

# Gulf Racing Porsche 991 RSR

## Wheel Nut Tightening



Perhaps one of the most common applications for a Norbar torque wrench is the tightening of wheel nuts. Whether it be a small passenger car or a large commercial vehicle, or in this case an endurance race car, there's one thing for certain, if you plan to install a wheel, you'll need a good quality torque tool. All manufacturer's specify a tightening torque value for wheel nuts, something which should be firmly understood and never overlooked.



In the world of endurance motorsport, there are two very different situations where a necessary balance of speed and accuracy are achieved.

During a

race speed is of the essence, with tools that are designed to rapidly engage on the fastener and perform the necessary operations:- wheel removal and installation, in the shortest time possible - these tools are often referred to as impact or pneumatic guns. Before the race though, wheels nuts are tightened using a manual torque wrench to a precise amount - too tight and the wheel will be slow to remove during the race, too loose and there is a chance the wheel will fall off.

The initial tightening of the wheel nut, done prior to practice, qualifying and race sessions, is performed using a Norbar industrial torque wrench, called the 5R - this wrench, a sure favourite amongst the team, is incredibly simple to use, and helps the operator by providing an unmistakable signal that can be seen and felt when the set torque is reached. Prior to being out on the track the team are generally less constrained by time, allowing for a greater degree of emphasis to be placed on tightening accuracy, and by being smooth and controlled when applying torque to the fastener. However, during the race where every millisecond counts, speed is the most important factor, with the mechanic using a degree of 'feel' and experience to get the wheels changed as quickly as possible. It really is 'horses for courses' with every tool having its own place and use cases!

### Application

Accurate tightening of wheel nuts on Gulf Racing Porsche 991 RSR

### Solution

Norbar Industrial break back wrench  
Model 5R, 300 - 1000 N·m



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

