QUEENSLAND COURTS

OFFICE OF THE STATE CORONER

FINDINGS OF INQUEST

CITATION:	**Inquest into the death of John Turnbull**
TITLE OF COURT:	Coroner's Court
JURISDICTION:	Brisbane
FILE NO(s):	COR 659/04(5)
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FINDINGS OF:	Ms Christine Clements, Deputy State Coroner
CATCHWORDS:	CORONERS: Inquest – work related accident, Workplace Health & Safety, driveway construction, plant, vibrating rollers

REPRESENTATION:

Mr John Tate of Counsel – appearing to assist the Coroner

Mr C Newton of Counsel – representing the family; instructed by Dale and Fallu Solicitors

Mr A Mellick of Counsel – representing Mr Rod Williams and Mr Roger Witham; instructed by McDonnells Law

Mr M Fairclough of Counsel – representing Mr Arthur Sherlock; instructed by Walker Pender Group.

The *Coroners Act 2003* provides in s45 that when an inquest is held, the coroner's written findings must be given to the family of the person who died and to each of the persons or organisations granted leave to appear at the inquest. These are my findings in relation to the death of John Turnbull. They will be distributed in accordance with the requirements of the Act and a copy placed on the website of the Office of the State Coroner.

Introduction

John Turnbull was the husband of Marilyn and the father of adult children who had their own children. He had many years experience in plant operation particularly from his previous employment in the mining industry where he had risen to the position of open cut inspector. In that occupation he had ultimate responsibility for the safety of other workers and for complex, expensive and potentially very dangerous mine plant and machinery.

On 7 March 2004, he died in the Princess Alexandra Hospital. He was aged sixty two. The pathologist certified that the cause of death was a head injury sustained in a fall. Mr Turnbull sustained that injury in an accident which occurred around 1.00pm on 28 February 2004 in the driveway of a property at 419 Russell Road Pine Mountain. The property was owned by Paul and Deborah Smith who had arranged with Arthur Sherlock to prepare their driveway for sealing with bitumen. The driveway had initially been prepared but rain had washed away the gravel. It required the gravel to be redistributed to holes and ruts, then regrading, rolling and compacting in preparation for sealing. The driveway was described as quite steep, with evidence subsequently provided that the incline was up to twelve degrees.

The Smith property was the second of two driveways being worked on by Arthur Sherlock on 28 February 2004. Mr Sherlock operated an earthmoving business, Sherlock Plant Hire Pty Ltd and employed workers from time to time as well as organising sub contractors to assist him in his business. Mr Sherlock knew both John Turnbull and his brother Robert Turnbull. On 28 February, an arrangement had been reached between Arthur Sherlock and John Turnbull that Mr Turnbull would act as traffic controller for the work required to be undertaken. The evidence was that this was simply a voluntary arrangement established on the basis of friendship and mutual assistance. Indeed Mr Sherlock said as much in evidence that John *"would do anything for you"*.

Mr Sherlock arranged a water truck and bob cat and grader operators. It was Mr Sherlock who supplied the roller for the purposes of compressing the driveways after the gravel had been redistributed and graded. The roller was a DYNAPAC CA 15 vibrating roller which Mr Sherlock had obtained "on approval" with a view to purchase. He had taken possession of the roller during January 2004 from RD Williams Machinery Pty Ltd, a business which sold mainly used plant and machinery.

On 28 February, the group organised by Mr Sherlock assembled at the first property referred to as the Serniki property. This property was relatively flat and there were no problems with the operation of any of the plant or equipment. Mr Sherlock delivered the roller to the property on a low loader and it was he who drove the roller off the low loader.

At this property Bob Turnbull operated the grader and John Turnbull was operating as traffic controller. Trevor Green operated the water truck and thought that John Turnbull had also driven the roller at the first property.

I remark at this point that the evidence was quite clear that all these men had long experience in operation of plant and machinery. They knew each other and worked together from time to time in varying jobs. All of them considered themselves and each other as competent, experienced operators of the varying pieces of plant that were in use by each of them on the day.

On 28 February 2004, there was no formal assessment of the job regarding any risks that needed to be considered on the site. The notion of a formal assessment of the work to be done, or even an informal meeting to direct who was to do what, seemed an entirely novel suggestion to Mr Sherlock. He assumed a high level of knowledge and competence of each of the men and simply let them get on with the task at hand.

At about 10.30am, the equipment was moved to the second job site, the Smith's property. In particular it is noted that Mr Sherlock moved the roller from one property to the next via his low loader. He then left the site to travel elsewhere to pick up another piece of equipment. The site was prepared by the various pieces of plant. Bob Turnbull and Steven Davies then left the Smith property to inspect a neighbouring property. John Turnbull remained on the Smith property, alone. The water truck driver, Trevor Green had left the Smith property to obtain more water. Another unnamed traffic controller had not attended the second site.

The evidence

It was between 12.30pm and 1.00pm that noises were heard by Mrs Smith at the house and by Stevan Davies and Bob Turnbull at the adjoining property.

Mrs Deborah Smith gave a statement as well as evidence. She was at home the day the accident occurred. While she was hanging out washing she could recall the roller being at the top of the driveway, going forwards and backwards on the "pad", the flat piece of land cut into the slope where the house was built. Her evidence of going forwards and backwards was also consistent with her memory of hearing reversing beeps.

About ten to fifteen minutes passed and she told the court she was back inside. The roller had moved down the driveway a distance when she became conscious that the sound was indicating to her that the machine was going faster and she could still hear the reversing beeps. She heard a bang and then the noise of the engine revving followed by the sounds of impact. She looked out and saw a man on the ground about three quarters of the way down the driveway and other men running towards him. The roller was right at the bottom of the hill. She interpreted the sounds to construct a scenario that Mr Turnbull was reversing up the hill backwards.

What was of particular interest was that Mrs Smith first heard a metallic sounding bang then the sound of the machine accelerating followed by the sounds of impact and the cracking sound of hitting the tree. Throughout this process she could recall hearing the reversing beeps.

Other evidence from the mechanic, Mr Pearce subsequently discounted the suggestion that the reversing beeps would increase in frequency with increased speed but I do not consider that this discounts the reliability of the rest of Mrs Smith's evidence.

Stevan Davies and **Bob Turnbull** were inspecting another driveway job when they heard a noise at about 12.30 pm. He described it as a noise from the roller next door at the Smith property with a louder rumble noise. Then they saw a tree on the road move as if it had been hit by the roller. He and Bob ran next door and found the roller in the drain. The engine was revving on full revolutions and the reverse beeper was sounding. He turned the machine off. They ran up the drive to help John Turnbull who they could see laying face down. He was unconscious. Mr Davies had not worked with John Turnbull previously although he knew him.

The scenario suggested that for some unknown reason John lost control of the vehicle a distance up the sloping driveway and had either fallen or jumped from the machine, sustaining ultimately fatal injury. The roller had proceeded forwards down the sloping driveway and across the road before colliding with a tree. The engine was still running, the reversing beeps were sounding indicating that reverse gear was selected but the roller had free wheeled forwards downhill.

The accident was investigated by Workplace Health and Safety Queensland. Inspector **Raymond Kickbusch** was notified by police on the day of the accident and attended between 2.00 and 3.00pm. When he commenced his investigations the situation was a serious workplace accident but not initially a fatality. Inspector Kickbusch had technical expertise in carpentry as well as training in occupational heath and safety and had worked investigating accidents for eight years. He deferred to other experts in the plant and machinery field. He brought in the expertise of Allan Pearce for the purpose of reviewing the workings and soundness of the roller involved in the accident. Mr Kickbusch measured the degree of slope of the Smith property driveway via an "inclinator". On the basis of that measurement he told the inquest the slope was about twelve degrees which he considered to be steep. I note the photos did not give a true impression of the degree of the slope.

He admitted that at the conclusion of his investigations he was unable to determine the initiating cause of the roller going out of Mr Turnbull's control. The roller machine was relatively simple in design. It had two drive wheels at the rear and a steel drum able to be vibrated at the front for the purposes of compaction. Without the vibration the roller could be used simply for smoothing out a surface. The roller had a forward and reverse mode of operation and operated via a hydraulic system. There were no brakes as such except for a so called emergency brake which was used for parking. It would appear that the vehicle was predominantly designed to operate on flat surfaces and proceed back and forward via the moving of a lever back and forward utilising hydrostatic pressure.

It is noted that there was no way of knowing whether John Turnbull had tried to stop the vehicle via application of the brake immediately prior to the accident.

The vehicle had high and low range and was fitted with a padlock facility which could lock the gear range lever into either the high or low range. The padlock was fitted

after the manufacture of the machine but the machine had been built with a facility to attach such a restraint. Mr Kickbusch said in answer to Mr Mellick's questions that he understood the roller had been delivered to Mr Sherlock with the machine padlocked in the low range position. The purpose of this safeguard was to lock the machine into low range when it was in operation as a roller and in high range when the machine was moved from one place to another.

The evidence is that the padlock was not in use at the time of the accident. The inference to be drawn is that the padlock was removed once it had come into the control of Mr Sherlock. Mr Sherlock declined an initial interview by the Workplace Health and Safety officers. The critical importance of the position of the padlock was that in the event that the vehicle was in neutral, between high and low range, the hydraulic system would not be functioning. The roller would thus be in a position where it would be capable of free wheeling, subject to gravity if the parking brake mechanism was not activated.

The evidence given by Mr Kickbusch, relying on the expertise of Mr Pearce, was that the brake mechanism was not in functioning mode due to the "de-adjustment" of the brake pads. The evidence was that even if the brake mechanism was used it would not cause any contact between the brake pads and the brake drum. The braking mechanism was completely non functional at the time of the accident. Close inspection and demonstration by Mr Pearce satisfied Mr Kickbusch that the brakes were not functioning prior to the accident. I have no hesitation in accepting that evidence and making that finding.

The real question is how the brakes came to be in the position whereby the pads were so far out of alignment to be non-functioning. This effect could be physically achieved by the application of a spanner but would require deliberate action and some effort to access that part of the machine.

Barring any evidence whatsoever to suggest sabotage or malicious interference in the brakes, this inquest has to consider what other explanations there could be. Various witnesses were asked their view of how this state of affairs could have been in existence. There were some hypotheses advanced which could be considered.

The first is that the brakes were not correctly aligned and in operational mode at the time the machine was delivered into Mr Sherlock's possession from RD Williams. The investigation of Inspector Kickbusch considered this possibility and an inspection, explanation and demonstration by the diesel fitter and mechanic who serviced the roller was arranged.

Michael Jackson was the qualified diesel fitter employed as part of a team at RD Williams to inspect and repair plant prior to resale. He was able to demonstrate to Mr Pearce and Mr Kickbusch, to their satisfaction, exactly what he had done to service the machine prior to release to Mr Sherlock. I will not repeat the evidence he gave detailing the series of checks and repairs he made to the roller as family members were in court to hear the evidence.

There was a contemporaneous document which listed in tick box format what items he had inspected and verified as functioning. Although the document is a mere summary

at face value, Mr Jackson was able to demonstrate to the satisfaction of the workplace inspector and the independent diesel mechanic, Mr Pearce exactly what he had done. I am satisfied from the evidence of Mr Pearce, Mr Kick Busch and, most importantly, Mr Jackson that Mr Jackson did perform proper service and alignment of the brakes. In particular, his demonstration of the machine "lugging down" when the brake was engaged while the machine was in low gear demonstrated that the brake was functional.

Mr Jackson was an impressive witness. He was thoughtful and considered in his evidence. Initially there was some contradiction of his description of how the emergency park brake was operated. This brake was the only braking device on the roller other than the hydrostatic operation of the machine itself, which, when switched on would engage the gears in either forward or reverse and thus act to counter any freewheeling. The inherent weakness of this design was revealed in the circumstances of this accident.

Mr Jackson could not think of any reasonable explanation as to how the brakes could be in the position they were found, essentially so far out of alignment that they were de-adjusted. Normal wear and tear could not be an explanation. The machine had apparently been operated for only about twenty hours while with Mr Sherlock.

Mr Jackson's evidence was that the roller left the showroom floor with the gear lever padlocked in low range. Of interest was his comment that this was to avoid the lever flicking out over rough ground, particularly if there was no load on the roller.

He gave clear evidence that he had previously witnessed many occasions where the lever had come out of position if not locked into a particular range. His language as I recall was *"Could not count the number of times".*

What was also without doubt was that if the machine came out of gear and into neutral, then the state of the brakes meant there was no mechanism whatsoever to stop the machine from free wheeling.

The other evidence of significance from Mr Jackson was that if the brake was applied this would override the hydraulic system and put the vehicle in neutral. Therefore any inherent braking via the hydrostatic system when the machine was in gear, would be overridden. However, we know that the brakes would not, in fact, make any contact with the drum. If Mr Turnbull applied the brakes in the condition they were, and no doubt it is reasonable to infer that he would have attempted to do so when he lost control of the machine, then that action itself could only have lessened the chances of being able to stop the machine rolling down the hill.

Added to this was the confusion about exactly how this brake was applied. Most witnesses assumed it to be the button on the dashboard that you pressed *down* onto the dash to apply the brake. Intuitively, one might also assume that this was the most likely method of operation. However, after careful thought, the mechanic who worked on this machine corrected himself and then firmed in his conviction, that this particular machine worked by pulling the brake lever up.

We will never know what Mr Turnbull did but it is quite likely that when the brake did not respond he would have attempted to apply the brake again. In the circumstances where the brake was not functioning, it is irrelevant how the brake was to be applied.

If, for whatever reason, the machine was in neutral and the so called “emergency brake” or perhaps more correctly named “parking brake” was not applied or not functioning, then the roller could be capable of free wheeling if subject to the forces of gravity sufficient to overcome inertia.

Alternatively, the application of the parking brake itself would disengage the hydraulic function thus putting the machine out of gear. If the brake was applied but was non-functional due to being de-adjusted, it would have nil braking effect and would put the machine into a position where the hydraulics would not hold the machine in gear. Again, the machine would be in a position where it could be capable of free wheeling if gravity or momentum was stronger then the forces of inertia.

The potential for disaster was not apparent when the machine was in use on relatively flat ground, no doubt due to the considerable weight of the roller. On the second site, where the slope was up to twelve degrees, the potential for danger was tragically transformed from a risk, into a moving machine incapable of being stopped in its implacable course.

What the particular scenario was that triggered the roller going into free wheel can not be determined with any certainty. It remains speculation. It seems unlikely that an experienced operator such as Mr Turnbull would have been operating the roller in high range rather than low range. It was speculated that he may have been trying to move the machine from high to low range but due to the lever having to pass through neutral (when the gears operated by hydraulic pressure would be disengaged) the machine may have become subject to the forces of gravity, given the slope of the site. If the machine began to move with gravity, the evidence was that it would be very difficult and very soon impossible, to engage the machine into gear.

It is also unlikely that Mr Turnbull would have been operating the machine in reverse gear up a slope with the roller in a functioning mode to compact the surface. The evidence was that the general practice of other operators would be against this as being too risky on a slope. The explanation was that the drive wheels should always be at the bottom of the slope to push the roller up the hill rather than in reverse. If the roller was operated in reverse up the hill there was greater risk of the machine jumping and sliding sideways.

There was however a complicating factor, namely the restriction of the site.
At the top of the driveway was a pad of flat ground where the house was situated and where it was possible to turn the roller around. The optimal safe operation of the roller would require the operator to proceed forwards all the way to the top of the driveway to turn the machine around before proceeding downhill in a forward direction. There was no other opportunity to turn the vehicle along the course of the driveway.

It is conceivable but mere speculation that Mr Turnbull might have been reversing uphill for a period immediately before the machine went out of his control. What triggered the loss of control remains a mystery but what is certain is that the

application of the braking device would have been totally ineffectual. Indeed the application of the non-functioning brake would have compounded the problem by disengaging the hydraulics which hold the vehicle in gear.

The method by which the brake is applied was also the subject of some confusion which has already been referred to. On balance, I am satisfied that the most careful consideration and more likely reliable evidence were given by Michael Jackson, the diesel mechanic from RD Williams. He corrected himself and told the court that, upon reflection, the brake button on the dash was activated by pulling it upwards rather than hitting it downwards. Although this seemed to be counter intuitive to this coroner, the evidence was that there is variation between machines, particularly in older machines. More modern machines have emergency brakes which are applied by application of a handle pulling the brake on, or pressing down on a brake device.

Photographic exhibits[1] and the evidence of witnesses, who attended immediately after the accident, support the view that the roller had run across the road at the bottom of the driveway. The roller was facing forwards and had crashed into a tree with the steel drum. When the roller was found, immediately after the crash, the evidence was that the reversing beeps were sounding and that the gear lever was in the reverse position.[2] The padlock which locked the machine into high or low range was not secured.[3] The high/low range lever was in the neutral position. The engine was running in high revolutions with the throttle pulled out.

The consensus of opinion from operators and the diesel fitter who worked to repair the roller, Michael Jackson, was that the machine should only be operated on a slope in low range.[4]

What witnesses saw and heard and the range of opinions on how the roller should be used

Trevor Green was an employee of Arthur Sherlock who drove the water truck on 28 February 2004. He had worked for Mr Sherlock for about ten years. He held tickets for trucks, heavy combinations, graders, rollers, loaders and bulldozers. He had not operated this particular roller but had operated similar rollers.
He had not experienced any problems operating a roller. He said generally they had a high and low range which was chosen depending on the terrain and incline of the site. It also depended on whether the roller was being used merely for smooth rolling where he inferred one might use high range or for compaction, where low range was used. For sloping ground he said he would normally use low range.

His practice was to operate the roller up the hill and to come down a steep hill forwards, preferably without compaction or only in low range. At the bottom of the hill, he said the proper practice was to turn around, never to roll up the hill in reverse. His explanation was that to do otherwise was dangerous as the machine could jump or develop wheel spin. He had seen accidents occur in the past due to the drum

[1] Exhibit C1photos 6 and 8
[2] Exhibit C1 appendix photo 23
[3] Exhibit C1 appendix photo 19
[4] Statement of Trevor Green, plant operator, line 32.

jumping. He expressed the view that if the machine was going down the hill forwards and there was then an attempt to put it into reverse and go up backwards, the result would depend on how much gravel was loose. He said the machine *"would not like it".*

He had seen Mr Turnbull operate a roller on many previous occasions and considered him competent and safety conscious. He had seen John Turnbull controlling the traffic at the fist site and also operating the roller on fairly flat ground. He believed the roller was moved from the first site to the second site via Mr Sherlock's low loader. He had watered the second site and had seen Robert Turnbull grade that site before he left to obtain more water. On his return, the accident had occurred.

Stevan Davies was the bob cat operator on the 28 February 2004. He was a self employed contractor and had previously worked on other jobs for Mr Sherlock.

Mr Davies used the roller at the first site without any difficulties. His second statement said he did not change any transmission levers. He used it in forward and reverse via the hydrostatic drive lever. His evidence was that he could not remember whether or not a padlock was applied. He said he used the machine in low gear.

In court he said that he did not use the brake. However, his second statement stated he *"applied the parking stop button half a dozen times during the morning"*. He said *"I applied this when I was parking. When I applied the button the roller did park without any movement. The forward/reverse lever only operates when the engine is running. If parked on a steep slope with engine stopped and park brake not applied, the roller would tend to creep slowly. To the best of my knowledge the brake was operating but I was working on gently sloping ground".*

I infer from this evidence that Mr Davies had no occasion to use the brake in an attempt to stop the machine while it was in motion but only applied it when he parked the vehicle. The use of hydrostatic gears was sufficient to move the machine forward, come to a pause and then backward via those gears without application of the brake on flat ground.

He also said he saw John Turnbull operate the roller for about half an hour at the first job site. He said Arthur Sherlock had delivered the roller on his low loader to the site that morning.

Mr Davies comment on the situation he found when he and Bob Turnbull found the roller, was that it was unusual. He could hear the engine revving at maximum capacity and the reversing beeps sounding. Logically this meant that the vehicle had been reversing as the beeper only sounds while the directional lever is engaged in reverse. However, the wheels were not turning from which he concluded that something was not working. He could not offer any further comment to explain the situation but agreed with Mr Mellick that if the machine was in neutral this would explain why the wheels were not turning. However, that would still raise a question because the reverse beeper was still sounding, and it was suggested by the mechanic that the hydraulic system had to be engaged to operate that beeper.

Interestingly Mr Davies had experienced a roller going into free wheel on another occasion, a situation which arose when he accidentally knocked the gear lever out of range while in motion.

The other relevant comment from Mr Davies as an operator of rollers was that he would only operate a (compacting) roller going forwards uphill, never forwards downhill.

If this was the practice adopted by Mr Turnbull then, in the absence of somewhere to turn the machine around, he would then reverse down hill. Mr Davies said he would never have reversed downhill with the roller activated and he had not seen Mr Turnbull reversing up the slight slope at the first job site.

John's brother, **Robert Turnbull** left the second job site to go to the adjoining property with Mr Davies. When he left he said that John was operating the roller. While they were assessing that site, with their engines off, he heard the sound of the roller increasing in speed and then the sound of impact. He saw a tree move and guessed there had been an accident.

His recollection of the way his brother had been operating the roller before he left the property was that John had been backing up the driveway.

He could not offer any explanation for the loss of control of the roller nor the banging sound. Not surprisingly given the circumstances of the injury to his brother, Mr Robert Turnbull could not provide much information about the precise situation of the roller at the time. He was able to confirm that to travel in the roller you would select high range but to operate the roller, low range would be used. He also said that to get up the Smith driveway, the roller would have to have been in low range given the degree of incline.

Mr Turnbull did not see the necessity of applying the roller on a slope in a particular direction. His opinion was that it could be done either way but definitely it would be in low range due to the slope.

Alan Pearce was a diesel mechanic employed by Road Tek. He assisted Workplace Health and Safety to inspect the roller and provide his expert comment. He was helpful in explaining the basic function of the roller. The machine was driven from the rear wheels. A lever on the dash would be pushed forward to go in a forward direction, and backwards to reverse. The extent of how far the lever was pushed dictated the speed at which the machine travelled. The throttle had to be operated at full revolutions to fully power the hydraulic hydrostatic system. The machine was not fully hydrostatic, having a mechanical gear box which was operated from a lever on the floor in either high or low range. In low range the machine had more power, in high range, less power but more speed. He agreed that the machine ideally was to be used in low range when compacting and in high range when in travel mode. If compacting was done in high range it was less likely to achieve a good finish and could skip across indentations.

The machine does not have a clutch and to change from one range to another the machine must be slowed to a stop via the forward/backwards use of the hydrostatic

lever before moving into the other range. He expressed the view that you could not change from high to low or vice versa while in motion unless at very low speed. It would be unlikely that the gear would mesh or engage if the vehicle was in motion.

When he inspected the machine at the site the high/low range lever was in the neutral position. On further checking, he found that there was no effect when he applied the brake, the wheels kept turning. The distance between the brake pads and the drum was too far for the brakes to have any physical contact upon application. They were as described by Mr Pearce, in a de-adjusted position. After adjustment the brakes were found to be operational and effective.

Mr Pearce's evidence was that when he inspected the roller, the brake was in the non applied position but I do not necessarily rely on that to infer that Mr Turnbull had not applied the brake. One would expect that when he lost control of the machine he would automatically have applied the brake. As the brake was not effective, it is quite probable that Mr Turnbull tried again. I comment again on the curious nature of how the brake was to be applied. There is dispute in the evidence but ultimately I rely on the evidence of Mr Jackson, the mechanic who had worked on this machine. He said that to apply the brake you lift the button up from the dash not the opposite. This was contrary to what Mr Pearce said. However, I note that one of the photos of the dash includes signage which states *"before starting make sure stop cable is fully pressed in".* This would be consistent with what Mr Jackson was saying that the brake is not applied when it is in towards the dash. It is also consistent with the information that in engaging the brake the hydrostatic system is disengaged. I assume this means that to start the engine one needs to ensure the stop brake is not applied. Of course this raises the question of what happens when one starts on a hill. I assume that the hydrostatic system immediately kicks in to hold the machine in position.

Mr Pearce was clear that the accident itself had not been the reason the brakes were in the de-adjusted position. There was no defect or problem, merely that they were not adjusted to be capable of coming into contact on application. I accept that evidence. Also, there could not be any accidental de-adjustment of the brakes as it required the application of a spanner on a spring-loaded collar.

Mr Pearce's postulation of how the accident could have happened was that the machine had begun to free wheel while in neutral when the vehicle had been moved from high or low range into the other gear.

He said it was also possible that the machine could jump out of gear into neutral if the machine was not locked into a gear. He did not pull the gear box apart to inspect it but he not experience any tendency for the machine to jump. He agreed that the padlock was not engaged when the vehicle was inspected. He did not find any other problems with the machine.

In summary, Mr Pearce found the machine in neutral rather than in either high or low range and the brakes were out of adjustment. He agreed that if there had been an attempt to change the range on a hill, then as the lever passed to the neutral position there would be nothing to hold the machine on the hill. The machine would go into a position where gravity could cause it to free wheel and the gear could not then be engaged.

Mr Pearce said if it was accepted that the machine had only done twenty hours work since it had been serviced then it would not be expected that it would need adjustment. It was noted that the hour metre was not functioning. Mr Pearce agreed that he had been satisfied with the demonstration by Mr Jackson showing how he had checked the brake and found it to be in a functional position prior to delivery to Mr Sherlock. It was on the basis of this demonstration that initial charges against RD Williams did not proceed.

When asked to speculate why the brake might be de-adjusted, Mr Pearce raised the possibility of mechanical failure where the brake had locked on and was required to be released. The second possibility was if the keys were not available and the machine was required to be loaded onto a truck. These comments remain mere speculation.

Arthur Sherlock was the operator of Sherlock Plant Hire which was coordinating the driveway jobs and had contracted with the Smiths to do the work. He coordinated the various people to prepare the driveway. He supplied the roller which he had obtained on approval with a view to purchase from the plant dealer, RD Williams Pty Ltd.

In his statement he described himself as having all the required tickets. He gave the impression of being very experienced in a practical, hands-on way but not necessarily informed or aware of his legal responsibilities of ensuring safety for any employees.
Mr Tate asked him *"Did your company, at that time, have any sort of workplace health and safety policy?".* He answered *"Not really, no".*[5]

Mr Sherlock believed so much to be self evident that he found it hard to articulate a need to assess and put into place protective measures. The problem with this is that he relied on everyone else to have the same inbuilt appreciation of risks and he assumed that others would in fact be as skilled and careful as he considered himself to be. There were no "tool box" meetings before the commencement of a job to assess any risks. Mr Sherlock was asked *"Do you have any sort of standard operating procedures that people are to follow when they do work for you?".* He replied, *"Not really, because they're all trained. They know what they're doing".*[6]

Mr Sherlock said he had obtained the roller from RD Williams Pty Ltd with a view to purchase. He relied on the supplier's information that the machine had been serviced and was in proper order for use. Mr Sherlock was unable to assist the court in explaining why rollers were considered to be one of the more dangerous types of plant, except to say that rollers did tend to slide sideways on slopes. He could not explain what precautions or limitations should be employed to ensure safety due to this risk.

He had known John Turnbull for a long time and knew him to be a retired open cut mine inspector with a lot of experience. He assumed he had all relevant tickets but had not seen them. He confirmed that he loaded the roller onto his low loader and delivered it to the first job site and then onto the second site at the Smith property.

He said no one was "in control" of the site as everyone knew what to do.

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[6] page 167

Mr Sherlock and others had used the roller at the first job site without any problem.

Mr Sherlock did not have first hand knowledge of what happened at the Smith property after he had delivered the roller. He had gone to pick up other equipment. It was disappointing no doubt, to Mrs Turnbull that Mr Sherlock had not followed up on any information that had been prepared after the workplace health and safety investigation of the accident.

Perhaps it is an opportunity also for Workplace Health and Safety to consider a more proactive approach and perhaps consider a one on one visit to workplaces as a follow up to such investigations. Many of the witnesses in this matter did not appear to be inclined to read materials but rather relied on practical experience. It is a particular challenge for Workplace Health and Safety to convey safety messages to these groups in such a way that the information is understood and can guide workplaces to improve safety.

Mr Sherlock told the inquest that the roller had been used for up to three or four days on a couple of jobs before 28 February 2004. Mr Sherlock would drive the roller onto his low loader to take it to different sites. Mr Sherlock denied adjusting the brakes, or that anyone else did to his knowledge. He could not explain how the brakes could be so far out of proper adjustment since leaving the supplier.

Somewhat surprisingly, Mr Sherlock told the inquest he had not noticed the padlock which could hold the lever in either high or low range. He told Mr Mellick that he could not remember whether the gear was padlocked in low range when he received the machine. He could not deny this was the state of the roller when it came into his possession. Mr Witham's evidence was the roller was locked in low gear range at delivery.

Under cross examination he said that when he loaded the roller onto the low loader he would chain it down. He denied any knowledge of the battery failing on the roller or of any mechanical problem.

Mr Sherlock had asked John Turnbull to drop some cement to the second site at the Smith place but had not asked or expected him to remain and perform any work on that property.

Mr Sherlock's view of the preferred method of operation was *"You normally back uphill, or you can back uphill in this particular case because there's no room at the top to turn around. You don't vibrate up the hill; you static roll and vibrate down. But if you've got room at the top you normally drive up. But there was no room at the top to really turn around".*

Mr Sherlock disagreed or perhaps distinguished his view from the general opinion expressed to the inquest. The weight of evidence was that the drive wheels of the roller are always to be kept on the low side of the slope. Mr Sherlock said *"Not if you're static rolling"* (not vibrating).

As there was variation in the opinions from experienced operators, I am of the view that Workplace Health and Safety should consider whether this is a safety issue, particularly on sloping sites. An independent expert's review could be obtained and, if appropriate work place health agencies could consider distributing this information and educating the owners and operators of such plant. In particular, given the tenor of the evidence in this inquest, it would be important to evaluate what is likely to be the most effective way of having this information received, accepted and acted upon by the industry.

The proprietor of RD Williams Pty Ltd, Mr **Rodney Williams** gave evidence. He had previous experience as a plant operator before developing the business of second hand plant sales and associated spare parts.

He could not add anything regarding the possible explanation for the accident that occurred on 28 February 2004.

In summary

The evidence is that the roller was in good order when it passed in to the possession of Mr Sherlock in January 2004. The evidence was that the brakes had been tested and were in proper proximity to be effective to brake the machine upon application.
The roller left the sale yard of RD Williams in the locked low range gear position, equipped with a padlock and key to secure the gear in either high (travel) or low (operational) mode.
Mr Sherlock said to his knowledge the roller was only operated in low gear but he was less than convincing given his evidence that he had not noticed the padlock and mistook it as relevant to a cover rather than securing the lever into a particular gear.
However, what remains completely unresolved is exactly how Mr John Turnbull was operating the roller at the Smith property on 28 February 2004. The evidence was that he was an experienced plant operator with a reputation for being careful.

The roller ended up after collision, front (roller) first into a tree at the bottom of the drive. The roller was said to be in reverse gear. The weight of the evidence was that for some unknown reason the roller had gone out of gear and free wheeled. As the brake was ineffective due to being out of adjustment, application of the brake had no chance of stopping the descent of the roller. What remains curious with this scenario is the evidence that the reverse beeper was still sounding even though the evidence was that the roller must still be engaged in reverse gear for this to be sounding.

There was no information about the circumstances of how the brake came to be so far out of adjustment. I accept on the evidence that the roller was in proper order with properly adjusted brakes when it left RD Williams in January. I cannot find in what circumstances the situation regarding the brakes changed, noting that the evidence was that the accident itself could not account for the brakes being in the de-adjusted position.

While this will be a situation of continuing frustration for Mrs Turnbull, I confirm that I am unable to make any more particular finding regarding the circumstances of her husband's death.

Comments and recommendations

I have already made some comments directed to action that might be considered by Workplace Health and Safety aimed to reduce the risk of recurrence of such a tragedy.

I note Mr Kickbusch's sincere efforts to assist the inquest in making suggestions which could help improve safety for the future.

His first comment was raising the issue of responsibility for safety where independent contractors are involved. Rather than asking him to suggest legislative reform it might be appropriate to refer the issue to the relevant Minister with responsibility for the legislation, highlighting the kind of gaps in responsibility that can arise under the current legislative scheme.

I affirm and support the efforts of Workplace Health and Safety to go out into workplaces in a proactive manner to assist small workplaces understand the importance of assessing risk and establishing safe work practices. The circumstances of Mr Turnbull's death are an example of how important this proactive work could be.

I would also commend for consideration by the legislature a system similar to the requirement for general motor vehicles whereby transfer of sale of plant be subject to certification that the plant is fit for its proper purpose and roadworthy in the sense of being sound to operate.

I note Mr Kickbusch's desire for a greater public profile for the safety and preventative work performed and the publication of information via the media. I endorse his sentiments.

I suggest a review of mechanisms for the operation of emergency brakes. If, as was found in this instance, there is variation then the matter could be referred to the relevant Australian standards with the aim of increasing consistency in the interest of safety. This is particularly apt given the range of plant that may be sourced from overseas where differing standards are applicable.

Mr Newton, the legal representative for the family, suggested a different approach for legislative review aimed to increase safety in the workplace. He noted that in his experience the best way of improving safety standards was to enshrine (or provide) the right of the injured to take legal action for injury caused by failure of proper safety standards. Again, I would refer this matter to the relevant parliamentary Minister for consideration in the context of the circumstances of Mr Turnbull's death.

Another issue raised was the issue of ongoing competence to operate particular plant as distinct from the initial requirement to obtain a certificate. Again, the circumstances of this case would suggest this is an area worthy of consideration for workplace health and safety review.

It remains to be said that the sincere condolences of this court are extended to Mrs Turnbull and her family for the loss of John Turnbull. He is sadly missed and it is to be

hoped that although this inquest has been unable to determine exactly the circumstances leading to his death, the endeavours to do so have provided the family with more information. More importantly, it is to be hoped that comments arising from this accident will elevate in people' s minds the inherent risks of operating such plant and educational and safety promoting efforts will be made to improve standards.

The inquest is now closed.

Christine Clements
Deputy State Coroner
Brisbane
13 March 2007