

Gulf Racing Porsche 991 RSR GTE NorTronic[®] used on Differential in Porsche Designed Gearbox



Overview: In the 911 RSR GTE race car one of the key components in the car setup is the differential. The differential is located in the Porsche designed gearbox which is situated at the rear of the car.

The differential fundamentally controls the handling and transition of power through cornering. This is achieved by allowing the left and right wheels to rotate independently, which helps balance the car through corners. Its configuration determines how much of the torque from the engine is transferred to each wheel.



There are a number of components that can be changed within the differentials configuration to generate a desired torque preload specified by the race engineer as part of his proposed setup. Typically proposed values for the preload within a differential can be between 100 N·m and 180 N·m. However this value can vary significantly based on track conditions and circuit layout.

Solution: Our gearbox technicians are able to accurately measure the preload output of the differential and shim the differential cartridge accordingly with the aid of Norbar's latest NorTronic digital torque wrench.

The NorTronic torque wrench is an electronic instrument which provides a digital display for our technicians with the additional feature of transmitting the live measurements to Norbar's latest NorTronic software on a PC. This is a valuable feature which collects the measured torques from the NorTronic apparatus through a wireless interface that transmits straight onto your PC.

"The NorTronic is excellent for data referencing and continuity within the motorsport industry"
Dan Munns, Chief Mechanic Gulf Racing

Application

Measure the preload output of the differential

Solution

NorTronic digital torque wrench with Torque Data System (TDS) software



Within our family of distributors we share applications and can often recommend solutions that have been tried and tested elsewhere.

