Selected Ford Ranger models fitted with safety technology

Selected Ford Ranger 2.2 4x2 derivatives will now be fitted with an Electronic Stability Programme (ESP) while the previously available diff-lock will be made available as an optional extra.

The ESP is an active safety system that improves driver control under all conditions and maximises vehicle traction and stability both on- and off-road. It uses advanced sensors to continuously monitor the path the vehicle is travelling on and compares it to the path the driver wants to follow, as indicated by the steering wheel.

When ESP senses that the vehicle is turning more (over-steer) or less (under-steer) than the driver intends, the system automatically reduces engine torque and/or applies a braking force to individual wheels to stabilise the vehicle and help it maintain the correct path. This is particularly useful in situations where the roads are slippery, when the driver has to make a sudden lane change to avoid an accident or where there is inadequate grip or vehicle speed when cornering.

Handling and safety

"The Ranger was designed to offer the best possible road manners," says Ford marketing manager, Gavin Golightly. "ESP offers significant benefits in terms of handling and safety. While ESP is standard fitment on Ranger 3.2 models, we have now taken the decision to add it to certain 2.2 Hi-Rider 4x2 models as well, while still offering the diff-lock as an option for those who would like it."

To give it even more composure, models fitted with ESP come with the Traction Control System (TCS) The TCS is able to control wheel spin up to avoiding it completely. It is able to reduce the level of engine torque to the exact amount that can be delivered to the ground through the wheels as well as brake a spinning wheel completely, allowing all the available engine torque to the wheel, or wheels, with the most grip. The TCS also provides active safety measures by preventing wheel spin in extreme situations such as during severe cornering where wheel spin may occur.

The ESP system being added to the Ford Ranger 2.2 4x2 derivatives includes off-road logic which recognises when the pick-up is driven on rough roads and modifies the system to ensure the best balance between stability and timeliness of interventions.

Descending steep gradients

The Hill Descent Control feature regulates the speed of the pick-up when descending steep gradients. It automatically applies the brakes to slow the vehicle down to a set speed without the driver applying the brakes and without locking the brakes. The system allows the driver to increase or decrease the speed using the accelerator, brake, or cruise control buttons on the steering wheel.

When moving off up a slope either in forward or reverse gear, the Hill Launch Assist feature holds the brake pressure temporarily for two seconds, ensuring the vehicle does not roll downhill. As the driver accelerates, the feature gradually reduces the brake pressure. It releases the brakes once the driving torque is enough to overcome the gradient, enabling the pick-up to move up the slope smoothly. With this feature, a fully-laden Ranger, which weighs about 3 200kg, is able to stop and then pull away on a 60% gradient.

For those who need to tow a trailer, the ESP systems' Trailer Sway Control feature mitigates the problem of 'snaking', which can be caused by side winds, track ruts, sudden steering movements, or an incorrectly laden trailer. When trailer sway occurs, the system detects the effect on the towing vehicle and operates to reduce the train speed by reducing engine torque and gradually increasing brake pressure on all wheels until the trailer sway stops. Users should always consult the vehicle's owner's manual to obtain the correct guidelines on towing.

Stability when loaded

Also included is an Adaptive Load Control feature that adjusts the stability control depending on the load. It can tell whether the pick-up is laden or not based on the speed of acceleration and will adjust the ESP control settings accordingly. This will prevent interventions from happening too early where they are unwanted or too late where there would be too much over-steer or under-steer.

The Rangers fitted with ESP also have a Roll-Over Mitigation safety feature that closely monitors the vehicle's speed, lateral acceleration, yaw motion and steering angle, and will identify potentially dangerous driving conditions that would lead to an untripped roll-over situation. Well before the situation becomes critical, the feature will cause the ESP system to intervene and control the vehicle speed to restore stability.

Increased braking force

The Ranger's ESP system includes various braking technologies to ensure the shortest possible stopping distance under all circumstances. When the driver applies the brakes quickly in an emergency situation, the Emergency Brake Assist will provide additional pressure to the brake system to increase the braking force and reduce the distance required for the vehicle to stop. At the same time, the Emergency Brake Light feature will flash the indicator lights to warn other drivers during emergency braking.

The Ranger comes with a 5-year/90 000km Service Plan and a 4-year/120 000km warranty with service intervals of 15 000km. Customers will also benefit from 3-year Roadside Assistance and a 5-year corrosion warranty. Ranger 4x4 customers also receive free off-road driver training.