

SHERIFFDOM OF TAYSIDE, CENTRAL AND FIFE AT PERTH

2010 FAI 51

DETERMINATION

by

ROBERT McCREADIE

**Queens Counsel, Sheriff of Tayside, Central and Fife at
Perth**

In the Inquiry into the circumstances of the death of

PETER DRYSDALE

in terms of section 6 of the Fatal Accidents and Sudden

Deaths Inquiry (Scotland) Act 1976

PERTH, 24th November 2010

The Sheriff, having considered all the evidence adduced, DETERMINES as follows:

(1) In terms of section 6(1)(a) of the Fatal Accidents and Sudden Deaths Inquiry (Scotland) Act 1976, that on 8th September 2009 at approximately 1100 hours Peter Drysdale (hereafter "the deceased") died at Dalbeathie Farm, Dunkeld, as the result of an accident there.

(2) In terms of section 6(1)(b) of the said Act, that the cause of death was multiple injuries and blunt force trauma resulting from entrapment by the hydraulic mechanism of an agricultural trailer.

(3) In terms of section 6(1)(e) of the said Act, that the other facts relevant to the circumstances of his death are (a) the absence of any audible warning system when the tailgate was being raised or lowered and (b) the absence of any sensory system to halt the movement of the tailgate on detecting an object immediately below it.

NOTE

Preliminary

[1] This inquiry was into the death of Mr. Peter Drysdale (hereafter "the deceased"), who was 80 years of age, in a tragic accident which took place at Dalbeathie Farm, Butterstone, Dunkeld on Tuesday, 8th September, 2009. Mr. Brown, the Procurator Fiscal Depute, appeared for the Crown. Mr. Peter Drysdale Jnr. (hereafter "Mr. Drysdale") and Mr. Ewan Simpson, who were both present at the time of the fatality, were represented by Mr. Smith and Mr. Sutherland respectively. The deceased was a member of a well-known farming family, and was a co-partner with Mr. Drysdale in the family farm.

[2] There were no preliminary issues, and evidence was led before me on 1st November 2010. Affidavits were read from Dr. Catrina Hewitt, a general practitioner, and from Dr. Helen Brownlow, a pathologist at the University of Dundee, who conducted the post mortem. Oral evidence was then given by Mr. Graeme Bain, a force support officer who took photographs of the locus immediately after the accident; by Mr. Drysdale and Mr. Simpson; and by Police Constable Gavin Clephane, who also attended at the locus.

The Circumstances of the Accident

[3] As the evidence unfolded, it became clear that the circumstances of the accident were not in dispute. Nor was the credibility and reliability of the principal witnesses. On the day in question Mr. Drysdale and Mr. Simpson were storing dry,

bruised barley in one of the farm sheds for the winter. This was an operation which they carried out every year. Mr. Simpson – whom Mr. Drysdale described as an experienced, "first class" employee – had worked at the farm for five years as a general farm worker. The barley (which was intended as cattle feed) was in a trailer, attached to a tractor that had been placed in the shed.

[4] The construction of the trailer is directly relevant to this accident. The trailer had metal sides, and was raised and lowered by means of two hydraulic arms. The tailgate was also raised and lowered by means of hydraulic arms attached to either side of the trailer. When the tailgate was lowered, its lip made a tight seal with the trailer platform, thereby preventing the contents from escaping. The trailer and tailgate were operated independently by separate spool valves or levers at the right hand side of the tractor cab. They could not be operated from the back of the trailer. I should add at this point that there was no evidence of any defect or malfunction in the operation of either the tractor or the trailer.

[5] At about 1100 hours both men were involved in tipping the load – the first of the day according to Mr. Drysdale – from the trailer onto the floor at the back of the shed, where a large pile of grain was already stored. This involved raising the trailer platform and tailgate within the shed to allow the grain to flow onto the floor. When fully raised the top of the trailer was some fifteen to twenty feet from the ground. Because of the height of the shed, which was designed as a cattle shed rather than as a storage shed, it was not possible to extend the trailer fully. It was only possible to tip half the load before leaving the shed and moving the remaining grain from the front to the back of the trailer.

[6] Mr. Simpson brought the tractor to the shed, reversed it, linked it up to the trailer, started the tractor engine, then operated the levers to raise the trailer and tailgate. After he had tipped half the load onto the floor, with Mr. Drysdale watching, he then lowered the trailer slightly and moved it forward slightly. At this point he exited the cab for the first time, and the two men proceeded to clean the trailer area next the tailgate with their hands. Their purpose was to ensure a tight seal when the trailer was driven outside and the grain moved to the back. The cleaning operation took them about 10 to 20 seconds. At that time the trailer was in a horizontal position

with the tailgate fully raised. Its back end was some two yards in front of the grain that had just been tipped.

[7] It was during the tipping operation that the deceased walked into the shed. Mr. Simpson saw him passing his nearside as he was looking out of the rear window of the tractor to observe the trailer. The deceased stood at the rear nearside of the trailer, next to a cattle trough, watching the tipping and cleaning operations. During the cleaning Mr. Drysdale was at the rear nearside of the trailer, about two yards from him, and Mr. Simpson was on the other side. The deceased was a very fit and active man who occasionally provided a helping hand, but on this occasion he did not help with the cleaning and he was not invited to assist.

[8] When they were finished, Mr. Simpson returned to the tractor to move the trailer outside the shed. The tractor engine was still running. This particular operation involved lowering the trailer completely before closing the tailgate and then driving forwards. It was the men's intention to raise the trailer platform outside and allow the remainder of the grain to slide to the rear before returning the trailer to the shed. Although Mr. Drysdale did not mention it, he told Mr. Simpson that he would use the forklift vehicle parked outside to move the tipped grain onto the larger pile behind.

[9] The deceased knew about the men's intentions because they had told him beforehand about what they were going to do. Although they did not specifically mention the tailgate, I am satisfied, given his long experience, that he would have been expected to know it would be closing. The reason which Mr. Simpson gave – that he would have been aware that the extended tailgate would hit the shed given the low height of the shed door – is also entirely plausible.

[10] As Mr. Simpson entered the tractor, Mr. Drysdale left the shed to give him a guide. He stood about two metres outside the shed, on the nearside of the tractor and trailer (roughly where the deceased's body is shown in the photographs) before they began to move. He assumed that his father would remain in the shed and wait for them to return, and said he had no reason to suppose that he would approach the rear of the trailer. Having considered all the evidence, I am satisfied that this is correct:

Mr. Drydale did not see him move from his earlier position beside the cattle trough and neither did Mr. Simpson, who last saw him as he climbed into the tractor cab.

[11] After operating the levers, it took Mr. Simpson in total about ten to fifteen seconds to lower the trailer completely and about five or six seconds for him to close the tailgate. The operation was mainly quiet, but he did recall a slight metallic noise which led him to believe that the tailgate had shut. However, as the tractor passed Mr. Drydale he became aware that his father had become caught in the tailgate at the nearside of the trailer. The deceased's feet were about six to eight inches off the ground and all that Mr. Drydale could see were his legs. The rest of his body was within the trailer compartment.

[12] Mr. Drydale immediately shouted to Mr. Simpson to release the tailgate. At this point, with the trailer fully out of the shed, Mr. Simpson did not hear him because he was in the cab. He had stopped the tractor and was in the process of raising the trailer again to tip the grain to the back. Nevertheless he realised by the manner of Mr. Drydale's signalling that the tailgate required to be opened. He did so immediately and then jumped out to see what the problem was.

[13] Before Mr. Simpson reached the rear, the release of the tailgate allowed the deceased's body to fall from the trailer. Mr. Drydale then laid the deceased on the ground where his body can be seen in the photographs. At that point he believed his father to be dead and he immediately telephoned the emergency services from the house. Because of the amount of hydraulic pressure in the arms, Mr. Simpson also believed that death had been instantaneous.

[14] The response of the emergency services was equally immediate. Dr. Hewitt received a call from the Scottish Ambulance Service at about 1110 hours and arrived at the locus some five to ten minutes later from her nearby surgery at Little Dunkeld. She was followed by an ambulance. At 1112 hours Police Constable Gavin Clephane, who was stationed at Pitlochry, received a request from the Force Control Room in Perth to attend the farm, and he also did so immediately. On arrival he saw the scene shown in the photographs. He breathalysed Mr. Simpson and obtained a negative result.

[15] Dr. Hewitt found no breathing or other response. She opened the deceased's airway, then attempted to ventilate him by preparing a laryngeal mask and beginning CPR. When the ambulance arrived she was assisted in this task by a paramedic. He informed her that there was no resistance to chest compressions, suggesting that the deceased's chest wall had been crushed. A defibrillator was then attached which showed a rhythm of asystole compatible with death. Thereafter CPR ceased, and at 1121 hours Dr. Hewitt pronounced life extinct. Because the deceased had been pale and blue on her arrival, and the crushing of his chest would have damaged his heart and lungs as well as his major blood vessels, Dr. Hewitt concluded that he had been dead upon her arrival. That conclusion is of course consistent with the evidence of eye witnesses, and there is no reason to doubt it.

[16] Mr. Drysdale was unable to say how the deceased came to be caught in the tailgate. However, he described him as "very thorough" man – a farmer of the "old school" – and he thought that his father might have seen some barley still lying at the rear of the trailer and tried to remove it. Although he (the deceased) did not have much involvement with this particular trailer, which was two or three years old, he did know that the tailgate was operated from the tractor cab and descended automatically. Nevertheless, Mr. Drysdale felt that his father might simply have forgotten that this would happen.

[17] Mr. Simpson also commented that the deceased was "quite careful", and his guess was also that he was trying to help by clearing grain from the rear when the tailgate came down. That was not something he had expected him to do. Mr. Simpson confirmed that there was no system providing an audible warning that the tailgate was opening or closing. Nor was there any sensor to halt the movement of the tailgate if an object was detected.

[18] It was at this point that I took a closer look at one of the photographs (Number 22) showing the rear edge of the trailer floor. From the offside, and extending along about two thirds of its length, grain could clearly be seen at the rear edge of the floor, at the point where it made contact with the tailgate. However on the immediate nearside, where the deceased's body had been caught, a significant area of the floor

had been largely cleared of grain right to the edge, in what appeared to be a sweeping motion. Although we can never know, it did have the appearance of having been swept by a hand. When I pointed this out to Mr. Simpson, he told me that they had left this area in a similar state to the rest of the floor. The obvious inference is that the area was cleared by the deceased.

The Cause of Death

[19] Constable Clephane subsequently lodged the deceased's body in the mortuary, and an autopsy was carried out by Dr. Brownlow on 10th September 2009. She found the cause of death to be (a) multiple injuries, (b) blunt force trauma and (c) entrapment by the hydraulic mechanism of an agricultural trailer.

[20] On external examination no suspicious marks or injuries were found. An oblique purple bruise and superficial abrasion extended from the left armpit and across the breast bone to the right flank, and a similar bruise extended from the left shoulder blade across the spine. The breast bone was fractured, and its upper portion (as well as the collar bone) had been displaced upwards into the base of the neck. The spine was fractured, and there were also multiple fractures of the ribs. The left atrium of the heart was torn, as were the major vessels connecting it to the right lung. There were no injuries below the level of the diaphragm.

[21] After taking into consideration the extent and severity of the thoracic and spinal injuries, Dr. Brownlow concluded that death would have occurred instantaneously. Standing the catastrophic nature of the internal injuries, the opinion of Dr. Hewitt and the evidence of both Mr. Drysdale and Mr. Simpson, I am satisfied that Dr. Brownlow is correct, and that the deceased would not have suffered as a result of these injuries.

Submissions and Determination

[22] On behalf of the Crown, Mr. Brown submitted that death occurred at about 1100 hours on 8th September 2009. Although Mr. Drysdale had placed the accident at around 0930 to 1000 hours, that made no difference, since the injuries were not in any event survivable. I agree with Mr. Brown's submission given the timings provided by Dr. Hewitt and PC Clephane (1110 hours and 1112 hours respectively). I am satisfied that there was no delay between the occurrence of the accident and the emergency services being called, and consequently that the accident must have happened at around 1100 hours on the day in question.

[23] Mr. Brown submitted that there was no question that the deceased had died as a result of an accident, which involved being crushed between the tailgate and the back end of the trailer. What was not known was how he came to be in contact with the tailgate in the first place. He acknowledged that it was a reasonable inference from the deceased's injuries that he had been leaning into the trailer when the tailgate came down. However, although the only likely explanation was that he had been clearing the grain, this could not be confirmed by any direct evidence.

[24] I am satisfied that death occurred as the result of such an accident. All the evidence, including the medical evidence, is consistent with such a conclusion. Furthermore, although it can never be known with certainty just what the deceased was doing when he placed himself between the trailer and the tailgate, his undisputed thoroughness and the photographic evidence of the nearside edge of the trailer both point to the reasonable inference that he was indeed clearing the area of grain at the time the tailgate descended. Whether he tried to do that before the tailgate descended, or simply forgot that it would close, will never be known.

[25] Turning to section 6(1)(c) of the 1976 Act, and to the question of what reasonable precautions might have avoided the death, Mr. Brown said that the only one he could think of was the fitting of an audible alarm to warn of the raising and lowering of the tailgate. I raised the question of an electronic sensor to detect the presence of someone directly below the tailgate, but Mr. Brown wondered whether that might be self-defeating in its operational value. Mr. Smith too was unsure

whether such systems would be appropriate given the type of work that was being done. Mr. Brown felt that the court's concerns might fit better within the terms of section 6(1)(e) of the Act.

[26] Finally, as regards section 6(1)(d) of the 1976 Act, and any defects in any system of working which contributed to the death, Mr. Brown submitted that all that could be said – although it was not necessarily reasonable to say it – was that checks should have been made to ensure that no one was behind the trailer before the tailgate was brought down.

[27] I will deal first of all with defects in the system of working. I agree with Mr. Brown that the only possible candidate is the absence of any final check before the tailgate was brought down. However I do not consider that there was any reason why either Mr. Drysdale or Mr. Simpson should have carried out such a check, or indeed that it would have made any difference. Both of them saw the deceased still standing at the side of the shed as they proceeded to take the trailer outside. He had been there since entering the shed, and they had no reason to suppose that he – an experienced farmer – would move to the back of the trailer and place himself in such a vulnerable position between the platform and the tailgate. But for whatever reason, this is exactly what the deceased did. Even if there had been a formal system of checking, it is most unlikely that it would have picked up such an action, which was probably the result of a split-second decision on the deceased's part.

[28] I also agree with Mr. Brown that the matter of warning systems is best dealt with in the context of section 6(1)(e) of the Act. No evidence was led about the existence of any warning or sensory system that might have given the deceased an audible warning about the operation of the tailgate or indeed stopped its descent on sensing the presence of his body. In particular, the court is unaware of whether other trailers, or indeed vehicles with similar tailgates, are fitted with such systems. Nevertheless, such systems may well exist for other types of vehicle, such as bin lorries, which were briefly discussed at the end of the inquiry. In my opinion there is merit in manufacturers of trailers and other vehicles with remotely operated hydraulic tailgates considering whether it is reasonably practicable and cost-effective to fit such a system in order to avoid a similar tragedy in the future.

[29] Finally, but most importantly, I wish to express my sincere condolences to Mr. Drysdale's family for the very heavy loss that they have suffered. I know that it is not easy to sit through a detailed inquiry of this nature and to hear how a loved one lost his life. However, I hope that they will take some limited comfort from this careful and comprehensive examination of the circumstances of his death, and from the fact that it may lead to a consideration of possible safety systems which could prevent such a tragedy occurring in the future.

Sheriff R.A. McCreadie