dual-clutch transmission thinks, learns and performs – whether it be normal driving, sporty driving, drag racing or track racing. Software and controls designed by TREMEC engineers provide the desired feel during launch and shifting, making torque control fast and repeatable.

The main objective of the DCT layout is to make the transmission as light and compact as possible. To this aim, all hydraulics, sensors and clutches are fully integrated into the gearbox. A successful light-weighting strategy incorporates die cast aluminum housings, a compact gear-train arrangement, hollow shafts, a durable, glass-filled sump pan, and more.

"This is a watershed moment for us at TREMEC," said Matt Memmer, TREMEC engineering director. "All systems and subsystems – from the hardware such as low-leak solenoids and electro-hydraulic actuations systems, to control systems and software – were internally developed for maximum performance."

Featuring twin clutches that engage and release in perfect computer-controlled synchronization, the TREMEC DCT transitions from gear to gear with either imperceptible shifts or with the ferocity of an F1 race car. "Our clutch design marries the benefits of wet and dry clutch technologies into a hybrid design," explains Antonio Herrera, TREMEC's managing director. "For instance, to withstand the punishing gravitational forces that racetrack drivers encounter, we optimized the oil management system to individually cool the clutches with lubrication and only when needed." The end result is a controllable thermal load and much lower drag.

To ensure that the systems will work properly under all circumstances, the TR-9070 DCT is ISO 26262 and ASIL-D compliant.

The all new TR-9070 DCT combines TREMEC's 50 plus years of experience in manufacturing performance transmissions with leading-edge design, mechatronics and software. "This new transmission represents a massive investment in terms of both dollars and man hours," commented global business development director, Dave Hadley. "However the results have proven well worth the effort. The DCT is a masterpiece in transmission design and we're honored to have played an instrumental role in Ford's new Shelby Mustang GT500 program."

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About TREMEC

Torque transfer solutions from TREMEC are found in products ranging from supercars and highperformance sports cars to severe duty, vocational and commercial vehicles worldwide. The portfolio of products includes manual transmissions, dual clutch transmissions, EV & HEV drivetrain solutions, gears, shafts, clutches, friction materials, shift systems, synchronizers, mechatronic systems, transmission control units, and control software.

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