

# Gulf Racing Porsche 991 RSR

## Installation of Performance Clutch



The team at Gulf Racing UK is again in full swing, this time preparing the car for its next race in Bahrain; the fourth race in a series of eight on the 2019-2020 WEC calendar.

As with all race preparations, there is a noticeable level of pressure amongst the team, as they look to ensure the success of their car out on track, and of course gain those valuable points. Gulf Racing has been using Norbar torque products since 2017, and have a high level of confidence in our tools, and are always content using them for critical bolted assemblies. In this case study we look at the installation of a performance clutch assembly, something which if incorrectly installed can significantly impair the car's on track performance, both during practice, qualifying and race sessions.

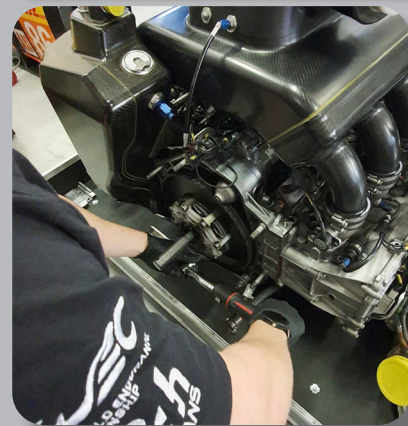


### Application

Installation of ZF SACHS designed performance clutch requiring accurate torque control

### Solution

Norbar New Professional Torque Wrenches



A performance clutch is very different from a typical OEM clutch, both in terms of material composition and effective performance. It has superior thermal resistance and greater stability, which helps to provide more transmittable torque. During installation a higher degree of clamping force can be applied to the pressure plate, thus increasing the available torque delivered to the transmission, which ultimately results in increased power.

Before installation onto the flywheel, it is necessary to correctly orientate the clutch so that it is seated squarely in a start orientation, this ensures that each fastener is applying an even load around the pressure plate. The process involves a two-stage tightening sequence, which requires an initial 8 N·m of torque followed by a final 30 N·m of torque applied to each of the fasteners - in addition to this the mechanic is required to follow a tightening pattern which is specified by the manufacturer.



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

