



CASE STUDY: **RURAL FIRE SERVICE**

Part of Queensland Fire and Emergency Services, Hinchinbrook Station

When you go to a fire, and your adrenaline is rushing, you need to focus on the fire and what you need to do. Worrying about whether you've left the handbrake on or not, is the last thing on your mind.

LENNY TOSCANO, First Officer for the Brigade, AFSM (Australian Firefighter Service Medal Recipient), Rural Fire Service

SITUATION

The Rural Fire Service had a problem. They recently purchased a new concept fire truck – a 7 tonne manual-gearbox which was to carry around 2 tonne of water. The manufacturer's gearbox wasn't suitable as it wasn't robust enough for the surrounding terrain. The truck also had hydraulic brakes which needed the driver to pull a handbrake on manually when the vehicle had come to a stop. Different drivers had different levels of pressure/strength and if the handbrake wasn't applied strong enough the truck would roll away. The truck had developed a few 'dings' and it was apparent there was a safety issue.

SOLUTION

The Rural Fire Service decided to replace the gearbox with an Alison (Automatic) truck box and install the MAX-SAFE automatic braking system. The design principle was to let the system do its job and remove the potential for error by the driver. The braking system works via three different sensors and comes on automatically if any are triggered. The first trigger is when the door opens and it recognises that someone is exiting the vehicle. The second is when the person lifts off the seat. The third is if the vehicle is put into neutral (it does not have a Park position just Neutral, Reverse and 1,2,3). The MAX-SAFE solution triggers on any of these events and engages the brakes automatically.

OUTCOME

The truck has been in operation since March 2020. There were a few minor teething issues which have been ironed out. It is tested weekly by the Brigade and they are pleased to report it performs as desired in the hilly terrain. The Brigade can see that if they are going to continue with automatic gear box trucks that this solution will be rolled out further. It works well, even on steep terrain, and minimises risk no matter who is driving. Most of all it has given peace of mind to the Brigade that the vehicle won't roll away in an emergency situation.

