

MANDATING ANTI-LOCK BRAKING SYSTEMS (ABS)

Questions and answers

20 SEPTEMBER 2019

What is ABS?

Motorcycle anti-lock braking systems (ABS) work to reduce skidding by preventing wheel locking and increasing stability. Motorcycles are, by nature, less stable than four-wheeled vehicles. Braking too hard can destabilise a motorcycle and lead to the front or rear wheel locking, causing the bike to overturn or slide. Alternatively, failure to brake hard enough can result in a rider failing to avoid a crash.

ABS ensures the maximum amount of brake force can be applied safely. By reducing skidding, ABS improves stability and shortens stopping distances.

What is CBS?

CBS is a combined braking system where brakes on both wheels can be operated using a single control, ultimately stopping the motorcycle from up-ending, and in some instances reducing braking distance.

How does ABS work on motorcycles?

ABS works to prevent a motorcycle's wheel, or wheels, from locking during braking. ABS uses speed sensors on both wheels to accurately determine wheel speed, as well as sensors to determine when a wheel is about to lock.

ABS adjusts the braking pressure accordingly to prevent the wheel from locking and assists with maintaining the stability of the motorcycle. In many circumstances, ABS has been shown to reduce braking distance. Motorcycles with ABS technology have been shown to be involved in fewer crashes on the road.

Why do anti-lock braking systems (including ABS and CBS) have significant safety benefits for motorcyclists?

Too many motorcyclists are being killed and seriously injured on our roads. In 2017, 46 people motorcycling were killed, 511 were seriously injured, and 820 suffered minor injuries.

ABS has the potential to save lives and reduce crashes.

Motorcyclists are at greater risk of injury in the event of a collision or crash, so prevention is the best policy. Due to the inherent instability of motorcycles relative to cars, motorcyclists are at greater risk of being involved in a crash and of suffering serious

injuries or being killed. It has been shown that excessive braking can cause wheel skidding, which destabilises a motorcycle and increases stopping distances.

ABS ensures the maximum amount of brake force can be applied safely. By reducing skidding, ABS improves stability and shortens stopping distances.

What difference will ABS make in New Zealand?

An analysis by the Ministry of Transport estimates that the introduction of ABS will prevent 34 fatalities, 375 serious injuries and 656 minor injuries over a 26-year period.

When will ABS be made mandatory for motorcycles entering New Zealand?

The new rule requires:

- All motorcycles entering the fleet for the first time with engine sizes over 125cc to be equipped with ABS
- All motorcycles with engine sizes over 50cc and not exceeding 125cc to be equipped with either ABS or CBS

These requirements would apply to new-model motorcycles entering the fleet from 1 April 2020, and existing-model and used motorcycles from 1 November 2021.

What is the difference between a current-model, new motorcycle and a new-model, new motorcycle?

New-model motorcycles are those that have not previously been sold in New Zealand. Current-models are those that were already available for sale at the time the Rule comes into effect.

Why is there a staged introduction?

The data we have obtained shows that most new-model motorcycles are fitted with ABS. However, the fitment of ABS to used motorcycles is less common. For used motorcycles (and current-model, new motorcycles) the requirement for ABS will follow the introduction for new-models.

This staged implementation is to provide time for used motorcycle importers to gear up for the change, allowing older stock to be sold, including stock already ordered but not yet in New Zealand, and providing sufficient time to source stock which is fitted with ABS, to reduce disruption in supply.

What did consultation say?

We received 49 submissions as part of consultation and these were broadly in support of the proposal.

We also heard that whilst industry was in support of the proposal, they needed more time to comply with the new requirements. For this reason, we have delayed implementation of the requirements for new-model, new motorcycles from 1 November 2019 to 1 April 2020.

Will motorcycles already in use in New Zealand need to have ABS fitted retrospectively?

No. The Rule will require ABS for new-model, new motorcycles entering the fleet from 1 April 2020, and for current-model, new motorcycles and imported used motorcycles entering the fleet from 1 November 2021.

Are there likely to be additional costs for consumers?

Around 60 to 70 percent of new motorcycles entering the fleet in 2017 were estimated to already be fitted with ABS.

As manufacturers are now fitting ABS as standard there is not expected to be a significant cost impact on consumers.

Which countries have mandated the use of ABS on motorcycles?

There is an international trend towards requiring ABS, which means the number of used motorcycles fitted with ABS is expected to gradually increase over time.

In Europe, since 2017, all models are required to have ABS fitted across all new and used motorcycles. This requirement extends to Brazil and India in 2019, and Japan and Australia in 2021.

Are there any types of motorcycles that will be exempt?

Several exceptions have been written into the Rule and will apply automatically.

Motorcycles registered for use prior to 1 January 1990 will be exempt. There is also an exemption to allow New Zealand citizens or residents to continue to import, as an 'immigrant's vehicle', a motorcycle that they had owned and registered for use overseas for at least 12 months.

Trial and Enduro motorcycles primarily used off-road or at motor cross events are also exempt and will not have to be fitted with ABS.

What about classic motorcycles?

There will be a limited exception from the Rule for motorcycles registered in any country prior to 1 January 1990. These motorcycles will not be required to be fitted with ABS or CBS.

This will allow motorcycle collectors to continue to import classic motorcycles where there is no ABS equipped option available. This would apply to a small proportion of all imported motorcycles, with pre-1990 motorcycles accounting for approximately 6 percent of all motorcycles imported in 2017.

For motorcycles first registered after this date, a new, special interest motorcycle permit would allow for collectable motorcycles to continue to be imported, under the condition that there is no equivalent option with ABS available. Applicants would be able to apply to

the Transport Agency for a permit. The number of special interest permits would be limited to 100 per year.

What about off-road motorcycles and quad bikes?

Motorcycles and quad bikes designed and constructed for off-road use will not be required to be fitted with ABS. As ABS may not work as effectively in off-road situations, motorcycles may be manufactured with a switch that can temporarily disable the ABS. This will include motorcycles designed for agricultural use. These types of exemptions are consistent with the implementation in the other countries.

What about electric-powered motorcycles?

The changes also cover electric-powered motorcycles that have equivalent engine sizes to the petrol-powered motorcycles that are covered.

Where can I get a copy of the Land Transport Rule: Light-vehicle Brakes Amendment (No 2) 2019?

The Rule is available on the New Zealand Transport Agency website at:

<https://www.nzta.govt.nz/abs>

Land Transport Rules can be purchased from selected bookshops throughout New Zealand that sell legislation. They are also available to read free of charge at any New Zealand Transport Agency office.