

IN THE CORONERS COURT
OF VICTORIA
AT MELBOURNE

COR 2018 002995

FINDING INTO DEATH WITHOUT INQUEST

Form 38 Rule 63(2)

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

Findings of:	Coroner Leveasque Peterson
Deceased:	David James Klingberg
Date of birth:	17 April 1963
Date of death:	24 June 2018
Cause of death:	1a : Complications of traumatic head injury sustained in a work place incident (palliated)
Place of death:	Royal Melbourne Hospital 300 Grattan Street Parkville Victoria 3052
Keywords:	Workplace injury, accidental death, piling rig, auxiliary line, headstrike, industry standards

INTRODUCTION

1. On 24 June 2018, David James Klingberg (**David**) was 55 years old when he died following a workplace incident. At the time, David lived in Albany Creek, Queensland and is survived by his wife, Rosemarie, and children, Lauren and Matthew.
2. David and Rosemarie were preparing for Matthew's 21st birthday, Lauren's engagement and their retirement.
3. David worked for Wagstaff Piling Pty Ltd (**Wagstaff**) since 1989 as a Pile Testing Engineer, and after five years, became the manager of that division. His role included testing and monitoring piling operations undertaken nation-wide, and he was considered one of the most experienced persons in piling in Australia. Rosemarie described him as a safety-conscious worker, who would not engage in risky behaviour and always used appropriate safety equipment.

The West Gate Tunnel Project

4. In 2018, the West Gate Tunnel Project (**the Project**) was set to commence and was a joint venture between CPB Contractors Pty Ltd (**CPB**) and John Holland Pty Ltd (**John Holland**). Wagstaff was contracted to undertake 'East Test Piling' works, consisting of driving several piles into the ground to test ground conditions and collect corresponding data in preparation for the construction of an elevated roadway.
5. The piles are driven into the ground by machine known as a '*piling rig*'. The machine is on tracks, similar to a tank, and using a hydraulic-powered hammer, drills into the ground. The piling rig has an auxiliary line (also known as a whip line), made of rope or cable, and which serves to assist the main winch in lifting and manipulating equipment and materials on the rig. The end of the auxiliary line can be fitted with different apparatus (depending on the circumstances) and in this instance, it was fitted with a hook. For the Project, Wagstaff used two identical piling rigs from Junttan Oy Pty (**Junttan**) Ltd and which were delivered in May 2018.¹ The piling rig appears as below, obtained from Junttan directly:

¹ Model PM 25H fitted with a HHK-7/9A hammer.

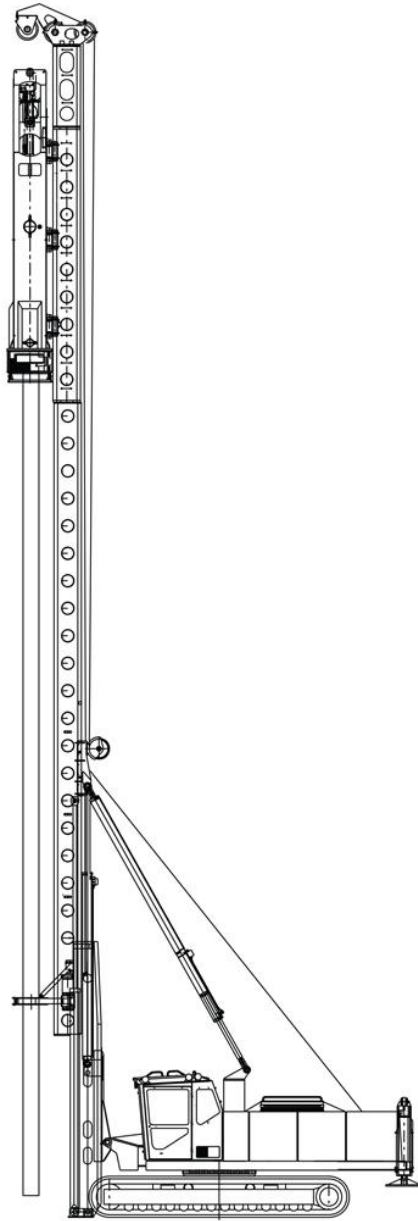


Figure 1: Junttan Piling Rig Model PM 25H

6. In preparation for the Project, a service engineer of Junttan attended the Wagstaff workshop on 28 May 2018. They assembled the piling rigs and instructed Wagstaff employees on maintenance and operation. This meeting was attended to by three Wagstaff staff: two operators and one supervisor. While David did not attend (and the reason for the same is unclear), his teammate, Karl Gunther (**Mr Gunther**), who was operating the piling rig on the morning of David's death, was in attendance.
7. During the training, the Junttan service engineer explained to Wagstaff pile operators that the auxiliary line should be stowed behind the pile arm when the piling rig was not in use. They recommended the use of a nylon cord to fix the auxiliary line, however, Wagstaff operators

indicated they preferred to use a metal chain instead, for additional weight. According to the service engineer, the majority of Junttan customers set up the auxiliary line in this way.

8. During the induction, the service engineer observed the Wagstaff employees in attendance were moving the piling rigs around the site with the auxiliary wire hook correctly positioned behind the pile arm.
9. In June 2018, the piling rigs were transported to the Project site and an exclusion zone of 25 metres was established. Staff and contractors were informed that only trained and authorised worker were permitted to enter the exclusion zone.
10. Prior to work commencing on the Project, Wagstaff prepared Safe Work Method Statements which were reviewed by CPB and John Holland. All persons involved in the Project were inducted and signed into the Safe Work Method Statements.
11. Documentation demonstrates that David completed the '*West Gate Tunnel online induction*', and '*OHS construction induction – general safety*'.

THE CORONIAL INVESTIGATION

12. David'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. I note that David normally resided in Queensland however as his death occurred in Victoria, it was reported to the Court pursuant to section 4(1) of the Act.
13. 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.
14. 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.
15. Victoria Police assigned an officer to be the Coronal Investigator for the investigation of David's death. The Coronal 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.

16. Section 7 of the Act provides that a coroner should liaise with other investigative authorities, official bodies or statutory officers to avoid unnecessary duplication of inquiries and investigations. In relation to this case, WorkSafe Victoria (**WorkSafe**) conducted an investigation and provided the Court with a copy of its brief, which contained several statements and exhibits.
17. Coroner Katherine Lorenz initially held carriage of the investigation into David's death until I assumed carriage in September 2021 for the purposes of obtaining additional material, finalising the investigation and handing down this Finding.
18. This finding draws on the totality of the coronial investigation into the death of David 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

Circumstances in which the death occurred

19. On 14 June 2018, at approximately 7:30am, David arrived at the Project site. His team, comprising Mr Gunther and Henerith Lakmal (**Mr Lakmal**) were scheduled to perform three restrike tests on concrete piles that day. This was estimated to take approximately 90 minutes.
20. During the team's 'pre-start' meeting, the Site Supervisor discussed that day's activities, risks and corresponding management, Safe Work Method statements and exclusion zones. Following the meeting, the team discussed their roles: Mr Gunther was operating the piling rig inside its cabin, Mr Lakmal was entering data into the Pile Driving Analyser Computer approximately 15 metres from the machine and David was standing next to the piling rig, outside the cabin, assisting Mr Gunther to align the hammer onto the piles and providing direction to Mr Lakmal. The team performed the first of three piles tests without incident.

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.

21. At around 9am, when the team were preparing for the second pile test, the hook on the auxiliary line became jammed under the piling rig's mast – its central column. The auxiliary line became under tension, and David approached the piling rig to attempt to release it. The hook released and struck David in his face, causing him to fall to the ground. I note that David was wearing his hard hat at the time, and that it came loose due to the impact.
22. Mr Gunther immediately exited the cabin and tended to David as Mr Lakmal went to the site office, approximately 50 metres away, and alerted CPB and John Holland staff. Emergency services were contacted.
23. The Site Manager and Foreman approached David and noticed he was bleeding from his mouth. They placed him in the recovery position. The Site Manager retrieved the first aid kit from the site office and when they returned, noticed that David had stopped breathing and was pulseless. They positioned David onto his back and began cardiopulmonary resuscitation (CPR) until Ambulance Victoria paramedics arrived and took over.
24. At 9:39am, David arrived at the Royal Melbourne Hospital and imaging showed a cerebral oedema presumably in the context of hypoxic ischaemic encephalopathy. There was a small volume intracranial subarachnoid haemorrhage, with possible small subdural component. Also identified were several facial fractures.
25. David was placed in an induced coma and admitted to the intensive care unit (ICU). A drain was inserted to attempt to relieve intracranial pressure however, repeat imaging showed worsening of his hypoxic brain injury. In a meeting with David's family, clinicians discussed his poor prognosis and the futility of ongoing care.
26. David was transitioned to a palliative pathway, and he passed away on 24 June 2018.

Identity of the deceased

27. On 22 June 2018, David James Klingberg, born 17 April 1963, was visually identified by his wife, Rosemarie Klingberg.
28. Identity is not in dispute and requires no further investigation.

Medical cause of death

29. Forensic Pathologist Dr Heinrich Bouwer of the Victorian Institute of Forensic Medicine (**VIFM**) conducted an examination on 25 June 2018 and provided a written report of his findings dated 5 July 2018.
30. The post-mortem examination revealed signs of medical intervention consistent with the recorded history. There were haematomas (bruises) and lacerations to the head.
31. A post-mortem computed tomography (**CT**) scan showed multiple comminuted bilateral facial and jaw fractures, marked brain swelling with loss of grey/white differentiation and minor frontal convexity subarachnoid haemorrhage.
32. Toxicological analysis of ante-mortem samples collected by the Royal Melbourne Hospital at 1:20pm on 25 June 2018 detected morphine,³ midazolam,⁴ levetiracetam,⁵ laudanoline,⁶ metoclopramide,⁷ and metronidazole.⁸
33. Dr Bouwer provided an opinion that the medical cause of death was 1(a) *complications of traumatic head injury sustained in a work place incident (palliated)*.
34. I accept Dr Bouwer's opinion as to cause of death.

WORKSAFE VICTORIA INVESTIGATION

35. On 14 June 2018, at approximately 9:30am, WorkSafe Victoria (**WorkSafe**) were notified of the incident and attended the scene. Victoria Police were already in attendance and had secured the scene.
36. WorkSafe undertook a comprehensive investigation into the incident and formed several conclusions, notably:
 - a) Documented systems had been prepared, and site inductions had been undertaken prior to the commencement of the Project works,

³ An opioid analgesic.

⁴ Used before medical procedures and surgeries to induce drowsiness and relieve anxiety.

⁵ An antiepileptic medication to control seizures.

⁶ A muscle relaxant commonly used in anaesthesia.

⁷ An antiemetic.

⁸ An antibiotic.

- b) The exclusion zone had been established and barricaded in accordance with the Job Safety & Environment Analysis; and,
 - c) There were no systems-related deficiencies identified in the initial or in subsequent scene visits by the WorkSafe Investigator.
37. WorkSafe did not issue any notice(s) pursuant to the *Occupational Health and Safety Act 2004* to Wagstaff or other involved bodies. No breaches of the *Occupational Health and Safety Act 2004* were identified in connection with David's death.

Safety Standards Regarding Auxiliary Lines at the Time of David's Death

38. I turned my mind to consider the industry guidelines and standards for the safe stowing of auxiliary lines when using piling rigs which were in force at the time of David's death, and whether changes have been made since to reduce the likelihood of a similar tragedy reoccurring.

Industry guidelines in force in June 2018

39. The WorkSafe investigation noted that at the time of David's death, there was minimal information, industry-wide, pertaining to risks or hazards associated with auxiliary lines on piling rigs. It stated that *'prior to the incident, there was no published standard or code that specifically dealt with instructions on the position of the auxiliary line when not in use'*.
40. The WorkSafe investigation revealed that *'whilst it was general industry practice to secure the [auxiliary] line, there were also a number of various other practices adopted by the industry'*. It was commonplace for the auxiliary line to be attached to an anchor point, or to hang free with a headache ball⁹ attached.
41. The only relevant industry guidance identified by WorkSafe as being in effect at this time and specifically related to piling works was *'AS2159 – 2009 – Piling, Design and installation'* relating to pile design and piling tolerances, and the *'Piling Work & Foundation Engineering Sites – Industry Standard'* (**the Industry Standard**), published in 2014 and co-developed by the Piling and Foundation Safety Federation and WorkSafe.¹⁰

⁹ A heavy weighted ball at the end of the line.

¹⁰ Though WorkSafe noted that *'all specific piling content was supplied by the piling members'*.

42. Neither of these documents prescribe specific work practices relating to securing the auxiliary line during storage, transport or use of the piling rig.

Education provided by Junttan to customers

43. In the absence of instruction provided in the Industry Standard, it was apparent that education regarding securing auxiliary lines was provided by Junttan, as the piling rigs' manufacturer. The operator's manual of the piling rig used by Wagstaff stated that there has to be sufficient, but not excess, slack in the ropes to operate the hammer safely. Junttan explained to WorkSafe that the operator's manual did not explicitly reference hooks on auxiliary lines, since piling rigs are not always fitted with hooks depending on business needs.
44. References in the operator's manual were not specific to stowing the auxiliary line during operations, rather, this was only discussed and trained when Junttan representatives commissioned the machine. This was provided to Wagstaff staff during the induction on 28 May 2018, as discussed above.
45. WorkSafe formed a view that Junttan did not foresee that a poorly secured, or unsecured, auxiliary line may pose a risk of serious injury and/or death. Andrew Taylor, a WorkSafe engineer, reviewed the Junttan operator's manual and stated that it *'does not provide any controls or guidance in how to store the winch rope when moving the drilling rig and I believe therefore that the manufacturer did not foresee the risks and potential outcomes of not storing the [auxiliary line] safely'*.
46. Junttan was not aware of any other incident(s) relating to unsecured auxiliary lines.

Developments to Auxiliary Line Safety Following David's Death

Safety forum of the Piling and Foundation Specialists Federation

47. Following David's death, on 29 August 2018, the Piling and Foundation Specialists Federation (**PFSF**) held a safety forum and discussed, amongst other things, auxiliary line restraint control devices. Six stakeholders from various construction companies, including Wagstaff's National Construction Manager and others not associated with David's death, presented restraint devices that they fitted to their piling rigs in direct response to the incident of 14 June 2018.

48. The auxiliary line restraint device made by Wagstaff, in consultation with an engineering company specialising in piling equipment, is available for retrofitting to any make of piling rig.
49. Arising from the safety forum, the PFSF released a Good Practice Industry Recommendation, entitled '*Recommended Auxiliary Line Devices*' (**the PFSF Recommendation**). The PFSF Recommendation reads, '*it was the safety committee's unanimous view that all the restraint devices presented at the safety forum could be recommended as engineered solution that improve the safe operation of the auxiliary line on the piling rigs they were designed for*'.
50. The PFSF safety committee also noted that operations and maintenance manuals for piling rigs should be updated to reference use of the retrospectively fitted restraint control devices.
51. All information available from the safety forum was shared with the broader piling community, main contractor community, main road agencies Australia-wide, PFSF's equivalent organisations in the United Kingdom, the FPS, and in the United States, the DFI.

Actions taken by Junttan following David's death

52. Junttan informed WorkSafe that they used an identical model to that used by Wagstaff and attempted to recreate the fatal incident however, they were unable to do so.
53. In response to concerns expressed by members of the Australian Piling Association, Junttan designed a device to allow securing of the auxiliary line – similar to those exhibited to the PFSF safety forum. Junttan displayed the designs at the Australian Piling Association seminar in late August 2018.
54. On 26 June 2018, Junttan issued a global Safety Bulletin (**the Bulletin**), entitled '*Additional illustration on manual safety procedures presented in commissioning*'. This Bulletin was intended to supplement the on-site education provided by Junttan employees to their customers.
55. The Bulletin recognised the risk posed by unsecure auxiliary lines:

'Pile rope may cause serious injury or damage if it is not secured and monitored. If left uncontrolled, slacking and/or unsecured, it can get tangled behind obstacles or get caught in the structure of the piling rig. If the caught up and tensioned rope gets released unexpectedly it can cause serious injury to personnel or damage the machine.'

For this reason, the rope has to be secured at all times either to the pile, to the machine, or to the hammer’.

56. The Bulletin provided instructions on securing the auxiliary line when storing, transporting and using piling rigs, and contained images demonstrating proper technique. The Bulletin has been incorporated into Junttan’s operator’s manual.

DISCUSSION ON CURRENT INDUSTRY STANDARD

57. Prior to David’s death, the PFSF was part of a working group tasked with drafting an appendix to the *Piling Work & Foundation Engineering Sites – Industry Standard*, which ‘sought to specifically target piling work in the rail corridor’. The resulting document, ‘*Undertaking Piling and Foundation Work Safely in the Rail Corridor in Victoria*’, was published by the PFSF in June 2019 (**the Rail Corridor Guideline**).
58. The Rail Corridor Guideline stated that it is ‘*for use by Principal Contractors, Piling and foundation Contractors and other parties when planning for and performing piling and foundation works in the rail corridor*’.¹¹ It focuses on the safe assembly and positioning of piling rigs in the context of nearby railway lines over overhead equipment.
59. In Appendix B, ‘*Issues and Consideration Tables*’, auxiliary line practices are discussed.
60. The Rail Corridor Guideline states that ‘*the auxiliary winch must have an engineered restraint control device, the engineered device is engaged when the line is attached to the rigs stowage point*’. I consider this is largely consistent with the PFSF Recommendation and the Junttan Bulletin.
61. It continues that ‘*when the auxiliary line is not in use, the piling rig must not be operated unless the auxiliary line is attached to the manufacturer approved and engineered restraint device*’. It makes explicit reference to the PFSF Recommendation on auxiliary line best practice and directs readers to the PFSF website for further information.
62. While I consider it a positive step that the Rail Corridor Guideline adopts and explicitly references the importance of securing auxiliary lines when they are not in use, I note that it is an appendix to the Industry Standard and it does not replace or otherwise amend the body of that document.

¹¹ The rail corridor is the area including and surrounding the railway lines.

63. Indeed, the Industry Standard, which was co-authored by WorkSafe and the PFSF, *'Piling Work & Foundation Engineering Sites – Industry Standard'* has not been amended or updated since David's death. Copies of the Industry Standard available on the WorkSafe and PFSF websites indicate that no changes have been made since January 2014 when it was first introduced.
64. Despite that many key stakeholders in the industry have recognised and responded to the risks associated with unsecured auxiliary lines, it is unclear why the Industry Standard has not been changed in the almost eight years since David's death to reflect the same.
65. In the Industry Standard, there is no reference to the importance of, or methods to secure a piling rig's auxiliary line. Rather, there are several references to the *'operator's manual'*. In Appendix C, the Industry Standard provides an example competency assessment for piling rig operators, entitled, *'Sample training outline and assessment criteria for trainee rig operators'*. Two of the sample assessment criteria are, *'understands critical components and safety controls in the rig as per the operator's manual'* and *'demonstrates a full understanding of the piling rig's safety devices as per the operator's manual'*. It follows that whether operators consulting the Industry Standard will become aware of the importance of securing the auxiliary line depends on several factors including (i) whether their company adopts the example assessment criteria in Appendix C, (ii) whether the manufacturer of their piling rig references securing the auxiliary line in their operator's manual (such as Junttan) and (iii) whether they consult the supplementary Rail Corridor Guideline.
66. In its statement to the Court, WorkSafe outlined its position: *'In WorkSafe's view, there are hazards and risks regardless if whether or not the auxiliary line is secured or unsecured during piling operations'*. WorkSafe pointed to an example during the Victorian level crossing removal project during which an auxiliary line was propelled into the air and landed on an adjacent house's roof. This incident occurred before David's death.
67. While I accept WorkSafe's proposition that securing auxiliary lines does not entirely remove the risks of serious injury or death, I note that several stakeholders in the industry, including the PFSF and several piling rig manufacturers (including those not involved in David's death) have since embraced and endorsed restraint devices as a method to reduce this risk.
68. From a coronial perspective, which looks to the reduction of reportable deaths such as David's, and the enhancement of public health and safety, I consider that industry-supported

methods to reduce harm to Victorians are a step in the right direction, even if they do not eliminate the risk completely.

69. In my view, where several key members across the industry, including manufacturers, operations companies and oversight bodies, have recognised the risk of unsecured auxiliary lines and have developed and published strategies to minimise that risk, it is prudent that the Industry Standard reflect those developments.
70. I will make an apposite recommendation in this regard.

FINDINGS AND CONCLUSION

71. Pursuant to section 67(1) of the *Coroners Act 2008* I make the following findings:
- a) the identity of the deceased was David James Klingberg, born 17 April 1963;
 - b) the death occurred on 24 June 2018 at Royal Melbourne Hospital, 300 Grattan Street Parkville Victoria 3052, from the complications of traumatic head injury sustained in a workplace incident for which he was palliated; and,
 - c) the death occurred in the circumstances described above.
72. The evidence supports a finding that David's death occurred due to a tragic accident and that at the time of his death, there was little awareness around the risks associated with unsecured auxiliary lines, particularly when they came under tension, such that his employer could not have foreseen the events which occurred.

RECOMMENDATIONS

Pursuant to section 72(2) of the Act, I make the following recommendation:

- (i) I recommend that **WorkSafe Victoria** consult with the **Piling and Foundation Safety Federation** with the view to updating the '*Piling Work & Foundation Engineering Sites – Industry Standard*' to include reference to securing the auxiliary line.

I convey my sincere condolences to David's family for their loss and acknowledge their generosity for donating his organs.

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:

Rosemarie Klingberg, Senior Next of Kin

Wagstaff Piling Pty Ltd

Junttan Oy Pty Ltd

WorkSafe Victoria

Piling and Foundation Safety Federation

Sergeant Craig Wright, Coronial Investigator

Signature:



Coroner Leveasque Peterson

Date: 29 October 2025

NOTE: Under section 83 of the ***Coroners Act 2008*** ('the Act'), a person with sufficient interest in an investigation may appeal to the Trial Division of the Supreme Court against the findings of a coroner in respect of a death after an investigation. An appeal must be made within 6 months after the day on which the determination is made, unless the Supreme Court grants leave to appeal out of time under section 86 of the Act.
