IN THE HIGH COURT OF THE REPUBLIC OF SINGAPORE

[2016] SGHC 89

District Court Appeal No 9 of 2015

Between

ARNOLD WILLIAM

… *Appellant*

And

TANOTO SHIPYARD PTE LTD

… *Respondent*

District Court Appeal No 10 of 2015

Between

TANOTO SHIPYARD PTE LTD

… *Appellant*

And

ARNOLD WILLIAM

… *Respondent*

In the Matter of District Court Suit No 1190 of 2011

Between

ARNOLD WILLIAM

… Plaintiff

And

TANOTO SHIPYARD PTE LTD

… Defendant

JUDGMENT

[Tort] — [Negligence] — [Breach of duty]

[Tort] — [Negligence] — [Contributory negligence]

[Evidence] — [Principles] — [Expert evidence]

[Evidence] — [Admissibility of evidence]

Arnold William
v
Tanoto Shipyard Pte Ltd and another appeal

[2016] SGHC 89

High Court - District Court Appeal No 9/2015 and 10/2015
Lai Siu Chiu SJ
20 November 2015

6 May 2016 Judgment reserved.

Lai Siu Chiu SJ

Introduction

1 Arnold William ("the plaintiff"), a freelance diver, was injured in an accident that took place on or about 15 April 2010 ("the accident") at the premises at No 1 Jalan Samulun ("the yard") of Tanoto Shipyard Pte Ltd ("the defendant"). He sued the defendant in DC Suit No. 1190 of 2011 for loss and damages for the injuries he sustained.

2 At the conclusion of the lengthy trial in the district court ("the court"), the District Judge ("the judge") found both parties to be equally at fault and hence, equally liable for the accident. Interlocutory judgment was entered in favour of the plaintiff for 50% of the damages to be assessed by the Registrar with costs of the assessment reserved to the Registrar.

3 Both parties were dissatisfied with the decision dated 5 August 2015 ("the judgment") of the judge and appealed to the High Court, the plaintiff in DCA No. 9 of 2015 ("the plaintiff's appeal") while the defendant's cross-appeal was in DCA No. 10 of 2015 ("the defendant's appeal") (collectively "the appeals").

4 The appeals came on for hearing before this court. As the outcome of one appeal will decide that of the other, I will deal with the plaintiff's appeal and that will dispose of the defendant's appeal.

The facts

5 On 15 April 2010 (according to the defendant whereas the plaintiff said it was 16 April 2010, although nothing turns on the date), the defendant were preparing to launch a barge called *Yew Choon Marine 12* ("the barge") after repairs had been carried out. To facilitate the movement of the barge along the slipway into the sea, eight floaters were placed under the barge for the unslipping operation. I should add that the slipway is about 27m wide. According to the affidavit of evidence-in-chief ("AEIC") of the defendant's witness Guru Dutt Sharma ("Sharma"), the length of the barge is 81.93m (equivalent to 268.8 ft), its width 24.38m and its depth 4.88m. I therefore estimate that the space between the wall of the slipway and the barge would be 2.62m (27 - 24.38) or 8.5ft wide. As the slipway would have walls on either side, the space between the wall on one side of the slipway and the barge would be half of 2.62m, *ie*, 1.31m or 4.29ft, which is quite narrow.

6 Floaters are cylindrical airbags made of heavy duty rubber measuring 12m long and 1.5m in diameter and each weighs about 530 kgs without air inside. At one end of a floater is a pad-eye while a valve is at the other end for purposes of regulating the amount of air that is pumped into or released from

the floater. The pad-eye is a small metal ring with a diameter of about ¾ inches through which a rope can be threaded.

7 In the midst of the unslipping operation (which was supervised by the defendant's ship repair manager Teh Kai Sie ("Teh")), the defendant's shipyard supervisor Shafique Amin Uddin ("Uddin") informed Teh that five floaters were stuck under the barge. With the assistance of a forklift, the defendant managed to pull out three of those floaters which were on the starboard side of the barge.

8 Teh then called the plaintiff to help remove the remaining two floaters still stuck under the barge. The plaintiff had carried out diving assignments for the defendant on many occasions since 2007 and he was familiar with the defendant's yard. He was to be paid $800.00 for the assignment, the standard fee he charged the defendant for past diving assignments.

9 Upon his arrival at the yard, Teh gave instructions to the plaintiff on what the latter needed to do. The plaintiff dived into the water and saw that one of the underwater floaters ("the first floater") had a rope tied around it which other end had dropped into the water. The other floater ('the second floater") did not have a rope attached to it. (The two floaters are referred to collectively as "the two floaters").

10 The plaintiff retrieved the rope of the first floater (which was on the starboard side) and handed it to Uddin. That enabled the defendant to pull out the first floater using a forklift. The plaintiff released air from the second floater (which was on the portside) by turning the valve 90º. He then swam to the surface to get a rope from Uddin to tie to the second floater so that it could be pulled out from under the barge after it had been sufficiently deflated.

11 The plaintiff stayed in the water by the wall of the slipway while waiting for Uddin to hand him a rope. It was then that the second floater suddenly lurched out towards the plaintiff from below the barge and hit his right hand crushing it against the wall. He sustained serious injuries which required his undergoing an emergency operation. According to the plaintiff, the accident put an end to his diving career.

The pleadings

12 In his statement of claim, the plaintiff alleged that the accident was caused wholly by the negligence of the defendant's employees in the operation, management, supervision and/or control of the barge and/or the second floater. He also pleaded that the defendant owed him a duty of care as occupiers of the yard to ensure his safety and not to expose him to any risk of injury which it knew or ought to have known. The plaintiff also relied on the principle of *res ipsa loquitur* for his claim.

13 In their defence, the defendant contended *inter alia* that the plaintiff was an independent contractor who used his own diving equipment, who was an experienced diver who had complete control of the task assigned to him (that of recovering the two floaters) and devised the system of work for the assignment, that his injury was caused by the movement of the second floater due to the plaintiff's release of air therefrom and he was contributorily negligent for the injury he sustained. It alleged that the plaintiff should have taken precautionary measures such as tying a rope to the second floater before proceeding to release air therefrom. The defendant further relied on the principle of *volenti non fit injuria.*

14 The defendant did not deny owing the plaintiff a duty of care for his general safety in the yard but denied it had breached that duty. It contended

that its employees were at the yard to assist the plaintiff in his assignment. The defendant averred that the plaintiff had been engaged for his diving expertise and there was very little that it could have done to prevent danger and/or reduce the risks especially when the plaintiff was underwater.

15 Seven witnesses testified during the 11 days trial (which was in three tranches), three for the plaintiff (including himself) while the defendant had four witnesses. The defendant and the plaintiff had two expert witnesses each (although one of the plaintiff's experts was rejected by the court as not being qualified to be an expert). Each side had an academician as an expert. Associate Professor Claus Dieter Ohl ("Ohl") from Nanyang Technological University's School of Physical and Mathematical Sciences was the plaintiff's expert while Professor Chew Yong Tian ("Chew") from the National University of Singapore's Department of Mechanical Engineering was the defendant's expert.

16 The following findings were made by the judge:-

(a) This was the first time the defendant had engaged the plaintiff for such an assignment. It was not a routine operation as the defendant had never previously encountered a problem of floaters being stuck under a barge;

(b) Teh was in charge of the unslipping operation and had given instructions to the plaintiff on what he was required to do, namely to release the air from the second floater and to tie a rope to it so that the defendant could use a forklift to pull out the two floaters from under the barge;

(c) The plaintiff's task of retrieving the two floaters was only a small part of the entire unslipping operation which was jointly carried

out by the plaintiff and the defendant but which ultimately was under the supervision of Teh;

(d) The plaintiff could not be considered a *bona fide* independent contractor as he was told *what to do*;

(e) The defendant had a duty to prescribe a safe system of work in relation to how the two floaters were to be recovered. As such, the defendant ought to have informed the plaintiff of the risks involved prior to his performing the underwater task;

(f) The court did not accept the view of Sharma, a certified marine engineer, that the release of air from the second floater created a thrust that could and did propel the second floater (like a rocket) in any direction. Sharma's hypothesis was based on Newton's Third Law of Motion (namely for every action there is an equal and opposite reaction), which the district judge considered to be too simplistic and unsupported by any tests or calculations. (Chew and Ohl had disagreed with Sharma's views);

(g) The court did not accept the opinion of Ramdzan Salim @ Ram ("Salim"), a freelance commercial diver, that the release of air from the second floater caused it to deflate and sink. Salim could not be considered an expert as he had neither professional nor academic nor scientific training in the field of fluid dynamics;

(h) The court accepted (as more logical) Chew's testimony that "disturbance forces" around the second floater created a sideway force of sufficient magnitude so as to dislodge the second floater. Chew had opined that the plaintiff's act of releasing the air from the second

floater could have contributed to the floater's lurching out from underneath the barge;

(i) The court did not accept Ohl's opinion that the barge became unstable when it was supported by only the first floater and it was the movement of the barge that caused the second floater to be released from its position. Further, that theory was inconsistent with Ohls's answers in his AEIC to the 12 specific questions posed by counsel for the plaintiff. Moreover, there was no credible evidence that the barge had moved and this was corroborated by Salim's evidence that there were no currents strong enough to have caused any movement to the barge which was secured by bollards;

(j) The court noted that both Chew and Ohl were in agreement that the power generated from the thrust of the exhaust velocity of the air released from the second floater was insufficient on its own to cause the second floater to move; and

(k) None of the defendant's witnesses testified that had the plaintiff first tied a rope to the pad-eye of the second floater before proceeding to release the air inside, the accident would not have happened.

17 The judge concluded (at [44] of the judgment) that the sudden lurching out of the second floater was due to an interplay of different forces at work in the water caused by the presence of the plaintiff in the water and the work he was required to do. The conditions of the water at the material time were unstable due to the barge being supported by only the first floater when the second floater had its valve open to release the pressurised air inside into the water and while the plaintiff was in the water.

18 The judge further held (at [51] of the judgment) that the doctrine of *res ipsa loquitur* could not apply so as to hold the defendant liable for the accident. Neither was there evidence of consent by the plaintiff to accept the risks he undertook that would support the doctrine of *volenti non fit injuria* (at [66] of the judgment). The court held both parties to have been negligent and equally liable for the accident.

19 According to the judge, the defendant breached its duty of care to the plaintiff in the following manner:

> (a) It did not assess or appreciate the risks associated with the assignment given to the plaintiff primarily because the assignment was an *ad hoc* assignment that arose out of the exigencies of the situation when the two floaters could not be removed while the barge was being unslipped;
>
> (b) The two floaters appeared to have been over-inflated – the (Indian) manufacturer's recommendation was 1.3kg/cm² but the unequivocal evidence of Teh and Uddin was that 7kg/cm² of air had been pumped into the two floaters prior to the unslipping operation;
>
> (c) The defendant's suggested method of recovering the two floaters by simply tying a rope to the floaters' pad-eyes and releasing the air therefrom was an operation that exposed the plaintiff to risk of injury.

20 The plaintiff was held to be contributorily negligent for the following reasons:

> (a) The 52 year old plaintiff had 30 years' of experience as a diver working freelance with different employers. He had also worked for

the defendant previously and was familiar with their yard as well as the handling of floaters;

(b) As such, the plaintiff should have appreciated the risks involved in the retrieving of floaters from underwater. He ought to have known of the risks involved when floaters are fully inflated and not properly secured;

(c) As that was the first time the defendant was engaging him to retrieve floaters that were stuck underneath a barge, he should have made inquiries and assessed the risks beforehand;

(d) The plaintiff had released the air from the second floater without taking any precautionary measures, failed to keep a safe distance away therefrom and chosen to remain in the water as a matter of convenience thereafter.

The plaintiff's submissions

21 The plaintiff submitted that the judge had erred in respect of the following findings:

(a) That the job of retrieving the floaters was a joint operation between the plaintiff and the defendant;

(b) Sharma's opinion was rejected because he was not qualified as an expert;

(c) That Chew's explanation and hypothesis were correct and should be accepted instead of Ohl's views;

(d) That the interplay of different forces caused the second floater to move suddenly and caused the accident;

(e) There was no credible evidence that the barge had moved;

(f) The doctrine of *res ipsa loquitur* did not apply;

(g) That the plaintiff was contributorily negligent and equally to blame for the accident as he had released the air from the second floater without taking precautions, had failed to keep a safe distance and had remained in the water.

22 The plaintiff took issue with the above findings arguing that they were inconsistent with the following evidence adduced in the court below:

(a) That Teh was in overall charge of the unslipping operation;

(b) The plaintiff's services were specifically engaged to release the air from the second floater and tie a rope to it so that the defendant could use a forklift to pull out the two floaters from under the barge;

(c) That it was Teh who gave instructions on what the defendant required the plaintiff to do;

(d) The plaintiff's job comprised a very small part of the entire unslipping operation;

(e) The task of recovering the two floaters was under the ultimate supervision of Teh;

(f) The plaintiff was not a true independent contractor but a worker who was required to carry out a specific task underwater.

23 As such, it was contended that the court was wrong to conclude that the recovery of the two floaters was a joint operation when it was always the defendant's operation with the plaintiff playing a very small part in it.

24 As for the judge's rejection of Salim as an expert (as discussed at [16(g)] above), the plaintiff pointed out that Salim has had 23 years of experience as a diver and both he and the plaintiff had testified that the second floater will not move when air is released therefrom. This was due to the very strong upward thrust being exerted by the second floater against the underside of the barge as compared with the very small thrust created by the outflow of air from the second floater's air valve. In fact, their views were confirmed by both Ohl and Chew who said the magnitude of the buoyant force pushing against the underside of the barge was about 42 tons. Consequently, the plaintiff submitted, Salim qualified as an expert witness.

25 As for the court's acceptance of Chew's hypothesis as more logical (as discussed in [16(h)] above), the plaintiff pointed out that Chew's hypothesis was never part of the defendant's pleaded case. The defendant's pleaded case was that the floater lurched out from under the barge due to the thrust created by the air flowing out of the floater's air-valve. Chew's evidence went beyond the allowed parameters of rebutting Ohl's testimony. Moreover, his hypothesis did not appear in the report attached to Chew's AEIC. Hence, Chew's testimony should have been excluded.

26 On his part, Ohl had been given leave by the judge to present rebuttal opinion on two portions of Sharma's evidence, namely, (i) that the air exiting from the second floater created a thrust that was strong enough to propel the floater and cause it to lurch out from under the barge; and (ii) that the barge and accordingly the second floater would be in a slanted position after it had

been unslipped – due to this, there would be differing pressures acting along the second floater which together with the reducing buoyancy would cause the second floater to move to the left or right, unhinge itself from beneath the barge and lurch out.

27 Ohl had been asked by the judge as to what he thought could be the reason for the second floater lurching out.[1] Ohl did not then have an opportunity to consider the question prior to rendering his opinion nor was he given the facts and the evidence of witnesses (apart from what was stated in their AEICs). Neither did Ohl have an opportunity to inspect the defendant's yard and/or the accident site or the second floater, unlike Chew. Nor did Ohl observe how a floater is inflated or deflated. Ohl was also not aware of the exact position of the second floater under the barge at the time of the accident.

28 Notwithstanding the above disadvantages and despite not being given advance notice of Chew's hypothesis, Ohl was able to respond to the court's question (as described in [27] above) and explained why he disagreed with Chew's hypothesis as follows:

(a) The "disturbance forces" the judge accepted were not specified nor were their magnitude and force known;

(b) The location where the 'disturbance forces' operated was not known;

(c) Equally unknown was why the "disturbance forces" would move upstream or forward to affect the second floater when it should move away from the second floater and not upstream;

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[1] Notes of evidence ("N/E") 16 October 2014 at p 13.

(d) The small thrust created by air flowing out of the second floater with gradually reducing strength could not have created a sideward force so strong as to overcome the frictional force and move the second floater;

(e) Even if a sideward force was created that was strong enough to move the second floater, that would only have happened at the last stage of its deflation by which time there would not have been any thrust to create the "disturbance forces";

(f) The examples used by Chew of an aeroplane, a boat and a jet of water did not support his hypothesis;

(g) There is little vibration when air is released from a floater on land and even less when it is done underwater because of the higher density of water;

(h) The frictional force may be even higher than what Chew and Ohl himself had calculated because neither of them took into account the fact that the underside of the barge may not be flat. (It is noted there was no evidence on this aspect);

(i) Water seepage will only occur when a floater has lost its buoyancy while the buoyant force will change when the shape of the floater changes (as when the volume is reduced). However, the shape of the second floater may not change much as it was made of thick rubber;

(j) A movement of the barge was the only thing that could create a force sufficient/strong enough to overcome the frictional force of the second floater; and

(k) The thrust from the second floater would not be able to overcome the frictional force and cause it to push and displace 12 tons of water sideways.

29 Unlike Ohl, Chew had done a site inspection (on 2 July 2014) and had seen the process of deflating a floater. He had observed wrinkles on a floater when it was being deflated, which the plaintiff submitted supported Ohl's opinion that any water seepage would only occur when all or most of the air inside the second floater had been let out and it had lost its buoyancy. By then, the second floater was probably no longer in contact with the bottom of the barge.

30 The plaintiff pointed out that Chew's theory was premised on the barge not moving. This ignored the plaintiff's evidence that the barge must have moved and that besides being stuck under the barge, the second floater was also trapped by the mud on the side of the slipway. (I should add that this evidence of the second floater being also stuck in mud only emerged in the course of the plaintiff's cross-examination).

The defendant's submissions

31 The defendant agreed with and accepted the judge's findings save for the following:

(a) That the plaintiff was not a *bona fide* independent contractor and that his assignment was no more than that of a worker;

(b) That the defendant had to provide a safe system of work in relation to how the floaters were to be recovered;

(c) That the defendant was negligent in not having properly assessed the risks associated with the assignment and had failed to take adequate precautions to ensure that the plaintiff was not exposed to risk of injury which the defendant knew or ought to have known.

32 The defendant disagreed with the judge's finding in (a) above. Applying the test in *Spandeck Engineering (S) Pte Ltd v Defence Science & Technology Agency* [2007] 4 SLR(R) 100 ("the *Spandeck* test"), it contended that the defendant did not owe a duty of care to the plaintiff who by his own admission in court[2] was an independent contractor. The *Spandeck* test comprised a threshold question of factual foreseeability coupled with a two-stage test comprising (i) proximity and (ii) policy considerations.

33 On foreseeability, the defendant would be held liable as long as it is foreseeable that negligence on the part of the defendant might result in harm to the plaintiff. As for the second two stage test, it involves the notion of:

(i) Physical proximity – in the sense of time and space;

(ii) Circumstantial proximity – such as an overriding relationship of employer and employee; and

(iii) Causal proximity – in the sense of the particular act or course of conduct and the loss or injury sustained, including the assumption of responsibility or reliance by one party of a responsibility to take care of another.

34 Applying the *Spandeck* test to the facts here, the defendant submitted that it was not factually foreseeable that a floater would lurch out from under

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[2] N/E 27 May 2013 at p 140—141.

the barge when air is released therefrom. In this regard, the defendant cited the following passage from *Clerk & Lindsell on Torts* (Michael A Jones gen ed) (Sweet & Maxwell, 21st ed, 2014) at para 8-16:-

> The greater the awareness of the potential for harm, the more likely it is that this criterion will be satisfied. If the risk of harm is far-fetched, a duty will not arise.

35 The defendant pointed out that it was the common testimony of Salim and the plaintiff that it had never encountered or heard of incidents of stuck floaters lurching out unexpectedly. In fact, the plaintiff had deposed[3] and had testified[4] that it was standard practice for divers to release air to deflate floaters before recovering them. Given the lack of knowledge (including the two experts Ohl and Chew) on the possible cause of the second floater lurching out and the improbability of floaters lurching out from under the barge when air is released, it was not reasonably foreseeable that harm could possibly result from the routine underwater operation carried out by the plaintiff. Even if such a possibility was foreseeable, the defendant argued that there was insufficient proximity between the parties to impose the duty of care contemplated by the judge.

36 The defendant submitted that the duty owed by principals to their independent contractors is more limited than the duty owed by employers to their employees, citing the 2009 Australian case *Leighton Contractors Pty Ltd v Fox* 258 ALR 673 ("*Leighton's* case") at [52]:

> There was no reason in principle to impose a duty on a principal contractor to provide training in the safe method of carrying on every trade and conducting every specialised activity carried out on the site to every worker on the site. The latter is unlikely to possess detailed knowledge of safe work

[3] Plaintiff's 2nd AEIC at para 5.

[4] N/E 27 May 2013 at p 35.

> methods across the spectrum of trades involved in construction work. And a duty to provide training in the safe method of carrying out the contractor's specialised task was inconsistent with maintenance of the distinction that the common law draws between the obligations of employers to their employees and of principals to independent contractors.

37 The defendant argued that in the present case, it cannot be disputed that the plaintiff is an independent contractor. As such, whether the defendant owed him a duty of care to prescribe a safe system of work in relation to recovery of the two floaters depended on whether the plaintiff was working under the direction of the defendant as to the manner in which the work was to be carried out. It contended that the plaintiff was not working under the defendant's direction as to the manner in which his task underwater was to be carried out. How the plaintiff carried out his underwater assignment was exclusively within his own purview and not subject to the defendant's supervision.

38 Consequently, the defendant took issue with the judge's findings (at [31] and [35] of the judgment) that the plaintiff was "no more than that a worker" and that the task he undertook "could have been carried out by [the defendant's] employees if they had diving qualifications". Carried to its illogical conclusion, the judge's finding would mean that rarely, if ever, would there be a *bona fide* independent contractor – it could be said of an engineer or crane operator that their hirer's employees could carry out their tasks if they had received the requisite training.

39 The defendant argued that there was insufficient proximity between the parties as to impose a duty on the defendant to prescribe a safe system of work for the plaintiff and/or to assess and brief him on the risks involved in the operation underwater and what safety precautions he should have taken.

40 Even if this court is of the view that there is sufficient proximity between the parties as to establish a common law duty of care, the defendant argued that it was not "fair, just or reasonable" to impose a duty on the defendant to assess the risks involved in the underwater operation and prescribe a safe system of work, relying on *Leighton's* case. This was due to the fact that the defendant as ship repairer is unlikely to possess detailed knowledge of the safe system of work methods in relation to diving operations underwater. Neither would it be cost effective for the defendant to conduct independent risk assessments of *ad hoc* assignments that the plaintiff may be engaged to carry out from time to time for the defendant as the nature of such jobs would differ.

41 The defendant said the judge had misapplied the principles in *Leighton's* case as well as in *Steven v Brodibb Sawmilling Company Pty Ltd* (1986) 160 CLR 16 ("*Steven v Brodibb*"), in stating that a principal owes its independent contractor a duty to prescribe a safe system of work in his area of sole responsibility; the two cases are distinguishable from this case. I shall return to the cases later in the judgment (at [58]—[60] below).

42 The defendant submitted that the judge had erred in her finding (at [35] of the judgment) that the nature of the work to be performed by the plaintiff in relation to the floaters was circumscribed by the defendant and could have been carried out by the defendant's own employees if they had diving qualifications, when the defendant engaged the plaintiff specifically because of his diving expertise. Moreover, any operations taking place underwater were entirely out of the defendant's ambit of control. There was a clear demarcation between the tasks undertaken by the defendant (above water and on dry ground) and that undertaken by the plaintiff (underwater).

The decision

43 I turn first to the expert testimony. At the outset, I should point out that the opinions of the two experts Ohl and Chew are based on highly technical calculations/equations which are not easy for a layperson to understand.

44 What is notably absent from Chew's opinion/evidence is that he did not take into account the fact that by the time the plaintiff attempted to recover the second floater, all the other seven floaters had been removed from under the barge. As Ohl had pointed out in court, there was no evidence adduced on the actual location of the second floater. It does not take rocket science to know that a solitary floater weighing 530 kgs without air and stuck under the portside of the barge (which weighed 1,800—1,900 tons according to the plaintiff) would cause the barge to be unstable – the starboard side no longer had the first floater to balance the barge and keep it afloat in tandem with the portside. The law of physics dictate that the weight of the second floater on the portside underneath the barge with a buoyant force of 42 tons would cause the barge to be on an uneven keel. That itself would have caused the barge to be unstable even without tidal movement.

45 There was no evidence on what were the tidal movements, if any, at the material time, save for what the plaintiff and Salim alleged (see below at [54]). Even without tides, the barge would have been bobbing on the water due to the plaintiff's movements underwater, first in retrieving the rope of the first floater and then diving back into the water again to release air from the second floater.

46 As alluded to earlier at [5] above, there was little space between the wall (either on the starboard or portside) of the slipway and the barge. If this court's estimate that the space is only about 4.29ft is correct, where could the

plaintiff have swum to while waiting for Uddin to bring him a rope to tie to the pad-eye of the second floater? The judgment (at [61]) held that the plaintiff failed to keep a safe distance away from the floater. Where was the plaintiff supposed to swim to while waiting in the interim for Uddin to hand him a rope? It has to be borne in mind that the barge was 268.8 ft long (see [5] above) and according to the information provided to Ohl by the plaintiff, the barge was lying in 4m (13ft) of seawater. Was the plaintiff expected to swim to the front or the rear of the long and heavy barge (depending on where the second floater was located) or get out of the water completely while waiting for Uddin to pass him a rope?

47 A factor that the judge touched on (at [55] of the judgment) was the fact that the floaters had been over-inflated by the defendant. Instead of the manufacturer's recommendation of 1.3kg/cm², Teh and Uddin testified that the defendant had pumped 7kg/cm² of air into each floater prior to the unslipping operation, more than five times over the recommended limit. I should add that each floater is 12m long, 1.5m in diameter while the valve for pumping in and releasing air out is ¾ inch in diameter.[5]

48 The plaintiff's first AEIC did not state how long he had released air from the second floater before he swam to the surface to get a rope from Uddin. He had deposed that from his past experience about 90 minutes is the time required for air in the second floater to be completely released. In his second AEIC the plaintiff deposed that in his experience, a floater can be pulled and lifted out of the water after about 40 minutes from the commencement of release of air from the floater. On his part, Salim had

[5] Sharma's AEIC at para 6.

estimated that the exercise of releasing air would take 30 to 45 minutes depending on the size of the floater.[6]

49 There was no evidence nor was the possibility explored by any of the witnesses in the court below (factual or expert), as to how much longer it would have taken to release enough air to safely deflate a floater that had been inflated five times above its recommended limit. If the plaintiff had released air from the second floater (based on his past experience) for 30—40 minutes thinking that was sufficient, that meant considerably more air still remained inside the second floater when he surfaced from underwater to get a rope from Uddin.

50 Sharma's view was that when air is released form the second floater, it became an unguided missile; there is some truth in his argument. Drawing an analogy with an inflated balloon that will fly off in any direction once air is released therefrom, an over-inflated floater that suddenly becomes unstuck may well behave like an unguided missile when its valve is left opened and all the air inside escapes.

51 In Salim's case, I agree with the judge's finding that he could not be considered an expert witness. In his first AEIC, Salim had deposed as follows:

> 5 The plaintiff had described to me the barge from under which he was attempting to help the Defendants [*sic*] recover the floaters/airbags and the exact place where the barge was when the accident involving the Plaintiff happened. The barge would have to be launched at high tide to be towed out. At the premises where the barge was there would not have been any currents in the waters and this is so especially at high tide.
>
> 6 For such a barge to have been moved by the waters there must have been strong currents of at least 1.2 knots. It is highly unlikely that there were such strong currents at the

[6] Salim's AEIC at para 5.

> premises. If there were such strong currents then it would have been very dangerous for any diver to be working in such conditions or attempting to carry out the work that the Plaintiff was performing that day. It is also unlikely that currents at the Defendants' [*sic*] premises could have caused the floaters to lunge out from under the barge as described by the Plaintiff in his above Affidavit.

52 The fact that Salim has 23 years of experience as a commercial diver without more does not make him an expert witness. In this regard, I refer to s 47 of the Evidence Act (Cap 97, 1997 Rev Ed) ("the Evidence Act"). It states:

> (1) Subject to subsection (4), when the court is likely to derive assistance from an opinion upon a point of scientific, technical or other specialised knowledge, the opinions of experts upon that point are relevant facts.
>
> (2) An expert is a person with such scientific, technical or other specialised knowledge based on training, study or experience.

Counsel for the plaintiff had relied on the following passage from *Halsbury's Laws of Singapore* vol 10 (Butterworths Asia, 2001) at para 120.229 ("*Halsbury's Laws of Singapore*"):

> A person may become an expert by peritus, by acquiring sufficient experience in the practice of a specialism without having undergone any course of formal training.

to support his submission that Salim was indeed an expert witness by virtue of his experience as a diver. However, there is the following extract from the same volume and page of *Halsbury's Laws of Singapore* that reinforces my view that Salim is not an expert.

> The very question whether a witness is a competent expert witness is answered according to the nature of the opinion to be expressed. The nature of the opinion which the court has to form is formulated exactly and therefore the court does not merely ask whether a person is an expert on a matter broadly determined or on some general field of knowledge in which the opinion falls, but asks whether the person is likely to be of

> assistance to the court on the very point in issue. It follows that a person may be accepted as an expert witness if he is likely to be of assistance to the court on the exact point, notwithstanding that he may not possess the full breadth of knowledge making up the particular field of expertise.

After reviewing his testimony (written and oral) my conclusion is that Salim's evidence was of little assistance to the court.

53 As the judge had quite rightly pointed out (at [40] of the judgment), based on the definition in s 47 of the Evidence Act, Salim did not qualify as an expert. Salim appeared to have relied solely on the plaintiff's version of what transpired on the day of the accident without verification.

54 Even so, the judge accepted Salim's testimony (at [43] of the judgment) on the basis that he was familiar with the defendant's premises. Salim did not say so in his two AEICs but it would appear from the plaintiff's second AEIC (filed after the defendant had amended their defence on 6 July 2012) that he and Salim visited the defendant's premises on 8 February 2012. (The plaintiff deposed that changes had been made to the physical structures at and near the place where the accident occurred but he did not elaborate).[7] However, there was no factual basis nor had he carried out tests, for Salim's conclusions in his first AEIC as set out in [50] above. His statements were qualified by such phraseology as "there must have been", "it is unlikely" and "could have caused/been caused" and not based on his own personal knowledge.

55 Consequently, the judge erred in accepting the plaintiff's and Salim's testimony that there was no movement of the barge. In the light of my observations in [44] above, there must have been at least lateral movement of

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[7] Plaintiff's 2nd AEIC at para 7.

the barge due to the presence of only the second floater on the portside. The appropriate description of the barge would be that it was yawing from side to side although not to the extent it would have had it been on the open seas. In this regard, I give little credence to the plaintiff's evidence that the barge was tied to bollards by ropes. There was nothing said about whether those ropes were slack or tight.

56 In the judgment, the judge had accepted the theory/hypothesis of Chew as being more logical. With respect, I beg to differ. First, as was rightly pointed out in the plaintiff's appellants' case, Chew's testimony of "disturbance forces" working on the second floater should have been disallowed/excluded. That was not the defendant's pleaded case in its amended defence. It is trite law that a party is bound by its pleadings. The defendant's pleaded case was that the second floater became loose and moved (due to wave and current underwater) when air was released therefrom by the plaintiff and he should have taken precautions to avoid injury to himself. Nothing was said about "disturbance forces" hypothesized by Chew in court. There were also shortcomings in Chew's theory (raised by Ohl) set out earlier in [28]. Ohl's opinion based on scientific principles is to be preferred.

57 Chew's brief from the defendant's solicitors was to comment on the accuracy of the answers given by Ohl to the 12 questions posed to Ohl by counsel for the plaintiff. Ohl's answers were in turn directed at Sharma's AEIC. It is noted that while the two experts' views differed, there was unanimous agreement on six questions, partial agreement/disagreement on five questions and uncertainty whether there was agreement or disagreement on one question (no.2).

58 The consensus of the two experts was that a force of 42 tons was exerted by a floater on the underside of the barge. The experts disagreed on the exhaust velocity of the air exiting from the floater. Chew estimated it to be 319m per second while Ohl's estimate was higher at 1,000m per second (both figures were based on air pressure of 7kg/cm²). Even if one accepts Chew's to be the more accurate of the two figures, it shows the tremendous speed at which air exited from the second floater. Contrary to Chew's surmise, there was no evidence adduced in the court that water seepage occurred between the barge's and second floater's contact surfaces causing a reduction in the frictional force.

59 I return now to the cases referred to earlier at [41]. In *Leighton's* case, the respondent Fox sustained serious injury in the course of working at the construction site of the Hilton Hotel in Sydney. The appellant Leighton was the principal contractor for the project. Leighton contracted with a company D to carry out concreting work. D subcontracted the concreting work to Q. Fox and another company (W) were engaged by Q in turn. Fox was injured in the course of a concrete pouring operation. He sued Leighton, Q and W in negligence. The trial judge found that the accident was caused by the negligence conduct of Q and W and dismissed the claims against Leighton and D. The Court of Appeal allowed Fox's appeal, holding that Leighton and D were each subject to a common law duty of care for the benefit of Fox and each were in breach of that duty. Leighton and D appealed to the High Court of Australia. The High Court applied *Steven v Brodibb* (see [36] above) and allowed the appeal.

60 I turn next to *Steven v Brodibb*. The headnotes of that case read as follows:

> A sawmiller engaged sniggers to move felled trees to a loading zone and truckers to carry the trees to the mill. Sniggers and truckers used their own vehicles, set their own hours of work, and were paid according to the volume of timber delivered to the mill. The sawmiller did not deduct income tax instalments from the payments. Sniggers and truckers were not guaranteed work and were free to seek other work if weather or other circumstances prevented them working for the sawmiller. An employee of the sawmiller had general supervision over operations, but exercised no control over the manner in which sniggers and truckers carried out their tasks. While a log was being manoeuvred onto a truck, a trucker (the plaintiff) was injured by the negligence of a snigger.

The plaintiff sued the sawmiller and the snigger (Gray). The trial judge found that the plaintiff and Gray were the sawmiller's employees and that Gray had acted negligently in moving the logs. He held that the sawmiller was negligent in failing to supervise the loading operations properly, in failing to ensure that safe procedures were adopted and in failing to provide adequate equipment. Both the sawmiller and Gray appealed to the Supreme Court of Victoria which held that the sawmiller owed a general duty of case to the plaintiff but there was no breach of that duty. The sawmiller and Gary appealed to the High Court of Australia.

61 The High Court of Australia allowed the sawmiller's appeal but dismissed Gray's appeal. It held that neither the trucker (the plaintiff) nor the snigger (Gray) was an employee of the sawmiller so that the latter was neither vicariously liable for Gray's negligence nor personally liable to the plaintiff for breach of the duty of care owed by an employer to an employee. In this regard, the defendant cited the following passage (per Wilson and Dawson JJ) from the case (at p 45):

> To equate the duty [to independent contractors] with that owed by an employer to his employees would be to give no

> weight to the very circumstance which differentiates the contractors from employees.

62 This court does not dispute that the law draws a distinction between the duties owed by an employer to an employee as opposed to those owed to an independent contractor like the plaintiff, nor disagree with the decisions in the two Australian authorities cited by counsel. What needs to be determined in this case is, did the defendant provide a safe system of work to enable the plaintiff to carry out his underwater assignment?

63 It was the defendant's case that it had no control over how the plaintiff would perform his task underwater – in other words, Teh had instructed the plaintiff *what he had to do* (namely, to recover the two floaters from underneath the barge) *but not how he was to do it*. That may well be so but the law requires the defendant to provide a safe system of work for the plaintiff. In this connection, *Leighton's* case (from which the defendant quoted the passage in [58] above), is distinguishable on the facts. The plaintiff here did not sustain his injury from a construction site which has any number of trades going on at any one time. He was injured doing a specific underwater assignment for the defendant, one of many he had done in the past.

64 Granted that the accident was not something the defendant could foresee (based on the two stage *Spandeck* test for foreseeability set out in [32—33]). But here, unbeknownst to the plaintiff, the defendant had inflated the floaters (including the second floater) five times over the recommended limit to unslip the barge. Had the plaintiff known and been apprised of this fact, he may well have and could have taken certain precautions as the judge held he should have done. He did not because to him it was a routine operation similar to those he had done for the defendant previously. Had he

known and failed to take precautions or ask questions of the defendant, then and only then can it be said he was contributorily negligent.

Conclusion

65 An appellate court should be and is slow to reverse the findings of a lower court unless the findings are clearly against the weight of the evidence adduced or there was no evidence to support such findings. In this case, I am of the view that the court's finding of contributory negligence on the part of the plaintiff to the extent of 50% was not substantiated by any evidence adduced before the court. The judge erred in relying on and accepting Chew's testimony. Chew's evidence was inadmissible as it was outside the parameters of the defendant's pleaded case.

66 Consequently, I am allowing the plaintiff's appeal with costs. The defendant's appeal is dismissed with costs.

67 For the avoidance of doubt, there shall be one set of costs only for the plaintiff for both appeals fixed at $10,000 excluding disbursements on a reimbursement basis.

68 It follows that counsel for the plaintiff is released from his undertaking for costs stated in the certificate for security for costs filed for the plaintiff's appeal. Counsel for the defendant on the other hand will honour his undertaking for costs stated in the certificate for security for costs that was filed for the defendant's appeal.

Lai Siu Chiu
Senior Judge

Jayamani Jose Charles (Jose Charles & Co) for the appellant;
Anparasan S/O Kamachi and Tan Wei Ming (KhattarWong LLP) for the respondent.
