



AUSTRALIAN COMPETITION
& CONSUMER COMMISSION

Quad bike safety standard

July 2020



The issue

Quad bikes are inherently unstable and 145 people have died in accidents associated with quad bikes since 2011.

The majority of fatalities and serious injuries occur when the quad bike rolls over, and without an operator protection device (OPD), people are pinned underneath the bike. Over half of quad bike deaths in the workplace and one third of deaths during recreational activities are caused by crush injuries or asphyxiation¹.

Most of these incidents occur on a utility quad bike purchased for work but also used recreationally by family and friends.

Many consumers/farmers are using quad bikes in line with the advertised ability of these vehicles and are getting seriously injured or killed as a result of the vehicles' design limitations.

Seventy percent of those killed since 2011 have been older than 30 years of age. This suggests that the majority were likely to be experienced riders who made a single bad decision, and due to the inherent unsafe nature of quad bikes, suffered tragic consequences.

An operator protection device was not reported to be fitted to any of the quad bikes involved.

¹ Grzebieta R, Rechnitzer G, Simmons K and McIntosh AS (2015) 'Final Summary Project Report: Test Results, Conclusions, and Recommendations', Quad Bike Performance Project TARS Research Report No 4, submitted to the WorkCover Authority of New South Wales, University of New South Wales, Sydney, Australia.

The mandatory safety standard

The standard was introduced to reduce the risk of injury to consumers that operate a quad bike for work or recreation.

It was developed after a two year investigation by the ACCC found that the current designs of quad bikes, in particular general-use model quad bikes (marketed as utility quad bikes), are not safe for their foreseeable uses and misuses.

The ACCC also found consumers do not receive objective performance or safety information at the point of sale, and this exacerbates the design limitations of these vehicles because consumers were not able to make fully informed purchasing decisions.

The safety standard has two stages:

Stage 1: 11 October 2020

All new quad bikes, and directly imported second-hand quad bikes must:

- meet the specified requirements of the US quad bike Standard, ANSI/SVIA 1-2017 or the EN 15997:2011 Standard
- be tested for lateral static stability using a tilt table test and display the angle at which they tip onto two wheels on a hang tag at the point of sale
- have a durable label affixed, visible and legible when the quad bike is in operation, alerting the operator to the risk of rollover, and must include rollover safety information in the owner's manual.

Stage 2: 11 October 2021

All new, and directly imported second hand general-use model quad bikes must:

- be fitted with, or have integrated into the design, an operator protection device
- meet the minimum stability requirements of:
 - lateral stability—must not tip on to two wheels on a slope less than 28.81 degrees
 - front and rear longitudinal pitch stability—must not tip on to two wheels on a slope less than 38.65 degrees.

Operator Protection Devices (OPDs)

The most widely debated requirement of the standard is the fitting of OPDs. Some manufacturers have indicated that they will cease supply of quad bikes to Australia when this requirement becomes mandatory.

While the ACCC understands there are claims from some groups that OPDs may cause as many injuries as they prevent, we have not found any reliable information that supports this claim. Instead the

advice and statistics provided by engineers and safety experts indicate that properly designed and tested OPDs are crucial design features for quad bike safety, and are likely to reduce the number of people being asphyxiated, and the severity of crush injuries.

OPDs such as the Quadbar and ATV Lifeguard have been available in Australia for many years and over 20 000 of them have been fitted to utility quad bikes. To our knowledge there has not been a single death or serious head or chest injury attributed to these devices.

The ACCC has also heard concerns from farmers that OPDs may be a danger when working in an orchard or around low-hanging branches.

These concerns are serious, and that's why we've ensured the standard allows manufacturers to fit after-market OPDs, or develop their own OPD, as long as it offers substantially similar (or better) protection.

This enables manufacturers to innovate or capitalise on innovations already available in local and international markets, including OPDs that flex when they hit an overhanging object or deploy only when the vehicle begins to roll.

Other safety measures

The ACCC supports the introduction of measures that will increase the use of helmets and uptake of training, or prohibit children from operating adult quad bikes. These measures are important in reducing the frequency of fatalities and injuries, and we advocate for their introduction, although we note there are currently no powers under the Australian Consumer Law that can help progress these measures.

There has been a lot of publicity in recent years about quad bikes and significant money has been spent by federal and state governments on education and awareness campaigns, and rebate schemes for helmets and training. Yet, despite all of this, quad bike fatalities seem to be on the rise again. That tells us that education campaigns alone are not a long-term solution.

Best practice to ensure product safety stipulates engineering controls are the most effective risk minimisation strategy where a risk cannot be eliminated or reduced. OPDs and the minimum stability requirements are engineering controls, which are the most effective quad bike safety measures within the government's powers. Without addressing the inherent design flaws of quad bikes, a high number of fatalities and injuries will continue to occur.

Israel's approach

There are claims that the Australian standard is out of step with the rest of the world, because no other country requires manufacturers to fit OPDs. This is not true.

Israeli transport regulations regarding quad bikes and OPDs have been in place since the mid-90s and require quad bikes used for work and other activities, but not sport, to have a safety frame (OPD) fitted before the quad bike can be registered.

The OPD is subject to a specific design standard and made by local manufacturers licenced by the Israeli Ministry of Transport. The OPD is fitted to the quad bike after they are imported. Many quad bike brands are still available in Israel, including Yamaha, Can-Am and Arctic Cat, with some brands supplied via parallel imports. Similar supply agreements could occur in Australia if some manufacturers decide to cease supply.

Side-by-side vehicles

Side-by-side vehicles (SSVs) are becoming more popular and sales may soon overtake quad bikes. A large number of farmers have made the switch to SSVs or have a combination of both SSVs and quad bikes. Last year there were eight deaths associated with SSVs, a significant spike compared to previous years (on average two per year).

SSVs by design, offer a greater level of protection than quad bikes. They are more stable, and have a roll cage, seat belts, and doors and nets that keep you inside the survival zone of the roll cage. However, there have been reports of people modifying the vehicle by removing the doors and nets to make it easier to get in and out of, and connecting the seat belts behind their backs to disengage the speed limiter. Drivers and passengers who do not take advantage of the vehicle's safety features and engage in these practices increase their risk of being seriously injured or killed.

A contributing factor to nearly all deaths associated with SSVs since 2011, was the victim not wearing a seatbelt at the time of the incident, resulting in deaths after the victim was ejected from the SSV and crushed by the roll cage or vehicle. If the victims had been wearing a seatbelt, their chances of survival would have been greatly increased.

More information

For more information regarding the ACCC's investigation, the quad bike safety standard and how to stay safe whilst riding quad bikes go to the Product Safety Australia website. www.productsafety.gov.au/quad-bike-standard



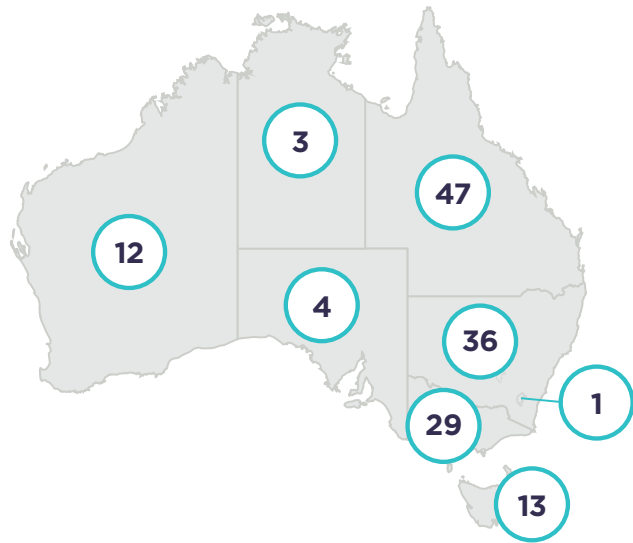
Quad bike statistics (since 2011)

145

recorded quad bike deaths
since 2011

22

recorded deaths of children
under 16 years of age

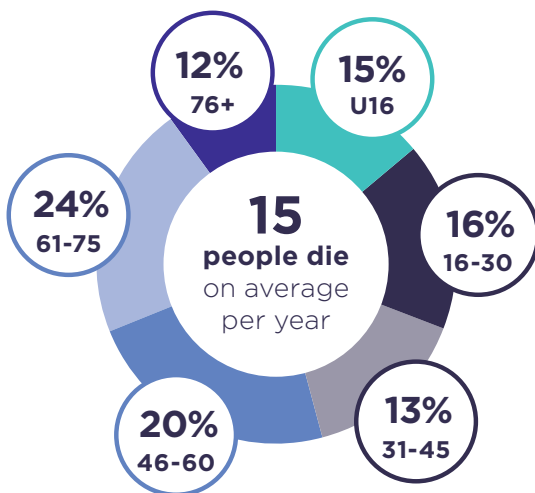


Every day approximately **6 people** present to an emergency department and at least **2 people** are admitted to hospital

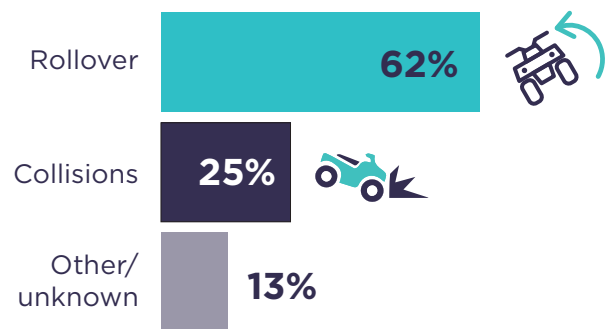


Around **75%** of deaths occur **on a farm**

AGE BREAKDOWN



CAUSE OF DEATH



QUAD BIKE DEATHS OCCUR EQUALLY DURING WORK AND RECREATIONAL ACTIVITIES

