

SHERIFFDOM OF TAYSIDE CENTRAL AND FIFE AT STIRLING

DETERMINATION

by

SHERIFF DEREK O'CARROLL, Advocate, Sheriff of Tayside Central and Fife

**following an Inquiry under the Fatal Accidents and Sudden Deaths Inquiry
(Scotland) Act 1976**

held at Stirling Sheriff Court on into the circumstances of the death of

JOHN MOODY, born 18 May 1952, died 26 June 2012

STIRLING, 10 October 2014,

The Sheriff, having resumed consideration of the Fatal Accident Inquiry into the death of Mr John Moody, Determines in terms of section 6 of the Fatal Accidents and Sudden Deaths Inquiry (Scotland) Act 1976, as follows:

(1) In terms of section 6(1)(a) of the Act, on 16 June 2012, Mr Moody was involved in a road traffic accident while being driven as a passenger in a vehicle in the course of his employment with Falburn Engineering Limited, Plean. The accident occurred on the A9 Edinburgh to Perth road, at Bannockburn approximately 40 metres to the east of the Greencornhills Roundabout. He sustained serious injuries as a result. He died from those injuries on 26 June 2012 at 03.10 hrs at the Western General Hospital, Edinburgh

(2) In terms of section 6(1)(b) of the Act:

(a) the cause of death was: I. (i) multiple injuries and their complications; (ii) blunt force trauma; (iii) vehicular collision (front passenger).

(b) The cause of the accident was as follows. While approaching the Greencornhills Roundabout, James Short, the driver of the vehicle braked so as to prepare for the roundabout, resulting in the vehicle suddenly

commencing zig-zagging across the road, the driver having lost control, before the vehicle collided violently on the opposite carriageway with a Ford Iveco heavy goods vehicle travelling in the opposite direction, causing serious injuries to Mr Moody.

(3) In terms of section 6(1)(c) of the Act, the following reasonable precautions might have avoided the accident.

(a) provision of a clear warning and advice by Falburn Engineering to James Short concerning the known tendency of the vehicle to “kick” under certain conditions and advising him what those conditions were;

(b) provision to James Short by Falburn Engineering of adequate training and advice as to how the Mitsubishi should be driven so as to minimise the risk of a “kick” and what steps to take should that risk eventuate;

(c) instructions to James Short by Falburn Engineering to ensure that additional weight be added to the rear of the vehicle if the vehicle was otherwise unladen if driving in wet conditions

(4) In terms of section 6(1)(d) of the Act, no findings are made

(5) In terms of section 6(1)(e) of the Act, the following findings are made:

(a) the vehicle conveying Mr Moody was not properly maintained and as a result suffered from defects one of which, a defective thrust bearing in the steering mechanism, which rendered the vehicle unroadworthy. It is unlikely that defect caused or contributed to the accident.

(b) that defect was attributable to an absence of adequate servicing of the vehicle.

(d) Falburn Engineering did not have in place at the time of the accident a system adequate to ensure that its vehicles, including the vehicle carrying Mr Short, were regularly serviced in line with manufacturer recommendations.

(e) Falburn Engineering did not have in place an adequate system for regular walk around inspections of company vehicles before they were used.

(f) If the vehicle carrying Mr Short had been equipped with an Advanced Braking System, (rather than the less effective load sensing valve with which

it was equipped) which is a legal requirement for all passenger cars sold in the UK since 2007, it is possible that the accident might have been avoided.

Makes the following recommendations

- (1) Those operating light goods vehicles are recommended to follow the good practice recommended in publications by Vehicle and Operator Services Agency and its successor the Driver and Vehicle Standards Agency with regard to:
 - a. Daily walk around inspections of vehicles before they are driven
 - b. Servicing of such vehicles regularly in line with manufacturers recommendations
 - c. Adequate maintenance of vehicle records
- (2) Those driving and operating vehicles similar to the Mitsubishi Cantor, a 3 ½ ton drop-side lorry, not having an ABS system installed, should be made aware that such vehicles may, under certain conditions, have a tendency to “kick” upon the foot brake being applied, whereby the wheels lock, the rear of the vehicle moves to one side which may lead to swerving or veering and loss of control by the driver. It is recommended that those persons should familiarise themselves with the precautions that may be taken so as to reduce or avoid that tendency. Operators of such vehicles are recommended to consider whether to replace any such vehicles with an equivalent fitted with ABS.

Makes the following findings in fact:

- (1) On 16 June 2012, Mr Moody, the deceased, was involved in a road traffic accident while being driven as a passenger in a Mitsubishi Cantor, a 3 ½ ton drop-side light goods vehicle (“the Mitsubishi”).
- (2) He was in the course of his employment with Falburn Engineering Limited, Pleau at the time.
- (3) The accident occurred on the A9 Edinburgh to Perth road, at Bannockburn approximately 40 metres to the east of the Greencornhills Roundabout.

- (4) On the date of the accident, it had been raining heavily overnight and was still raining at the time of the accident. The road was wet.
- (5) There were no oil or diesel spills on the road in the vicinity of the accident. The road was in good condition although its friction co-efficient was lower than might normally be expected.
- (6) At the time of the accident, Mr Short was driving within the speed limit, was not distracted, was not under the influence of alcohol, was not ill and had not been using his mobile phone.
- (7) While approaching the Greencornhills Roundabout, James Short, the driver of the vehicle braked so as to prepare for the roundabout, resulting in the Mitsubishi suddenly commencing zig-zagging across the road, the driver having lost control.
- (8) The Mitsubishi collided violently on the opposite carriageway with a Ford Iveco heavy goods vehicle travelling in the opposite direction, causing serious injuries to Mr Moody.
- (9) Mr Derek Duff, driver of the Ford Inveco did everything that he could to avoid the collision. Nothing in the manner of his driving, nor in the condition of his vehicle, caused or contributed to the accident.
- (10) Mr Moody died from those injuries on 26 June 2012 at 03.10 hrs at the Western General Hospital, Edinburgh.
- (11) The cause of death was: I. (a) multiple injuries and their complications; (b) blunt force trauma; (c) vehicular collision (front passenger).
- (12) The driver of the Mitsubishi lost control of the vehicle as a result of the inherent tendency of that type of vehicle to sometimes kick under certain conditions, meaning that upon the foot brake being applied, the wheels may lock, the rear of the vehicle moves to one side which may lead to swerving or veering and loss of control by the driver.
- (13) The conditions under which such a vehicle has a tendency to kick include the vehicle not being fitted with ABS, the vehicle is unladen, is being

driven down an incline and the road surface is wet, when the foot brake is applied.

- (14) Mr Short had only very limited experience of driving the Mitsubishi.
- (15) Mr Short did not know of that tendency of that vehicle to “kick” under certain conditions.
- (16) That tendency of that vehicle was known by Ian Hepburn, managing director of Falburn Engineering and Christopher Seton, an employee of Falburn Engineering who was the usual driver of the Mitsubishi.
- (17) Ian Hepburn knew that that tendency could lead to swerving and could be dangerous.
- (18) Neither Ian Hepburn nor Christopher Seton took adequate steps to warn Mr Short about that tendency, to provide advice, training or instruction regarding precautions that should be taken to prevent that tendency from eventuating (including weighting the rear of the Mitsubishi if unladen in wet conditions) or what steps should be taken if that tendency in fact eventuated.
- (19) The tendency of such vehicle to kick is significantly reduced where such vehicles are fitted with ABS. All passenger cars sold in the UK since 2007 require by law to be fitted with ABS. The same requirement does not apply to vehicles such as the Mitsubishi.
- (20) The Mitsubishi was fitted with a rear load sensing device, which is somewhat less effective than ABS in preventing “kicking” or wheel lock and subsequent loss of control. That was not unlawful.
- (21) The Mitsubishi had not been serviced since 2009 by the date of the accident. The manufacturer recommends that it ought to be serviced about once every 13,000 miles.
- (22) By the date of the accident, a thrust bearing, which is part of the steering mechanism, had largely disintegrated so that the “lift” in the steering mechanism was 4 mm. The maximum permitted is 1.4 mm. As a result, the Mitsubishi was not roadworthy as at the date of the accident. In

that condition, it would have failed an MOT and would have been liable to an immediate prohibition notice.

(23) If there had been adequate servicing, it is possible that defect might have been discovered before the date of the accident.

(24) It is unlikely that that defect caused or contributed to the accident but its involvement cannot be completely excluded.

(25) As at the date of the accident, all tyres on the Mitsubishi were under-inflated, one grossly so. However, it cannot be determined whether that fact played any part in the cause of the accident.

(26) Mr Moody was not wearing a seat belt at the time of the collision.

(27) Even if he had been wearing a seat belt, it is likely that he would still have been injured and the outcome for Mr Moody would have been the same.

NOTE:

Introduction

[1] This was a Fatal Accident Inquiry into the death of John Moody who died following injuries received in a road traffic accident while Mr Moody was a passenger in a vehicle carrying out his duties as an employee of Falburn Engineering Ltd. A Fatal Accident Inquiry must be held whenever a person dies whilst in the course of his/her employment in terms of Section 1(1)(a)(i) of the Fatal Accident and Sudden Deaths Inquiry (Scotland) Act 1976 ("the Act").

[2] This contains my Determination as required by section 11 of the 1977 Act. In terms of section 11(3) of the Act, I consider that it is not reasonable to fix an adjourned sitting of the enquiry for the sole purpose of reading out this determination. A copy has been sent to the parties and will be placed on the SCS website

- [3] The procurator fiscal depute, Ms Fiona Caldwell, appeared for the Crown. Mr James McMillan, solicitor, of DAC Beachcroft Scotland LLP appeared for Falburn Engineering ("FE"). No other parties were present or represented.
- [4] I was advised that the fiscal had been in dialogue with members of the family of the deceased. The family did not wish to be represented at the Inquiry. However, a number of relatives of Mr Moody attended every day of the Inquiry, including Mrs Alison Moody, Mr Moody's widow. I would like to take this opportunity to extend my condolences to them all for their sad loss.
- [5] The petition by the Crown seeking the fixing of this mandatory Inquiry, where no criminal prosecution was ever commenced, was presented at Stirling Sheriff Court in March 2014, about 21 months after the date of death. The preliminary hearing, at which procedural matters are considered, was held on 25 March 2014 and only one day for the Inquiry was originally set down. In the event, matters proved to be rather more complicated than originally envisaged by the parties, who called more witnesses than originally envisaged (and successfully sought recall of four of them) and who lodged a considerable quantity of additional productions as evidence proceeded. The Inquiry heard evidence over seven days, between 12 May and 9 September 2014 with final submissions being heard by the Inquiry on 22 September 2014.
- [6] The Inquiry heard evidence from the following witnesses (all except the last being called by the Crown):
- (1) Mr Derek Duff, eye witness to the accident
 - (2) Mrs Margaret Duff, eye witness to the accident
 - (3) Mr Philip Adrian, eye witness to the accident
 - (4) PC Graeme Ferguson, Road Policing Unit
 - (5) Mr James Short, driver of vehicle in which Mr Moody was travelling (recalled)
 - (6) Mr Graeme Paterson, Vehicle Examiner

- (7) Mr Graham Millar, Group Technical Specialist at Western
Commercials
- (8) PC Kirkham, investigating officer (recalled)
- (9) Mr Christopher Seaton, employee of FE
- (10) Mr James Cobham, Traffic Examiner
- (11) Mr Paul Robertson, Vehicle Examiner at VOSA (recalled)
- (12) Mrs Angela Dyer, Office Manager at FE
- (13) Mr Ian Hepburn, Managing Director of FE
- (14) Dr David Sadler, Pathologist (recalled)
- (15) Mr Michael Nairns, Managing Director of Fairdeal Autos
- (16) Mrs Rosemary Nairns, Administrator at Fairdeal Autos
- (17) Mrs Alison Moody, widow of Mr Moody
- (18) Mr David Jones, Team Leader, Stirling Council Roads
Department

Law and practice at a Fatal Accident Inquiry

[7] It is as well that I make a few preliminary remarks about the law relating to Inquiries of this kind and something about the procedure. The purpose of the Inquiry, in terms of section 6(1) of the Act, is for the Sheriff to make a determination setting out the following circumstances of the death so far as they have been established to his/her satisfaction:

- (a) where and when the death and any accident resulting in the death took place;
- (b) the cause or causes of such death and any accident resulting in the death;
- (c) the reasonable precautions, if any, whereby the death and any accident resulting in the death may have been avoided;
- (d) the defect, if any, in the system of working which contributed to the death or any accident resulting in the death;
- (e) any other facts which are relevant to the circumstances of the death.

[8] A Fatal Accident Inquiry is not the proper forum for the determination of criminal or civil liability. It is not a function of the Court in a Fatal Accident Inquiry to make findings or express opinions on questions of fault or liability or to attempt to apportion blame. In *Black v Scott Lithgow Limited*, 1990 SLT 612,615, Lord President Hope said:

"There is no power in [section 6(1) of the Act] to make a finding as to fault or to apportion blame between any persons who might have contributed to the accident. This is in contrast to Section 4(1) of the 1895 Act, which gave power to the jury to set out in its verdict the person or persons, if any, to whose fault or negligence the accident was attributable. It is plain that the function of the Sheriff at a Fatal Accident Inquiry is different from that he is required to perform at a proof in a civil action to recover damages. His examination and analysis of the evidence is conducted with a view only to setting out in his determination the circumstances to which the subsection refers, insofar as this can be done to his satisfaction. He has before him no Record or other written pleading, there is no claim of damages by anyone and there are no grounds of fault upon which his decision is required."

[9] I agree with the view expressed by Sheriff Reid, Q.C. in her determination in relation to the death of Sharman Weir issued on 23rd January 2003 (which view was also endorsed by Sheriff Pettigrew in his Determination concerning the death of John Willock, 2013 FAI 15) where she said:

"In my opinion a Fatal Accident Inquiry is very much an exercise in applying the wisdom of hindsight. It is for the Sheriff to identify the reasonable precautions, if any, whereby the death might have been avoided... The purpose of a Fatal Accident Inquiry is to look back, as at the date of the Inquiry, to determine what can now be seen as reasonable precautions, if any, whereby the death might have been avoided and any other facts which are relevant to the circumstances of the death... The purpose of any conclusions drawn is to assist those legitimately interested in the circumstances of the death to look to the future. They, armed with the benefit of hindsight, the evidence led at the Inquiry, and the Determination of the Inquiry, may be persuaded to take steps to prevent any recurrence of such a death in the future."

[10] As regards section 6(1)(c) [reasonable precautions whereby the death might have been avoided], I accept and endorse what was said by Ian H B Carmichael in his work *Sudden Deaths and Fatal Accident Inquiries* (3rd ed.) where he states at paragraph 5.75:

"what is required is not a finding as to a reasonable precaution whereby the death... "would" have been avoided, but whereby the death... "might" have been avoided. Certainty that... the death would have been avoided by the reasonable precaution is not what is required. What is envisaged is not a "probability" but a "real or lively possibility that the death might have been avoided by the reasonable precaution".

[11] That formulation appears to closely reflect what was said by Sheriff Kearney in his determination in relation to the death of James McAlpine the issued on 7 January 1986. Like Sheriff Liddle in his Determination in the Inquiry into the circumstances of the death of Kieran Nicol issued on 3 June 2010, and Sheriff Pettigrew in his determination referred to above, I agree with and adopt what is said in that text.

[12] Sheriff Lockhart, (as he then was), stated in his Determination of 20 July 1993 in relation to the Newton rail crash:

In my opinion a Fatal Accident Inquiry is very much an exercise in applying the wisdom of hindsight. It is for the sheriff to identify the reasonable precautions, if any, whereby the death and any accident resulting in the death might have been avoided and the defects, if any, in any system of working which contributed to the death or any accident resulting in the death. The sheriff is required to proceed on the basis of the evidence adduced without regard to any question of the state of knowledge at the time of the accident. The statutory provisions are concerned with the existence of reasonable precautions or defects in the system at the time of the accident or death and are not concerned with whether they could or should have been recognised. They do not relate to the question of foreseeability of risk at the time of the accident. The statutory provisions are widely drawn and are intended to permit retrospective consideration of matters with the benefit of hindsight and on the basis of the information and evidence available at the time of the Inquiry. There is no question of the

reasonableness of any precaution depending on the foreseeability of risk. The reference to reasonableness relates to the question of availability and suitability or practicality of the precautions at the time of the accident resulting in death." Like Sheriff Scullion in his Determination concerning the death of Caroline McCall, 2014 FAI 7, I respectfully endorse that view.

[13] For a finding to be made under Section 6(1)(d) there must be defects in a system of working which contributed to the death. There must be evidence on the normal civil standard, that of balance of probabilities, to justify any findings. As Sheriff Kearney observed in his determination, referred to above:

"In deciding whether to make a determination under Section 6(1)(d) as to the defects, if any, in any system of working which contributed to the death..., the Court must, as a precondition to making any such recommendation, be satisfied that the defect in question did in fact cause or contribute to the death. The standard of proof and rules of evidence is that applicable to civil business... and accordingly the standard of proof is that of the balance of probabilities". In other words, there must be a causal link, proven on the balance of probabilities, between the defect or defects, and the death. I, like Sheriff Scullion in his Determination referred to above, agree with that.

[14] As regards findings under section 6(1)(e) of the Act, it is apparent that the terms of that provision are cast wide and that no causal connection between such findings and the death need be established (in contradistinction to paragraphs (c) and (d)), though any such findings must bear some relevance to the circumstances of the death. Ian D H Carmichael, in his work referred to above states at paragraph 5.75:

"The provisions of section 6(1)(e) are still wider and, in my view, entitle and indeed oblige the court to comment upon, and where appropriate make recommendations in relation to any matter which has been legitimately examined in the course of the Inquiry as a circumstance surrounding the

death if it appears to be in the public interest to make such comment or recommendation.”

I endorse that view which appears to be closely based on the view expressed by Sheriff Kearney in the determination referred to above.

[15] I also note that it is said by the authors of Macphail, *Sheriff Court practice*, that paragraph 28.17 that:

“... speculation must be avoided; as with all the paragraphs of section 6(1) of the 1976 act, there has to be evidence which satisfies the Sheriff on the material points.”

I accept that.

[16] It is the duty of the Procurator Fiscal to adduce evidence with regard to the circumstances of death: section 4(1) of the Act. The Court proceeds on the basis of the evidence placed before it and although described as an Inquiry, the sheriff's powers do not go beyond making a determination in relation to the circumstances established to his/her satisfaction by evidence following upon investigation by the Procurator Fiscal and any other party appearing at the Inquiry.

Summary of circumstances leading to death and principal issues for the Inquiry

[17] It might be helpful for the reader to have at the outset of this Note, a short summary of the circumstances leading to the death of Mr Moody and the principal issues that arose in the Inquiry for determination.

[18] Mr Moody was employed by Falburn Engineering (“FE”) as a fabricator and had been for about 10 years. FE is small engineering company based at Plean. On the morning of Saturday 16 June 2012, Mr Moody was a front seat passenger in a vehicle owned and operated by FE. The vehicle was a Mitsubishi Cantor drop-side lorry (“the Mitsubishi”). It is a 3 ½ tonne light goods vehicle. It was being driven by Mr James Short, also an employee of FE. James Short’s duties included occasional driving of that vehicle. It was normally driven by his colleague Mr Christopher Seton. The vehicle was unladen.

[19] While the vehicle was approaching the Greencornhills roundabout, Bannockburn, Stirling, on the A9 Edinburgh to Perth Road, westbound, the

vehicle suddenly moved into the opposite carriageway. There, about 40 metres from the roundabout, it collided with a 7½ ton Ford Iveco heavy goods vehicle ("the Ford Iveco") being driven by Mr Derek Duff whose wife, Mrs Margaret Duff, was in the front passenger seat. That vehicle was laden with milk. The front nearside of the Mitsubishi was badly damaged and Mr Moody sustained major injuries including major brain injuries. He was taken to hospital and despite treatment, died without recovering consciousness on 26 June 2012, ten days after the collision.

[20] The principal evidential issues that fell to be determined developed as evidence was led and new issues arose. By the conclusion of evidence, it had become clear that the following principal evidential issues arose:

- a. Why did the Mitsubishi move into the opposite carriage way?
- b. In particular, did any of the following contribute in any way to that movement:
 - (a) The defective thrust bearing;
 - (b) Any other aspect of the mechanical condition of the vehicle;
 - (c) The systems for checking and maintaining vehicles operated by FE;
 - (d) The road conditions;
 - (e) The weather conditions;
 - (f) Driver error;
 - (g) The system of driver training operated by FE ?
- c. Was Mr Moody wearing a seat belt and if not, might that have contributed to his death?

The evidence in summary

[21] I now turn to the evidence. The evidence was tape recorded in the usual way but has not been transcribed. What follows is my summary, taken from my notes and the productions, of those the parts of the evidence which are relevant to my Determination.

[22] *Mr Derek Duff.* He was driving the Ford Iveco delivering milk to shops. He was driving in the direction of Plean on the A9 from Bannockburn

to the Greencornhills roundabout. As he exited the roundabout, beginning to go up the hill on the A9, he saw a vehicle coming down the hill. It was the Mitsubishi Cantor in which Mr Moody was travelling. That vehicle was zig-zagging down the road. It looked out of control, as though the driver had taken a bad turn. He saw it for about 30 seconds. The Mitsubishi crossed the central line a few times as it came down the road coming half-way over onto his side of the road. He estimated the speed of the Mitsubishi as being between 40 and 45 mph. The national speed limit applied at that point. He was doing about 10 mph. He took evasive action to attempt to avoid a collision. That was unsuccessful and the Mitsubishi collided with his vehicle, the passenger side of the Mitsubishi striking his driver's side. The collision was on his side of the road. Crown production 2, photographs 1 and 2 show where the collision happened. He and his wife were wearing seat belts. He suffered minor injuries and his wife had seat belt bruising. The driver of the Mitsubishi said immediately after the accident that it was his fault and he held his hands up. It was raining excessively and the road was wet. Water was running down the road but not like a river.

[23] *Mrs Margaret Duff.* She was the passenger in her husband's vehicle at the time of the collision. She saw the Mitsubishi coming down the road. It looked as though it had lost control. The Mitsubishi zigzagged across the road to the opposite carriageway and back again before colliding with her vehicle. She thought that the Mitsubishi had lost control and then had swerved back to its own side of the carriageway before then colliding with her vehicle on her vehicle's side of the carriageway. Her impression was that the driver of the Mitsubishi had taken unwell, judging by the way the vehicle went over the road to her side of the carriageway and then back again before returning. She identified the vehicles concerned in photograph 4 of Crown production 2. Her vehicle was doing no more than 5 to 10 mph. Her husband had attempted to avoid the collision by mounting the curb and grass verge. The collision was on her side of the road. She had seat belt injuries for which she received medical treatment. It had been raining

heavily before the time of the collision but had subsided to only a drizzle by that time. The roads were quiet and the road was wet.

[24] *Mr Philip Adrian.* He was travelling in his vehicle about 50 metres behind the Mitsubishi. He was doing the same speed as the Mitsubishi which was about 55 mph. The speed limit at that point was the national speed limit. After the Mitsubishi passed the Bannockburn Hospital on the way to the roundabout, he saw it veer into the oncoming traffic on the other side. Up until that point, he had had no concerns about the way in which the Mitsubishi had been driven. He saw the oncoming milk delivery truck coming up the hill. He saw the Mitsubishi cross the central line so that the passenger side of the Mitsubishi was facing oncoming traffic so the vehicle had done a 90° turn, as if it were about to turn right. He did not notice any attempt by the driver of the Mitsubishi to correct the veer. He saw the Mitsubishi veer onto the opposing carriageway once only. The veer was slow. He cannot say why it veered. The road was damp and it was not raining at the time. He did not notice the Mitsubishi braking or otherwise slowing down. The road conditions had not caused him, in his Audi A4, any difficulties. The road was not flooded. The milk lorry attempted evasive action without success.

[25] *PC Graeme Ferguson.* This officer had previously served in the Road Policing Unit for about 14 years and had experience there of collision investigation. He has specialist qualifications from the National Policing College as well as City & Guilds qualifications in the field of collision investigation and is an advanced driver.

[26] He prepared a collision investigation report which is found at Crown production 3. He was called out to the collision shortly after it occurred and arrived at the scene at 9:45 a.m.. He examined the road. The road was tarmacadam with inlaid chips and was in a good state of repair. The road comprised two lanes separated by hazard warning lines which were probably there because that part of the road was an approach to the roundabout. The road was the usual width. The national speed limit applied

to the road meaning that 50 mph was the maximum speed for the vehicles involved in the collision. He is very familiar with the road which runs generally north/south.

[27] By the time he examined the site of the collision, he had been told what witnesses had already reported concerning the collision by police constables Kirkham and Black. He understood that witnesses had said that it had been raining heavily at the time of the accident. It was raining heavily when he attended. There was no standing water but the road surface was very wet. However visibility was good and traffic was light. Section 2 of his report deals with the collision site.

[28] He examined the wheels of the Mitsubishi. They were in the straight ahead position and were jammed into place as a result of the collision. He examined the road for skid marks. He found none. In his experience, where wheels of their vehicle have locked, they tend to leave skid marks, though not always.

[29] Witnesses said to him that Mr Moody was not wearing a seat belt. Crown production 4 shows his sketch plan of the site of the collision which was prepared following measurements and examination taken by him at 11 a.m. on the same day. The road had been closed. As part of his investigations, he drove a marked police van, a Volkswagen Transporter, to do a skid test. That revealed that the amount of tyre grip that would be expected was less than what would have been expected when the road was newly resurfaced; the friction readings were less than the normal coefficient of friction readings. That meant that any vehicle applying its brake would take longer than normal to come to a halt. The vehicle used in that test stopped in a straight line. It was equipped with ABS which had not been turned off for the test.

[30] The vehicles involved in the collision were examined by Mr Graham Miller who is the group technical specialist for western commercials. The lead examiner was Mr Paul Robertson who is a vehicle examiner for VOSA. There were no defects found in the Ford Iveco. It was in a good state of

repair and condition for its age. There were defects in the Mitsubishi. That he took from the reports prepared by Mr Robertson. The tyres were underinflated which could have a significant effect on handling ability. There was a defect in the steering system which he understood may have caused the steering to be heavy or even tight. Underinflated tyres may destabilise the vehicle and change handling characteristics. It was possible that that contributed to the accident.

[31] His examination of the interior of the Mitsubishi appeared to show that both passenger and driver seat belts had been worn at the point of the collision as there were burn marks on the belt webbing consistent with the heavy load being placed on the seat belt usually found after a collision. However, given that he had received information from PC Kirkham that PC Smart who had been on the scene shortly after the accident saw that Mr Moody was not wearing a seat belt, he concluded that those marks may have been due to wear and tear.

[32] He examined the road to look for contamination. He found none.

[33] In conclusion, he was unable to state definitively the cause of the collision. In his view, the defects in the Mitsubishi may have contributed, the weather may have contributed and there may have been driver error but he could not be sure about any of these things.

[34] *Mr James Short.* He was employed by FE as a fabricator and had worked for that company for many years. He had arrived for work at 07.20 that morning and had driven to his workplace in his own car. He was the driver of the Mitsubishi and Mr Moody was in the passenger seat. He was wearing a seat belt. The radio was off and there was no music or other such sound in the vehicle. He has had a full ordinary driving licence for 27 years. He was driving down the A9 towards the roundabout. The weather had been pretty bad. It had been raining most of the night but had eased off by the time he got to the roundabout. There was water running down the road, off the sides of the road. He was not under any time pressure.

[35] He was driving down the hill towards the Greencornhills roundabout. There was no conversation between him and Mr Moody at this point. He was in fourth gear. At about 80 yards from the roundabout, he applied the brakes to slow down to change to third gear. He applied only a slight pressure to the brake. He had been doing about 30 to 35 mph at this point. The wheels then locked and he immediately veered violently to the right. He attempted to correct the veer by turning into it. But everything was solid, the vehicle did not respond. He thought the vehicle was skidding. He was able to turn the steering wheel but that produced no effect. He was not sure whether the veering was in one movement or more than one movement. It was possible that the vehicle did zig-zag following his attempts to correct what he thought was a skid, rather than veer once only. He was not aware of the opposing vehicle. His vehicle crashed into the opposing vehicle. It all happened so quickly he had no time to react before the collision.

[36] Normally he did not drive the Mitsubishi. He had driven it in the past but not regularly. Normally, another employee of FE, Christopher Seton, drove the Mitsubishi. He was not aware of any previous problems with the Mitsubishi although he seemed to recall that Christopher Seton had mentioned something about the brakes quite a while before that date, perhaps years before, but he could not recall anything more than that. He had not spoken to Mr Seton about the brakes since the accident.

[37] Before driving the Mitsubishi, he had not carried out any checks on the vehicle. He had never been told by anyone that he ought to carry out checks before driving and he had noticed nothing untoward with the tyres of the vehicle. He had little understanding of vehicle maintenance of this type of vehicle and had no role concerning vehicle maintenance. He knew that if he became aware of a fault in a company vehicle, he would report it to the office to anyone who was there. There was no formal procedure or particular person to whom the reports should go. It was left to common sense whether to report a problem.

[38] Immediately following the collision, he saw that Mr Moody was trapped in his vehicle. He did not know if Mr Moody was wearing a seat belt at the time of the accident but he saw that Mr Moody did not have a seat belt on immediately after the accident. He was not able to say whether Mr Moody had never put on a seat belt or whether it had come off. Mr Moody was unconscious immediately after the collision. He did not remember saying that the collision was his fault and did not think he did say that. He might have said "sorry". He was unable to say what the cause of the accident was other than he got no response from the vehicle after pressing the brake and that the road conditions may have had something to do with that. He denied any inattention or being tired. He suffered injuries being mostly seat belt injuries, such as bruising, from which recovered after five or six weeks.

[39] On being recalled to give further evidence (following in particular the evidence of Mrs Angela Dyer, Christopher Seton and Mr Ian Hepburn), he gave the following evidence. He was not aware of the propensity of the Mitsubishi to kick out or fishtail before the collision. He learned about that after the collision. The day after the collision Christopher Seton came to see him. Christopher Seton said to him that something like that had happened to him, the vehicle had kicked as he came to the company workshop. So Christopher Seton made a link between what had happened to him and what had happened to the witness. Sometime after the collision, he had heard from someone, he could not remember whom, that a weight had sometimes been placed on the back of the Mitsubishi.

[40] He did not usually drive the Mitsubishi and he had had no other experience of driving such a vehicle. He had received no training about driving such a vehicle. There had never been any discussions between him and Ian Hepburn about the kicking problem with the Mitsubishi. He had never been told to wear a seat belt by anyone at FE but it was common sense to wear one. There may have been a sticker in the vehicle reminding passengers to wear a seat belt. He was wearing a seat belt and he had soft

tissue injury to his shoulder and across his stomach: there was external and internal bruising which he understood was typical of seat belt injuries.

[41] As regards the collision itself, he said that after he pressed the brake, it felt to him like the back of the vehicle had moved across. The vehicle moved to the right and the back end kicked to the left. He attempted to steer into it as if in a skid so he turned the steering wheel to the right. He could only recall the rear of the vehicle moving once. But it was possible that it did move back the other way as well.

[42] *Mr Graeme Paterson.* He is a vehicle examiner employed by the Vehicle and Operator Services Agency VOSA and its successor, DVSA for 17 years. He examined the Ford Iveco after the collision in June 2012. It had no defects at all. There was however collision related damage to the steering and brakes. There was nothing in the vehicle condition which could have contributed to the collision.

[43] *Mr Graham Millar.* He is the Group Technical Specialist with Western Commercials. That is a dealership which supplies Mercedes-Benz and Mitsubishi vehicles for the commercial sector. In June 2012, Paul Robertson of VOSA contacted him to assist in his investigation of the Mitsubishi and in particular its braking system. He examined the vehicle including the load sensing valve which is part of the braking system. He found no fault in the load sensing valve, no damage there and there had been no alterations made to it. He checked the braking system completely which was all in perfect condition.

[44] Examining further, he found that there was a collapsed offside bearing on the steering linkage: the thrust bearing. Some rollers in the thrust bearing shell were still there so there would still have been some steering capability. The shell, or cage, which contained the roller bearings had collapsed. Paul Robertson had already stripped down that part of the vehicle before he had arrived. He examined the gears of the vehicle which were stuck in third gear as a result of the collision. He attempted to start the engine but it was not possible due to the damage sustained in the collision.

[45] The damaged thrust bearing in the steering linkage is built in a shell with needle rollers inside. The purpose of the bearing is to assist in the movement of the steering to make it easier to steer especially if there has been a hydraulic failure in the steering. The driver might feel the effect of the defect through the steering as a slight wobble or perhaps a noise when going over a bump. The defect would make the steering slightly heavier if the hydraulics had gone but there would still be steering function even with this defect. There was approximately a 4 mm lift as a result. The driver would not usually be able to detect the "lift" which should normally be no more than 1 mm. A 4 mm lift is horrendous in the vehicle of this type. He could not say whether that defect caused a loss of control. He could not say whether that defect contributed to the collision.

[46] He had not seen that defect often and had never seen one as bad as this. Regular maintenance would have detected the failure of the bearing. It was a severe defect but would not stop the steering from working. When he tested the steering, he could feel stiffness from the steering wheel which did not return to the straight ahead position: normally the steering wheel should not have to be forced back. When he examined the steering initially, it was in the straight ahead position.

[47] That defect would have led to an MOT failure. If there had been earlier checks to the vehicle, that defect could have been identified earlier. He could not say how often that the vehicle had been serviced. It is up to the customers how often servicing is done. If the thrust bearing were not greased, it would depend on the surrounding conditions how long it would take to rust up. 4 to 6 weeks might be possible especially if the vehicle is used in construction work where the vehicle has to be washed often. He could not however see any rust. There was no grease in the bearing or around it. If the steering had been regularly maintained, he would have expected to have seen traces of grease in and around the thrust bearing.

[48] The cause of damaged thrust bearing was due to wear and tear caused by a lack of greasing due to lack of regular maintenance. Greasing

should be applied through a grease gun. There are two grease points on the thrust bearing for greasing. It would take only a few seconds to do that greasing. The frequency of greasing depends on the mileage covered by the vehicle. The defect that he saw would have been apparent during the annual MOT examination as it is one of the things that must be checked. He had checked his garage records and could find no record of the vehicle being taken to a service to his garage at any time although he could tell that the vehicle was originally purchased from his garage. The vehicle would have been sold with a three-year or 125,000 mile warranty, whichever occurs first. The warranty would have expired in 2008. Servicing for that vehicle should be done according to the schedule in the handbooks which is once every 13,000 miles or two years, whichever comes first. When servicing the steering system, one jacks up the vehicle and greases the steering which should be in tip-top condition and light to the touch. Brakes and steering are the two main items of the vehicle to be checked. Crown Production 12 shows the manufacturer's servicing schedule for the Mitsubishi.

[49] *PC David Kirkham.* He attended the scene of the collision about five or 10 minutes after receiving a report, at 8 a.m., of the collision. He spoke to photograph 2 in Crown production 2 with regard to the position of the vehicles that he saw at that point. The road was in a good state of repair. It was extremely wet. It was raining when he arrived and it had been torrential just before then. There was a lot of surface water on the road running into the verges. There was water running down the road from the top of the hill. However the amount of water from the road did not cause him any anxiety. His initial thought was that the Mitsubishi had aquaplaned, based on the amount of water he could see on the road. He closed the road and got traffic investigators in.

[50] James Short, the driver of the Mitsubishi, was breath tested-tested with a negative result. He seized the mobile phones and of the two drivers and examined them. Neither had been used. He made enquiries of FE regarding current vehicle maintenance and was told that there had been

regular servicing of the Mitsubishi. He obtained some records relating to work done on the Mitsubishi. He tried to get as much information regarding vehicle maintenance as possible. He got one invoice showing that in April 2012 there had been a report of a lack of power in the vehicle which resulted in a fuel filter being replaced. The vehicle had a current valid MOT certificate. That was all he could obtain at the time. The vehicle was seven years old at the time. He heard that the tyres were seriously underinflated

[51] He is not a vehicle examiner or one who has special qualifications in this area. From what he saw at the site of the collision and from what he had heard from witnesses, in his view the collision was due to weather conditions and the inexperience of this particular driver with this vehicle.

[52] He sought to establish whether Mr Moody had been wearing a seat belt. He was told by the ambulance staff that Mr Moody had not been wearing a seat belt at the time of the collision.

[53] He examined the front wheels of the Mitsubishi. The front wheels were slightly angled to the nearside so that the vehicle was pointed to the left of the road at the time of the accident as if it was trying to avoid the accident. That can be seen in photograph 11 of Crown production 2.

[54] On being recalled, he gave the following additional evidence with regard to further enquiries and investigations he had made since he first gave evidence. He had tried to retrieve the logbook of the Mitsubishi from FE and he spoke to Mrs Angela Dyer, Office Manager there. Originally she recalled having had it but with the passage of time, the logbook was no longer in her possession. She had it until the office had carried out a move but not afterwards.

[55] He had made further enquiries as regards the issue of whether Mr Moody had been wearing a seat belt since he last gave evidence. He interviewed all emergency responders who attended on the day of the collision but no one could say for sure, at that juncture, whether Mr Moody was or was not wearing a seat belt. He was told that the normal procedure adopted by Fire and Rescue Services on attending a vehicle involved in an

RTA, where an occupant needed to be removed from the vehicle, was that if the occupant was wearing a seat belt, it would be cut in order to facilitate the removal of the occupant. He was quite sure that the passenger side seat belt in the Mitsubishi had not been cut. He saw that himself on the day of the collision. Furthermore, the collision investigation report also records that the seat belt had not been cut.

[56] In reference to Crown production 3 (the collision investigation report) and paragraph 7.9, PC Smart was the witness referred to who said that Mr Moody did not appear to have been wearing a seat belt at the time of the collision. However he was not first on the scene. As regards the “burn marks” on the seat belt in the passenger side of the Mitsubishi, it is difficult to say whether they were caused by that collision or some other event. As regards possible wear and tear on the seat belt, his take on that is that it is concerned with the age of the vehicle and previous times that the belt has been worn. He had not examined the seat belt himself in any detail. He had spoken to Dr David Sadler regarding a laceration present on Mr Moody’s neck. Dr Sadler was not able to say if that was an injury caused by a seat belt. In his opinion, as reporting officer, based on his enquiries, Mr Moody was not wearing a seat belt at the time of the collision.

[57] *Christopher Seton.* He is a driver for FE and has been for 11 years. Other employees also do driving duties. He has had a licence for 45 years. He knew the Mitsubishi well. He drove it every day on short and long trips. He would drive it both laden and unladen. Sometimes when driving the vehicle, he would get a “wee kick”. That meant that the back of the vehicle would move out to one side compared to the position of the front of the vehicle. It would depend on the road conditions and whether the vehicle was laden or not. It only happened when the vehicle was unladen. It would happen when the road conditions were wet and when he was slowing down. He had noticed there was a particular problem if there was heavy rain and the vehicle was approaching the FE yard, the approach to which was down the hill. He would say to others to watch themselves.

[58] He would get his colleagues to put a heavy weight in the back of the vehicle if it was unladen because otherwise the vehicle would become unstable when light. If the vehicle gave a kick, he would deal with that by straightening up the vehicle using the steering so that if it kicked to the left he would put the steering wheel left down until the vehicle straightened up again. That would be just part of the driver's natural instinct to correct that movement. He told other employees of FE about this. However, he would not tell them every day about this since they would already know this.

[59] He gave a statement to PC Kirkham on 14 May 2014 where he said "The vehicle could on occasion if you braked too hard in the wet, lock-up in the rear wheels and skid slightly". He agreed that he had on occasion braked too hard in wet weather which caused the rear wheels to lock-up although he said that it happened maybe once and he knew not to do that and he knew that you had to keep your speed down. If there was snow or ice, he would put a heavy metal plate on the back of the vehicle over the back axle to add weight. He had not told Angela Dyer, office manager of FE, about this problem. He had however told her about some other problems with the vehicle in the past that included a power problem with the vehicle which resulted in the work done recorded at Crown Production 14.

[60] If work had to be done on the vehicle, a vehicle had to be hired whilst it was in the garage. The MOT was done by McRae and Dick in Stirling. There were no company rules concerning the use of vehicles. As far as faults were concerned, it was up to the driver to report them. He had never seen Crown Production 13 which appears to be a set of company rules. There were no handbooks or written guidance produced by his employer so far as he was aware. Everything was done by word-of-mouth. He did not receive any specific training for his job as he did not need any.

[61] If there needed to be servicing done to the vehicle, it would be done about 10 days before the MOT was due. The vehicle went into the garage approximately every eight weeks when it was checked. He did not know how many services the vehicle had in a year. When the vehicle was under

warranty, it was serviced regularly at the garage from where it was bought about two or three times a year. He had never seen the vehicle's service book. The vehicle had no steering issues and was in good working order so far as he was concerned. He would inspect the vehicle on Monday mornings and check the oil, water and tyre pressure.

[62] The vehicle he now drives (in 2014), of a similar type to the Mitsubishi, has the same issue. He became used to it. In cross-examination he said that he was not aware of the "wee kick" happening to any other vehicle, just the Mitsubishi under certain road conditions. In answer to further questions, he said that the "kick" always moved the rear of the vehicle to the nearside which he corrected by steering to the nearside. It would still happen to him even though he knew the vehicle well. The vehicle was unladen on the day of the collision. The weight that he would put on the vehicle was a 12 mm thick slab of cast iron. However, that had not been in the vehicle on the day of collision. The incline on the hill on the road running down to the roundabout is steeper than the one running down into the FE yard. He thought that the conditions in existence on the day of the collision could have produced the kick. He did not know why the kick happened. He could not work it out. He had tried to change his driving style to stop it happening. He had told Ian Hepburn, the managing director of FE about this problem. Mr Hepburn did not say anything about it. He took the vehicle to Central Tyres and took it regularly there about every 6 to 8 weeks for inspection of the tyres. He himself would check tyre pressure by kicking them. He accepted that on the date of the collision, the tyres were underinflated but explained that he had been on holiday that week.

[63] *James Cobham.* He is a traffic examiner with DVSA and was previously with VOSA. He was asked by the police to examine the Ford Iveco which he did on 29 June 2012 at the MTS premises. He checked the tachograph which was in good working order. Nothing else concerning the tachograph gave him any concern.

[64] *Paul Robertson.* He is a vehicle examiner for DVSA. He examined the Mitsubishi twice following the collision. He prepared a report with photographs dated 16 June 2012 which is found at Crown Productions 5 and 6. Due to the level of damage in the collision he was unable to start the engine or road test the vehicle. All of the tyres were underinflated, some substantially so. However, that would not have led to a prohibition notice had that been discovered on inspection. Otherwise, the tyres were in good condition. The condition of the tyres did not cause him much concern as there were six of them.

[65] The other main defect he found was in connection with the stub thrust bearing which was excessively deteriorated on axle 1 on the offside. The stub axle is attached to the axle by a stub pin. Due to the load acting on the beam axle via the stub axle, a roller bearing (the thrust bearing) is fitted between the lower face of the axle and the stub axle. The stub axle provides a mounting for roller bearings to support the front hub and road wheel. Each stub axle has a fixed arm connected by a track rod. The offside stub also has a drag link fitted to it. The drag link is next to the steering box. When the steering wheel is turned, the steering box transmits movement to the drag link and this in turn pushes and pulls the stub axle and any steering movements conveyed to the offside stub axle are thus transmitted to the nearside stub axle by the side steering arms and their connecting track rod.

[66] On examination of the front suspension and steering components, it was noted that the offside front stub thrust bearing was excessively deteriorated. The casing was deteriorated to the extent that the bearings, which should be contained within the casing, were no longer present and the remaining casing surfaces were rusted and dark in colour. There was no sign of lubrication present in the remaining section of the casing. There was a visible gap between the axle face and thrust bearing casing and a section of the stub pin was visible. This indicated that the stub pin was fully/partially seized within the upper and/or lower stub pin bushes. Testing highlighted an excessive amount of lift between the stub and stub axle of 4mm. The

maximum should be 1.4 mm. He had only seen such a defect 2 or 3 times in 12 years and never as bad as this.

[67] Crown Production 11 is a diagram showing the steering assembly including the thrust bearing. Crown production 12 shows the manufacturer's recommended servicing schedules indicating that there should be lubrication applied to the king pin bearings, the steering shaft and steering linkage ball joints every 12,000 miles. However, greasing of the axle stub assembly would not produce greasing of the thrust bearing because that is factory sealed and even if partially corroded, the greasing would not replace any grease thus lost. He had had a discussion with Mr Millar on this point. Mr Millar said that there were greasing points for the thrust bearing but later changed his view. In Mr Robertson's view, the thrust bearing does not need to be lubricated. Further, one would not necessarily see grease residue; it would depend on the time that had elapsed since greasing was done last. He agreed however that it looked as if it had been some time since any lubrication had been done. In conclusion he said that the sealed unit containing the thrust bearing had failed.

[68] The cause was corrosion leading to damage of a roller bearing leading in turn to damage of the other roller bearings. The vehicle did not look as though it had been serviced recently.

[69] The defects of this nature and severity would clearly not meet the MOT minimum standards. If the vehicle had been encountered at the roadside, the severity of the defect would meet the criteria for an immediate prohibition notice to be issued.

[70] The effect of that defect would be that the steering would move differently and there would be an effect on the self-centring of the steering mechanism. The driver would notice banging from the steering if it went over a pothole. He could not say whether that defect could have caused a swerve. However, it would not lead to "kicking". It was difficult to say whether that defect would have caused or contributed to the collision

without a road test. However, on balance, there was probably no connection between that defect and the collision.

[71] As regards braking, the vehicle was not fitted with an anti-lock braking system. It had an exhaust brake, which is an additional braking device operated by the driver. The device was set at the off position. There was some wear to the front brakes but they would have met MOT standards. There was no problem with the rear brakes.

[72] For this type of vehicle, a light goods vehicle, having a weight not over 3½ tons, no particular servicing schedule is required by law. It is a matter for the owner. For vehicles over that weight, heavy goods vehicles, regular servicing is required. There is a big difference in regulation of light and heavy goods vehicles. In his experience, and that of VOSA, a high percentage of vehicles in the range of 2 to 3½ tons have lots of defects when examined. So, he and his colleagues carry out special operations to target such vehicles. In such operations, around 40 to 50% of such vehicles stopped and checked result in prohibition notices.

[73] He checked the load sensing valve with the assistance of the witness Mr Millar. There was no problem with it.

[74] Crown Production 16 is the MOT certificate for the vehicle current at the time of the collision. It is dated 3 September 2011. At that time, the mileage was 110,593. The thrust bearing defect would have been picked up at an MOT, as inspection of that part is mandatory, and would have resulted in a failed MOT. It is possible that the defect of the thrust bearing occurred after the MOT in September 2011.

[75] The problem of “kicking”, where the back of such a vehicle moves to one side, may occur when the vehicle is unladen and the brakes are applied. In that situation, the force is transferred to the front of the vehicle and the wheels can lock. That effect is more marked where the road surface is wet. This effect is not particular to this make and model of vehicle. Kicking is always associated with brakes locking. The Mitsubishi was fitted with a load sensing device but that is a less sophisticated form of ABS.

[76] Commenting on a possible scenario of the collision where it was posited that the Mitsubishi was travelling toward the roundabout, brakes were applied and the vehicle veered to one side, he said that that could be accounted for by a brake locking out early on being pressed too sharply in an unladen vehicle which did not have an anti-brake locking device. In such a scenario, if the driver keeps his foot on the brake, he would have very little control of the vehicle and he would expect the vehicle to continue veering in the same direction. In that scenario, the defective thrust bearing would have no effect on the steering.

[77] On being recalled to give further evidence he said as follows. The tendency of vehicles like the Mitsubishi to kick out means that the vehicle moves out at the back either to the left or the right which is more likely to happen if it is unladen and in wet conditions. Whether the driver would be able to compensate for that would depend on the driver's experience. The way of dealing with it would be as with the skid, that is turning into it. He had made enquiries with the DVSA vehicle safety branch as to whether this was a known safety issue. There had been no such reports.

[78] He was taken to Crown production 22 which is a lengthy and detailed publication published by DVSA entitled *"Guide to Maintaining Roadworthiness: Commercial Goods and Passenger Carrying Vehicles"* revised 2014. Although it does not apply to vehicles such as the Mitsubishi, page 9 which deals with *"Key Points of a Good Maintenance System"* could apply equally to light goods vehicles and would represent best practice. That is true today and would have been true in 2013. Crown Production 23, dated October 2013, is a publication by the VOSA entitled *"Your Van: Best practice Guide"*. Page 5 of that guide notes that according to the VOSA, 63% of vans were found to have serious mechanical defects, that the average roadworthiness prohibition rate was 50% and that the failure rate for class 7 MOTs was 50%. He said that these figures indicated problems which could be avoided by effective inspection and maintenance routines. The rate of defects with HGVs was far lower because the regulatory scheme was very

different and much tougher. Those vehicles had to be maintained in line with the manufacturer's specifications and records had to be kept for a minimum of 15 months relating to maintenance. Page 7 of that publication sets out an "*Operator Checklist*" which sets out recommendations for operators of light goods vehicles. Page 9 of that publication sets out a driver checklist and the publication also includes a diagram of a van together with detailed advice as to how to carry out van walk around inspection. That should only take 10 minutes for a driver to do on a daily basis.

[79] Crown Production 24 was also a VOSA publication entitled "*Staying Legal: the Basics*" which provides a very abbreviated readable guide to the essentials of the law applicable to van drivers. That publication advises van drivers to familiarise themselves with safety features on the van, to familiarise themselves with the van and to carry out the van walk-around checklist every time the van is taken out. Crown Production 27 is a long publication by DVSA being "*The Official DVSA Guide to Driving Goods Vehicles*". It is aimed at drivers of both heavy and light goods vehicles. Those parts relevant to drivers of light goods vehicles include the section on maintenance at page 69.

[80] Commenting on braking safety devices, he said that load sensing valves do not eliminate the tendency in vehicles such as the Mitsubishi to lock rear wheels when unladen. By contrast, ABS is more effective than a load sensing valve. That is because when wheels lock, there is a tendency by the driver to keep the brakes on which will mean the driver will not regain control of the vehicle. An ABS system monitors each wheel and will automatically relieve and then re-apply pressure on each wheel to counteract that tendency. ABS is a greatly superior system because it works on each wheel independently. There was no ABS on this Mitsubishi. From 2007 or passenger cars required to have ABS. However there is no such requirement on the manufacturers of light goods vehicles which he found strange. The absence of ABS on the Mitsubishi could have led to the zig-zagging action described by two of the witnesses. It is unlikely that the defects that he found

in the Mitsubishi could have caused the accident but he would not rule them out as being a possible cause or contributor since he was not able to road test the vehicle.

[81] *Mrs Angela Dyer.* She is the office manager of FE and has been for 11 years. FE is a small family business. She has one administrative assistant.

[82] There is no formal policy at FE concerning recording of defects for reporting of defects in company vehicles. If an employee reports a defect in a vehicle, she makes arrangements with the garage or alternatively that will be done by Ian Hepburn, managing director or John Henderson, director. Ian Hepburn is her father. The company rules are found at Crown Production 13 and since January 2014, a new company handbook has been in place. She also has a procedures manual which refers to company vehicles and checklists and which has been in place since 2007. She produced the company health and safety manual dated January 2010, a procedure manual dated 2011, a fleet maintenance planner and associated sheets (post-dating the collision) and an employee handbook dated 2014. The health and safety manual said nothing specific about vehicles. The procedure manual concerned itself mainly with health and safety matters with a brief reference at paragraph 9.9 to a checklist involving checks by drivers on vehicles. The employee handbook (dated 2014) is a comprehensive statement of company policies on a wide range of employee related matters as well as health and safety issues. It makes clear that Ian Hepburn, managing director, has day-to-day control of health and safety issues. It also sets out the general duties of the company and directors regarding health and safety matters.

[83] Mrs Dyer said that in 2012 each company vehicle (five in total) had associated with it an individual folder containing details of road tax, MOT, insurance and servicing and repairs. Since 2014, she keeps a log chart in the office on the wall so that a visual check can easily be made with regard to the logs for each vehicle. The wallchart was produced as Crown Production 19. It contains servicing schedules amongst other things. Servicing for vehicles was generally done in September or October of each year before the winter.

There was no specific training given to any employee as to how to report a vehicle defects and there is no reference to that in any of the documents referred to above. That is because FE is a small company and all employees would know what to do. If there was a vehicle defect, all would know that they would need only to speak to her or Ian Hepburn or John Henderson. Crown Production 18 is the health and safety manual which was in force since before she began work for the company. The procedures manual is Crown Production 21 which was introduced in 2006 and reviewed in 2011.

[84] The Mitsubishi Cantor was bought in September 2005 when new. Servicing was initially done by Western Commercial at Bellshill. Then for two years, servicing was done by Albion Motors in Stirling and after that, servicing was done by Fairtrade Autos which is located close to the FE premises. Servicing under the warranty was done once a year. All servicing was done by Fairdeal Autos from 2010. There was just one report of a problem with the Mitsubishi in June 2012 relating to a loss of power: see Crown Production 14. The Mitsubishi was essential to the business and in 2012 there was no other suitable vehicle.

[85] She could locate no record at all of when the Mitsubishi had last been serviced before the collision. She did not know when the last service was. She said there had been a problem to do with invoicing from Fairdeal Autos for the two years prior to 2012 and that invoices had been sent to them for a two-year period in one batch. Crown Production 17 comprised a series of invoices for work done on the Mitsubishi. None of these invoices, bar one, showed any servicing done on the vehicle. That invoice showed servicing done to the Mitsubishi in 2009. That was before Fairdeal Autos started to be used by FE. She said she had given all the invoices to the police. She could not be sure that all the invoices that she had given to the police were returned to her because she did not keep a record of what she had given to the police. She only gave the invoices that she had at that time to the police and did not provide the police with any record of the servicing that may have been done to the Mitsubishi.

[86] She accepted that what was contained in Crown Production 17 was a complete record of everything that she had relating to work done on the Mitsubishi. She had attempted in 2012, and again the previous week, to see if she could obtain further records relating to work done on the Mitsubishi. She had asked Michael Nairns at Fairdeal Autos for his records of servicing. He had told her that there were no job cards for such work. She could not say whether servicing of the Mitsubishi had ever been done. She had never been sent an invoice for servicing of the Mitsubishi. She did not have servicing schedules showing what should have been done.

[87] Mr Seaton was responsible for doing visual checks on the vehicle as required. Anyone else driving the vehicle would do a visual check. Mr Seaton drove the Mitsubishi the most.

[88] *Ian Hepburn.* He is the managing director of FE owning 55% the company. John Henderson owns 45%. Mr Seton mostly drove the Mitsubishi but all employees might be asked at some point to drive the vehicle.

[89] Servicing of the vehicle was done under warranty for the first three years once per year. Then Albion Motors did it in 2008 and 2009. Then Fairdeal Autos did the servicing for at least four years. The only mechanical problems he was aware of before the collision was a stiff clutch and the engine going into "limp mode" both of which problems were fixed before 2012. If there was a problem with the vehicle, whoever drove it would report it to someone in the office. He did not know whether there was a written policy regarding report of defects. He had employed a lawyer to do a company policy and the lawyer may have put something about that in the company policy. That was his job. Servicing of company vehicles was done just before winter. Mr Seton would check water and oil and he would take the vehicle to the garage if there was any problem. The garage would do all checks necessary. It would be put in for a full service. Servicing and the MOT was done at the same time. Fairdeal Autos would do the MOT and servicing. Records of that were kept by "one of the girls in the office". He would expect there to be a record of servicing. Mrs Angela Dyer would

know most about vehicle records and he would not be involved in that side of it.

[90] As regards the lack of records of servicing after 2009, he said that Fairdeal Motors had sent an invoice for £6,000 for three years' worth of work last year. He did not remember the dates covered by that work although he thought it did cover the Mitsubishi. He did not see the invoices he just saw the cheques. He did not notice that no invoices for servicing of the Mitsubishi had been sent to his company. He was present on various occasions when the police came and they took away as much of the written records as he had. He accepted that there may have been a service record book for the Mitsubishi but could not be sure if that was passed to the police. He did not know whether it was kept up-to-date. So far as he was concerned the Mitsubishi was taken to the garage and he expected servicing to be done. He would not know if the Mitsubishi had missed its annual service because he "didn't need to know". That was so even though he accepted that as managing director he ultimately takes responsibility.

[91] Although at first he appeared to claim that he did not know that the Mitsubishi had a tendency under certain circumstances to kick out and swerve, he went on to say: "They are prone to swerving". He did not know that Mr Seton had told him about that. However, he himself has driven such a van with no load in it and had experienced the van kicking. He said "You didn't need to go fast for that to happen. If you kept the brake on, the brakes would lock and the vehicle would start spinning". He said "I knew it could be dangerous". He told his employees that they should be careful when the van was unloaded. He knew that Mr Seton put a weight in the van when it was unloaded. That was his idea. That problem was the same with all vehicles of this type. He believed that Mr Seton had told the employees about this problem. There was no specific training provided to drivers concerning this problem. Paragraph 4.2 of his company's 2014 Handbook was incorrect where it stated that he was responsible for health and safety issues. In fact

the employee Michael was responsible for health and safety issues on a day-to-day basis which he would then bring to him.

[92] *Dr David Sadler.* He is the pathologist who carried out the post-mortem on Mr Moody. He prepared the post-mortem report contained within Crown Production 1. That report concluded that the cause of death was as follows: I. (a) multiple injuries and their complications; (b) blunt force trauma; (c) vehicular collision (front passenger). Death occurred at 03.10 on 26 June 2012 at the Western General Hospital, Edinburgh.

[93] The report records the following injuries. Fractures of the left lower leg bones and dislocations to both ankles. There was a healing black eye on the right side and numerous scattered abrasions to the hands, more evidenced on the left side. There were fractures of the 8th, 9th and 10th ribs on the left and associated minor developing pneumonia and bronchitis within the lower lobes of both lungs. There was on autopsy moderate swelling of the brain and extensive haemorrhagic injury deep within the brain. Death was attributed to multiple injuries and their complications, the result of blunt force trauma occurring in the course of the vehicular collision in which the deceased was a front seat passenger.

[94] In evidence, Dr Sadler said as follows. He saw no evidence of seat belt injury. He had understood from information provided to him before the autopsy that witnesses had said Mr Moody was not wearing a seat belt. The injuries were consistent with the collision having occurred to the left, passenger side of the vehicle in which he was travelling. He said that if the seat belt had been worn, that may have prevented Mr Moody colliding with the interior of the vehicle. As to whether seat belt would have reduced the injuries, he said that with a side impact, the seat belt would be less effective. He doubted whether wearing of the seat belt would have made much difference to the outcome. Of the injuries received by Mr Moody, the head injury was the most significant. It would be unusual for the other injuries to have led to death.

[95] He was taken to the statement of Dr Ioannis Fouyas, consultant neurologist at the Western General Hospital in Edinburgh who treated Mr Moody on the date of the collision. That statement records that there was no need for neurosurgery because he saw the lesions on the scan which were highly likely associated with diffused axonal injury which is invariably with devastating consequences and no treatment is available. That statement also records that Mr Moody was “in deep coma, deeply unconscious, at the scene of the accident and remained so until he was intubated (he was not opening his eyes, he was not verbalised and he was extending his hands when stimulated)”.

[96] In relation to that statement, Dr Sadler said that diffused axonal injury is often found in road traffic accidents and that finding fits well with his findings. There is no real treatment available for such a condition. Diffused axonal injury could result either from an impact by the occupant with the vehicle interior or rapid deceleration of internal organs. However, even though diffused axonal injury is caused by both rotation and impact, one rarely gets an example of one without the other. They are usually found together. In most road traffic accidents, inertia causes the brain to move and to sever axons. Diffused axonal injury may result even where an occupant is wearing a seat belt. In this case, Mr Moody had a black eye on his right side which is usually the result of an impact, but not always. The injuries are consistent with Mr Moody not wearing a seat belt. Looking at the photographs showing the result of the collision taken at the scene of the collision, his position now was that if Mr Moody had been wearing a seat belt the injuries would have been reduced.

[97] Looking at the injuries that he suffered, they fit better with his not wearing a seat belt than wearing a seat belt. It is more likely he was not wearing a seat belt. It is likely that the head injury was caused by Mr Moody's head striking the A pillar within the interior of the vehicle and that Mr Moody's chest injuries were caused by his striking the dashboard. The injuries would have been difficult to explain if he were wearing a seat belt; the injuries are easy to explain if he were not wearing a seat belt. If Mr

Moody had been wearing a seat belt then that may have prevented the head strike and chest strike. However, the diagonal effect of a seat belt can allow passengers to slip through and it is also necessary to take account of the internal architecture of the vehicle and the mechanism of the collision.

[98] On being recalled, Dr Sadler gave the following evidence. Since he had last given evidence, he had produced to the Crown what he called the full or technical post-mortem report which provided rather more detail on the post-mortem examination, although the summary report remained identical as did the commentary. That was lodged as Crown production 29. He had prepared that from a contemporaneous digital audio recording of his examination findings following his last appearance in this court. Although he appeared to be under the impression that this full report had been requested by the Court or the Crown, the procurator fiscal depute took issue with that. He was asked to comment on neck injuries received by Mr Moody which is dealt with in this full report at pages 8 and 9. There he records that “on the left side of the upper neck overlying the inferior margin of the mandible and approximately 60 mm to the left of the midline, is an obliquely aligned healing fixedly scabbed injury measuring 30×5 mm and obliquely aligned with its lateral end lying slightly superiorly”.

[99] He was asked whether Mr Moody had any injuries consistent with wearing a seat belt. He said not specifically. The classical sign is diagonal bruising caused by the strap. Sometimes one can find an injury in the neck if the belt slackens or tightens against the neck. Frontal impacts cause injuries to the front. Now having seen photographs showing the position of the vehicles after the collision and seeing the collision appeared to be at 45°, he said that it would be possible that there would be no seat belt injuries. As regards the neck injury just described, the cause is likely to have been a blunt force injury caused by striking part of the vehicle but if Mr Moody had been wearing a seat belt, that could have caused it. There are no other injuries on Mr Moody consistent with his having worn a seat belt. His interpretation of all of the results of his examination is that the injuries are best understood as

the result of an unrestrained passenger hitting the interior of the vehicle in the corner.

[100] In an email to the procurator fiscal depute dealing with this enquiry dated 29 August 2014, Dr Sadler responded to a number of questions put to him. That email is lodged as Crown Production 32 and has been admitted into evidence by agreement between the parties. The questions were put to him as a result of discussions between members of Mr Moody's family (who had attended every day of the Inquiry) and the procurator fiscal depute, following the close of the Crown evidence. Essentially, as I understood it, these were further questions which members of Mr Moody's family wanted to be put to Dr Sadler even though he had by that time already given evidence on two occasions. The parties sought to have that email admitted as evidence, which I allowed. The question and answers are as follows.

There was morphine in his system. He would have been given morphine if he was conscious or semiconscious (he may have been able to remove his own seat belt)? He would have been given morphine in the course of medical treatment. I cannot speculate as to whether he was conscious at the time that was given let alone comment on his ability to release his seat belt at this time. The severity of brain injury would suggest to be that he would likely have been rendered unconscious immediately upon infliction but witness statement may indicate otherwise.

He had no skull fracture-you would expect to see this if he had come into contact with the body of the car? Not necessarily. A major mechanism of brain injury is shaking and jarring of the head causing disruption of nerve fibres and blood vessels without major associated impact. Although there was no skull fracture, there was scalp bruising to suggest some degree of impact injury.

He had broken ribs-this is consistent with the seat belt being worn? Whilst rib fractures can occur from seat belt pressure, such injuries are usually to the front of the chest wall. The lateral (more left sided) location of the injuries in this case more likely relate to direct impact with the interior of the vehicle.

[101] *Michael Nairns.* He owns Fairdeal Autos and has operated for 23 years. His business does MOTs, repairs and servicing of motor vehicles. He does work for FE and has done for more than five years. They have trucks:

all trucks are basically the same. He does servicing of vehicles. It is up to the customer what kind of servicing is required. It is for the customer to decide whether the servicing is to be done according to manufacturer's guidelines or otherwise. He has the facility for checking manufacturer's guidelines if that is required. They would not be checked unless the customer asked. If the customer is not specific about the service, what will be done is oil, air and fuel filter changes, check oil, brake fluid, screen wash and radiator water levels. Front and back brakes will be checked as well as tyres, horns and lights.

[102] It is now quite rare to have vehicles which require lubrication: they are all sealed for life. Applying grease through grease nipples is very 1960s as they have all been sealed since the 1970s. Grease nipples are very rare these days in cars and vans. He did not know anything specifically about Mitsubishi light goods vehicles. He would be very surprised to learn that the Mitsubishi had grease nipples. If there was a grease nipple, he would expect greasing to be done as a matter of course during a general service. He said that one would see bits of grease sticking out of the vehicle and it would be obvious. There will always be bits of grease if it needs greasing even if it has been missed on a previous service. It is always obvious.

[103] He had seen the Mitsubishi which had been brought into his garage for a service though he had never worked on it himself. He was shown Crown Production 9 which was a sketch of the position of the thrust bearing. He said he recognised it but was very rare in vehicles of this type as opposed to HGVs. He was taken to production 6 which comprised photographs of the defective thrust bearing. He said he had seen some vehicles with a bit of play in the thrust bearing; 2 or 3 mm play was permitted but 4 mm was a failure for the MOT. He was asked to indicate on the photograph where grease would be applied. He was unable to do this. That was despite the fact that the photograph which he was shown had a green arrow pointing to two grease nipples. He admitted that he was not a trained mechanic: he was an electrician to trade.

[104] He did not know how often the Mitsubishi had been serviced by his garage. He said there had been flood damage in his garage causing damage to computers in 2011. He had no records which could show what servicing if any was done to the Mitsubishi. He could neither agree nor disagree that the Mitsubishi was serviced and MOT'd every year in September or October. He said that he was lackadaisical with paperwork so he may not have billed FE for all the work that was done. He claimed not even to have done the insurance paperwork for the flooding damage and said he was owed tens of thousands of pounds. He had no knowledge of having sent a large bill for £6000 for a long period of time to FE. His wife, Mrs Rosemary Nairns, does all the records.

[105] *Rosemary Nairns.* She is the wife of Michael Nairns and works as administrator for his company dealing with both workshops in Stirling and Plean. She does most of the administration. Job cards are completed for all work done. Fairdeal Autos did work for FE including work on the Mitsubishi. She spoke to the police about work done on the Mitsubishi. She went through all her records including job cards and invoices. She had produced all the invoices that there were in relation to the Mitsubishi. She denied that there was ever a time when one invoice was given to FE for a lot of work over a long period. On one occasion there was a gap of three months when a number of invoices were sent at once to FE. That happened about five or six years ago. That has not happened recently. She then changed the recording system to prevent that happening again. The system has worked for the last 45 years. Every time the vehicle comes in, a job card is created and the work done is transferred to an invoice. All work would be dealt with that way apart from perhaps very minor work such as replacing a light bulb.

[106] She had no difficulties in checking her records concerning the Mitsubishi. She gave all the paperwork regarding the Mitsubishi to the police. The records she gave were a complete account of all the work done. Crown Production 30 contains the complete record for work done for the Mitsubishi.

[107] She disagreed strongly that servicing was done at the same time as an MOT. An MOT and servicing are two completely different things. If a vehicle failed and MOT work might need to be done. There are no invoices for servicing for the Mitsubishi or any other record of servicing having been done by her garage on the Mitsubishi.

[108] She agreed that there had been flooding to the garage. She specially checked her records on that point. The flooding was in November 2009 and January 2011. An insurance claim was made by the company following the flooding on each occasion. She could not be sure that the job cards concerning the Mitsubishi were not affected. However, the invoices she produced were a complete record of what was on the computer system. She was quite clear from her checks of her records that there was no work done on the Mitsubishi which had not been invoiced.

[109] *Mrs Alison Moody.* She is the widow of Mr Moody. She had been in court during the previous seven days of evidence. In her opinion, her husband had been wearing a seat belt at the time of the collision. She based that view on the following matters. He had a gash to his neck after the collision. A nurse at the hospital said that it was consistent with the seat belt injury. That injury was on the left side of his neck. It was an open gash when she saw it. In addition, Dr Sadler's report said he found morphine in her husband's body. That indicates that he was semi-conscious when he was found and he could have taken off his own seat belt. In addition, she has seen a YouTube video showing simulated crashes with crash dummies. In every case, where the dummy was not wearing a seat belt, it went through the glass. But her husband had no glass injuries. In addition, her husband had no skull injury: there was hardly a mark on his skull. There was just one small cut on his left cheekbone which is the same side is where the seat belt would be. She was married to him for 39 years. He would never go in their car without a seat belt. She could not see how he could have broken his ribs apart from the force of the seat belt. She also pointed to the evidence of friction burns on the seat belt which in her view was different from wear and

tear. She also noted that no witness had said conclusively that her husband had not been wearing a seat belt. Although it appeared that the seat belt was off when the emergency services arrived, he could have removed that himself. She also noted that Mr Short was not asked whether her husband was conscious or semiconscious just after the crash. She had been told in the hospital unofficially that the injuries would not have been so bad if he had not been wearing a seat belt. His brain injuries were similar to shaken baby syndrome.

[110] She had seen Crown Production 32 comprising questions put to Dr Sadler with his answers. In response, she said that she did not see the skull injury he referred to and Dr Sadler could not say whether her husband was conscious or not immediately after the accident. She accepted the evidence given to the Inquiry that when her husband was first seen in the vehicle after the collision there was no seat belt on him. But she thought it likely that he had released himself from the seat belt. She noted also that PC Kirkham had initially said he thought her husband was wearing a seat belt but after talking to other witnesses, changed his view. She said she had never seen a black eye on her husband or bruising to either of his eyes. All she saw was a cut to his left cheekbone. She said she did not wish to see any of the post-mortem photographs.

[111] *Mr David Jones.* This witness was called by FE. He is the Team Leader in Land Services for Stirling Council. He spoke to FE Production 4 being the response to a freedom of information request made on behalf of FE. That request concerned reports made regarding diesel or oil spillages on the A9 in the vicinity of the site of the collision. In summary, reports of oil or diesel spillages were recorded as having been made on 9 June 2012 and 16 June 2012 in that vicinity. Swift action was taken which involved inspection of the whole of that part of the road. Nothing was found on either date of that kind.

Joint Minutes

[112] I should also note that the parties agreed two joint minutes, dated 8 July 2014 and 2 September 2014. The first essentially agreed that Crown Productions 22 to 27 (official VOSA/DVSA publications) were what they purported to be and should be admitted into evidence. The parties also agreed is that Crown Production 28 comprised invoices confirming the servicing work carried out at Western Commercial, Bellshill in relation to the Mitsubishi. The second joint minute agreed that Crown Production 31 was a book of post-mortem photographs. It was further agreed that FE Production 2 comprised miscellaneous invoices presented to FE by Fairdeal Autos, that FE production 3 FE was a Sage Accounting report of invoices presented by Fairdeal Autos to FE to September 2014 and that FE Production 4 was a Stirling Council email response to agents for FE dated 13 August 2014. It was agreed that all these matters should be admitted into evidence. It was also agreed that Crown Production 32 was an email response from Dr Sadler to the Crown dated 8 September 2014 and should be admitted in evidence. So far as that last item is concerned, I have recorded its contents above in the summary of Dr Sadler's evidence.

Submissions

[113] Following the conclusion of evidence, I asked for written submissions to be lodged in advance by the parties and fixed a hearing to consider them. I am grateful to the procurator fiscal depute and Mr McMillan for doing so timeously and for the content of those submissions which I found helpful. Given that those submissions are lodged in process, there is no need for me to rehearse them in full. It suffices for present purposes to briefly summarise them incorporating any clarifications and additions made orally during the hearing on submissions.

[114] *Crown submissions.* Section 6(1)(b). The Crown submissions contained a brief introduction with a short summary of the law, some brief factual details concerning Mr Moody, a summary of the evidence concerning the circumstances of the accident before moving onto the issues which were at-large for the Inquiry. One issue was the condition of the Mitsubishi and in

particular the state of the thrust bearing. The weight of evidence was that it was unlikely to have caused or contributed to the collision but was a matter for the Inquiry to determine: no submission was made one way or the other as to what the Inquiry should conclude. If the Inquiry concluded that there was an evidential link between the collision and the defective thrust bearing, a reasonable precaution would be that lubrication should have been applied to the thrust bearing in line with manufacturer guidelines. Another issue was servicing and maintenance. After dealing in some detail with the evidence on this point, the Crown asked the Inquiry to conclude that there was no system in place at FE to ensure that servicing was done in line with the manufacturer guidelines and that there was a disappointing lack of records to categorically confirm the servicing history. It is the responsibility of the owner of the vehicle, FE, for ensuring the vehicle is roadworthy. The next issue was the propensity of the vehicle to kick out. No submission one way or the other was made in relation to whether the Mitsubishi suffered from this problem and if so, whether that problem occurred on the day of the collision.

[115] The Crown did submit that given the beneficial effects of ABS on the handling of light goods vehicles when under braking, and given that all standard passenger cars manufactured since 2007 have ABS, it may be beneficial for that to apply to other vehicles such as light goods vehicles. However, there is no suggestion that the Mitsubishi Cantor was not compliant with legal requirements as to construction. As regards whether Mr Moody was wearing a seat belt, after reviewing the evidence on this point, including the evidence of Dr Sadler, the procurator fiscal depute simply invited the Inquiry to consider this question and make whatever conclusion it thought correct on the basis of the evidence. As regards whether there was an oil spillage on the road, on the evidence, the Inquiry was invited to conclude that there was no evidence of any oil or diesel spillage playing a role in this fatality.

[116] No submissions were made in relation to whether a finding should be made under section 6(1)(d). As regards section 6(1)(e), I was invited to make a recommendation that all employers have in place a system to check that vehicles are correctly maintained by suitably qualified people. Further, employers should have in place a forward planning system to ensure that vehicles are inspected at regular intervals in line with manufacturer's recommendations. The servicing periods should take account of the type work being completed and the mileages undertaken. That system should be operated in a similar way to that applicable to heavy goods vehicles. Employers should record vehicle maintenance and keep records for a minimum of 15 months. Further, the Inquiry should make a recommendation that it is good practice to set up a system of daily checks to include checks on tyres, lights, wheel nuts washers, wipers and oil and that such checks should be recorded. There should also be a system to report any defects found. In addition, employers should have in place a system to ensure that all drivers are familiar with the vehicles they are required to drive. Additional driver training should be considered for those who will be required to handle larger vans.

[117] *Submissions on behalf of Falburn Engineering.* Mr McMillan's submissions adopted those of the Crown in relation to proposed findings as regards section 6(1)(a) and (b). In relation to paragraph (c) [reasonable precautions if any whereby the death and the accident resulting in the death might have been avoided], after a concise summary of the evidence relating to this heading, he invited the court to make no determination under this heading. In his submission, there were no such precautions which might have prevented the accident. However, elaborating on his written submissions, he accepted that there was no evidence of specific training as to the use of seat belts by those using vehicles operated by FE. Whilst not conceding that the evidence demonstrated a lack of vehicle checks and servicing, even if the servicing of the Mitsubishi was poor, the defects in the vehicle did not contribute to the collision. Moreover, the evidence as to lack

of servicing was unclear especially given the contents of FE Production 3 which tended to undermine the evidence of Rosemary Nairns that apart from one three-month period many years ago, there had never been a large number of invoices bundled together. That evidence showed that such an event had happened quite recently. Moreover, there was a conflict between the evidence of Mrs Dyer and Mrs Nairns and the Inquiry should prefer Mrs Dyer's evidence to that of Mrs Nairns. At most, any findings with regard to servicing and the condition of the thrust bearing should go to section 6(1)(e) rather than paragraph(c) or (d).

[118] He did accept that the evidence showed that FE was aware of the tendency for vehicles such as the Mitsubishi to kick out under certain circumstances. He accepted that the evidence showed that in winter, a large weight was placed in the back of the Mitsubishi when unladen to counteract that known tendency, that had not been done on the date of the collision and that the Mitsubishi was unladen that day. It was also accepted by FE that the driver of the Mitsubishi, Mr Short never received any formal training regarding the tendency of the vehicle to kick and how to deal with that tendency. However, Mr Short possessed an ordinary car driving licence which was as a matter of law sufficient to entitle him to drive that vehicle.

[119] In his submission, there was no defect in the system of working which led to the death. In his submission, there was no evidence sufficient to entitle the Inquiry to make a finding under section 6(1)(d). Neither should there be any findings under paragraph (e) of section 6(1): that would be "overreach". However, he would have no difficulty with the Inquiry making recommendations, as opposed to a determination, along the lines proposed by the Crown in its submissions under section 6(1)(e).

Discussion

[120] The findings to be made under section 6(1)(a) as to the time and place of death and the accident leading to death are uncontroversial. Those findings are determined above. Neither in terms of section 6(1)(b) is the cause of death controversial: I incorporate the terms of the findings of Dr

Sadler in that regard in my determination above. However, the remaining part of section 6(1)(b), the cause of the accident, and what determination the Inquiry should make under the other paragraphs of section 6(1) are controversial. I should deal in turn with those questions. In doing so, I return to address principally the questions that I posed at paragraph [20] above *viz.*

- a. Why did the Mitsubishi move into the opposite carriage way?
- b. In particular, did any of the following contribute in any way to that movement:
 - (a) the defective thrust bearing;
 - (b) any other aspect of the mechanical condition of the vehicle;
 - (c) the systems for checking and maintaining vehicles operated by FE;
 - (d) the road conditions;
 - (e) the weather conditions;
 - (f) driver error;
 - (g) the system of driver training operated by FE ?
- c. Was Mr Moody wearing a seat belt and if not, might that have contributed to his death?

I now deal with those questions in the context of the findings that I am required to consider under the five paragraphs of section 6(1) of the Act.

Section 6(1)(b): the cause of the accident.

[121] *Why did the Mitsubishi cross into the opposite carriageway?* I accept the evidence of Mr Short that he was driving within the speed limit, that he was not distracted, was an experienced car driver but quite inexperienced in driving the Mitsubishi. I accept his evidence that it was only after he depressed the foot brake, that he lost control of the vehicle, that he attempted to regain control of the vehicle without success and that he veered onto the opposite side of the carriageway leading to the collision with the Ford Iveco milk lorry.

[122] As to whether the vehicle moved just once onto the opposite carriageway or whether it zig-zagged across the road before the collision, it

seems to me that it is unnecessary to make definitive findings for the purposes of this Inquiry. However, I should say that I prefer the evidence of Derek Duff and Margaret Duff in that regard to that of James Short and Philip Adrian. That is not only because the evidence of the Duffs was clear, unambiguous and consistent, one with another, but also because I consider that given their vantage point and slow speed, having spotted the vehicle relatively early on, they were in a better position to observe the trajectory of the Mitsubishi than Mr Adrian. Moreover, given the sudden and unfortunate circumstances that James Short found himself in, it is understandable that his recollection of the precise movement of his vehicle, struggling as he was to control it, might not be accurately remembered. I note also that Mr Short readily accepted that his vehicle may have zig-zagged rather than moving in once single direction of travel and that he could not be sure either way. While I do not discount the recollection of Mr Philip Adrian, and while I find he was a credible witness, I note that on another issue (whether it was raining at the time of the collision) his recollection was at variance with all other witnesses, whose evidence on that point I found more reliable. I therefore prefer the evidence of the Duffs on the zig-zagging point. I also prefer, on balance, Mr Short's evidence on the speed that he was travelling which I found more reliable than that of Mr Adrian whose evidence, though honestly given, I regret I have not been able to accept on two other points

[123] It is common ground that Mr Short had never received any specific training in the driving of that vehicle. I accept his evidence that he did not know that the Mitsubishi had a tendency to kick out under certain conditions and had no training or specific understanding as to what to do when that happened. Several witnesses spoke to their understanding that vehicles such as the Mitsubishi (a drop sided 3 ½ ton light goods vehicle) would under certain conditions have a tendency to "kick" or "kick out" by which was meant that the rear of the vehicle would move to the left or right causing the front of the vehicle to change direction. That phenomenon would be initiated by the rear brakes locking. The conditions under which

that might occur would be when the brakes were applied to such a vehicle, not fitted with ABS, when driving, unladen, in wet conditions, downhill after the brakes were applied. Paul Robertson spoke to this known general tendency among vehicles of this general type. As regards this specific vehicle, Ian Hepburn, managing director of FE and notably Christopher Seaton, employee of that firm, spoke to that tendency which they had experienced on a number of occasions. Even Mr Seton, experienced as he was in driving that vehicle found that whatever he did, the vehicle would sometimes kick out. He had worked out a means of dealing with that both by placing a heavy weight in the unladen vehicle and by appropriate driving technique but had never been able to eliminate it. Ian Hepburn said he “knew it could be dangerous”. He claimed that he had told his employees about this. I do not believe him. Neither did I believe that Mr Seton properly advised Mr Short about this known tendency and precautions that should be taken. I much prefer Mr Short’s evidence in that regard where he said that he had not been given any training or instruction as regards this problem except that he recalled some years ago Mr Seton saying something about a problem with the brake. James Short had had no experience as to this problem or adequate instruction as to what to do. It is remarkable that the conditions described by Mr Short were exactly those described by other witnesses as being those in which a kick was most likely to occur.

[124] I think it likely that on depressing the brake pedal (whether lightly or sharply I cannot determine definitively), the rear brakes locked causing the vehicle to “kick”. He attempted to control the vehicle by steering into the skid but quite possibly, inexperienced as he was with the characteristics of this particular vehicle, continued to keep his foot depressed on the brake in an instinctive effort to slow the vehicle and prevent its passage into the opposite carriageway. Given the road conditions and the characteristics of the vehicle (in particular, that it was unladen and not fitted with ABS, having only a rear load sensor valve which would have been less effective)

he was unable to bring the vehicle under control; his vehicle then collided with the Ford Iveco.

[125] *The defective thrust bearing.* Turning now to the possible contribution of the defective thrust bearing, it is common ground that the thrust bearing was shattered before the collision. The exact nature of the defect was spoken to by Paul Robertson and Graham Millar whose evidence I accept in that regard. I accept their evidence that the defect was a serious one and that the vehicle would have failed the MOT in that respect and also that if found during a roadside test, would have resulted in an immediate prohibition notice. It resulted in a "lift" of about 4mm, well over the normal maximum permitted of around 1mm. I am unable on the evidence to reach a clear view as to whether it (as opposed to other parts of the steering system) ought specifically to have been lubricated regularly. But, it is not necessary for me to do so given my conclusions on this point. That vehicle in other words should not have been on the road on that day. However, the principal question for this Inquiry is whether that defect, serious though it was, made any material contribution to the accident. I accept the evidence of both those witnesses that even with that defect, the vehicle was drivable. I accept their evidence that even with that defect, the vehicle would still have been capable of being steered. I accept their ultimate conclusion that on balance, that defect played no part in the accident. I note however that that conclusion was qualified by the fact that due to the condition of the vehicle after the collision, it was not possible to road test the vehicle and without such a test, it was not possible to definitively exclude that defect as a cause or contributor to the accident. On their evidence, and there being no other relevant evidence to the contrary, finding their evidence on this point to be both credible and reliable, I conclude on the balance of probabilities that the defective thrust bearing made no material contribution to the accident leading to the death of Mr Moody, while not being able to entirely exclude that defect as a contributor to the accident.

[126] *Servicing of the Mitsubishi.* I turn now to consider whether there was anything else concerning the condition of the vehicle that may have caused or contributed to the accident. There was considerable evidence as to whether the vehicle had been adequately serviced. I was rather unimpressed by the evidence of Ian Hepburn, managing director of FE in this regard. His evidence was at times vague and confused and contradictory. While, eventually, he accepted that he was ultimately responsible for health and safety matters for the company (which included the safety of his employees in the company vehicles) he appeared at the same time to be more concerned with shaking off this responsibility onto his employees. He had little accurate understanding of the regime for servicing and repairs of his company's vehicles and he seemed from what he said and his demeanour to be quite unconcerned about it.

[127] As regards vehicle servicing records, and the lack of any records after 2009 to demonstrate that servicing was done to the Mitsubishi, I do not believe that even if there was some error by Rosemary Nairns in failing to submit invoices for a 2 or 3 year period before submitting them in a batch (and Rosemary Nairns, administrator for Fairdeal Autos firmly denied that, which denial I am inclined to believe taking account of all the evidence), that would have accounted for a lack of serving records for the Mitsubishi. Both before the Inquiry (starting very shortly after the accident) and during the course of the Inquiry itself, strenuous efforts were made by the Crown, and the police acting on Crown instructions, to recover all and any records relating to the serving history of the Mitsubishi. Both FE and Fairdeal Autos were asked on more than one occasion to produce all and any such records. In the event, despite those efforts, there was no documentary record at all of any servicing having been carried out to the Mitsubishi after 2009, that is about three years prior to the accident. Neither was there any evidence of the batch of invoices that Ian Hepburn claimed to have been submitted for a three year period (or 2 years according to Mrs Dyer) or any cheque having been written for £6000.

[128] I considered whether the floods that occurred in the Fairdeal Auto premises in November 2009 and January 2011 could have been responsible for the loss of records. I rejected that explanation for the following reasons. First, Fairdeal Autos were able to produce records that both pre-dated and post-dated those floods. Second, those floods would not account for the absence of any servicing records between February 2011 and the date of the accident in June 2012. Third, that could not account for the absence of any such records held by FE. Fourth, both Mrs Dyer and Rosemary Nairns said that the records they spoke to at the Inquiry represented a complete account of all work done on the Mitsubishi. Fifth, the evidence as to the state of the thrust bearing pointed to the lack of regular servicing, as did the under inflation of the tyres.

[129] I considered also whether I should nonetheless accept the oral evidence by Mr Seton and Ian Hepburn that servicing was done as a matter of course annually before the winter at the same time as the MOT was done in October. I rejected that evidence because there were no records to demonstrate that and I do not accept that servicing, if done on a regular basis would not have led to records, even if only in the shape of an invoice for the work done. Moreover, I accepted the evidence of Mrs Dyer, the administrator responsible for all record keeping at Fairdeal Autos and quite experienced, that as a general rule, servicing and the MOT are two separate things and would not be combined. My conclusion therefore is that the Mitsubishi was not serviced after 2009 by Fairdeal Autos or any other garage, still less was it serviced since that time in line with manufacturer recommendations.

[130] In saying this, I have not lost sight of the fact that the Mitsubishi had a valid MOT certificate at the date of the accident. That certificate is dated 3 September 2011. The evidence was that such a defect, if found during an MOT inspection would have resulted in a failure. The evidence also is that the steering, including the thrust bearing, would have been inspected during the MOT inspection. I have to assume therefore, there being no evidence to

the contrary, that the MOT was properly carried out, that part of the vehicle was therefore properly inspected and that therefore, as of that date, not only was the vehicle as a whole roadworthy, despite the lack of regular servicing, but that there were no signs at that point that the thrust bearing was defective. It follows then that the deterioration of the thrust bearing occurred sometime between that date and the date of the accident.

[131] On all the evidence as to servicing, I cannot find that that lack of servicing of the vehicle, or the absence of proper systems for recording and planning vehicle maintenance, contributed in any way to the accident. I have already dealt with the defective thrust bearing.

[132] As regards the condition of the tyres, although under-inflated (one tyre grossly so), the evidence on this point was mixed. PC Graeme Ferguson, who prepared a collision investigation report said that the under inflated tyres could have had a significant effect on the Mitsubishi's handling ability, that underinflated tyres destabilise a vehicle and change handling characteristics and could have contributed to the accident. However, Paul Robertson, the vehicle examiner at VOSA said that the underinflated tyres did not represent a major defect, would not have led to a prohibition notice and would not have contributed in any way to the accident. Between those two contrasting views, I am unable to decide. So I cannot conclude on the balance of possibilities one way or the other whether the state of the tyres contributed to the accident.

[133] There was nothing else regarding the mechanical condition of the vehicle which could have contributed to the accident.

[134] *Weather and road conditions.* I turn to deal with the weather and road conditions. The evidence of the witnesses present on the scene of the accident differed to some extent as to whether it was raining, if so, how heavily and the amount of water on the road. However, all bar one of the witnesses (Philip Adrian) said that it was raining at the time of the accident to some extent. All said that the road was wet and some said that it had been raining for some time. I accept the evidence of those witnesses and consider

that Mr Adrian was genuinely mistaken. It is unnecessary to make any more precise conclusion than that it had been raining for some time before the accident, that it was raining at the time of the accident and that the road surface was wet. There was no oil or diesel spillage or contamination of the road. I conclude that the road and weather conditions did contribute to the accident in that the tendency of vehicle like the Mitsubishi to “kick” leading to the risk of the driver losing control, was a tendency to be found especially under certain conditions, which include the road surface being wet.

[135] *Driver error.* I deal now with driver error, again in connection with the section 6(1)(b) question being the cause of the accident resulting in death. James Short was not driving at an excessive speed. He tested negative for alcohol. He was not ill. He was not distracted. He had not been using a mobile phone. He applied his foot to the brake pedal so as to decelerate and change down to third gear on his approach to the roundabout. That was a perfectly proper action for him to take. The rear brakes locked and the vehicle “kicked”. That understandably took him by surprise. He did not know that that vehicle had a tendency to do that under certain conditions, including the conditions under which he was driving. He had little experience of driving that vehicle. He had had no training as to what to do in that event. He dealt with the kick and consequent swerving as best he could. Quite possibly he kept his foot depressed on the brake pedal as he did so which, while that would not have assisted his efforts, was a perfectly understandable for him to do in the circumstances, if he did so. His vehicle struck the Ford Iveco. I cannot see that there was anything else, in these particular circumstances, he could reasonably have done. It is most unfortunate that James Short found himself involved in this way. It was clear from his evidence that he has been greatly affected by the accident: he thinks about it every day. Again, that is quite understandable. I do not consider that driver error was a cause of the accident in terms of section 6(1)(b) of the Act.

[136] I should also add that the evidence establishes that the driver of the Ford Iveco did not cause the accident to occur in any way and neither was his vehicle in any way defective.

Section 6(1)(c) of the Act: reasonable precautions.

[137] I turn now to consider questions arising under section 6(1)(c) of the Act: were there any reasonable precautions whereby the death and the accident resulting in the death might have been avoided. In considering this question I remind myself of the precise terms of the section and the way that this has been interpreted and the authorities that I reference at paragraphs [8] to [16] above. In particular, it should be remembered that this exercise requires a causal link between any such precautions identified and the accident and resulting death, although of course, the use of the word “might” indicates only that there be established a “real or lively possibility” that the accident and death might have been avoided. Further, it is very much an exercise in hindsight and is quite different from the sort of tests typically applied in civil cases.

[138] *Training and instruction regarding tendency of the vehicle to “kick”.* Ian Hepburn, managing director and majority owner of FE knew about the tendency to “kick”, at least with vehicles of the same type as the Mitsubishi. He knew that from his own experience. Mr Seton said that he told Ian Hepburn about that tendency in the Mitsubishi. Ian Hepburn knew that such vehicles were prone to swerving and would spin if the brakes were kept on. He said that he knew “it could be dangerous”. While he said that he had told employees about that tendency, I do not believe him, I much preferred the evidence of James Short in that regard to the contrary. My impression of Ian Hepburn’s attitude to health and safety in his workforce was that it was largely a matter for others to deal with. Certainly, there was no evidence of any formal instruction or advice having been given to any person about this tendency.

[139] Neither was there any evidence of any training having been given to any person about this tendency. Christopher Seton also knew well about the

tendency of the vehicle to kick, as he explained in evidence. He knew of methods to deal with that problem such as loading an otherwise unladen vehicle with a heavy weight and driving particularly carefully. While I accept that on one occasion some years ago, Mr Seton had said something to James Short about a problems with the brakes, that was not adequate in my view to alert James Short to the difficulties and dangers posed by the Mitsubishi's tendency to kick and how to combat them. As a result, when driving under exactly those sort of conditions where it was known by Ian Hepburn and Christopher Seton that a kick might occur (braking while driving downhill in wet conditions while unladen), the kick occurred resulting in the vehicle veering into the opposite carriageway, colliding with the Ford Inveco, causing Mr Moody's death.

[140] I therefore consider that there were reasonable precautions that could reasonably have been adopted which might have avoided the accident and the consequent death of Mr Moody. They are: (a) provision of a clear warning to Mr Short of the tendency of the Mitsubishi to "kick" under certain conditions and advising him as to what those conditions were; (b) providing Mr Short with adequate training as to how the Mitsubishi should be driven so as to minimise the risk of a "kick"; (c) instructing him to ensure that additional weight be added to the rear of the vehicle if the vehicle was otherwise unladen if driving in wet conditions.

[141] I consider next whether there were any other precautions that could have been taken so that the accident and death might have been avoided.

[142] *The seat belt issue I: was Mr Moody wearing a seat belt?* One issue, which took up some time in evidence, was whether Mr Moody was wearing a seat belt and if he was not, whether that might have prevented his death. The evidence as to whether he was wearing a seat belt was not entirely clear. James Short, the other occupant of the Mitsubishi could not say whether before the collision, Mr Moody was wearing a seat belt. However, he did say that immediately after the accident, he saw that Mr Moody did not have one on. He could not say whether Mr Moody had never had the seat belt on

during the journey or that he had, it somehow coming off. It is unfortunate that the Inquiry heard no direct evidence from any of those who first appeared on the scene of the accident.

[143] PC Ferguson, who prepared the collision investigation report and who examined the accident scene and Mitsubishi soon after the accident said that witnesses had said to him that Mr Moody was not wearing a seat belt. However, his examination of the seat belts disclosed burn marks on the webbing consistent with a heavy load being placed on the seat belt after a collision, but he appeared to change his view after having been told by PC Kirkham that he had been told by PC Smart that Mr Moody was not wearing a seat belt, saying that the marks he saw could have been due to wear and tear. His evidence on this point is therefore equivocal. PC Kirkham, who attended the scene 5 to 10 minutes after receiving a report of the accident, made specific enquiries, at the time, of the ambulance staff who had arrived at the scene before him about whether Mr Moody was wearing a seat belt. The answer was negative. I am inclined to place some weight on that evidence since PC Kirkham is an experienced investigating officer, was early on the scene and made direct enquiries to establish that matter.

[144] Unfortunately, the Inquiry did not hear from those who were first on the scene and who first found Mr Moody in the Mitsubishi. PC Kirkham's evidence said that having spoken to those emergency personnel who were first on the scene of the accident before giving evidence a second time (seeking therefore their memories over two years after the accident) none could say "hand on heart" whether Mr Moody was or was not wearing a seat belt. That evidence is therefore inconclusive. He was also told during those enquiries that the normal procedure for recovering a person in a vehicle after a road traffic accident where that person was wearing a seat belt was to cut the belt. He was sure that the belt had not been cut. I place some weight on that as tending to show that Mr Moody was not wearing a seat belt at the time of the accident.

[145] Dr Sadler gave evidence on this question on two occasions and provided further evidence by way of a written response to further questions put to him. His opinion throughout was that on the basis of his examination of Mr Moody's injuries, given his experience as a pathologist, that the injuries received by Mr Moody could be easily explained by his not wearing a seat belt, but would be harder to explain if he were not wearing a seat belt. Despite being pressed on this question for some time, he maintained his view that Mr Moody was probably not wearing a seat belt at the time of the collision for the reasons that he explained and which are noted above where his evidence is summarised. I place a considerable degree of weight on this view given its source, the cogent reasons for that opinion and the factual basis on which that opinion was reached.

[146] Alison Moody, having heard all the evidence, sought to persuade the Inquiry that her husband was wearing a seat belt, for all the reasons which she carefully advanced. I regret to say, with great respect to her, that I was unable to place a great deal of weight on her views. I ought to deal with those matters that she raised in her evidence.

[147] As regards the mark on Mr Moody's neck, Dr Sadler said that the mark may have been caused by a seat belt but equally, it could have been caused by something else. I accept that. As regards the morphine issue, according to Dr Sadler, that is routinely done and does not necessarily indicate that he was conscious immediately after the accident. I note also that the evidence shows that Mr Moody suffered severe brain injury, was deeply unconscious when admitted to hospital and never recovered consciousness. He also suffered a number of other injuries including breakages to his legs and ribs. Mr Short was asked, contrary to Mrs Moody's recollection, whether Mr Moody was conscious immediately after the collision: he said he was not. I accept that. I therefore consider it rather unlikely that Mr Moody was able, immediately after the accident, to have undone his seat belt.

[148] As regards injuries to the skull, although I accept that Mrs Moody's genuine recall is that the only injury she saw was the mark on the side of his

face, I regret to say that the post mortem photographs and Dr Sadler's evidence are to different effect. He had more injuries that she recalls: in particular, a black eye which was still healing and visible 10 days after the accident. Dr Sadler says these injuries to the skull were consistent with Mr Moody having been unrestrained and striking his head against the A pillar of the vehicle. I accept that. As regards the broken ribs, Dr Sadler's view is that those injuries were more consistent with his striking the interior of the vehicle than with seat belt injuries. I accept that. I note also that Mr Short, who was wearing a seat belt suffered only seat belt bruising across his body and was otherwise uninjured. However, I infer from Dr Sadler's evidence (that Mr Moody had no injuries consistent with seat belt injuries) that Mr Moody had no such injuries. That again points to no seat belt having been worn. As for what she had been told by those treating her husband before death at the hospital, it is difficult to place much weight on such evidence without medical evidence. As regards the YouTube videos, while of course not doubting that Mrs Moody saw what she said she saw, those type of experiments are of a specialist nature and without evidence from some suitably qualified expert, I cannot place any weight on such evidence.

[149] The part of her evidence that I found most significant was that when travelling with him in their car, she had never seen him without a seat belt. I accept that evidence of habitual seat belt wearing in the case of driving with her and I accept that evidence might tend to suggest that that habit was one that he carried over to his being carried as a passenger while at work. But I regret that I cannot regard that evidence as being decisive. A person might adopt a different habit while at work, while being carried as a passenger. He may have had such a habit but simply forgot on that occasion. That evidence moreover is rather less compelling than evidence arising directly from the circumstances of the accident itself. In placing Alison Moody's evidence with all the other evidence, as I must, I conclude that although the matter is not free from doubt, on the balance of probabilities, Mr Moody was not wearing a seat belt at the time of the accident.

[150] *The seat belt issue II: would a seat belt have made a difference?* The question that follows that conclusion, is whether Mr Moody's death might have been prevented had he been wearing a seat belt. The answer to that question is not as clear as it might be. Dr Sadler, who was the only witness who gave evidence on this point said that if he had been wearing a seat belt, that may have prevented Mr Moody's head and chest from striking the interior of the vehicle and the injuries would have been reduced. He said that the head injuries were likely to have been caused by his head striking the A pillar. However, he also said that the effect of a seat belt was reduced on a side impact and that a passenger, on such an impact, might slip through the seat belt and strike the interior of the vehicle. He said that diffuse axonal injury might be caused both by rotation and impact. His conclusion was that he doubted that wearing a seat belt would have made any difference to the final outcome.

[151] I conclude on this evidence, limited though it was, that even if Mr Moody had been wearing a seat belt, it is unlikely that the outcome might have been different. I therefore did not find that the precaution of wearing of a seat belt by Mr Moody might have prevented his death.

[152] *Advanced braking system.* I deal now with the significance of the fact that the vehicle was not fitted with ABS but instead only a rear load sensing valve. While I consider that had the vehicle been fitted with ABS, instead of the less sophisticated load sensing valve, the accident would have been less likely to have occurred (see Paul Robertson's evidence noted above), I do not consider that I can make a finding under this heading. That is because although I understand that cars manufactured since 2007 for sale in the UK must be fitted with ABS, that law does not apply to light goods vehicles. The Mitsubishi was lawfully operated by FE, in that sense. It would not have been a reasonable precaution in my view for FE to have disposed the vehicle and replaced it with another. Further, the Inquiry had no evidence as to whether retro-fitting of an ABS system was possible and feasible on this vehicle.

Section 6(1)(d): defects in system of working.

[153] I now turn to the evidence relevant to consideration of section 6(1)(d): the defects, if any, in any system of working which contributed to the death or any accident resulting in death. In doing so, I am conscious that it is not for this Inquiry to determine fault in a civil or criminal sense. I was told by Mr MacMillan that there are presently civil proceedings as yet undetermined in relation to the demise of Mr Moody. Nonetheless, I require to consider this aspect and whether to make a finding under this heading.

[154] I did consider, standing the conclusions that I have made above in relation to reasonable precautions, whether the Inquiry should conclude that there was a system of working at FE which contributed to the accident resulting in death. I certainly consider that there is an argument for doing so. However, mindful particularly of the considerations I refer to in the preceding paragraph, and bearing in mind the ultimate purpose of this type of Inquiry, I consider that the findings I make under section 6(1)(c) are sufficient. I therefore make no finding under this heading.

Section 6(1)(e); any other facts relevant to the circumstances of death

[155] I now turn to deal with section 6(1)(e) of Act and decide whether to make any finding under this heading. Having regard to the interpretation of that provision that I refer to above at paragraph [14], and the submissions of the parties, I consider that it is appropriate in the public interest to make findings under this heading.

[156] I have concluded above that although the vehicle was not serviced between 2009 and the date of the accident, that did not contribute to the accident. I have also concluded that while the defective thrust bearing was a serious defect which would have resulted in an immediate prohibition notice had that defect been found at the time, and while that defect would have resulted in a MOT failure had that test been carried out at the time, that probably did not make any contribution to the accident and the subsequent death of Mr Moody.

[157] However, I did find it quite concerning that FE operated a vehicle without regular servicing and that FE had no adequate formal procedure for daily or even weekly checks of the whole of the vehicle's condition. Such checks as may have been carried out by Christopher Seton as described by him, having regard to the official guidance to which I have already made reference, were likely to have been inadequate. The Inquiry heard concerning evidence from Paul Robertson, which I accepted as credible and reliable, about the very high proportion of vehicles in the same class as the Mitsubishi which failed random roadside tests by VOSA and DVSA: a failure rate in the order of 50%. He said that could be avoided by operators of vehicles adopting effective inspection and maintenance routines. However, he said, operators of light goods vehicles, Class 7 vehicles, are not under any special legal duty as regards inspection and maintenance, in contrast to HGVs (goods vehicles of over 3 ½ tons). Unsurprisingly perhaps, the failure rate for such vehicles on random inspections is considerably lower.

[158] This Inquiry is not the appropriate forum for consideration of any findings or recommendations as to whether there should be changes to the law to impose greater responsibilities on operators of light goods vehicles. Such reconsideration might well be merited in another place. But I do think it reasonable to note under this heading that there already exists freely available clear good practice recommendations published by VOSA and DVSA regarding the desirability of daily walk-round inspections of vehicles before the vehicle is driven and regular servicing in line with manufacturer recommendations. I refer to these publications in my summary of Mr Robertson's evidence. I think it reasonable to recommend that operators and drivers of such vehicles follow these good practice recommendations.

[159] As for the absence of any requirement for vehicles of the Mitsubishi type to be fitted with ABS, like Paul Robertson, I find that strange: since it appears quite clear that vehicles of that type are prone under certain circumstances to "kick"; that that tendency has been described as dangerous

by one witness; that in this case, that tendency led to the accident causing the death of Mr Moody; that all passenger car vehicles manufactured since 2007 require to be fitted with ABS, that ABS is more effective than a load sensing valve; that (on the basis of Mr Robertson's evidence, which I accept) had the vehicle been fitted with ABS; that might have prevented the loss of control experienced by Mr Short, there is no legal requirement for ABS to be fitted to such vehicles now sold in the UK. However, again, this is not the appropriate forum for consideration of the broader question as to whether there ought to be a change in the law to require all vehicles of this type to be fitted with ABS when sold in the UK. Instead, all I should do is to find as a fact that such vehicles may have a tendency, under certain conditions, to "kick" and thus swerve and that those operating and driving such vehicles should be aware of that tendency, adopt the type of precautions that I have already described in relation to my findings under section 6(1)(c) and they should also consider whether to replace any such vehicles with an equivalent fitted with ABS.

**Sheriff Derek O'Carroll, Advocate,
Stirling Sheriff Court
10 October 2014**