



Almost one-third of the Jerez race spent braking

The Spanish MotoGP according to Brembo

**An in-depth look at the queen class' use of the braking systems
on the Jerez circuit**

From 22 to 24 April, the Jerez Circuit (Spain) will host the 4th event in the 2016 MotoGP World Championship. Inaugurated in 1985, the circuit hosted the Motorcycle Grand Prix in 1987 and became the permanent site for the Spanish GP after alternating with Jarama for a year.

The Jerez track is 4.4 km long, has 13 curves (8 to the right, 5 to the left) and a maximum grade on the main straightaway of 5.1 percent. Even though it is a very tight track (11-12 metres wide), the riders love it for the numerous points where they can overtake competitors: indeed the curves make up just under one-third of the circuit. The undulations in the asphalt require very manageable and well-balanced bikes, as well as stability in braking.

According to Brembo technicians, the Jerez Circuit falls into the category of tracks that are very hard on the brakes. On a scale of 1 to 5, it earned 4 on the difficulty index, the highest of the season up to now. The other Spanish race in Aragon is classified at the same level of difficulty, as are the Brno and Spielberg circuits.

Brake use during the GP

The presence of one of the shortest straightaways in the Championship (just 600 metres) and a full 12 braking sections per lap make it so that the riders brake for about 31% of the overall duration of the race. The Jerez Circuit has several fast curves (at turns 4, 7, 11 and 12) that the riders take by barely touching the brakes. These 4 curves require deceleration between 0.7 and 0.9 g, when the average deceleration for the GP is just 1.08 g: without these 4 braking sections, the average value would be 1.24 g.

The most challenging stops

Two of the 12 braking sections on the Jerez Circuit are classified as highly challenging on the brakes, 6 are of medium difficulty and 4 are less difficult. The most complex braking section is at the Dry Sack curve, the 6th turn on the track. The riders apply a load of 7.8 kg on the brake lever for more than 5 seconds in order to go from 296 km/h to 65 km/h. The Expo 92 curve is also very challenging, it is the first turn after the starting line: the riders reduce their speed by about 200 km/h (from 283 to 86 km/h) in 225 metres, decelerating by 1.5g.

Of the 6 stops that present a medium level of difficulty, the Ducados turn, the last one before the finish line, is worth mentioning: the bikes arrive at 223 km/h and brake for 4 seconds to come down to 70 km/h.

Brembo Victories

Brembo brakes have won 25 of 37 of the Spanish GP races contended, including the last 22. Honda triumphed 16 times, but Yamaha won in 2015 with Jorge Lorenzo. Valentino Rossi is top of the list with 6 victories in 500-MotoGP, but his most recent was in 2009.