

Engineers present out of date ATV advice to Brisbane District Court

In a recent QLD District Court case a farm worker was awarded damages after he injured his leg in an ATV incident. However, the evidence presented to the court by engineers on behalf of the worker was not only out of date, it had also been reviewed and disputed by a number of ATV experts and qualified engineers.

Neither of the engineers who provided the evidence upon which the court relied have any expertise or experience in ATV dynamics, or in the investigation of roll over protection systems for ATVs, according to their CVs as submitted to the court.

The plaintiff farm worker's statement of claim alleged that precautions which the owner of the ATV should have undertaken included:

"...supplying the quad bike with a roll over protection system with netting which would have provided a protective envelope for the Plaintiff and which could contain the Plaintiff's upper and lower limbs or supplying a lap sash seatbelt."

In support of this allegation, the engineers retained by the worker's solicitors suggested in one of their reports that he may not have been injured if "a crush protection system and a lap belt" had been installed on the ATV he was riding.

This suggestion contradicts recent QLD and NSW coronial inquest findings and a number of ATV studies including:

- The 2015 Queensland Quad Bike Coronial Inquest, where Deputy State Coroner Lock considered Roll Over Protective Systems (ROPS) and determined that:

"Because a ROPS relies on securing the occupants within a protective space created by the structure during a roll over, they are not used for sit-astride quad bikes. This is because sit-astride quad bikes cannot feasibly have seatbelts fitted, due to the saddle seat set up, and the requirement for the rider to actively ride the vehicle by shifting their body weight around." (emphasis added)

- A University of NSW Transport and Road Safety (TARS) study (led by Professor Grzebieta) which investigated ATV safety and concluded that:

"...it is impractical to design a Quad bike where a rider can 'Actively Ride' and at the same time be fully protected by a Rollover Protection System (ROPS) and restraint system." (p. 14 of Quad Bike Safety Report 3 – Crashworthiness Test Results Jan 2015).

- Consistent with these findings and the views of all relevant engineering experts, the current advice of Safe Work Australia, the peak body of workplace safety regulators in Australia is that ROPS, which **must** be used in conjunction with rider restraints, including harnesses and hand and foot tethers, are not suitable for single operator quad bikes (<https://www.safeworkaustralia.gov.au/quad-bikes>) and also that:

"The design characteristics of quad bikes that require applying active riding techniques (shifting your body weight) generally prevent the fitting of traditional ROPs and seat belts." (Quad Bikes in Rural Workplaces Information Sheet)

Moreover, the engineers who provided the evidence in the QLD District Court case referred to one "ROPS" design as being the Quadbar device. However, as the manufacturer of that device itself says on its website (quadbar.com.au):

*“The Quadbar acts as a Crush Protection Device (CPD) as opposed to the more commonly known roll over protective structures (ROPS). A typical ROPS would require a full cage and driver restraint, which are not feasible on a rider active vehicle such as a quadbike.”
(emphasis added)*

In summary, the engineering advice presented at the QLD District Court in September 2018 was ill-informed and in conflict with accepted scientific opinion. Unfortunately, the defendant in that case did not put forward any expert evidence and its lawyers did not seek to challenge the expertise or the opinions of the engineers retained by the plaintiff. As a result, a more accurate and up to date contrary position was not provided to the court, and the decision made by the judge reflected the absence of valid and accurate technical information before him.

The fact that these engineers even proposed to the court the installation of ‘Crush Protective Devices’ (which they wrongly described as a “ROPS”) again shows their lack of thorough examination and understanding of the technical issues because it is contrary to the current science and research outcomes.

A 2017 quad bike user survey carried out by UNSW TARS determined that that there is no safety benefit of so-called Crush Protective Devices (CPDs) in the workplace, as they found that ATVs fitted with these devices were involved in just as many serious injuries as ATVs that were not fitted with CPDs (Quad Bike and OPD Workplace Safety Survey report May 2017).

The outcome of this Queensland District Court case has caused some media outlets and farming organisations to jump to incorrect conclusions.

Far from being a “landmark” ruling, this is simply an unfortunate case where a judge has made findings in relation to a specific situation, which were based upon ill-informed assertions by consultants engaged to give evidence to support the plaintiff’s compensation claim. Those assertions went unchallenged because defendant was uninsured and apparently did not have the resources to present any qualified expert evidence.

As it is confined to its facts and the (flawed) evidence that was before the court on this occasion, the decision does not stand as authority for any general proposition that ATV owners should fit ‘Crush Protective Devices’ (let alone seatbelts, netting and/or ROPS) to their vehicles. Rather, any future case in which an allegation similar to that referred to above is made will be decided according to its facts, and on the basis of the expert evidence that is then before the relevant court.

In order for workplaces to improve ATV safety outcomes, the FCAI recommends:

1. Select a vehicle that is best suited to the task, terrain and operator’s skill
2. Ensure riders are trained so they fully understand the vehicle attributes and limitations
3. Ensure the operator is physically fit, wears a helmet and is not intoxicated
4. Observe correct rider and load restrictions; Never allow children (<16) on adult size ATVs; or passengers on single seat ATVs; don’t overload your vehicle and take special care on hills when carrying loads
5. Follow the manufacturer’s warnings and advice

Employers and workplaces should complete a risk assessment of ATV use in your workplace, to ensure potential risks are identified, and that measures are put in place to reduce these risks.

Go to <http://atvsafety.com.au/information/currentwork> for ATV-related risk assessment examples and worksheets that can be developed for your workplace.

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