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Republic of South Africa

IN THE HIGH COURT OF SOUTH AFRICA
WESTERN CAPE DIVISION, CAPE TOWN

(Exercising its Admiralty Jurisdiction)

Case number: AC 78/2008

Related to case no. AC 79/2008

Before: The Hon. Mr Justice Binns-Ward

Hearing: 11-14, 18-21 May;
8-11; 15, 17-18, 22-23 June;
3-5 August 2020
Judgment: 9 February 2021

Name of Ship: MT "BOW SUN"

In the matter between:

PETROLEUM OIL AND GAS CORPORATION OF SOUTH AFRICA (PTY) LTD Plaintiff

and

ODFJELL ASIA III PTE LTD Defendant
TRANSNET LIMITED Third Party

JUDGMENT
(Delivered by email to the parties' legal representatives and by release to SAFLII. The judgment shall be deemed to have been handed down at 10h00 on 9 February 2021.)

BINNS-WARD J:

Introduction

[1] The *Bow Sun* is a 30 000-ton oil / chemical tanker[1] owned by the defendant company, Odfjell Asia III Pte Ltd. She is 182,88 metres in overall length from bow to stern and has a beam or maximum breadth of 32,2 metres. On 21 September 2005, she called at Mossel Bay to take on a cargo of low aromatic diesel products at the conventional buoy mooring (CBM) in the port. On the following day, when the vessel was in the process of unmooring from the CBM, it was detected that her starboard bower anchor had become snagged on a rigid pipeline (the SPM pipeline) that runs on the seabed from the plaintiff's onshore facility, referred to in the evidence as 'the oil tank farm', to a single point mooring (SPM) anchored in the bay. The team of divers who confirmed that the anchor had fouled also noted that the outer casing of the pipeline had been torn open. The SPM pipeline is the property of the plaintiff, the Petroleum Oil and Gas Corporation of South Africa (Pty) Ltd (PetroSA). It is used to transfer hydrocarbon products between the oil tank farm and tankers moored at the SPM. PetroSA seeks in these proceedings to recover compensation in damages from the defendant in respect of part of the cost of repairing the damage occasioned to the SPM pipeline. Owing to the restrictions imposed in respect of the Covid-19 related state of disaster, the trial was conducted remotely using an audio-visual computer program.

[2] The anchor snagged because it had been let go too early during the tanker's approach to the CBM for the purpose of taking on her cargo at the pipeline end manifold (PLEM) there. The PLEM is the terminal point of two other undersea pipelines from the oil tank farm.[2] It is located on the leading line taken from the leading light beacons situated above the shoreline at Voorbaai in the vicinity of the aforementioned oil tank farm. That leading line, which runs roughly from west to east on a heading of ± 108° true, was variously referred to in the evidence as the 'Voorbaai leading line' or the 'Bayview leading line'. I shall use the first-mentioned label.

[3] Both the SPM and the CBM and their related supply lines lie within the limits of the port of Mossel Bay. The line of approach by vessels intending to moor at the CBM to take

[1] The given tonnage is the vessel's 'international tonnage', not her deadweight tonnage (DWT).

[2] An 8-inch pipeline for industrial alcohol and a 10" pipeline for refined distillate. Obviously, each pipeline has its own end manifold, but I shall refer to 'the PLEM' in the singular throughout this judgment for convenience.

on cargo at the PLEM was regulated according to a standard operating procedure issued by the port authority. I shall discuss this procedure in some detail later in this judgment. At this stage it suffices to note that had the *Bow Sun*'s approach followed the standard operating procedure punctiliously, it would have had her sailing from the point where the pilot came on board on a course of 280° true on the 15 metre sounding towards a prominent physical feature in the bay, Seal Island, until she arrived about seven cables off the island, where she would execute a turn hard to starboard to put her on a north, north-easterly heading along another leading line referred to as 'the De Bakke leading line'.

[4] The De Bakke leading line runs roughly from south to north on a bearing of 18° true, taken from the De Bakke leading lights. The poles from which the De Bakke lights are shone are situated on a slope near a place on the shoreline marked as Haaibanke on the Admiralty Chart for Mossel Bay and the Approaches to Mossel Bay (exhibit B).

[5] The object of setting the approach along the De Bakke leading line is to take vessels headed for the CBM to the point of the intersection of that line with the Voorbaai leading line, whence, after making a starboard turn from the De Bakke leading line onto the Voorbaai leading line, they are manoeuvred astern with assistance from a tug (the *Arctic Tern*) to their berth at the CBM. They are berthed at the CBM, with the PLEM on the port side, by being tied at the stern and on both sides at the stern end (abeam and astern) to five mooring buoys.[3] The location of the PLEM itself is marked by a spar buoy.

[6] The SPM pipeline runs over the seabed in a north-easterly direction from the tank farm at Voorbaai to the SPM, which is situated some distance to the east, on the seaward side of the CBM. The De Bakke leading line intersects the route of the SPM pipeline at a point some 250 to 260 metres to the southwest of the intersection of that leading line and the Voorbaai leading line.

[7] The pipeline lies at a depth of about 17 metres and therefore does not constitute a clearance hazard to a vessel such as the *Bow Sun* which has a loaded draft of 11,5 metres. It is nonetheless crucial that any vessel approaching the CBM should drop its starboard anchor to the north of the pipeline so as to avoid the anchor snagging the pipeline when it is retrieved in the course of the vessel unberthing from the mooring. Accordingly, the position

[3] The mooring buoys were numbered sequentially from 1 to 5, with no.1 being the foremost buoy on the starboard side and no.3 being the buoy directly astern the vessel.

of the pipeline is, or should be, a significant consideration for the master of any vessel coming in to moor at the CBM.

[8] The *Bow Sun*'s starboard bower anchor, as might be imagined having regard to the tanker's size, was a very substantial object. It was a spek anchor weighing 9 300 kilograms. The anchor's crown measured 2 332 mm from side to side and the tips of the flukes stood 2 210 mm above the base of the crown. It was therefore eminently foreseeable that significant damage might be occasioned should it come into deleterious contact with the pipeline. It should also have been appreciated, having regard to its function, that damaging the pipeline could have serious environmental repercussions as a result of the pollutant effect of petrochemical product leaking into the sea.

[9] During the approach, and according to the standard operating procedure, the vessel's starboard anchor should be dropped on or near the De Bakke leading line at a point approximately 80 metres south of the intersection point with the Voorbaai leading line. The port anchor is dropped after the vessel has made its turn to starboard to line up on the Voorbaai leading line, and as she begins her movement astern towards the PLEM. The vessel must be moving astern when the port anchor is dropped in order for the port anchor chain to pay out properly. The ostensible objective is that the port anchor should come to rest on the De Bakke line about 80 metres north of the intersection point. Ideally, when the vessel has been berthed at the CBM both bower anchors should be fixed forward of her bow at points on the De Bakke leading line more or less equidistant on either side of the intersecting point of the De Bakke and Voorbaai leading lines. The so-called 'perfect mooring' would have the two anchors about 192 m apart (the equivalent of the length of seven shackles) in alignment with each other more or less on the De Bakke leading line. Captain Cox testified that it would be a rare event in reality for the port and starboard anchors to be aligned precisely as shown in the chartlet. He actually said, '*it's never going to happen*'. Such an alignment would not be necessary for an effective mooring to be achieved. I did not understand Captain Barker to have maintained otherwise, hence his stated contentment with a mooring with about nine shackles out. The type of mooring procedure involved is called 'a running moor' or 'a Mediterranean moor' in nautical parlance.

[10] When an incoming tanker is expected at the CBM, a launch called the *Snipe*, which is operated by the port authority, is sent out from the harbour to mark the intersecting point

of the two leading lines by dropping a marker buoy. The marker buoy is tethered to a clump weight, which makes it susceptible to drifting depending on the sea conditions. If that happens it obviously negates the object of the buoy as a navigational aid. The launch was referred to in the pleadings as a 'leader boat'. It is meant to stand close by the marker buoy during the incoming vessel's approach and consequently serve as an additional beacon of the intersecting point of the two leading lines.

[11] The crew on the *Snipe* monitors the approach of the incoming tanker towards the point of intersection using radar, and at given intervals radios to the pilot on the bridge of the tanker particulars of the narrowing distance between the two vessels. The distance, which is that between the position of the *Snipe* and the bow of the tanker, is called out in metres. The first call is usually given when the bow of the approaching vessel is approximately 196 metres from the intersection and thereafter in a diminishing sequence that appears to correspond with intervals of approximately 0,01 nautical mile.[4] The evidence was that the practice is that the pilot gives the order for the incoming vessel's starboard anchor to be let go when the distance between the vessel's bow and the intersection is approximately 120 metres. The pilot's order is relayed by VHS radio from the bridge to an officer standing on the tanker's fo'c'sle who instructs the boatswain to release the windlass brake. The evidence suggested that an efficient execution of the pilot's order to let go of the anchor given at 120 metres would cause the anchor to come to rest on the bottom approximately 90 metres (as opposed to the 80 metres indicated in the standard operating procedure) to the south of the intersection point measured along the De Bakke leading line and well to the north (by ± 170 metres) of the SPM pipeline.

[12] The evidence was that the Bow Sun would probably have been progressing at about 1,5 knots (or 46 metres) per minute when the instruction to let go the starboard anchor was given. It seems to me that the pilot's instruction would have to be executed pretty smartly for the anchor to be let go at 90 metres after an instruction given by the pilot at 120 metres. The vessel would be in the course of slowing down as it approached the intersection and so would cover the intervening 30 metres in about 40 secs. There would be little time for debate or double checking. If the vessel overshot the mark for dropping the anchor, it would be necessary to take her back to the beginning of the exercise for a second attempt at the approach – something that would take up upwards of two hours.

[4] The distance of 0,01 nautical mile converts to approximately 18,52 metres.

[13] Both the Voorbaai and the De Bakke leading lines are clearly marked on the nautical charts. It would therefore be possible for the officer of the watch on the bridge of the incoming vessel to readily chart the position of the ship in relation to them during the vessel's approach to the CBM. The bridge team should also be able to visually check that the vessel is proceeding on a bearing in line with the De Bakke leading lights. It bears notice, however, that a contemporaneous note made by one of the witnesses, Captain Barker, indicates that he thought that one of the beacon lights at De Bakke had been very faint at the time of the incident. Barker testified that this would make the light difficult to see in the early morning daylight, which were the conditions in which the *Bow Sun* made her approach.

[14] At the time of the incident in September 2005 there were no physical markers of the route of the SPM pipeline. After the incident, however, two permanently positioned buoys were installed at the end of January 2006 to provide a visible indication on the surface of the position of the subsea pipeline. The installation of the buoys followed on recommendations made by Mr Faan Herbst, the Safety Health and Environment Quality manager for PetroSA. It appears to have been accepted by the port authority as a reasonable way to minimise the chance of a similar mishap occurring again. The position of these buoys is marked on the currently applicable nautical charts. The deployment of the buoys as navigational aids was accompanied by an amendment to the standard operating procedure to require the loading master on board tankers incoming to the CBM to take up position on the vessel's fo'c'sle and to indicate to the pilot when the bow cleared the pipeline.

[15] It is common ground that on the day in question the *Bow Sun* did not proceed along the De Bakke leading line towards its intersection with the Voorbaai leading line, but sailed instead on a course roughly parallel to the line, about 60 metres to the east of it. In the result, owing to the angle at which the SPM pipeline runs relative to the De Bakke line, the point at which the vessel crossed the pipeline would have been approximately 40 metres closer to the Voorbaai line than would have been the case had she proceeded along the De Bakke line.[5] It is also common ground, predicated on the deductions made from the

[5] The evidence was that the pipeline traversed the De Bakke leading line approximately 260 m measured along the leading line from the intersection of that line with the Voorbaai leading line. Captain Barker testified that a line drawn parallel to and 70 m east of the De Bakke line would traverse the pipeline 220 m south of the Voorbaai leading line.

snagging of her starboard anchor on southern side of the pipeline, that the anchor must have been let go up to 20 metres before the vessel's bow passed over the pipeline.

[16] The master of the *Bow Sun*, Captain Ingebrigtsen, was not a complete stranger to Mossel Bay or the CBM berth. He had been in command of the tanker when she had called at the port to take on product at the CBM a few months earlier, in February 2005. On that occasion the vessel had moored without incident, although nine shackles of anchor chain had been paid out on each side, instead of the seven shackles contemplated in terms of the standard operating procedure.

[17] Captain Barker, an experienced master mariner who testified for the plaintiff in the trial, had been on board as the loading master[6] on the occasion of the *Bow Sun*'s earlier visit. He is an employee of a company then known as Smit Amandla Marine (Pty) Ltd.[7] Smit Amandla were contracted by PetroSA to attend to the transfer of product to the tankers which called at the CBM and SPM terminals.

[18] Captain Barker has been based in Mossel Bay since 2002. He noted in a routine report in respect of the *Bow Sun*'s call in February 2005 that the starboard anchor had been dropped at 75 metres from the intersection point, which was somewhat later than the 80 metres indicated on the chartlet[8] related to the port's standard operating procedure, or the 90 metres, which the oral evidence suggested was the norm in practice. In the circumstances the use of more anchor chain than usual when the anchor was dropped closer to the intersection point than recommended suggests that the vessel probably approached the Voorbaai leading line on a track slightly to the east of the De Bakke leading line on that occasion too. An electronically captured record of the mooring in 2002 of another tanker, the *Jo Eik*, which Captain Barker happened to have kept because of his interest in the then

[6] A loading master is the person charged with supervising the transfer of petroleum product between a tanker and a shore-based terminal. In the case of transfers at the CBM at Mossel Bay the loading master boards the incoming tankers together with the pilot and the ship's agent approximately two sea miles east of the breakwater at Mossel Bay harbour.

[7] The business of Smit Amandla Marine was subsequently acquired by African Marine Solutions Group (Pty) Ltd (AMSOL), Captain Barker's current employer.

[8] The term 'chartlet' was used by the witnesses to describe the small extract from the nautical chart that was used to illustrate the standard operating procedure used for berthing vessels at the CBM. The word, which appears to have originated in American English, is defined in *The Oxford Pocket Dictionary of Current English* as '*n. a small chart, as for navigation, highlighting a particular feature*'. The chartlet pertinent to this case is reproduced in para [39], below.

novel ECDIS navigational system[9] being used on that vessel, showed that she too had been brought in on a track parallel to, and about 40 m to the east of, the De Bakke leading line.

[19] The summary of the standard operating procedure reflected in the chartlet (see para [39] below) that was provided to the master of every tanker intending to berth at the CBM appears to have been settled at a time when vessels of only up to 32 000 tons DWT were permitted to moor there. That limit had been increased to 42 000 tons DWT by the time of the *Bow Sun*'s visits.[10] Captain McAllister, a master mariner of vast experience and impressive pedigree who testified as an expert at the instance of the plaintiff, agreed with the proposition put by the defendant's counsel that it could well be more practical for larger vessels to proceed on a line parallel to and to the east of the leading line for easier mooring purposes. I do not recall that any evidence was adduced concerning the deadweight tonnage of the *Bow Sun* and it is therefore not clearly established that she would qualify as such a larger vessel,[11] but the speculation by the defendant's counsel, based on the evidence concerning the line of two earlier approaches (by the *Bow Sun* in February 2005 and the *Jo Eik* in October 2002), that an approach somewhat to the east of the De Bakke leading line had become standard was in any event not supported by the evidence of the witnesses with first hand exposure to the local practices. According to the evidence of Captain Barker and Mr Karelse (a ship's agent with many years' local experience), they would both have expected the *Bow Sun* to track the De Bakke leading line on her approach.

[20] The cost of repairing the damage done to the SPM pipeline was allegedly in the sum of R17 212 944,31. In the current action, in case no. 78 of 2008, PetroSA has sued the defendant for payment of the sum of R13 122 944,31 in damages. The difference between the alleged cost of repairing and the sum claimed from the defendant is constituted by the amount of R4 100 000 that was paid to the plaintiff by Transnet Limited in settlement of an arbitration claim that the plaintiff had instituted against the latter predicated on the causal

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[9] ECDIS is an acronym for 'Electronic Chart Display and Information System'. ECDIS '*is a computer-based navigation system that complies with IMO regulations and can be used as an alternative to paper navigation charts. Integrating a variety of real-time information, it is an automated decision aid capable of continuously determining a vessel's position in relation to land, charted objects, navigation aids and unseen hazards*'; https://www.martek-marine.com/blog/what-is-ecdis/ (accessed 17 January 2021). This online summary of ECDIS adequately precises the descriptions of the system given in evidence.

[10] The Admiralty Sailing Directions indicate that vessels of up to 50 000 tons DWT can be accommodated at the CBM.

[11] It is probable, however, that the vessel's deadweight tonnage would significantly exceed her 30 000-ton international tonnage. The *Bow Sun*'s dimensions correspond closely to what PetroSA's SHEQ manager, Mr Herbst, described in an incident report as '*the normal size of an average tanker that moors at the CBM*'.

negligence of the pilot who had taken charge of the vessel for the purpose of bringing her into the port and mooring her at the CBM.[12] The extent of Transnet's exposure to PetroSA in respect of damages occasioned by the negligence of its employees was capped in terms of a contract between those parties.

[21] Mossel Bay was designated as a compulsory pilotage port in terms of the Legal Succession to the South African Transport Services Act 9 of 1989 ('the Legal Succession Act'). Tankers coming in to moor at the CBM were therefore required to be piloted. The pilot concerned was an employee of the port authority, a division of Transnet Ltd. [13] The crew of the *Snipe* were also employees of the company. As the port authority, Transnet, through its Portnet division, was also responsible for maintaining Mossel Bay as a safely navigable port.

[22] Transnet Ltd was joined by the defendant as a third party in the current action. It did not play an active part in the litigation, however, apart from appearing to seek from the defendant the costs incurred as a result of its joinder. The defendant's position is that the damages sustained by the plaintiff were occasioned wholly as a result of the negligence of Transnet's employees acting within the course and scope of their employment. It joined Transnet as a third party only for the purpose of seeking an apportionment of negligence contingent upon this court finding against the defendant that the *Bow Sun*'s crew had been causally negligent. In such eventuality, an apportionment could be relevant for ascertaining the maximum extent of the defendant's resultant liability in the context of the relevant limitation provided in terms of s 2(10) of the Apportionment of Liability Act 34 of 1956.[14]

[23] PetroSA alleged that the damage to the SPM pipeline was caused as a result of the negligence of the master, officers and crew of the *Bow Sun* acting within the course and scope of their employment by the defendant. It alleged that the master and officers of the vessel failed to follow the standard operating procedure for mooring at the CBM; in

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[12] Paragraph 11A of the plaintiff's particulars of claim.

[13] Transnet Limited was established as a company in terms of s 2 of the Legal Succession to the South African Transport Services Act 9 of 1989.

[14] Section 2(10) provides: '*If by reason of the terms of an agreement between a joint wrongdoer and the plaintiff the former is exempt from liability for the damage suffered by the plaintiff or his liability therefor is limited to an agreed amount, so much of that portion of the damages which, but for the said agreement and the provisions of paragraph (c) of subsection (6) or paragraph (b) of subsection (7), could have been recovered from the said joint wrongdoer in terms of subsection (6) or (7) or could have been apportioned to him in terms of subparagraph (ii) or (iii) of paragraph (a) of subsection (8), as exceeds the amount, if any, for which he is liable in terms of the said agreement, shall not be recoverable by the plaintiff from any other joint wrongdoer*'.

particular, by (i) failing during the vessel's approach, after she had been steered to starboard to approach the intersection with the Voorbaai leading line, to track the De Bakke leading line and instead sailing her approximately 50 to 70 metres to the east thereof; (ii) letting go the starboard anchor when the bow of the vessel was at a distance substantially greater than 80 to 90 metres from the intersection of the leading lines; and (iii) letting the anchor go when the bow of the vessel was above or marginally to the south of the SPM pipeline and approximately 220 metres from the intersection of the leading lines. All of these matters concerned navigational issues. As will become clear, the applicable statutory provisions made the navigation of the ship at this stage the exclusive responsibility of the pilot on board. The master was permitted to override the pilot only in a defined situation of emergency.[15] It was the defendant's position that an emergency in the sense contemplated by the legislation had not arisen.

[24] PetroSA also alleged that the master and officers of the *Bow Sun* had been under a duty to keep a proper lookout so as to ensure that no damage was caused to the plaintiff's property arising from the navigation and operation of the vessel, to give every assistance to the pilot so as to ensure that he had '*all information available to him for the safe navigation of the vessel'* and to intervene *'to prevent the pilot from carrying out his duties in the case of an emergency or should the conduct of the pilot endanger the ship, the cargo and the person or property of others*'. It was alleged that the master and officers of the vessel, had they been keeping a proper lookout, should have appreciated the standard operating procedure was not being followed and the dangers that that posed for the SPM pipeline, and that they should have intervened by drawing the pilot's attention to the deviation from the procedure. It alleged that they had failed in that duty.

[25] It was also alleged that in the course of the vessel's departure from the CBM the vessel's crew had acted negligently when they '*continued to haul on the starboard anchor when it should have been evident to them that the anchor had snagged on the SPM pipeline*'.

[26] In its third party notice to Transnet, the defendant alleged that Transnet's employees were causally negligent in respect of the damage occasioned to the SPM pipeline. In

[15] Paragraph 4 of Item 10 of the First Schedule to the Legal Succession to the South African Transport Services Act 9 of 1989 defines the emergency as a situation of danger in which the intervention of the master would be justified to intervene '*to preserve the safety of his ship, cargo or crew*'.

amplification of that allegation, the defendant pleaded as follows in paragraphs 20 - 23 of the annexure to its third party notice:

20. The usual procedure in berthing a vessel at the CBM is:

20.1 the vessel takes on a compulsory pilot prior to entering Mossel Bay harbour;

20.2 a tug operating operated by the third party and referred to as a leader boat drops a marker buoy at a predetermined point in the sea in the vicinity of the CBM in order to operate as a guide to the pilot in regard to the proper mooring position for a vessel berthing at the CBM;

20.3 the aforesaid guide to the pilot is intended to ensure that, in determining the position at which to instruct the vessel to let go her anchors, the pilot will ensure that neither anchor will snag the SPM pipeline;

20.4 the master of the leader boat also advises the pilot as the vessel approaches the CBM of her distance from the marker buoy;

20.5 the pilot employs that information to determine when or at what position to instruct the vessel to let go the starboard anchor;

20.6 the pilot instructs the vessel to let go the starboard anchor at a position not greater than 120 meters from the market buoy; and

20.7 after letting go the port anchor, the vessel is then turned onto a heading 108° true in order for her to line up with the five mooring buoys astern.

21 The master and crew of the leader boat are also employees of the third party acting in the course and scope of their employment as such.

22. On 21 September 2005:

22.1 the leader boat was the tug "*Snipe*" and her Master was Captain Cairn[16];

22.2 the marker buoy was dropped from the leader boat in the incorrect position, the precise coordinates of which are unknown to the defendant, but in a position closer to the pipeline than was safe or appropriate;

22.3 the distances furnished by Captain Cairn to the pilot on board the vessel were misleading as to the relative position of the vessel and both the CBM and the SPM pipeline;

22.4 in consequence of being misled by the information furnished by Captain Cairn the pilot instructed the crew of the vessel to let go the starboard anchor at a point where the anchor could, and did, snag the SPM pipeline; and

[16] Actually 'Cairns'.

22.5 moreover, the pilot instructed the vessel to let go the starboard anchor when the vessel was greater than 120 meters from the market buoy and accordingly at a position when it was unsafe and inappropriate.

23. Accordingly the snagging of and/or the damage to the SPM pipeline by the starboard anchor of the vessel was occasioned by the gross negligence, alternatively negligence of:

23.1 the third party and its servants, the identity of whom are unknown to the defendant, who permitted the SPM pipeline to be laid without ensuring that its location on the seabed was identified by buoys, lights or other appropriate navigational aids, in breach of their duty to users of the harbour to make the harbour reasonably safe for navigation;

23.2 the master and crew of the "*Snipe*" in failing to ensure that the marker buoy was correctly positioned and in consequence thereof in furnishing the pilot with incorrect information as to the position of the vessel in relation to the CBM and the SPM pipeline;

23.3 the pilot in instructing the vessel to let go the starboard anchor at a position that was unsafe and inappropriate;

23.4 the pilot in failing to have regard to the number of shackles of anchor line that had been paid out when the vessel reached its eventual mooring position, and in not instructing the divers to assess the position of the starboard anchor relative to the SPM pipeline at such time, alternatively prior to permitting the undocking of the vessel and the hauling up of the anchors; and

23.5 the master and crew of the "*Snipe*" in not advising the pilot and/or the master of the vessel that the starboard anchor had been let go at a position that was unsafe and inappropriate in circumstances where they knew or should have known that the starboard anchor had been let go too early.

It was convenient to quote extensively from the defendant's third party notice because, in the respects most material, the matter pleaded in para 22 was established by the evidence at the trial. It therefore serves as a useful summary of the pertinent facts.

[27] Transnet denied that its employees had been negligent, but pleaded in the alternative that if any of them had been causally negligent, it could have been only the pilot. As by virtue of certain statutory provisions,[17] Transnet could attract liability to the plaintiff only in

[17] Paragraph 10(7) of the First Schedule to the Legal Succession to the South African Transport Services Act 9 of 1989. The exclusion of liability of the Port Authority and the pilot for the negligence of the latter is probably even wider in terms of the currently applicable provisions in s 76 of the National Ports Act 12 of 2005, which came into operation on 26 November 2006.

respect of grossly negligent conduct by the pilots in its employ,[18] Transnet pleaded further that any negligence on the part of the pilot that might be found to have been established had not been of a gross degree. The third party furthermore confirmed in its pleading that the compensation that it had paid to the plaintiff had been paid pursuant to the provisions of a contract entered into by it with the plaintiff (then known as Mossgas (Pty) Ltd) and another party in 1995. Transnet's plea concluded (in paragraph 26 thereof) as follows:

> Accordingly, and by virtue of the provisions of section 2(10) of the [Apportionment of Damages] Act:
>
> (a) The Plaintiff has no claim against the Defendant for that portion of its loss caused by the negligence of the Third Party's servants, and;
>
> (b) The Defendant, consequently, has no claim against the Third Party in terms of either sections 2(6) or 2(7) of the Act.[19]

The third party prayed for the dismissal of the defendant's claim against it, together with an order that the defendant pay its costs of suit jointly and severally with the plaintiff. Whilst the defendant, on a contingent basis, initially claimed a contribution from Transnet as an alleged joint wrongdoer, it was conceded at a pretrial conference that, by virtue of the effect of s 2(10) of the Apportionment of Damages Act, that had been inappropriate. The only practical issue between the defendant and the third party was therefore that of the costs occasioned by the third party's joinder. The allegations of causal negligence made by the defendant against the third party remained relevant, however, for the purpose of a determination to be made under the Apportionment of Damages Act as to the relative degrees of fault between them should it be held, in the context of the plaintiff's claim, that the defendant was in any degree to blame for the damage to the SPM pipeline.

[28] The plaintiff's claim relates to 'damage caused by a ship'. Therefore, by virtue of s 7 of the English Admiralty Courts Act of 1861, a court of admiralty in South Africa would have had jurisdiction, immediately before the commencement, on 1 November 1983, of the

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[18] Cf. *Yung Chun Fishery Co Limited v Transnet Limited t/a Portnet* (unreported judgment, per Davis J, in case no. AC 30/1997) and *Owners of the MV Stella Tingas v MV Atlantica and another (Transnet Ltd t/a Portnet and another, Third Parties)* 2002 (1) SA 647 (D).

[19] Sections 2(6) and 2(7) of the Apportionment of Damages Act provide as follows insofar as relevant in terms of the provisions of section 2(10) (quoted in note 14 above):

s 2(6)(c): Any joint wrongdoer from whom a contribution is claimed may raise against the joint wrongdoer who claims the contribution any defense which the latter could have raised against the plaintiff.

s 2(7)(b):

Admiralty Jurisdiction Regulation Act 105 of 1983 (the AJRA), to entertain the claims. In the result, subject only to s 6(2) of the latter Act, the applicable law is that which would have been applied by the Supreme Court of England and Wales[20] as at the commencement of the AJRA; see s 6(1) of the AJRA and the commentary thereon in *Transnet Ltd t/a Portnet v MV 'Stella Tingas' and Another* [2002] ZASCA 145 (27 November 2002); [2003] 1 All SA 286 (SCA), at para 6. Section 6(2) confirms the primacy of any applicable South African legislation for the purposes of the adjudication of the claim.

[29] The First Schedule to to the Legal Succession Act that was in force at the time of the incident provided as follows in the relevant respect:

> 10 **Harbours**
>
> (1) The harbours of the Company are compulsory pilotage harbours with the result that every ship entering, leaving or moving in such a harbour shall be navigated by a pilot who is an employee of the Company, with the exception of ships that are exempt by statute or regulation.
>
> (2) It shall be the pilot's function to navigate a ship in the harbour, to direct its movements and to determine and control the movements of the tugs assisting the ship under pilotage.
>
> (3) The pilot shall determine the number of tugs required for pilotage in consultation with the Port Captain, whose decision shall be final.
>
> (4) A master shall at all times remain in command of his ship and neither he nor any person under his command may, while the ship is under pilotage, in any way interfere with the navigation or movement of the ship or prevent the pilot from carrying out his duties except in the case of an emergency, where the master may intervene to preserve the safety of his ship, cargo or crew and take whatever action he deems necessary to avert the danger.
>
> (5) Where a master intervenes, he shall immediately inform the pilot thereof and, after having restored the situation, he shall permit the pilot to proceed with the execution of his duties.
>
> (6) The master shall ensure that the officers and crew are at their posts, that a proper look-out is kept and that the pilot is given every assistance in the execution of his duties.
>
> (7) The Company and the pilot shall be exempt from liability for loss or damage caused by a negligent act or omission on the part of the pilot.
>
> (8) For the purpose of this item, 'pilot' shall mean any person duly licensed by the Company to act as a pilot at a particular harbour.

[30] By agreement between the plaintiff and the defendant, notice thereof having been given to Transnet, a ruling in terms of Uniform Rule 33(4) was made at the commencement of the hearing in the following terms:

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[20] As constituted by the Supreme Court Act 1981 (now called the Senior Courts Act 1981 (c.54)).

1. The following issues are separated for prior determination:
   1.1 All allegations of negligence, causation and liability as appear from the pleadings including the determination of any apportionment of liability;
   1.2 The nature and extent of the physical damage to the SPM pipeline attributable to the conduct complained of, if any, and the manner in which any such damage was caused; and
   1.3 The costs [of suit] in relation to the issues described above, including the costs of the third party.

2. The determination of the remaining issues relating to the nature and extent of work required to remedy any physical damage found to be attributable to the conduct of the defendant and the damages sustained by the plaintiff in consequence thereof, are stayed until the issues referred to in paragraph 1 above have been determined.

The *Bow Sun*'s approach to the CBM

[31] The tanker had sailed to Mossel Bay from Durban. A passage plan would have been prepared for the voyage from Durban to Mossel Bay before she sailed. Unfortunately, the passage plan was not available for use in the trial.[21] One can accept, however, that reference would have been had for the purpose of preparing it to the relevant sailing directions (either the Admiralty Sailing Directions or the latter's equivalent, the South African Sailing Directions), which give quite detailed information to mariners of the conditions that obtain along the coast.

[32] Thus, in respect of Mossel Bay, the Admiralty Sailing Directions gave the following pertinent information:

> **2.64**
> The Port Control Centre operates 24 hours, 7 days a week. Berthing at the Oil Terminal SPM and CBM is daylight hours only; unberthing from the SPM is day and night.
> **Notice of ETA required**
> **2.65**
> See 1.35. Tankers bound for the oil terminal, at least 72 hours in advance; other vessels 3 hours in advance. See *Admiralty List List of Radio Signals* Volume 6 (3) for further details.
> …
> **Pilotage**
> **2.67**

[21] The defendant pointed out in its heads of argument that it had been open to PetroSA, immediately after the incident to apply in terms of s 5(5) of the Admiralty Jurisdiction Regulation Act 105 of 1983, for the passage plan and any other potentially relevant documents in current use to be made available for inspection. The defendant was also not asked to retain any documents when PetroSA addressed a letter of protest to the master on 27 September 2005.

Pilotage is compulsory. Pilots board about 2 miles N of Cape Saint Blaize Light (34°1 I'S 22°10'E), Tankers bound for the Oil Terminal moorings are boarded 1 to 2 miles E of the mooring facility. See *Admiralty List of Radio Signals* Volume 6 (3).

Tugs

2.68

One small tug is available.

…

Moorings

2.77

1. An oil terminal at Voorbaai, 8 cables NW of Seal Island (34°09'·1S 22°07' 2E) is served by two offshore moorings contained within the prohibited anchorage area. Each mooring has a prohibited entry area extending for a radius of 500 m.

2 Normal seamanlike precautions must be taken at all times at the berths as they are in an open roadstead and strong winds may develop with little warning, see 2.63.

2.78

1. **Oil terminal CBM.** A buoy (special, spar) moored 6 cables NE of Seal Island marks the seaward end of a submarine oil pipeline connected to the shore 9 cables W. Tankers up to 50 000 dwt can be accommodated at the berth which is m depths from 15 to 18 m, sandy bottom. Berthing is normally only carried out by day.

2 Vessels moor with 250 m of cable out on each bow anchor [[22]] and secure (ship's head ESE) to five mooring buoys abeam and astern; ten full length mooring lines are required.

3 Berthing marks. Two pairs of beacons indicate where tankers should drop their anchors. Lights are exhibited from the beacons between arrival and departure of a tanker.

At Voorbaai, in line bearing 288-5°:
Front beacon (column) (34°08'·4S 22°06'-8E).
Rear beacon (column) (240 m from front).
Close WNW of Die Bakke, in line bearing 198°:
Front beacon (column) (34°10'-2S 22°07'-3E).
Rear beacon (column) (175 m from front).

[33] The defendant's counsel elicited from Captain Barker that there were certain deficits in the information provided in the sailing directions. In particular, the statement that the leading lights indicate where tankers should drop their anchors is inaccurate. The leading lights indicate the line of approach to be taken for a running moor at the CBM, but they do *not* indicate where the vessel's anchors should be dropped.

[34] The point was well made, but the information in the sailing directions does not reflect all the information that is available to the master of an incoming tanker. The master

[22] 250 m of cable = 9,11 shackles. (A shackle is 27,432 m.)

would also have the port authority's chartlet, described below, as well as the information furnished in the course of the master-pilot exchange that takes place when the pilot comes aboard to bring the vessel into the mooring.

[35] Captain Barker and the ship's agent both testified that a copy of the chartlet would have been available to the master of the incoming tanker during the pilot-master exchange that takes place immediately after the pilot comes aboard. During the exchange the pilot reviews the berthing procedure with the master and obtains details and confirmation from the latter of the vessel's relevant handling characteristics.

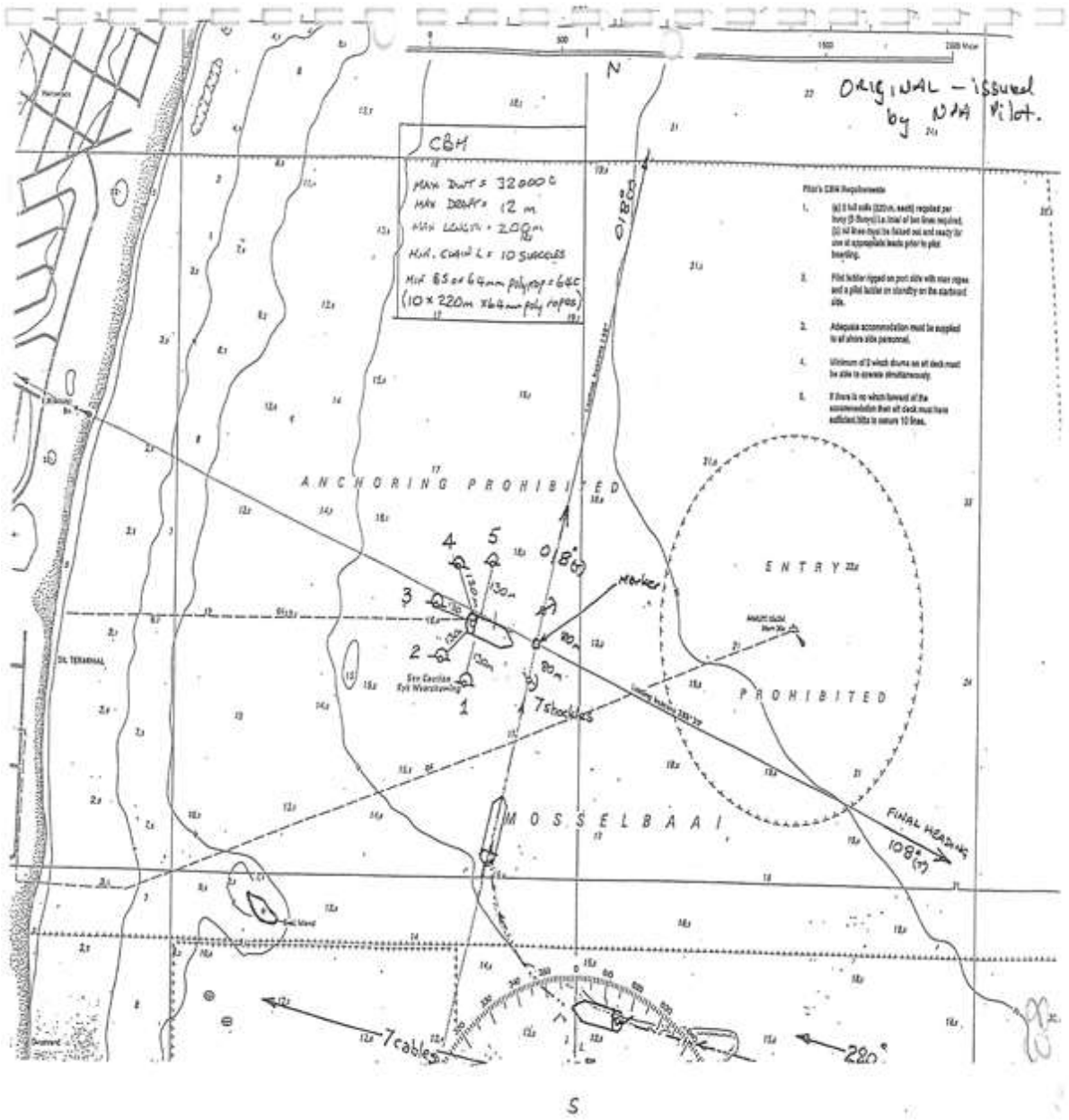
[36] There are also inconsistencies, however, between the published sailing directions and the port authority's chartlet. Most notably, the sailing directions have the vessels moored at the CBM with just over nine shackles of chain out to each anchor, whilst the chartlet states that seven shackles of anchor chain should be out after a vessel has moored.

[37] There were also anomalies in the information in the chartlet. Thus, notwithstanding its indication that the mooring should be achieved using seven shackles of anchor chain, the chartlet also indicated that vessels mooring at the CBM were required to have a *minimum* of 10 shackles of bower anchor chain available on each side, which, by deduction, could imply to a visiting ship's master reading it that significantly more anchor chain than seven shackles might need to be used.

[38] In the context of considering the information available to incoming vessels, it also bears mention that the Admiralty Chart in respect of Mossel Bay carries a note, s.v '*SUBMARINE PIPELINES*', containing the following advice: '*Mariners are advised not to anchor or trawl in the vicinity of submarine pipelines.*'

[39] The master should have been familiar with the chartlet even before the pilot came aboard, for the vessel owner's local agent, Mr Karelse, had emailed a copy to the vessel ahead of its arrival at Mossel Bay. The chartlet was a leaflet giving more detailed information concerning the approach to the CBM.[23] A copy of the document, as it was included in the documentary exhibits, is inserted below:

[23] Mr Karelse testified that he also sent a diagram depicting the layout of the berthing buoys and showing how the ship's anchors should be positioned when the vessel was berthed at the CBM.



The SPM terminal is in the middle of the circular area labelled 'ENTRY PROHIBITED'. The dotted line leading from left to right to the terminal point at the SPM represents the route of the SPM pipeline from the shoreline, which is indicated by the speckled swathe on the left hand margin of the diagram. (The handwritten information in the box headed '*CBM*', which might be difficult to read in the reproduction above provides as follows: '*Max DWT = 32 000 t, Max draft = 12 m., Max length = 200 m., Min chain L = 10 shackles, Min BS of 64 mm polyprop* = [?] *64t, 10 x 220 m x 64 mm polyropes*'.)

[40] The defendant's counsel highlighted that there are a number of deficiencies in the information provided in or omitted from in the chartlet. The endorsement in regard to seven

shackles is irreconcilable with the indicated positions of the anchors at 80 metres if the indication is meant to represent the intended post-berthing situation. As already mentioned, the reference to seven shackles is also inconsistent with the 250-metre (± nine shackles) of chain indication in the sailing directions. It is not clear from the document whether the 80 metre positions indicate where the anchors are to be let go, or the distances from the intersection at which the pilot will issue the instruction for them to be let go. The chartlet does not depict the *Snipe* or make any reference to its role in the berthing process. Furthermore, neither the chartlet nor the sailing directions give any information about the calling of distances by the *Snipe*, so it would seem that the master would have been reliant on what he was told by the pilot in this regard during the pilot-master exchange.

[41] The defendant's counsel argued, with some justification in my judgment, that the aforementioned deficiencies and contradictions in the documentary information provided to the master necessarily heightened the degree of reliance that he and the bridge team would, in consequence, have had on the pilot's local knowledge and input.

[42] Captain Barker, who has over a period of 18 years been on board many tankers approaching the CBM at Mossel Bay, testified that he would have expected the pilot to discuss the position of the pipeline with the master and to advise him about the significance of the intersection point between the two leading lines (presumably as to how it was marked by a marker buoy and the position of the *Snipe*). He would also expect the pilot to advise the master where the starboard and port anchors would be dropped. Barker considered that it was probable that these matters would have been discussed with the master of the *Bow Sun*, but there is no manner of knowing what was actually discussed in the exchange because neither of the parties to the exchange was called to testify. Mr Karelse, who had also often been present during such exchanges, confirmed that the pilot-master exchange ordinarily included the pilot giving the master the information that Captain Barker would have expected him to.

[43] In the circumstances I consider that it may be inferred as a matter of probability - notwithstanding the defendant's refusal, in its reply to the plaintiff's request for trial particulars, to admit that there had been an exchange - that the exchange included the master being provided with the information that Barker and Karelse indicated was ordinarily given. It may therefore be assumed that the master would have expected the pilot to request the

starboard anchor to be dropped when the *Snipe* called a distance of about 120 metres.[24] He would have appreciated, if he had properly prepared himself for the approach to the CBM, that that would result in the anchor being dropped well to the north of the SPM pipeline. Captain McAllister and Captain Reid were agreed that the position of the SPM pipeline should, for the reasons I have already noted, have been a matter of material importance to the master in the latter's consideration ahead of time of the issues that would be entailed in berthing the *Bow Sun* at the CBM.

[44] A more detailed standard operating procedure document entitled '*Standard Operating Procedure: Docking CBM (MBP-BS-SOP-6022)*' has been issued by Transnet for use by its employees in respect of berthing at the CBM. The document is not made available generally, however. The directions contained in the document would have been available to the skippers and crews of the *Arctic Tern* and the *Snipe* and to the pilot, but not to anyone engaged in the exercise who was not a Transnet employee. Captain Barker, for example, first saw the document during 2020 in the course of the trial preparation, notwithstanding that the document was compiled in 2002, which coincided with Barker's arrival in Mossel Bay as senior loading master for Smit Amandla Marine. The directions were therefore obviously not available to the master of the *Bow Sun*. To the extent relevant, the details that the directions set out correspond essentially with the information that the pilot would ordinarily convey to a visiting master during the pilot-master exchange with reference to the chartlet; although even here there is some discrepancy with other indicators such as the chartlet and the oral evidence as to the prevailing practices, notably in regard to when the pilot will give the instruction for the starboard anchor to be dropped. In its plea the defendant alleged that '*Standard Operating Procedure: Docking CBM (MBP-BS-SOP-6022)*' was the 'usual procedure for mooring a vessel at the CBM'. I would say that it would be more accurate to characterise it as one of the documents then in existence setting forth some of the usual procedures for mooring at the CBM.

[45] Paragraphs 2.10 to 2.14 of the port authority's detailed inhouse directions provide as follows:

> 2.10 The Launch "Snipe" will leave the port simultaneously with the tug on its way to drop his (*sic*) marker buoy on leading lights point. He will remain at the marker buoy to indicate the buoy position to the Pilot and (*sic*) [?on]board the tanker.

[24] The relevant call would actually probably be 128 or 129 metres; see paragraph [11] above.

2.11 The Pilot will approach the CBM berth using:

(a) "Snipe" at (*sic*) marker buoy

(b) Leading lights at tanker stern

(c) "Snipe" will constantly (*sic*) indicate the distance from the buoy to pilot as the tanker approaches

2.12 Pilot will instruct the tanker crew at ± 90 meters from buoy to drop the STBD Anchor.

2.13 Tanker will proceed with headway until marker buoy is amid ship (*sic*) STBD side.

2.14 Pilot will now instruct tanker crew to drop port anchor.

[46] The only eye witness account at the trial of the *Bow Sun*'s approach to the CBM was that of Mr Jerome Karelse, the ship's agent for the defendant in Mossel Bay.[25] He boarded the vessel with the pilot at 6:30 in the morning of 21 September 2005. He had been on board other vessels approaching the CBM on many previous occasions and was therefore very familiar with the procedures and the local personalities involved.

[47] It seems safe to infer from Mr Karelse's evidence concerning the approach that matters appeared to proceed routinely until the instruction to drop the starboard anchor was given by the pilot. Karelse said that the De Bakke leading lights would have been clearly visible on the morning in question, but his evidence in this regard was not consistent with that of Captain Barker, who, as mentioned above, had testified that one of the lights was shining dimly at the time and was the subject of a report. The evidence of Barker on this point, which is substantiated by the documentary record, falls to be preferred as the more reliable in the circumstances. My impression was that Karelse's evidence concerning the leading lights was predicated on his routine experience rather than his particular observations on the day in question. Karelse had no navigational responsibility and was accordingly under no obligation to have paid particular attention on the day in question to the vessel's position in relation to the De Bakke leading lights.

[48] Mr Karelse said that the pilot gave the instruction to let go the starboard anchor when the crew on the *Snipe* radioed the distance to the intersection of the leading lines as 148 metres. That was remarkable in his experience because he had never before witnessed

[25] The ship's master, a Norwegian who is no longer in the defendant's employ, indicated that he was not interested in making himself available as a witness. The loading master on board, a Mr Francois Jacobs, who at the time had been an employee of Smit Amandla Marine, had consulted in relation to the matter with the defendant's legal representatives, but reportedly had indicated that he was unwilling to be interviewed by the plaintiff's representatives. In the event, Jacobs was not called by either of the parties. It is not discernible from the evidence that was adduced whether Jacobs would have been qualified to give any relevant evidence.

the instruction to drop anchor being given at so great a distance.[26] Karelse's evidence in this regard was supported by that of Captain Reid who was called as an expert witness by the defendant. Reid testified that he had been instructed that the ship's master had informed the defendant's attorney that the pilot had given the instruction for the starboard anchor to be let go when a distance of 148 metres had been called from the *Snipe*, and that the instruction had been complied with. Captain Cairns, who was skippering the *Snipe* on the day in question, stated at the port authority's internal enquiry after the casualty that the anchor had hit the water when the bow of the *Bow Sun* was 129 metres from the *Snipe*. That is also supportive of the Karelse's evidence because it suggests that the call that prompted the anchor's release was probably made when the bow of the Bow Sun was 20 to 30 metres further distant from the *Snipe*.

[49] It is evident that the distances were in any event materially misleading because it was subsequently established by deduction from the objective evidence that the *Snipe* could not have been at the intersection point or even in close proximity to it when the 148-metre call was made. Captain Reid illustrated in the diagrams attached to his witness summary that the *Snipe* must actually have been in a position considerably to the south of the Voorbaai leading line when she called out the distances to the pilot aboard the incoming tanker.

[50] The *Snipe* must therefore have been significantly distant from the position it was meant to be in according to the standard operating procedure. It is about 243 metres from the point where the anchor was dropped to the intersection of the leading lines. That suggests that when the *Snipe* called 148 metres, the prow of the *Bow Sun* must have been at least 263 metres from the intersection. If the *Snipe* had been on the Voorbaai line or close to it, even at a position somewhat off the intersecting point of the two leading lines, the instruction to drop the anchor at 148 metres would not have constituted a danger to the SPM line.

[51] The other thing that stood out in Karelse's recollection of the berthing operation was the unusually extensive use of the ship's engine to manoeuvre the vessel into her berthing position. He spoke of the need for the ship to be '*forced into position*'.

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[26] At the internal enquiry held on 27 September 2005 the pilot testified that he ordinarily gave the instruction to let go the starboard anchor at the 150m mark.

[52] It is convenient at this stage to interpose that Captain Barker, who, as mentioned, was very familiar with the mooring procedure at the CBM terminal stated that it was usual during the approach for the brake to be put on the starboard anchor chain at six shackles. The effect was to assist the incoming vessel to slew to starboard at or near the intersection of the leading lines at the point where the port anchor would be let go. Any further length required to correctly position the port anchor would be let out on the pilot's instruction shackle by shackle. The entries in the *Bow Sun*'s bell book in respect of her approach to the CBM indicate that the windlass brake was applied to the starboard anchor chain at nine shackles. In the circumstances I would agree with the proposition put by Mr *Irish* to Captain Cox that if the pilot gave the instruction to put the brake on the starboard anchor chain at as much as nine shackles, he should have been alerted to there being something notably out of keeping with the usual at that stage of the mooring process. In particular, unless the chain had been let out too quickly so as to gather in coils on the bottom (of which there is no indication), it should have suggested to him that the starboard anchor had been dropped more than 80 m further south than usual. There is nothing in the evidence, however, to suggest that the master should have been aware of this deviation from the standard berthing procedure. He was not alerted to it by any documentary information and it is not something that the pilot would necessarily, or even just probably, have touched on in the master-pilot exchange.

[53] Karelse also remarked that the total amount of chain paid out was exceptional. He indicated that the use of about nine shackles of chain was typical in the CBM berthing operation, but that on the occasion of the *Bow Sun*'s mooring, 10 to 11 shackles were used. Karelse said that this was '*a bit unusual*'. However, in the context of his evidence as a whole I think that turn of phrase might have been something of an understatement of his actual impression. He pointed out that the length of chain paid out was actually greater than the total length available on many vessels. He mentioned that the unusual amount of chain paid out in the berthing exercise had in point of fact been the subject of some discussion between the pilot and the tug master, Mr Billy Jewell, during the journey back to port after the completion of the berthing exercise. Captain Reid testified that the ship's master would not be concerned with the length of chain out at 11 shackles as that would hold the ship more securely. In my view it should also be borne in mind that the mooring exercise being undertaken was of an uncommon nature, and apart from the occasion of his single previous call at the CBM, not one with which the master was necessarily familiar.

[54] Captain Kieron Cox, an expert who testified at the instance of the plaintiff, used the position at which the snagged anchor was located to deduce that the vessel had probably approached the Voorbaai line on a track parallel to the De Bakke line and about 70 metres to the east of it. He also established that the anchor must have been dropped approximately 220 metres to the south east of the intersection point. On the basis of his reconstruction, which took into account the furthest points on an arc drawn using 11 shackles of cable from the starboard hawse pipe of the vessel at its likely position after being berthed, and allowing for some catenary effect on the chain, in relation to the position of the snagged anchor marked by the *Arctic Tern* (S34° 8,800', E22° 7,867'), it was established that the anchor was probably dropped about 20 metres south of the SPM pipeline. Having regard to the likely vector of the force applied on the anchor when it was sought to retrieve it when the vessel unberthed, Captain Cox conceded that his original deduction that the vessel had approached 70 metres to the east of the De Bakke line should be adjusted westward onto a track 50 to 60 metres to the east of the De Bakke line. The concession brought his opinion on this point into accord with that of Captain Reid.

[55] Captain Reid conceded to the proposition put by the plaintiff's counsel that the master of the vessel would have a '*heightened sense of caution*' engendered by the appreciation that in its approach to the mooring the vessel required to cross over an undersea pipeline. He agreed with counsel's statement that he (ie the master) '*would want to make sure that nothing went wrong*'. Captain McAllister said that the issue was of such critical importance that if he were the master, he would have caused a limiting latitude to be endorsed boldly on the chart to highlight for the benefit of the bridge team to emphasise the position south of which it would be hazardous for the starboard anchor to be let go. It would be necessary, of course, if marking a limiting line of latitude were to properly serve its intended safeguarding purpose, for care also to be taken that the vessel's line of approach to be on the De Bakke leading line, for if the vessel approached to the east of it she would cross the SPM pipeline to the north of the limiting line. The witnesses' opinions in this regard seem to me to bear on an important aspect of the nature of the master's acknowledged duty to keep a proper lookout while the ship was under pilotage. It required him and the bridge crew to be acutely aware of the position of the pipeline relative to the ship when the starboard anchor was dropped.

[56] The *Bow Sun* was equipped with two radars and a GPS which gave a continuous digital display on an LCD screen of the vessel's position by latitude and longitude. It would

accordingly be easy, subject only to the limitations of the technology and the scale of the chart, for the officer of the watch to confirm the vessel's position on the chart in an instant.[27]

[57] Captain Reid said that radar would be accurate to within 50 to 100 metres, whereas Captain Cox, who has specialised in radar systems, opined that a tolerance of 10 to 20 metres would apply. Having regard to the witnesses' respective backgrounds and areas of specialisation, I consider that insofar as there is a difference on this point, the evidence of Captain Cox may be accepted as the more authoritative.

[58] Captain Reid emphasised that, relative to the tanker's length, the distance between the SPM line and the point of intersection of the two leading lines was actually very small. He several times pointed out that marking positions only 50m or so apart on the chart would be difficult and impractical. The distance of 260 metres measured along the De Bakke leading line between the SPM pipeline and the point of intersection of the De Bakke line with the Voorbaai line would be reflected by only 26 millimetres on the nautical chart. To put the matter into further perspective the distance falls to be considered relative to the length of the vessel itself (viz. nearly 183 metres). The point was confirmed by Captain Cox who testified as an expert for the plaintiff. He used a blown-up overlay of the chart to illustrate the positions identified in his evidence.

[59] Captain Reid repeatedly met plaintiff's counsel's cross-examination concerning the bridge team's failure to realise that the vessel was south of the SPM line when the pilot gave the instruction to let go the starboard anchor with the answer that '*very fine navigation*' would have been involved for them to have been able to do so. I consider that there is validity in the point that he made.

[60] It appeared to be common cause that the anchor must have been let go about 20 metres south of the SPM line at a place about 60 metres east of the De Bakke leading line. In considering these measurements it needs to be remembered that 20 metres would be represented by only 2 mm on the nautical chart. The vessel's radar sets are situated in the bridge area and the readings indicated would therefore also be related to the position of the bridge. The bridge of the *Bow Sun* is about 148 metres aft of the bow, which means that the

[27] Captain McAllister described the exercise involved in these words: '*It takes but a few moments to do that. In my experience I have had a GPS device in close proximity to where the chart space is and it is a matter of looking at the LCD screen and moving one's navigational instruments to plot it very, very quickly and to that degree of accuracy*'.

radar reading would have indicated the vessel about 168 metres south of the SPM pipeline when the anchor was dropped. That distance would have been represented by about 17 mm on the chart.

[61] I also think that in assessing the crew's compliance with the pilot's instruction to let go the anchor one must realistically acknowledge that there was not much time available for cross-checking and debate. I consider that the master and bridge team were entitled to repose substantial confidence in the pilot in the absence of an indication of something obviously untoward. Indeed, had the *Snipe*, which was the visual target that the master would presumably have believed marked the intersection, been in the place that it should have been, a call of 148m would have had the bow of the tanker well to the north of the SPM line. It was not in dispute between the plaintiff and the defendant that the pilot was negligent and also that the *Snipe* cannot have been position in the place it should have been at the intersection of the leading lines during the critical stage of the *Bow Sun*'s approach to the CBM on 21 September 2005. There was an unfortunate concatenation of inauspicious circumstances that the ship's master could not have anticipated or reasonably expected.

[62] I nevertheless consider, having regard to the admitted importance of the fact, that a reasonable ship's master would have independently assured himself, or required the officer of the watch to have independently assured himself, that the bow of the vessel had crossed to the north of the pipeline when the starboard anchor was dropped, and that he would be negligent if he did not do so. I arrive at that conclusion applying the basic principles famously enunciated by Holmes JA in *Kruger v Coetzee* 1966 (2) SA 428 (A) at 430E-F in a passage that has since been endorsed in countless subsequent judgments, including at least three of the Constitutional Court since it became the sole apex court:[28]

> For the purposes of liability *culpa* arises if –
>
> (a) A *dilgens paterfamilias* in the position of the defendant –
>
> (i) would foresee the reasonable possibility of his conduct injuring another person in his person or property and causing him patrimonial loss; and
>
> (ii) would take reasonable steps to guard against such occurrence; and
>
> (b) the defendant failed to take such steps.

[28] *Loureiro and Others v Imvula Quality Protection (Pty) Ltd* 2014 (3) SA 394 (CC) in para 58, *Oppelt v Department of Health, Western Cape* 2016 (1) SA 325 (CC) in para 69 and *Mashongwa v Passenger Rail Agency of South Africa* 2016 (3) SA 528 (CC) in para 31 (fn. 36).

The master should have foreseen the reasonable possibility that the pipeline would be damaged if the anchor were dropped south of it, and it required only the simplest of checks to be certain that the anchor had been dropped after the pipeline had been crossed over, and to be able to advise the pilot that things were amiss if the anchor had been dropped too soon. The events have shown that such simple and reasonable precautions cannot have been taken. The indications are that the master and bridge crew must have placed unquestioning reliance on the pilot's judgment and instructions. If that were not the case, I cannot see that the problem would not have been identified before the vessel berthed. This justifies the conclusion on a balance of probabilities that a proper look out was not being kept. In the circumstances a proper look out includes a properly informed look out.

[63] The first basis of the plaintiff's claim is that the master and crew of the approaching vessel were contributorily negligent by failing to point out to the pilot that he was not bringing the vessel in in accordance with the standard operating procedure and, in particular, by not cautioning him that the prow of the vessel was still to the south of the SPM pipeline when he gave the instruction to let go the starboard anchor. The issue brings to the fore a question recognised in previous cases as one of some difficulty: It concerns the extent to which the master of a vessel might be expected to assert his command when the vessel is under the navigational control of a compulsory pilot. In this case the question has to be addressed in the context of the relevant provisions of the First Schedule to the Legal Succession Act quoted above.

[64] The unwholesome character of a divided command and the subverting effect of a dichotomy of control on the safety objects of compulsory pilotage were recognised by the courts early on in the pertinent jurisprudence. Thus, in *The Peerless* [1860] EngR 494; (1860) Lush. 30; 176 ER 16, Dr Lushington [29] said '*There may be occasions on which the master of a ship is justified in interfering with the pilot in charge, but they are very rare. If we encourage such interference we should have a double authority on board, a divisum imperium, the parent of all confusion, from which many accidents and much mischief would surely ensue. If the pilot is intoxicated, or is steering a course to the certain destruction of the vessel, the master no doubt may interfere and ought to interfere, but it is only in urgent cases.*'[30]

[29] Judge of the High Court of Admiralty from 1838 to 1867.

[30] 176 ER 16 at 17.

[65] The inherent tension in the relationship of responsibility between the master and the compulsory pilot is readily discernible from the provisions of Item 10 to the First Schedule to the Legal Succession Act. Paragraph 2 unambiguously places the navigation of the ship including the direction of its movements within the remit of the pilot. Paragraph 4, however, confirms that the master remains in command while the ship is under pilotage but subject to the critical qualification that he or she is not permitted to interfere with the navigation or movement of the ship while it is under pilotage or to prevent the pilot from carrying out his duties 'except in the case of an emergency, where the master may intervene *to preserve the safety of his ship, cargo or crew* and take whatever action he deems necessary to avert the danger'.[31] The limited leeway given to a master to intervene is underscored by paragraph 5 of the Item. It provides that as soon as the cause for any intervention allowed in terms of paragraph 4 has been addressed the master must permit the pilot to proceed with the execution of his duties. But the preservation of a right of intervention by the master that does allow him to supersede the pilot's functions confirms that the master retains overall command at all times. That is also borne out by the provisions of paragraph 6, which provide that '*the master shall ensure that the officers and crew are at their posts, that a proper look-out is kept and that the pilot is given every assistance in the execution of his duties'*. It is clear that the master is not expected, nor indeed permitted, to adopt a passive role while the vessel is under compulsory pilotage.

[66] The pilotage provisions in the Legal Succession Act mirrored, in the respects relevant, the statutory provisions that pertained under the various statutes in place from time to time that were considered in the English authorities to which I was referred in argument. The changes in the English statutory regime over time would appear to have borne on the matter of the allocation of liability for the compulsory pilot's acts or omissions, rather than on the ambit of the pilot's responsibilities. Counsel did not direct my attention to any difference between the iterations of the United Kingdom legislation on the topic and the Legal Succession Act concerning the extent to which the master's responsibility is displaced by the compulsory pilot's functions.

[67] It is evident from Lord Alverstone CJ's judgment in the Court of Appeal in *The Tactician* [1907] P 244 (CA); [1904-1907] All ER 743 that a ship's master might incur a duty in law to take measures falling short of interference with or usurpation of the pilot's

[31] My italicisation for emphasis.

duties to avoid his ship being involved in any incident causing harm to the property of others. In that case, which arose out of a collision between a ship under compulsory pilotage in the Thames Estuary and another ship that was lying at anchor in the river, the plaintiff, in suing the owners of the ship under pilotage, alleged that the defendant's servants had not kept a proper look out and failed to take other measures necessary and available to avoid the collision. The owners of the *Tactician* pleaded the defence of compulsory pilotage available at that time to an owner who could show that the casualty was entirely due to the fault of the pilot. They contended that the master and crew of their ship were entitled in the circumstances to repose their trust in the navigation of the pilot. The argument advanced on their behalf appears to have emphasised the hazards of a divided command of which Dr Lushington had made mention in earlier cases. The defence failed, however, because it was apparent from the evidence that proper observation would have revealed to anyone on board that the lights on the anchored vessel, which the pilot apparently mistook to be those of a moving vessel, were in fact stationery. The evidence demonstrated that the true position - which could have been deduced from the constant juxtaposition of the lights with an identified navigational light - had been observable for a period of at least nine minutes while the *Tactician* traversed a distance of an entire mile towards the ship with which it came into collision.

[68] The headnote to the report of the case in the All England reports summarises the import of the judgment at first instance (per Bargrave Dean J) as follows: ' ... *that the collision was caused by the default of the pilot, but it also might have been avoided if the master of the* <u>*Tactician*</u> *had done his duty in giving his advice and opinion to the pilot. By failing to do that he did not do his duty, and did not assist the pilot as the pilot ought to have been assisted, and, therefore, the learned judge found that the master was to blame as well as the pilot, and gave judgment for the* [plaintiffs]'. In dismissing the appeal from that judgment, Lord Alverstone, having reiterated the observation in earlier cases about the dangers of a divided command, stated, '*But side by side with that principle is the other principle that the pilot is entitled to the fullest assistance of a competent crew, of a competent lookout, and a well-found ship. I agree with counsel for the defendants that the cases in which the master has to interfere at all with the pilot are very rare and very few, but I think the passages he has cited from the cases show there is a distinction, or may be a distinction, between interference and bringing to the pilots notice anything which the pilot ought to know.*'

[69] In *SS Alexander Shukoff v SS Gothland, SS Larenberg v SS Gothland* [1921] AC 223; (1920) 5 Ll.L.Rep. 237, Lord Birkenhead LC offered further acknowledgment of the aforementioned 'other principle' when, remarking on the responsibility for the navigation of the vessel being taken over by the pilot in circumstances of compulsory pilotage, he said ' ... *this rule, which is intended as a measure of security, does not mean, and must not be taken to mean, that a pilot when once he is in charge of a vessel is so circumstanced that the master and crew owe him no duty to inform him of circumstances which, whether he has noticed them himself or not, are material for him to know in directing the navigation of the vessel. The master and crew are not mere passengers when a pilot is on board by compulsion of law. The pilot is entitled to their assistance, and to apply the defence of compulsory pilotage to a case where the accident would have been averted if such assistance had been given, though in fact it was not, would defeat the policy which has created the defence, and so far from increasing the safety of navigation would actually increase its risks.*' The point was reiterated by Lord Normand in *Workington Harbour and Dock Board v Owners of the Towerfield (The Towerfield)* [1950] 84 Lloyd's Rep. 233; [1950] 2 All ER 414 (HL) who, citing *The Tactician*, said (at 430 All ER) '[t]*he master is not merely, entitled, but is bound to point out to the compulsory pilot that he may be mistaken in an opinion he has formed*'.

[70] The principle was also recognised in the United States Supreme Court decision, *The Oregon* 158 U.S. 186, in which Brown J, citing *Marsden, Collisions*, 255, (presumably the (1891) third edition) noted '*In an official report made by a maritime commission in 1874, the Elder Brethren of Trinity House are said to have expressed the opinion "that in well-conducted ships the master does not regard the presence of a duly-licensed pilot in compulsory pilot waters as freeing him from every obligation to attend to the safety of the vessel; but that, while the master sees that his officers and crew duly attend to the pilot's orders, he himself is bound to keep a vigilant eye on the navigation of the vessel, and, when exceptional circumstances exist, not only to urge upon the pilot to use every precaution, but to insist upon such being taken."*' (That passage has, of course, to be understood cognisant of the Legal Succession Act's provision that the master would be entitled to override the pilot only in a situation of 'emergency' (Item 10(4) in the First Schedule).)

[71] It seems to me that 'the other principle' on which the result in *The Tactician* turned was expressly incorporated in the South African legislation in paragraph 6 of Item 10 to

Schedule 1 to the Legal Succession Act.[32] It is reiterated in paragraph 2 of Annexure 2 to resolution A. 960(23) of the International Maritime Organisation,[33] dated 5 December 2003, which set out recommendations on the training, certification and operational procedures for maritime pilots.[34] The implication is that whilst the pilot takes over responsibility for the navigation of the vessel, the officer of the watch is not relieved of his duties in the sense that it is necessary that they continue to be discharged in order that the master and crew be enabled to carry out their monitoring and assisting role. Captain Reid agreed with the proposition put to him by the plaintiff's counsel that keeping a proper lookout entailed not only maintaining a visual awareness of the surroundings, but also using the 'navigational instruments and electronic means [available] on the bridge'. As Captain McAllister put it, the management of the charts remains at all times the responsibility of the bridge team.

[72] A court must have regard to the peculiar facts of each particular case in determining whether or not the conduct of the master and crew was in due compliance with the principle concerned. I think that in doing so it has to be mindful of the practical role of the pilot and the master's entitlement, in discharging his duties, to depend on its diligent fulfilment by the pilot. In *Thom v J&P Hutchison Ltd* 1925 SC 386, Lord Cullen, in a passage referred to by Lord Jauncy of Tullichettle in the House of Lords in *Esso Petroleum Co Ltd V Hall Russell & Co Ltd (Shetland Islands Council, third party) The Esso Bernicia and conjoined appeal* [1989] 1All ER 37 (HL); [1989] 1 Lloyd's Rep. 8, described the role of a voluntarily engaged pilot by saying that '[h]*e is employed to take up <u>pro tempore</u> the captain's function of navigator in circumstances where special local knowledge is required*'. The significance of the role of special local knowledge appears to be equally accepted in the realm of compulsory pilotage, as exemplified in the judgment in *The Hans Hoth* [1953] 1 All ER 218

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[32] Quoted in paragraph [29] above.

[33] The IMO is a specialist United Nations secretariat charged with regulating maritime safety internationally. South Africa ratified the Convention on the International Maritime Organization in 1995.

[34] Paragraph 2 provides as follows:

2.1 Despite the duties and obligations of a pilot, the pilot's presence on board does not relieve the master or officer in charge of the navigational watch from their duties and obligations for the safety of the ship. It is important that, upon the pilot boarding the ship and before the pilotage commences, the pilot, the master and the bridge personnel are aware of their respective roles in the safe passage of the ship.
2.2 The master, bridge officers and pilot share a responsibility for good communications and understanding of each other's role for the safe conduct of the vessel in pilotage waters.
2.3 Masters and bridge officers have a duty to support the pilot and to ensure that his/her actions are monitored at all times.

(PDA); [1952] 2 Lloyd's Rep. 341.[35] However, as also stated in that judgment,[36] reposing their confidence in the pilot in respect of matters on which reliance fell to be had on the latter's local knowledge, does not exclude or diminish the duty on the master and crew to such things as might reasonably be regarded as '*matters of ordinary navigation*'. In my judgment the duty would also extend to any other matters on which the ship's personnel, with the knowledge at their disposal, should reasonably regard as issues of concern. As noted, the position of the SPM pipeline was one such issue during the anchoring process.

[73] Captain Reid expressed the opinion that effecting a running moor was a complicated manoeuvre of seamanship, in which the local knowledge of the pilot would be critical. I accept that; especially in respect of the manoeuvres required to bring the tanker into a position in which its port manifold was appropriately aligned to take on or offload product at the PLEM, but I do not consider that the complicated aspects of the mooring exercise would in any manner detract from the bridge team's ability to check and verify when the vessel's bow had crossed over the SPM pipeline. I think the point is illustrated in the following exchange between the plaintiff's counsel Mr *Wragge* SC and Captain Reid as to what might have been expected to happen in respect of a deviation by the approaching vessel from the De Bakke leading line after it had made its turn to starboard for the approach to the intersection between the two leading lines:

> MR WRAGGE: The factual evidence suggests or points to the fact that after the starboard turn, the vessel was on a track that was to the east of the De Bakke leading line. Is that right?
>
> MR REID: That is correct, and I am sorry, I misunderstood the question, M'Lord.
>
> MR WRAGGE: No, I might have put the question badly. So now if the passage plan and the chartlet says that the way that the vessel should proceed to the CBM, is in fact following the De Bakke leading line; one now has a deviation from the passage plan and from the chartlet, not so?
>
> MR REID: That would be correct, M'Lord.

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[35] Compare also *Wood and others v Smith and others (the City of Cambridge)* [1874] UKPC 24 (20 March 1874); (1874) LR 5 PC 451 (at 459-460), where the Privy Council quoted the following remarks of Baron Parke in *The Christiana* (1850) 7 Moore's PC Cases 160 at 171 with approval: '*The duties of the master and the pilot are in many respects clearly defined. Although the pilot has charge of the ship, the owners are most clearly responsible to third persons for the sufficiencies of the ship and her equipments, the competency of the master and crew, and their obedience to the orders of the pilot in everything that concerns his duty, and under ordinary circumstances we think that his commands are to be implicitly obeyed. To him belongs the whole conduct of the navigation of the ship, to the safety of which it is important that the chief direction should be vested in one only ... . The pilot has unquestionably the sole direction of the vessel in those respects* ***where his local knowledge is presumably required****. The direction, the course, the manoeuvres of the vessel when sailing belonged to him. It was also his sole duty to select the proper Anchorage place and mode of anchoring and preparing for anchoring, as was held to be clear in the case of* The Gypsy King.' (Bold font for emphasis.)

[36] At p. 221 (All ER).

> MR WRAGGE: Yes. Now the ship should be monitoring its position. It would know if the people on the bridge, the bridge team of the vessel are doing their job properly, they would know by reference to the GPS and by reference to radar bearings and so forth, that the vessel had in fact executed its turn not so as to bring the vessel onto the De Bakke leading line, but so as to bring [the vessel] to a position onto a track which is to the east of the leading line, not so?
>
> MR REID: They would know that, M'Lord.
>
> MR WRAGGE: Yes. And if this was a deviation from the passage plan and they have noted it, then this is something that the master, and I think it is the master who deals with the pilot, would bring to the attention of the pilot. Not so?
>
> MR REID: I would believe the master would bring it to the attention of the pilot, M'Lord.

[74] That said, I am unable to find that the master did not mention to the pilot that the vessel was to the east of the De Bakke line. There was no direct evidence on the point. And if the master did draw Mr Bergstedt's attention to the issue, it is by no means clear that the pilot would have treated it as a matter for concern. Nor is it apparent if the pilot were to have assured the master, in response to any query by the latter, that vessels were sometimes brought in on a track east of the line, that the master should have had reason to challenge the pilot's assurance. I did not understand any of the experts to have suggested anything to the contrary. The fact that two positions east of the line were in point of fact plotted by the crew during the vessel's approach suggests that the officer on the watch would have been aware that the tanker was not tracking De Bakke line. There should have been an equivalent awareness of the ship's position relative to the SPM pipeline when the anchor was dropped. An appreciation that the anchor had been dropped south of the pipeline could not have been dismissed with reassuring words from the pilot had it been drawn to his attention.

[75] The defendant's counsel emphasised that the master's position in relation to the pilot's instruction to let go the starboard anchor fell to be assessed bearing in mind that the instruction was predicated on what the master would have appreciated were '*two complementary local inputs*', that of the pilot and that of the crew of the *Snipe*. They submitted, with some force in my judgment, that that would have contributed to a sense of confidence by the master in the integrity of the instructions. It does not explain however how the master, or the officer of the watch as the latter's representative, should not have become astute to the fact that the anchor was being dropped to the south of or very close to the pipeline. The problem might not have become apparent soon enough for the execution

of the pilot's order to let go the anchor to be forestalled, but it should have been apparent before the mooring process progressed to the stage of the dropping of the port anchor and soon enough for the pilot to be alerted to the necessity for the tanker to be taken back south of the pipeline to allow the anchor to be safely retrieved. It is not as if a deviance of only 10 to 20 metres, or even 50 metres from the standard operating procedure had been involved. The deviance was upwards of 170 metres, or put differently, upwards of three and a half minutes' sailing time at a speed of 1,5 knots.

[76] The negligence of the crew of the *Snipe* in evidently placing the marker buoy in the incorrect position significantly away from the intersection point was significant. It had ample opportunity to line the buoy up with the Voorbaai leading lights and also with the CBM PLEM, which should have been only 90m away and the number 3 mooring buoy, which should also have been more or less in line with the PLEM on the Voorbaai leading line. The *Snipe* must have been so markedly out of position that I would have thought that this should have been evident to the pilot who would have been able to see not only the *Snipe*, but also the PLEM buoy and the mooring buoys during the vessel's approach and could certainly not have been unaware that the marker buoy was out of position when the ship was turned to starboard about it when the port anchor would be let go. Captain Barker, with whom Captain Reid concurred, described the degree of error by the crew of the *Snipe* as '*inexplicable*'. They agreed with the proposition put by the defendant's counsel that '*the aberration was extraordinary*'.

The *Bow Sun*'s departure from the CBM

[77] The usual procedure on departure from the CBM berth is for the vessel to move forward after being released from the mooring buoys so as to clear the PLEM. This has to be done in a controlled manner, taking care that the stern of the vessel does not swing to port and come into collision with the PLEM. The initial forward movement is controlled by winching in both anchor chains simultaneously.

[78] The usual unberthing procedure at the CBM terminal involved first releasing the tanker from the stern mooring buoys and then winching the vessel forward and clear of the PLEM by weighing in simultaneously and equally on both the anchors. The starboard anchor chain would then be slacked off to limit the vessels tendency to swing towards the anchor being weighed while the port anchor was weighed and brought aboard. The starboard anchor would then be weighed. On a vessel like the *Bow Sun* that was fitted with

a bow thruster, the bow thruster would be used to hold the vessel on a steady heading while the starboard anchor was weighed. The evidence is that by virtue of the laws of physics most of the anchor chain is hauled in before the anchor itself is lifted from the seabed. It is also apparent that only just over one shackle of chain was out when it was discovered that the starboard anchor was snagged. It follows that at that stage the anchor chain must have been in a more or less straight up and down position between the ship's bow and the anchor on the seabed.

[79] It was alleged that the crew of the vessel should have been aware of the snagging earlier and acted to avoid further damage to the pipeline by desisting from their attempt to weigh the starboard anchor well before the bow of the vessel came into a straight up and down position above the anchor. An increased noise from a straining motor on the winch was posited as a tell-tale sign. Captain Barker admitted under cross-examination that there was no objective evidence available to confirm these allegations and that in the result they were speculative. In my judgment the paucity of evidence makes impossible to find that there was causal negligence on the part of the master and crew of the tanker during the exercise of attempting to weigh the starboard anchor.

Apportionment of liability

[80] It will be apparent from the findings and remarks recorded thus far that I consider that the master and crew of the *Bow Sun* were causally negligent to a degree in the snagging of the starboard anchor on the SPM pipeline. It will also be evident that I consider the negligence of the pilot and the skipper and crew of the *Snipe* to have been causally contributory. It seems to me furthermore that the port authority was at fault in its failure to devise a safer and more reliable method of assisting incoming vessels to navigate the approach to the CBM. The use of moving objects by way of the floating marker buoy and the Snipe as position indicators was inherently fallible and the desirability of having the track of the SPM pipeline visibly indicated on the surface by means of fixed buoys was obvious and apparently readily achievable.

[81] When it comes to the question of the apportionment of blame for the purposes of the application of s 2(10) of the Apportionment of Liability Act,[37] the defendant's counsel submitted that because the causation of the damage to the SPM has been found to have been due in part to the concurrent negligence of various other employees of Transnet acting

[37] See paragraph [22] above.

within the course and scope of their employment as well as that of the pilot, the exclusion of liability provided for in paragraph 7 of Item 10 of the First Schedule to the Legal Succession Act does not apply. The argument was founded on the analysis undertaken by Cloete J in *Shell Tankers Ltd v South African Railways and Harbours* 1967 (2) SA 666 (E) of the effect of the comparable provisions in s 43 of the Railways and Harbours Control and Management (Consolidation) Act 70 of 1957.[38] The analysis appears to me, with respect, to be sound, and I did not understand Mr *Wragge* for the plaintiff to contend otherwise. It is not necessary in this matter to go into the issue of which of the parties bore the onus of proving negligence on the part of the third party's employees. Their negligence was either common cause or plainly established on the evidence that was adduced in the trial.

[82] The conduct of the pilot and the crew of the *Snipe* in particular deviated to a great degree from the standard of what would have reasonably been expected from them in the circumstances. The extent of the deviation from the standards of the notional reasonable person by the master and crew of the *Bow Sun* was in comparison considerably less. In all the circumstances I consider that an 80/20 apportionment of fault as between the third party and its employees on the one hand and the employees of the defendant on the other would be just and equitable, with the result, if regard is had to section 2(10) of the Apportionment of Damages Act, that the defendant shall be liable to compensate the plaintiff in a sum equivalent to twenty percent of its proven damages.

The damage to the SPM pipeline

[83] The snagging of the starboard anchor was noted during the unberthing process, when it was discerned that the anchor could not be weighed. The persons on board the *Bow Sun* were alerted by the bubbling to the surface near the vessel of a dark liquid substance that smelled of fuel to the fact that the SPM pipeline may have been damaged. The *Arctic Tern* marked the position of the spill with a buoy. The marked position was at S34, 8, 800; E22,7,867. The *Pentow Malgas*, a buoy tender vessel operated by Smit Amandla Marine, marked the position of the anchor at a slightly different spot. The difference between the two marked positions was not material.

[38] Cloete J quoted s 43 as being in the following terms: '*The East London Harbour (within the Buffalo River and the entrance thereto) and the Durban Harbour are hereby declared to be compulsory pilotage harbours (together with such other harbours as may from time to time be declared by the Governor-General by Proclamation in the Gazette to be compulsory pilotage harbours) save and except in respect of such ships as may be exempted by statute or regulation; provided that the administration and the pilot who is a servant thereof shall be exempt from liability for any loss or damage that may arise or be caused through the act, omission or default of such pilot*'.

[84] The attempt to complete the weighing of the anchor was stopped, and divers were called in to undertake an inspection. The inspection revealed that one of the starboard anchor's flukes was wedged under the pipeline from the southern (i.e. seaward) side.

[85] The SPM pipeline is a steel carrier line, 36 inches in diameter. It encases three product lines used to convey product for loading onto vessels moored at the SPM: a 14-inch pipeline used for the transfer of distillates (i.e. automotive diesel or diesel), a 12-inch line for the transfer of motor engine gas or petrol ('Mogas'), and an 8-inch ballast water line (which was not in use), respectively.[39] There was some uncertainty about the arrangement of the product lines within the carrier line casing because it is inconsistently described in the documentation. Mr Mark Ball, a maritime civil engineer with a wealth of experience in the investigation of damage in maritime accidents, who was called by the defendant as an expert witness, expressed the opinion that it appeared that the 12-inch line was on the northern (or Hartenbos) side of the carrier in what Mr Ball described as a central position, the 14-inch line on the southern (or Mossel Bay) side and the 8-inch ballast water line also to the southern side above the 14-inch line. Mr Durandt de Wet, a professional diver and qualified diving supervisor in the employ of Smit Amandla who inspected the pipeline after the snagging was reported, and who testified at the instance of the plaintiff, appeared to agree with Mr Ball's assessment. The configuration is diagrammatically depicted at p. 82 of the defendant's core evidence bundle, and the diagrammatic representation may be correlated with the top photograph at p. 153 of the plaintiff's core evidence bundle.

[86] The bubbling to the surface of a foreign substance that smelled of hydrocarbons virtually contemporaneously with the discovery that the anchor had snagged[40] would indicate that it must have been during the attempt to weigh the anchor that the outer casing of carrier line was ruptured. I understood it not to have been in real contention that the substance in question was most probably the rust or corrosion inhibiting liquid with which the carrier line was filled. Mr *Irish* did suggest to the plaintiff's witness, Mr Govender, that the carrier line may have contained leaked product that would have escaped when the casing was ruptured, but that hypothesis was not pursued with any of the other witnesses and it is

[39] The evidence suggested that, for reasons entirely unrelated to the anchor-snagging incident, the ballast water line would have to completely replaced before it could be taken back into use.

[40] A problem with the hauling in of the starboard anchor was noted by the loading master at 10h10 and 'a spill [was] observed in the water with bubbles' at 10h30. These observations were recorded in the loading master's time sheet or 'statement of facts' for the tanker's unberthing operation. There were corresponding entries in the ship's port log. The log indicates that the emergency response management team (ERMT) was summoned at 10h10.

not supported by the probabilities if regard is had to the results of the hydro testing of the 14 and 12-inch product lines, to which reference will be made presently.

[87] The *Bow Sun* remained at Mossel Bay until the evening of 23 September 2005 in the hope that the starboard anchor could be recovered and returned on board. The ship's agent's records suggest that three attempts were made by Smit Amandla divers during the course of 23 September 2005 to retrieve the snagged anchor. Mr Karelse reported to the ship's owners that the process of retrieval was taking a long time because the divers were working with great caution to avoid causing further damage to the SPM pipeline. He confirmed that his report was in accordance with what he was being told about the retrieval efforts at the time.

[88] It was ascertained in a dive inspection undertaken on the afternoon of 22 September 2005 that the carrier line's casing had been ruptured when the Bow Sun's starboard anchor became fouled up with it. The diver, Mr de Wet, described that when he located the anchor under the water it was in a position consistent with it having snagged with the carrier line from the Mossel Bay side. He related that one of the flukes was completely hooked under the carrier line[41] and that the shank was in an upright position angled towards the direction of Hartenbos. Mr Ball considered that the orientation of the product lines within the carrier line as described above assessed together with the aforementioned position of the anchor '*best explains the large indentations noted in the bottom and side of the 14" pipeline, the indentations in the bottom and side of the 12" pipeline and the dent in the top of the 8" pipeline*'.

[89] Mr de Wet observed that the carrier line casing had broken across its entire circumference (i.e. what the plaintiff's counsel referred to in their heads of argument as 'a 360° split'). On the upper section of the line the break was a clean one, almost as if the casing had come apart at a welded join in the metal,[42] whereas in the lower section the character of the break was jagged. De Wet noted that the product lines within the carrier line had been '*all bundled up together, held together by the anchor and sort of up and to the Hartenbos side*'.

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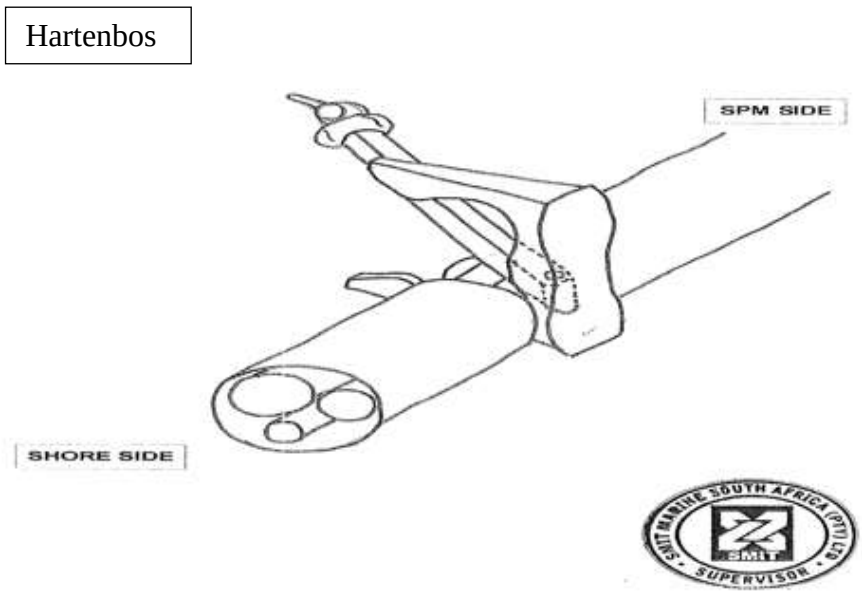
[41] His words were that the fluke was '*completely encapsulating the carrier line*'.

[42] Despite appearances, the break was not actually on a weld. The nearest weld was about one metre to the seaward side of the rupture.

[90] De Wet, who was very familiar with the pipeline by virtue of being involved in regular maintenance inspections along its length, also remarked that '*there* [were] *quite a lot of sort of scrape marks – scratch marks, a number of dents on both sides of the carrier* [were] *very clearly visible*'. De Wet subsequently made a drawing of the observed position of the anchor relative to the carrier line. He explained that the drawing was not intended to depict the actual position of the product lines at the time, which was something that he was not concerned with at that stage. It is also not to scale nor intended to be technical drawing. De Wet described it as 'an artist's rendition'. A copy of the drawing is reproduced below (I have inserted a text box to indicate 'the Hartenbos side'):



[91] The commentary of a later dive inspection conducted by Mr de Wet on 28 September 2005 records that De Wet reported that the pipeline had been lifted off the seabed at the place where the carrier line was ruptured. De Wet reported '*There appears to be no major physical damage on these* [product and ballast water] *lines*.' He found some minor dents on the 12-inch line. He reported '*some major dents in the 6 o'clock position on the 14 inch line in the area where the anchor is touching it*'. It should be recorded that it is evident from the video footage of the 28 September dive inspection (Exhibit C) that the underwater visibility was very poor and that De Wet was not in a position to have a good

look at the product lines. He said that underwater visibility in the port of Mossel Bay was notoriously bad most of the time.

[92] Mr de Wet confirmed that the drawing at p. 68 of the plaintiff's core bundle depicted the places at which he had identified dents in the casing of the carrier line. The drawing also shows that he estimated that there was about 100 mm of free span under the break in the casing, which falls to be contrasted with the 800 mm noted in a report by Subtech Diving & Marine, who undertook an inspection for the port authority approximately a month later, in October. De Wet described the area of free span as 'short', which also contrasts with the area described in the Subtech report, which was at least 10 metres on either side of the break in the carrier line casing. He related that ordinarily the pipeline was embedded in the sea sand for up to half of its 36-inch circumference. The fact that the pipeline was found to be standing partly above the seabed when De Wet saw it on 22 September suggests that it must have been pulled upwards; a deduction endorsed by Mr Ball.

[93] The drawing showing the dents was done from memory after a dive undertaken without a camera. It therefore falls to be regarded as a rough reconstruction of Mr de Wet's observations at the time. After watching the video of his dive on 28 September 2005 (exhibit C), Mr de Wet remarked that he noted that were in fact at least four more dents in the pipeline than he had shown in his drawing.

[94] Mr de Wet also noted areas on the carrier line some distance from the break where marine growth appeared to have been rubbed off. Mr Ball considered that these scuff markings could be consistent with the anchor chain having rubbed across the line, but he was unable to say whether that was more likely to have happened during the mooring or unmooring of the vessel or during the attempts to free the anchor after the snagging problem had been identified. It is obvious that the chain would have been dragged over the carrier line after the anchor was dropped and the vessel continued on its path northwards over the SPM pipeline in the direction of the CBM. Mr Ball conceded the correctness of the proposition put to him by Mr *Wragge* in cross-examination that the chain between the anchor and the pipeline would also have pulled over the SPM carrier line surface when the anchor was pulled towards the pipeline during the weighing process.

[95] At a later stage, after the vessel was released from the snag on the SPM pipeline, which, after unsuccessful attempts to free the anchor, was ultimately achieved by separating

it from the anchor chain, it was ascertained that the encased product pipelines were also damaged. I shall discuss the process of the freeing of the anchor from the pipeline and the circumstances in which the damage to the product lines was ascertained later in this judgment.

[96] Mr Ball opined, on the basis of the documentary and photographic evidence that was available to him, that '*the embedment of the anchor caused a full circumferential split in the carrier line as well as dents in and deformation of the two product pipelines and the ballast water line*'. After viewing video footage taken of the damage, Mr Ball considered that footage taken on 28 September 2005 '*showed that the break in the carrier pipeline was "jagged" at the point where the anchor appeared to have entered and exited the pipe, below the 14" distillate pipeline. However, the break in the carrier pipeline along the top section of the pipe was "clean and straight". ... this was not the location of a circumferential weld and I therefore believe that this indicates that the split in the pipeline in this location was opened up by stress rather than blunt force indicating in turn that the pipeline was subject to significant upward force*'.

[97] That would be consistent with the force that would have been applied if it had been sought to retrieve the snagged anchor when it was in a 'straight up and down' positional relationship to the bow of the *Bow Sun*. The evidence concerning the attempted weighing of the anchor which indicated that the attempts were abandoned at a stage when there was about one shackle of chain still out appears to have been accepted by both sides as indicative that the vessel must have been in a more or less '*straight up and down*' (i.e. vertical) positional interrelationship with the anchor.

[98] Mr Ball was unable to say whether the stress damage to the pipeline was likely to have been caused during the mooring or unmooring of the vessel or later. De Wet saw the damage described by Ball when he first dived to inspect the damage on the afternoon of 22 September 2005; that is before any retrieval attempts were made by Smit Amandla Marine.

[99] Mr Ball also noted though that additional video footage (ie tape 45 clip 5) showed that '*the 12" petrol pipeline, which has been repaired at the time of the footage (the other lines are cut) to have a long radius bend in a roughly horizontal plane which appears to be consistent with the entire pipeline (the carrier pipeline and the internal pipelines) having been displaced to the north such that the line was locally plastically deformed*'. The

displacement of the pipelines to the north suggests to me that this is likely to have occurred during the attempt by the Bow Sun to weigh the anchor from its position north of the pipeline.

[100] Service tests were undertaken on the 14- and 12-inch product lines before the removal of the anchor. The service tests, in which the lines were pressure tested at levels consistent with the pressure to which they would be subject in ordinary operational conditions, showed that the two product lines appeared to be intact and serviceable. There was what was regarded as an acceptable pressure drop of 0.4 bar on the distillate line and 0.2 bar on the petrol line over the period of the service tests.

[101] As noted in Mr Ball's summary of evidence, '*Following the removal of the anchor, PetroSA undertook Hydro Tests at elevated pressures of approximately 2 times working pressure* [it was in fact more in the region of 1,5 times working pressure]*; 29.25 bar for the distillate line and 23 bar for the petrol line, held for 2 hours. The test medium for the hydro tests was potable water mixed with green marine dye. During the 2- hour hold period, divers from Smit Amandla Marine monitored the pipeline route in the vicinity of the damage for evidence of green dye indicating leakage. No dye was detected* [leaking] *from either line and both product lines were considered to have successfully passed the hydro tests with acceptable pressure drops of 0.75 bar on the distillate line and 0.3 bar on the petrol line. The pressure losses were attributed to an initial loss of pressure when the test pump was disconnected, temperature effects within the lines, expansion of the lines and a small leak from a test fitting on the distillate line*'.

[102] Consequent upon the apparently reassuring results of the aforementioned tests, PetroSA applied to the port authority for permission to take the distillate product line back into operation. After undertaking its own inspection of the SPM pipeline (conducted on 21 October 2005 by Subtech Diving & Marine), the port authority granted the requested permission. PetroSA elected to defer bringing the 12" petrol line back into operation until a finite element analysis test had been carried out to ascertain whether it might not reveal evidence of stress fractures. Mr Govender, an engineer in PetroSA's employ at Mossel Bay, testified that PetroSA's concern in this regard was founded in the more serious denting of the 12" product line.

[103] The first use of the SPM thereafter was when the aforementioned *Cape Benat* called at the port on 25 October 2005 and took on product transferred through the distillate line.

The product transfer operation, which was conducted over the period 25-26 October, went off without incident and all appeared to be well. On 27 October 2005, however, a slick was noted on the water. The position of the slick was close to the SPM, and about a kilometre from the location where the *Bow Sun*'s anchor had snagged on the pipeline. Further investigation led PetroSA to conclude that there had been leakage from the distillate line due to the development of hairline cracks in the area where the anchor had snagged. The location of the cracks or 'bursts' was visible in a video taken by a Smit Amandla diver, Mr O'Kennedy, on the same day.

[104] In the context of the subsequent events described below which led to the discovery of some cracking in the distillate line, Mr Ball considered that it was '*feasible that a leak in the distillate line could have occurred at the location of the anchor damage following the loading of the Cape Benat on 26 October 2005 despite the line previously passing two pressure tests*'. He explained that the line could have subsequently perforated '*due to propagation resulting from the cyclic stressing of a pre-existing crack which had not previously penetrated the full depth of the pipe wall*'. This could have happened during the extended process of transferring product to the *Cape Benat*. The position of the slick made him question, however, whether any such perforation was attributable to the anchor-snagging incident. The witness fairly allowed, however, that the slick could have been '*blown by the wind and/or moved by currents on the surface and only noticed at the SPM*'. In a subsequent report given after the witness had been afforded the opportunity of viewing further video footage demonstrating where product was found to be leaking from two or more cracks or 'bursts' in the distillate line, Mr Ball confirmed that this was occurring in the area where the anchor had snagged the pipeline. In my judgment it is probable in all the circumstances that the identified leaks were causally associated with the anchor snagging incident.

[105] That discovery led to the plaintiff's engagement of Rosen Europe to carry out an investigation of both product lines and the ballast water line using pigging techniques. Mr Ball described pigging in these terms in his witness summary:

> Pigging is the practice of using pipeline inspection gauges (pigs) to perform various maintenance and inspection operations on pipelines. The operation involves inserting the pig into a 'pig launcher' (an oversized section in the pipeline, reducing to the normal diameter) and then pressurised flow in the pipeline is used to push the pig along the pipeline until it reaches the end of the pipeline where it is collected in the receiving trap (the 'pig catcher').

[106] The pigging investigation entailed an initial process of 'gauge pigging' to ascertain that the lines would be able to accommodate the 'intelligent pigs' used for the purposes of the intended diagnostic investigation.[43] The subsequent intelligent pigging consisted of 'corrosion detection pigging' and 'axial flaw detection pigging'. The latter type of pigging is directed at the detection of any flaws, especially cracks along the axis of a pipeline.

[107] Mr Ball reported on the information available to him in respect of the pigging of the distillate product line as follows in his expert witness summary:

> '[The] pigging of the Distillate Pipeline recorded a number of "severe defects" in the 14" Distillate Line at the location of the anchor damage but also confirmed that this was limited to the immediate location of the anchor damage and not further afield. The report does not describe what these 'severe defects' were but also notes that "a fracture mechanics assessment was done to ensure the line can operate with these defects and the pipeline can be returned to service safely". This statement would appear to imply that the "severe defects" were not full depth splits, cracks, bursts or other penetrating breaches of the pipe wall.'

He noted that the pigging results in respect of 12" petrol product line had not been available to him but recorded his understanding of the 'PetroSA Technical Summary Report 'Metal Loss Inspection on 12" Petrol Pipeline from Voorbaai to SPM', dated 10 January 2006, as follows:

> '[T]he AFD pigging of the Distillate Pipeline (*sic*) recorded a number of "severe defects" in the 12" Petrol Line at the location of the anchor damage but also confirmed that this was limited to the immediate location of the anchor damage and not further afield. The report does not describe what these "severe defects" were but, as with the 14" Distillate Pipeline also notes that 'a fracture mechanics assessment was done to ensure that the line can operate with these defects and the pipeline can be returned to service safely'. This statement would appear to imply that the "severe defects" were not full depth splits, cracks, bursts or other penetrating breaches of the pipe wall.'

[108] The pigging report expressed concerns about certain areas of corrosion in both the distillate and petrol lines. However, the places where corrosion was a significant concern were at some distance from the location of the anchor snagging. Some repairs to these areas were subsequently undertaken, but they are unrelated to any repairs that might be attributed as necessary in consequence of the anchor snagging incident.

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[43] The gauge pigging is actually preceded by a process called 'brush pigging', which it would appear is directed at removing any debris that might be in the line preparatory to the gauge and intelligent pigging exercises being undertaken.

[109] Mr Govender, who was in charge of PetroSA's investigation of the damage to the SPM pipeline, testified that an intelligent pigging of the distillate line had in fact not been possible because it had been determined during the preliminary gauge pigging of the line that the deformation of the line was such that it would not be possible to run an intelligent pigging device through it. Govender confirmed, however, that the axial flaw detection pigging results in respect of the petrol line suggested that that product line retained sufficient integrity to be taken back into service. The decision to nevertheless replace the dented section of the petrol product line was taken before the intelligent pigging results had come in because of concerns about the possible adverse effect on the integrity of the line that might have attended the severe deformation of that line. Sections of the distillate and petrol lines at the place where the carrier line had been torn asunder were cut out to be replaced by new sections of pipe inserted using a sleeve method.

[110] Finite element analysis tests had also been undertaken of the petrol line at the instance of PetroSA. The results indicated that the line was fit for use despite some denting and physical deformation. Mr Ball stated that it was not clear in the circumstances why PetroSA had the affected section of the petrol line cut out and replaced. Mr Govender explained that the plaintiff was not content to proceed on the basis of the finite element analysis test results in respect of the petrol line because of the unhappy experience of taking the distillate line back into service after test reports that it was apparently intact. PetroSA considered a more cautious assessment was necessary because of the realisation that the stressors attendant on prolonged use might identify stress fractures that had not been exposed on hydro testing. On the basis of the receipt of more evidence as to the physical damage to petrol line (which it will be recalled was outwardly worse than that to the distillate line), PetroSA decided that it would be prudent to physically replace the dented section of the line in the vicinity of the anchor snag point. Mr Govender supported PetroSA's precautionary approach pointing out that the use of the line for the transfer of hydrocarbon products meant that consideration had to be given to the pollutive consequences of putting the line back into service in the face of the possibility of there being an undetected flaw in the integrity of the damaged section of the line.

[111] Bursts were detected in the 12-inch product line in a subsequent examination (a magnetic particle inspection) to which I shall come shortly. Mr Ball's understanding (to which the plaintiff's counsel took no exception) was that a 'burst' was a crack or fissure that perforated through the entire wall of a pipe. I gained the impression that such defects might

be minuscule and not necessarily apparent to the naked eye, hence the need for sophisticated testing to detect their presence. It was apparent that such defects might manifest after a section of pipe containing less than fully penetrative flaws had been subject to some degree of stress, such as that generated during the use of the line when product is pumped through it under pressure. It seems to me as a matter of logic that a bending force, such as would tend to be induced when a section of pipe was unsupported and in free span, could also lead to such stress induced effects.[44]

[112] Mr Ball asserted that he did not believe that any 'bursts' or perforations found in the 12-inch petrol line could have been connected with the anchor-snagging incident as it had not been used in the period between passing the hydro test and the subsequent discovery of cracks in it. It seems to me, however, that Mr Ball did not take into account the prolonged effect of the free span created under the lines after the snagging incident. As mentioned, this was initially noted by Mr de Wet to have been of the order of up to 100 mm on 22 September 2005, but that had been increased to about 800 mm by the time of the Subtech inspection a month later. The uncontested evidence was that a free span situation was inimical to the welfare of the lines because of the stress to which it would subject them. That would obviously apply to carrier line while it was intact, but after the rupture of the casing the lines within the carrier would, in the affected area, thereupon be subject to similar stresses. I consider that it is significant that the bursts detected in the petrol line were in the visibly worst damaged part of the pipe, about 1.7 metres in length.[45]

[113] The report by Subtech Diving & Marine in respect of its diving team inspection of the pipeline recorded that the following indentations on the product lines had been observed:

> '**8" Pipeline**
>
> A small indent was noted on the top of the pipeline.
>
> **10" Pipeline** [This was an erroneous description of the 12-inch pipeline.]
>
> Indent 1 – Location: Top of pipeline, exposed area
>
> Size: 170mm x 50mm
>
> Indent 2 - Location: Side of pipeline, exposed area

[44] The unchallenged evidence of Mr de Wet was to the effect that regular inspections of the SPM pipeline were carried out to check that there were no areas of free span. He explained '*You don't want a pipeline to be suspended without something underneath it because it introduces undue stress.*'

[45] See the 'Damage Inspection Report – Petrol Line' at p. 17 of vol 1. of the Quantum Reports, referred to in Mr Ball's expert witness summary.

Size: 70mm x 70mm

Indent 3 - Location: Bottom of pipeline, exposed area

Size: 20mm x 30mm

Indent 4 - Location: Side of pipeline, inside carrier line

Size: 50mm x 50mm

Thickness measurements were taken in these areas. ... .

14" Pipeline

Indent 1 – Location: Side of pipeline, inside carrier line

Size: 130mm x 180mm

Indent 2 - Location: Bottom of pipeline, exposed area

Size: 150mm x 140mm

Indent 3 - Location: Side of pipeline, inside carrier line

Size: 50mm x 30mm

Indent 4 - Location: Side of pipeline, inside carrier line

Size: 150mm x 100mm

Mr Ball noted that '*the report of damage / indents on internal pipes in the Subtech report does not describe any "longer radius" bending / deformation of the pipelines*' identified in subsequent reports, but he allowed that '*such deformation may not have been obvious when the internal pipelines were only visible through the "tear" in the carrier pipeline as was the case during the Subtech survey*'.

[114] As already mentioned, the Subtech inspection report also noted that there was a free span of about 800 mm above the seabed under the pipeline for at least 10 metres in either direction from the place where the carrier line had been severed by the anchor. As also mentioned, the evidence was that any free span under the pipeline would cause stress to the structure and was accordingly an undesirable situation. Mr Ball believed '*that the force applied to the pipelines might have caused the carrier line to be lifted from the seabed and this could have resulted in plastic deformation which could have caused the pipeline to free span*'. That is a plausible explanation of the extent of free span noted by De Wet in September 2005. It seems likely, however, that the quite extensive length of much greater free span described by Subtech would have resulted from the activity connected to the eventual freeing of the anchor from the pipeline which was achieved on 3 October 2005 by divers cutting away the snagged fluke.[46] Mr de Wet described that it had been necessary to

[46] The freed anchor was thereafter towed clear of the SPM pipeline on 10 October 2005.

airlift quite a bit of sand from the vicinity in order to afford the divers 'clear and free' access to undertake the task of cutting away the fluke.[47]

[115] PetroSA's Technical Report 'Repairs to SPM Product & Carrier Pipelines' dated 28 August 2006 (sometimes referred to in the course of the evidence as 'the Govender report'), which as the title suggests was in the nature of an historic summary, variously lists the damage to the 14" distillate product line [i.e. the cut out section] as:

- Minor dents.
- Severe indented damage.
- Bursts 250mm and 110mm in length.
- The depths of the indentations were measured at 146mm max.
- The pipe section was severely flattened.

[116] The same report variously lists the damage to the 12" petrol product line as:

- Two 40mm dents and other minor damage
- Severe indented damage
- Bursts 25mm and 20mm in length

[117] The 'bursts' in both the 14" and 12" lines were detected as a result of a magnetic particle inspection that was undertaken on the worst damaged sections of the lines after they had been cut out and removed to PetroSA's workshops. The ballast water line was not subjected to a magnetic particle inspection.

[118] Having regard to the purpose of the exercise in this stage of the trial of determining the nature of the damage and attributing causal responsibility therefor, I do not consider that there is anything material in the slight discrepancy between the description of the visible damage to the product lines in the Subtech report and PetroSA's August 2006 Technical Report.

[119] Before moving onto the question of causal attribution, I should note that there was very little evidence in respect of the damage occasioned to the ballast water line, which it will be recalled was not in use in any event. The evidence is that the water ballast line

[47] The process of sand removal is illustrated conceptually at p. 162 of the defendant's core bundle, which is part of a dive summary document prepared by Mr de Wet, dated 11 April 2019.

showed some denting. I do not think it is necessary to dwell on the damage to the 8-inch line because Mr Govender conceded that for reasons entirely unrelated to the anchor-snagging incident the ballast water service to the SPM could not be restored until the line had been substantially, if not entirely, replaced.

Causal attribution of the damage

[120] It is evident, when paragraphs 1 and 2 of the ruling made in terms of rule 33(4) on the separation of issues are read together, that the intention was that the court should in this stage of the trial, should it determine that the defendant had been causally negligent in respect of the damage occasioned to the SPM pipeline, also determine which part of the damage occasioned was attributable to such causal negligence. The defendant approached the case on the basis that the questions pertaining to factual causation could be compartmentalised into three areas: (i) damage occasioned during the mooring process; (ii) damage occasioned during the unmooring process and (iii) damage occasioned during the attempts to retrieve or release the snagged anchor. Both parties focussed their submissions on the question of factual causation and little, if any, attention was paid to the interrelated matter of 'legal causation', which in my judgment on the facts of this case, and for the reason I shall explain presently, brought the second and third of the aforementioned areas of factual causation very much into interplay.

[121] Apart from the likelihood that some of the rubbing off of marine growth from the outer casing of the carrier line observed by the divers would have been caused by the anchor chain running over the carrier line during the mooring process after the anchor was dropped on the wrong side of the pipeline and the possibility that the carrier line may have been dented in the process, it seems to me that all the other damage to the SPM pipeline that was identified in the evidence was occasioned either during the unmooring process or in the attempts to extricate the snagged anchor. It seems clear, judged by the timing of the bubbling to the surface of what would appear to have been the corrosion inhibitor liquid contained within it, that the rupture of the carrier line occurred during the unmooring process. I have understood the evidence to suggest that the damage to the product and ballast water lines inside the carrier line could have been caused only contemporaneously with, or subsequent to, the rupture of the carrier line and thus either during the unmooring process or the subsequent endeavours to extricate the snagged anchor.

[122] In his initial summary of evidence Mr Ball expressed the following conclusions in regard to the damage to the SPM pipeline: '*I believe that the damage to the product pipelines is consistent with a vessel's anchor impacting the pipelines, possibly by being dragged into the lines in a westerly/ north-westerly / northerly direction. The bends in the sections of pipeline apparently removed during the repairs seen in the photographs in the plaintiff's rule 36 (10) notice appear to indicate that following initial contact by the anchor on the pipeline, transverse and upward force was applied to the anchor and hence to the snagged pipelines. It appears that this force might have caused the carrier line to be lifted from the seabed and the product lines to bend in the longitudinal plane*'. His evidence concerning the northward displacement of the pipeline referred to earlier suggests that the transverse force mentioned in the passage just recited must have been a force applied from the north, which would tend to indicate that it had probably occurred during the attempt to weigh the starboard anchor during the unmooring process.

[123] Mr de Wet, who had been involved in the attempts to retrieve the anchor before the Bow Sun departed from Mossel Bay, testified that the efforts were undertaken with acute awareness of the need to take care not to occasion further damage to the pipeline. This is consistent with indications given at a very early stage that Smit Amandla personnel were conscious of the need to take care that further damage not be caused to the pipeline in the effort to release the anchor. I refer in this regard to the instruction by the Smit Amandla terminal manager, Mr Burns, at 13h33 on 22 September 2005, that is minuted in the *Bow Sun* incident log, to the effect that it should be '*ensure*[d] *that damage is reduced by not causing further damage, i.e. ripping anchor out*'. De Wet said that the recovery team was fully aware that it would be counter-productive to try to release the anchor by trying to pull it directly upwards. Mr de Wet's evidence, when the question was raised with him in cross-examination, was '*...I think for a team of divers and a team of mariners, we would have all been very silly to just pick it up on the shank and just pull up straightaway. We ... everybody would know that it's not going to happen. So it's an educated guess of what we wanted to achieve. And anything other, if we would just nilly willy pulling straight up on the thing, we ... all of us on the vessel at the time would have known that it wasn't going to work'*. Mr *Irish*, the cross-examiner, appeared to accept the truth and cogency of that evidence. I certainly do.

[124] De Wet said that there were 'multiple attempts in multiple configurations' to release the snagged anchor. He was understandably unable to remember the detail nearly 15 years

after the event. Whilst he was involved in the attempts to release the anchor, he was not in charge of them. De Wet, however, took issue with the suggestion in Captain Barker's evidence that one of the means used to try to release the anchor had involved the pulling of the anchor chain over the pipe. He corrected Mr Irish's understanding that Captain Barker had been in charge of the operation and pointed out that Barker had only been on board the *Pentow Malgas* as a guest when the attempts to release the anchor were being made. That indeed, was my understanding of Barker's own description of the capacity in which he had been present on the buoy tender during the attempts to release the anchor on one Saturday after the snagging incident (either 24 September or 1 October 2005). The retrieval operations would have had no identified connection with his responsibilities as the senior loading master.

[125] Mr Ball appeared to have difficulty in being able to reconcile Captain Barker's description of the anchor retrieval efforts with the objective practicalities. Certainly, any attempt to free the anchor by heaving from the south of the pipeline on four lengths of anchor chain is most unlikely to have had any effect on shifting the anchor at all. De Wet's evidence was that all of the attempts to extricate the anchor intact failed, save to the most insignificant extent, to shift the object at all from the position in which he had first seen it during a dive on the afternoon of 22 September, which was before the commencement of any retrieval efforts.

[126] Mr Ball had his own theory about how the anchor might most safely be extricated from the product lines using a line or cable attached to a deadman weight so as to induce a pulling force on the anchor horizontally to the seabed, but he acknowledged the operation would be difficult and not guaranteed to succeed. He also described his suggested method as '*not without risks*' and as one that he considered might be executed with '*the least amount of damage*', by which I understood him to mean damage additional to that which had already been occasioned when the anchor had snagged when it was being weighed.

[127] As it was, the anchor was not extricated in an intact state from the pipeline, and, as mentioned, it was eventually released only by cutting away the fluke that was lodged under the product lines.

[128] It is not an issue in this part of the trial, and I make on findings concerning it, but the evidence adduced before me suggested that the repairs effected to the SPM consisted of:

(a) Removing and replacing 15 metres of the carrier line.

(b) Cutting out a 9,2 metre section of the distillate line in the area of the anchor snag point and inserting a replacement section using a sleeving method.

(c) A shorter section of line (apparently between 5 and 6 metres) was cut out of the petrol line and replaced using the same method as that used for the distillate line.

(d) A section of unutilised ballast water line had to be cut out to enable access for the repairs effected to the distillate and petrol lines. The cut out section of the ballast line was also replaced.

The cutting out of the damaged product lines was undertaken by a German company, Nordseetaucher. The damaged sections that were removed were taken ashore, whence they were transported by lorry to PetroSA's workshops approximately 15 kilometres outside Mossel Bay.

[129] Mr *Irish* suggested to Mr Govender in cross-examination that the some of the damage identified on the sections of the product lines that were cut out could have been caused in the process of removing them and transporting them to the plaintiff's workshop. I think he had in mind particularly the bursts subsequently identified in the 12-inch petrol line. In my view the proposition was entirely speculative. Having regard to their sturdy appearance, which can be discerned, for example, in the photographs at p. 146 of the pleadings, it seems unlikely that they could be easily further damaged in the context postulated by the defendant's counsel.

[130] In my judgment it is probable that all of the damage to the SPM carrier line and to the distillate and petrol product lines in the close vicinity of the break in the carrier line (i.e. within those sections of the product lines that were cut out and subjected to magnetic particle inspection) was attributable to the causal negligence of the employees of the defendant and the third party identified earlier in this judgment. It seems to me that there is no dispute between the parties as to the nature of the damage to the carrier line at the place where it was circumferentially split. As to the product lines, it is not altogether clear what caused the bursts identified on the petrol line, but the probabilities are that it was related to the damage to the SPM line because they were found in areas closely proximate to where the metal had been stressed and deformed by denting and bending. I have suggested that the extended period in which that part of the line was in free span might explain why the bursts were not identified during the hydro testing. It is also possible that they were the result of some of the stressing of the lines that must inevitably have attended the efforts to release the

anchor from the pipeline. As I shall explain, I do not consider that the precise cause matters if it is accepted as a general proposition, as I have done, that the damage was probably related to the chain of events precipitated by the anchor snagging incident.

[131] Mr Ball, the defendant's witness, whose assessments impressed me in all respects as appropriately impartial and objective, admitted that he was unable in several respects to opine whether the damage identified occurred during the mooring and unmooring processes or in the anchor retrieval attempts. It should be of little surprise then that I am similarly unable to make such determinations in respect of the product line damage. However, I consider that it was entirely foreseeable that if the anchor snagged in the pipeline, it could be difficult to release it, and that in the attempt to do so further damage might be occasioned; cf. *OK Bazaars 1929 Limited v Standard Bank of South Africa Limited* [2002] ZASCA 5 (12 March 2002) in para 33 and the other authorities cited there. That much was illustrated in Mr Ball's description of the method that he would have preferred to use to extricate the anchor. He did not pretend it was without risk and he described it as a method that would minimise the further damage that would be occasioned by the extrication, thereby implying that some additional damage might nevertheless be expected to be caused in the extrication process. I therefore would not regard the causation of any of the damage that might have been occasioned in any reasonably undertaken attempts to remove the anchor as a *novus actus interveniens*.

[132] In other words, I am of the view that all of the damage to the SPM pipeline that is attributable to the anchor snagging incident - whether it was caused in the mooring, unmooring or anchor-release efforts - was directly and foreseeably consequential on the causal negligence of the defendant and the third party as joint wrongdoers. It did not matter that their employees were not involved in the release attempts, it was sufficient that the retrieval attempts were necessitated by their employees' wrongful and negligent acts and omissions and that it was foreseeable that further damage would be occasioned in that process. I consider that the two enquiries in respect of causation described by Corbett CJ in *International Shipping Co (Pty) Ltd v Bentley* 1990 (1) SA 680 (A) at 700E-I[48] fall to be

[48] The learned Chief Justice said the following in the passage cited:
'*As has previously been pointed out by this Court, in the law of delict causation involves two distinct enquiries. The first is a factual one and relates to the question as to whether the defendant's wrongful act was a cause of the plaintiff's loss. This has been referred to as "factual causation". The enquiry as to factual causation is generally conducted by applying the so-called 'but-for' test, which is designed to determine whether a postulated cause can be identified as a causa sine qua non of the loss in question. In order to apply this test one must make a hypothetical enquiry as to what probably would have happened but for the wrongful*

answered in the plaintiff's favour in respect of all of the damage to the pipeline defined in paragraphs [115], [116][130] and [130] above.

[133] I do not agree with the contention by Mr *Cooke*, who argued this aspect of the case for the defendant, that '*it was incumbent upon PetroSA to prove that the damage they assert, was caused during the mooring / unmooring, and not subsequently* [during the anchor retrieval operation].' In my judgment it was incumbent on the defendant, if it wished to rely on any of the damage that might have been caused in the release attempts as not falling within what was a foreseeable and sufficiently direct consequence of any snagging of the anchor, to allege and prove the intervention of causal negligence on the part of those involved in the efforts to release the anchor. It did not plead such allegations, although some effort was made in the course of the cross-examination of Captain Barker and Mr de Wet to establish such a case. In any event, such intervening causal fault was not established by the evidence adduced in the trial.

Costs

[134] The only remaining question reserved for determination at this stage in terms of the separation of issues is the incidence of costs.

[135] The plaintiff and the defendant were agreed that in general the costs should follow the result in accordance with what might be called the general rule. They were also agreed, with justification in my view, that the engagement of two counsel had been warranted. The defendant's counsel argued, however, that the plaintiff should pay the wasted costs that the defendant might be able to show the taxing master that it had incurred as a consequence of the adjournment of the hearing on 21 May 2020.

The wasted costs occasioned by the adjournment of the trial on 21 May 2020

[136] The adjournment had to do with the defendant's insistence on discovery of or access to certain videotape material related to the dive inspections of the SPM pipeline after the

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conduct of the defendant. This enquiry may involve the mental elimination of the wrongful conduct and the substitution of a hypothetical course of lawful conduct and the posing of the question as to whether upon such an hypothesis plaintiff's loss would have ensued or not. If it would in any event have ensued, then the wrongful conduct was not a cause of the plaintiff's loss; aliter, if it would not so have ensued. If the wrongful act is shown in this way not to be a causa sine qua non of the loss suffered, then no legal liability can arise. On the other hand, demonstration that the wrongful act was a causa sine qua non *of the loss does not necessarily result in legal liability. The second enquiry then arises, viz whether the wrongful act is linked sufficiently closely or directly to the loss for legal liability to ensue or whether, as it is said, the loss is too remote. This is basically a juridical problem in the solution of which considerations of policy may play a part. This is sometimes called "legal causation".*'

anchor snagging incident. The defendant had served a notice in terms of rule 35(3) on 15 October 2019 in which it had required the discovery by the plaintiff of, amongst other things, all video footage showing the position in which and the manner in which the *Bow Sun*'s starboard anchor hooked on the SPM pipeline and/or any work to remove the anchor from the pipeline. In addition to the request in the aforementioned general terms for such further discovery, the rule 35(3) notice also specified that discovery of videotapes related to several identified dives was required.

[137] The plaintiff's Acting Head: Legal Counsel deposed to an affidavit in response to the rule 35(3) notice in which he said in the relevant part that '*The Plaintiff has no further documents, than those already discovered in Plaintiff's Discovery affidavit and trial bundles, served on both Defendant and 3rd Party*'. He added that the plaintiff nevertheless reserved '*the right to file a further supplementary discovery affidavit*', by which I understand him to have meant that the plaintiff would make discovery of any additional relevant documents that might be turned up in the course of its preparation for trial. In the event, the plaintiff did make additional discovery of a considerable number of videotapes in early December 2019.

[138] On Monday, 9 May 2020, which was two days before the commencement of the hearing, on Wednesday, 11 May 2020, the defendant delivered a further notice in terms of rule 35(3) in which the plaintiff was asked in the following terms to make additional discovery:

> '... the Defendant requires the Plaintiff to make the following documents (or copies thereof) available for inspection by the Defendant:
>
> 1. All documents and/or correspondence and/or video footage and/or sketches relating to and/or depicting the alleged bend in the SPM carrier pipeline, and/or sketches depicting details such as the distance of unsupported pipe and the maximum distance from the sea bed, as referred to on page 16 of the Plaintiff's supplementary discovered documents in an email from the Plaintiff to Smit Amandla Marine dated 28 September 2005;
> 2. All video footage relating to the alleged damage to the carrier line and product lines, where various indentations can allegedly be noted, referred to at paragraph 7 of page 38 of the Plaintiff's supplementary discovered documents in the minutes of the meeting held on 12 October 2005 between the Plaintiff and Smit Amandla Marine;
>
> and
>
> 2. All video footage that was viewed in the meeting held on 30 September 2005 between the Plaintiff and Smit Amandla Marine referred to in paragraph 2 of the minutes of that meeting on page 39 of the Plaintiff's supplementary discovered documents.'

An informal request had been addressed by email to the plaintiff's attorney earlier, on 7 April 2020, but it seems that might not have enjoyed a prompt or efficient response due to the conditions of strict lock down that prevailed at that time.

[139] The plaintiff's reply to the last-mentioned rule 35(3) notice was provided on Sunday, 24 May 2020, after the defendant's counsel had indicated that it would object to the calling of Mr de Wet as the plaintiff's next witness on Thursday, 21 May, until it had been provided with a response to its demand for further and better discovery. Mr *Wragge* informed me at that stage that the plaintiff had indeed located a number of videotapes that would be provided to the defendant in response to the notice. One of those tapes turned out to be the tape of Mr de Wet's dive on 28 September 2005, which was later introduced into evidence as exhibit C.

[140] By agreement, the hearing was thereupon adjourned at 14h35 on the Thursday afternoon, little more than an hour before the time that the court would ordinarily in any event have risen for the weekend. I was informed on the following Monday that the hearing would need to be further adjourned to allow the defendant's representatives and the relevant expert witness, Mr Ball, to consider the material that had been made available. In the event it was agreed on Tuesday the 22nd of May that the hearing would resume only two weeks later on Monday, 8 June 2020. The intervening period was to some extent used by the parties for a number of other trial-related purposes, and in oral argument Mr *Irish* informed me that the defendant would only be seeking its wasted costs for the first week of the adjournment.

[141] It is, of course, for the taxing master to decide what should be allowed as wasted costs. The decision that I have to make is one of principle; whether there should be an order allowing the defendant to recover any wasted costs occasioned by the adjournment.

[142] As I understood Mr *Wragge* in argument, he was initially under the belief that all the video material had actually been disclosed as early as sometime during 2016, but when Mr *Irish* interjected to say that the non-discovery of the particular video of Mr de Wet's dive on 28 September 2005 had been picked up only in April 2020, he admitted that he could not comment. Mr *Wragge* then said '*I cannot comment because I don't have the list of videos in front of me, so I don't know what was discovered in 2016. If my learned friend tells Your Lordship that, I undoubtedly accept.*'

[143] It would appear then that at least the videotape of the 28 September 2005 had not been discovered previously and there was no reason given as to why it was first made available so late. It is a hard call because there was a vast amount material that had been discovered in this matter, including a great number of videotapes, and there is no indication that the plaintiff was in any way deliberately remiss in its failure to make the particular tape available earlier. On the contrary, having regard to the very long interval between the incident and the trial, it is not altogether surprising that there were problems with locating all of the material that might have been relevant and discoverable. That said, and despite having a measure of sympathy for its position, I can think of no reason why the plaintiff should not bear the wasted costs that were occasioned by the adjournment that followed on the late discovery of the videotape. As I have said, what those costs might be is for the taxing master to determine if the parties are unable to agree on them.

The costs of the defendant's application to set aside a subpoena

[144] There was also a question of the costs of an application by the defendant in terms of Admiralty Proceedings Rule 20 (which pertains to vexatious or irregular proceedings) to set aside a subpoena that had been issued by the plaintiff purporting to require Mr Karelse to attend on an interview with the plaintiff's legal representatives and to bring with him certain documents. The application was successful, but the costs of it were inexplicably ordered to stand over for determination at the trial. The parties were ad idem that they fell for determination at this stage. They were also agreed, quite appropriately, that there was no reason why they should not follow the result of the application. The plaintiff will therefore be ordered to pay the defendant's costs of suit in that application. I do not know whether two counsel were engaged, but nothing in the nature of what was involved in that minor skirmish suggests that the award of the fees of more than one counsel would be merited. The procurement of the subpoena was undoubtedly misguided, and the failure to withdraw it when called upon to do so, unwise, but I am not persuaded that a punitive costs order, as sought by the defendant, is called for. Costs will be awarded on the usual scale, as between party and party.

The third party's claim for costs against the defendant

[145] As mentioned earlier in this judgment, the third party, Transnet, seeks the costs that it has incurred as a consequence of its joinder by the defendant.

[146] The defendant (Odfjell), qua plaintiff, had originally instituted proceedings against the third party, qua defendant, by summons dated 17 September 2008 in case no. AC 79/2008, in which it claimed a declaratory order that the third party was obliged to indemnify it in respect of any amount in which the court might find Odfjell to be liable to PetroSA in respect of the damage to the SPM pipeline. Transnet delivered a plea in case no. AC 79/2008 in May 2009, in which it denied liability to Odfjell. Transnet pleaded that by virtue of Transnet's 1995 limitation of liability agreement with PetroSA, Odfjell was entitled to limit its liability to PetroSA in terms of s 2(10) of the Apportionment of Damages Act, and that by reason thereof Odfjell had no claim for a contribution or indemnity from Transnet.[49] The action in case no AC79/2008, as well as the current action by PetroSA against Odfjell under case no. AC 78/2008, were thereafter stood in abeyance pending the outcome of the abovementioned arbitration claim by PetroSA against Transnet.

[147] After the arbitration proceedings were settled, apparently sometime in 2015, PetroSA's legal representatives informed Odfjell's legal representatives of their client's intention to continue with its claim against Odfjell under case no. AC 78/2008. That information precipitated an application by Odfjell for the consolidation of case no. AC 79/2008 with case no. AC 78/ 2009 on the basis that its particulars of claim in case no. AC79/2008 would stand as a third party notice in case no. AC78/2008. The application was granted in May 2016.

[148] Subsequent to the consolidation of the actions on the basis just described the third party, in September 2016, filed two pleas in terms of Admiralty Rules 11(5)(a) and 11(5)(b) respectively.

[149] Assuming that the 1995 agreement between Mossgas (i.e.PetroSA) and Transnet did engage s 2(10) of the Apportionment of Damages Act, there was no basis for Odfjell to claim an indemnity or contribution from Transnet as a joint wrongdoer. I do not agree with Mr *Irish*'s submission that it was nevertheless necessary for Odfjell to join Transnet as a party in the proceedings if only for the limited purpose of obtaining a declaration on an apportionment of fault. Odfjell would have been entitled to seek an apportionment as an incident of the reliance it was entitled to make on s 2(10) in the circumstances. At the very

[49] I have not seen the plea filed by Transnet in May 2009 and rely for my description of its content on the description of it given by Odfjell's attorney in her affidavit in support of the application for the consolidation of the actions in case no.s 78/2008 and 79/2008, to which I was referred by Mr *Irish* during his address on the issue of costs.

most all that might have been required of Odfjell, and I doubt that even that much was in fact required, was to have given Transnet notice of the proceedings in terms of s 2(2) of the Act.

[150] Be that as it may, PetroSA was initially unwilling to admit that its claim against Odfjell was limited by virtue of s 2(10). It persisted in that position until 27 November 2017, when, at a rule 37 conference, it conceded that it had no claim against Odfjell for that portion of its claim which was '*attributable to the negligence of the third party's servants*'.[50]

[151] The defendant thereafter delivered a replication to the third party's plea in terms of Admiralty Rule 11(5)(a) in which it recorded the aforesaid concession by PetroSA and indicated that in the light thereof it did not persist with the relief sought against the third party, '*save for the conditional claim of* [a declaration of] *an apportionment of liability*' and a costs order should the third party oppose the defendant's case.

[152] In my judgment, the third party is entitled in the circumstances I have described to its costs against the defendant up to and including the delivery of the defendant's aforementioned replication. There was no need, however, for the third party to have delivered a plea in terms of Admiralty Rule 11(5)(b) to the plaintiff's particulars of claim, and the costs attendant on the delivery of such plea will therefore be excluded from the costs for which the defendant will be held liable.

Order

[153] In the result, the following order is made:

(a) It is declared that the snagging of the starboard bower anchor of the MT *Bow Sun* on the plaintiff's SPM pipeline at Mossel Bay in September 2005 and the resultant damage to the pipeline were caused by the negligence of the master and crew of the defendant's vessel and that of Transnet Limited ('the Third Party') and its employees.

(b) For the purpose of the determination of the defendant's limited liability in respect of the plaintiff's damages by virtue of the incidence of section 2(10) of the Apportionment of Damages Act 34 of 1956, the apportionment of fault between the

[50] I quote from para 3 of the defendant's replication to the third party's plea in terms of Admiralty Rule 11(5)(a).

aforementioned joint wrongdoers is hereby determined as to 80% on the part of the Third Party and 20% on the part of the defendant.

(c) It is declared that the damage to the SPM pipeline attributable to the negligent conduct of the aforementioned joint wrongdoers is that which has been described in paragraphs 115, 116 and 130 of this judgment and that it was caused in the process of unmooring the vessel from the CBM or the subsequent attempts to extricate the snagged anchor from the pipeline.

(d) No order is made in respect of any damage to the ballast water line.

(e) Save as specially provided in paragraphs (f) and (g) of this order, the defendant shall be liable to pay the plaintiff's costs of suit, including the fees of two counsel and the qualifying fees of Captains GJ Barker, ESR McAllister and KMT Cox.

(f) The plaintiff shall be liable to pay the wasted costs incurred by the defendant related to the adjournment of the trial from 21 May to 8 June 2020, including the fees of two counsel.

(g) The plaintiff shall be liable to pay the defendant's costs of suit in the application brought by the defendant in terms of Admiralty Rule 20 by notice of motion dated 11 February 2019 to set aside the subpoena served on Jerome Karelse to attend at a consultation with the defendant.

(h) The defendant shall be liable to pay the Third Party's costs of suit incurred up to and including the service upon the Third Party of the defendant's replication, dated 26 March 2018, but excluding any costs in respect of the Third Party's plea to plaintiff's particulars of claim, in terms of Admiralty Rule 11(5)(b).

A.G. BINNS-WARD

Judge of the High Court

APPEARANCES

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Defendant's counsel:	**D.F. Irish SC** **D.J. Cooke**
Defendant's attorneys:	**Edward Nathan Sonnenbergs Inc** **Cape Town**
Third Party's counsel:	**M. Aggenbach** **(Heads of argument drafted by I. Pillay SC)**
Third Party's attorneys:	**Woodhead Bigby Inc** **La Lucia, Durban** **Webber Wentzel** **Cape Town**