

SHERIFFDOM OF NORTH STRATHCLYDE AT DUMBARTON

[2022] FAI 39

B118/22

DETERMINATION

BY

SHERIFF JOHN R A HAMILTON

UNDER THE INQUIRIES INTO FATAL ACCIDENTS AND SUDDEN DEATHS ETC
(SCOTLAND) ACT 2016

into the death of

CHRISTOPHER MOSES

Dumbarton, 18 August 2022

The Sheriff, having considered the information presented at an Inquiry on 28 July 2022 under sections 2(1) and 2(3) of the Inquiries into Fatal Accidents and Sudden Deaths etc (Scotland) Act 2016, Finds and Determines:

1. That in respect of paragraph (a) of section 26(2), Christopher Moses, born 9 December 1982, died on 12 January 2019 at Arterman Road, Rhu. Helensburgh.
2. That in respect of section 26(2) paragraph (b), the accident took place on 12 January 2019 at Arterman Road, Rhu. Helensburgh.
3. That in respect of section 26(2) paragraph (c), the cause of death was severe head injury caused by falling tree trunk.
4. That in respect of section 26(2) paragraph (d), the cause or causes of the accident resulting in death was the upper section of the tree becoming separated

from the rest of the tree, falling in the opposite direction than was intended and striking Christopher Moses causing him to sustain fatal head injuries.

5. I make no finding under paragraph (e) (precautions which (i) could reasonably have been taken, and (ii) had they been taken might realistically resulted in the death being avoided):

6. I make no finding under paragraph (f), (any defects in the system of working which contributed to the death or any accident resulting in the death):

7. I make no finding under paragraph (g) (any other facts which are relevant to the circumstances of the death).

Recommendations

8. No recommendation is made under section 26(1)(b) and (4).

Introduction

[1] This is a mandatory public Inquiry into the death of Christopher Moses in terms of the Fatal Accidents and Sudden Deaths etc. (Scotland) Act 2016 (“the 2016 Act”), given that the death happened at his place of work.

Christopher Moses was self-employed as a tree surgeon on 12 January 2019. The purpose of the Inquiry was to establish the circumstance of the death and to consider what steps, if any, might be taken to prevent other deaths in similar circumstances.

The participants and their representatives at the Inquiry

[2] Crown was represented by Trina Sinclair, Procurator Fiscal Depute. No other party made appearance or representation. Christopher Moses's family attended the hearing but made appearance or representation.

[3] The Crown lodged a Notice to Admit Information. This was read by the Depute and admitted into evidence. The Crown led two witnesses: Christopher Smith and Matthew O'Brien.

Introduction

[4] Christopher Moses was born on 9 December 1982. He was a self-employed tree surgeon and ran his own business on a part-time basis. His primary occupation was as a maths teacher at Vale of Leven Academy in Alexandria. His business had no employees. Prior to his employment as a tree surgeon he had been in the Royal Marines for 13 years and had attained the rank of Lieutenant Colonel. He left the Royal Marines in 2017 with a bursary to obtain further qualifications for a post-military career. He chose to train as a tree surgeon. He also completed a postgraduate degree in education in 2019. He is survived by his wife, JM.

- [5] Mr Moses had successfully completed certified and approved training in:
“Access a Tree Using a rope and Harness and Aerial Tree Rescue” on the
22 November 2013 and;
“Aerial Cutting of Trees with a Chainsaw Using Free-fall Techniques” on
28 November 2013.

All with the LANTRA organisation.

- [6] The locus is a plot of land east of Arterman Road, Rhu, Helensburgh. The land is owned by PD intended to develop the land and build property thereon. A survey of the trees on the land was carried out and this identified a specific tree (a Common Lime *Tilia x europaea*), which was on the boundary of the land next to Arterman Road. The tree was approximately 30 meters in height. The width of the tree measured approximately 2.5 to 3.5 meters. It was assessed as “presenting an imminent and serious hazard to life or property for the existing permitted use of the site”.

- [7] A Tree Survey Report, was compiled by Julian A Morris, Professional Tree Services, who visited the locus in mid-December 2019. The principal purpose of the report was to assess the condition of the trees at the locus and their suitability for retention in the context of the proposed development.

- [8] On 5 January 2020 PD contacted Christopher Moses via email so he could provide a quote to fell the tree. Christopher Moses attended to look at the tree on

7 January 2020 and a quote was provided by him, which was agreed. He agreed to attend at the locus on the 12 January 2020 to fell the tree. On the morning of Sunday 12 January 2020 Christopher Moses arrived at the locus. He was accompanied by James Fanning and Christopher Smith.

[9] James Fanning is a tree surgeon and had been contracted by Christopher Moses to assist with the felling of this tree. He was not an employee and had assisted with similar jobs in the past. James Fanning is an experienced tree surgeon. Christopher Smith is a tree surgeon and had been contracted by Christopher Moses to assist with the felling of this tree. He was not an employee and had assisted with similar jobs in the past. Mr Smith served in the Royal Marines under the command of Christopher Moses including a number of tours of duty on active service. Mr Smith was a relatively less experienced tree surgeon than Messrs Moses and Fanning. Christopher Moses was the lead tree surgeon on the job. He directed work after consultation and briefing with his colleagues.

[10] The team began work to fell the tree at approximately 08.30 hours. They removed the majority of the ancillary branches and by the afternoon only the trunk and one substantial limb remained. The limb extended from the trunk by about 30 feet. Its direction of growth was away from the intended direction of fall.

[11] At about 1530 hours Christopher Moses climbed about 30 feet up the tree in preparation for felling the substantial limb from the trunk. He was wearing all appropriate safety clothing and safety equipment, including a harness.

[12] Mr Fanning and Mr Smith were standing on the ground about 50 feet away from the tree, and were holding the guide rope that had been attached to the upper portion of the substantial limb. They intended to use these to control the limb's direction of descent to the ground after Christopher Moses had made his cuts.

[13] The first cut Christopher Moses made was on the side of the trunk that was facing Mr Smith and Mr Fanning. This was a "wedge" or "face" cut that went approximately two-fifths into the middle of the trunk. He then moved around the trunk to make his second cut on the opposite side, known as a "back" cut. This "back" would create a "hinge" upon which the trunk would break and allow the upper portion to be brought to the ground in a controlled manner using the guide ropes. As Christopher Moses made this back cut, Mr Smith and Mr Fanning heard a crack from the tree. The substantial limb did not move. Christopher Moses removed the chainsaw from the tree and began to insert wedges into the "back" cut to widen it and potentially force the substantial limb to fall in the intended direction over the "hinge". The "hinge" broke and rather than falling in the direction intended the limb twisted and fell backwards

towards Christopher Moses. The guide rope began to pull away from Mr Fanning and Mr Smith. The tree trunk was falling in the opposite direction from that intended and anticipated. The substantial limb struck Christopher Moses as it fell and briefly trapped him between the two sections of the trunk before landing across Artarman Road.

[14] Mr Smith immediately contacted the emergency services while Mr Fanning donned climbing spikes and a harness to climb the tree to attend to Christopher Moses. Mr Moses was suspended upside down in his harness and was bleeding profusely from his head. He was unresponsive and Mr Fanning was unable to move him from his suspended position. It was apparent to them that he had suffered injuries not compatible with life.

[15] The fire and rescue service arrived at the locus at around 15.40 hours and were able to bring Christopher Moses down from the tree. Four ambulances and the air ambulance service were also in attendance. Mr Christopher Moses was pronounced life extinct at 16.07 on 12 January 20 by paramedics Jamie Hardie and Andy Mackie.

[16] On 23 January 2020 at the instance of the Procurator Fiscal, Glasgow, Dr Sharon Melmore carried out an autopsy on the deceased and certified the cause of his death as:

1a) Head Injury due to 1b) Falling tree trunk (accident at work).

Toxicology analyses was performed on the bodily fluids of the deceased. All analyses gave negative results.

[17] The immediate cause of this accident appears to be that the upper section of the trunk became separated from the rest of the tree and fell in the opposite direction than was intended, striking Christopher Moses and causing him to sustain fatal head injuries.

[18] The reason that the upper section of the tree fell in the opposite direction than was intended is uncertain and impossible to categorically determine. It is axiomatic that trees are dynamic and unpredictable in their structure and behaviour under stress. There may be a number of explanations, for example the sound of a “crack” immediately before the limb of the tree fell in the wrong direction may suggest the tree’s internal structure was unstable and unpredictable due to rot, alternatively it could be that Christopher Moses miscalculated the depth of the “back” cut into the trunk. He may have unintentionally cut through, or weakened, the “hinge” he had made in the trunk, which would have separated the upper section of the trunk from the lower part, or at least reduced it to the extent that it was unable to remain supported. In any event this upper section was approximately 30 feet in length and a considerable weight. Christopher Moses would have had no opportunity to avoid it being

struck by it when it became detached as it did. Although he was wearing a helmet and appropriate protective equipment, the weight of the trunk and the force with which it struck him means that it would have been unlikely to offer much protection.

[19] I wish to express my sincere condolences to Christopher Moses's family and friends, specifically those who attended the hearing and followed the evidence with understandable care and attention.