

SHERIFFDOM OF TAYSIDE CENTRAL AND FIFE AT ALLOA

DETERMINATION

by

DAVID NICOL MACKIE, Advocate, Sheriff of Tayside Central and Fife at Alloa

in

Inquiry into the circumstances of the
death of

JOHN NOBLE

in terms of section 6 of the Fatal Accidents and Sudden Deaths Inquiry
(Scotland) Act 1976

ALLOA,

2nd July 2009

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

1. In terms of section 6(1)(a) of the Act that John Noble, who was born on 16th November 1961, and late of 1 Forbes Street, Alloa, died at about 1351 hours on 23rd January 2008 as a result of injuries sustained in a road traffic accident which occurred at about 1325 hours on the A91 Stirling to Cupar Road near Tillicoultry, Clackmannanshire.
2. In terms of section 6(1)(b) of the Act that the cause of death was multiple injuries caused by blunt force trauma sustained in a single vehicle impact in which the deceased was a front nearside passenger.

Sheriff David N Mackie

NOTE:

[1] This Fatal Accident Inquiry into the death of John Noble called before me on 21st and 22nd May 2009 when evidence was led and on 26th May 2009 for submissions. The Crown was represented by Mrs Gordon, Procurator Fiscal Depute, the family of the deceased and the Fire Officers' Union by Mr Smith, Solicitor and the Scottish Fire Service by Mr Wade, Solicitor.

[2] A number of witnesses were called by the Crown; none by any of the other interested parties. On the first day of the Inquiry I heard from Yvonne Leadbetter, a Fire Control Operator on the day of the accident. I heard the evidence of three

Fire Officers who were aboard the fire appliance, Christopher Robb, who was the driver, Alan Robertson and Alan Huntly. James Hearsum was a Retained Fire Officer with another appliance called to the scene from nearby Tullibody. Two civilian witnesses, Norma Christie, a teacher and her friend Marion Steel, a retired teacher were travelling in the opposite direction to the fire appliance immediately before the accident. The appliance involved in the accident was on a call to Strathdevon Primary School in Dollar where Nicola Cunningham was the Catering Assistant. I heard also from two other witnesses on the road at or about the time of the accident, Janette Milton and Helen McAuslane. On the second day of the Inquiry I heard from a paramedic, Steven Morgan and two Police Officers from the Road Policing Unit in Stirling, PC's Adam Weir and Euan Kidd. Graham Paterson and Ian McDiarmid were Vehicle Examiner and Scene Examiner respectively. The final witness was the pathologist Dr David Sadler of the Centre for Forensic and Legal Medicine of the University of Dundee. Certain evidence was the subject of a Joint Minute of Agreement namely the statements to police by James Gracie, a 63 year old pedestrian who was passed by the fire appliance involved in the accident and Bryan Bell, another of the Fire Fighters aboard the appliance.

[3] I here address the provisions of **section 6** of the **Fatal Accidents and Sudden Deaths Inquiry (Scotland) Act 1976**.

Section 6(1)

(a) – where and when the death and any accident resulting in the death took place and

(b) – the cause or causes of such death and any accident resulting in the death

The Accident

[4] At about 13.15 hours on 23rd January 2008 a call was received by the control room of Central Scotland Fire and Rescue Service based at Madison of a fire alarm at Strathdevon Primary School, Park Place, Dollar. It was prompted by an automated alarm from the school to Connolly Security in Glasgow who in turn called the Fire and Rescue Service. Notwithstanding that it was an automated alarm it was given the same priority as any fire alarm, it being assumed until the opposite was proved to be the case that it was an actual fire. It was for this reason that in accordance with normal practice and procedure two fire appliances were dispatched to the call.

[5] The nearest manned fire station was at Alloa and so it was from there that the first appliance was dispatched with a call at 13.15 a matter of seconds after the initial call had been received. A second appliance was dispatched from Tillicoultry at 13.24 manned by three retained fire officers.

[6] The station alarm sounded within Alloa Fire Station at 13.15 hours. The Watch Manager was the deceased John Noble. Along with the rest of the crew he had commenced his shift at 08.00 hours. The men were allocated their duties for the day by John Noble at the start of the shift and so when the alarm sounded those assigned to the appliance immediately assembled there. Fire Officer Bryan Bell took up his place in the rear off side seat of the cab behind the driver. The driver was Fire Officer Christopher ('Chris') Robb and he duly took his place in the driver's seat. The deceased, John Noble, took the front nearside seat while Fire

Officers Alan Robertson and Alan Huntly took up positions in the rear nearside and rear centre seats respectively.

[7] The fire appliance in question was a Volvo motor lorry appropriately adapted as a fire appliance registration number SN05 MJJ. It was one of two vehicles stationed at Alloa and had the call sign 'C11'. It operated with a crew of 5 and was equipped with, *inter alia*, breathing apparatus. The other vehicle stationed at Alloa bore the call sign 'C14' and was a two crew specialist vehicle.

[8] John Noble was wearing his full fire fighter's gear comprising wellington boots, leggings, tunic, flash hood and helmet. He fastened his seat belt. Bryan Bell was wearing boots, leggings, tunic and flash hood. He was busy adjusting his equipment and putting on the breathing apparatus ('BA'). The BA equipment, though fastened to the rear of the cab in readiness for rapid deployment by fire officers, did not operate as a safety restraint within the cab in the event of a collision. For this those officers on BA duty still required to fit the safety belt but in practice few did. Bryan Bell did not have his safety belt fitted.

[9] Fire Officer Alan Robertson in the rear nearside seat was wearing his full gear but not his helmet to begin with, although, following the example set by his senior colleague John Noble he did put his helmet on prior to the collision. He was allocated BA duties and was also engaged in fitting the BA equipment. He was not wearing a seat belt and had released the BA equipment from its retaining bracket at the back of the cab. Fire Officer Alan Huntly, positioned in the middle seat at the rear of the cab, was wearing his full fire fighting gear but not the helmet. He was not wearing a seat belt and was not fitted with breathing apparatus.

[10] The driver, Fire Officer Chris Robb was well regarded by his colleagues as a safe and competent driver. He was duly qualified to drive heavy goods vehicles having attained his HGV licence in June 2006. He had attended a one week course for further advanced training as an Emergency Fire Appliance Driver

('EFAD') which he passed on 6th October 2006. Prior to his EFAD training FO Robb only drove on the return journey from calls or on fire safety visits. His first 'blue light' drive was on 23rd September 2006. He had undertaken a number of such drives since then and had gained the respect of his senior colleague the late John Noble who had also been something of a mentor to him within the service. Seconds before the accident the deceased had in fact paid Mr Robb a personal compliment related to his performance as a firefighter and his response to the call they were on. As driver he was not wearing his full gear but he was wearing his seat belt. He commenced his shift at 0800 hours fully refreshed after a four day break between shift cycles.

[11] The alarm within the station consisted of the sounding of bells and flashing lights. All of the crew made their way immediately to the appliance. The vehicle was one FO Robb was used to driving and he found it satisfactory to drive although it differed in equipment and handling from the vehicles on which he had originally been trained which were older, different in style, without additional equipment and with a different size of cab. In accordance with normal practice Mr Robb had earlier carried out a walk-round visual inspection of the vehicle which was in good working order.

[12] Once the crew were aboard Mr Robb drove out of the station turning left onto Clackmannan Road, Alloa. He was aware that the call was to Strathdevon Primary School in Dollar. While he did not know the precise location of the school within Dollar he was familiar with the route there and would be guided by Mr Noble once in the vicinity. His route took him through Tillicoultry on the A91 Tillicoultry to Dollar road. He had the blue lights flashing and the siren sounding as he drove.

[13] The A91 road runs generally from west to east between Tillicoultry and Dollar and comprises a two lane undivided carriageway with one lane in each direction separated by centre line markings. The journey from the fire station to a

point just outside Tillicoultry on the east side was uneventful. The vehicle was approaching a series of bends known locally as the Dollar Bends. For vehicles travelling eastwards such as the fire appliance the road presented a left hand bend, then a short straight before the right hand bend at the locus.

[14] It was daylight and visibility was good. The tarmac road surface was in a good state of repair. It had been raining earlier and so the road surface was wet but it was not raining at the time. The vehicle was travelling at about 40 m.p.h. The driver Mr Robb thought between 30 and 40 m.p.h. while Alan Huntly, himself an EFAD trained driver with more than 11 years' experience, thought about 40 m.p.h. The other surviving crew, Alan Robertson and Bryan Bell were unable to estimate the speed but had no sense that it was in any way excessive. One witness, Marion Steele, a retired school teacher driving in the opposite direction to the fire appliance and passing it just east of Tillicoultry, was alone in her impression that the appliance was travelling in excess of 60 m.p.h. Her passenger, Norma Christie was unable to estimate the speed but did not think it excessive for a fire appliance answering a call as she rightly assumed this vehicle to be doing. The vehicle had been observed a little earlier at the Fishcross crossroad by Helen McAuslan, a driver travelling in the opposite direction, who thought its speed was in the 30 to 40 m.p.h. range at that stage. Taking the evidence as to speed in the round I have come to the view that on the balance of probabilities the speed of the appliance was about 40 m.p.h. The national speed limit applied on the stretch of road in question.

[15] The impression of the appliance travelling at a moderate speed albeit with a degree of urgency is reinforced by the evidence of the attitude of the driver. Mr Robb himself explained that although the call was being answered with the same degree of urgency as any other he and his colleagues were aware that it was in response to an automated alarm and that there were no reports of other calls coming in reporting an actual fire. Their common experience was that if there was a fire under way then in addition to the automated fire alarm from within the

building the service would receive other calls from members of the public but this had not happened on this occasion. Moreover there was evidence from Mr Robb which I have accepted as true that on approaching the bends he turned off the siren. He did so being aware that it would be impossible to pass other vehicles on the stretch of road he was approaching and did not want to alarm other vehicles in front or cause them to stop. He referred in particular to a white Renault van some distance ahead, travelling in the same direction and rounding the most distant bend within Mr Robb's vision at approximately the position of the white ambulance which is the most distant vehicle from the photographer in photograph 1 of the book of photographs forming production number 4. It was probably travelling at about the same speed as the fire appliance was not gaining on it. This action disclosed considerable presence of mind and an attitude of measured judgement albeit tempered with a sense of urgency in response to the call. Furthermore I accepted the evidence of both Mr Robb and Mr Huntly that the speed of the appliance was such that it would have been well able to negotiate the bend safely under normal circumstances. It is a matter of sad irony that the call turned out to be a false alarm, a smoke detector having been activated in the school kitchen.

[16] As he approached the right bend Mr Robb set the speed or as FO Huntly put it 'feathered the throttle' of the appliance in order to negotiate it comfortably and safely. He was approaching a right bend which eased slightly as it was negotiated and had safely travelled the sharper part of the bend. In his own words the vehicle "went straight on, there was no skidding, it went straight on". The recollection of Mr Huntly, an experienced driver, was of a "massive understeer" and a feeling that it was the front of the vehicle where traction was lost. These seemed to be descriptions of the same phenomenon, that is to say a complete loss of traction in the front, steering wheels of the vehicle with the consequence that it effectively went straight on instead of continuing to round the bend. The result was that the front nearside wheel went off the carriageway into the soft nearside verge. Once this happened the situation became irretrievable. Try as he might, and he tried as hard as he could, it became impossible for Mr

Robb to restore steering in order to bring the vehicle back onto the carriageway. The rear nearside wheels also tracked onto the soft verge as can be inferred from the widening of the furrow marks there. The front nearside corner of the cab struck a glancing blow against a small tree beside the verge. The vehicle went on a few yards more when the front nearside corner collided fully with a small group of substantial trees. The trees were only superficially damaged and so it is apparent that the full force of the impact was absorbed by the front nearside corner of the cab.

Scene investigation findings

[17] The locus of the accident including the road and verge approaching the point of impact were examined by Constables Kidd and Stewart, both highly experienced Force Collision Officers qualified in Standard and Advanced Accident Investigation. Their careful and thorough examination of the scene of the accident, contained in their Collision Investigation Report, production number 5, allows certain inferences to be drawn from the state of the road surface, verge and the appliance itself which are entirely consistent with the Fire Officers' accounts. The locus was also seen by Constable Weir of the Road Policing Unit.

[18] A significant finding was of oily deposits on the roadway. The roadway was slippery underfoot where these deposits were present. From their variegated appearance as they mixed with the surface rainwater the deposits were almost certainly of diesel oil and at the time of their examination by the investigating officers were probably less concentrated than when the accident occurred.¹ The officers located and marked the approximate centres of each of the deposits with yellow number markers and these can best be seen in photographs 11, 14, 19 and 20 of Production 4, the book of photographs. The Force Collision Officers and Constable Weir agreed that the position of the deposits on the road surface as indicated by the markers follow a consistent arc following the line of the right

¹ Forensic confirmation of the precise nature of the oily deposits was thwarted by the samples having evaporated thus rendering forensic examination impossible, there having been a misunderstanding as to the appropriate means of collecting and storing them.

hand bend and widening as it reaches the apex so that the first marker seen in photograph 11 can be seen to be more or less in the centre of the eastbound carriageway of the road whilst the fifth and last marker is positioned nearer the nearside white line marking. It in turn is immediately in advance of the point at which the furrow marks in the verge caused by the nearside wheels of the appliance commence. Moreover the deposits were at regular and not random intervals. The volume of the deposits was difficult to estimate. Constable Kidd thought it was certainly more than a cupful but it would be going too far to suggest gallons.

[19] I was informed by Constable Weir that, in the course of his examination of the locus and in particular the oily deposits, he walked through the collision site and found that the deposits continued as far as the next left hand bend in the road, a distance he estimated of approximately 60 or 70 yards and best seen in photograph 20.

[20] The deposits were beginning to be dissipated by the rain falling at the time of the locus inspection but were otherwise undisturbed by passing traffic.

[21] The inferences drawn by the Force Collision Officers were that the deposits had occurred very recently and probably immediately before the appliance passed over this piece of road. By virtue of the deposits having been found to continue past the locus of the collision it can be inferred that they were not caused by the appliance. It is likely that the appliance was the first vehicle to pass after the deposits had been made. The regular pattern and arc of the deposits was consistent with their being thrown from a vehicle passing round the bend. The most likely explanation was of a vehicle having a loose or missing fuel cap causing oil from a fuel tank to be thrown onto the road surface, or of a container of diesel oil having fallen whilst being carried in a vehicle resulting in a spillage with the same effect. The officers agreed that the white van observed by FO Robb as he entered the series of bends was probably the vehicle from which the deposits fell.

Two factors helped in reaching this conclusion. The first was that the deposits seemed not to have been disturbed by passing traffic. Their position on the road surface was such that one or more of the deposits would have been passed over by the van if they had been present but as none showed signs of disturbance it could be inferred that they were formed after the van had passed or, most probably, by the van as it passed. The second was that the deposits rendered the road surface very slippery even underfoot. It is likely that the van would have lost traction in some way as it passed over existing deposits but the evidence was that it negotiated the bends without difficulty.

[22] The correlation between the position of the last deposit before the collision and the commencement of the furrow marks in the soft verge caused by the nearside wheels of the appliance points to the front wheels having lost traction at the point of the deposit and the obvious inference that it was the presence of the oily deposit there which caused the loss of traction leading to the nearside of the appliance leaving the road surface and onto the soft verge on the nearside. This view is reinforced by Constable Kidd's evidence of skid tests conducted by him and his colleague at the locus at the end of their inspection and examination of the crash site. The tests were conducted at about 1630 hours, approximately three hours after the accident and after there had been rainfall on the road surface. A fire appliance registered number SK02 ZFO was used and the point at which the tests were undertaken can be observed in photograph 11 approximately at the position of the police officer on the apex of the bend. The tests, which involved driving the vehicle at 20 m.p.h. and skidding to a halt, indicated that the road surface had a co-efficient of friction of 0.418g., lower than would have been expected given the weather and road conditions and described by Constable Kidd as the lowest skid test results he personally had experienced in a long career.

[23] Once the front nearside wheel went into the soft verge the situation was characterised as irretrievable for the driver by a number of witnesses. It was also

explained to me that a retarder or engine braking feature of the vehicle may have exaggerated the consequence of the loss of traction. The Force Collision Officer, Constable Weir and the two Fire Officer drivers who gave evidence, Mr Robb and Mr Huntly, were at one in explaining that upon a loss of traction on a bend the act of braking will cause a locking of wheels and a tendency for the vehicle to be thrown further outwards on the bend. It is for that reason that in advanced training drivers are taught to steer out of a skid in order to minimise its effects and that is what FO Robb did on this occasion. The appliance had a retarder feature which operated upon the throttle being lifted in such a way that the engine applied a positive slowing or braking effect over and above any natural slowing which might occur upon the throttle being lifted. The increased deceleration of the vehicle would have the effect of pushing the vehicle to the outside of the bend and it is likely that contributed not only to the front nearside wheel leaving the road surface but also to rendering a return by steering back onto the road surface impossible.

Additional findings in relation to the vehicle

[24] The point of impact between the appliance and the trees was approximately 15 cms. from the nearside corner of the cab. It was explained to me that this was outwith the line of the main chassis so that the full force of the collision was absorbed by the vehicle superstructure. It was described by Mr Paterson the vehicle examiner as the weakest part of the vehicle. Constable Kidd spoke to his report in which it is explained that the impact effectively ripped the nearside of the cab backwards as the weight of the vehicle has carried past the tree. The collision twisted the cab to the nearside with the front nearside bulkhead being crushed into the front passenger footwell, trapping the deceased's legs.

[25] It was found that the deceased's seat belt was severed. Although it is likely that it was to some extent frayed through use prior to the accident there is nothing to indicate that it was weakened nor to suggest other than that the sheer

force of the impact and the extensive damage to the appliance superstructure caused the belt to break. That was the outcome of forensic examination of the webbing of the belt.

[26] The appliance came to rest with the rear wheels back on the road surface. The furrow marks in the soft verge were analysed by the Collision Investigation Officers and found to measure 12.65 metres and 8.5 metres, were caused by rolling wheels and were attributable to the front and rear tyres respectively of the appliance. It was thought that upon impact with the tree on the front nearside corner the vehicle stepped to the off side so that the rear wheels came to rest on the road surface.

[27] The appliance was fully examined after the accident by Graham Paterson, Vehicle Examiner with Vehicle and Operator Services Agency and he found nothing which might have given cause for concern. An examination of all relevant fixed and moving components that were still accessible including an underside examination led to the conclusion that there was no defect likely to have been the cause or contributory cause of the accident.

The death

[28] The late Mr Noble was trapped by his legs but his upper body was thrown out of the cab. The driver, FO Robb, supported his upper body and handed over to FO Bell while attempts were made to free Mr Noble. He was quite unconscious and his eyes were open. The Special Support Unit soon arrived from Alloa and rams were used to free Mr Noble who was laid on the ground just in front of the appliance. Attempts at resuscitation by CPR and with the use of a defibrillator were in vain. Paramedics arrived at the locus at 1350 hours having been in the area and diverted from another call. The inquiry heard from Steven Morgan, a paramedic, who immediately examined Mr Noble. He found Mr Noble in a collapsed state. He checked that airways were open and then for breathing and a pulse. There was no breathing and no pulse. He applied the defibrillator pads

which detect whether there is any residual electrical activity in the patient; there was none and the equipment flat lined. No further attempt was made to revive Mr Noble. It was Mr Morgan who declared the fact of death at 1351 hours and completed the relative declaration which forms Production 17.

[29] The subsequent post mortem examination disclosed extensive severe injuries including compound fractures to the left lower leg and widespread bruises and abrasions elsewhere to the limbs, torso and face. Autopsy revealed severe underlying injuries with pelvic fracture on the left side, numerous left sided rib fractures, bruising of the lungs and internal haemorrhage within the abdomen. There was moderate sub arachnoid haemorrhage over the surface of the brain and most significantly severe injury to the brain stem. The pathologist, Dr David Sadler explained to the inquiry that the dominant injury was to the brain and brain stem and that this had the most immediate fatal effect not least because that is the area of the brain which controls the breathing and other basic functions of the body. Death was attributed to multiple injuries sustained as a result of blunt force trauma due to a single vehicular impact.

Section 6(1)(c) – the reasonable precautions, if any, whereby the death and any accident resulting in the death might have been avoided

[30] I have no findings to make in respect of this provision.

Section 6(1)(d) The defects, if any, in any system of working which contributed to the death or any accident resulting in the death

[31] I have no observations to make under this provision.

Section 6(1)(e) Any other facts which are relevant to the circumstances of the death

[32] The white Renault van from which it can be inferred the oily deposits emanated remains untraced despite extensive enquiries by the police in and around the local community including farms.

[33] I close by expressing my condolences to Mrs Noble and the family for their sad loss and to the late Mr Noble's fellow firefighters who have lost a fine colleague and friend. This inquiry will have been a difficult experience for them, Mrs Noble in particular, but it is to be hoped that it will help to bring some closure to this tragic event.

Sheriff David N Mackie

Alloa,

2/7/09