

SAFE CHOICE: UNDERSTANDING TYRES & ESC

SPECIFYING INCORRECT TYRES FOR YOUR TRUCK CAN IMPACT ITS OPERATION, INCLUDING ITS ELECTRONIC STABILITY CONTROL (ESC) SYSTEM, WHICH WORKS TO KEEP YOU SAFE BEHIND THE WHEEL.

INTRODUCTION

Trucks are engineered, calibrated and tested with a tyre combination specified for optimal performance. As with any other major component, switching to a different brand or model can have flow-on effects throughout the entire system.

Tyres act as the critical contact point between the truck and the road surface and as such, impact the effectiveness of safety systems such as Electronic Stability Control (ESC), which operates according to the level of traction available.

ESC is a safety system that uses a series of sensors that intervene on behalf of a driver to assist in maintaining vehicle stability and preventing directional control loss and incidences of rollover from occurring. Introduced in 1995, ESC was touted as the second most important advancement in the world of automotive safety, following the seat belt.

It is still considered one of the most important safety features today and will be mandatory for all heavy vehicles above 3,500kg GVM with up to three axles (excluding off-road trucks) under Australian Design Rules legislation from 1 February 2025.

To ensure high quality standards are maintained over a truck's lifetime, many Isuzu Trucks products are specified with premium Michelin tyres that support both regular everyday operations and those less visible, but no less important, such as safety systems like ESC.



WHAT IS ESC?

- Working in tandem with a vehicles' tyres, ESC systems are designed to improve the steadiness of a vehicle by automatically helping the driver to maintain steering control during an incident.
- The system works via a series of sensors which detect wheel speed, yaw rate, steering angle and more.
- The ESC system can intervene on behalf of the driver when necessary to help maintain vehicle control, avoid directional control incidents from occurring or prevent the severity of those incidents.
- The system can automatically apply braking to individual wheels until the vehicle is steered back on course.
- Performing under just about all driving conditions, an ESC system can detect irregularities to determine if a vehicle is braking, accelerating or coasting, differentiating between situations such as understeer, front-end slides, oversteer, rear-end slides and hydroplaning.



MICHELIN 11R22.5 X® MULTI™ D+

ROLE OF THE TYRE

A properly specified and correctly fitted tyre can greatly improve the effectiveness of a truck's ESC system. But it goes much further than this, with tyre type and quality also impacting a truck's suitability for application, its centre of gravity, its loaded and unloaded weight, and its balance and stability under duress.

Isuzu engineers many of its trucks to work hand-in-hand with premium Michelin tyres, which are factory-fitted at the time of manufacturing. The trucks are put through rigorous on-road testing to calibrate electrical systems such as ESC. This testing is performed by Isuzu in Japan and on the ground in Australia to optimise performance in local conditions.

While a truck's ESC system will work to improve handling, it cannot improve on the attributes of the tyre. This means ESC can only work when there is suitable traction. Unsuitable tyres or tyres made from hard compounds may present a scenario in which an ESC system can become limited in its ability to assist further due to insufficient or substandard surface traction.

For the safety of your drivers and other roads users, Isuzu Trucks recommends respecifying with the same high-quality Michelin tyres that are supplied with your new truck.



ISUZU TRUCKS AND MICHELIN ORIGINAL EQUIPMENT TYPES AND SIZES



215/75R17.5 X® MULTI™ Z	205/75R17.5 X® MULTI™ Z	205/85R16 XJE4	275/70R22.5 X® MULTI™ Z	275/70R22.5 X® MULTI™ D
195/75R16 Agilis +	195/85R16 XJE4	225/70R19.5 XZE	235/75R17.5 X® MULTI™ Z	265/70R19.5 X® MULTI™ Z
11R22.5 XZY3	11R22.5 XDY3	295/80R22.5 X® MULTI™ Z2	11R22.5 X® MULTI™ Z2	11R22.5 X® MULTI™ D+



FOR MORE INFORMATION

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