
The TSV Apache RTR 310 takes on a pioneering role

Bosch is now bringing motorcycle stability control and cornering ABS to the lower mid-range. Motorcycle Stability Control (MSC) combines the anti-lock braking system with a 3-D or 6-D inertial sensor unit (IMU). Basic functions include cornering brake control, cornering traction control and cornering drag torque control. The Indian TVS Apache RTR 310, which is closely related to the BMW G 310 R, is the world's first motorcycle under 400 cubic feet to get motorcycle stability control with a 6-D IMU. In addition to the IMU from Bosch, the system uses the Motorrad ABS 10 Base variant, which is specially tailored to motorcycles in emerging markets with a smaller and lighter housing. However, the displacement class from 300 to 400 cubic is also gaining in popularity in Germany.

According to a study by Bosch Accident Research, motorcycle stability control in combination with ABS could prevent or mitigate one in three motorcycle accidents resulting in personal injury in Germany if every motorcycle were equipped with it. MSC uses a series of sensors to detect the two-wheeler's driving dynamics. While the wheel speed sensors measure the speed of the front and rear wheels, the IMU determines the vehicle's acceleration and angular velocity 100 times per second. By analyzing the motorcycle's pitch and roll angle, the system optimizes stability and braking, even when cornering and leaning.

Together with Ducati, Bosch also brought the first adaptive cruise control system and blind spot warning system into series production three years ago. Estimates by the company's own accident research department suggest that the Advanced Rider Assistance System (ARAS) could prevent one in seven motorcycle accidents in Germany. (aum)

Images for article



The TSV Apache RTR 310 is the world's first motorcycle under 400 cubic inches in displacement to get Bosch's 6-D IMU motorcycle stability control.

Photo: Autoren-Union Mobilität/Bosch



Inertial sensor unit (IMU) from Bosch.

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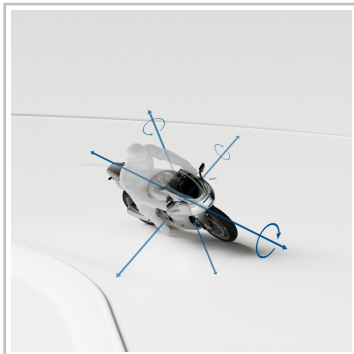


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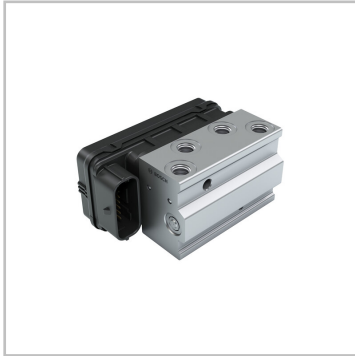


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