

**SHERIFFDOM OF GRAMPIAN, HIGHLAND AND ISLANDS AT KIRKWALL**

**[2022] FAI 7**

KIR-B91-21

DETERMINATION

BY

SHERIFF MUNGO BOVEY QC

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

into the death of

**ARNOLD JOHN MATHERS**

Kirkwall, 21 January 2022

1. The Sheriff, having resumed consideration of the Inquiry, DETERMINES as follows:

- when and where the death occurred (section 26(2)(a))

2. Arnold John Mathers of [Address redacted] Orkney, who was born on 23 April 1967, died at 1714 hours on 22 August 2020 at Aberdeen Royal Infirmary.

- when and where any accident resulting in the death occurred  
(section 26(2)(b))

3. The accident resulting in Mr Mathers' death occurred about 9.15am on 7 July 2020 in a field known as Queen Amone, part of [Address redacted] Orkney.

- the cause or causes of the death (section 26(2)(c))

4. The causes of death were:

1a: Acute respiratory distress syndrome (clinical diagnosis)

1b: Complications of chest injuries

1c: Incident whilst working on a farm

2: Interstitial lung disease

- the cause or causes of any accident resulting in the death (section 26(2)(d))

5. Mr Mathers' quad bike overturned, causing him to fall to the ground and sustain injury as a consequence. Although proceeding at a moderate speed, Mr Mathers was seen to turn his bike sharply causing it to overturn. Mr Mathers was an experienced user of the kind of quad bike in question. It is not possible to determine whether the quad bike overturned because of a momentary lapse or unidentified circumstances albeit inspection of the locus identified nothing which might have caused the accident.

- 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 (section 36(2)(e))

6. In the absence of a finding as to the cause of the accident, I do not find precautions which might have prevented it.

- any defects in any system of working which contributed to the death or any accident resulting in the death (section 36(2)(f))

7. I do not find that there are any defects in any system of working which contributed to the death or any accident resulting in the death.

- any other facts which are relevant to the circumstances of the death (section 36(2)(g)).

8. I do not find that there are any other facts which are relevant to the circumstances of the death.

#### NOTE

[1] A formal hearing was held in this inquiry on 21 January 2022. Although properly intimated and advertised in terms of the Act there was no appearance other than by the Procurator Fiscal Depute, Ms Arthur who appeared by Webex. I was told that Mr Mathers' widow regards her husband's death as a simple accident and that she felt it would be too upsetting to hear the circumstances rehearsed.

[2] The evidence before me took the form of witness statements, documentary productions and a Crown notice to admit on the basis of which I find the following matters established.

[3] Mr Mathers, was born on 23 April 1967 and died on 22 August 2020 at Aberdeen Royal Infirmary. He was 53 years old at the time of his death.

[4] Mr Mathers was the controlling mind of, and worked on, the family farm, [Address redacted], Orkney. The farm is a beef suckler operation. Mr Mathers had lived at [Address redacted], Orkney since 2002. [Address redacted], Orkney had been a family farm for many years; Mr Mathers' grandparents had owned the farm.

Mr Mathers had worked on the farm since he was 16 years old and had helped on the farm prior to that. He had, accordingly, long experience of working on [Address redacted], Orkney. At the time of his death, he co-owned the farm with his wife, AM.

[5] As a child Mr Mathers was diagnosed with Sarcoidosis. When he was in his twenties he was diagnosed with Farmer's Lung. During winter months his health was such that he required to increase his dose of steroid medication. He would cough more when it was cold and he wore additional layers of clothing to protect his chest from the cold.

[6] On 7 July 2020 Mr Mathers was working at [Address redacted], Orkney with two others, AM, his father, and WM who was employed as a farm hand. Both men had helped Mr Mathers on the farm for a number of years. At approximately 9.00am the group were moving cows from a field known as Queen Amone, to another, near to [Redacted address] Orkney. Four calves had left the herd and the group were attempting to steer them towards a gate. Mr Mathers was using a quad bike whilst carrying out this piece of work. It was a Suzuki Quad Runner 250. AM and WM were working on foot.

[7] Although proceeding at a moderate speed, Mr Mathers was seen to turn his bike sharply to the left. Mr Mathers did not position his body adequately to prevent it from overturning. WM saw Mr Mathers appear to leap from the quad bike as it turned over. Mr Mathers landed on his feet but then lost his footing and landed on his left shoulder with his arm down. The quad bike completed a roll over and landed on its wheels, stopping some 20 feet from Mr Mathers. The quad bike did not strike Mr Mathers.

[8] After the accident, Mr Mathers appeared to be in pain, complaining of being winded. WM phoned Mr Mathers' son, GM, to inform him of the incident and to ask him to attend at the field with a pick-up truck. He approached Mr Mathers and turned off the ignition on the quad bike. WM did not think that Mr Mathers had been injured - he thought that he was winded. He observed that Mr Mathers was not speaking and was trying to catch his breath. Mr Mathers told WM that they needed to get going and get on with the next job. About 10 to 15 minutes later GM attended with a pick-up truck to provide assistance. Mr Mathers was said that he was fine and that he did not want a fuss. The group had to convince him that an ambulance should be called for. GM called for an ambulance. WM drove the quad bike back to the farm buildings to meet the emergency services to give them directions to the field. He informed Mrs M of what had happened. Mrs M immediately went the field and saw her husband lying on his back.

[9] At 0926 hours, at Kirkwall Police Station, officers from Police Scotland were made aware of a report of a male having been involved in an incident with a quad bike. Police officers arrived at the locus at 0945 hours and assistance from the Scottish Ambulance Service arrived at 0950 hours. Mr Mathers was examined and moved into the ambulance for onward transfer to Balfour Hospital, Kirkwall. The ambulance crossed the field without sinking into the grass, indicating that the ground was hard.

[10] On 8 July 2020 Mr Mathers was transferred by Emergency Medical Retrieval Services (EMRS) from the Balfour Hospital to Aberdeen Royal Infirmary. He was admitted into the Intensive Care Unit under the care of Mr Lee Allen, Critical Care Consultant. Mr Mathers had sustained extensive thoracic injuries with multiple rib

fractures, pneumomediastinum (air in the thoracic cavity) and splenic laceration. He also had suspected myocardial contusion. Mr Mathers was given pain relief and oxygen. He was stable and had no immediate need for intensive care and so was transferred to the cardiothoracic ward where, on 14 July 2020, his condition became unstable, having developed low blood pressure and a high heart rate. CT scanning revealed that Mr Mathers had bleeding from the spleen. Emergency laparotomy allowed for removal of the spleen. The CT scan also demonstrated lung changes which were indicative of inflammation and fluid around the lung. On 16 July 2020 pneumonia was suspected because of increased oxygen requirements and lung changes which were observed on CT scan imaging. On 21 July 2020 Mr Mathers was re-referred to and admitted to the intensive care unit. He was intubated and ventilated following deterioration of his respiratory function. A CT scan allowed for diagnosis of a pulmonary embolism in his right lung; this caused heart strain. Mr Mathers was diagnosed with Acute Respiratory Distress Syndrome and his respiratory function continued to deteriorate. Despite various treatments which included extra-corporate membrane oxygenation (ECMO), ventilation, antibiotics and steroids, attempts to treat Mr Mathers were unsuccessful. It was thought that his pre-existing condition, Farmers Lung, was impeding his ability to respond positively to treatment.

[11] On 17 August 2020 Mr Mathers communicated that he did not wish to continue treatment. Consultant discussions with Mr Mathers, his wife and his daughter took place over the following days. No progress had been made over the previous weeks; further CT scanning confirmed that there had been no improvement. Family members

travelled from Orkney to be with Mr Mathers and his family. On 22 August 2020 Mr Mathers was sedated, made comfortable and the ECMO support was removed. Mr Mathers died at 1714 hours that day with his family by his side.

[12] On 3 September 2020, Mr Mathers' remains underwent a post mortem examination by Guy Conlon, Registered Medical Practitioner and Dr Leighanne Deboys Consultant Forensic Pathologist & Senior Lecturer in Forensic Medicine. The examiners considered it most likely that Mr Mathers died as the result of complications of chest injuries which were sustained whilst working on a farm. The extent of the rib fractures sustained would have significantly compromised Mr Mathers' respiratory function and predisposed him to the development of bronchopneumonia. The significant underlying interstitial lung disease would have further increased the risk of developing complications and was therefore regarded as a contributing factor. They noted that Mr Mathers developed a pulmonary thromboembolism whilst in hospital; this is a recognised complication of trauma, surgery and immobility and this would have further compromised the respiratory function and might explain the clinical deterioration which was observed. The subsequent development of acute respiratory distress syndrome and irreversible respiratory failure led to Mr Mathers' death. The medical causes of death are: 1(a) Acute respiratory distress syndrome (clinical diagnosis) due to (b) Complications of chest injuries due to (c) Incident whilst working on a farm with the Potential contributing cause being 2: Interstitial lung disease.

[13] Mr Mathers had over 10 years of experience in riding quad bikes. He had not attended any formal training. He was not wearing a helmet at the time of the incident.

Mrs M described her husband as being always on the go and putting 110% into everything that he did. Mr Mathers daily checked the cattle, fields and fences. It was ordinary for him to move cattle and he had completed this task on many occasions. Mr Mathers did not complain about his medical condition and he simply “ploughed on” - life was a challenge that Mr Mathers thrived on.

[14] Police witnesses observed the quad bike undamaged on the day of the incident. Expert witness Penelope Jane Falconer, HM Inspector of Health and Safety carried out an investigation on behalf of the Health and Safety Executive. Ms Falconer has worked for HSE for 36 years. Her current post sees her inspecting, amongst other things, agricultural activities in the north of Scotland. Ms Falconer referred to HSE guidance *AIS 33 Safe Use of All Terrain Vehicles*.

[15] Sit Astride ATVs (quad bikes) are widely used pieces of farm equipment which are designed to cope with off-road conditions. Quad bikes can rapidly become unstable if not used carefully and being thrown off a quad bike after a loss of control or during an overturn is a major cause of serious and fatal injury. It is not possible to fit roll-over protection to a quad bike as it increases the risk of injury in the event of an overturn. It is therefore essential to wear head protection when operating a quad bike. Active riding is a manner of driving the vehicle in which body positioning contributes to the stability of the quad bike. The need to know how to ride actively is one of the reasons that appropriate training is essential for the safe operation of a quad bike. Care needs to be taken when turning a quad bike as most have no differential. Bodyweight positioning depends on the sharpness of the turn and the speed of vehicle at the time of the turn.



Correct positioning allows the inside wheels to skid slightly in order to complete the turn. Excessive speed during a turn is known to be a contributory factor to accidents and to injury. There was no evidence that Mr Mathers had been driving carelessly or that his behaviour was reckless or ill considered. The quad bike was in good condition and was well maintained. Mr Mathers had over 10 years' experience in driving the relevant type of quad bike. The land at the locus is relatively flat and did not present any notable risks. There is no evidence to indicate that the system of work being followed at the time of the incident was unsafe. Although Mr Mathers was not wearing a helmet at the time, there is no indication that this contributed to his injuries.

[16] Mr Mathers was an experienced user of the kind of quad bike in question. It is not possible to determine whether the quad bike overturned because of a momentary lapse or unidentified circumstances albeit inspection of the locus identified nothing which might have caused the accident.