

# OFFICE OF THE STATE CORONER

# FINDINGS OF INQUEST

CITATION: Inquest into the death of Reginald

**Hasted BEAUCHAMP** 

TITLE OF COURT: Coroners Court

JURISDICTION: Brisbane

FILE NO(s): 2013/4663

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FINDINGS OF: John Lock, Deputy State Coroner

CATCHWORDS: Coroners: inquest, quad bike accident,

head injuries, helmets

## REPRESENTATION:

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#### Introduction

Approximately 170 deaths over the past decade have occurred in Australia and New Zealand where Quad Bikes were involved. Most of these have occurred in a rural setting and the leading cause of death on farms in Queensland has some involvement with a quad bike.<sup>1</sup>

It is uncontroversial to say that a number of the statistical sources confirm that the majority of deaths occurred in the age group of 10 - 19 and a second highest age group for those over the age of 50.

Quad Bikes are essentially four wheeled motorbikes. They are motorised vehicles designed to travel on four low-pressure tires, having a seat designed to be straddled by the operator, and handlebars for steering control. They are used for both recreational purposes, either privately or in tourism, or for agricultural purposes. In Australia and New Zealand they are typically used in rural settings. They are utilised by search and rescue teams. In the United States of America they are also used in rural settings but the majority are used in a recreational setting.

Whatever may be said about their utility, they have become essential equipment on many farms. That being said, the evidence gathered during this multiple inquest raise many issues including the importance of active riding, good maintenance, use of correct tyre pressure, use of helmets, not allowing children to ride adult sized quad bikes, understanding the limitations of the vehicle and that tragic incidents can occur in quite benign conditions. The cases also emphasise the importance of riders making appropriate decisions.

Most standard quad bikes have no roll over protection system (ROPS). In broad terms, a ROPS is a cabin or roll bar structure on top of the quad bike, which incorporates a seatbelt to restrict movement outside the protective zone in the event of a roll over. Other possible protection mechanisms include Crush Protection Devices (CPD), which is a two bar or circular structure attached to the rear of the vehicle, which aims to provide a protective space in the event of a roll over, but without a seat belt. The utility of either device has been the subject of considerable debate.

Quad Bikes are referred to by the manufacturers and marketed to the public as 'All Terrain Vehicles' (ATVs). There has been some criticism of the use of that term.<sup>2</sup> In this inquest it is intended to adopt the term Quad Bike, but I do so conscious of both arguments and simply use the term in this phase of the inquest because it is one known better to the general public in Australia.

There has been considerable research, studies, reports and investigations carried out by varying persons and organisations considering how to reduce the number of quad bike related accidents. Although there is considerable agreement in relation to a number of issues, there has been robust debate between the main protagonists and considerable difficulty in reaching a consensus as to how to move forward on some of the more contentious issues.

<sup>2</sup> Coroner John Olle, *Record of Investigation into Death of Thomas John Hutchings* (2009) State Coroner Victoria, case number 3067/02, p 4. Coroner HB Shortland, *An inquiry into the death of Carlos Mendoza*, Coroners Court New Zealand, CSU- 2010-WHG- 000185 at p 25

<sup>&</sup>lt;sup>1</sup> Lisa Crockett, *National Coronial Information System Database Search*. The report was dated up to 1 January 2013 and noted there is a possibility of underreporting due to filing errors and currently open investigations. The deaths involved in this inquest would not be included. By the time of the inquest the figures estimated were closer to 195.

This inquest will examine the circumstances of the deaths of nine individuals. Findings in relation to each of those cases will be made in the first phase of this inquest. In the second phase I will hear evidence concerning what recommendations should be made to help prevent deaths occurring in similar circumstances in future.

## The evidence

- Mr Reginald Beauchamp was an 86 year old grazier who resided with his wife and son on a 100,000 ha cattle property owned and operated by his family at Stockport Station, 25km from Boulia. He died in hospital on 27 December 2013, five days after sustaining head injuries due to a quad bike accident, whilst working on his property.
- 2. On Sunday 22 December 2013 at about 4.40pm, Mr Beauchamp left his residence on his quad bike to move some cattle that were on a road into a paddock. The paddock was about 2km from the residence. His son, Mr George Beauchamp went off to do a different job.
- 3. Mr Beauchamp would normally return from this task by 6:00pm. When he had not returned by 7:00pm, his son went looking for him. His son located Mr Beauchamp between 7:05pm and 7:15pm lying on his side between the front and rear wheels of the quad bike. His head and shoulders were under the centre of the quad bike. They were located near an open gate along the fence line. The quad bike motor was still running and the quad bike was upright. Mr Beauchamp's son recalls that the last tyre tracks he could see were closer than 1m to the quad bike and the tracks were facing the side of the quad bike.
- 4. Mr Beauchamp's son placed the quad bike into neutral and lifted the quad bike off him by lifting one end at a time. He then turned the motor off. He called his mother on the UHF radio and told her to call an ambulance. Mr Beauchamp was unconscious but still breathing. He did not look like he had sustained a lot of injury but there was a little blood on his head. He was in a semi recovery position, so his son left him where he was until the ambulance arrived at about 7:40pm.
- 5. Senior Constable Nathan Blackburn from the Boulia Police Station was called by the Boulia Medical Centre to drive the ambulance to Mr Beauchamp's residence. When he arrived, his first priority was to attend to Mr Beauchamp who was breathing but not responding. He transported Mr Beauchamp to the Boulia Medical Centre. Mr Beauchamp was then transported by the Royal Flying Doctor Service to the Townsville Hospital in critical condition. On arrival, Mr Beauchamp was admitted into Intensive Care and underwent a series of testing.
- 6. Mr Beauchamp was diagnosed with a large left frontal hemorrhagic contusion with oedema and focal mass effect, a right parietal contusion and basal cisterns patent. In light of poor prognostic factors, he was given supportive care with breathing provided by mechanical ventilation. He was extubated on 27 December 2013 and died shortly after.

# **Autopsy results**

- 7. An external autopsy was conducted by a forensic pathologist, Professor David Williams, on 31 December 2013. The autopsy report was completed on 12 March 2014.
- 8. Professor Williams noted that Mr Beauchamp weighed 70kg. There was a mild

- degree of truncal obesity. The back of the body was relatively free of injury but the central parts of the chest had bruises.
- There was an abrasion on the right cheek 2.1cm across. There appeared to be dried blood on the forehead, especially the right side of the forehead but also at the area in front of the left ear. There was no palpable fracture to the back of the head.
- 10. Professor Williams concluded that the appearances seen in the body, coupled with the medical charts, indicated a closed head injury. Toxicology testing was conducted and there were no alcohol or drugs detected.
- 11. Professor Williams found that the medical cause of death was:
  - 1(a). Head injury due to, or as a consequence of
  - 1(b). Quad bike accident (rider)

## The investigation

- 12. Senior Constable Nathan Blackburn from the Boulia Police Station first attended the scene as the ambulance driver. He took versions of events from family at the Boulia Medical Centre after transporting Mr Beauchamp there. The relieving Officer in Charge of the Boulia Police Station, Acting Sergeant Neale Meshane, attended the scene later that evening to take photos but given the time of the night, the photos were unclear and were not produced.
- 13. The following morning, Senior Constable Blackburn returned to the scene and took photographs and measurements of vehicle tracks and points of interest.
- 14. Senior Constable Blackburn had some experience in riding quad bikes but had never conducted an investigation into a quad bike incident before.
- 15. A police reporting officer and initial investigating officer, Constable Shannon Luke from the Stuart Police Station, submitted an undated Form 1 to the Coroner. He had not attended the scene. When further information was requested, Senior Constable Blackburn submitted police reports in the form of statements dated 21 June 2014 and 30 July 2014. He provided oral evidence at the inquest.
- 16. Senior Constable Blackburn's investigation was to a satisfactory standard in the circumstances. He agreed in oral evidence that quad bike specific investigation training and a standardised template for quad bike investigations would be useful.
- 17. Senior Constable Blackburn located the quad bike nose first into the paddock fence approximately 5–10m from where Mr Beauchamp was located. He provided a useful diagram of the scene.
- 18. He observed damage to the front bull bar, resulting in the front plastic panels being pushed rearward. The digital display unit, which had been previously held on by zip ties, had been snapped off and was found separate from the quad bike. The handle bars had been bent or pushed down and backwards and the front left tyre was flat.
- 19. Mr Beauchamp's son advised police that he believed the damage to the front of

- the quad bike suggested his father had either run into something or flipped the quad bike. The fact that zip ties had been used to hold together the instrument panel on the quad bike suggests that it was likely already damaged.
- 20. Mr Beauchamp's wife and son felt that Mr Beauchamp must have suffered a medical incident.
- 21. Senior Constable Blackburn had not expressed an opinion as to the cause of the incident in his police report to the Coroner. At the inquest, various scenarios were discussed with Senior Constable Blackburn.
- 22. The precise circumstances in which Mr Beauchamp came off the quad bike are still uncertain. There were no eye witnesses to the incident and the tyre tracks and other scene information is puzzling. What is clear from the scene is that it is highly unlikely that the quad bike rolled. It would seem that the most likely possibilities are that:
  - a. Mr Beauchamp was attempting to close the gate by nudging the edge of the gate with his quad bike. It was a very hot day and Mr Beauchamp had difficulties walking. He may not have wanted to manually push the gate closed. As it was a swinging gate, it could have easily been pushed by the quad bike. This would have involved force and acceleration and may also account for some of the damage to the front of the quad bike. His quad bike may have slipped off the edge of the gate and led to him continuing forward at speed and losing control of the quad bike.; or
  - b. Mr Beauchamp was heading towards the gate and collided with the gate; or
  - c. Mr Beauchamp was either heading towards the gate whilst mustering cattle, or in the absence of cattle, had to do a sharp turn just prior to the gate to avoid it, leading to him losing control of the quad bike. This scenario could explain the tyre track loops in the paddock. However, there were no visible markings to suggest that there had been any cattle in the vicinity of the tracks; and/or
  - d. Mr Beauchamp suffered from a medical incident and 'blacked out', as had happened on previous occasions. This is quite possible given Mr Beauchamp's age and medical conditions.

## **Quad bike details**

- 23. The quad bike was a 2008 model Suzuki King Quad 750AXI and had been purchased new by Mr Beauchamp.
- 24. The quad bike had a home made bull bar on the front. There were no other accessories or modifications to the quad bike. There was no Crush Protection Device (CPD) or Roll Over Protection System (ROPS) installed.

### **Mechanical inspection**

25. On 8 January 2014, an accredited automotive engineer, Mr Grant Jensen from Remote Mechanical Services in Boulia, inspected the quad bike in the presence of Senior Constable Blackburn. He reported his results to Workplace Health and Safety Queensland (WHSQ) on 22 January 2014.

- 26. Mr Jensen determined that at the time of the incident, the quad bike had very slight free play in the steering tie rod end but no pre-existing defects that would have contributed to the incident.
- 27. Mr Jensen noted that the handlebars had been pushed straight down into the knee guards; the instrument cluster was broken off and only attached by a wire, along with the horn. The front plastic guards were popped out of their mounting points but were still attached to the quad bike. A front light metal black guarding frame was out of shape too.
- 28. In oral evidence, Senior Constable Blackburn advised that he had test ridden the quad bike at the back of the holding yards to try and account for what may have happened. He was almost thrown off the quad bike when he attempted to turn the quad bike due to the lowered handlebars. He noted that the assumption has been that the handlebars were lowered as a result of the incident, but given it is evident there had been a previous incident where damage occurred, it is possible they were already in that position prior to the incident. If so, this would also have contributed to the loss of control of the quad bike.
- 29. Tyre pressures were not taken at the scene. In Mr Jensen's original mechanical inspection report, he noted a slow leaking left front tyre but after discussion with Senior Constable Blackburn and understanding the markings on the ground, he did not believe it contributed to the incident.
- 30. In an addendum statement dated 4 August 2014, Mr Jensen advised that at the time of his mechanical inspection, he had not checked the tyre pressure of any tyres because they all seemed inflated to a useable operational pressure. Senior Constable Blackburn had informed him that there was a slow leak in the left front tyre, which Mr Beauchamp had been inflating every time he used the quad bike.
- 31. It is unknown whether Mr Beauchamp inflated the leaking left tyre prior to riding the quad bike on 22 December 2013. Had he not have inflated the tyre, this is also likely to have contributed to the loss of control.
- 32. It is also unknown what tyre pressures were maintained for all four tyres. This inquest has heard evidence that the low profile and aggressive tread of quad bike tyres often give people a mistaken impression that they are adequately inflated when they are not. The reverse situation also seems common that people over inflate their quad bike tyres. If all four tyre pressures were not in accordance with the manufacturer's recommendations, it is also possible this could have contributed to the loss of control.

#### Terrain and conditions

- 33. The police photographs taken of the incident location show that the terrain was a flat, barren paddock, with exposed dirt and no vegetation of any kind. There was no evidence of anything on the ground of the paddock that may have caused the quad bike to lose control.
- 34. On the day of the incident, the maximum temperature on the station was in excess of 40 degrees Celsius. The weather was fine.
- 35. In oral evidence, Senior Constable Blackburn advised that Mr Beauchamp's son thought that his father may have suffered from a medical incident and simply sought refuge under his quad bike for shade. However, this appears unlikely

given that the quad bike was still running and would also have been very hot.

There is no indication of any visibility issues caused by weather at the time of the incident.

### Speed

- 36. There is no evidence to suggest the speed Mr Beauchamp was travelling at the time. However, it is unlikely, given Mr Beauchamp's usual quad bike riding habits that he was riding the quad bike at a reckless speed. There was dirt flicked up to the side of the tyre tracks near the gate, suggesting there had been an incident involving acceleration near that point.
- 37. Mr Beauchamp's son described him as a very careful and capable operator. He was very steady in how he used the machinery, not ever getting a lot of pace up and he used a wide arc to turn. His wife also described him as a careful and slow driver. Mr Beauchamp was riding alone, although his son and wife knew where he was.

#### **Medical conditions**

- 38. Records obtained from the Department of Transport and Main Roads show that Mr Beauchamp had his driver's licence suspended on 12 July 2012 due to a medical condition. Although he would not technically have been prohibited from driving a vehicle on private property, the loss of his driver's licence indicates that he may not have been able to ride a quad bike safely.
- 39. Mr Beauchamp's discharge summary from the Townsville Hospital indicates that he had a past history of peripheral vascular disease, non insulin dependent diabetes, Ischaemic heart disease and Cerebrovascular disease.
- 40. Mr Beauchamp's wife noted he had a few health issues, including type II diabetes. He had also apparently passed out two times in recent years. The last time was in July 2012. Their daughter was home on both occasions and the Boulia ambulance was called to assist.
- 41. Mr Beauchamp's daughter, Ms Marguax Sachs, also indicated her father was in very poor health.
- 42. Mr Beauchamp's son advised police that his father was a bit unsteady and rough on the ground but had no problems with flexibility. He thinks that his father probably had a medical incident on the quad bike as he could see no other way this could have happened to him. Mr Beauchamp's wife also thinks there must have been a medical issue as he was always really careful when he used machinery and she does not believe he would have crashed.
- 43. Senior Constable Blackburn had seen Mr Beauchamp around town on occasions, and in oral evidence he noted that his observations were that Mr Beauchamp often needed assistance to get around.

### **Personal Protection Equipment**

- 44. Mr Beauchamp did not normally wear a helmet when riding his quad bike and was not wearing a helmet at the time of the incident.
- 45. It is unknown what, if any, other personal protective equipment was worn by Mr Beauchamp.

## Training and safety issues

- 46. Mr Beauchamp had never received any formal or informal quad bike rider training.
- 47. Mr Beauchamp's son advised police that he was not aware of whether his father had read the owner's manual or watched the safety video after he bought the quad bike.
- 48. Mr Beauchamp took an active role in the operation of the station and used the quad bikes, forklifts and motor vehicles on the property regularly. Mr Beauchamp had owned and operated the quad bike for a number of years, having purchased it new.
- 49. Mr Beauchamp had operated the cattle station since 1951. He was a very experienced grazier and would have been very familiar with the area and the incident location, having worked on the land since he was 16 years of age.

#### Workplace health and safety issues

- 50. WHSQ conducted an investigation into the incident after receiving notification from the police on 2 January 2014. Their investigation was concluded on 31 March 2014.
- 51. Although a contravention was identified by WHSQ in relation to operating the quad bike without wearing appropriate personal protective equipment (i.e., a helmet), Mr Beauchamp was identified as the duty holder. In the circumstances, and considering that it was a family business, no notices were issued by WHSQ for the contravention.

#### **Emergency services response**

- 52. Mrs Beauchamp has expressed concern that she had difficulty with the emergency services call centre accepting their address. She said that this was somewhat frustrating and unnecessary as Boulia is a small community and everyone knows where everyone lives and they are on a major road.
- 53. Senior Constable Blackburn advised that when he received the call from the Boulia Medical Centre, he immediately knew the residence they were referring to because he was aware of where Stockport Station was.
- 54. The ambulance response time was appropriate in the circumstances.

#### Conclusions

- 55. Mr Beauchamp died as a result of head injuries when he fell from his quad bike. I accept he was taking a risk in continuing to ride the quad bike at his age and with his health conditions and in not wearing a helmet. He had been a farmer all his working life and no doubt was engaging in something he loved.
- 56. The evidence at the scene is confusing as to what happened. I do not think he was affected by cattle in the yard as the photographs show very clear evidence of the quad bike tracks in the soft dirt but no signs of cattle tracks.
- 57. It seems likely he suffered from some other physical incapacity due to his health and/or in combination with the very hot weather. This has brought him to travel in the loop fashion he did and it is likely he hit the gate and pushed it back, but not intentionally. In doing so he came off the guad bike a short distance away. His

injuries did not occur in a roll over. A helmet may have provided him with the best chance to avoid the head injuries which caused his death.

# Findings required by s. 45

Identity of the deceased – Reginald Hasted BEAUCHAMP

How he died - He died when he came off his quad bike and

suffered fatal head injuries. The precise circumstances as to how this happened are unclear but it is likely he suffered a medical incapacity which caused him to collide with a gate and lose

control and fall.

Place of death – Stockport Station Boulia QLD 4829

**Date of death**— 27 December 2013

Cause of death – 1(a). Head injury

due to, or as a consequence of

1(b). Quad bike accident (rider)

#### **Comments and recommendations**

I close the inquest in respect to my findings as required by s. 45. I will be considering any comments and recommendations in the second phase of this multiple inquest.

John Lock Deputy State Coroner Brisbane 26 September 2014