SHERIFFDOM OF GRAMPIAN HIGHLAND AND ISLANDS AT ABERDEEN

[2019] FAI 50

ABE-B698-19

DETERMINATION

BY

SHERIFF WILLIAM H SUMMERS

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

into the death of

WILLIAM BROWN

Aberdeen, 29 November 2019

DETERMINATION

The sheriff, having considered the information presented at the Inquiry, Finds and Determines in terms of section 26 of the Inquiries into Fatal Accidents and Sudden Deaths Etc (Scotland) Act 2016 ("the 2016 Act") that:

1) In terms of section 26(2)(a) of the 2016 Act, William Brown, born 12 March 1958 and residing at the date of his death in Inverurie, died on 26 February 2017 within a barn at Mains of Blackhall Farm, Inverurie. Life was pronounced extinct at 1915 hours on 26 February 2017.
2) In terms of section 26(2)(b) of the 2016 Act, the accident resulting in the death of William Brown took place on 26 February 2017 within a barn at Mains of Blackhall Farm, Inverurie.

3) In terms of section 26(2)(c) of the 2016 Act, the cause of death was traumatic asphyxia in an agricultural incident.

4) In terms of section 26(2)(d) of the 2016 Act, the accident occurred as Mr Brown was carrying out maintenance work under a double wheel axle trailer. To carry out that maintenance work, Mr Brown used a John Deere 6630 tractor fitted with a hydraulic front loader. Pallet forks were attached to the front loader carriage. Mr Brown looped a sling around a metal bar at the side of the trailer and attached it to the right hand fork. He raised the trailer and relied on the tractor and front loader to support its weight. No independent mechanism was put in place to support the weight of the trailer. The tractor and hydraulic front loader were not suited to bearing the weight of the trailer. The trailer lowered because of loss of hydraulic pressure, or contraction of hydraulic oil due to cooling. The trailer trapped Mr Brown resulting in his death.

5) In terms of section 26(2)(e) of the 2016 Act, precautions in the form of the use of a separate mechanical support placed and secured underneath the trailer could reasonably have been taken and would have prevented the accident that resulted in Mr Brown's death.

6) In terms of section 26(2)(f) of the 2016 Act, Mr Brown did not adopt a safe system of working. The system he employed was defective in that the equipment used to lift the trailer was not suited to bearing its weight. The system was defective in that no separate mechanical support was used to support the weight of the trailer. Those defects contributed to Mr Brown's death.

7) In terms of section 26(2)(g) of the 2016 Act, there are no other facts which are relevant to the circumstances of the death.

Recommendations

In terms of section 26(1)(b) of the 2016 Act, there are no recommendations which might realistically prevent other deaths in similar circumstances.

Sheriff W H Summers

NOTE

Introduction

[1] This is an Inquiry held under the Inquiries into Fatal Accidents and Sudden Deaths Etc (Scotland) Act 2016 ("the 2016 Act") into the death of William Brown on 26 February 2017. A preliminary hearing was held on 23 October 2019.

[2] At the time of his death William Brown was a self-employed agricultural contractor. On 26 February 2017, he was working in a barn he leased at Mains of Blackhall Farm, Inverurie. He was using two tractors and a trailer that he owned. He was, at the time of his death, acting in the course of his employment. His death was the result of an accident which occurred in the course of his employment. The Inquiry was held on 18 November 2019 under section 1 of the 2016 Act and in terms of section 2(3) of the 2016 Act it is a mandatory Inquiry.

[3] The Crown was represented at the Inquiry by Mr Andrew Hanton, procurator fiscal depute. The procurator fiscal represents the Crown for the public interest. Mr Brown's family were interested in the outcome and conduct of the Inquiry but were not represented. No other party participated in or was represented at the Inquiry. The Inquiry considered oral evidence and a Joint Minute of Admissions.

[4] The purpose of the Inquiry is to establish the circumstances of the death of the late Mr Brown and to consider what, if any, steps might be taken to prevent other deaths in similar circumstances. In terms of section 26 of the 2016 Act, the sheriff is required to make a Determination setting out certain circumstances so far as established. The Determination is based on the evidence placed before the Inquiry by the procurator fiscal depute. It is limited to the matters set out in section 26 of the 2016 Act. It is not the purpose of the Inquiry to establish civil or criminal liability. It is specifically provided by section 26(6) of the 2016 Act that the Determination shall not be admissible as evidence or be founded on in any judicial proceedings.

[5] The circumstances that must be dealt with in the Determination in terms of section 26(2) of the 2016 Act are:

a) when and where the death occurred,

b) when and where any accident resulting in the death occurred,

c) the cause or causes of death,

d) the cause or causes of any accident resulting in the death,

e) any precautions which -

i. could reasonably have been taken, and

ii. had they been taken, might realistically have resulted in the death or any accident resulting in the death, being avoided,

f) any defects in any system of working which contributed to the death or any accident resulting in the death,

g) any other facts which are relevant to the circumstances of the death.

[6] Section 26 also provides that the sheriff is required to make such recommendations if any as he considers appropriate in relation to the taking of reasonable precautions, the making of improvements to any system of working, the introduction of a system of working or the taking of any other steps which might realistically prevent other deaths in similar circumstances.

Circumstances

[7] William Brown was born on 12 March 1958. At the time of his death he lived in Inverurie. He was a self-employed agricultural contractor. He leased a barn at Mains of Blackhall Farm, Inverurie to store tractors, trailers, farming implements and other tools. He owned two John Deere tractors and a double wheel axle type trailer manufactured by Bailey Trailers.

[8] No witnesses spoke to seeing William Brown alive on Saturday, 25 or Sunday, 26 February 2017. A neighbour who lives next to Mains of Blackhall Farm was conscious of hearing a tractor engine running at the farm at various times throughout the day on 26 February. At about 1830 hours on Sunday, 26 February 2017, the neighbour went to the barn used by Mr Brown at the farm. He found Mr Brown's body sitting upright

underneath the flatbed of the trailer inside the barn. Emergency services were contacted and Mr Brown was pronounced dead at 1915 hours on Sunday, 26 February 2017.

[9] No witnesses were present when the accident resulting in Mr Brown's death took place. The death was investigated by the Health & Safety Executive. The HSE report is No 4 of the Crown's inventory of productions produced to the Inquiry. That report was spoken to by Mr Simon Dunford an HSE inspector who gave evidence at the Inquiry.

[10] The circumstances of Mr Brown's death are a matter of reasonable inference from the facts determined in the course of the HSE investigation. When Mr Brown's body was discovered he was sitting upright between the two axles at the rear of the trailer. A grease gun and a rag were found near his body. Fresh grease was found on some of the components on the underside of the trailer.

[11] The flatbed of the trailer was approximately 6.8 metres long. It had an unladen weight of 3,950 kilograms. The trailer was attached to a John Deere tractor. Another John Deere tractor was located at the rear left hand side of the trailer. That was a John Deere 6630 tractor, registration number SV10 EHM. It was owned by Mr Brown. That tractor had a Trima + 4.0P hydraulic front loader fitted to it. A set of pallet forks had been fitted to the front loader carriage. A power harrower was attached to the rear of that tractor. The engines of both tractors were running when Mr Brown was found.

[12] A fabric lifting sling had been looped around a metal bar on the side of the trailer immediately above the left hand rear wheel. That sling had been doubled through a bow shackle that was attached directly to the right hand pallet fork of the tractor. It is

inferred that the tractor pallet forks were used to lift the left rear side of the trailer through this mechanism.

[13] The conclusion of the Health & Safety investigation is that when the lifting operation was carried out the front loader carriage was vertical with the pallet forks in the horizontal position. When Mr Brown's body was discovered the carriage was in the horizontal position and the pallet forks were pointing vertically downwards. The trailer was sitting on the ground and the sling was loose. The power harrower may have been used as a counterbalance to reduce the likelihood of the tractor tipping forward.

[14] The approximate weight being lifted by the tractor loader, shackle and sling combination was 1,317 kilograms. The shackle had a safe working load of 3.25 tonnes. The sling had a working load limit of 2,000 kilograms as it was used. The lifting accessories used to lift the left hand side of the trailer were theoretically capable of doing so. The method of attaching the sling to the trailer was not suitable. It resulted in the sling bending tightly around the attachment point. That might reduce the lifting capacity of the sling. That is not a factor contributing to Mr Brown's death.

[15] The tractor and front loader were not equipment suitable for lifting and supporting a load that someone intends to work underneath. The load or equipment can lower because of loss of pressure, or contraction of hydraulic oil due to cooling. Other equipment such as overhead cranes or forklift trucks that are intended to lift loads in the vicinity of other people are typically fitted with check valves to prevent the inadvertent lowering of the load or equipment. Tractors with front loaders are not typically fitted with such valves. The front loaders of tractors tend to lower under

gravity if left unattended for any period. The trailer might more suitably have been lifted using a trolley jack, bottle jack or screw jack. Whichever method of lifting the trailer was used that should not have been solely relied upon for the purposes of bearing the weight of the trailer while someone worked underneath it. Axle stands or some other form of fixed support should have been used whilst Mr Brown was working underneath the trailer.

Discussion and conclusion

[16] The Inquiry was inquisitorial. It was dealt with efficiently. Anyone who wished to participate in the Inquiry was able to do so although no one did. Much of the evidence in relation to the background circumstances was agreed and the other evidence was clear and unequivocal.

[17] On 26 February 2017 the deceased William Brown resolved to carry out work underneath a trailer and between the rear axles of the trailer. To facilitate that he arranged to raise the trailer through the mechanism that I have described. He raised it by using a sling attached to the right hand pallet fork on the front end loader of a John Deere tractor. The loader carriage was in the vertical position and the forks were horizontal. Mr Brown used the tractor and loader to support the weight of the trailer as he worked underneath.

[18] No mechanical or hydraulic faults were identified with the tractor or loader. Front end loaders on tractors are not designed for lifting operations in close proximity to other people. They are not fitted with check valves. The equipment was unsuitable and

Mr Brown relied solely on the hydraulic system of the tractor to support the weight of the trailer as he worked underneath it.

[19] When Mr Brown's body was found the trailer was sitting on the ground. The front loader carriage was in the horizontal position, the forks were pointing downwards and the sling was loose. No reconstruction was carried out. Whether due to loss of hydraulic pressure or contraction of hydraulic oil due to cooling, the front loader carriage moved from the vertical and allowed the forks to lower. That allowed the trailer to lower. It is impossible to establish precisely what mechanism caused that to happen. The trailer descended whilst Mr Brown was working underneath it causing him to become trapped between the rear axles and to sustain the injuries that led to his death.

[20] A post-mortem was carried out on the body of the deceased on 1 March 2017. The post-mortem revealed areas of peri-mortem abrasion on the back of his body. There were posterior rib fractures and a fracture of the lowest thoracic vertebrae. Those and other findings are consistent with significant compression of Mr Brown's chest resulting in asphyxia. The findings of the post mortem were entirely consistent with the circumstances of the accident. The conclusion was that Mr Brown died of traumatic asphyxia.

[21] The accident could have been avoided if rather than using the tractor to support the weight of the trailer, Mr Brown had used either a forklift truck or an overhead crane. Neither of those was available so those are not realistic alternatives. He might reasonably have used axle stands or railway sleepers or any other suitably strong device

to support the weight of the trailer while he worked underneath it. If he had done that the accident leading to his death would have been avoided.

[22] I have made a Determination setting out my findings in relation to the circumstances detailed in section 26(1)(a) and (2) of the 2016 Act. No recommendations are deemed appropriate in terms of section 26(1)(b) and (4).