This article first released by: Mazda
In: Oct. 2005
Due to this article's content, it appears within the Transport section in the following areas:
Manufacturers.

MAZDA DISPLAYS NEW ENVIRONMENTAL AND SAFETY TECHNOLOGIES AT THE 39TH TOKYO MOTOR SHOW

Mazda is developing unique technologies to create vehicles that combine care for the environment, while still retaining the Zoom-Zoom driving spirit, and is proud to showcase these developments at the Tokyo Motor Show (from 18 October to 6 November 2005).

MZR 2.3 DISI Turbo
The MZR 2.3-litre DISI (Direct Injection Spark Ignition) Turbo engine is a high-power, eco friendly engine which is mounted in the Mazda6 MPS - available in the UK from early 2006 - and will also power other sports-grade vehicles in the future.

Thanks to direct injection and a turbocharger, this Mazda engine achieves high, flat torque and superb response comparable to a 3.5 to 4.0-litre V6 power plant, despite a relatively small displacement of 2.3-litres. The MZR 2.3-litre DISI Turbo also provides superior fuel efficiency and environmental performance and is the only turbo engine produced in Japan that meets SU-LEV (Super Ultra Low Emissions Vehicle) standards.

Smart Idling Stop System
The Smart Idling Stop System eliminates the use of an electric starter motor to achieve quicker, quieter and more reliable restarting. The system precisely controls piston position when the engine stops, injecting a small amount of fuel, causing the engine to run slightly in reverse. The system then ignites the fuel in the cylinder that has begun compressing due to the engine's reverse rotation, restarting the engine.

This idle-stop technology, (shown on Mazda Sassou at Frankfurt Show), could conceivably contribute to a further reduction in fuel consumption and CO2 emissions. It would be particularly useful in city traffic where drivers constantly stop and start.

Integrated Vehicle Dynamics Control System
The Integrated Vehicle Dynamics Control System uses a computer that monitors the inputs received from the accelerator pedal, steering wheel, and brake pedal and uses them to determine the driver's intentions.

These inputs are then compared with data from sensors to determine how much the vehicle's actual behaviour differs from what the driver wanted to do. Whenever the results indicate the risk of a skid, the computer takes control of the brakes and engine and actively countersteers through the electric power steering system.

Sideswipe Preventing Communication System
At junctions where the driver or onboard sensors and cameras cannot see or detect oncoming vehicles that are obscured by vehicles turning right or vehicles approaching from the sides, the Sideswipe Preventing Communication System exchanges data with approaching vehicles. It alerts the driver to their presence using a display and audible warnings and thereby helps to prevent a side impact collision.

Adaptive Front Lighting System
The Adaptive Front Lighting System automatically turns the vehicle's low beams on in accordance with the steering angle and vehicle speed, illuminating the path through a curve or junction, enabling safer driving at night. This advanced active safety technology will be featured in future Mazda products.