

Quad bikes – Attachments, loads and towing

What is the problem?

Quad bikes becoming unstable and rolling over due to incorrect loading, over loading and being used with attachments and for tasks for which they were not designed.

What are the risks?

Quad bike drivers can be killed or receive serious injuries.

Carrying loads on the front and/or rear of a quad bike can be dangerous, the extra weight can affect steering, braking, alter the centre of gravity and make the quad bike difficult to control.

Containers of liquids – either carried on the quad bikes or towed by it – can shift when cornering or traversing slopes, increasing the likelihood of rollover.

A farmhand was killed traversing a slope along a makeshift road with long grass and a steep uneven gradient. He had tied steel to the back of his quad bike, altering the quad bike's stability. The vehicle toppled over and landed on top of him as he was traversing the slope.

What is a solution to the problem?

Plan your work, consider all hazards and whether there is a safer alternative. When using a quad bike:

- Follow the manufacturer's load limitations and recommendations. The brakes and suspension on quad bikes are designed to operate effectively within the load limits specified by manufacturers and over relatively smooth and level terrain.

The manufacturer's load and towing limits are specified in the operator's manual and on the quad bike itself. Conditions affecting load and towing include:

1. weight of the load
2. location of the load
3. attachment weight
4. operator weight.

The combined total weight should not exceed the manufacturer's weight or towing specifications. Operate with safe and stable loads that are secured to racks with straps. If towing a load, connect only to the towing point of the vehicle.

- Keep the load low. High loads raise the centre of gravity and should be avoided.
- Reduce speed and allow longer braking distance when carrying a load and use low gear. The more weight carried, the slower you should go.
- Avoid hills and rough terrain. The weight of the cargo should be reduced in rough terrain or as the slope increases. Do not operate on steep slopes. Speed of operation should also be modified.
- Tanks for liquids should:
 1. not exceed the quad bike manufacturer's load limitations
 2. have internal baffles to restrict the movement of the liquid when the tank is moved
 3. have smooth external surfaces with no sharp edges and be as low as possible to keep the centre of gravity low
 4. allow the operator to move freely during operation of the quad bike
 5. not obscure the operator's vision or interfere with operator controls
 6. not touch the operator or restrict their ability to separate from the machine in the event of a rollover
 7. be properly sealed to avoid splashing of chemicals onto the machine, the operator or surroundings.

Further Information

WorkSafe Advisory Service

Toll-free: 1800 136 089

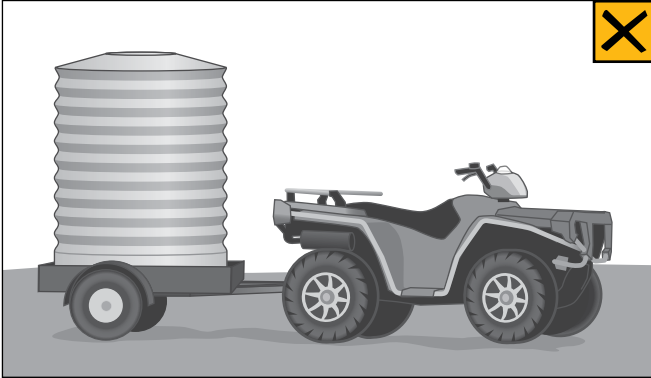
Email: info@worksafe.vic.gov.au

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(Health and Safety Solution continued overleaf.)

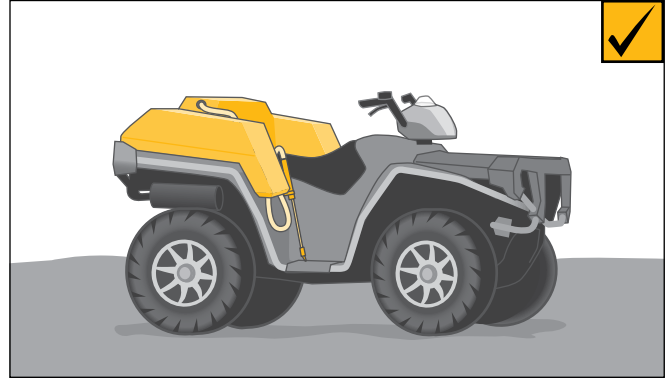
A Health and Safety Solution

The problem



High loads raise the centre of gravity, altering vehicle stability.

The solution



Tanks for liquids should always allow the operator to move freely when operating quad bikes. Quad bikes with properly designed small-sized tanks fitted around the seat ensure the liquid load is less likely to shift when cornering or traversing slopes, decreasing the likelihood of rollover.