IN THE CORONERS COURT
OF VICTORIA
AT MELBOURNE

COR 2020 006851

FINDING INTO DEATH WITHOUT INQUEST

Form 38 Rule 63(2)

*Section 67 of the **Coroners Act 2008***

Findings of:	Jacqui Hawkins, Deputy State Coroner
Deceased:	Dominic Salvatore Mele
Date of birth:	27 June 1967
Date of death:	17 December 2020
Cause of death:	1(a) Mechanical asphyxia in the setting of a ride-on lawnmower incident (driver)
Place of death:	17 William Road, Lilydale, Victoria, 3140
Keywords:	RIDE-ON LAWNMOWER; MECHANICAL ASPHYXIA; GRADIENT GAUGE; ROLL-OVER PROTECTION STRUCTURE; WORKSAFE; PRODUCT SAFETY AUSTRALIA; AUSTRALIAN COMPETITION AND CONSUMER COMMISSION

INTRODUCTION

1. Dominic Salvatore Mele was 53 years old when he died on 17 December 2020. At the time of his death, Mr Mele was the owner and operator of Dominic's Gardening Services. He is survived by his wife, Tracey Mele.

THE CORONIAL INVESTIGATION

2. Mr Mele's death was reported to the Coroner as it fell within the definition of a reportable death in the *Coroners Act 2008* (the Act). Reportable deaths include deaths that are unexpected, unnatural or violent or result from accident or injury.

3. The role of a coroner is to independently investigate reportable deaths to establish, if possible, identity, medical cause of death, and surrounding circumstances. Surrounding circumstances are limited to events which are sufficiently proximate and causally related to the death. The purpose of a coronial investigation is to establish the facts, not to cast blame or determine criminal or civil liability.

4. Under the Act, coroners also have the important functions of helping to prevent deaths and promoting public health and safety and the administration of justice through the making of comments or recommendations in appropriate cases about any matter connected to the death under investigation.

5. Victoria Police assigned Leading Senior Constable Matthew Lutwyche to be the Coroner's Investigator for the investigation of Mr Mele's death. The Coroner's Investigator conducted inquiries on my behalf, including taking statements from witnesses – such as family, the forensic pathologist, treating clinicians and investigating officers – and submitted a coronial brief of evidence.

6. I also requested the Coroner's Prevention Unit (**CPU**)[1] to provide me with relevant data relating to ride-on lawn mower accidents, specifically where the mower has rolled over. Mr Mele's wife, Tracey Mele, also provided me with a detailed document and root cause analysis

[1] The Coroners Prevention Unit (CPU) was established in 2008 to strengthen the prevention role of the coroner. The unit assists the Coroner with research in matters related to public health and safety and in relation to the formulation of prevention recommendations. The CPU also reviews medical care and treatment in cases referred by the coroner. The CPU is comprised of health professionals with training in a range of areas including medicine, nursing, public health and mental health.

of potential improvements in the use of ride-on lawn mowers to prevent similar deaths occurring in the future. This information is discussed below.

7. This finding draws on the totality of the coronial investigation into the death of Dominic Salvatore Mele including evidence contained in the coronial brief. Whilst I have reviewed all the material, I will only refer to that which is directly relevant to my findings or necessary for narrative clarity. In the coronial jurisdiction, facts must be established on the balance of probabilities.[2]

MATTERS IN RELATION TO WHICH A FINDING MUST, IF POSSIBLE, BE MADE

Identity of the deceased

8. On 21 December 2020, Dominic Salvatore Mele, born 27 June 1967, was visually identified by his brother, Joseph Mele, who signed a formal statement of identification to this effect.

9. Identity is not in dispute and requires no further investigation.

Medical cause of death

10. On 18 December 2020, Dr Gregory Young, Forensic Pathologist from the Victorian Institute of Forensic Medicine (**VIFM**), conducted an examination. Dr Young considered the post-mortem computed tomography (**CT**) scan, the Victoria Police Report of Death Form 83, and photographs from the scene and provided a written report of his findings.

11. The post-mortem examination showed florid congestion to the face, neck, and shoulders, and Tardieu spots over the right shoulder and chest. Abrasions were seen on the face and upper limbs and bruising on the left lower leg. No unexpected signs of trauma were seen. An internal examination was not performed.

12. A post-mortem CT scan showed no obvious fractures or pneumothorax. Previous surgery to the left knee was noted. The urinary bladder was distended, had a large diverticulum, and was associated with bilateral hydronephrosis.

[2] Subject to the principles enunciated in *Briginshaw v Briginshaw* (1938) 60 CLR 336. The effect of this and similar authorities is that coroners should not make adverse findings against, or comments about, individuals unless the evidence provides a comfortable level of satisfaction as to those matters taking into account the consequences of such findings or comments.

13. Routine toxicological analysis of post-mortem samples identified a small amount of Paroxetine.[3]

14. Traumatic asphyxia and positional asphyxia are both forms of mechanical asphyxia whereby there is positioning of the body (for example, face down) and mechanical fixation of the neck and chest that restricts inspiration and respiratory movements, thus preventing effective breathing. Whilst non-specific, features may include congestion of the shoulder, neck and face, conjunctival petechiae and haemorrhages, and bruises and abrasions from the weight of whatever was on the chest or neck.

15. Dr Young provided an opinion that the medical cause of death was 1 (a) mechanical asphyxia in the setting of a ride-on lawnmower incident (driver). I accept Dr Young's opinion.

Circumstances in which the death occurred

16. On 17 December 2020, Mr Mele arrived at Lot 3/17-19 William Road, Lilydale for a mowing job at about 10:30am. Dashcam footage on Mr Mele's vehicle shows him preparing to unload a Ferris F-50XT ride on mower. It is believed that shortly after commencing work, the ride-on mower rolled sideways as Mr Mele was mowing across an embankment. Mr Mele was pinned underneath the vehicle, with the top of the seat pressed against the back of his neck.

17. A number of witnesses passed the block of land over the following hours and did not notice any activity or hear the sound of a lawnmower running. At about 3:00pm, a witness saw the flipped lawnmower and found Mr Mele underneath it. Emergency services attended, and Mr Mele was declared deceased.

18. The embankment where the incident occurred drops away at an approximately 60-degree angle for 1.94 metres. There was nothing at the scene to indicate any other people or vehicles were involved.

19. On 18 January 2021, a full mechanical examination of the mower was conducted. No faults were found with the mechanical operation of the machine. It was noted that this machine was not fitted with a roll over protection structure.

[3] Paroxetine is a selective serotonin reuptake inhibitor indicated for major depression, obsessive-compulsive disorder, panic disorder, social phobia, generalised anxiety disorder and post-traumatic stress disorder.

20. WorkSafe Victoria conducted an investigation into the incident, however did not proceed with any charges.

FAMILY CONCERNS

21. Mr Mele's wife, Tracey Mele, wrote to the court regarding the concerns she held about ride-on lawnmowers and the risk of serious injury or death to operators. Mrs Mele acknowledges that whilst accidents like this do happen, there are preventative measures which may be implemented to reduce the risk to future operators of ride-on lawnmowers.

22. Mrs Mele provided a detailed root cause analysis and suggested improvements to existing and future ride-on lawnmowers. I have considered this document in detail, and whilst I acknowledge the various recommendations she has made, I have focused on those which I consider to be achievable and effective in preventing incidents of this kind occurring in the future.

23. Mrs Mele notes that ride-on lawn mower safety relies on administrative and user-based controls which can be ineffective. She suggests implementing higher impact controls. She notes that despite the risk of using ride-on lawnmowers on steep slopes, this risk is often ignored or unknown by users. Mrs Mele suggests better operator training, as well as the use of slop gauges, roll-over protectors, and seatbelts. I agree with this suggestion.

24. Mrs Mele discussed the issues with correctly identifying the gradient of a slope. Ride-on lawnmower user manuals often come with a paper gauge to identify the slope gradient, however Mrs Mele quite rightly points out that a single paper gauge is likely to be ineffective for most ride-on lawnmower users. She notes that it assumes a level of competency to understand and assess the gradient, and further that a paper gauge is unlikely to be used by the operator. It could be damaged, lost or not brought to each job site. Further, it assumes a simple, flat terrain and the availability of a vertical surface to measure against.

25. Mrs Mele suggests implementing an in-built gauge or slope alarm to be used for in-situ measurement of gradient. I agree with this suggestion.

CPU REVIEW

26. The Coroner's Prevention Unit conducted a review of this case and provided me with details of other ride-on lawn mower fatalities in Victoria. For the period between 1 January 2010 and

15 May 2022, the CPU identified five deaths, including a death currently under investigation, where the deceased died following a roll-over on a ride-on lawnmower.

27. Coroner Leveasque Peterson has previously made a recommendation to Product Safety Australia that an updated product safety alert for ride-on lawnmowers be issued. It was suggested that an alert be issued to reiterate advice to riders to wear a seatbelt if there is a roll-over protection structure, not to mow on steep angles, nor to travel downhill with the gearbox in neutral. On 3 November 2021, the General Manager of Product Safety Australia advised that the safety alert had been updated. I consider this recommendation to be applicable to Mr Mele's death.

Discussion

28. The manufacturer of Mr Mele's lawnmower recommends not to operate on a slope greater than 15 degrees.[4] The embankment where the incident occurred drops away at about a 60-degree decline. The CPU noted that many people may not be able to evaluate the slope angle by sight.

29. The CPU found conflicting advice on the safest way to ride a ride-on lawnmower on slopes. The Australian Competition and Consumer Commission's advice is to *"mow up and down on slopes – NEVER mow across"*[5] whereas the operator's manual for Mr Mele's Ferris ride-on lawnmower states *"always mow across slopes, not up and down (to maintain traction on the wheels)"*.[6]

30. The CPU notes that the Ferris F50XT has since been discontinued. The model did not have a roll-over protection structure. If it did, this may have prevented his death. Ferris have other ride-on lawnmowers currently on the market without roll-over protection structures fitted.

[4] Ferris, 'Operator's Manual F50XT Series Zero-Turn Riding Mower' https.//bsintek.basco.com/BriggsDocumentDisplay/default.aspx?filename=jgisuKU.TFzXFix2 , accessed 17 May 2022.

[5] Australian Competition and Consumer Commission, 'Riding safely with ride-on lawnmowers' https://www.productsafety.gov.au/news/riding-safely-with-ride-on-lawnmowers , accessed 16 May 2022.

[6] Ferris, 'Operator's Manual F50XT Series Zero-Turn Riding Mower' https.//bsintek.basco.com/BriggsDocumentDisplay/default.aspx?filename=jgisuKU.TFzXFix2 , accessed 17 May 2022.

FINDINGS AND CONCLUSION

31. Pursuant to section 67(1) of the *Coroners Act 2008* I make the following findings:

    a) the identity of the deceased was Dominic Salvatore Mele, born 27 June 1967;

    b) the death occurred on 17 December 2020 at 17 William Road, Lilydale, Victoria, 3140, from Mechanical asphyxia in the setting of a ride-on lawnmower incident (driver); and

    c) the death occurred in the circumstances described above.

32. Having considered all of the circumstances, I am satisfied that Mr Mele's death was the result of an accident from his ride-on lawnmower rolling over as he drove it up across a steep embankment. His death may have been preventable had the lawnmower been fitted with roll-over protections structures.

33. I convey my sincere condolences to Mr Mele's family for their loss.

COMMENTS

34. Pursuant to section 67(3) of the Act, I make the following comments connected with the death.

35. Driving a lawnmower on slopes or an uneven surface poses a high risk of a roll-over which could cause serious injuries or fatality.

36. Since 2010 there have been five fatalities from a roll-over on a ride-on lawnmower, four of these have been in the past four years.

37. There is conflicting advice on the safest way to ride a ride-on lawnmower on slopes. The Australian Competition and Consumer Commission's (ACCC) advice is to mow up and down on slopes, and to never mow across, whereas the operator manual for the Ferris ride-on lawnmower operated by Mr Mele recommends to mow across slopes, and not to mow up and down. In accordance with the operating manual, Mr Mele was mowing across the slope at the time of the incident.

38. The Ferris F50XT ride-on lawnmower Mr Mele was using did not have a roll-over protection structure fitted. These are mandatory on tractors, but not on ride-on lawnmowers. I note that if protection structures had been installed, this may have prevented Mr Mele's death.

RECOMMENDATIONS

39. Pursuant to section 72(2) of the Act, I make the following recommendations:

Recommendation One:

I recommend that Product Safety Australia consider updating the mandatory safety standard to ensure that ride-on lawnmowers be fitted with an inbuilt gradient gauge or alarm to allow operators to easily assess the gradient risk.

Recommendation Two:

I recommend that WorkSafe Victoria implement a safety communication campaign specific to ride-own lawnmowers and the risk of roll-over to ensure better education and to highlight the risk to operators.

40. Pursuant to section 73(1A) of the Act, I order that this finding be published on the Coroners Court of Victoria website in accordance with the rules.

I direct that a copy of this finding be provided to the following:

Tracey Mele, Senior Next of Kin

Ms Lauren White, General Manager of Risk Assessment and Operations, Product Safety Australia, Australian Competition and Consumer Commission

Mr Colin Radford, Chief Executive Officer, WorkSafe Victoria

Leading Senior Constable Matthew Lutwyche, Coroner's Investigator

Signature:

Jacqui Hawkins, Deputy State Coroner

Date : 18 July 2022